FACE MILLS

Face Mills 90°

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NEODO S90° LINE
S890 FSZ-R08
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Face Mills 88°, 75°, 65°, 45°

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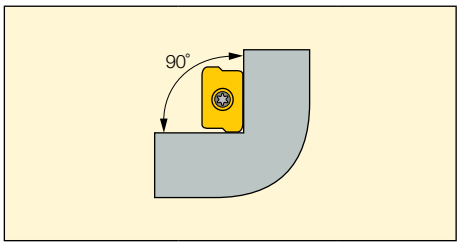
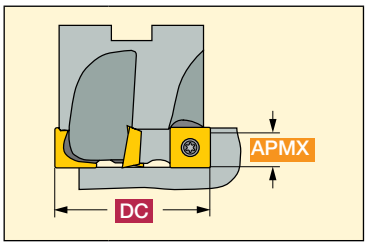
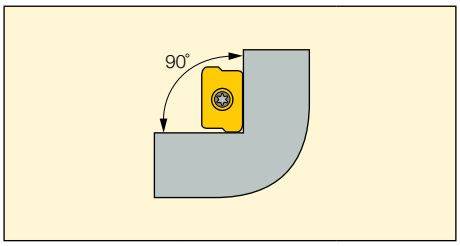
Face Mills 90° Selection Guide

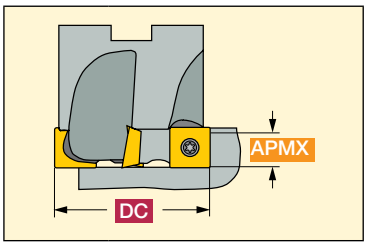




Tools		Pages	DC / APMX	25	32	40	50	63	80	100	125	160	200	250	315	Inserts	
				Number of Teeth (Effective)													
	H690 FWN	193 195	4 7		6	5 7	4 5 7 9	5 6 7 8 10	7 9	8 11	10						H690 WN..04../07..
	S890 FSZ-R08	194	5			5 6	6 8	7 10	8 12	10 14	12 18						S890 SZMU-08...
	HM390 FTC-07	193	5		4 5	5 6											HM390 TCKT 07..
	HP F90AN-07	195	7.7		6	8 10											HP AN..0702..
	T490 FLN-08	196	8		3 5	4 6	5 7 10	6 9	10								T490 LN..08..
	H490 F90AX-09	197	8		4 5	5 6	6 7	8 9									H490 AN..09..
	HM390 FTP-10	199	8			3 5	4 6	6 7	11	13							HM390 TP.. 10..
	T290 FLN-10	198	9		5	6	7										T290 LNMT 10
	F90SP-10	198	9.6			4	4 6	6 7	6 9								SPMT/R 10... QPMT/R 10.. XPMT 10.. SPCT 10...
	HM90 F90AP-10	200	10		3 5	5 6	6 7	7 9	8	9							HM90 AP..10 AP...10
	H690 F90AX-10	201	8		4 5	5 6	6 7	8									H690 TN.. 10..
	F90LN-N11	203	10			4 6	5 7	6 9	8 11	9 14	10 18						LN.. 11...
	T490 FLN-11	201	10			4 5	5 6	6 9	7 11	8 13							T490 LN.. 11...
	F90SD-12	204	11.8				3 5	4 6	5	6 8	7 9	11	13				SDMT 12... SDMR 12... QDMT 12... QDCT 12...
	H490 F90AX-12	206	12			4	3 5	4 6	5 7	6 9		9					H490 AN.. 12...

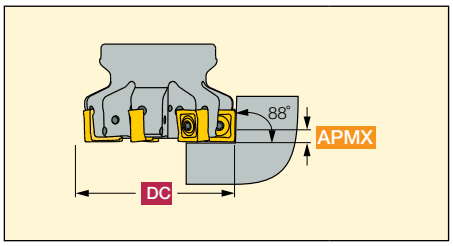
Face Mills 90° Selection Guide

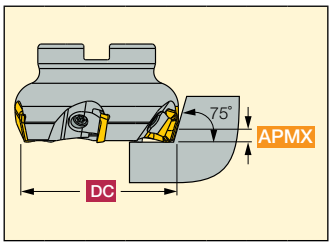


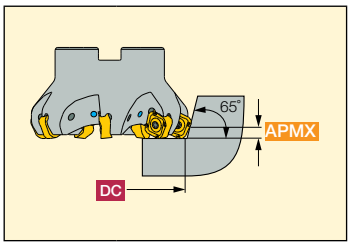


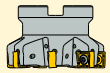
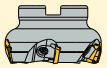
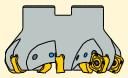
Tools	Pages	DC / APMX	25	32	40	50	63	80	100	125	160	200	250	315	Inserts
			Number of Teeth (Effective)												
T490 FLN-13	207	12.5			4 5	5 6	6 8	7 10	8 13	9 17	12	15			T490 LNMT 13..
T290 FLN-15	207	14			4	5									T290 LN.. 15...
F90LN-N15	208	14				5	5 8	7 10	8 12	9 15	10 20	12	15 30		LN.. 15...
HM390 FTD-15	209	13			3 4	3 4 5	4 5 6	5 6 7	6 8	7 9	8 10	9			HM390 TDKT 1505..
HM90 F90A-15	210	14.3			3 4	3 5	4 6	5 7	6 8	9					HM90 AD.. 15...
T490FLN-16	212	16				3 4	6	5 7	6 8	7 10	12	12			T490 LNMT 16...
HM390 FTD-19	212	16					5				10				HM390 TDKT 1907
H490 F90AX-17	213	16.3			3	3 4	4 6	5 7	5 8	7 10	8 12	10	12		H490 AN.. 17...
H690 F90AX-16	214	13.5				3 4	4 5	5 6	6 8	7 9	8 10	11			HM690 TNKX 1606
F90	214	18						6	8	8	10	12			TPK...22
P290 FPW/FCT	215	12 18		4	4 5	5 6	6	8	9						P290 ACCT P290 ACKT
HP F90AT-19	215	18				4									HP AD.. 19...
HP F90AT-22	216	21				3 4									HP AD.. 22...

Endmills and Face Mills 88°, 75°, 65° Selection Guide

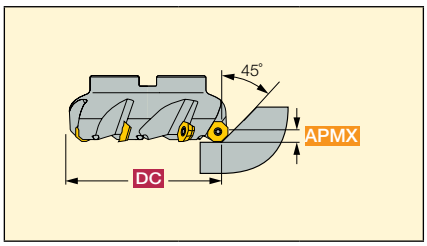


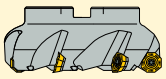
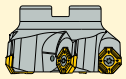
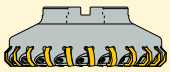
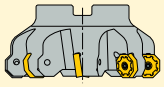
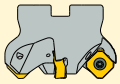




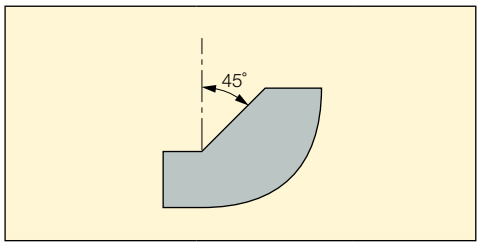
Tools		Pages	DC / APMX	25	32	40	50	63	80	100	125	160	200	250	315	Inserts	
				Number of Teeth (Effective)													
	S890 FSN-13	205	10 / 88°			4	4 5	5 7	7 9	8 11	9 14	10					S890 SN.. 13...
	F75-M	216	9.5 / 75°				4	5	6	7	8						SPKN/SPKR 12...
	S865 FSN-13	217	6 / 65°				4 6	6 8	7 10	8 12	10 16						S865 SNMU 13...

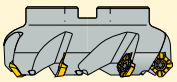
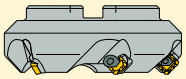
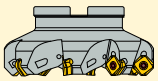
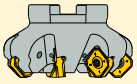
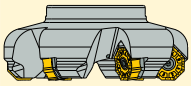
Endmills and Face Mills 45° Selection Guide



Tools		Pages	DC / APMX	25	32	40	50	63	80	100	125	160	200	250	315	Inserts	
				Number of Teeth (Effective)													
	HOE / HOF	218 219	2.5 5.5		3	4	3 4	4 5	5 6	6 7	8	10	12	15	18		OE.. 06.. OF.. 07... RF.. 19...
	IQ845	219 220 226	2.6 4.6	3 4	4 5	4 5 6 7	4 5 9	5 7 11	6 8	7 10	9 12	11 15	14	17	20		IQ845 SYHU 05,07...
	F45WG	220	5.5						10	14	18	22					ON.. 08...
	F45NM	221	5.5					5	6 8	7 10	8 12	10 15	12	14			ON.. 08...
	SOF45	222	3.5 6.0			4	3 4 6	4 6 8	7 10	8 12	10 16	12	14	16	20		ON.. 05... S845 SN.. 13...

Face Mills 45° Selection Guide

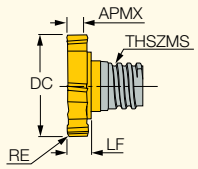


Tools	Pages	DC / APMX	25	32	40	50	63	80	100	125	160	200	250	315	Inserts
			Number of Teeth (Effective)												
 F45ST	225	6.5			3	4	5	6	6	7	7				SE.T 12...
 F45E	225	6.5				4	5	6	6	6	8				SE.. 12...
 S845 F45SX-16	227	7.1			4	4 5	5 7	9	7 11	8 14	10 18	12	15		S845 SX.. 16...
 SOF45-R18	229	5 8				4	5	6 7	7 9	8 12	10 15	12 18	14 21	18 24	SNMU 18 ONMU 07 S845
 SOF45-R26	228	7 11						4	5 6	6 8	8 10	10 12	12 14	14 16	SNMU 26 ONMU 10 S845

MULTI-MASTER
INDEXABLE SOLID CARBIDE LINE

MM FM

Interchangeable Solid Carbide Face Milling Heads with MULTI-MASTER Threaded Connections



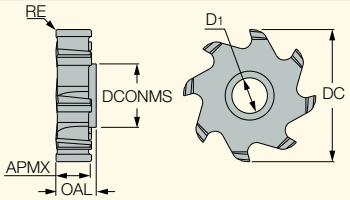
Designation	Dimensions DC	APMX	RE	NOF(1)	THSZMS	LF		IC908	Recommended Machining Data f_z (mm/t)
MM FM120-36R0.2-06T05	12.00	3.60	0.20	6	T05	4.40	T-20/3*	●	0.04-0.10
MM FM160-48R0.4-06T06	16.00	4.80	0.40	6	T06	5.60	T-25/3*	●	0.05-0.10
MM FM200-60R0.4-06T08	20.00	6.00	0.40	6	T08	6.80	T-40/3 L*	●	0.05-0.10
MM FM250-75R0.4-06T10	25.00	7.50	0.40	6	T10	8.40	T-50/3 L*	●	0.05-0.10

(1) Number of flutes
* Optional, should be ordered separately

T-FACE
FACEMILL

SD FM

Interchangeable Solid Carbide Face Milling Heads



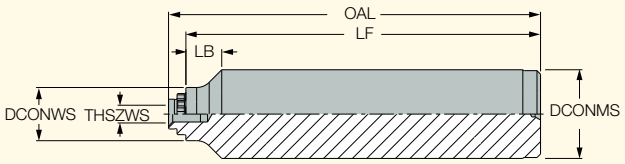
Designation	Dimensions DC	APMX	NOF(1)	RE	D1	DCONMS	OAL	IC908	Recommended Machining Data f_z (mm/t)
SD FM D32-8-R0.4-SP15	31.25	8.00	8	0.40	8.40	15.00	8.00	●	0.04-0.15
SD FM D40-10-R0.4SP17	39.25	10.00	10	0.40	9.80	17.00	10.00	●	0.04-0.15
SD FM D50-12-R0.4SP19	49.25	12.00	12	0.40	9.80	19.00	14.00	●	0.04-0.15

• For shanks, see page 192 • For user guide, see pages 542-547
(1) Number of flutes

T-FACE
FACEMILL

SD FM-S-A-SP

Stepped Cylindrical Shanks for Interchangeable Solid Carbide Face Milling Heads



Designation	DCONMS	DCONWS	THSZWS	LB	LF	OAL	Shank(1)	kg
SD FM-S-A-L100-C25-SP15	25.00	15.00	M5x0.5	10.10	104.90	104.90	C	0.37
SD FM-S-A-L120-W25-SP15	25.00	15.00	M5x0.5	10.10	92.90	124.90	W	0.44
SD FM-S-A-L125-W32-SP17	32.00	17.00	M6x0.5	12.50	95.00	131.00	W	0.75
SD FM-S-A-L140-C32 SP17	32.00	17.00	M6x0.5	12.50	146.00	146.00	C	0.85
SD FM-S-A-L140-C32-SP19	32.00	19.00	M6x0.5	10.00	148.50	148.50	C	1.41
SD FM-S-A-L130-W40-SP19	40.00	19.00	M6x0.5	14.00	98.50	138.50	W	1.21

• Apply lubricant to the clamping screw
(1) C-Cylindrical, W-Weldon

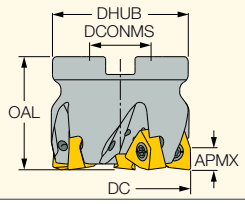
Spare Parts

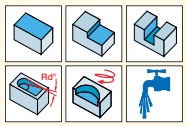
Designation			
SD FM-S-A-L100-C25-SP15	SR M5X0.5-SP15-IP20-HG	BLD IP20/S7	SW6-T-SH
SD FM-S-A-L120-W25-SP15	SR M5X0.5-SP15-IP20-HG	BLD IP20/S7	SW6-T-SH
SD FM-S-A-L125-W32-SP17	SR M6X0.5-SP17-IP20-HG	BLD IP20/S7	SW6-T-SH
SD FM-S-A-L140-C32 SP17	SR M6X0.5-SP17-IP20-HG	BLD IP20/S7	SW6-T-SH
SD FM-S-A-L140-C32-SP19	SR M6X0.5-SP17-IP20-HG	BLD IP20/S7	SW6-T-SH
SD FM-S-A-L130-W40-SP19	SR M6X0.5-SP17-IP20-HG	BLD IP20/S7	SW6-T-SH

HELIDO TRIGON LINE

H690 FWN-04

90° Face Mills Carrying H690 WNMU 0403 Double-Sided Trigonal Inserts with 6 Helical Cutting Edges





Designation	DC	CICT(1)	APMX	DHUB	DCONMS	OAL	Arbor(2)	RMPX°(3)	kg			
H690 FWN D32-06-16-R04	32.00	6	4.00	30.40	16.00	35.00	A	0.8	0.16	SR M8X27-CSH50	SR M2.5X6-T7-60	T-7/51
H690 FWN D40-05-16-R04	40.00	5	4.00	38.00	16.00	35.00	A	0.6	0.20	SR M8X25DIN912	SR M2.5X6-T7-60	T-7/51
H690 FWN D40-07-16-R04	40.00	7	4.00	38.00	16.00	35.00	A	0.6	0.21	SR M8X25DIN912	SR M2.5X6-T7-60	T-7/51
H690 FWN D50-07-22-R04	50.00	7	4.00	48.00	22.00	40.00	A	0.5	0.37	SR M10X25 DIN912	SR M2.5X6-T7-60	T-7/51
H690 FWN D50-09-22-R04	50.00	9	4.00	48.00	22.00	40.00	A	0.5	0.38	SR M10X25 DIN912	SR M2.5X6-T7-60	T-7/51
H690 FWN D63-08-27-R04	63.00	8	4.00	60.00	27.00	40.00	B	0.2	0.39		SR M2.5X6-T7-60	T-7/51
H690 FWN D63-10-27-R04	63.00	10	4.00	60.00	27.00	40.00	B	0.2	0.39		SR M2.5X6-T7-60	T-7/51

• Insert clamping screw must be lubricated every indexing. • Tightening torque 0.9 Nxm. • For user guide, see pages 542-547

(1) Number of inserts

(2) For adaptation options, see page 548

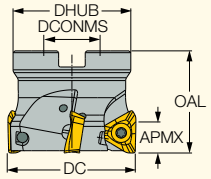
(3) Maximum ramping angle

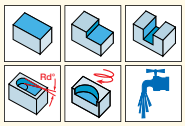
For inserts, see pages: H690 WNMU 0403 (468)

HELI3MILL HM390 LINE

HM390 FTC-07

90° Face Mills Carrying HM390 TCKT 0703 Triangular Inserts with 3 Helical Cutting Edges





Designation	DC	CICT(1)	APMX	OAL	DHUB	DCONMS	Arbor(2)	RMPX°(3)	kg			
HM390 FTC D032-04-16-07	32.00	4	5.00	35.00	30.40	16.00	A	0.8	0.11	SR M2.5X6-T7-60	T-7/51	SR M8X25DIN912
HM390 FTC D032-05-16-07	32.00	5	5.00	35.00	30.40	16.00	A	0.8	0.10	SR M2.5X6-T7-60	T-7/51	SR M8X25DIN912
HM390 FTC D040-05-16-07	40.00	5	5.00	35.00	38.00	16.00	A	0.6	0.20	SR M2.5X6-T7-60	T-7/51	SR M8X25DIN912
HM390 FTC D040-06-16-07	40.00	6	5.00	35.00	38.00	16.00	A	0.6	0.20	SR M2.5X6-T7-60	T-7/51	SR M8X25DIN912

• Insert clamping screw must be lubricated every indexing • Tightening torque 0.9 Nxm • For user guide, see pages 542-547

(1) Number of inserts

(2) For adaptation options, see page 548

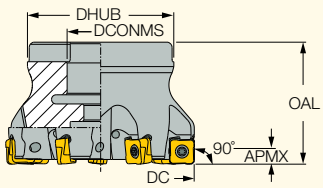
(3) Maximum ramping angle

For inserts, see pages: HM390 TCKT/CT 0703 (446)

NEODO S90° LINE

S890 FSZ-R08

Face Mills Carrying
Double-Sided Square Inserts
with 8 Cutting Edges



Designation	DC	APMX	OAL	CICT(1)	DCONMS	DHUB	Arbor	MIID(2)	kg
S890 FSZ D040-05-16-R08	40.00	5.00	35.00	5	16.00	38.00	A	S890 SZMU 0804...	0.24
S890 FSZ D040-06-16-R08	40.00	5.00	35.00	6	16.00	38.00	A	S890 SZMU 0804...	0.34
S890 FSZ D050-06-22-R08	50.00	5.00	40.00	6	22.00	48.00	A	S890 SZMU 0804...	0.35
S890 FSZ D050-08-22-R08	50.00	5.00	40.00	8	22.00	48.00	A	S890 SZMU 0804...	0.39
S890 FSZ D063-07-22-R08	63.00	5.00	40.00	7	22.00	48.00	A	S890 SZMU 0804...	0.60
S890 FSZ D063-10-22-R08	63.00	5.00	40.00	10	22.00	48.00	A	S890 SZMU 0804...	0.58
S890 FSZ D080-08-27-R08	80.00	5.00	50.00	8	27.00	60.00	B	S890 SZMU 0804...	0.98
S890 FSZ D080-12-27-R08	80.00	5.00	50.00	12	27.00	60.00	B	S890 SZMU 0804...	0.93
S890 FSZ D100-10-32-R08	100.00	5.00	50.00	10	32.00	78.00	B	S890 SZMU 0804...	1.52
S890 FSZ D100-14-32-R08	100.00	5.00	50.00	14	32.00	78.00	B	S890 SZMU 0804...	1.50
S890 FSZ D125-12-40-R08	125.00	5.00	50.00	12	40.00	92.00	B	S890 SZMU 0804...	2.29
S890 FSZ D125-18-40-R08	125.00	5.00	50.00	18	40.00	92.00	B	S890 SZMU 0804...	2.32

- For user guide, see pages 542-547

(1) Number of inserts

(2) Master insert identification

For inserts, see pages: S890 SZMU-0804PN (503)

When stepdown milling is performed by use of passes, the depth of cut per pass should not exceed the depth of cut as recommended in the ISCAR catalog.

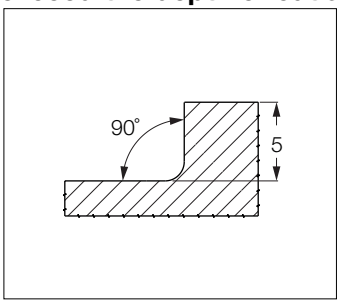


Fig. 1- Generated profile for a depth of cut of up to 5mm

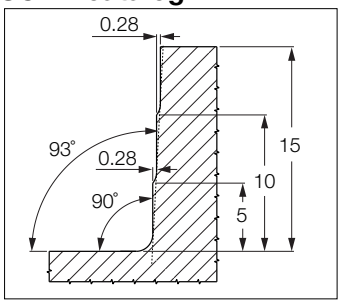


Fig. 2- Generated profile for a depth of cut in stepdown milling

Starting feed per tooth F_z for S890 face mills with inserts S890 SZMU 08...

ISO Class DIN/ISO 513	Description	Workpiece Material: Typical Representstive AISI/SAE/ASTM	DIN W.-Nr.	Hardness, HB	ISCAR Mat. Group**	F_z, mm/Tooth for Grades*: IC 5100	IC810	IC808	IC845	IC5400
P	Non-alloy steel	1020	1.044	130-180	1			0.1-0.25	0.1-0.25	0.1-0.25
	Alloy steel	4340	1.658	260-300	8			0.1-0.2	0.1-0.2	0.1-0.2
		4340	1.658	HRC 35-42*	9			0.1-0.2	0.1-0.2	0.1-0.2
	High alloy steel	H13	1.234	200-220	10			0.08-0.15	0.08-0.15	0.08-0.15
	Martensitic s.s	420	1.402	200	12			0.08-0.15	0.08-0.15	0.08-0.15
M	Austenitic s.s.	304L	1.431	200	14			0.1-0.15	0.1-0.15	0.1-0.15
		316L	1.440	140	14			0.1-0.15	0.1-0.15	0.1-0.15
K	Grey cast iron	Class 40	0.6025 (GG25)	250	16	0.15-0.25	0.15-0.25			
	Nodular cast iron	Class 65-45-12	0.7050 (GGG50)	200	17	0.12-0.2	0.12-0.2			
H	Hard steel and cast iron	H11	1.234	HRC 45-49	38.1			0.06-0.12	0.06-0.12	0.06-0.12
		P20	1.2330	HRC 50-55	38.2			0.05-0.1	0.05-0.1	0.05-0.1

* Quenched and tempered

** ISCAR material group in accordance with VDI 3323 standard

Spare Parts

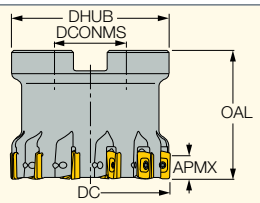
Designation			
S890 FSZ D040-05-16-R08	SR M3X0.5-L7.4 IP9(a)	IP-9/151	SR M8X25DIN912
S890 FSZ D040-06-16-R08	SR M3X0.5-L7.4 IP9(a)	IP-9/151	SR M8X25DIN912
S890 FSZ D050-06-22-R08	SR M3X0.5-L7.4 IP9(a)	IP-9/151	SR M10X25 DIN912
S890 FSZ D050-08-22-R08	SR M3X0.5-L7.4 IP9(a)	IP-9/151	SR M10X25 DIN912
S890 FSZ D063-07-22-R08	SR M3X0.5-L7.4 IP9(a)	IP-9/151	SR M10X25 DIN912
S890 FSZ D063-10-22-R08	SR M3X0.5-L7.4 IP9(a)	IP-9/151	SR M10X25 DIN912
S890 FSZ D080-08-27-R08	SR M3X0.5-L7.4 IP9(a)	IP-9/151	
S890 FSZ D080-12-27-R08	SR M3X0.5-L7.4 IP9(a)	IP-9/151	
S890 FSZ D100-10-32-R08	SR M3X0.5-L7.4 IP9(a)	IP-9/151	
S890 FSZ D100-14-32-R08	SR M3X0.5-L7.4 IP9(a)	IP-9/151	
S890 FSZ D125-12-40-R08	SR M3X0.5-L7.4 IP9(a)	IP-9/151	
S890 FSZ D125-18-40-R08	SR M3X0.5-L7.4 IP9(a)	IP-9/151	

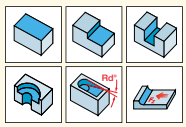
(a) Recommended tightening torque:2 N*m (17.7 lbf*in)

HELIPLUS

HP F90AN-07

90° Face Mills Carrying HP ANKT 0702.. Inserts





Designation	DC	CICT(1)	APMX	OAL	DHUB	DCONMS	RMPX°(2)	Arbor(3)	RPMX(4)	kg
HP F90AN D32-06-16-07	32.00	6	7.70	35.00	30.40	16.00	1.4	A	26600	0.10
HP F90AN D40-08-22-07	40.00	8	7.70	40.00	38.00	22.00	1.0	B	23799	0.16
HP F90AN D40-10-22-07	40.00	10	7.70	40.00	38.00	22.00	1.0	B	23799	0.17

- Insert tightening torque: 0.62 Nxm
- For user guide, see pages 542-547

(1) Number of inserts
(2) Maximum ramping angle
(3) For adaptation options, see page 548
(4) Maximum RPM

For inserts, see pages: HP ANCR 0702PNFR (444) • HP ANKT 0702...-FF (445) • HP ANKT/ANCT 0702..PN-R/PNTR (444) • HP ANKW 070204PNTR (444)

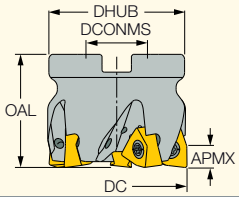
Spare Parts

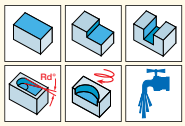
Designation			
HP F90AN D32-06-16-07	SR 34-533/L/HG	T-6/51	SR M8X20DIN912
HP F90AN D40-08-22-07	SR 34-533/L/HG	T-6/51	SR M10X25 DIN912
HP F90AN D40-10-22-07	SR 34-533/L/HG	T-6/51	SR M10X25 DIN912

HELIDO TRIGON LINE

H690 FWN-07

90° Face Mills Carrying H690 WNMU 0705 Double-Sided Trigonal Inserts with 6 Helical Cutting Edges





Designation	DC	CICT(1)	APMX	DHUB	DCONMS	OAL	Arbor(2)	RMPX°(3)	kg
H690 FWN D050-04-22-R07	50.00	4	7.00	48.00	22.00	40.00	A	1.2	0.33
H690 FWN D050-05-22-R07	50.00	5	7.00	48.00	22.00	40.00	A	1.2	0.33
H690 FWN D063-05-22-R07	63.00	5	7.00	48.00	22.00	40.00	A	1.1	0.50
H690 FWN D063-06-27-R07	63.00	6	7.00	60.00	27.00	50.00	A	1.1	0.72
H690 FWN D063-07-22-R07	63.00	7	7.00	48.00	22.00	40.00	A	1.1	0.50
H690 FWN D080-07-27-R07	80.00	7	7.00	60.00	27.00	50.00	B	1.0	1.00
H690 FWN D080-09-27-R07	80.00	9	7.00	60.00	27.00	50.00	B	1.0	0.98
H690 FWN D100-08-32-R07	100.00	8	7.00	70.00	32.00	50.00	B	0.8	1.57
H690 FWN D100-11-32-R07	100.00	11	7.00	70.00	32.00	50.00	B	0.8	1.62
H690 FWN D125-10-40-R07	125.00	10	7.00	82.00	40.00	63.00	B	0.5	2.82

- For cutting speed recommendations, see pages 542-547

(1) Number of inserts (2) For adaptation options, see page 548 (3) Maximum ramping angle **For inserts, see pages:** H690 WNHU/WNMU 0705 (469)

Examples of Cutting Speed for H690 FWN/EWN...07 Cutters

ISO Class DIN/ ISO 513	Workpiece Material					Cutting Speed V_c, SFM, for Grades					
	Description	ISCAR Mat. Group*	Typical Materials AISI/SAE/ ASTM	Typical Materials DIN W.-Nr.	Hardness HB	IC808	IC5100	IC810	IC5400	IC830	IC330
P	Non-alloy steel	1	1020	1.044	130-180	180-250		150-220	150-220	130-200	120-180
	Alloy steel	8	4340	1.6582	260-300	150-200		130-180	130-180	120-170	100-140
	Alloy steel	9	4340	1.6582	HRC 35-42**	100-170		100-150	100-150	100-130	100-120
	High alloy steel	10	H13	1.2344	200-220	100-170		100-150	100-150	100-130	100-120
	Martensitic s.s.	12	420	1.4021	200	100-150				100-130	100-120
K	Grey cast iron	16	Class 40	0.6025 (GG25)	250	200-250	220-300	220-300		180-230	
	Nodular cast iron	17	Class 65-45-12	0.7050 (GGG50)	200	160-220	180-250	180-250		150-200	

* ISCAR material group in accordance with VDI 3323 standard
** Quenched and tempered
- First choice for grades

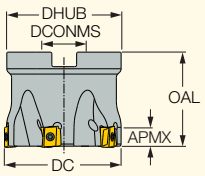
Spare Parts

Designation				
H690 FWN D050-04-22-R07	SR M4X0.7IP15	BLD IP15/S7	SW6-T-SH	SR M10X25 DIN912
H690 FWN D050-05-22-R07	SR M4X0.7IP15	BLD IP15/S7	SW6-T-SH	SR M10X25 DIN912
H690 FWN D063-05-22-R07	SR M4X0.7IP15	BLD IP15/S7	SW6-T-SH	SR M10X25 DIN912
H690 FWN D063-06-27-R07	SR M4X0.7IP15	BLD IP15/S7	SW6-T-SH	
H690 FWN D063-07-22-R07	SR M4X0.7IP15	BLD IP15/S7	SW6-T-SH	SR M10X25 DIN912
H690 FWN D080-07-27-R07	SR M4X0.7IP15	BLD IP15/S7	SW6-T-SH	
H690 FWN D080-09-27-R07	SR M4X0.7IP15	BLD IP15/S7	SW6-T-SH	
H690 FWN D100-08-32-R07	SR M4X0.7IP15	BLD IP15/S7	SW6-T-SH	
H690 FWN D100-11-32-R07	SR M4X0.7IP15	BLD IP15/S7	SW6-T-SH	
H690 FWN D125-10-40-R07	SR M4X0.7IP15	BLD IP15/S7	SW6-T-SH	

HELITANG T490 LINE

T490 FLN-08

90° Face Mills with Tangentially Clamped Inserts



Designation	DC	CICT(3)	APMX	OAL	DHUB	DCONMS	Arbor(4)	CSP(5)	kg
T490 FLN D032-03-16-08	32.00	3	8.00	35.00	30.40	16.00	A	1	0.11
T490 FLN D032-05-16-08 (1)	32.00	5	8.00	35.00	30.40	16.00	A	1	0.11
T490 FLN D040-04-16-08	40.00	4	8.00	40.00	38.40	16.00	A	1	0.23
T490 FLN D040-06-16-08 (1)	40.00	6	8.00	40.00	38.40	16.00	A	1	0.32
T490 FLN D050-05-22-08	50.00	5	8.00	40.00	48.00	22.00	A	1	0.36
T490 FLN D050-07-22-08 (1)	50.00	7	8.00	40.00	48.00	22.00	A	1	0.37
T490 FLN D050-10-22-08 (2)	50.00	10	8.00	40.00	48.00	22.00	A	0	0.39
T490 FLN D063-06-27-08	63.00	6	8.00	40.00	60.00	27.00	A	1	0.60
T490 FLN D063-09-27-08 (1)	63.00	9	8.00	40.00	60.00	27.00	A	1	0.62
T490 FLN D080-10-27-08	80.00	10	8.00	50.00	60.00	27.00	B	0	0.84

• When machining slots, regular pitch cutters should be used • For user guide, see pages 542-547

(1) Fine pitch

(2) Extra fine pitch

(3) Number of inserts

(4) For adaptation options, see page 548

(5) 0 - Without coolant supply, 1 - With coolant supply

For inserts, see pages: T490 LNAR-P (480) • T490 LNMT/LNHT 0804 (476)

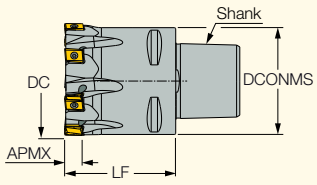
Spare Parts

Designation			
T490 FLN D032-03-16-08	SR 10502813-HG-M	IP-7/51	SR M8X20DIN912
T490 FLN D032-05-16-08	SR 10502813-HG-M	IP-7/51	SR M8X20DIN912
T490 FLN D040-04-16-08	SR 10502813-HG-M	IP-7/51	SR M8X30DIN912
T490 FLN D040-06-16-08	SR 10502813-HG-M	IP-7/51	SR M8X30DIN912
T490 FLN D050-05-22-08	SR 10502813-HG-M	IP-7/51	SR M10X25 DIN912
T490 FLN D050-07-22-08	SR 10502813-HG-M	IP-7/51	SR M10X25 DIN912
T490 FLN D050-10-22-08	SR 10502813-HG-M	IP-7/51	SR M10X20DIN912
T490 FLN D063-06-27-08	SR 10502813-HG-M	IP-7/51	SR DIN 912 M12X25
T490 FLN D063-09-27-08	SR 10502813-HG-M	IP-7/51	SR DIN 912 M12X25
T490 FLN D080-10-27-08	SR 10502813-HG-M	IP-7/51	

HELITANGCAMFIX T490 LINE

T490 FLN-C#-08

90° Face Mills with CAMFIX Shanks Carrying Tangentially Clamped Inserts



Designation	DC	DCONMS	APMX	LF	CICT(1)	Shank	CDI(2)	kg		
T490 FLN D44-06-C4-08	44.00	40.00	8.00	45.00	6	CAMFIX	1	0.23	SR 10502813-HG-M	IP-7/51
T490 FLN D54-07-C5-08	54.00	50.00	8.00	52.00	7	CAMFIX	1	1.58	SR 10502813-HG-M	IP-7/51

• For user guide, see pages 542-547

(1) Number of inserts

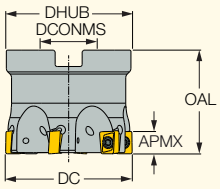
(2) 1 - Hole for data chip, 0 - Without hole for data chip

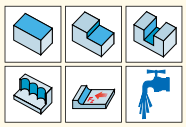
For inserts, see pages: T490 LNAR-P (480) • T490 LNMT/LNHT 0804 (476)

HELIDO 490 LINE

H490 F90AX-09

90° Face Mills Carrying H490 ANKX 09.. Double-Sided Rectangular Inserts with 4 Helical Cutting Edges





Designation	DC	CICT(1)	APMX	DHUB	DCONMS	OAL	Arbor(2)	kg
H490 F90AX D032-4-16-09	32.00	4	8.00	30.40	16.00	35.00	A	0.10
H490 F90AX D032-5-16-09	32.00	5	8.00	30.40	16.00	35.00	A	0.10
H490 F90AX D040-5-16-09	40.00	5	8.00	38.40	16.00	40.00	A	0.22
H490 F90AX D040-6-16-09	40.00	6	8.00	38.40	16.00	40.00	A	0.22
H490 F90AX D050-6-22-09	50.00	6	8.00	48.00	22.00	40.00	A	0.36
H490 F90AX D050-7-22-09	50.00	7	8.00	48.00	22.00	40.00	A	0.37
H490 F90AX D063-8-22-09	63.00	8	8.00	60.00	22.00	40.00	A	0.62
H490 F90AX D063-9-22-09	63.00	9	8.00	60.00	22.00	40.00	A	0.64

- For user guide, see pages 542-547

(1) Number of inserts

(2) For adaptation options, see page 548

For inserts, see pages: H490 ANKX 0904-FF (470) • H490 ANKX/ANCX-09 (469)

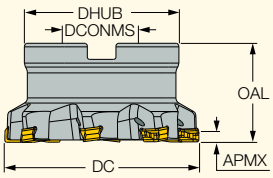
Spare Parts

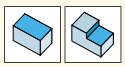
Designation				
H490 F90AX D032-4-16-09	SR 10508082-HG	BLD T08/M7	SW4-SD	SR M8X20DIN912
H490 F90AX D032-5-16-09	SR 10508082-HG	BLD T08/M7	SW4-SD	SR M8X20DIN912
H490 F90AX D040-5-16-09	SR 10508082-HG	BLD T08/M7	SW4-SD	SR M8X30DIN912
H490 F90AX D040-6-16-09	SR 10508082-HG	BLD T08/M7	SW4-SD	SR M8X30DIN912
H490 F90AX D050-6-22-09	SR 10508082-HG	BLD T08/M7	SW4-SD	SR M10X25 DIN912
H490 F90AX D050-7-22-09	SR 10508082-HG	BLD T08/M7	SW4-SD	SR M10X25 DIN912
H490 F90AX D063-8-22-09	SR 10508082-HG	BLD T08/M7	SW4-SD	SR M10X25 DIN912
H490 F90AX D063-9-22-09	SR 10508082-HG	BLD T08/M7	SW4-SD	SR M10X25 DIN912

TANGFIN FINISH MILLING

HTF-R-LN10

Face Mills Carrying Tangentially Clamped Inserts with 4 Cutting Edges for Extra Fine Milling Applications





Designation	DC	APMX	CICT(1)	OAL	DHUB	DCONMS	Arbor(2)	CSP(3)	kg
HTF D050-05-22-R-LN10	50.00	0.25	5	40.00	48.00	22.00	A	1	0.31
HTF D063-06-22-R-LN10	63.00	0.30	6	40.00	48.00	22.00	A	1	0.43
HTF D080-07-27-R-LN10	80.00	0.35	7	50.00	60.00	27.00	B	1	0.81
HTF D100-08-32-R-LN10	100.00	0.40	8	50.00	78.00	32.00	B	1	1.44
HTF D125-09-40-R-LN10	125.00	0.45	9	63.00	92.00	40.00	B	1	2.55
HTF D160-10-40-R-LN10	160.00	0.50	10	63.00	95.00	40.00	C	0	3.75

- For best surface finish it is highly recommended to operate the cutter at maximal depth of cut • For user guide, see pages 542-547

(1) Number of inserts

(2) For adaptation see page 548

(3) 0 - Without coolant supply, 1 - With coolant supply

For inserts, see pages: HTP LN.. 1006 (537)

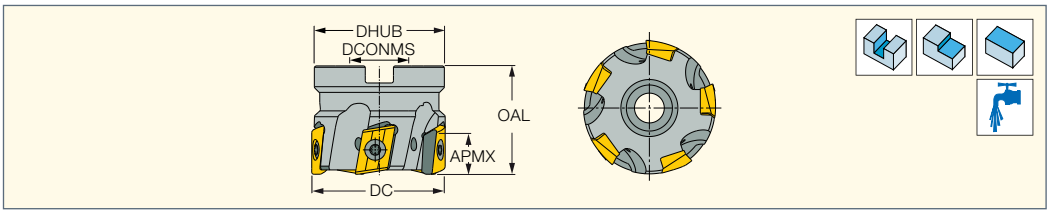
Spare Parts

Designation				
HTF D050-05-22-R-LN10	SR 34-550	BLD T10/S7	SW6-SD	SR M10X25 DIN912
HTF D063-06-22-R-LN10	SR 34-550	BLD T10/S7	SW6-SD	SR M10X25 DIN912
HTF D080-07-27-R-LN10	SR 34-550	BLD T10/S7	SW6-SD	
HTF D100-08-32-R-LN10	SR 34-550	BLD T10/S7	SW6-SD	
HTF D125-09-40-R-LN10	SR 34-550	BLD T10/S7	SW6-SD	
HTF D160-10-40-R-LN10	SR 34-550	BLD T10/S7	SW6-SD	

SUMOMILL 290 LINE

T290 FLN-10

90° Face Mills Carrying T290 LNMT 1004... Tangentially Clamped Inserts



Designation	DC	CICT(1)	APMX	OAL	DHUB	DCONMS	Arbor(2)	kg
T290 FLN D32-05-16-10	32.00	5	9.00	35.00	30.00	16.00	A	0.09
T290 FLN D40-06-16-10	40.00	6	9.00	35.00	34.00	16.00	A	0.16
T290 FLN D50-07-22-10	50.00	7	9.00	40.00	46.00	22.00	A	0.29

- For user guide, see pages 542-547

(1) Number of inserts

(2) For adaptation options, see page 548

For inserts, see pages: T290 LNMT/LNHT 1004 (474)

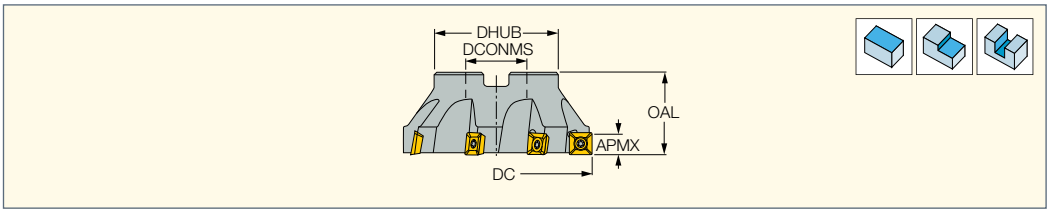
Spare Parts

Designation				
T290 FLN D32-05-16-10	SR 10504970	BLD IP15/M7	SW6-T-SH	SR M8X20DIN912
T290 FLN D40-06-16-10	SR 10504970	BLD IP15/M7	SW6-T-SH	SR M8X20DIN912
T290 FLN D50-07-22-10	SR 10504970	BLD IP15/M7	SW6-T-SH	SR M10X25 DIN912

HELiQUAD

F90SP-10

90° Face Mills Carrying S/X/ QPMT 1004... Inserts



Designation	DC(1)	CICT(2)	APMX	OAL	DHUB	DCONMS	Arbor(3)	kg
F90SP D 40-04-16-10	40.00	4	9.60	40.00	38.00	16.00	A	0.42
F90SP D 50-04-22-10	50.00	4	9.60	40.00	48.00	22.00	A	0.37
F90SP D 50-06-22-10	50.00	6	9.60	40.00	48.00	22.00	A	0.39
F90SP D 63-06-22-10	63.00	6	9.60	40.00	48.00	22.00	A	0.48
F90SP D 63-07-22-10	63.00	7	9.60	40.00	48.00	22.00	A	0.42
F90SP D 80-06-27-10	80.00	6	9.60	50.00	60.00	27.00	B	0.88
F90SP D 80-09-27-10	80.00	9	9.60	50.00	60.00	27.00	B	1.50

- For user guide, see pages 542-547

(1) D is 0.2 mm larger when QPMT inserts are used

(2) Number of inserts

(3) For adaptation options, see page 548

For inserts, see pages: QPMR 1004-HQ-M (495) • QPMT 100408PDTN (495) • SPCT/SPMR PDR (496) • SPMT-HQ (495) • XPMT-HQ (496)

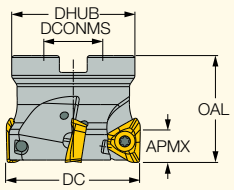
Spare Parts

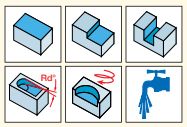
Designation				
F90SP D 40-04-16-10	SR 10514114	SW6-T-SH	BLD IP15/M7	SR M8X30DIN912
F90SP D 50-04-22-10	SR 10514114	SW6-T-SH	BLD IP15/M7	SR M10X25 DIN912
F90SP D 50-06-22-10	SR 10514114	SW6-T-SH	BLD IP15/M7	SR M10X25 DIN912
F90SP D 63-06-22-10	SR 10514114	SW6-T-SH	BLD IP15/M7	SR M10X25 DIN912
F90SP D 63-07-22-10	SR 10514114	SW6-T-SH	BLD IP15/M7	SR M10X25 DIN912
F90SP D 80-06-27-10	SR 10514114	SW6-T-SH	BLD IP15/M7	
F90SP D 80-09-27-10	SR 10514114	SW6-T-SH	BLD IP15/M7	

HELI3MILL HM390 LINE

HM390 FTP-10

90° Face Mills Carrying HM390 TPKT 1003 Triangular Inserts with 3 Helical Cutting Edges





Designation	DC	CICT(1)	APMX	OAL	DHUB	DCONMS	Arbor(2)	RMPX°(3)	kg
HM390 FTP D040-3-16-10	40.00	3	8.00	40.00	38.40	16.00	A	1.6	0.50
HM390 FTP D040-5-16-10	40.00	5	8.00	40.00	38.40	16.00	A	1.6	0.23
HM390 FTP D050-4-22-10	50.00	4	8.00	40.00	48.00	22.00	A	1.2	0.33
HM390 FTP D050-6-22-10	50.00	6	8.00	40.00	48.00	22.00	A	1.2	0.34
HM390 FTP D063-6-22-10	63.00	6	8.00	45.00	59.00	22.00	A	0.9	0.69
HM390 FTP D063-6-27-10	63.00	6	8.00	45.00	61.00	27.00	A	0.9	0.63
HM390 FTP D063-7-22-10	63.00	7	8.00	45.00	61.00	22.00	A	0.9	0.69
HM390 FTP D063-7-27-10	63.00	7	8.00	45.00	61.00	27.00	A	0.9	0.68
HM390 FTP D080-11-27-10	80.00	11	8.00	50.00	60.00	27.00	A	0.8	0.98
HM390 FTP D100-13-27-10	100.00	13	8.00	50.00	60.00	27.00	A	0.8	1.38

- For user guide, see pages 542-547

(1) Number of inserts

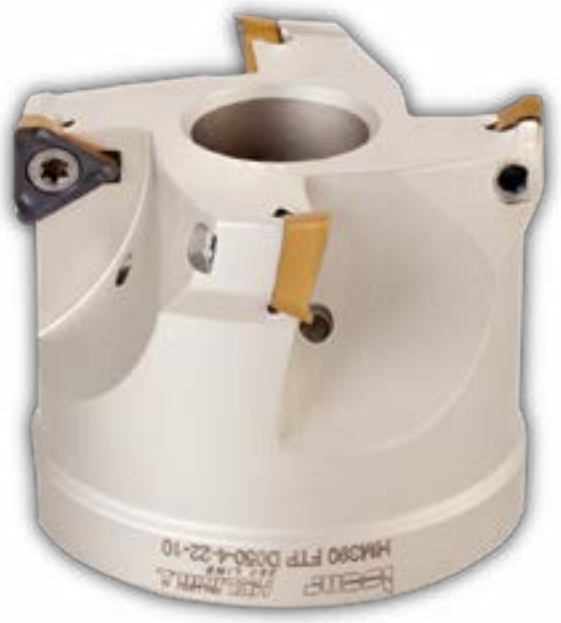
(2) For adaptation see page 548

(3) Maximum ramping angle

For inserts, see pages: HM390 TPKT/CT 1003 (447)

Spare Parts

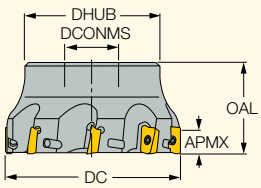
Designation				
HM390 FTP D040-3-16-10	SR 14-562/S	BLD T10/S7	SW6-SD	SR M8X25DIN912
HM390 FTP D040-5-16-10	SR 14-562/S	BLD T10/S7	SW6-SD	SR M8X25DIN912
HM390 FTP D050-4-22-10	SR 14-562/S	BLD T10/S7	SW6-SD	SR M10X25 DIN912
HM390 FTP D050-6-22-10	SR 14-562/S	BLD T10/S7	SW6-SD	SR M10X25 DIN912
HM390 FTP D063-6-22-10	SR 14-562/S	BLD T10/S7	SW6-SD	SR M10X25 DIN912
HM390 FTP D063-6-27-10	SR 14-562/S	BLD T10/S7	SW6-SD	SR M12X35DIN912
HM390 FTP D063-7-22-10	SR 14-562/S	BLD T10/S7	SW6-SD	SR M10X25 DIN912
HM390 FTP D063-7-27-10	SR 14-562/S	BLD T10/S7	SW6-SD	SR M12X35DIN912
HM390 FTP D080-11-27-10	SR 14-562/S	BLD T10/S7	SW6-SD	SR M12X35DIN912
HM390 FTP D100-13-27-10	SR 14-562/S	BLD T10/S7	SW6-SD	SR M12X35DIN912

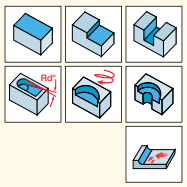


HELI2000

HM90 F90AP-10

90° Face Mills Carrying HM90 APKT 1003... Inserts





Designation	DC	CICT(2)	APMX	OAL	DHUB	DCONMS	RMPX°(3)	RPMX(4)	Arbor(5)	kg
HM90 F90AP D32-3-16	32.00	3	10.00	35.00	30.40	16.00	2.2	35355	A	0.10
HM90 F90AP D32-5-16	32.00	5	10.00	35.00	30.40	16.00	2.2	35355	A	0.10
HM90 F90AP D40-5-22	40.00	5	10.00	40.00	38.40	22.00	1.9	31623	A	0.19
HM90 F90AP D40-6-22	40.00	6	10.00	40.00	38.40	22.00	1.9	31623	A	0.18
HM90 F90AP D50-6-22	50.00	6	10.00	40.00	48.40	22.00	1.4	28284	A	0.34
HM90 F90AP D50-7-22	50.00	7	10.00	40.00	48.40	22.00	1.4	28284	A	0.35
HM90 F90AP D63-7-22 (1)	63.00	7	10.00	40.00	59.00	22.00	1.0	25198	B	0.52
HM90 F90AP D63-9-22	63.00	9	10.00	40.00	59.00	22.00	1.0	25198	B	0.52
HM90 F90AP D80-8-27 (1)	80.00	8	10.00	50.00	70.00	27.00	0.9	22361	B	0.94
HM90 F90AP D100-9-32 (1)	100.00	9	10.00	50.00	78.00	32.00	0.7	20100	B	1.51

- For user guide, see pages 542-547

(1) For internal coolant through the holder, use a matching coolant set (should be ordered separately)
(2) Number of inserts
(3) Maximum ramping angle
(4) Maximum RPM
(5) For adaptation options, see page 548

For inserts, see pages: APCR 1003PDFR-P (450) • APCT 1003PDR-HM (450) • APKR 1003PDR-HM (451) • APKT 1003..R (453) • APKT 1003..TR-RM (452)
• APKT 1003PDR-HM (451) • APKT 1003PDR-HM-CS (451) • APKT 1003PDTR-76 (452) • APKT 1003PDTR/L-RM (452) • APKT 1003R8T-FF (454)
• APKW 100304 PDR (PCD) (450) • HM90 APCR 100304PDFR-P/DP (449) • HM90 APCT 1003 (448) • HM90 APKT 1003 (449) • HM90 APKT 1003PD-W (453)
• HM90 APKW 1003PDR (453)

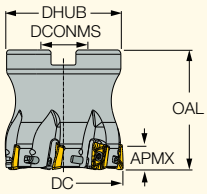
Spare Parts

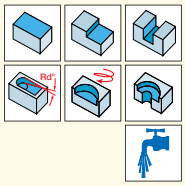
Designation				
HM90 F90AP D32-3-16	SR 34-505/HG	SW4-SD	BLD T08/M7	SR M8X20DIN912
HM90 F90AP D32-5-16	SR 34-505/HG	SW4-SD	BLD T08/M7	SR M8X20DIN912
HM90 F90AP D40-5-22	SR 34-505/HG	SW4-SD	BLD T08/M7	SR M10X25 DIN912
HM90 F90AP D40-6-22	SR 34-505/HG	SW4-SD	BLD T08/M7	SR M10X25 DIN912
HM90 F90AP D50-6-22	SR 34-505/HG	SW4-SD	BLD T08/M7	SR M10X25 DIN912
HM90 F90AP D50-7-22	SR 34-505/HG	SW4-SD	BLD T08/M7	SR M10X25 DIN912
HM90 F90AP D63-7-22	SR 34-505/HG	SW4-SD	BLD T08/M7	
HM90 F90AP D63-9-22	SR 34-505/HG	SW4-SD	BLD T08/M7	
HM90 F90AP D80-8-27	SR 34-505/HG	SW4-SD	BLD T08/M7	
HM90 F90AP D100-9-32	SR 34-505/HG	SW4-SD	BLD T08/M7	

HELI2000 JET LINE

HM90 F90AP-10-JHP

90° JHP Face Mills Carrying HELI2000 and HELIMILL Inserts





Designation	DC	CICT(1)	APMX	OAL	DHUB	DCONMS	RMPX°(2)	Arbor	MIID(3)	kg
HM90 F90AP D032-05-16-JHP	32.00	5	10.00	45.00	30.40	16.00	2.2	A	APKT 1003PDR-HM	0.17
HM90 F90AP D040-06-22-JHP	40.00	6	10.00	50.00	38.00	22.00	1.9	A	APKT 1003PDR-HM	0.27
HM90 F90AP D050-07-22-JHP	50.00	7	10.00	50.00	48.00	22.00	1.4	A	APKT 1003PDR-HM	0.49

- Use adaptation only with face coolant outlets • For user guide, see pages 542-547

(1) Number of inserts
(2) Maximum ramping angle
(3) Master insert identification

For inserts, see pages: APCR 1003PDFR-P (450) • APCT 1003PDR-HM (450) • APKR 1003PDR-HM (451) • APKT 1003..R (453) • APKT 1003..TR-RM (452)
• APKT 1003PDR-HM (451) • APKT 1003PDR-HM-CS (451) • APKT 1003PDTR-76 (452) • APKT 1003PDTR/L-RM (452) • APKT 1003R8T-FF (454)
• APKW 100304 PDR (PCD) (450) • HM90 APCR 100304PDFR-P/DP (449) • HM90 APCT 1003 (448) • HM90 APKT 1003 (449) • HM90 APKT 1003PD-W (453)
• HM90 APKW 1003PDR (453)

Spare Parts

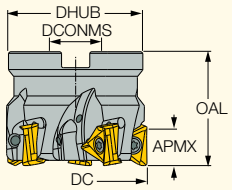
Designation				
HM90 F90AP D032-05-16-JHP	SR 34-505/HG(a)	SR PS 118-0416	BLD T08/M7	SW4-SD
HM90 F90AP D040-06-22-JHP	SR 34-505/HG(a)	SR PS 118-0273	BLD T08/M7	SW4-SD
HM90 F90AP D050-07-22-JHP	SR 34-505/HG(a)	SR PS 118-0271C	BLD T08/M7	SW4-SD

(a) Recommended tightening torque for this item: 1.2 Nxm

HELIDO 690 LINE

H690 F90AX-10

90° Face Mills Carrying H690 TNKX 1005.. Triangular Inserts with 6 Helical Cutting Edges



Designation	DC	CICT(1)	APMX	DHUB	DCONMS	OAL	Arbor(2)	RMPX°(3)	kg
H690 F90AX D032-4-16-10	32.00	4	8.00	30.40	16.00	35.00	A	1.6	0.10
H690 F90AX D032-5-16-10	32.00	5	8.00	30.40	16.00	35.00	A	1.6	0.10
H690 F90AX D040-5-16-10	40.00	5	8.00	38.00	16.00	40.00	A	1.1	0.22
H690 F90AX D040-6-16-10	40.00	6	8.00	38.00	16.00	40.00	A	1.1	0.21
H690 F90AX D050-6-22-10	50.00	6	8.00	48.00	22.00	40.00	A	1.0	0.35
H690 F90AX D050-7-22-10	50.00	7	8.00	48.00	22.00	40.00	A	1.0	0.36
H690 F90AX D063-8-22-10	63.00	8	8.00	48.00	22.00	40.00	A	0.7	0.47

(1) Number of inserts
(2) For adaptation options, see page 548
(3) Maximum ramping angle
For inserts, see pages: H690 TNKX/TNCX 1005 (472)

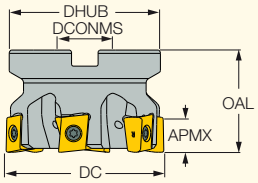
Spare Parts

Designation				
H690 F90AX D032-4-16-10	SR 10508082-HG	BLD T08/M7	SW4-SD	SR M8X38-1515
H690 F90AX D032-5-16-10	SR 10508082-HG	BLD T08/M7	SW4-SD	SR M8X38-1515
H690 F90AX D040-5-16-10	SR 10508082-HG	BLD T08/M7	SW4-SD	SR M8X30DIN912
H690 F90AX D040-6-16-10	SR 10508082-HG	BLD T08/M7	SW4-SD	SR M8X30DIN912
H690 F90AX D050-6-22-10	SR 10508082-HG	BLD T08/M7	SW4-SD	SR M10X25 DIN912
H690 F90AX D050-7-22-10	SR 10508082-HG	BLD T08/M7	SW4-SD	SR M10X25 DIN912
H690 F90AX D063-8-22-10	SR 10508082-HG	BLD T08/M7	SW4-SD	SR M10X25 DIN912

HELITANG T490 LINE

T490 FLN-11

90° Face Mills Carrying T490 LN#T 11... Tangentially Clamped Inserts



Designation	DC	CICT(1)	APMX	OAL	DHUB	DCONMS	Arbor(2)	RMPX°(3)	kg
T490 FLN D040-04-16-R-11	40.00	4	9.00	40.00	38.00	16.00	A	1.4	0.23
T490 FLN D040-05-16-R-11	40.00	5	9.00	40.00	38.00	16.00	A	1.4	0.22
T490 FLN D050-05-22-R-11	50.00	5	9.00	40.00	48.00	22.00	A	1.1	0.33
T490 FLN D050-06-22-R-11	50.00	6	9.00	40.00	48.00	22.00	A	1.1	0.33
T490 FLN D063-06-22-R-11	63.00	6	9.00	40.00	59.20	22.00	A	0.7	0.55
T490 FLN D063-09-22-R-11	63.00	9	9.00	40.00	59.20	22.00	A	0.7	0.55
T490 FLN D080-07-27-R-11	80.00	7	9.00	50.00	70.00	27.00	A	-	1.01
T490 FLN D080-11-27-R-11	80.00	11	9.00	50.00	70.00	27.00	A	-	1.04
T490 FLN D100-08-32-R-11	100.00	8	9.00	50.00	78.00	32.00	B	-	1.48
T490 FLN D100-13-32-R-11	100.00	13	9.00	50.00	78.00	32.00	B	-	1.55

- For user guide, see pages 542-547

(1) Number of inserts
(2) For adaptation options, see page 548
(3) Maximum ramping angle - valid only with T490 LNHT 1106PNTR-RD insert
For inserts, see pages: T490 LNMT/LNHT 1106 (477)

Spare Parts

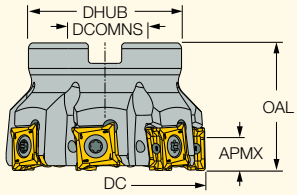
Designation				
T490 FLN D040-04-16-R-11	SR 34-535-SN	BLD T15/S7(a)	SW6-SD	SR M8X30DIN912
T490 FLN D040-05-16-R-11	SR 34-535-SN	BLD T15/S7(a)	SW6-SD	SR M8X30DIN912
T490 FLN D050-05-22-R-11	SR 34-535-SN	BLD T15/S7(a)	SW6-SD	SR M10X25 DIN912
T490 FLN D050-06-22-R-11	SR 34-535-SN	BLD T15/S7(a)	SW6-SD	SR M10X25 DIN912
T490 FLN D063-06-22-R-11	SR 34-535-SN	BLD T15/S7(a)	SW6-SD	SR M10X25 DIN912
T490 FLN D063-09-22-R-11	SR 34-535-SN	BLD T15/S7(a)	SW6-SD	SR M10X25 DIN912
T490 FLN D080-07-27-R-11	SR 34-535-SN	BLD T15/S7(a)	SW6-SD	
T490 FLN D080-11-27-R-11	SR 34-535-SN	BLD T15/S7(a)	SW6-SD	
T490 FLN D100-08-32-R-11	SR 34-535-SN	BLD T15/S7(a)	SW6-SD	
T490 FLN D100-13-32-R-11	SR 34-535-SN	BLD T15/S7(a)	SW6-SD	

(a) Recommended key handle for limiting torque to 3.2 N*m for this item is HSD 4-3.2NM (to be used with BLD 4 T15-4.8 blade)

LOGIQ8TANG
T890 MILLING LINE

T890HT FLN-R13

90° Face Mills Carrying
T890 LN.T 1306...
Tangentially Clamped Inserts
with 8 Cutting Edges



Designation	DC	APMX	CICT(1)	DCONMS	DHUB	OAL	Arbor	kg
T890HT FLN D040-03-16-R13	40.00	9.50	3	16.00	38.00	40.00	A	0.22
T890HT FLN D040-04-16-R13	40.00	9.50	4	16.00	38.00	40.00	A	0.21
T890HT FLN D040-05-16-R13	40.00	9.50	5	16.00	38.00	40.00	A	0.21
T890HT FLN D050-04-22-R13	50.00	9.50	4	22.00	48.00	40.00	A	0.33
T890HT FLN D050-05-22-R13	50.00	9.50	5	22.00	48.00	40.00	A	0.33
T890HT FLN D050-06-22-R13	50.00	9.50	6	22.00	48.00	40.00	A	0.35
T890HT FLN D063-06-22-R13	63.00	9.50	6	22.00	48.00	40.00	A	0.48
T890HT FLN D063-07-22-R13	63.00	9.50	7	22.00	48.00	40.00	A	0.48
T890HT FLN D063-08-22-R13	63.00	9.50	8	22.00	48.00	40.00	A	0.50
T890HT FLN D080-06-27-R13	80.00	9.50	6	27.00	60.00	50.00	B	0.88
T890HT FLN D080-07-27-R13	80.00	9.50	7	27.00	60.00	50.00	B	0.89
T890HT FLN D080-09-27-R13	80.00	9.50	9	27.00	60.00	50.00	B	0.91
T890HT FLN D100-08-32-R13	100.00	9.50	8	32.00	78.00	50.00	B	1.49
T890HT FLN D100-12-32-R13	100.00	9.50	12	32.00	78.00	50.00	B	1.62
T890HT FLN D125-09-40-R13	125.00	9.50	9	40.00	92.00	63.00	B	2.83
T890HT FLN D125-15-40-R13	125.00	9.50	15	40.00	92.00	63.00	B	2.93
T890HT FLN D160-12-40-R13	160.00	9.50	12	40.00	95.00	63.00	C	3.24
T890HT FLN D160-20-40-R13	160.00	9.50	20	40.00	95.00	63.00	C	3.53

- For user guide, see pages 542-547

(1) Number of inserts

For inserts, see pages: T890 LN.. 1306 (475)

Spare Parts

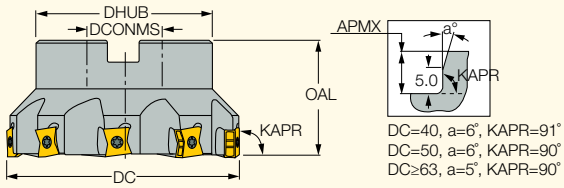
Designation				
T890HT FLN D040-03-16-R13	SR 10513105-L10.5(a)	BLD IP20/M7	SW6-T-SH	SR M8X30DIN912
T890HT FLN D040-04-16-R13	SR 10513105-L10.5(a)	BLD IP20/M7	SW6-T-SH	SR M8X30DIN912
T890HT FLN D040-05-16-R13	SR 10513105-L10.5(a)	BLD IP20/M7	SW6-T-SH	SR M8X30DIN912
T890HT FLN D050-04-22-R13	SR 10513105(a)	BLD IP20/M7	SW6-T-SH	SR M10X25 DIN912
T890HT FLN D050-05-22-R13	SR 10513105(a)	BLD IP20/M7	SW6-T-SH	SR M10X25 DIN912
T890HT FLN D050-06-22-R13	SR 10513105(a)	BLD IP20/M7	SW6-T-SH	SR M10X25 DIN912
T890HT FLN D063-06-22-R13	SR 10513105(a)	BLD IP20/M7	SW6-T-SH	SR M10X25 DIN912
T890HT FLN D063-07-22-R13	SR 10513105(a)	BLD IP20/M7	SW6-T-SH	SR M10X25 DIN912
T890HT FLN D063-08-22-R13	SR 10513105(a)	BLD IP20/M7	SW6-T-SH	SR M10X25 DIN912
T890HT FLN D080-06-27-R13	SR 10513105(a)	BLD IP20/M7	SW6-T-SH	
T890HT FLN D080-07-27-R13	SR 10513105(a)	BLD IP20/M7	SW6-T-SH	
T890HT FLN D080-09-27-R13	SR 10513105(a)	BLD IP20/M7	SW6-T-SH	
T890HT FLN D100-08-32-R13	SR 10513105(a)	BLD IP20/M7	SW6-T-SH	
T890HT FLN D100-12-32-R13	SR 10513105(a)	BLD IP20/M7	SW6-T-SH	
T890HT FLN D125-09-40-R13	SR 10513105(a)	BLD IP20/M7	SW6-T-SH	
T890HT FLN D125-15-40-R13	SR 10513105(a)	BLD IP20/M7	SW6-T-SH	
T890HT FLN D160-12-40-R13	SR 10513105(a)	BLD IP20/M7	SW6-T-SH	
T890HT FLN D160-20-40-R13	SR 10513105(a)	BLD IP20/M7	SW6-T-SH	

(a) Recommended tightening torque: 8.0 N*m (71.0 lbf*in)

TANGMILL
TANGENTIAL LINE

F90LN-N11

90° Face Mills Carrying LN..1106... Tangentially Clamped Inserts



Designation	DC	CICT(3)	APMX	OAL	DHUB	DCONMS	Arbor(4)	kg
F90LN D040-04-16-R/L-N11	40.00	4	10.00	40.00	38.40	16.00	A	0.22
F90LN D040-06-16-R/L-N11 (1)	40.00	6	10.00	40.00	38.40	16.00	A	0.21
F90LN D050-05-22-R/L-N11	50.00	5	10.00	40.00	47.00	22.00	A	0.32
F90LN D050-07-22-L-N11 (1)	50.00	7	10.00	40.00	47.00	22.00	A	0.32
F90LN D050-07-22-R-N11 (1)	50.00	7	10.00	40.00	47.00	22.00	A	0.33
F90LN D063-06-22-R/L-N11	63.00	6	10.00	40.00	59.20	22.00	B	0.47
F90LN D063-09-22-R/L-N11 (1)	63.00	9	10.00	40.00	59.20	22.00	B	0.50
F90LN D080-08-27-R/L-N11 (2)	80.00	8	10.00	50.00	70.00	27.00	B	0.98
F90LN D080-11-27-R/L-N11 (2)	80.00	11	10.00	50.00	70.00	27.00	B	1.02
F90LN D100-09-32-L-N11 (2)	100.00	9	10.00	50.00	77.00	32.00	B	1.40
F90LN D100-09-32-R-N11 (2)	100.00	9	10.00	50.00	77.00	32.00	B	1.41
F90LN D100-14-32-R-N11 (2)	100.00	14	10.00	50.00	77.00	32.00	B	1.48
F90LN D125-10-40-L-N11 (2)	125.00	10	10.00	63.00	95.00	40.00	B	2.73
F90LN D125-10-40-R-N11 (2)	125.00	10	10.00	63.00	95.00	40.00	B	2.67
F90LN D125-18-40-R-N11 (2)	125.00	18	10.00	63.00	95.00	40.00	B	2.88

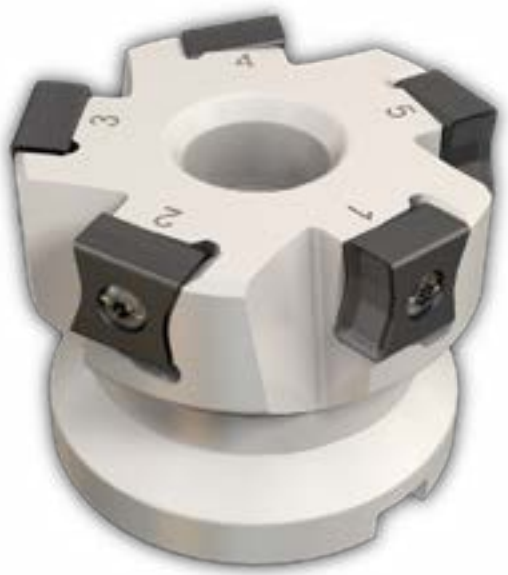
- For user guide, see pages 542-547

(1) Fine pitch
(2) For internal coolant through the holder, use a matching coolant set (should be ordered separately)
(3) Number of inserts
(4) For adaptation options, see page 548

For inserts, see pages: LNAR 1106 (482) • LNAR 1106 (PCD) (483) • LNAR 1106PN-R-S-W (PCD) (483) • LNAT 1106-W (482) • LNAW-11 (CBN) (484) • LNHT 1106 PN-N HT (482) • LNHT 1106 PN-R HT (481) • LNKX/LNMT 1106 (481)

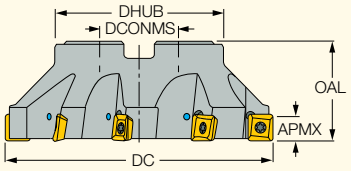
Spare Parts

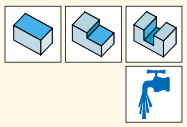
Designation				
F90LN D040-04-16-R/L-N11	SR 34-550	SW6-SD	BLD T10/S7	SR M8X30DIN912
F90LN D040-06-16-R/L-N11	SR 34-550	SW6-SD	BLD T10/S7	SR M8X30DIN912
F90LN D050-05-22-R/L-N11	SR 34-550	SW6-SD	BLD T10/S7	SR M10X25 DIN912
F90LN D050-07-22-R/L-N11	SR 34-550	SW6-SD	BLD T10/S7	SR M10X25 DIN912
F90LN D063-06-22-R/L-N11	SR 34-550	SW6-SD	BLD T10/S7	
F90LN D063-09-22-R/L-N11	SR 34-550	SW6-SD	BLD T10/S7	
F90LN D080-08-27-R/L-N11	SR 34-550	SW6-SD	BLD T10/S7	
F90LN D080-11-27-R/L-N11	SR 34-550	SW6-SD	BLD T10/S7	
F90LN D100-09-32-R/L-N11	SR 34-550	SW6-SD	BLD T10/S7	
F90LN D100-14-32-R-N11	SR 34-550	SW6-SD	BLD T10/S7	
F90LN D125-10-40-R/L-N11	SR 34-550	SW6-SD	BLD T10/S7	
F90LN D125-18-40-R-N11	SR 34-550	SW6-SD	BLD T10/S7	



HELiQUAD

F90SD-12
90° Face Mills Carrying Square Inserts





Designation	DC	CICT(1)	APMX	OAL	DHUB	DCONMS	Arbor(2)	kg
F90SD D050-05-22-12	50.00	5	11.80	40.00	48.00	22.00	A	0.28
F90SD D063-04-22-12	63.00	4	11.80	40.00	48.00	22.00	A	0.41
F90SD D063-06-22-12	63.00	6	11.80	40.00	48.00	22.00	A	0.43
F90SD D080-05-27-12	80.00	5	11.80	50.00	60.00	27.00	B	0.79
F90SD D100-06-32-12	100.00	6	11.80	50.00	78.00	32.00	B	1.44
F90SD D100-08-32-12	100.00	8	11.80	50.00	78.00	32.00	B	1.43
F90SD D125-07-40-12	125.00	7	11.80	50.00	92.00	40.00	B	2.13
F90SD D125-09-40-12	125.00	9	11.80	50.00	92.00	40.00	B	2.16
F90SD D160-11-40-12	160.00	11	11.80	50.00	95.00	40.00	C	2.95
F90SD D200-13-60-12	200.00	13	11.80	55.00	135.00	60.00	C	5.40

- For user guide, see pages 542-547

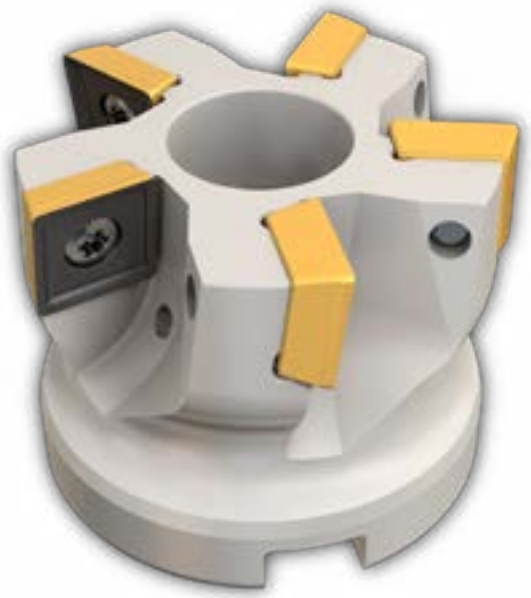
(1) Number of inserts

(2) For adaptation options, see page 548

For inserts, see pages: QDCT-PDN (497) • QDMT 1205..PDTN-M (498) • SDMR-HQ (497) • SDMT-PDR-HQ (496) • SDMT-PDR-RM (497)

Spare Parts

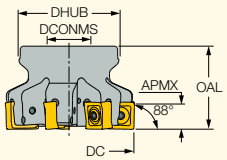
Designation				
F90SD D050-05-22-12	SR M4X0.7-L9.6 IP15	BLD IP15/S7	SW6-T-SH	SR M10X25 DIN912
F90SD D063-04-22-12	SR M4X0.7-L9.6 IP15	BLD IP15/S7	SW6-T-SH	SR M10X25 DIN912
F90SD D063-06-22-12	SR M4X0.7-L9.6 IP15	BLD IP15/S7	SW6-T-SH	SR M10X25 DIN912
F90SD D080-05-27-12	SR M4X0.7-L9.6 IP15	BLD IP15/M7	SW6-T-SH	
F90SD D100-06-32-12	SR M4X0.7-L9.6 IP15	BLD IP15/M7	SW6-T-SH	
F90SD D100-08-32-12	SR M4X0.7-L9.6 IP15	BLD IP15/M7	SW6-T-SH	
F90SD D125-07-40-12	SR M4X0.7-L9.6 IP15	BLD IP15/M7	SW6-T-SH	
F90SD D125-09-40-12	SR M4X0.7-L9.6 IP15	BLD IP15/M7	SW6-T-SH	
F90SD D160-11-40-12	SR M4X0.7-L9.6 IP15	BLD IP15/L7	SW6-T-SH	
F90SD D200-13-60-12	SR M4X0.7-L9.6 IP15	BLD IP15/L7	SW6-T-SH	



HELIDO 890 LINE

S890 FSN-13

Face Mills Carrying
Double-Sided Square Inserts
with 8 Cutting Edges



Designation	DC	APMX	OAL	CICT(2)	DCONMS	DHUB	Arbor(3)	CSP(4)	kg
S890 FSN D040-04-16-R13	40.00	9.00	40.00	4	16.00	38.00	A	1	0.19
S890 FSN D050-04-22-R13	50.00	9.00	40.00	4	22.00	48.00	A	1	0.28
S890 FSN D050-05-22-R13 (1)	50.00	9.00	40.00	5	22.00	48.00	A	1	0.29
S890 FSN D063-05-22-R13	63.00	9.00	40.00	5	22.00	48.00	A	1	0.39
S890 FSN D063-07-22-R13 (1)	63.00	9.00	40.00	7	22.00	48.00	B	1	0.39
S890 FSN D080-07-27-R13	80.00	9.00	50.00	7	27.00	60.00	B	1	0.74
S890 FSN D080-09-27-R13 (1)	80.00	9.00	50.00	9	27.00	60.00	B	1	0.74
S890 FSN D100-08-32-R13	100.00	9.00	50.00	8	32.00	70.00	B	1	1.25
S890 FSN D100-11-32-R13 (1)	100.00	9.00	50.00	11	32.00	70.00	B	1	1.27
S890 FSN D125-09-40-R13	125.00	9.00	63.00	9	40.00	82.00	B	1	2.29
S890 FSN D125-14-40-R13 (1)	125.00	9.00	63.00	14	40.00	82.00	B	1	2.30
S890 FSN D160-10-40-R13	160.00	9.00	63.00	10	40.00	106.00	C	0	4.28

- Use only Torx Plus keys
- For user guide, see pages 542-547

(1) Fine pitch
(2) Number of inserts
(3) For adaptation options, see page 548
(4) 0 - Without coolant supply, 1 - With coolant supply

For inserts, see pages: S890 SNMU 1305PN... (504)

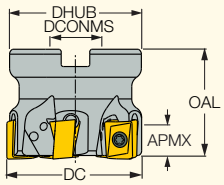
Spare Parts

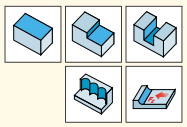
Designation				
S890 FSN D040-04-16-R13	SR 11800745	BLD IP15/S7	SW6-T-SH	SR M8X38-1515
S890 FSN D050-04-22-R13	SR 11800745	BLD IP15/S7	SW6-T-SH	SR M10X25 DIN912
S890 FSN D050-05-22-R13	SR 11800745	BLD IP15/S7	SW6-T-SH	SR M10X25 DIN912
S890 FSN D063-05-22-R13	SR 11800745	BLD IP15/S7	SW6-T-SH	SR M10X25 DIN912
S890 FSN D063-07-22-R13	SR 11800745	BLD IP15/S7	SW6-T-SH	SR M10X25 DIN912
S890 FSN D080-07-27-R13	SR 11800745	BLD IP15/S7	SW6-T-SH	
S890 FSN D080-09-27-R13	SR 11800745	BLD IP15/S7	SW6-T-SH	
S890 FSN D100-08-32-R13	SR 11800745	BLD IP15/S7	SW6-T-SH	
S890 FSN D100-11-32-R13	SR 11800745	BLD IP15/S7	SW6-T-SH	
S890 FSN D125-09-40-R13	SR 11800745	BLD IP15/S7	SW6-T-SH	
S890 FSN D125-14-40-R13	SR 11800745	BLD IP15/S7	SW6-T-SH	
S890 FSN D160-10-40-R13	SR 11800745	BLD IP15/S7	SW6-T-SH	

HELIDO 490 LINE

H490 F90AX-12

90° Face Mills Carrying H490 ANKX 12.. Double-Sided Rectangular Inserts with 4 Helical Cutting Edges





Designation	DC	CICT(1)	APMX	OAL	DHUB	DCONMS	Arbor(2)	RMPX°(3)	CSP(4)	kg
H490 F90AX D040-4-16-12	40.00	4	12.00	40.00	38.00	16.00	A	1.5	1	0.20
H490 F90AX D050-3-22-12	50.00	3	12.00	40.00	48.00	22.00	A	1.5	1	0.33
H490 F90AX D050-5-22-12	50.00	5	12.00	40.00	48.00	22.00	A	1.5	1	0.32
H490 F90AX D063-4-27-12	63.00	4	12.00	50.00	59.20	27.00	A	1.5	1	0.68
H490 F90AX D063-6-27-12	63.00	6	12.00	50.00	59.20	27.00	A	1.5	1	0.65
H490 F90AX D080-5-27-12	80.00	5	12.00	50.00	63.00	27.00	B	-	1	0.83
H490 F90AX D080-7-27-12	80.00	7	12.00	50.00	63.00	27.00	B	-	1	0.85
H490 F90AX D100-6-32-12	100.00	6	12.00	50.00	80.00	32.00	B	-	1	1.41
H490 F90AX D100-9-32-12	100.00	9	12.00	50.00	80.00	32.00	B	-	1	1.47
H490 F90AX D160-9-40-12	160.00	9	12.00	63.00	105.00	40.00	C	-	0	3.87

- For user guide, see pages 542-547

(1) Number of inserts

(2) For adaptation options, see page 548

(3) Maximum ramping angle - valid only when the H490 ANKX1205R 15T-FF insert is used

(4) 0 - Without coolant supply, 1 - With coolant supply

For inserts, see pages: H490 ANKX 1205-FF (471) • H490 ANKX/ANCX-12 (470)

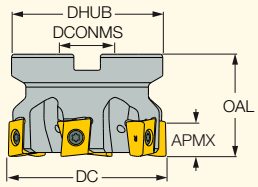
Spare Parts

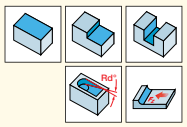
Designation				
H490 F90AX D040-4-16-12	SR 14-544	BLD T15/M7	SW6-T	SR M8X30DIN912
H490 F90AX D050-3-22-12	SR 14-544	BLD T15/M7	SW6-T	SR M10X30 DIN912
H490 F90AX D050-5-22-12	SR 14-544	BLD T15/M7	SW6-T	SR M10X30 DIN912
H490 F90AX D063-4-27-12	SR 14-544	BLD T15/M7	SW6-T	SR M12X35DIN912
H490 F90AX D063-6-27-12	SR 14-544	BLD T15/M7	SW6-T	SR M12X35DIN912
H490 F90AX D080-5-27-12	SR 14-544	BLD T15/M7	SW6-T	
H490 F90AX D080-7-27-12	SR 14-544	BLD T15/M7	SW6-T	
H490 F90AX D100-6-32-12	SR 14-544	BLD T15/M7	SW6-T	
H490 F90AX D100-9-32-12	SR 14-544	BLD T15/M7	SW6-T	
H490 F90AX D160-9-40-12	SR 14-544	BLD T15/M7	SW6-T	

HELITANG T490 LINE

T490 FLN-13

90° Face Mills Carrying Tangentially Clamped Inserts with 4 Helical 13 mm Long Cutting Edges





Designation	DC	CICT(1)	APMX	OAL	DHUB	DCONMS	Arbor(2)	RMPX°(3)	CSP(4)	kg
T490 FLN D040-04-16-R-13	40.00	4	12.50	40.00	38.00	16.00	A	2.0	1	0.22
T490 FLN D040-05-16-R-13	40.00	5	12.50	40.00	38.00	16.00	A	2.0	1	0.22
T490 FLN D050-05-22-R-13	50.00	5	12.50	40.00	47.00	22.00	A	1.5	1	0.31
T490 FLN D050-06-22-R-13	50.00	6	12.50	40.00	47.00	22.00	A	1.5	1	0.31
T490 FLN D063-06-22-R-13	63.00	6	12.50	40.00	59.20	22.00	A	1.1	1	0.55
T490 FLN D063-08-22-R-13	63.00	8	12.50	40.00	59.20	22.00	A	1.1	1	0.56
T490 FLN D080-07-27-R-13	80.00	7	12.50	50.00	70.00	27.00	B	0.9	1	0.98
T490 FLN D080-10-27-R-13	80.00	10	12.50	50.00	70.00	27.00	B	0.9	1	1.00
T490 FLN D100-08-32-R-13	100.00	8	12.50	50.00	78.00	32.00	B	0.7	1	1.45
T490 FLN D100-13-32-R-13	100.00	13	12.50	50.00	78.00	32.00	B	0.7	1	1.49
T490 FLN D125-09-40-R-13	125.00	9	12.50	63.00	82.00	40.00	B	0.5	1	2.16
T490 FLN D125-17-40-R-13	125.00	17	12.50	63.00	82.00	40.00	B	0.5	1	2.30
T490 FLN D160-12-40-R-13	160.00	12	12.50	63.00	120.00	40.00	C	0.5	0	4.32
T490 FLN D200-15-60-R-13	200.00	15	12.50	63.00	135.00	60.00	C	0.5	0	5.84

• When machining slots, coarse pitch cutters should be used • For user guide, see pages 542-547

(1) Number of inserts

(2) For adaptation options, see page 548

(3) Maximum ramping angle - valid only when the T490 LNHT 1306 PNTR-RD insert is used. For the -FF insert, refer to -FF insert information

(4) 0 - Without coolant supply, 1 - With coolant supply

For inserts, see pages: T490 LNAR-P (480) • T490 LNMT 1306PNR-FF (479) • T490 LNMT 1306PNTR-FW (479) • T490 LNMT/LNHT/LNAR 1306 (478)

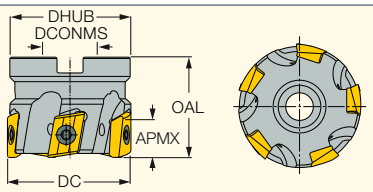
Spare Parts

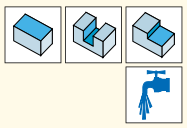
Designation				
T490 FLN D040-04-16-R-13	SR 34-535-SN	BLD T15/S7	SW6-T-SH	SR M8X30DIN912
T490 FLN D040-05-16-R-13	SR 34-535-SN	BLD T15/S7	SW6-T-SH	SR M8X30DIN912
T490 FLN D050-05-22-R-13	SR 34-535-SN	BLD T15/S7	SW6-T-SH	SR M10X25 DIN912
T490 FLN D050-06-22-R-13	SR 34-535-SN	BLD T15/S7	SW6-T-SH	SR M10X25 DIN912
T490 FLN D063-06-22-R-13	SR 34-535-SN	BLD T15/S7	SW6-T-SH	SR M10X25 DIN912
T490 FLN D063-08-22-R-13	SR 34-535-SN	BLD T15/S7	SW6-T-SH	SR M10X25 DIN912
T490 FLN D080-07-27-R-13	SR 34-535-SN	BLD T15/S7	SW6-T-SH	
T490 FLN D080-10-27-R-13	SR 34-535-SN	BLD T15/S7	SW6-T-SH	
T490 FLN D100-08-32-R-13	SR 34-535-SN	BLD T15/S7	SW6-T-SH	
T490 FLN D100-13-32-R-13	SR 34-535-SN	BLD T15/S7	SW6-T-SH	
T490 FLN D125-09-40-R-13	SR 34-535-SN	BLD T15/S7	SW6-T-SH	
T490 FLN D125-17-40-R-13	SR 34-535-SN	BLD T15/S7	SW6-T-SH	
T490 FLN D160-12-40-R-13	SR 34-535-SN	BLD T15/S7	SW6-T-SH	
T490 FLN D200-15-60-R-13	SR 34-535-SN	BLD T15/S7	SW6-T-SH	

SUMOMILL 290 LINE

T290 FLN-15

90° Face Mills Carrying T290 LNMT 1506... Tangentially Clamped Inserts





Designation	DC	CICT(1)	APMX	OAL	DHUB	DCONMS	Arbor(2)	kg				
T290 FLN D040-04-16-15	40.00	4	14.00	40.00	36.00	16.00	A	0.20	SR 10505427	BLD IP20/S7	SW6-T	SR M8X25DIN912
T290 FLN D050-05-22-15	50.00	5	14.00	40.00	48.00	22.00	A	0.33	SR 10505427	BLD IP20/S7	SW6-T	SR M10X25DIN7984

• For user guide, see pages 542-547

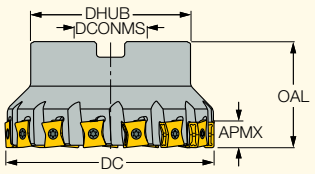
(1) Number of inserts

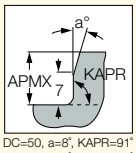
(2) For adaptation options, see page 548

For inserts, see pages: T290 LNMT 1506 (475)

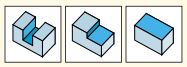
TANGMILL
TANGENTIAL LINE

F90LN-N15
90° Face Mills Carrying LN..1506... Tangentially Clamped Inserts





DC=50, a=8°, KAPR=91°
DC=63, a=6°, KAPR=90°
DC≥100, a=4.5°, KAPR=90°



Designation	DC	CICT(2)	APMX	OAL	DHUB	DCONMS	Arbor(3)	kg
F90LN D050-05-22-R/L-N15	50.00	5	14.00	40.00	47.00	22.00	A	0.33
F90LN D063-05-22-R/L-N15	63.00	5	14.00	40.00	59.20	22.00	B	0.48
F90LN D063-08-22-R/L-N15	63.00	8	14.00	40.00	59.20	22.00	B	0.50
F90LN D080-07-27-L-N15 (1)	80.00	7	14.00	50.00	70.00	27.00	B	1.01
F90LN D080-07-27-R-N15 (1)	80.00	7	14.00	50.00	70.00	27.00	B	1.02
F90LN D080-10-27-L-N15 (1)	80.00	10	14.00	50.00	70.00	27.00	B	1.05
F90LN D080-10-27-R-N15 (1)	80.00	10	14.00	50.00	70.00	27.00	B	1.06
F90LN D100-08-32-L-N15 (1)	100.00	8	14.00	50.00	78.00	32.00	B	0.50
F90LN D100-08-32-R-N15 (1)	100.00	8	14.00	50.00	78.00	32.00	B	1.52
F90LN D100-12-32-L-N15 (1)	100.00	12	14.00	50.00	78.00	32.00	B	1.59
F90LN D100-12-32-R-N15 (1)	100.00	12	14.00	50.00	78.00	32.00	B	1.60
F90LN D125-09-40-R/L-N15 (1)	125.00	9	14.00	63.00	95.00	40.00	B	2.95
F90LN D125-15-40-L-N15 (1)	125.00	15	14.00	63.00	95.00	40.00	B	3.06
F90LN D125-15-40-R-N15 (1)	125.00	15	14.00	63.00	95.00	40.00	B	3.07
F90LN D160-10-40-L-N15	160.00	10	14.00	63.00	120.00	40.00	C	4.30
F90LN D160-10-40-R-N15	160.00	10	14.00	63.00	120.00	40.00	C	4.29
F90LN D160-20-40-L-N15	160.00	20	14.00	63.00	120.00	40.00	C	4.48
F90LN D160-20-40-R-N15	160.00	20	14.00	63.00	120.00	40.00	C	4.50
F90LN D200-12-60-L-N15	200.00	12	14.00	63.00	135.00	60.00	C	6.67
F90LN D200-12-60-R-N15	200.00	12	14.00	63.00	135.00	60.00	C	6.64
F90LN D250-15-60-R-N15	250.00	15	14.00	63.00	150.00	60.00	C	10.39
F90LN D250-30-60-R-N15	250.00	30	14.00	63.00	150.00	60.00	C	10.83

• Left-hand cutters are designated by a red groove • For user guide, see pages 542-547
(1) For internal coolant through the holder, use a matching coolant set (should be ordered separately)
(2) Number of inserts
(3) For adaptation options, see page 548
For inserts, see pages: LNAR 1506 (488) • LNAR 1506 PN-R-S (PCD) (489) • LNAT 1506-W (489) • LNAT 1506..PN-N MM (489) • LNAW-15 (CBN) (485)
• LNHW 1506 PNTN (ceramic) (488) • LNKX 1506 1.5X45 PN-N (487) • LNKX 1506PN-N PL (486) • LNKX/LNMT 1506PNTN/PN-N MM (486)
• LNMT 1506PN-R-TS (485) • LNMT/LNHT 1506...-N HT (488) • LNMT/LNHT 1506PN-R HT (487) • LNMW 1506 PNTN (486)

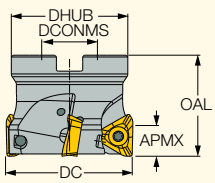
Spare Parts

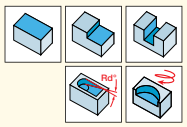
Designation				
F90LN D050-05-22-R/L-N15	SR 34-535	SW6-T	BLD T15/M7	SR M10X25 DIN912
F90LN D063-05-22-R/L-N15	SR 34-535	SW6-T-SH	BLD T15/M7	
F90LN D063-08-22-R/L-N15	SR 34-535	SW6-T-SH	BLD T15/M7	
F90LN D080-07-27-R/L-N15	SR 34-535	SW6-T-SH	BLD T15/M7	
F90LN D080-10-27-R/L-N15	SR 34-535	SW6-T-SH	BLD T15/M7	
F90LN D100-08-32-R/L-N15	SR 34-535	SW6-T-SH	BLD T15/M7	
F90LN D100-12-32-R/L-N15	SR 34-535	SW6-T-SH	BLD T15/M7	
F90LN D125-09-40-R/L-N15	SR 34-535	SW6-T-SH	BLD T15/M7	
F90LN D125-15-40-L-N15	SR 34-535	SW6-T	BLD T15/M7	
F90LN D125-15-40-R-N15	SR 34-535	SW6-T-SH	BLD T15/M7	
F90LN D160-10-40-R/L-N15	SR 34-535	SW6-T-SH	BLD T15/M7	
F90LN D160-20-40-L-N15	SR 34-535	SW6-T	BLD T15/M7	
F90LN D160-20-40-R-N15	SR 34-535	SW6-T-SH	BLD T15/M7	
F90LN D200-12-60-R/L-N15	SR 34-535	SW6-T-SH	BLD T15/M7	
F90LN D250-15-60-R-N15	SR 34-535	SW6-T-SH	BLD T15/M7	
F90LN D250-30-60-R-N15	SR 34-535	SW6-T	BLD T15/M7	

HELI3MILL HM390 LINE

HM390 FTD-15

90° Face Mills Carrying HM390 TDKT 1505 Triangular Inserts with 3 Helical Cutting Edges





Designation	DC	CICT(2)	APMX	OAL	DHUB	DCONMS	Arbor(3)	RMPX°(4)	CSP(5)	kg
HM390 FTD D040-3-16-15	40.00	3	13.00	40.00	38.40	16.00	A	2.0	1	0.20
HM390 FTD D040-4-16-15	40.00	4	13.00	40.00	38.40	16.00	A	2.0	1	0.19
HM390 FTD D050-3-22-15	50.00	3	13.00	40.00	46.00	22.00	A	1.6	1	0.25
HM390 FTD D050-4-22-15	50.00	4	13.00	40.00	46.00	22.00	A	1.6	1	0.28
HM390 FTD D050-5-22-15	50.00	5	13.00	40.00	46.00	22.00	A	1.6	1	0.28
HM390 FTD D063-4-27-15	63.00	4	13.00	45.00	59.00	27.00	A	1.2	1	0.53
HM390 FTD D063-5-22-15	63.00	5	13.00	45.00	59.00	22.00	A	1.2	1	0.58
HM390 FTD D063-5-27-15	63.00	5	13.00	45.00	59.00	27.00	A	1.2	1	0.53
HM390 FTD D063-6-22-15	63.00	6	13.00	45.00	59.00	22.00	A	1.2	1	0.62
HM390 FTD D063-6-27-15	63.00	6	13.00	45.00	59.00	27.00	A	1.2	1	0.57
HM390 FTD D080-5-27-15	80.00	5	13.00	50.00	74.00	27.00	A	0.9	1	1.11
HM390 FTD D080-6-27-15	80.00	6	13.00	50.00	74.00	27.00	A	0.9	1	0.14
HM390 FTD D080-7-27-15	80.00	7	13.00	50.00	74.00	27.00	A	0.9	1	1.18
HM390 FTD D100-6-32-15	100.00	6	13.00	50.00	80.00	32.00	B	0.7	1	1.31
HM390 FTD D100-8-32-15	100.00	8	13.00	50.00	80.00	32.00	B	0.7	1	1.46
HM390 FTD D125-7-40-15	125.00	7	13.00	63.00	82.00	40.00	B	0.5	1	2.12
HM390 FTD D125-9-40-15	125.00	9	13.00	63.00	82.00	40.00	B	0.5	1	2.29
HM390 FTD D160-8-40-15 (1)	160.00	8	13.00	63.00	105.00	40.00	C	0.3	0	3.57
HM390 FTD D160-10-40-15 (1)	160.00	10	13.00	63.00	105.00	40.00	C	0.3	0	4.02
HM390 FTD D200-9-60-15	200.00	9	13.00	63.00	135.00	60.00	C	0.2	0	5.23

- When assembled the HM390 TDKT 1505PDR-FW insert, tool diameter enlarges by 1.0 mm
- For user guide, see pages 542-547

(1) For internal coolant through the holder, use a matching coolant set (should be ordered separately)
(2) Number of inserts
(3) For adaptation options, see page 548
(4) Maximum ramping angle
(5) 0 - Without coolant supply, 1 - With coolant supply

For inserts, see pages: HM390 TDCR 1505 (448) • HM390 TDKT/CT 1505 (447)

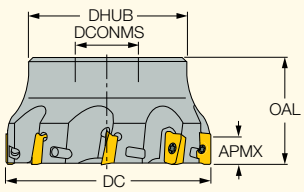
Spare Parts

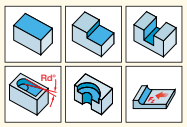
Designation				
HM390 FTD D040-3-16-15	SR 10511869	BLD IP20/S7	SW6-T	SR M8X37-1515
HM390 FTD D040-4-16-15	SR 10511869	BLD IP20/S7	SW6-T	SR M8X37-1515
HM390 FTD D050-3-22-15	SR 10505427	BLD IP20/S7	SW6-T	SR M10X30 DIN912
HM390 FTD D050-4-22-15	SR 10505427	BLD IP20/S7	SW6-T	SR M10X30 DIN912
HM390 FTD D050-5-22-15	SR 10511869	BLD IP20/S7	SW6-T	SR M10X30 DIN912
HM390 FTD D063-4-27-15	SR 10505427	BLD IP20/S7	SW6-T	SR M12X35DIN912
HM390 FTD D063-5-22-15	SR 10511869	BLD IP20/S7	SW6-T	SR M10X30 DIN912
HM390 FTD D063-5-27-15	SR 10505427	BLD IP20/S7	SW6-T	SR M12X35DIN912
HM390 FTD D063-6-22-15	SR 10511869	BLD IP20/S7	SW6-T	SR M10X30 DIN912
HM390 FTD D063-6-27-15	SR 10505427	BLD IP20/S7	SW6-T	SR M12X35DIN912
HM390 FTD D080-5-27-15	SR 10505427	BLD IP20/S7	SW6-T	SR M12X40DIN912
HM390 FTD D080-6-27-15	SR 10505427	BLD IP20/S7	SW6-T	SR M12X40DIN912
HM390 FTD D080-7-27-15	SR 10505427	BLD IP20/S7	SW6-T	SR M12X40DIN912
HM390 FTD D100-6-32-15	SR 10505427	BLD IP20/S7	SW6-T	
HM390 FTD D100-8-32-15	SR 10505427	BLD IP20/S7	SW6-T	
HM390 FTD D125-7-40-15	SR 10505427	BLD IP20/S7	SW6-T	
HM390 FTD D125-9-40-15	SR 10505427	BLD IP20/S7	SW6-T	
HM390 FTD D160-8-40-15	SR 10505427	BLD IP20/S7	SW6-T	
HM390 FTD D160-10-40-15	SR 10505427	BLD IP20/S7	SW6-T	
HM390 FTD D200-9-60-15	SR 10505427	BLD IP20/S7	SW6-T	

HELI2000

HM90 F90A-15

90° Face Mills Carrying HM90 ADKT 1505... Inserts





Designation	DC	CICT(2)	APMX	OAL	DHUB	DCONMS	RMPX°(3)	Arbor(4)	kg
HM90 F90A D 40-3-16	40.00	3	14.30	40.00	38.60	16.00	4.0	A	0.20
HM90 F90A D 40-4-16	40.00	4	14.30	40.00	38.60	16.00	4.0	A	0.19
HM90 F90A D 50-3-22	50.00	3	14.30	40.00	48.00	22.00	2.6	A	0.32
HM90 F90A D 50-5-22	50.00	5	14.30	40.00	48.00	22.00	2.6	A	0.30
HM90 F90A D 63-4-22	63.00	4	14.30	40.00	59.20	22.00	2.0	A	0.55
HM90 F90A D 63-6-22	63.00	6	14.30	40.00	59.20	22.00	2.0	A	0.52
HM90 F90A D 80-5-27 (1)	80.00	5	14.30	50.00	70.00	27.00	0.8	B	0.91
HM90 F90A D 80-7-27 (1)	80.00	7	14.30	50.00	70.00	27.00	0.8	B	0.88
HM90 F90A D100-6-32 (1)	100.00	6	14.30	50.00	78.00	32.00	0.7	B	1.54
HM90 F90A D100-8-32 (1)	100.00	8	14.30	50.00	78.00	32.00	0.7	B	1.49
HM90 F90A D125-9-40 (1)	125.00	9	14.30	63.00	90.00	40.00	0.5	B	2.95

- For user guide, see pages 542-547

(1) For internal coolant through the holder, use a matching coolant set (should be ordered separately)
(2) Number of inserts
(3) Maximum ramping angle
(4) For adaptation options, see page 548

For inserts, see pages: ADCR 1505PDFR (456) • ADCT 1505PDFR-HM (457) • ADKR 1505PDR/L-HM (456) • ADKT 1505-FF (459) • ADKT 1505..R/L-HM (459)
• ADKT 1505PD-W (460) • ADKT 1505PDR/L-HM (458) • ADKT 1505PDTR-76 (459) • ADKT 1505PDTR/L-RM (458) • ADKW (CBN) (457) • ADKW (PCD) (457)
• ADMT 1505PDR-HS (458) • HM90 ADCR 1505PDFR-P (456) • HM90 ADCT 1505 (455) • HM90 ADCT 1505PDR-CF (455) • HM90 ADKT 1505 (454)
• HM90 ADKT 1505PD-W (460) • HM90 ADKW 1505PDR (462)

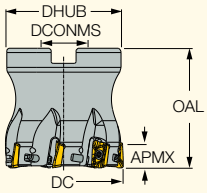
Spare Parts

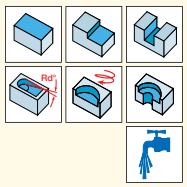
Designation				
HM90 F90A D 40-3-16	SR 14-544/S	BLD T15/M7	SW6-T-SH	SR M8X25DIN912
HM90 F90A D 40-4-16	SR 14-544/S	BLD T15/M7	SW6-T-SH	SR M8X25DIN912
HM90 F90A D 50-3-22	SR 14-544/S	BLD T15/M7	SW6-T-SH	SR M10X25 DIN912
HM90 F90A D 50-5-22	SR 14-544/S	BLD T15/M7	SW6-T-SH	SR M10X25 DIN912
HM90 F90A D 63-4-22	SR 14-544	BLD T15/M7	SW6-T-SH	SR M10X25 DIN912
HM90 F90A D 63-6-22	SR 14-544	BLD T15/M7	SW6-T-SH	SR M10X25 DIN912
HM90 F90A D 80-5-27	SR 14-544	BLD T15/M7	SW6-T-SH	
HM90 F90A D 80-7-27	SR 14-544	BLD T15/M7	SW6-T-SH	
HM90 F90A D100-6-32	SR 14-544	BLD T15/M7	SW6-T-SH	
HM90 F90A D100-8-32	SR 14-544	BLD T15/M7	SW6-T-SH	
HM90 F90A D125-9-40	SR 14-544	BLD T15/M7	SW6-T-SH	

HELI2000 JET LINE

HM90 F90A-15-JHP

90° JHP Face Mills Carrying HELI2000 and HELIMILL Inserts





Designation	DC	CICT(1)	APMX	OAL	DHUB	DCONMS	RMPX°(2)	Arbor	MIID(3)	kg
HM90 F90A D050-05-22-JHP	50.00	5	14.30	50.00	48.00	22.00	2.6	A	ADKT 1505PDTR	0.50
HM90 F90A D063-06-22-JHP	63.00	6	14.30	50.00	48.00	22.00	2.0	A	ADKT 1505PDTR	0.76

- Use adaptation only with face coolant outlets • For user guide, see pages 542-547

(1) Number of inserts
(2) Maximum ramping angle
(3) Master insert identification

For inserts, see pages: ADCR 1505PDFR (456) • ADCT 1505PDFR-HM (457) • ADKR 1505PDR/L-HM (456) • ADKT 1505-FF (459) • ADKT 1505..R/L-HM (459)
• ADKT 1505PD-W (460) • ADKT 1505PDR/L-HM (458) • ADKT 1505PDTR-76 (459) • ADKT 1505PDTR/L-RM (458) • ADKW (CBN) (457) • ADKW (PCD) (457)
• ADMT 1505PDR-HS (458) • HM90 ADCR 1505PDFR-P (456) • HM90 ADCT 1505 (455) • HM90 ADCT 1505PDR-CF (455) • HM90 ADKT 1505 (454)
• HM90 ADKT 1505PD-W (460) • HM90 ADKW 1505PDR (462)

Spare Parts

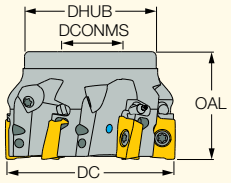
Designation				
HM90 F90A D050-05-22-JHP	SR 14-544/S(a)	SR PS 118-0273	BLD T15/M7	SW6-T-SH
HM90 F90A D063-06-22-JHP	SR 14-544(a)	SR PS 118-0273	BLD T15/M7	SW6-T-SH

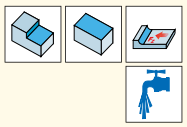
(a) Recommended tightening torque for this item: 4.8 Nxm

HELI2000

F90AD-SFR

Adjustable Face Mills (used mainly for PCD/CBN inserts)





Designation	DC	CICT(1)	OAL	DHUB	DCONMS	Arbor(2)	RPMX(3)	kg
F90AD D050-04-22-SFR	50.00	4	40.00	49.00	22.00	A	23000	0.31
F90AD D063-04-22-SFR	63.00	4	40.00	50.00	22.00	A	20600	0.43
F90AD D063-06-22-SFR	63.00	6	40.00	50.00	22.00	A	20600	0.49
F90AD D080-06-27-SFR	80.00	6	50.00	60.00	27.00	B	18200	0.89

- These tools may also be used for regular HELI2000 AD.. 1505... inserts, for applications that require precise frontal edge adjustment
- Thinner insert ADM. 1503.. mounted on TSP-15R seat • For user guide, see pages 542-547

(1) Number of inserts

(2) For adaptation options, see page 548

(3) Maximum RPM

For inserts, see pages: ADKW (CBN) (457) • ADKW (PCD) (457) • ADCR 1505PDFR (456) • ADCT 1505PDFR-HM (457) • ADKR 1505PDR/L-HM (456) • ADKT 1505-FF (459) • ADKT 1505..R/L-HM (459) • ADKT 1505PD-W (460) • ADKT 1505PDR/L-HM (458) • ADKT 1505PDTR-76 (459) • ADKT 1505PDTR/L-RM (458) • ADMT 1505PDR-HS (458) • HM90 ADCR 1505PDFR-P (456) • HM90 ADCT 1505 (455) • HM90 ADCT 1505PDR-CF (455) • HM90 ADKT 1505 (454) • HM90 ADKT 1505PD-W (460) • HM90 ADKW 1505PDR (462)

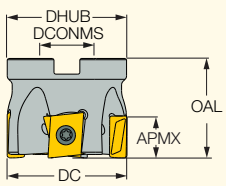
Spare Parts

Designation					
F90AD D050-04-22-SFR	SR 14-544/S	SR 11800782	BLD T15/S7	SW6-T-SH	SR M10X20DIN912
F90AD D063-04-22-SFR	SR 14-544/S	SR 11800782	BLD T15/S7	SW6-T-SH	SR M10X20DIN912
F90AD D063-06-22-SFR	SR 14-544/S	SR 11800782	BLD T15/S7	SW6-T-SH	SR M10X20DIN912
F90AD D080-06-27-SFR	SR 14-544/S	SR 11800782	BLD T15/S7	SW6-T-SH	

HELITANG T490 LINE

T490 FLN-16

90° Face Mills Carrying Tangentially Clamped Inserts with 4 Helical 16 mm Long Cutting Edges



Designation	DC	CICT(2)	APMX	OAL	DHUB	DCONMS	Arbor(3)	CSP(4)	kg
T490 FLN D050-03-22-16	50.00	3	16.00	40.00	48.00	22.00	A	1	0.30
T490 FLN D050-04-22-16 (1)	50.00	4	16.00	40.00	48.00	22.00	A	1	0.32
T490 FLN D063-06-27-16	63.00	6	16.00	45.00	60.00	27.00	A	1	0.62
T490 FLN D080-05-27-16	80.00	5	16.00	50.00	63.00	27.00	B	1	0.84
T490 FLN D080-07-27-16 (1)	80.00	7	16.00	50.00	63.00	27.00	B	1	0.91
T490 FLN D100-06-32-16	100.00	6	16.00	50.00	80.00	32.00	B	1	1.44
T490 FLN D100-08-32-16 (1)	100.00	8	16.00	50.00	80.00	32.00	B	1	1.50
T490 FLN D125-07-40-16	125.00	7	16.00	63.00	82.00	40.00	B	1	2.42
T490 FLN D125-10-40-16 (1)	125.00	10	16.00	63.00	82.00	40.00	B	1	2.46
T490 FLN D160-12-40-16 (1)	160.00	12	16.00	63.00	105.00	40.00	C	0	4.28
T490 FLN D200-12-60-16 (1)	200.00	12	16.00	63.00	135.00	60.00	C	0	5.40

- When machining slots, regular pitch cutters should be used.
- For user guide, see pages 542-547

(1) Fine pitch
(2) Number of inserts
(3) For adaptation options, see page 548
(4) 0 - Without coolant supply, 1 - With coolant supply

For inserts, see pages: T490 LNAR-P (480) • T490 LNMT/LNHT 1607 (480)

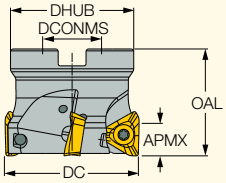
Spare Parts

Designation				
T490 FLN D050-03-22-16	SR 14-591	BLD T20/M7	SW6-T	SR M10X25DIN7984
T490 FLN D050-04-22-16	SR 14-591	BLD T20/M7	SW6-T	SR M10X25DIN7984
T490 FLN D063-06-27-16	SR 14-591	BLD T20/M7	SW6-T	SR M12X30DIN912
T490 FLN D080-05-27-16	SR 14-591	BLD T20/M7	SW6-T	
T490 FLN D080-07-27-16	SR 14-591	BLD T20/M7	SW6-T	
T490 FLN D100-06-32-16	SR 14-591	BLD T20/M7	SW6-T	
T490 FLN D100-08-32-16	SR 14-591	BLD T20/M7	SW6-T	
T490 FLN D125-07-40-16	SR 14-591	BLD T20/M7	SW6-T	
T490 FLN D125-10-40-16	SR 14-591	BLD T20/M7	SW6-T	
T490 FLN D160-12-40-16	SR 14-591	BLD T20/M7	SW6-T	
T490 FLN D200-12-60-16	SR 14-591	BLD T20/M7	SW6-T	

HELI3MILL HM390 LINE

HM390 FTD-19

90° Face Mills Carrying HM390 TDKT 1907 Triangular Inserts with 3 Helical Cutting Edges



Designation	DC	CICT(1)	APMX	OAL	DHUB	DCONMS	Arbor(2)	CSP(3)	RMPX°(4)	kg
HM390 FTD D063-05-27-19	63.00	5	16.00	50.00	48.00	27.00	A	1	1.1	0.63
HM390 FTD D160-10-40-19	160.00	10	16.00	63.00	105.00	40.00	C	0	0.4	4.22

- For user guide, see pages 542-547

(1) Number of inserts
(2) For adaptation options, see page 548
(3) 0 - Without coolant supply, 1 - With coolant supply
(4) Maximum ramping angle

For inserts, see pages: HM390 TDKT 1907 (448)

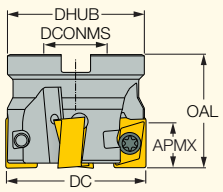
Spare Parts

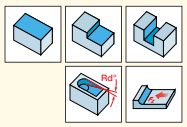
Designation				
HM390 FTD D063-05-27-19	SR 14-591/H	BLD T20/S7	SW6-T	SR DIN 912 M12X25
HM390 FTD D160-10-40-19	SR 14-591/H	BLD T20/M7	SW6-T	

HELIDO 490 LINE

H490 F90AX-17

90° Face Mills Carrying H490 ANKX 17.. Double-Sided Rectangular Inserts with 4 Helical Cutting Edges





Designation	DC	CICT(2)	APMX	OAL	DHUB	DCONMS	Arbor(3)	RMPX°(4)	CSP(5)	kg
H490 F90AX D040-3-16-17	40.00	3	16.30	40.00	36.00	16.00	A	4.4	1	0.18
H490 F90AX D050-3-22-17	50.00	3	16.30	40.00	48.00	22.00	A	3.8	1	0.32
H490 F90AX D050-4-22-17	50.00	4	16.30	40.00	48.00	22.00	A	3.8	1	0.30
H490 F90AX D050-5-22-17	50.00	5	16.30	40.00	48.00	22.00	A	3.8	1	0.48
H490 F90AX D063-4-27-17	63.00	4	16.30	50.00	59.20	27.00	A	2.0	1	0.63
H490 F90AX D063-6-27-17	63.00	6	16.30	50.00	59.20	27.00	A	2.0	1	0.67
H490 F90AX D080-5-27-17	80.00	5	16.30	50.00	63.00	27.00	B	1.5	1	0.79
H490 F90AX D080-7-27-17	80.00	7	16.30	50.00	63.00	27.00	B	1.5	1	0.80
H490 F90AX D100-5-32-17	100.00	5	16.30	50.00	80.00	32.00	B	1.0	1	1.39
H490 F90AX D100-8-32-17	100.00	8	16.30	50.00	80.00	32.00	B	1.0	1	1.47
H490 F90AX D125-7-40-17	125.00	7	16.30	63.00	82.00	40.00	B	-	1	2.24
H490 F90AX D125-10-40-17	125.00	10	16.30	63.00	82.00	40.00	B	-	1	5.41
H490 F90AX D160-8-40-17 (1)	160.00	8	16.30	63.00	105.00	40.00	C	-	0	3.64
H490 F90AX D160-12-40-17 (1)	160.00	12	16.30	63.00	105.00	40.00	C	-	0	4.09
H490 F90AX D200-10-60-17	200.00	10	16.30	63.00	135.00	60.00	C	-	0	5.99
H490 F90AX D250-12-60-17	250.00	12	16.30	63.00	144.00	60.00	C	-	0	9.36

- Ramping angle is valid only when H490 ANKX 1706R15T-FF insert is used (tool diameter is then 1.5 mm larger)
- For user guide, see pages 542-547

(1) For internal coolant through the holder, use a matching coolant set (should be ordered separately)
(2) Number of inserts
(3) For adaptation options, see page 548
(4) Maximum ramping angle
(5) 0 - Without coolant supply, 1 - With coolant supply

For inserts, see pages: H490 ANKX 1706-FF (472) • H490 ANKX/ANCX-17 (472)

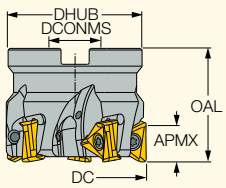
Spare Parts

Designation				
H490 F90AX D040-3-16-17	SR 14-591	BLD T20/M7	SW6-T	SR M8X25DIN912
H490 F90AX D050-3-22-17	SR 14-591	BLD T20/M7	SW6-T	SR M10X25 DIN912
H490 F90AX D050-4-22-17	SR 14-591	BLD T20/M7	SW6-T	SR M10X25 DIN912
H490 F90AX D050-5-22-17	SR 14-591	BLD T20/M7	SW6-T	SR M10X25 DIN912
H490 F90AX D063-4-27-17	SR 14-591	BLD T20/M7	SW6-T	SR M12X30DIN912
H490 F90AX D063-6-27-17	SR 14-591	BLD T20/M7	SW6-T	SR M12X30DIN912
H490 F90AX D080-5-27-17	SR 14-591	BLD T20/M7	SW6-T	
H490 F90AX D080-7-27-17	SR 14-591	BLD T20/M7	SW6-T	
H490 F90AX D100-5-32-17	SR 14-591	BLD T20/M7	SW6-T	
H490 F90AX D100-8-32-17	SR 14-591	BLD T20/M7	SW6-T	
H490 F90AX D125-7-40-17	SR 14-591	BLD T20/M7	SW6-T	
H490 F90AX D125-10-40-17	SR 14-591	BLD T20/M7	SW6-T	
H490 F90AX D160-8-40-17	SR 14-591	BLD T20/M7	SW6-T	
H490 F90AX D160-12-40-17	SR 14-591	BLD T20/M7	SW6-T	
H490 F90AX D200-10-60-17	SR 14-591	BLD T20/M7	SW6-T	
H490 F90AX D250-12-60-17	SR 14-591	BLD T20/M7	SW6-T	

HELIDO 690 LINE

H690 F90AX-16

90° Face Mills Carrying H690 TNKX 1606.. Triangular Inserts with 6 Helical Cutting Edges



Designation	DC	CICT(1)	APMX	OAL	DHUB	DCONMS	Arbor(2)	RMPX°(3)	CSP(4)	kg
H690 F90AX D050-3-22-16	50.00	3	13.50	40.00	48.00	22.00	A	3.0	1	0.31
H690 F90AX D050-4-22-16	50.00	4	13.50	40.00	48.00	22.00	A	3.0	1	0.30
H690 F90AX D063-4-27-16	63.00	4	13.50	50.00	59.00	27.00	A	2.0	1	0.63
H690 F90AX D063-5-27-16	63.00	5	13.50	50.00	59.00	27.00	A	2.0	1	0.64
H690 F90AX D080-5-27-16	80.00	5	13.50	50.00	76.00	27.00	A	1.0	1	1.20
H690 F90AX D080-6-27-16	80.00	6	13.50	50.00	76.00	27.00	A	1.0	1	1.21
H690 F90AX D100-6-32-16	100.00	6	13.50	50.00	80.00	32.00	B	1.0	1	1.29
H690 F90AX D100-8-32-16	100.00	8	13.50	50.00	80.00	32.00	B	1.0	1	1.41
H690 F90AX D125-7-40-16	125.00	7	13.50	63.00	82.00	40.00	B	0.5	1	2.14
H690 F90AX D125-9-40-16	125.00	9	13.50	63.00	82.00	40.00	B	0.5	1	2.29
H690 F90AX D160-8-40-16	160.00	8	13.50	63.00	105.00	40.00	C	-	0	3.03
H690 F90AX D160-10-40-16	160.00	10	13.50	63.00	105.00	40.00	C	-	0	3.46
H690 F90AX D200-11-60-16	200.00	11	13.50	63.00	135.00	60.00	C	-	0	5.09

- For cutting speed recommendations, see pages 542-547

(1) Number of inserts
(2) For adaptation options, see page 548
(3) Maximum ramping angle
(4) 0 - Without coolant supply, 1 - With coolant supply

For inserts, see pages: H690 TNKX 1606 (474)

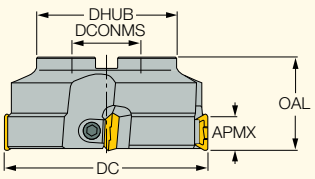
Spare Parts

Designation				
H690 F90AX D050-3-22-16	SR 14-591	BLD T20/M7	SW6-T	SR M10X40-1638
H690 F90AX D050-4-22-16	SR 14-591	BLD T20/M7	SW6-T	SR M10X40-1638
H690 F90AX D063-4-27-16	SR 14-591	BLD T20/M7	SW6-T	SR M12X30DIN912
H690 F90AX D063-5-27-16	SR 14-591	BLD T20/M7	SW6-T	SR M12X30DIN912
H690 F90AX D080-5-27-16	SR 14-591	BLD T20/M7	SW6-T	SR M12X35DIN912
H690 F90AX D080-6-27-16	SR 14-591	BLD T20/M7	SW6-T	SR M12X35DIN912
H690 F90AX D100-6-32-16	SR 14-591	BLD T20/M7	SW6-T	
H690 F90AX D100-8-32-16	SR 14-591	BLD T20/M7	SW6-T	
H690 F90AX D125-7-40-16	SR 14-591	BLD T20/M7	SW6-T	
H690 F90AX D125-9-40-16	SR 14-591	BLD T20/M7	SW6-T	
H690 F90AX D160-8-40-16	SR 14-591	BLD T20/M7	SW6-T	
H690 F90AX D160-10-40-16	SR 14-591	BLD T20/M7	SW6-T	
H690 F90AX D200-11-60-16	SR 14-591	BLD T20/M7	SW6-T	

ISCARMILL

F90

90° Face Mills Carrying TPKN/R Inserts



Designation	DC	CICT(1)	OAL	APMX	DHUB	DCONMS	Arbor(2)	kg
F90 D080-27	80.00	6	50.00	18.00	55.00	27.00	B	1.05
F90 D100-32	100.00	8	50.00	18.00	70.00	32.00	B	1.57
F90 D160-40	160.00	10	63.00	18.00	110.00	40.00	B	5.13

- For user guide, see pages 542-547

(1) Number of inserts
(2) For adaptation options, see page 548

For inserts, see pages: TPKN/TPKR (468)

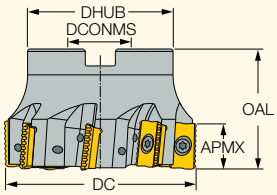
Spare Parts

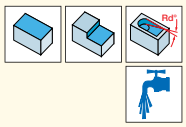
Designation						
F90 D080-27	NTP 43-R	SR 35-342.3	HW 4P	LW 35-342 T	SR 35-343.4	HW 2.0
F90 D100-32	NTP 43-R	SR 35-342.3	HW 4P	LW 35-342 T	SR 35-403	HW 2.0
F90 D160-40	NTP 43-R	SR 35-342.3	HW 4P	LW 35-342 T	SR 35-343.4	HW 2.0

MILLSHRED P290 LINE

P290 FPW/FCT

90° Face Mills Carrying 12 and 18 mm Long Edged Inserts





Designation	DC	APMX	CICT(2)	OAL	DHUB	DCONMS	Arbor(3)	RMPX°(4)	kg
P290 FPW D032-04-16-12	32.00	12.00	4	50.00	30.40	16.00	A	1.0	0.16
P290 FPW D040-05-16-12	40.00	12.00	5	35.00	38.00	16.00	A	0.7	0.17
P290 FPW D050-06-22-12	50.00	12.00	6	40.00	48.00	22.00	A	0.5	0.31
P290 FPW D040-04-16-18	40.00	18.00	4	40.00	35.00	16.00	A	1.5	0.15
P290 FPW D050-05-22-18	50.00	18.00	5	40.00	45.00	22.00	A	1.0	0.27
P290 FCT D050-05-22-18 (1)	50.00	18.00	5	40.00	45.00	22.00	A	1.0	0.27
P290 FPW D063-06-22-18	63.00	18.00	6	40.00	48.00	22.00	A	0.8	0.47
P290 FPW D080-08-27-18	80.00	18.00	8	50.00	60.00	27.00	B	0.5	1.02
P290 FPW D100-09-32-18	100.00	18.00	9	55.00	78.00	32.00	B	0.3	1.87

- For user guide, see pages 542-547

(1) To be used only with P290 ACCT 1806PDR-HL/TL straight-edged inserts
(2) Number of inserts
(3) For adaptation options, see page 548
(4) Maximum ramping angle

For inserts, see pages: P290 ACCT/KT (461) • P290 ACKT (461)

Spare Parts

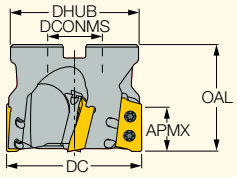
Designation					
P290 FPW D032-04-16-12	SR M3X0.5-L7.4 IP9(a)	IP-9/151			SR M8X40-D11.5 DIN912
P290 FPW D040-05-16-12	SR M3X0.5-L7.4 IP9(a)	IP-9/151			SR M8X25DIN912
P290 FPW D050-06-22-12	SR M3X0.5-L7.4 IP9(a)	IP-9/151			SR M10X25 DIN912
P290 FPW D040-04-16-18	SR 14-544/S		BLD T15/M7	SW6-T	SR M8X30DIN912
P290 FPW D050-05-22-18	SR 14-544/S		BLD T15/M7	SW6-T	SR M10X25 DIN912
P290 FCT D050-05-22-18	SR 14-544/S		BLD T15/M7	SW6-T	SR M10X25 DIN912
P290 FPW D063-06-22-18	SR 14-544/S		BLD T15/M7	SW6-T	SR M10X25 DIN912
P290 FPW D080-08-27-18	SR 14-544/S		BLD T15/M7	SW6-T	SR M12X30DIN912
P290 FPW D100-09-32-18	SR 14-544/S		BLD T15/M7	SW6-T	SR M16X40DIN912

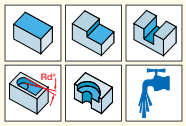
(a) Recommended tightening torque:2.0 N*m

HELIPLUS

HP F90AT-19

90° Face Mills Carrying HP AD.. 1906... Long Edged Inserts





Designation	DC	CICT(1)	APMX	OAL	DHUB	DCONMS	RMPX°(2)	Arbor(3)	kg
HP F90AT D50-4-22-19	50.00	4	18.00	50.00	46.50	22.00	5.0	A	0.33

- Insert clamping/unclamping procedure: First loosely attach the rear clamping screw, then the face screw. In the same order, tighten them both.
- For user guide, see pages 542-547

(1) Number of inserts
(2) Maximum ramping angle
(3) For adaptation options, see page 548

For inserts, see pages: HP ADCR 1906 (464) • HP ADKT/ADCT 1906 (464)

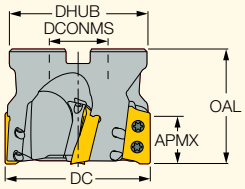
Spare Parts

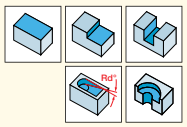
Designation				
HP F90AT-19	SR 14-571/L	BLD T10/S7	SW6-SD	SR M10X30 DIN912

HELIPLUS

HP F90AT-22

90° Face Mills Carrying HP AD.. 2207... Long Edged Inserts





Designation	DC	CICT(1)	APMX	OAL	DHUB	DCONMS	RMPX°(2)	Arbor(3)	CSP(4)	kg
HP F90AT D50-3-22-22	50.00	3	21.00	50.00	48.00	22.00	5.0	A	1	0.36
HP F90AT D50-4-22-22	50.00	4	21.00	50.00	48.00	22.00	5.0	A	0	0.33

- Insert clamping/unclamping procedure: First loosely attach the rear clamping screw, then the face screw. In the same order, tighten them both.
- For user guide, see pages 542-547

(1) Number of inserts
(2) Maximum ramping angle
(3) For adaptation options, see page 548
(4) 0 - Without coolant supply, 1 - With coolant supply

For inserts, see pages: HP ADCR 2207 (465) • HP ADKT/ADCT 2207 (464)

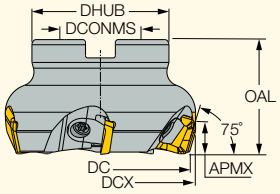
Spare Parts

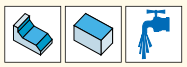
Designation				
HP F90AT-22	SR 14-544	BLD T15/M7	SW6-T-SH	SR M10X30 DIN912

ISCARMILL

F75-M

75° Face Mills with SPKN/ SPKR 1203.. Inserts





Designation	DC	DCX(1)	CICT(2)	APMX	OAL	DHUB	DCONMS	Arbor	MIID(3)	kg
F75 D050-04-16-M	50.00	55.70	4	9.50	40.00	38.00	16.00	A	SPKN 1203EDTR	0.50
F75 D063-05-22-M	63.00	68.70	5	9.50	40.00	48.00	22.00	A	SPKN 1203EDTR	0.62
F75 D080-06-27-M	80.00	85.70	6	9.50	50.00	60.00	27.00	B	SPKN 1203EDTR	1.09
F75 D100-07-32-M	100.00	105.70	7	9.50	50.00	78.00	32.00	B	SPKN 1203EDTR	2.20
F75 D125-08-40-M	125.00	130.70	8	9.50	63.00	92.00	40.00	B	SPKN 1203EDTR	4.10

- For user guide, see pages 542-547

(1) Cutting diameter maximum
(2) Cutting item count
(3) Master insert identification

For inserts, see pages: SPKN ED.. (513) • SPKR ED..-76 (513) • SPKR EDTR-HS (513)

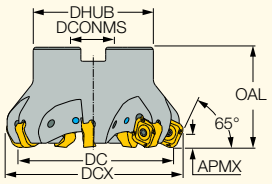
Spare Parts

Designation					
F75 D050-04-16-M	SR M8X30DIN912	BLD IP20/S7	SW6-T	LW35-475/8M	SR-118-069-CH
F75 D063-05-22-M	SR M10X25 DIN912	BLD IP20/S7	SW6-T	LW35-475/8M	SR-118-069-CH
F75 D080-06-27-M		BLD IP20/S7	SW6-T	LW35-475/8M	SR-118-069-CH
F75 D100-07-32-M		BLD IP20/S7	SW6-T	LW35-475/8M	SR-118-069-CH
F75 D125-08-40-M		BLD IP20/S7	SW6-T	LW35-475/8M	SR-118-069-CH

HELIDO 865 LINE

S865 FSN-13

65° Face Mills Carrying Inserts with 8 Cutting Edges

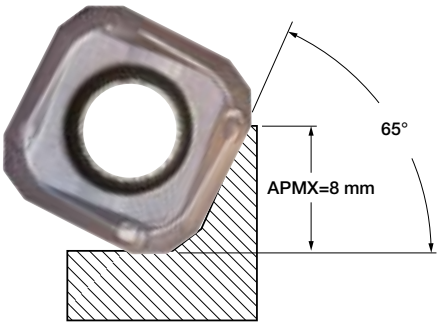


Designation	DC	DCX(2)	CICT(3)	OAL	DHUB	DCONMS	APMX(4)	Arbor(5)	kg
S865 FSN D050-04-22-R13	50.00	59.70	4	40.00	48.00	22.00	6.00	A	0.36
S865 FSN D050-06-22-R13 (1)	50.00	59.70	6	40.00	48.00	22.00	6.00	A	0.36
S865 FSN D063-06-22-R13	63.00	72.70	6	40.00	48.00	22.00	6.00	A	0.51
S865 FSN D063-08-22-R13 (1)	63.00	72.70	8	40.00	48.00	22.00	6.00	A	0.50
S865 FSN D080-07-27-R13	80.00	89.70	7	50.00	60.00	27.00	6.00	B	0.92
S865 FSN D080-10-27-R13 (1)	80.00	89.70	10	50.00	60.00	27.00	6.00	B	0.93
S865 FSN D100-08-32-R13	100.00	109.70	8	50.00	70.00	32.00	6.00	B	1.37
S865 FSN D100-12-32-R13 (1)	100.00	109.70	12	50.00	70.00	32.00	6.00	B	1.37
S865 FSN D125-10-40-R13	125.00	134.70	10	63.00	82.00	40.00	6.00	B	2.58
S865 FSN D125-16-40-R13 (1)	125.00	134.70	16	63.00	82.00	40.00	6.00	B	2.59

- For user guide, see pages 542-547

(1) Fine pitch
(2) Cutting diameter maximum
(3) Number of inserts
(4) Depth of cut on steel with coarse pitch cutters and on cast iron with fine pitch cutters may be increased to 8 mm.
(5) For adaptation options, see page 548

For inserts, see pages: S865 SNMU 1305ZNTR (503)



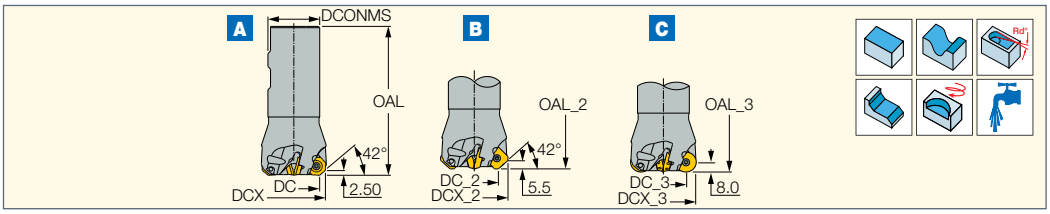
Spare Parts

Designation				
S865 FSN D050-04-22-R13	SR 11800745	BLD IP15/S7	SW6-T-SH	SR M10X20DIN912
S865 FSN D050-06-22-R13	SR 11800745	BLD IP15/S7	SW6-T-SH	SR M10X20DIN912
S865 FSN D063-06-22-R13	SR 11800745	BLD IP15/S7	SW6-T-SH	SR M10X20DIN912
S865 FSN D063-08-22-R13	SR 11800745	BLD IP15/S7	SW6-T-SH	SR M10X20DIN912
S865 FSN D080-07-27-R13	SR 11800745	BLD IP15/S7	SW6-T-SH	
S865 FSN D080-10-27-R13	SR 11800745	BLD IP15/S7	SW6-T-SH	
S865 FSN D100-08-32-R13	SR 11800745	BLD IP15/S7	SW6-T-SH	
S865 FSN D100-12-32-R13	SR 11800745	BLD IP15/S7	SW6-T-SH	
S865 FSN D125-10-40-R13	SR 11800745	BLD IP15/S7	SW6-T-SH	
S865 FSN D125-16-40-R13	SR 11800745	BLD IP15/S7	SW6-T-SH	

HELIOCTO

HOE-R06

Endmills Carrying Octagonal, Square and Round Inserts



Designation	DC	DCX(1)	OAL	RMPX°(2)	DC_2	DCX_2	OAL_2	RMPX°_2	DC_3	DCX_3	OAL_3	RMPX°_3	DCONMS	CICT(3)	kg
HOE D32-03-W32-R06	32.00	41.40	95.00	5.9	29.40	44.10	96.2	9.0	26.80	42.70	95.50	7.6	32.00	3	0.54
HOE D40-04-W40-R06	40.00	49.40	115.00	5.0	37.40	52.10	116.2	6.8	34.80	50.70	115.50	5.0	40.00	4	1.09
HOE D50-04-W40-R06	50.00	59.40	115.00	4.2	47.40	62.10	116.2	5.0	44.80	60.70	115.50	5.7	40.00	4	1.23

• A - with OEM. 060405... insert • B - with SECT/SEMT 1404... insert • C - with REM. 1505... round insert

(1) Cutting diameter maximum

(2) Maximum ramping angle

(3) Number of inserts

For inserts, see pages: OECR (505) • OEMT/OEKT 060405 (506) • OEMW-AETN (506) • REMT-76 (527) • SECT/SEMT 1404 (512)

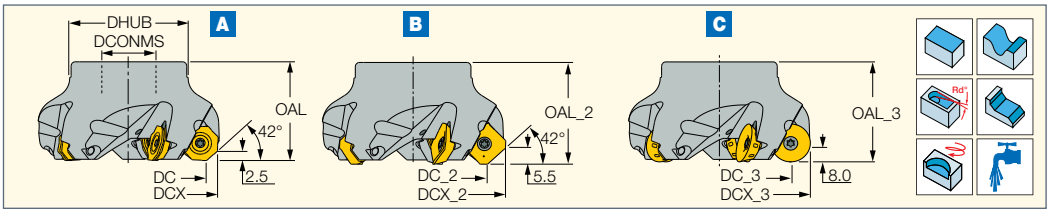
Spare Parts

Designation			
HOE D32-03-W32-R06	SR 14-544/S	BLD T15/S7	SW6-T-SH
HOE D40-04-W40-R06	SR 14-544/S	BLD T15/S7	SW6-T-SH
HOE D50-04-W40-R06	SR 14-544	BLD T15/S7	SW6-T-SH

HELIOCTO

HOF-R06

Face Mills Carrying Octagonal or Square or Round Inserts



Designation	DC	DCX(1)	OAL	RMPX°(2)	DC_2	DCX_2	OAL_2	RMPX°_2	DC_3	DCX_3	OAL_3	RMPX°_3	CICT(3)	DHUB	DCONMS	Arbor(4)	kg
HOF D040-04-22-R06	40.00	49.40	40.00	5.0	37.40	52.10	41.2	6.8	34.80	50.70	40.50	5.0	4	48.00	22.00	A	0.33
HOF D050-04-22-R06	50.00	59.40	40.00	4.2	47.40	62.10	41.2	5.0	44.80	60.70	40.50	5.7	4	48.00	22.00	A	0.44
HOF D063-05-22-R06	63.00	72.40	40.00	3.2	60.40	75.10	41.2	4.0	57.80	73.70	40.50	4.0	5	52.00	22.00	A	0.58
HOF D080-06-27-R06	80.00	89.40	50.00	2.5	77.40	92.10	51.2	3.0	74.80	90.70	50.50	3.0	6	60.00	27.00	B	1.13
HOF D100-07-32-R06	100.00	109.40	50.00	1.9	97.40	112.10	51.2	2.3	94.80	110.70	50.50	2.2	7	70.00	32.00	B	1.65
HOF D125-08-40-R06	125.00	134.40	63.00	1.4	122.40	137.10	64.2	1.8	119.80	135.70	63.50	1.6	8	82.00	40.00	B	3.19

• A - with OEM. 060405...\ OECR 06.. inserts • B - with SECT/SEMT 1404... inserts • C - with REM. 1505... round insert

(1) Cutting diameter maximum

(2) Maximum ramping angle

(3) Number of inserts

(4) For adaptation options, see page 548

For inserts, see pages: OECR (505) • OEMT/OEKT 060405 (506) • OEMW-AETN (506) • REMT-76 (527) • SECT/SEMT 1404 (512)

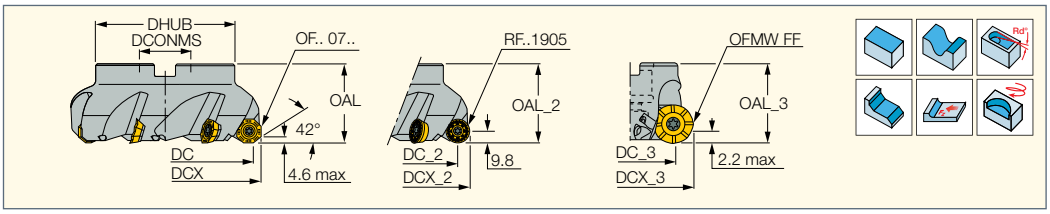
Spare Parts

Designation				
HOF D040-04-22-R06	SR 14-544/S	BLD T15/S7	SW6-T-SH	SR M10X25DIN7984
HOF D050-04-22-R06	SR 14-544	BLD T15/S7	SW6-T-SH	SR M10X25 DIN912
HOF D063-05-22-R06	SR 14-544	BLD T15/S7	SW6-T-SH	SR M10X25 DIN912
HOF D080-06-27-R06	SR 14-544	BLD T15/M7	SW6-T-SH	
HOF D100-07-32-R06	SR 14-544	BLD T15/M7	SW6-T-SH	
HOF D125-08-40-R06	SR 14-544	BLD T15/M7	SW6-T-SH	

HELIOCTO

HOF-R07

Face Mills Carrying Octagonal Round and Fast Feed Segmented Radius Inserts



Designation	DC	DCX(2)	OAL	RMPX°(3)	DCX_2	DC_2	OAL_2	RMPX°_2(4)	DC_3	DCX_3	OAL_3	RMPX°_3(5)	CICT(6)	DHUB	DCONMS	Arbor(7)	kg
HOF D050-03-22-R07	50.00	62.50	40.00	6.5	63.30	43.56	40.50	9.0	44.80	64.00	40.60	9.0	3	48.00	22.00	A	0.30
HOF D063-04-22-R07	63.00	75.50	40.00	5.0	76.30	56.56	40.50	6.0	57.80	77.00	40.60	6.0	4	48.00	22.00	A	0.48
HOF D080-05-27-R07 (1)	80.00	92.50	50.00	3.5	93.30	73.56	50.50	4.5	92.50	94.00	50.60	4.5	5	60.00	27.00	B	0.91
HOF D100-06-32-R07 (1)	100.00	112.50	50.00	2.5	113.30	93.56	50.50	3.0	94.80	114.00	50.60	3.0	6	70.00	32.00	B	1.33
HOF D125-08-40-R07 (1)	125.00	137.50	63.00	2.5	138.30	118.56	63.50	2.5	119.80	139.00	63.60	2.5	8	82.00	40.00	B	2.70
HOF D160-10-40-R07	160.00	172.50	63.00	1.9	173.30	153.56	63.50	1.9	154.80	174.00	63.60	-	10	92.00	40.00	C	3.83
HOF D200-12-60-R07	200.00	212.50	63.00	1.5	213.30	193.56	63.50	1.5	194.80	214.00	63.60	-	12	150.00	60.00	C	7.03
HOF D250-15-60-R07	250.00	262.50	63.00	1.2	263.30	243.56	63.50	1.2	244.80	264.00	63.60	-	15	150.00	60.00	C	10.08
HOF D315-18-60-R07	315.00	327.50	80.00	0.9	328.30	308.56	80.50	0.9	309.80	329.00	80.60	-	18	215.00	60.00	C	21.00

- Helical interpolation is applicable up to and including 100 mm diameter • For user guide, see pages 542-547

(1) For internal coolant through the holder, use a matching coolant set (should be ordered separately)
(2) Cutting diameter maximum
(3) Maximum ramping angle with OF..07.. inserts
(4) Dimensions with RF.. 1905 round inserts
(5) Dimensions with OFMW FF inserts
(6) Number of inserts
(7) For adaptation options, see page 548

For inserts, see pages: OFCR/OFCT-AEN/AETN (507) • OFCR/OFCT-RW/AER (wiper) (508) • OFMT 07 (506) • OFMW-AETN (507) • OFMW-FF (508)
- RFMT 1905-76 (529)

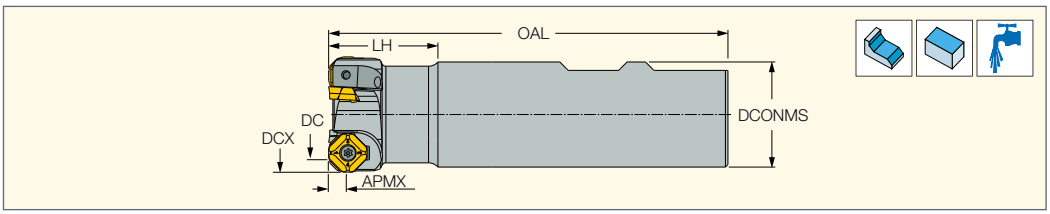
Spare Parts

Designation							
HOF D050-03-22-R07	SR 14-591/H	BLD T20/S7	SW6-T	THOF-07R	SR M2.5X8 DIN912 TUFLOK	HW 2.0	SR M10X25 DIN912
HOF D063-04-22-R07	SR 14-591/H	BLD T20/S7	SW6-T	THOF-07R	SR M2.5X10 DIN912 TUFLOK	HW 2.0	SR M10X25 DIN912
HOF D080-05-27-R07	SR 14-591/H	BLD T20/S7	SW6-T	THOF-07R	SR M2.5X8 DIN912 TUFLOK	HW 2.0	
HOF D100-06-32-R07	SR 14-591/H	BLD T20/M7	SW6-T	THOF-07R	SR M2.5X10 DIN912 TUFLOK	HW 2.0	
HOF D125-08-40-R07	SR 14-591/H	BLD T20/M7	SW6-T	THOF-07R	SR M2.5X10 DIN912 TUFLOK	HW 2.0	
HOF D160-10-40-R07	SR 14-591/H	BLD T20/L7	SW6-T	THOF-07R	SR M2.5X10 DIN912 TUFLOK	HW 2.0	
HOF D200-12-60-R07	SR 14-591/H	BLD T20/L7	SW6-T	THOF-07R	SR M2.5X10 DIN912 TUFLOK	HW 2.0	
HOF D250-15-60-R07	SR 14-591/H	BLD T20/L7	SW6-T	THOF-07R	SR M2.5X10 DIN912 TUFLOK	HW 2.0	
HOF D315-18-60-R07	SR 14-591/H	BLD T20/L7	SW6-T	THOF-07R	SR M2.5X10 DIN912 TUFLOK	HW 2.0	

DOVEIQMILL 845 LINE

IQ845 ESY-R05

50° Endmills Carrying Square Inserts with 8 Cutting Edges



Designation	DC	DCX(1)	CICT(2)	APMX	OAL	LH	DCONMS	Shank(3)	kg		
IQ845 ESY D016-03-W20-R05	16.00	21.40	3	2.60	85.00	26.0	20.00	W	0.16	SR M2.5X6-T7-60	T-7/51
IQ845 ESY D020-03-W20-R05	20.00	25.50	3	2.60	90.00	26.0	20.00	W	0.19	SR M2.5X6-T7-60	T-7/51
IQ845 ESY D025-03-W25-R05	25.00	30.60	3	2.60	95.00	26.0	25.00	W	0.32	SR M2.5X6-T7-60	T-7/51
IQ845 ESY D025-04-W25-R05	25.00	30.60	4	2.60	95.00	26.0	25.00	W	0.31	SR M2.5X6-T7-60	T-7/51
IQ845 ESY D032-04-W32-R05	32.00	37.70	4	2.60	100.00	26.0	32.00	W	0.56	SR M2.5X6-T7-60	T-7/51
IQ845 ESY D032-05-W32-R05	32.00	37.70	5	2.60	100.00	26.0	32.00	W	0.56	SR M2.5X6-T7-60	T-7/51
IQ845 ESY D040-05-W40-R05	40.00	45.70	5	2.60	110.00	26.0	40.00	W	0.97	SR M2.5X6-T7-60	T-7/51
IQ845 ESY D040-06-W40-R05	40.00	45.70	6	2.60	110.00	26.0	40.00	W	1.05	SR M2.5X6-T7-60	T-7/51

- For user guide, see pages 542-547

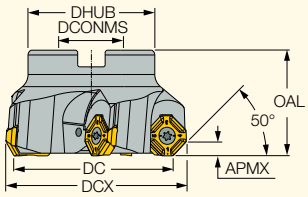
(1) Cutting diameter maximum
(2) Number of inserts
(3) W-Weldon

For inserts, see pages: IQ845 SYHU-05 (499)

DOVE IQ MILL 845 LINE

IQ845 FSY-R05

50° Face Mills Carrying Square Inserts with 8 Cutting Edges



Designation	DC	DCX(1)	CICT(2)	APMX	OAL	DHUB	DCONMS	Arbor(3)	kg			
IQ845 FSY D040-04-16-R05	40.00	45.70	4	2.60	40.00	38.00	16.00	A	0.28	SR M8X25DIN912	SR M2.5X6-T7-60	T-7/51
IQ845 FSY D040-07-16-R05	40.00	45.70	7	2.60	40.00	38.00	16.00	A	0.26	SR M8X25DIN912	SR M2.5X6-T7-60	T-7/51
IQ845 FSY D050-05-22-R05	50.00	55.80	5	2.60	40.00	48.00	22.00	A	0.44	SR M10X20DIN912	SR M2.5X6-T7-60	T-7/51
IQ845 FSY D050-09-22-R05	50.00	55.80	9	2.60	40.00	48.00	22.00	A	0.41	SR M10X20DIN912	SR M2.5X6-T7-60	T-7/51
IQ845 FSY D063-07-22-R05	63.00	68.80	7	2.60	40.00	48.00	22.00	B	0.57	SR M10X20DIN912	SR M2.5X6-T7-60	T-7/51
IQ845 FSY D063-11-22-R05	63.00	68.80	11	2.60	40.00	48.00	22.00	B	0.55	SR M10X20DIN912	SR M2.5X6-T7-60	T-7/51

- For user guide, see pages 542-547

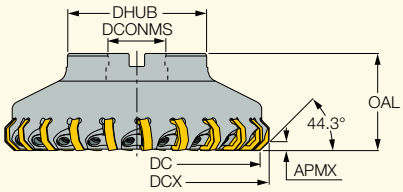
(1) Cutting diameter maximum
(2) Number of inserts
(3) For adaptation options, see page 548

For inserts, see pages: IQ845 SYHU-05 (499)

16MILL

F45WG

45° Face Mills Carrying Octagonal ONHU/MU 0806... Inserts with 16 Cutting Edges



Designation	DC	DCX(2)	CICT(3)	APMX	OAL	DHUB	DCONMS	Arbor(4)	kg
F45WG D080-10-27-FX-R08 (1)	80.00	92.00	10	5.50	50.00	60.00	27.00	B	1.11
F45WG D100-14-32-FX-R08 (1)	100.00	112.00	14	5.50	50.00	70.00	32.00	B	1.64
F45WG D125-18-40-FX-R08 (1)	125.00	137.00	18	5.50	63.00	82.00	40.00	B	3.00
F45WG D160-22-40-FX-R08	160.00	172.00	22	5.50	63.00	92.00	40.00	C	4.58

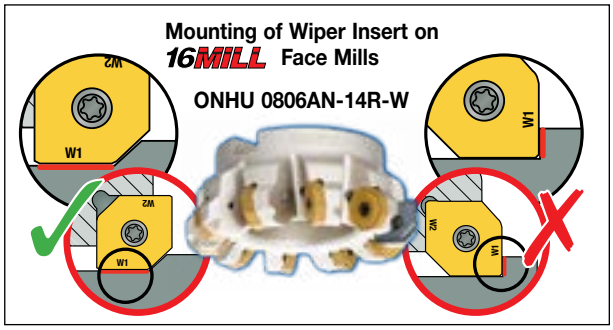
- Note: Recommended wedge clamping torque: 8.5-9.0 Nxm
- For user guide, see pages 542-547

(1) For internal coolant through the holder, use a matching coolant set (should be ordered separately)
(2) Cutting diameter maximum
(3) Number of inserts
(4) For adaptation options, see page 548

For inserts, see pages: ONHQ-TN (498) • ONHU 0806-N-PL (499) • ONHU 0806AN-W (499) • ONHU/ONMU 080608 AN-N-HP (499) • ONHU/ONMU-08-TN-MM (498) • ONHU/ONMU-08-TN/HL (498)

Wiper Inserts

Wiper inserts are used on face mill cutters, providing improved surface finish and thus eliminating the use of other finishing cutters.
ONHU 0806AN-14R-W mounted on **F45WG** and **F45NM** milling cutters. This insert provides 4 right-hand wiper edges.



Mounting instructions have been included in each insert package in order to avoid incorrect clamping orientation. Only correct mounting will provide high surface finish!

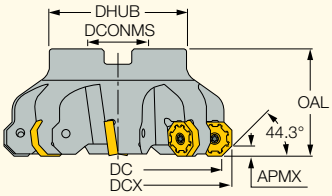
Spare Parts

Designation				
F45WG	SR 118-069	BLD IP20/S7	SW6-T	LW 35-475/M

16MILL

F45NM

45° Face Mills Carrying Octagonal ONHU/MU 0806... Inserts with 16 Cutting Edges



Designation	DC	DCX(2)	CICT(3)	APMX	OAL	DHUB	DCONMS	Arbor(4)	kg
F45NM D063-05-22-R08	63.00	75.00	5	5.50	40.00	48.00	22.00	A	0.46
F45NM D080-06-27-R08 (1)	80.00	92.00	6	5.50	50.00	60.00	27.00	B	0.95
F45NM D080-08-27-R08 (1)	80.00	92.00	8	5.50	50.00	60.00	27.00	B	0.92
F45NM D100-07-32-R08 (1)	100.00	112.00	7	5.50	50.00	70.00	32.00	B	1.40
F45NM D100-10-32-R08 (1)	100.00	112.00	10	5.50	50.00	70.00	32.00	B	1.39
F45NM D125-08-40-R08 (1)	125.00	137.00	8	5.50	63.00	82.00	40.00	B	2.68
F45NM D125-12-40-R08 (1)	125.00	137.00	12	5.50	63.00	82.00	40.00	B	2.63
F45NM D160-10-40-R08	160.00	172.00	10	5.50	63.00	92.00	40.00	C	4.10
F45NM D160-15-40-R08	160.00	172.00	15	5.50	63.00	92.00	40.00	C	4.17
F45NM D200-12-60-R08	200.00	212.00	12	5.50	63.00	150.00	60.00	C	7.12
F45NM D250-14-60-R08	250.00	262.00	14	5.50	63.00	137.00	60.00	C	8.95

- Wiper inserts are used on face mill cutters, providing improved surface finish, thus eliminating the use of other finishing cutters
- For user guide, see pages 542-547

(1) For internal coolant through the holder, use a matching coolant set (should be ordered separately)
(2) Cutting diameter maximum
(3) Number of inserts
(4) For adaptation options, see page 548

For inserts, see pages: ONHQ-TN (515) • ONHU 0806-N-PL (516) • ONHU 0806AN-W (516) • ONHU/ONMU 080608 AN-N-HP (516) • ONHU/ONMU-08-TN-MM (515) • ONHU/ONMU-08-TN/HL (515)

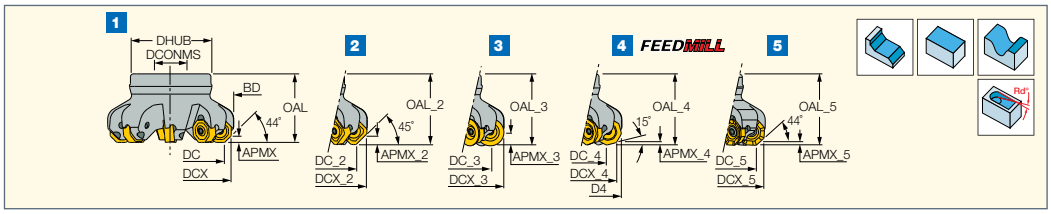
Spare Parts

Designation				
F45NM D063-05-22-R08	SR 14-591/H	BLD T20/S7	SW6-T	SR M10X25 DIN912
F45NM D080-06-27-R08	SR 14-591/H	BLD T20/S7	SW6-T	
F45NM D080-08-27-R08	SR 11800771	BLD IP15/S7	SW6-T-SH	
F45NM D100-07-32-R08	SR 14-591/H	BLD T20/S7	SW6-T	
F45NM D100-10-32-R08	SR 11800771	BLD IP15/S7	SW6-T-SH	
F45NM D125-08-40-R08	SR 14-591/H	BLD T20/S7	SW6-T	
F45NM D125-12-40-R08	SR 11800771	BLD IP15/S7	SW6-T-SH	
F45NM D160-10-40-R08	SR 14-591/H	BLD T20/L7	SW6-T	
F45NM D160-15-40-R08	SR 11800771	BLD IP15/M7	SW6-T-SH	
F45NM D200-12-60-R08	SR 14-591/H	BLD T20/L7	SW6-T	
F45NM D250-14-60-R08	SR 14-591/H	BLD T20/L7	SW6-T	

HELIDO 800 LINE

SOF45

Multifunction Face Mills for Octagonal, Square and Round Insert Contours with Various Entry Angles



Designation	DC	DCX(1)	DC_2	DC_3	DCX_3	DC_4	DCX_4	BD_4	DC_5	APMX	APMX_2	APMX_3	APMX_4	APMX_5
SOF45 8/16-D040-04-22R	40.00	50.40	37.65	35.40	51.20	34.50	44.00	50.50	40.30	3.50	6.00	7.90	1.20	2.90
SOF45 8/16-D050-03-22R	50.00	60.40	47.65	45.40	61.20	44.50	54.00	60.50	50.30	3.50	6.00	7.90	1.20	2.90
SOF45 8/16-D050-04-22R	50.00	60.40	47.65	45.40	61.20	44.50	54.00	60.50	50.30	3.50	6.00	7.90	1.20	2.90
SOF45 8/16-D050-06-22R	50.00	60.40	47.65	45.40	61.20	44.50	54.00	60.50	50.30	3.50	6.00	7.90	1.20	2.90
SOF45 D050-04-22-R13	52.35	62.70	50.00	47.75	63.55	46.95	56.35	62.90	52.65	3.50	6.00	7.90	1.20	2.90
SOF45 8/16-D063-04-22R	63.00	73.40	60.65	58.40	74.20	57.50	67.00	73.50	63.30	3.50	6.00	7.90	1.20	2.90
SOF45 8/16-D063-06-22R	63.00	73.40	60.65	58.40	74.20	57.50	67.00	73.50	63.30	3.50	6.00	7.90	1.20	2.90
SOF45 8/16-D063-08-22R	63.00	73.40	60.65	58.40	74.20	57.50	67.00	73.50	63.30	3.50	6.00	7.90	1.20	2.90
SOF45 D063-06-22-R13	65.35	75.70	63.00	60.75	76.55	59.95	69.35	75.90	63.65	3.50	6.00	7.90	1.20	2.90
SOF45 8/16-D080-07-27R	80.00	90.40	77.65	65.40	91.20	74.50	84.00	90.50	80.30	3.50	6.00	7.90	1.20	2.90
SOF45 8/16-D080-10-27R	80.00	90.40	77.65	65.40	91.20	74.50	84.00	90.50	80.30	3.50	6.00	7.90	1.20	2.90
SOF45 D080-07-27-R13	82.35	92.70	80.00	77.60	93.40	76.95	86.35	92.90	82.65	3.50	6.00	7.90	1.20	2.90
SOF45 8/16-D100-08-32R	100.00	110.40	97.65	95.40	111.20	94.50	104.00	110.50	100.30	3.50	6.00	7.90	1.20	2.90
SOF45 8/16-D100-12-32R	100.00	110.40	97.65	95.40	111.20	94.50	104.00	110.50	100.30	3.50	6.00	7.90	1.20	2.90
SOF45 D100-08-32-R13	102.35	112.70	100.00	97.75	113.55	96.95	106.35	112.90	102.65	3.50	6.00	7.90	1.20	2.90
SOF45 8/16-D125-10-40R	125.00	135.40	122.65	120.40	136.20	119.50	129.00	135.50	125.30	3.50	6.00	7.90	1.20	2.90
SOF45 8/16-D125-16-40R	125.00	135.40	122.65	120.40	136.20	119.50	129.00	135.50	125.30	3.50	6.00	7.90	1.20	2.90
SOF45 D125-10-40-R13	127.35	137.70	125.00	122.75	138.55	121.95	131.35	137.90	127.65	3.50	6.00	7.90	1.20	2.90
SOF45 8/16-D160-12-40R	160.00	170.40	157.65	155.40	171.20	154.50	164.00	171.50	160.30	3.50	6.00	7.90	1.20	2.90
SOF45 8/16-D200-14-60R	200.00	210.40	197.65	195.40	211.20	194.50	204.00	211.50	200.50	3.50	6.00	7.90	1.20	2.90
SOF45 8/16-D250-16-60R	250.00	260.40	247.65	245.40	261.20	244.50	254.00	261.50	250.30	3.50	6.00	7.90	1.20	2.90
SOF45 8/16-D315-20-60R	315.00	329.40	312.65	310.40	326.20	309.50	319.00	326.50	315.30	3.50	6.00	7.90	1.20	2.90

Designation	OAL	OAL_2	OAL_3	OAL_4	OAL_5	CICT(2)	DHUB	DCONMS	RMPX°_3(3)	Arbor(4)	CSP(5)	kg
SOF45 8/16-D040-04-22R	40.00	41.2	41.60	41.30	41.20	4	45.00	22.00	3.7	A	1	0.29
SOF45 8/16-D050-03-22R	40.00	41.2	41.60	41.30	41.20	3	48.00	22.00	5.6	A	1	0.38
SOF45 8/16-D050-04-22R	40.00	41.2	41.60	41.30	41.20	4	48.00	22.00	5.6	A	1	0.39
SOF45 8/16-D050-06-22R	40.00	41.2	41.60	41.30	41.20	6	48.00	22.00	5.6	A	1	0.38
SOF45 D050-04-22-R13	38.80	40.0	40.40	40.10	40.20	4	48.00	22.00	5.4	A	1	0.38
SOF45 8/16-D063-04-22R	40.00	41.2	41.60	41.30	41.20	4	48.00	22.00	6.3	A	1	0.54
SOF45 8/16-D063-06-22R	40.00	41.2	41.60	41.30	41.20	6	48.00	22.00	6.3	B	0	0.47
SOF45 8/16-D063-08-22R	40.00	41.2	41.60	41.30	41.20	8	48.00	22.00	6.3	B	0	0.46
SOF45 D063-06-22-R13	38.80	40.0	40.40	40.10	40.20	6	48.00	22.00	5.7	B	1	0.50
SOF45 8/16-D080-07-27R	50.00	51.2	51.60	51.30	51.20	7	60.00	27.00	6.2	B	0	1.01
SOF45 8/16-D080-10-27R	50.00	51.2	51.60	51.30	51.20	10	60.00	27.00	6.2	B	0	0.96
SOF45 D080-07-27-R13	48.80	50.0	50.40	50.10	50.20	7	60.00	27.00	6.0	B	1	1.00
SOF45 8/16-D100-08-32R	50.00	51.2	51.60	51.30	51.20	8	70.00	32.00	4.7	B	0	1.39
SOF45 8/16-D100-12-32R	50.00	51.2	51.60	51.30	51.20	12	70.00	32.00	4.7	B	0	1.35
SOF45 D100-08-32-R13	48.80	50.0	50.40	50.10	50.00	8	70.00	32.00	4.6	B	1	1.47
SOF45 8/16-D125-10-40R	63.00	64.2	64.60	64.30	64.20	10	82.00	40.00	3.6	B	0	2.63
SOF45 8/16-D125-16-40R	63.00	64.2	64.60	64.30	64.20	16	82.00	40.00	3.6	B	0	2.53
SOF45 D125-10-40-R13	61.80	63.0	63.40	63.10	63.20	10	82.00	40.00	3.5	B	1	2.63
SOF45 8/16-D160-12-40R	63.00	64.2	64.60	64.30	64.20	12	92.00	40.00	2.6	C	0	3.35
SOF45 8/16-D200-14-60R	63.00	64.2	64.60	64.30	64.20	14	135.00	60.00	2.0	C	0	5.77
SOF45 8/16-D250-16-60R	63.00	64.2	64.60	64.30	64.20	16	137.00	60.00	1.5	C	0	7.98
SOF45 8/16-D315-20-60R	80.00	81.2	81.60	81.30	81.20	20	222.00	60.00	1.0	C	0	18.97

- 1- with ONMU 0505... insert • 2- with S845 SNMU 1305... insert • 3- with RXMT 1607N insert • 4- with OXMT 0507R08-FF insert
- 5- with OXMT 050705-R-HP insert • Use only Torx Plus keys • For user guide, see pages 542-547

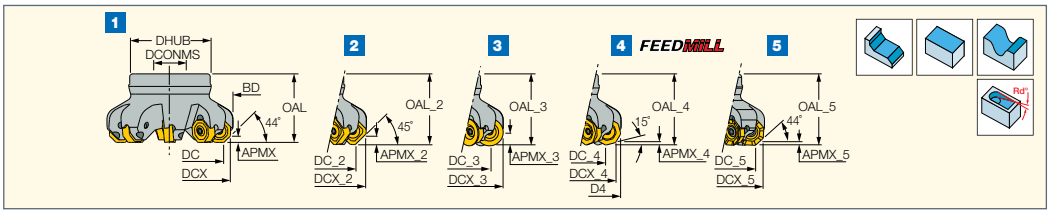
(1) Cutting diameter maximum
(2) Number of inserts
(3) Valid only with RXMT 1607N insert
(4) For adaptation options, see page 548
(5) 0 - Without coolant supply, 1 - With coolant supply
(6) Master insert identification
(7) Master insert identification 2
(8) Master insert identification 3
(9) Master insert identification 4
(10) Master insert identification 5

For inserts, see pages: ONHU 0505-W (505) • ONHU/ONMU-05 (504) • OXMT 0507 (505) • RXMT 1607 (527) • S845 SNHU 1305-W (501)
• S845 SNMU/SNHU-13 (500)

HELIDO 800 LINE

SOF45

Multifunction Face Mills for Octagonal, Square and Round Insert Contours with Various Entry Angles



Designation	MIID(6)	MIID_2(7)	MIID_3(8)	MIID_4(9)	MIID_5(10)
SOF45 8/16-D040-04-22R	ONHU 050500-PL	S845 SNHU 1305ANR-M	RXMT 1607N	OXMT 0507R08-FF	OXMT 050705-R-HP
SOF45 8/16-D050-03-22R	ONHU 050500-PL	S845 SNHU 1305ANR-M	RXMT 1607N	OXMT 0507R08-FF	OXMT 050705-R-HP
SOF45 8/16-D050-04-22R	ONHU 050500-PL	S845 SNHU 1305ANR-M	RXMT 1607N	OXMT 0507R08-FF	OXMT 050705-R-HP
SOF45 8/16-D050-06-22R	ONHU 050500-PL	S845 SNHU 1305ANR-M	RXMT 1607N	OXMT 0507R08-FF	OXMT 050705-R-HP
SOF45 D050-04-22-R13	ONHU 050500-PL	S845 SNHU 1305ANR-M	RXMT 1607N	OXMT 0507R08-FF	OXMT 050705-R-HP
SOF45 8/16-D063-04-22R	ONHU 050500-PL	S845 SNHU 1305ANR-M	RXMT 1607N	OXMT 0507R08-FF	OXMT 050705-R-HP
SOF45 8/16-D063-06-22R	ONHU 050500-PL	S845 SNHU 1305ANR-M	RXMT 1607N	OXMT 0507R08-FF	OXMT 050705-R-HP
SOF45 8/16-D063-08-22R	ONHU 050500-PL	S845 SNHU 1305ANR-M	RXMT 1607N	OXMT 0507R08-FF	OXMT 050705-R-HP
SOF45 D063-06-22-R13	ONHU 050500-PL	S845 SNHU 1305ANR-M	RXMT 1607N	OXMT 0507R08-FF	OXMT 050705-R-HP
SOF45 8/16-D080-07-27R	ONHU 050500-PL	S845 SNHU 1305ANR-M	RXMT 1607N	OXMT 0507R08-FF	OXMT 050705-R-HP
SOF45 8/16-D080-10-27R	ONHU 050500-PL	S845 SNHU 1305ANR-M	RXMT 1607N	OXMT 0507R08-FF	OXMT 050705-R-HP
SOF45 D080-07-27-R13	ONHU 050500-PL	S845 SNHU 1305ANR-M	RXMT 1607N	OXMT 0507R08-FF	OXMT 050705-R-HP
SOF45 8/16-D100-08-32R	ONHU 050500-PL	S845 SNHU 1305ANR-M	RXMT 1607N	OXMT 0507R08-FF	OXMT 050705-R-HP
SOF45 8/16-D100-12-32R	ONHU 050500-PL	S845 SNHU 1305ANR-M	RXMT 1607N	OXMT 0507R08-FF	OXMT 050705-R-HP
SOF45 D100-08-32-R13	ONHU 050500-PL	S845 SNHU 1305ANR-M	RXMT 1607N	OXMT 0507R08-FF	OXMT 050705-R-HP
SOF45 8/16-D125-10-40R	ONHU 050500-PL	S845 SNHU 1305ANR-M	RXMT 1607N	OXMT 0507R08-FF	OXMT 050705-R-HP
SOF45 8/16-D125-16-40R	ONHU 050500-PL	S845 SNHU 1305ANR-M	RXMT 1607N	OXMT 0507R08-FF	OXMT 050705-R-HP
SOF45 D125-10-40-R13	ONHU 050500-PL	S845 SNHU 1305ANR-M	RXMT 1607N	OXMT 0507R08-FF	OXMT 050705-R-HP
SOF45 8/16-D160-12-40R	ONHU 050500-PL	S845 SNHU 1305ANR-M	RXMT 1607N	OXMT 0507R08-FF	OXMT 050705-R-HP
SOF45 8/16-D200-14-60R	ONHU 050500-PL	S845 SNHU 1305ANR-M	RXMT 1607N	OXMT 0507R08-FF	OXMT 050705-R-HP
SOF45 8/16-D250-16-60R	ONHU 050500-PL	S845 SNHU 1305ANR-M	RXMT 1607N	OXMT 0507R08-FF	OXMT 050705-R-HP
SOF45 8/16-D315-20-60R	ONHU 050500-PL	S845 SNHU 1305ANR-M	RXMT 1607N	OXMT 0507R08-FF	OXMT 050705-R-HP

• 1- with ONMU 0505... insert • 2- with S845 SNMU 1305... insert • 3- with RXMT 1607N insert • 4- with OXMT 0507R08-FF insert
• 5- with OXMT 050705-R-HP insert • Use only Torx Plus keys • For user guide, see pages 542-547

(1) Cutting diameter maximum
(2) Number of inserts
(3) Valid only with RXMT 1607N insert
(4) For adaptation options, see page 548
(5) 0 - Without coolant supply, 1 - With coolant supply
(6) Master insert identification
(7) Master insert identification 2
(8) Master insert identification 3
(9) Master insert identification 4
(10) Master insert identification 5

For inserts, see pages: ONHU 0505-W (505) • ONHU/ONMU-05 (504) • OXMT 0507 (505) • RXMT 1607 (527) • S845 SNHU 1305-W (501) • S845 SNMU/SNHU-13 (500)

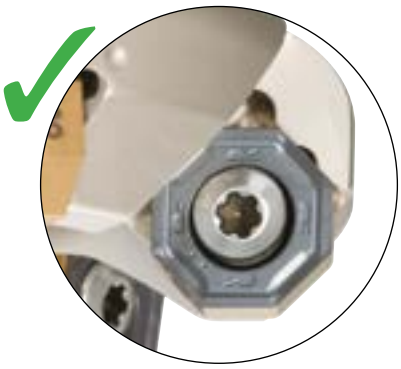
Spare Parts

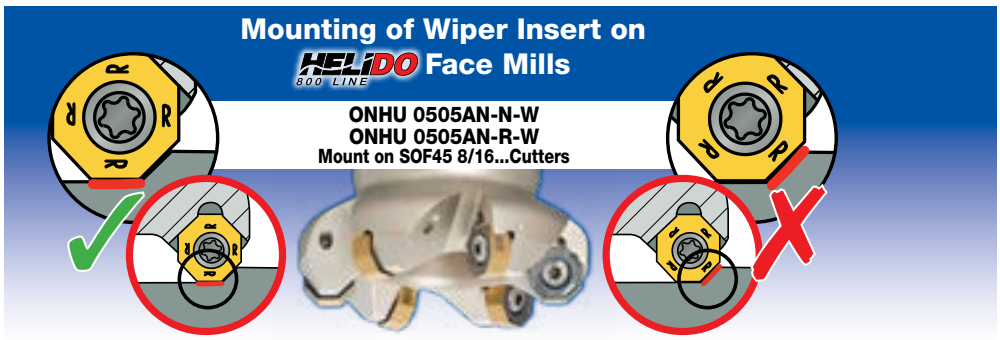
Designation				
SOF45 8/16-D040-04-22R	SR 11800745	BLD IP15/S7(a)	SW6-T-SH	SR M10X25 DIN912
SOF45 8/16-D050-03-22R	SR 11800745	BLD IP15/S7(a)	SW6-T-SH	SR M10X20DIN912
SOF45 8/16-D050-04-22R	SR 11800745	BLD IP15/S7(a)	SW6-T-SH	SR M10X20DIN912
SOF45 8/16-D050-06-22R	SR 11800745	BLD IP15/S7(a)	SW6-T-SH	SR M10X20DIN912
SOF45 D050-04-22-R13	SR 11800745	BLD IP15/S7(a)	SW6-T-SH	SR M10X20DIN912
SOF45 8/16-D063-04-22R	SR 11800745	BLD IP15/S7(a)	SW6-T-SH	SR M10X25 DIN912
SOF45 8/16-D063-06-22R	SR 11800745	BLD IP15/S7(a)	SW6-T-SH	
SOF45 8/16-D063-08-22R	SR 11800745	BLD IP15/S7(a)	SW6-T-SH	
SOF45 D063-06-22-R13	SR 11800745	BLD IP15/S7(a)	SW6-T-SH	
SOF45 8/16-D080-07-27R	SR 11800745	BLD IP15/S7(a)	SW6-T-SH	
SOF45 8/16-D080-10-27R	SR 11800745	BLD IP15/S7(a)	SW6-T-SH	
SOF45 D080-07-27-R13	SR 11800745	BLD IP15/S7(a)	SW6-T-SH	
SOF45 8/16-D100-08-32R	SR 11800745	BLD IP15/S7(a)	SW6-T-SH	
SOF45 8/16-D100-12-32R	SR 11800745	BLD IP15/S7(a)	SW6-T-SH	
SOF45 D100-08-32-R13	SR 11800745	BLD IP15/S7(a)	SW6-T-SH	
SOF45 8/16-D125-10-40R	SR 11800745	BLD IP15/S7(a)	SW6-T-SH	
SOF45 8/16-D125-16-40R	SR 11800745	BLD IP15/S7(a)	SW6-T-SH	
SOF45 D125-10-40-R13	SR 11800745	BLD IP15/S7(a)	SW6-T-SH	
SOF45 8/16-D160-12-40R	SR 11800745	BLD IP15/M7(a)	SW6-T-SH	
SOF45 8/16-D200-14-60R	SR 11800745	BLD IP15/M7(a)	SW6-T-SH	
SOF45 8/16-D250-16-60R	SR 11800745	BLD IP15/M7(a)	SW6-T-SH	
SOF45 8/16-D315-20-60R	SR 11800745	BLD IP15/M7(a)	SW6-T-SH	

Wiper Inserts

Wiper inserts are used on face mill cutters, providing improved surface finish and thus eliminating the use of other finishing cutters.

- ONHU 0505AN-R-W mounted on standard SOF45 milling cutters. This insert provides 8 right-hand wiper edges.
- ONHU 0505AN-N-W mounted on SOF45 milling cutters. This insert provides 4 right-hand wiper edges to be used on standard tools and 4 left-hand wiper edges to be used on special left-hand SOF45 cutters.



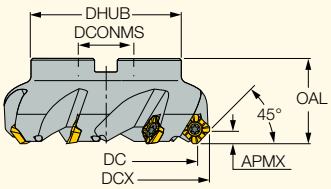


- S845 SNHU 1305AN-N-W mounted on SOF45 milling cutters when the square S845 SNMU/HU 1305AN... inserts are used. This insert provides 2 right-hand and 2 left-hand wiper edges.

ISCARMILL

F45ST

45° Screw Clamped Face Mills
Carrying SEK/MT 12... Inserts



Designation	DC	DCX(2)	CICT(3)	APMX	OAL	DHUB	DCONMS	Arbor(4)	kg
F45ST D040-22	40.00	50.00	3	6.50	40.00	44.00	22.00	A	0.30
F45ST D050-22	50.00	62.70	4	6.50	40.00	41.80	22.00	A	0.35
F45ST D063-22	63.00	75.00	5	6.50	40.00	50.00	22.00	A	0.57
F45ST D080-27 (1)	80.00	90.90	6	6.50	50.00	63.00	27.00	B	1.08
F45ST D100-32 (1)	100.00	110.00	6	6.50	50.00	72.00	32.00	B	1.61
F45ST D125-40 (1)	125.00	135.00	7	6.50	62.50	75.00	40.00	B	2.70
F45ST D160-40 (1)	160.00	170.70	7	6.50	63.00	92.00	40.00	C	4.06

- SE..1204 inserts are mounted directly on the cutter • SE..12T3 optional thinner inserts are mounted on a seat - TSE 12T3-N
- For user guide, see pages 542-547

(1) For internal coolant through the holder, use a matching coolant set (should be ordered separately)
(2) Cutting diameter maximum
(3) Number of inserts
(4) For adaptation options, see page 548

For inserts, see pages: SEHT-AFN (511) • SEHW-AFTN (510) • SEKT-AF-R (510) • SEKT-AFTN (510) • SEMT 12..AFTN-76 (511) • SEMT 1204AF-R-HS (510)

Spare Parts

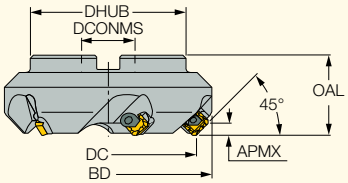
Designation									
F45ST D040-22	SR 14-536/S	BLD T20/M7	SW6-T	SR M10X25DIN7984	HW 7.0				
F45ST D050-22	SR 34-523	BLD T15/M7	SW6-T	SR M10X25DIN7984	HW 7.0	SR 14-601*	TSE 12T3-N(a)*	SR TC-606(a)*	HW 3.5(a)*
F45ST D063-22	SR 34-523	BLD T15/M7	SW6-T	SR M10X25DIN7984	HW 7.0	SR 14-601*	TSE 12T3-N(a)*	SR TC-606(a)*	HW 3.5(a)*
F45ST D080-27	SR 34-523	BLD T15/M7	SW6-T			SR 14-601*	TSE 12T3-N(a)*	SR TC-606(a)*	HW 3.5(a)*
F45ST D100-32	SR 34-523	BLD T15/M7	SW6-T			SR 14-601*	TSE 12T3-N(a)*	SR TC-606(a)*	
F45ST D125-40	SR 34-523	BLD T15/M7	SW6-T			SR 14-601*	TSE 12T3-N(a)*	SR TC-606(a)*	HW 3.5(a)*
F45ST D160-40	SR 34-523	BLD T15/M7	SW6-T			SR 14-601*	TSE 12T3-N(a)*	SR TC-606(a)*	HW 3.5(a)*

* Optional, should be ordered separately
(a) Optional for insert SE..12T3

ISCARMILL

F45E

45° Face Mills Carrying
SEKN/R 12... Inserts



Designation	DC	BD	APMX	CICT(2)	OAL	DHUB	DCONMS	Arbor(3)	kg
F45E D 50-22	50.00	67.30	6.50	4	43.00	42.00	22.00	A	0.59
F45E D 63-22	63.00	81.20	6.50	5	40.00	42.50	22.00	A	0.81
F45E D 80-27 (1)	80.00	98.20	6.50	6	50.00	63.00	27.00	B	1.43
F45E D100-32 (1)	100.00	118.00	6.50	6	50.00	72.00	32.00	B	2.31
F45E D125-40 (1)	125.00	143.00	6.50	6	63.00	75.00	40.00	B	3.40
F45E D160-40	160.00	178.00	6.50	8	63.00	92.00	40.00	C	5.28

- For user guide, see pages 542-547

(1) For internal coolant through the holder, use a matching coolant set (should be ordered separately)
(2) Number of inserts
(3) For adaptation options, see page 548

For inserts, see pages: SEKN-AF.. (511) • SEKR-AF-N-42 (512) • SEKR-AF..-76 (512) • SEKR-AFTR-HS (512)

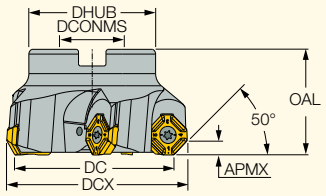
Spare Parts

Designation								
F45E D 50-22	NSE 42-R	SR 35-343.4	HW 2.0	LW 35-2620-S	SR 35-2011	HW 3P	SR M10X25DIN7984	HW 7.0
F45E D 63-22	NSE 42-R	SR 35-343.4	HW 2.0	LW 35-2620-S	SR 35-2011	HW 3P	SR M10X25DIN7984	HW 7.0
F45E D 80-27	NSE 42-R	SR 35-343.4	HW 2.0	LW 35-2620-S	SR 35-2011	HW 3P		
F45E D100-32	NSE 42-R	SR 35-343.4	HW 2.0	LW 35-2620-S	SR 35-2011	HW 3P		
F45E D125-40	NSE 42-R	SR 35-343.4	HW 2.0	LW 35-2620-S	SR 35-2011	HW 3P		
F45E D160-40	NSE 42-R	SR 35-343.4	HW 2.0	LW 35-2620-S	SR 35-2011	HW 3P		

DOVE IQ MILL 845 LINE

IQ845 FSY-R07

50° Face Mills Carrying Square Inserts with 8 Cutting Edges



Designation	DC	DCX(1)	CICT(2)	APMX	OAL	DHUB	DCONMS	Arbor(3)	CSP(4)	kg
IQ845 FSY D050-04-22-R07	50.00	59.40	4	4.60	40.00	48.00	22.00	A	1	0.39
IQ845 FSY D050-05-22-R07	50.00	59.40	5	4.60	40.00	48.00	22.00	A	1	0.38
IQ845 FSY D063-05-22-R07	63.00	72.40	5	4.60	40.00	48.00	22.00	A	1	0.51
IQ845 FSY D063-07-22-R07	63.00	72.40	7	4.60	40.00	48.00	22.00	A	1	0.47
IQ845 FSY D080-06-27-R07	80.00	89.40	6	4.60	50.00	60.00	27.00	B	1	1.00
IQ845 FSY D080-08-27-R07	80.00	89.40	8	4.60	50.00	60.00	27.00	B	1	0.95
IQ845 FSY D100-07-32-R07	100.00	109.40	7	4.60	50.00	70.00	32.00	B	1	1.36
IQ845 FSY D100-10-32-R07	100.00	109.40	10	4.60	50.00	70.00	32.00	B	1	1.34
IQ845 FSY D125-09-40-R07	125.00	134.40	9	4.60	63.00	82.00	40.00	B	1	2.52
IQ845 FSY D125-12-40-R07	125.00	134.40	12	4.60	63.00	82.00	40.00	B	1	2.49
IQ845 FSY D160-11-40-R07	160.00	169.40	11	4.60	63.00	92.00	40.00	C	0	3.31
IQ845 FSY D160-15-40-R07	160.00	169.40	15	4.60	63.00	92.00	40.00	C	0	3.28
IQ845 FSY D200-14-60-R07	200.00	209.40	14	4.60	63.00	135.00	60.00	C	0	5.80
IQ845 FSY D250-17-60-R07	250.00	259.40	17	4.60	63.00	135.00	60.00	C	0	8.18
IQ845 FSY D315-20-60-R07	315.00	324.40	20	4.60	80.00	220.00	60.00	D	0	16.87

- For user guide, see pages 542-547

(1) Cutting diameter maximum
(2) Number of inserts
(3) For adaptation options, see page 548
(4) 0 - Without coolant supply, 1 - With coolant supply

For inserts, see pages: IQ845 SYHU-07 (499)

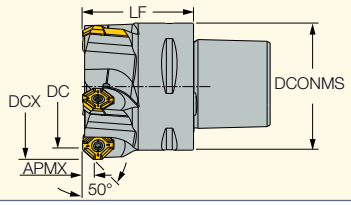
Spare Parts

Designation				
IQ845 FSY D050-04-22-R07	SR M4X0.7IP15	BLD IP15/S7	SW6-T-SH	SR M10X20DIN912
IQ845 FSY D050-05-22-R07	SR M4X0.7IP15	BLD IP15/S7	SW6-T-SH	SR M10X20DIN912
IQ845 FSY D063-05-22-R07	SR M4X0.7IP15	BLD IP15/S7	SW6-T-SH	SR M10X25 DIN912
IQ845 FSY D063-07-22-R07	SR M4X0.7IP15	BLD IP15/S7	SW6-T-SH	SR M10X25 DIN912
IQ845 FSY D080-06-27-R07	SR M4X0.7IP15	BLD IP15/S7	SW6-T-SH	
IQ845 FSY D080-08-27-R07	SR M4X0.7IP15	BLD IP15/S7	SW6-T-SH	
IQ845 FSY D100-07-32-R07	SR M4X0.7IP15	BLD IP15/S7	SW6-T-SH	
IQ845 FSY D100-10-32-R07	SR M4X0.7IP15	BLD IP15/S7	SW6-T-SH	
IQ845 FSY D125-09-40-R07	SR M4X0.7IP15	BLD IP15/S7	SW6-T-SH	
IQ845 FSY D125-12-40-R07	SR M4X0.7IP15	BLD IP15/S7	SW6-T-SH	
IQ845 FSY D160-11-40-R07	SR M4X0.7IP15	BLD IP15/S7	SW6-T-SH	
IQ845 FSY D160-15-40-R07	SR M4X0.7IP15	BLD IP15/S7	SW6-T-SH	
IQ845 FSY D200-14-60-R07	SR M4X0.7IP15	BLD IP15/S7	SW6-T-SH	
IQ845 FSY D250-17-60-R07	SR M4X0.7IP15	BLD IP15/S7	SW6-T-SH	
IQ845 FSY D315-20-60-R07	SR M4X0.7IP15	BLD IP15/S7	SW6-T-SH	

DOVE IQ MILL 845 LINE
CAMFIX

IQ845 FSY-C#-R07

50° Face Mills Carrying Square Inserts with 8 Cutting Edges



Designation	DC	DCX(1)	CICT(2)	APMX	LF	SS	CDI(3)	kg			
IQ845 FSY D063-05-C6-R07	63.00	72.40	5	4.60	55.00	63	1	1.53	SR M4X0.7IP15	BLD IP15/S7	SW6-T-SH

- For user guide, see pages 542-547

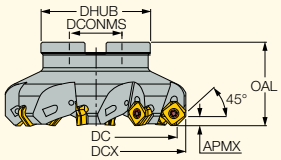
(1) Cutting diameter maximum
(2) Number of inserts
(3) 1 - Hole for data chip, 0 - Without hole for data chip

For inserts, see pages: IQ845 SYHU-07 (499)

HELIDO 845 LINE

S845 F45SX-16

45° Face Mills Carrying Economical Inserts with 8 Helical Right-Hand Cutting Edges



Designation	DC	DCX(2)	CICT(3)	APMX	OAL	DHUB	DCONMS	Arbor(4)	CSP(5)	kg
S845 F45SX D040-04-16-R16 (1)	40.00	54.80	4	7.15	45.00	48.00	16.00	A	1	0.39
S845 F45SX D050-04-22-R16	50.00	64.80	4	7.15	45.00	48.00	22.00	A	1	0.46
S845 F45SX D050-05-22-R16 (1)	50.00	64.80	5	7.15	45.00	48.00	22.00	A	1	0.44
S845 F45SX D063-05-22-R16	63.00	77.80	5	7.15	45.00	60.00	22.00	B	1	0.72
S845 F45SX D063-07-22-R16 (1)	63.00	77.90	7	7.15	45.00	60.00	22.00	A	1	0.72
S845 F45SX D080-09-27-R16 (1)	80.00	93.10	9	7.15	50.00	63.00	27.00	B	1	1.01
S845 F45SX D100-11-32-R16 (1)	100.00	114.60	11	7.15	50.00	80.00	32.00	B	1	1.65
S845 F45SX D100-07-32-R16	100.00	114.80	7	7.15	50.00	80.00	32.00	B	1	1.62
S845 F45SX D125-08-40-R16	125.00	139.80	8	7.15	63.00	82.00	40.00	B	1	2.68
S845 F45SX D125-14-40-R16 (1)	125.00	139.80	14	7.15	63.00	82.00	40.00	B	1	2.72
S845 F45SX D160-10-40-R16	160.00	174.80	10	7.15	63.00	105.00	40.00	C	0	4.16
S845 F45SX D160-18-40-R16 (1)	160.00	174.80	18	7.15	63.00	105.00	40.00	C	0	4.30
S845 F45SX D200-12-60-R16	200.00	214.80	12	7.15	63.00	135.00	60.00	C	0	5.82
S845 F45SX D250-15-60-R16	250.00	264.80	15	7.15	63.00	144.00	60.00	C	0	8.58

- Wiper inserts are used on face mill cutters, providing improved surface finish, thus eliminating the use of other finishing cutters.
- For user guide, see pages 542-547

(1) Fine pitch cutters, recommended for machining cast iron and for machining steel - up to 4 mm D.O.C.
(2) Cutting diameter maximum
(3) Number of inserts
(4) For adaptation options, see page 548
(5) 0 - Without coolant supply, 1 - With coolant supply

For inserts, see pages: S845 SXHU 1606-W (501) • S845 SXMU/SXCU-16 (501)

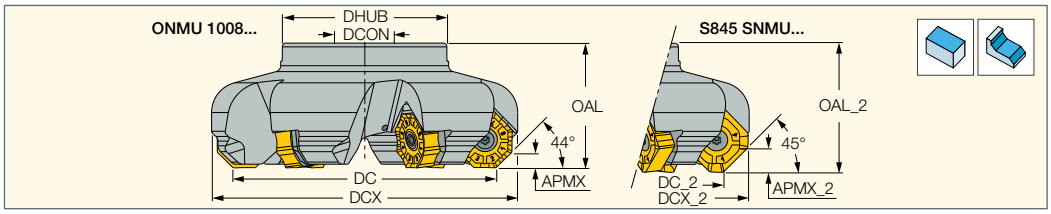
Spare Parts

Designation				
S845 F45SX D040-04-16-R16	SR 14-591	BLD T20/M7	SW6-T	SR M8X25DIN912
S845 F45SX D050-04-22-R16	SR 14-591	BLD T20/M7	SW6-T	SR M10X25DIN7984
S845 F45SX D050-05-22-R16	SR 14-591-M	BLD T20/M7	SW6-T	SR M10X25DIN7984
S845 F45SX D063-05-22-R16	SR 14-591	BLD T20/M7	SW6-T	SR M10X25DIN7984
S845 F45SX D063-07-22-R16	SR 14-591-M	BLD T20/M7	SW6-T	SR M10X25DIN7984
S845 F45SX D080-09-27-R16	SR 14-591-M	BLD T20/M7	SW6-T	
S845 F45SX D100-11-32-R16	SR 14-591-M	BLD T20/M7	SW6-T	
S845 F45SX D100-07-32-R16	SR 14-591	BLD T20/M7	SW6-T	
S845 F45SX D125-08-40-R16	SR 14-591	BLD T20/M7	SW6-T	
S845 F45SX D125-14-40-R16	SR 14-591-M	BLD T20/M7	SW6-T	
S845 F45SX D160-10-40-R16	SR 14-591	BLD T20/M7	SW6-T	
S845 F45SX D160-18-40-R16	SR 14-591-M	BLD T20/M7	SW6-T	
S845 F45SX D200-12-60-R16	SR 14-591	BLD T20/M7	SW6-T	
S845 F45SX D250-15-60-R16	SR 14-591	BLD T20/M7	SW6-T	

HELIDO 800 HD LINE

SOF45-26

Heavy Duty 45° Face Mills Carrying Square or Octagonal Double-Sided Inserts with 8/16 Cutting Edges



Designation	DC	DCX(1)	APMX	OAL	DC_2	APMX_2	OAL_2	CICT(2)	DHUB	DCONMS	Arbor(3)	CSP(4)	kg
SOF45 D080-04-32-R26	84.10	104.50	7.00	60.80	80.00	11.00	63.0	4	70.00	32.00	A	1	1.68
SOF45 D100-05-32-R26	104.10	124.50	7.00	60.80	100.00	11.00	63.0	5	70.00	32.00	B	1	2.25
SOF45 D125-06-40-R26	129.10	149.50	7.00	60.80	125.00	11.00	63.0	6	82.00	40.00	B	1	3.08
SOF45 D160-08-40-R26	164.10	184.50	7.00	60.80	160.00	11.00	63.0	8	92.00	40.00	C	0	4.05
SOF45 D200-10-60-R26	204.10	224.50	7.00	60.80	200.00	11.00	63.0	10	135.00	60.00	C	0	6.52
SOF45 D250-12-60-R26	254.10	274.50	7.00	60.80	250.00	11.00	63.0	12	135.00	60.00	C	0	9.48
SOF45 D315-14-60-R26	319.10	339.50	7.00	77.80	315.00	11.00	80.0	14	220.00	60.00	C	0	19.73

- For user guide, see pages 542-547

(1) Cutting diameter maximum
(2) Number of inserts
(3) For adaptation options, see page 548
(4) 0 - Without coolant supply, 1 - With coolant supply

For inserts, see pages: ONMU 1008 (509) • S845 SNMU 2608 (502)

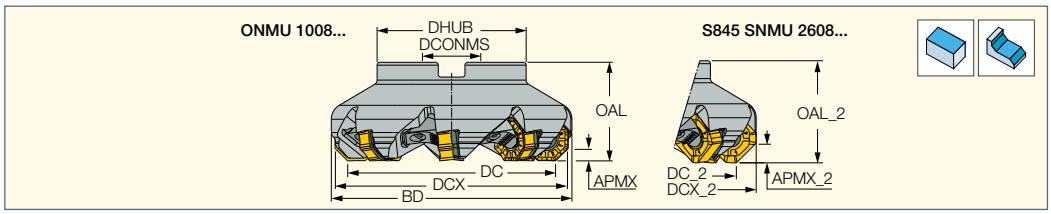
Spare Parts

Designation						
SOF45 D080-04-32-R26	SR 1/4-28XIP25	TSOF 26-N	SR M3.5X0.6-6.5 T10	BLD IP25/S7	SW6-T	SR M16-40C
SOF45 D100-05-32-R26	SR 1/4-28XIP25	TSOF 26-N	SR M3.5X0.6-6.5 T10	BLD IP25/S7	SW6-T	SR M16-40C
SOF45 D125-06-40-R26	SR 1/4-28XIP25	TSOF 26-N	SR M3.5X0.6-6.5 T10	BLD IP25/S7	SW6-T	
SOF45 D160-08-40-R26	SR 1/4-28XIP25	TSOF 26-N	SR M3.5X0.6-6.5 T10	BLD IP25/M7	SW6-T	
SOF45 D200-10-60-R26	SR 1/4-28XIP25	TSOF 26-N	SR M3.5X0.6-6.5 T10	BLD IP25/M7	SW6-T	
SOF45 D250-12-60-R26	SR 1/4-28XIP25	TSOF 26-N	SR M3.5X0.6-6.5 T10	BLD IP25/L7	SW6-T	
SOF45 D315-14-60-R26	SR 1/4-28XIP25	TSOF 26-N	SR M3.5X0.6-6.5 T10	BLD IP25/L7	SW6-T	

HELIDO 800 HD LINE

SOF45WG-R26

Heavy Duty 45° Face Mills Carrying Wedge Clamped Square or Octagonal Double-Sided Inserts with 8/16 Cutting Edges



Designation	DC	BD	DCX(1)	APMX	OAL	DC_2	DCX_2	APMX_2	OAL_2	DCONMS	DHUB	Arbor	kg
SOF45WG D100-05-32-R26	104.10	123.50	118.80	7.00	60.80	100.00	123.50	11.00	63.00	32.00	78.00	B	2.46
SOF45WG D100-06-32-R26	104.10	123.50	118.80	7.00	60.80	100.00	123.50	11.00	63.00	32.00	78.00	B	2.33
SOF45WG D125-06-40-R26	129.10	148.50	143.80	7.00	60.80	125.00	148.50	11.00	63.00	40.00	92.00	B	3.67
SOF45WG D125-08-40-R26	129.10	148.50	143.80	7.00	60.80	125.00	148.50	11.00	63.00	40.00	92.00	B	3.41
SOF45WG D160-08-40-R26	164.10	183.80	178.80	7.00	60.80	160.00	183.80	11.00	63.00	40.00	95.00	C	4.84
SOF45WG D160-10-40-R26	164.10	183.80	178.80	7.00	60.80	160.00	183.80	11.00	63.00	40.00	95.00	C	4.58
SOF45WG D200-10-60-R26	204.10	223.50	218.80	7.00	60.80	200.00	223.50	11.00	63.00	60.00	180.00	C	9.47
SOF45WG D200-12-60-R26	204.10	223.50	218.80	7.00	60.80	200.00	223.50	11.00	63.00	60.00	180.00	C	9.20
SOF45WG D250-12-60-R26	254.10	273.30	268.80	7.00	60.80	250.00	273.30	11.00	63.00	60.00	180.00	C	12.68
SOF45WG D250-14-60-R26	254.10	273.30	268.80	7.00	60.80	250.00	273.30	11.00	63.00	60.00	180.00	C	12.44
SOF45WG D315-14-60-R26	319.10	338.50	333.80	7.00	77.80	315.00	338.50	11.00	80.00	60.00	230.00	C	22.43
SOF45WG D315-16-60-R26	319.10	338.50	333.80	7.00	77.80	315.00	338.50	11.00	80.00	60.00	230.00	C	22.22

- For user guide, see pages 542-547

(1) Cutting diameter maximum

For inserts, see pages: ONMU 1008 (509) • S845 SNMU 2608 (502)

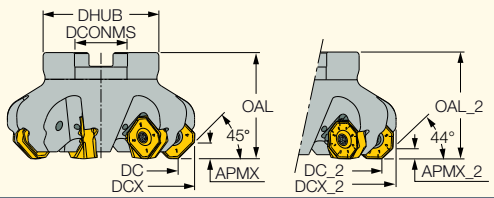
Spare Parts

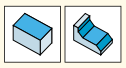
Designation						
SOF45WG-R26	TSOF 26-N	SR M3.5X0.6-6.5 T10	LW CL-13 INJ	SR UNC 5/16-18X1 L/R	BLD IP25/S7	SW6-T

HELIDO 800 LINE

SOF45-R18

45° Face Mills Carrying Square or Octagonal Double-Sided Inserts with 8/16 Cutting Edges





Designation	DC	DCX(1)	APMX	OAL	DC_2	DCX_2	APMX_2	OAL_2	CICT(2)	DHUB	DCONMS	Arbor	CSP(3)	kg
SOF45 D050-04-22-R18	50.00	67.00	8.00	50.00	52.80	67.00	5.00	48.5	4	48.00	22.00	A	1	0.55
SOF45 D063-05-22-R18	63.00	80.00	8.00	50.00	65.80	80.00	5.00	48.5	5	52.00	22.00	A	1	0.80
SOF45 D063-05-27-R18	63.00	80.00	8.00	50.00	65.80	80.00	5.00	48.5	5	60.00	27.00	A	1	0.83
SOF45 D080-06-27-R18	80.00	97.00	8.00	55.00	82.80	97.00	5.00	53.5	6	60.00	27.00	A	1	1.29
SOF45 D080-07-27-R18	80.00	97.00	8.00	55.00	82.80	97.00	5.00	53.5	7	60.00	27.00	A	1	1.29
SOF45 D100-07-32-R18	100.00	117.00	8.00	55.00	102.80	117.00	5.00	53.5	7	78.00	32.00	B	1	1.95
SOF45 D100-09-32-R18	100.00	117.00	8.00	55.00	102.80	117.00	5.00	53.5	9	78.00	32.00	B	1	1.94
SOF45 D125-08-40-R18	125.00	142.00	8.00	63.00	127.80	142.00	5.00	61.5	8	92.00	40.00	B	1	3.38
SOF45 D125-12-40-R18	125.00	142.00	8.00	63.00	127.80	142.00	5.00	61.5	12	92.00	40.00	B	1	3.35
SOF45 D160-10-40-R18	160.00	177.00	8.00	63.00	162.80	177.00	5.00	61.5	10	95.00	40.00	C	0	4.20
SOF45 D160-15-40-R18	160.00	177.00	8.00	63.00	162.80	177.00	5.00	61.5	15	95.00	40.00	C	0	4.30
SOF45 D200-12-60-R18	200.00	217.00	8.00	63.00	202.80	217.00	5.00	61.5	12	135.00	60.00	C	0	6.88
SOF45 D200-18-60-R18	200.00	217.00	8.00	63.00	202.80	217.00	5.00	61.5	18	135.00	60.00	C	0	6.99
SOF45 D250-14-60-R18	250.00	267.00	8.00	63.00	252.80	267.00	5.00	61.5	14	135.00	60.00	C	0	10.50
SOF45 D250-21-60-R18	250.00	267.00	8.00	63.00	252.80	267.00	5.00	61.5	21	135.00	60.00	C	0	11.35
SOF45 D315-18-60-R18	315.00	332.00	8.00	80.00	317.80	332.00	5.00	78.5	18	230.00	60.00	C	0	22.36
SOF45 D315-24-60-R18	315.00	332.00	8.00	80.00	317.80	332.00	5.00	78.5	24	230.00	60.00	C	0	22.22

- For user guide, see pages 542-547

(1) Cutting diameter maximum

(2) Number of inserts

(3) 0 - Without coolant supply, 1 - With coolant supply

For inserts, see pages: ONHU 0706AN-R-W (509) • ONMU/ONHU 0706 (509) • S845 SNHU 1806AN-N-W (502) • S845 SNMU/SNHU 1806 (502)

Spare Parts

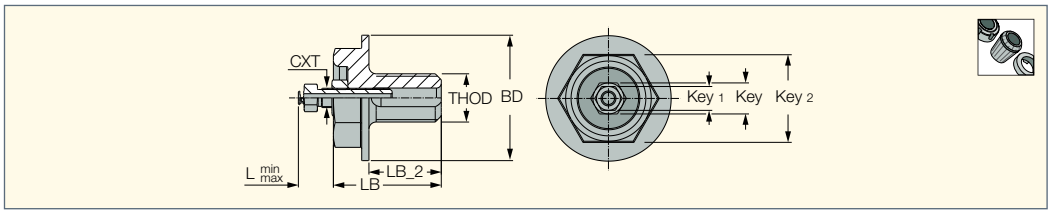
Designation				
SOF45 D050-04-22-R18	SR M5X0.8 16 IP20(a)	BLD IP20/S7	SW6-T	SR M10X25 DIN912
SOF45 D063-05-22-R18	SR M5X0.8 16 IP20(a)	BLD IP20/S7	SW6-T	SR M10X25 DIN912
SOF45 D063-05-27-R18	SR M5X0.8 16 IP20(a)	BLD IP20/S7	SW6-T	SR DIN 912 M12X25
SOF45 D080-06-27-R18	SR M5X0.8 16 IP20(a)	BLD IP20/S7	SW6-T	SR DIN 912 M12X25
SOF45 D080-07-27-R18	SR M5X0.8 16 IP20(a)	BLD IP20/S7	SW6-T	SR DIN 912 M12X25
SOF45 D100-07-32-R18	SR M5X0.8 16 IP20(a)	BLD IP20/S7	SW6-T	
SOF45 D100-09-32-R18	SR M5X0.8 16 IP20(a)	BLD IP20/S7	SW6-T	
SOF45 D125-08-40-R18	SR M5X0.8 16 IP20(a)	BLD IP20/S7	SW6-T	
SOF45 D125-12-40-R18	SR M5X0.8 16 IP20(a)	BLD IP20/S7	SW6-T	
SOF45 D160-10-40-R18	SR M5X0.8 16 IP20(a)	BLD IP20/M7	SW6-T	
SOF45 D160-15-40-R18	SR M5X0.8 16 IP20(a)	BLD IP20/M7	SW6-T	
SOF45 D200-12-60-R18	SR M5X0.8 16 IP20(a)	BLD IP20/M7	SW6-T	
SOF45 D200-18-60-R18	SR M5X0.8 16 IP20(a)	BLD IP20/M7	SW6-T	
SOF45 D250-14-60-R18	SR M5X0.8 16 IP20(a)	BLD IP20/M7	SW6-T	
SOF45 D250-21-60-R18	SR M5X0.8 16 IP20(a)	BLD IP20/M7	SW6-T	
SOF45 D315-18-60-R18	SR M5X0.8 16 IP20(a)	BLD IP20/M7	SW6-T	
SOF45 D315-24-60-R18	SR M5X0.8 16 IP20(a)	BLD IP20/M7	SW6-T	

(a) Recommended tightening torque: 9 N*m

Accessories

COOLANT SET

Clamping Screws with
Adjustable Protrusion Nozzles
for Shell-Type Face Mills



Designation	BD	THOD	CXT	LB	LB_2	L min	L max	Key(1)	Key 1(2)	DRVS(3)
COOLANT SET SR M10X1.5-22	28.00	M10	M4	25.00	18.00	2.0	17.0	7.00	6.00	21.00
COOLANT SET SRM12X1.75-27	35.00	M12	M4	31.00	22.00	2.0	17.0	7.00	6.00	27.00
COOLANT SET SR M16X2-32	42.00	M16	M8	37.00	26.00	3.0	25.0	13.00	10.00	30.00
COOLANT SET SR M20X2.5-40	52.00	M20	M8	45.00	30.00	3.0	25.0	13.00	10.00	36.00

(1) For the nut
(2) For the nozzle
(3) For the screw

Clamping Screws with Adjustable Protrusion Nozzles for Shell-Type Face Mills

The protrusion of the nozzle screw can be easily adjusted according to countersink depth, insert size or any other application requirement. The nozzle screw position can be secured by a locking nut.

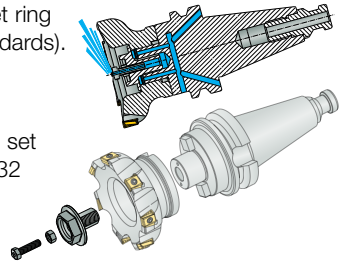
Tests show that cutting fluid supplied through the axis of a tool and directed radially at the bottom of the tool dramatically improves both the cooling effect and chip evacuation.

The screws are offered as sets, comprising a nozzle screw, locking screw, a locking nut and washers.

The locking nut can be tightened by a standard open-ended wrench, or preferably by an offset ring wrench (ISO 10104, DIN 838 or DIN 897 standards).

If desired, the following ring wrenches can also be ordered from **ISCAR**:

- 7000783 Ring Wrench 10X13 mm for coolant set SR M20X2.5-40 and Coolant set SR M16X2-32
- 7000788 Ring Wrench 6X7 mm for coolant set SRM12X1.75-27 and coolant set SR M10X1.5-22.



Assembly with a Lock Nut

Assembly without a Lock Nut

Spare Parts

Designation			
COOLANT SET SR M10X1.5-22	WASHER FLAT M4 DIN 433	SPRING PLUNGER	
COOLANT SET SRM12X1.75-27	WASHER FLAT M4 DIN 433	SPRING PLUNGER	
COOLANT SET SR M16X2-32	WASHER M8 DIN 433 A4	NOZZLE M8	NUT M8 DIN 934 A2
COOLANT SET SR M20X2.5-40	WASHER M8 DIN 433 A4	NOZZLE M8	NUT M8 DIN 934 A2

EXTENDED FLUTE CUTTERS

Extended Flute Mills

HELIPLUS

HP ANK
page 235

HELIDO 490 LINE

H490 ANK
page 235

HELI3MILL HM390 LINE

HM390 TPK/SM
pages 235-236

HELITANG T490 LINE

T490 LNK/LNM
pages 236-238, 246-247

HELISLOT

XNK-XN13
page 239

HELIMILL

APK-FE
page 239

HELIQUAD

SPK
page 239

MILLSHRED P290 LINE

P290 ACK/SM
pages 240-242

HELITANG T490 LINE

T490 SM
pages 243-244, 248

HELIDO 845 LINE

H490 SM
pages 243,249

HELISLOT

SM-XN13
page 246

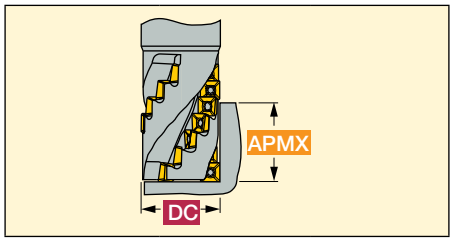
XQUAD EXTENDED FLUTE

SDK-C/HP
pages 249-250

HELIMILL

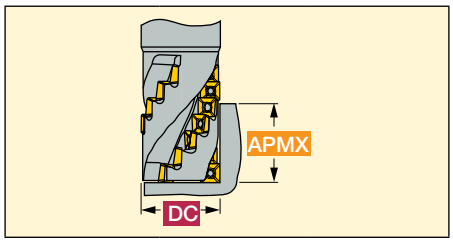
SM
page 250

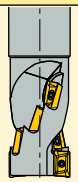
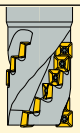
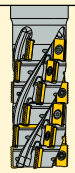
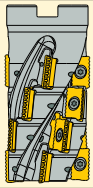
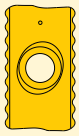
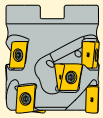
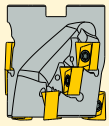
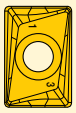
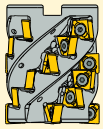
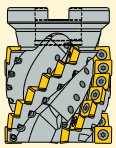
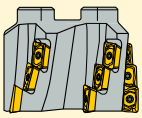
90° Extended Flute Mills Selection Guide



Tools	Pages	APMX / Flutes DC 20	25	32	40	50	63	80	100	Inserts
HP ANK-07	235	28/2								HP AN.. 07...
H490 ANK-09	235		35/2	42/3						H490 AN..09..
HM390 TPK-10	235		28/2	42/2	49/4					HM390 TP.. 10..
HM390 SM-10	236				49/4	49/5				HM390 TP.. 10..
T490 LNM-08	236	15/2	30/2 30/3	36/3	44/4					T490 LN.T 08...
T490 LNK-11	237			34/2	51/3	51/4				T490 LN..T1106
T490 LNK-13	237				36/2 36/3 48/3	47/3 59/4 82/3 105/3	81/4 117/4	82/4 128/4		T490 LN.. 13...
XNK-XN13	239					46/3				XNMU 13...

90° Extended Flute Mills Selection Guide

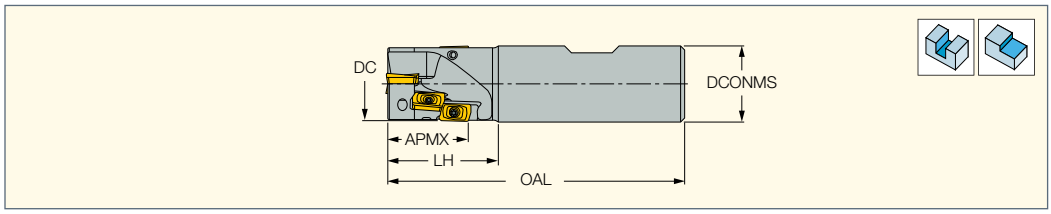


Tools		Pages	APMX / Flutes DC 20	25	32	40	50	63	80	100	Inserts	
	APK-FE	239	29/1	37/2	46/2	55/3						AP.. 10... FPKT 10...
	SPK	239				43/3						SPMT 10... XPMT 10.. QPMT 10..
	P290 ACK	241		24/3 36/3	24/3 36/3 48/3 60/3 84/3	53/3 71/3 87/3 90/3 125/3	53/4 105/4 160/3	87/5				P290 AC...T
	P290 SM	242			24/3	24/4 36/4 48/4	36/4 53/4 71/4	53/5 71/5	71/6	36/6 71/7		P290 AC...T
	T490 SM	243 244			36/3	24/2 36/3 44/4 51/3	36/2 36/3 44/5 47/4 51/3 59/4	36/4 47/4 59/4 59/5 68/5	58/5 70/5	59/6		T490 LN..
	H490 SM	243 249					35/3	46/3 47/4 58/3	46/4			H490 AN..
	SM-XN13	246						69/3 69/4	69/5			XNMU 13
	SDK-C/HP	249 250					48/3 48/4	55/5 56/4 66/4 98/4	64/5 66/5 109/5	76/6 130/6		SD.. 10 SD..12 QD..12
	SM	250					25/3	38/4				HM AD.. 15... AD.. 15...

HELIPLUS

HP ANK-07

Extended Flute Endmills
Carrying HP ANK-07... Inserts



Designation	DC	APMX	NOF(1)	CICT(2)	LH	OAL	DCONMS	Shank(3)	kg		
HP ANK D20-28-02-W20-7	20.00	28.60	2	8	40.0	90.00	20.00	W	0.18	SR 34-533/L/HG	T-6/51

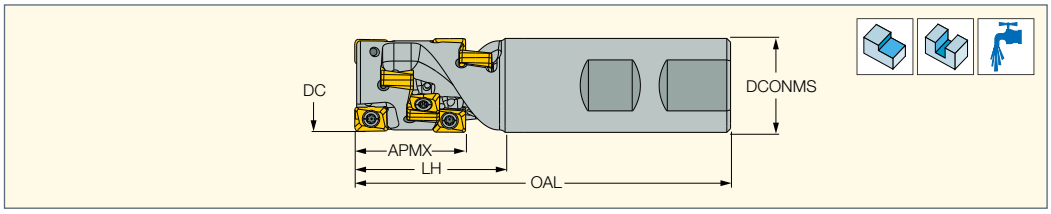
(1) Number of flutes
(2) Number of inserts
(3) W-Weldon

For inserts, see pages: HP ANCR 0702PNFR (444) • HP ANKT/ANCT 0702..PN-R/PNTR (444) • HP ANKW 070204PNTR (444)

HELIDO 490 LINE

H490 ANK-09

Extended Flute Endmills Carrying H490 ANKX 09... Double-Sided Rectangular Inserts with 4 Helical Cutting Edges



Designation	DC	APMX	NOF(1)	CICT(2)	LH	OAL	DCONMS	Shank(3)	kg			
H490 ANK D25-35-2-W25-09C	25.00	35.00	2	10	38.0	100.00	25.00	W	0.30	SR 10508082-HG	BLD T08/M7	SW4-SD
H490 ANK D32-42-3-W32-09C	32.00	42.00	3	18	50.0	115.00	32.00	W	0.52	SR 10508082-HG	BLD T08/M7	SW4-SD

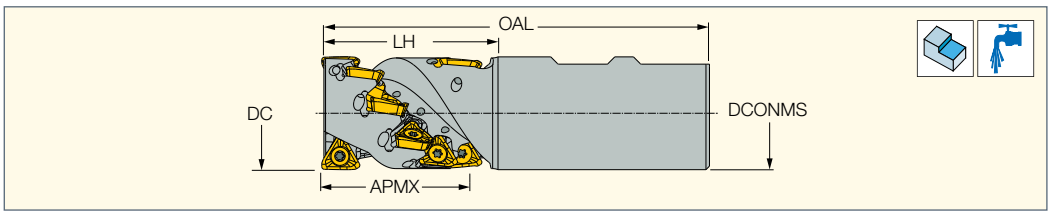
• AE(max)=0.25xDC
(1) Number of flutes
(2) Number of inserts
(3) W-Weldon

For inserts, see pages: H490 ANKX/ANCX-09 (469)

HELI3MILL HM390 LINE

HM390 TPK-10

Extended Flute Endmills
Carrying HM390 TPKT 1003
Triangular Inserts with 3
Helical Cutting Edges

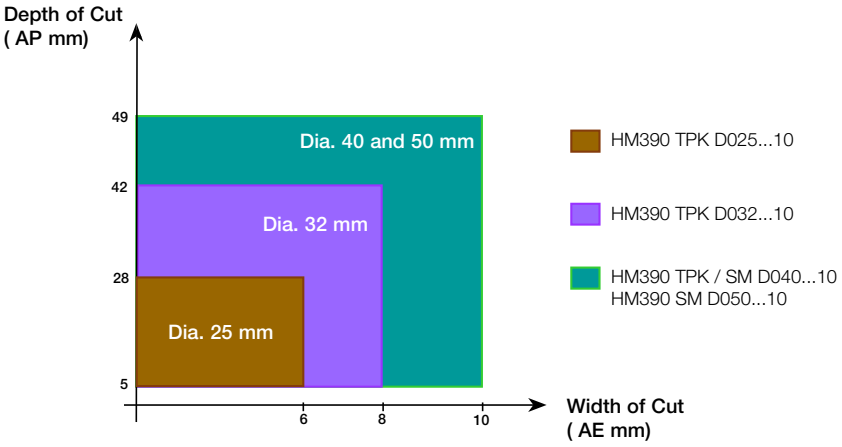


Designation	DC	APMX	NOF(1)	CICT(2)	LH	OAL	DCONMS	Shank(3)	kg			
HM390 TPK D25-28-2-W25-10	25.00	28.00	2	8	35.0	95.00	25.00	W	0.30	SR 14-562/S(a)	BLD T10/S7	SW6-SD
HM390 TPK D32-42-2-W32-10	32.00	42.00	2	12	50.0	110.00	32.00	W	0.53	SR 14-562/S(a)	BLD T10/S7	SW6-SD
HM390 TPK D40-49-4-W32-10	40.00	49.00	4	28	59.0	125.00	32.00	W	0.75	SR 14-562/S(a)	BLD T10/S7	SW6-SD

(1) Number of flutes
(2) Number of inserts
(3) W-Weldon
(a) Recommended tightening torque:3.2 Nxm

For inserts, see pages: HM390 TPKT/CT 1003 (447)

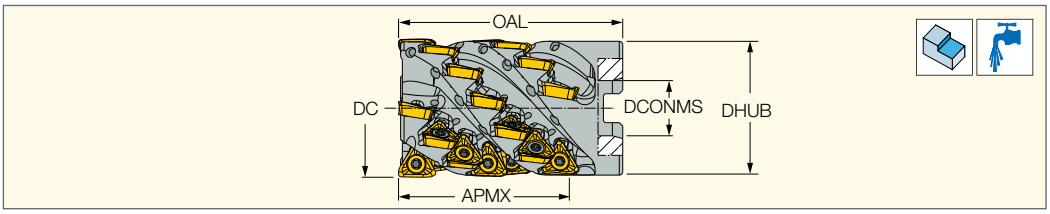
AP/AE Application Range for Extended Flute HELI-3-MILL HM390-10 Cutters with HM390 TPKT 1003... Inserts



HELI 3 MILL HM390 LINE

HM390 SM-10

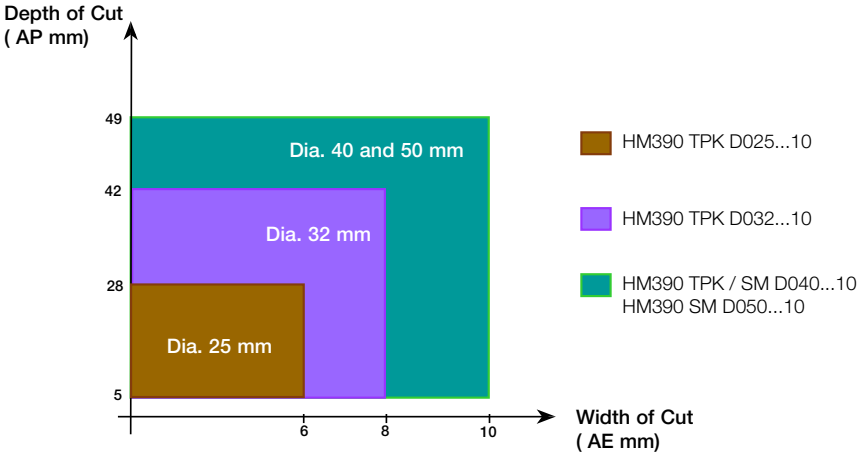
Extended Flute Shell Mills
Carrying HM390 TPKT 1003
Triangular Inserts with 3
Helical Cutting Edges



Designation	DC	APMX	NOF(1)	CICT(2)	OAL	DHUB	DCONMS	Arbor(3)	kg				
HM390 SM D040-49-4-16-10	40.00	49.00	4	28	65.00	38.80	16.00	A	0.30	SR 14-562/S(a)	SR M8X55DIN912	BLD T10/S7	SW6-SD
HM390 SM D050-49-5-22-10	50.00	49.00	5	35	66.00	48.80	22.00	A	0.58	SR 14-562/S(a)	SR M10X60DIN912	BLD T10/S7	SW6-SD

(1) Number of flutes
(2) Number of inserts
(3) For adaptation options, see page 548
(a) Recommended tightening torque:3.2 Nxm
For inserts, see pages: HM390 TPKT/CT 1003 (447)

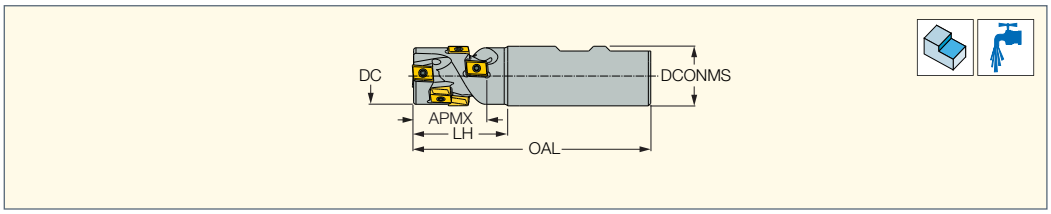
AP/AE Application Range for Extended Flute HELI 3 MILL HM390-10 Cutters with HM390 TPKT 1003... Inserts



HELITANG T490 LINE

T490 LNM-08

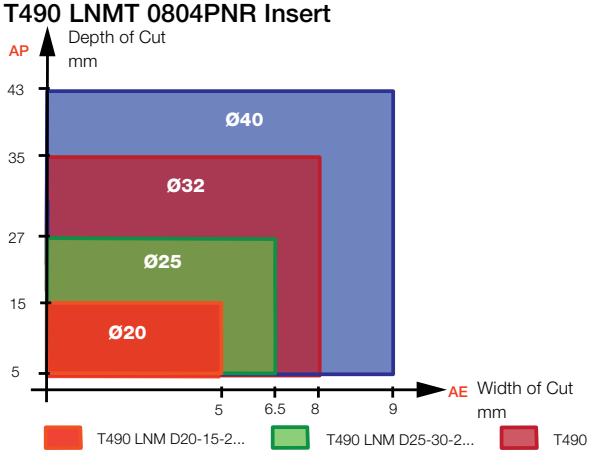
Extended Flute Endmills
Carrying T490 LNMT/HT 08...
Tangentially Clamped Inserts



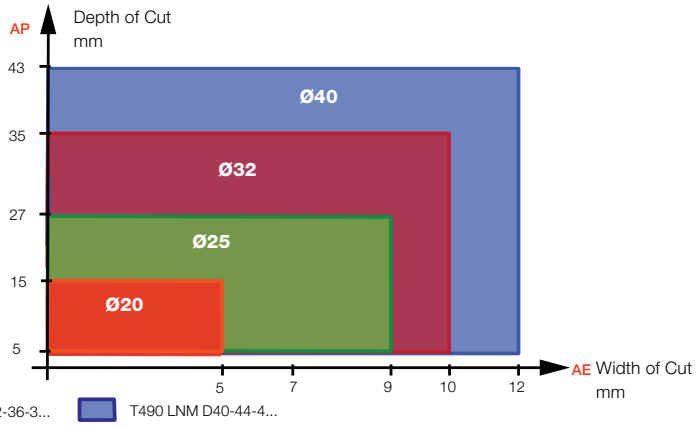
Designation	DC	APMX	NOF(1)	CICT(2)	LH	OAL	DCONMS	Shank(3)	kg		
T490 LNM D20-15-2-C20-08C	20.00	15.00	2	4	30.0	80.00	20.00	C	0.16	SR 10502813-HG-M	IP-7/51
T490 LNM D20-15-2-W20-08C	20.00	15.00	2	4	30.0	80.00	20.00	W	0.16	SR 10502813-HG-M	IP-7/51
T490 LNM D25-30-2-C25-08C	25.00	30.00	2	8	40.0	100.00	25.00	C	0.31	SR 10502813-HG-M	IP-7/51
T490 LNM D25-30-2-W25-08C	25.00	30.00	2	8	40.0	100.00	25.00	W	0.30	SR 10502813-HG-M	IP-7/51
T490 LNM D32-36-3-C32-08C	32.00	36.00	3	15	45.0	110.00	32.00	C	0.55	SR 10502813-HG-M	IP-7/51
T490 LNM D32-36-3-W32-08C	32.00	36.00	3	15	45.0	110.00	32.00	W	0.55	SR 10502813-HG-M	IP-7/51
T490 LNM D40-44-4-W32-08C	40.00	44.00	4	24	53.0	120.00	32.00	W	0.73	SR 10502813-HG-M	IP-7/51

(1) Number of flutes
(2) Number of inserts
(3) W-Weldon, C-Cylindrical
For inserts, see pages: T490 LNAR-P (480) • T490 LNMT/LNHT 0804 (476)

AP/AE Application Range with T490 LNMT 0804PNR Insert



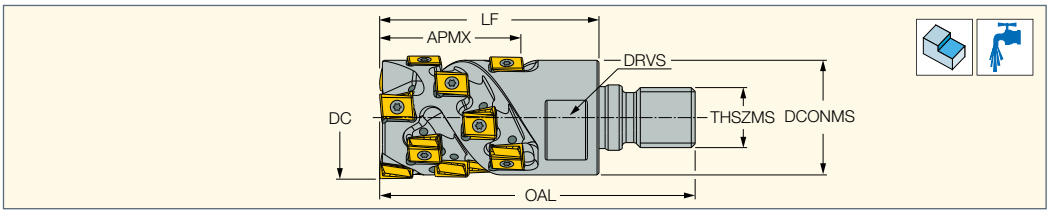
AP/AE Application Range with T490 LNMT080404-CS Chip Splitting Insert



HELITANGFLEXFIT T490 LINE

T490 LNM-M-08

Extended Flute Endmills
with a FLEXFIT Threaded
Adaptation Carrying
Tangentially Clamped Inserts



Designation	DC	APMX	NOF(1)	CICT(2)	LF	OAL	DHUB	THSZMS	DRVS(3)	TQ_3(4)	kg		
T490 LNM D25-30-2-M12-08	25.00	30.00	2	8	52.00	74.00	21.00	M12	17.0	33	0.12	SR 10502813-HG-M	IP-7/51
T490 LNM D32-36-3-M16-08	32.00	36.00	3	15	57.00	82.00	30.00	M16	25.0	40	0.26	SR 10502813-HG-M	IP-7/51

• For adaptation options, see page 311 • For user guide see pages 542-547

(1) Number of flutes

(2) Number of inserts

(3) Clamping wrench size

(4) Tool tightening torque Nxm (lbfxin)

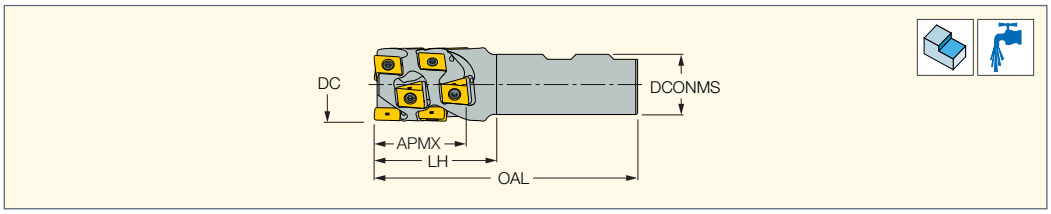
For inserts, see pages: T490 LNAR-P (480) • T490 LNMT/LNHT 0804 (476)

For holders, see pages: BT-ODP (FLEXFIT) (314) • C#-ODP (FLEXFIT) (314) • CAB M-M (FLEXFIT) (312) • DIN69871-ODP (315) • ER-ODP (315) • HSK A-ODP (FLEXFIT) (316) • S M (312) • S M-C-H (312) • S M-CF (313)

HELITANG T490 LINE

T490 LNK-11

Extended Flute Endmills
Carrying T490 LN#T 11...
Tangentially Clamped Inserts



Designation	DC	APMX	NOF(1)	CICT(2)	LH	OAL	DCONMS	Shank(3)	kg			
T490 LNK-D32-34-2-W32-11	32.00	34.00	2	8	45.0	105.00	32.00	W	0.49	SR 34-535/L10.5-SN	BLD T15/S7(a)	SW6-SD
T490 LNK-D40-51-3-C32-11	40.00	51.00	3	18	60.0	120.00	32.00	C	0.66	SR 34-535/L10.5-SN	BLD T15/S7(a)	SW6-SD
T490 LNK-D40-51-3-W32-11	40.00	51.00	3	18	60.0	120.00	32.00	W	0.66	SR 34-535/L10.5-SN	BLD T15/S7(a)	SW6-SD
T490 LNK-D50-51-4-C40-11	50.00	51.00	4	24	60.0	130.00	40.00	C	1.18	SR 34-535-SN	BLD T15/S7(a)	SW6-SD
T490 LNK-D50-51-4-W40-11	50.00	51.00	4	24	60.0	130.00	40.00	W	1.18	SR 34-535-SN	BLD T15/S7(a)	SW6-SD

• Important: Maximum clamping torque 3.2 Nxm

(1) Number of flutes

(2) Number of inserts

(3) C-Cylindrical, W-Weldon

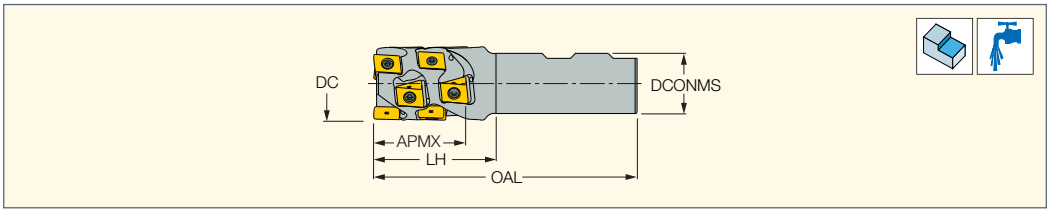
(a) Recommended key handle for limiting torque to 3.2 Nxm for this item is HSD 4-3.2NM (to be used with BLD 4 T15-4.8 blade)

For inserts, see pages: T490 LNMT/LNHT 1106 (461)

HELITANG T490 LINE

T490 LNK-13

Extended Flute Endmills
Carrying T490 LNMT/HT 13...
Tangentially Clamped Inserts



Designation	DC	APMX	NOF(1)	CICT(2)	LH	OAL	DCONMS	Shank(3)	kg			
T490 LNK-D40-36-2-W32-13	40.00	36.00	2	6	50.0	115.00	32.00	W	0.68	SR 34-535-SN	BLD T15/S7	SW6-T-SH
T490 LNK-D40-48-3-C32-13	40.00	48.00	3	12	65.0	140.00	32.00	C	0.80	SR 34-535-SN	BLD T15/S7	SW6-T-SH
T490 LNK-D40-48-3-W32-13	40.00	48.00	3	12	65.0	125.00	32.00	W	0.70	SR 34-535-SN	BLD T15/S7	SW6-T-SH
T490 LNK-D50-47-3-W40-13	50.00	47.00	3	12	65.0	135.00	40.00	W	1.24	SR 34-535-SN	BLD T15/S7	SW6-T-SH
T490 LNK-D50-59-4-W40-13	50.00	59.00	4	20	65.0	135.00	40.00	W	1.21	SR 34-535-SN	BLD T15/S7	SW6-T-SH

(1) Number of flutes

(2) Number of inserts

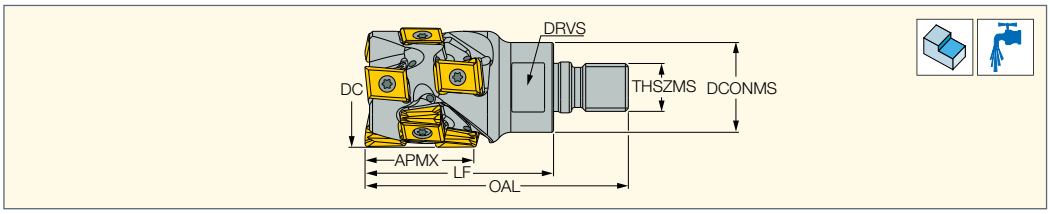
(3) C-Cylindrical, W-Weldon

For inserts, see pages: T490 LNAR-P (464) • T490 LNMT 1306PNTR-FW (463) • T490 LNMT/LNHT/LNAR 1306 (462)

HELITANG FLEXFIT T490 LINE

T490 LNK-M-13

Endmills with a FLEXFIT Threaded Adaptation Carrying Tangentially Clamped Inserts



Designation	DC	APMX	NOF(1)	CICT(2)	LF	OAL	DCONMS	THSZMS	DRVS(3)	kg			
T490 LNK-D40-36-3-M16-13	40.00	36.00	3	9	63.00	88.00	30.00	M16	25.0	0.37	SR 34-535-SN	BLD T15/S7	SW6-T-SH

- For adaptation options, see page 311
- For user guide, see pages 542-547

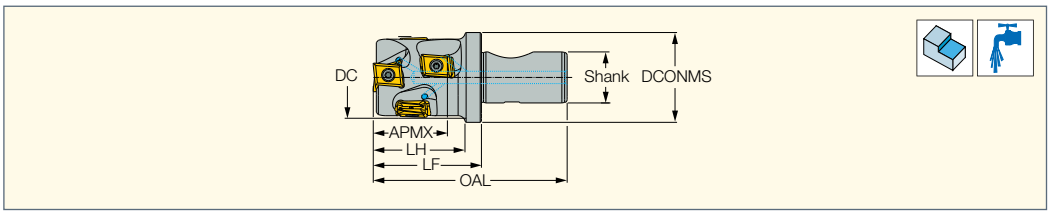
(1) Number of flutes
(2) Number of inserts
(3) Clamping wrench size

For inserts, see pages: T490 LNAR-P (480) • T490 LNMT 1306PNTR-FW (479) • T490 LNMT/LNHT/LNAR 1306 (478)
For holders, see pages: BT-ODP (FLEXFIT) (314) • C#-ODP (FLEXFIT) (314) • CAB M-M (FLEXFIT) (312) • DIN69871-ODP (315) • ER-ODP (315) • HSK A-ODP (FLEXFIT) (316) • S M (312) • S M-C-H (312) • S M-CF (313)

HELITANG T490 LINE

T490 LNK-13-CF

Extended Flute Endmills with CLICKFIT Shanks Carrying T490 LNMT/HT 1306... Tangentially Clamped Inserts



Designation	DC	APMX	NOF(1)	CICT(2)	LH	LF	OAL	DCONMS	Shank	kg			
T490 LNK-D50-59-4-CF4-13	50.00	59.00	4	20	-	73.00	115.00	44.00	CF4	0.82	SR 34-535-SN	BLD T15/S7	SW6-T-SH

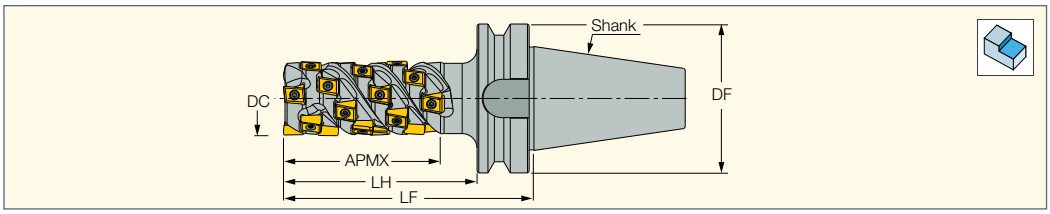
(1) Number of flutes
(2) Number of inserts

For inserts, see pages: T490 LNAR-P (480) • T490 LNMT 1306PNTR-FW (479) • T490 LNMT/LNHT/LNAR 1306 (478)

HELITANG T490 LINE

T490 LNK-13-BT

Extended Flute Endmills with BT MAS-403 Tapered Shanks Carrying T490 LNMT/HT 13... Tangentially Clamped Inserts



Designation	DC	APMX	NOF(1)	CICT(2)	LH	LPR	Shank	DF	CSP(3)	kg			
T490LNK-D50-059-4-BT50-13	50.00	59.00	4	20	80.5	120.00	BT MAS-403	100.00	1	4.34	SR 34-535-SN	BLD T15/S7	SW6-T-SH
T490LNK-D50-082-3-BT50-13	50.00	82.00	3	21	107.0	145.00	BT MAS-403	100.00	1	4.57	SR 34-535-SN	BLD T15/S7	SW6-T-SH
T490LNK-D50-105-3-BT50-13	50.00	105.00	3	27	130.0	168.00	BT MAS-403	100.00	0	4.99	SR 34-535-SN	BLD T15/S7	SW6-T-SH
T490LNK-D63-117-4-BT50-13	63.00	117.00	4	40	150.0	188.00	BT MAS-403	100.00	1	6.07	SR 34-535-SN	BLD T15/S7	SW6-T-SH
T490LNK-D80-082-4-BT50-13	80.00	82.00	4	28	135.0	173.00	BT MAS-403	100.00	1	7.65	SR 34-535-SN	BLD T15/S7	SW6-T-SH
T490LNK-D80-128-4-BT50-13	80.00	128.00	4	44	162.0	200.00	BT MAS-403	100.00	1	8.25	SR 34-535-SN	BLD T15/S7	SW6-T-SH

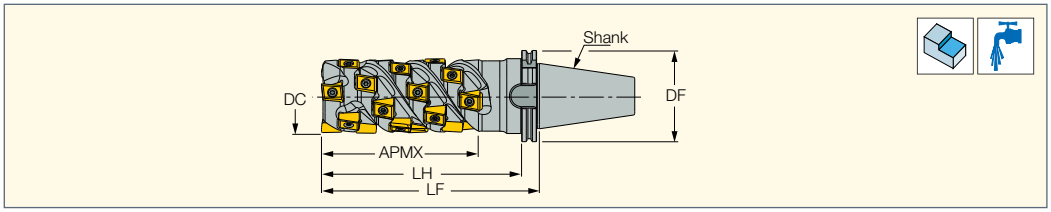
(1) Number of flutes
(2) Number of inserts
(3) 0 - Without coolant supply, 1 - With coolant supply

For inserts, see pages: T490 LNAR-P (480) • T490 LNMT 1306PNTR-FW (479) • T490 LNMT/LNHT/LNAR 1306 (478)

HELITANG T490 LINE

T490 LNK-13-INT

Extended Flute Endmills with DIN69871 Tapered Shanks Carrying T490 LNMT/HT 13... Tangentially Clamped Inserts



Designation	DC	APMX	NOF(1)	CICT(2)	LH	LF	Shank	DF	kg			
T490LNKD50-082-3-INT50-13	50.00	82.00	3	21	126.0	145.00	DIN 69871	97.50	3.85	SR 34-535-SN	BLD T15/S7	SW6-T-SH
T490LNKD63-081-4-INT50-13	63.00	81.00	4	28	107.0	126.10	DIN 69871	97.50	4.34	SR 34-535-SN	BLD T15/S7	SW6-T-SH
T490LNKD63-117-4-INT50-13	63.00	117.00	4	40	169.0	188.00	DIN 69871	97.50	5.46	SR 34-535-SN	BLD T15/S7	SW6-T-SH
T490LNKD80-082-4-INT50-13	80.00	82.00	4	28	154.0	173.00	DIN 69871	97.50	7.61	SR 34-535-SN	BLD T15/S7	SW6-T-SH
T490LNKD80-128-4-INT50-13	80.00	128.00	4	44	180.9	200.00	DIN 69871	97.50	7.92	SR 34-535-SN	BLD T15/S7	SW6-T-SH

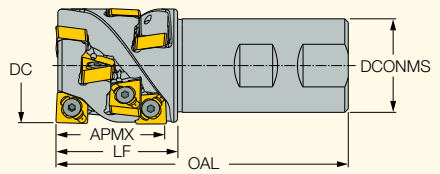
(1) Number of flutes
(2) Number of inserts

For inserts, see pages: T490 LNAR-P (480) • T490 LNMT 1306PNTR-FW (479) • T490 LNMT/LNHT/LNAR 1306 (478)

HELISLOT

XNK-XN13

Extended Flute Endmills
Carrying XNMU 1306... Inserts



Designation	DC	APMX	LF	NOF(1)	CICT(2)	OAL	DCONMS	Shank(3)	kg			
XNK D050-46-3-W40 XN13	50.00	46.00	85.00	3	12	125.00	40.00	W	1.09	SR M4-L15-D4.5	BLD IP15/S7	SW6-T-SH

- Radial W.O.C. < 0.3xDC

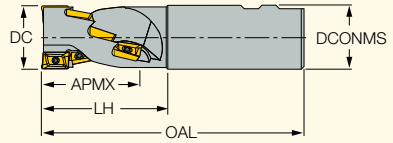
(1) Number of flutes
(2) Number of inserts
(3) W-Weldon

For inserts, see pages: XNMU 13 (514)

HELIMILL

APK-FE

Extended Flute Endmills
Carrying APKT/R-10... Inserts



Designation	DC	APMX	NOF(1)	CICT(2)	LH	OAL	DCONMS	Shank(3)	RMPX°(4)	kg		
APK D20-28-W20-FE	20.00	29.00	1	4	36.0	87.00	20.00	W	4.0	0.17	SR 34-505/HG	T-8/53
APK D25-36-W25-FE	25.00	37.00	2	8	47.0	105.00	25.00	W	4.0	0.31	SR 34-505/MHG	T-8/53
APK D32-45-W32-FE	32.00	46.00	2	12	55.0	115.00	32.00	W	1.4	0.57	SR 34-505/LHG	T-8/53
APK D40-50-W32-FE	40.00	55.00	3	18	65.0	130.00	32.00	W	1.3	0.80	SR 34-505/LHG	T-8/53

- Inserts with large corner radii can only be mounted in the face position of the cutter

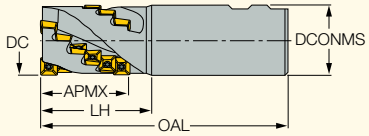
(1) Number of flutes
(2) Number of inserts
(3) W-Weldon
(4) Maximum ramping angle

For inserts, see pages: APCR 1003PDFR-P (450) • APCT 1003PDR-HM (450) • APKR 1003PDR-HM (451) • APKT 1003..R (453) • APKT 1003..TR-RM (452) • APKT 1003PDR-HM (451) • APKT 1003PDR-HM-CS (451) • APKT 1003PDTR-76 (452) • APKT 1003PDTR/L-RM (452) • HM90 APKW 1003PDR (453)

HELIQUAD

SPK

Extended Flute Endmills
Carrying Square Inserts



Designation	DC	APMX	NOF(1)	CICT(2)	LH	OAL	DCONMS	Shank(3)	RMPX°(4)	kg		
SPK D40-42-W32-10	40.00	43.00	3	15	55.0	125.00	32.00	W	1.5	0.70	SR 14-544/S	BLD T15/M7	SW6-SD

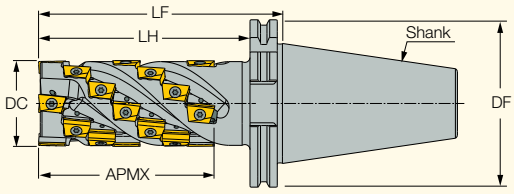
(1) Number of flutes
(2) Number of inserts
(3) W-Weldon
(4) Maximum ramping angle

For inserts, see pages: QPMR 1004-HQ-M (495) • QPMT 100408PDTN (495) • SPCT/SPMR PDR (496) • SPMT-HQ (495) • XPMT-HQ (496)

HELITANG

FIN LNK-INT

Extended Flute Endmills with Tangentially Clamped Inserts and DIN69871 Shanks for Semi-Finishing Long Shoulders



Designation	DC	APMX	NOF(1)	CICT(2)	LH	LF	DF	Shank	kg			
FIN LNK D050-100-4-INT50	50.00	102.00	4	28	123.2	142.30	97.50	DIN 69871	3.73	SR 34-535	BLD T15/M7	SW6-T
FIN LNK D063-130-4-INT50	63.00	130.00	4	36	157.0	176.10	97.50	DIN 69871	5.21	SR 34-535	BLD T15/M7	SW6-T

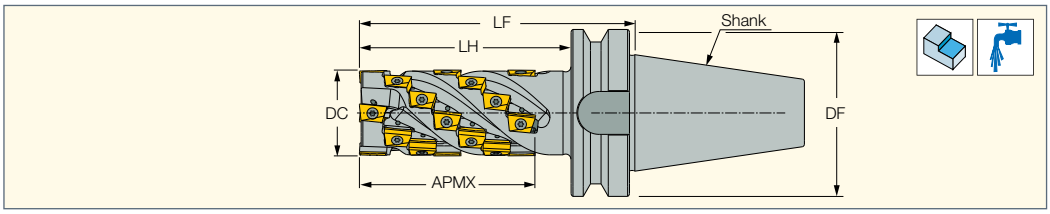
(1) Number of flutes
(2) Number of inserts

For inserts, see pages: FIN LNAT 1607PN-R (491)

HELITANG

FIN LNK-BT

Extended Flute Endmills with Tangentially Clamped Inserts and BT MAS-403 Shanks for Semi-Finishing Long Shoulders



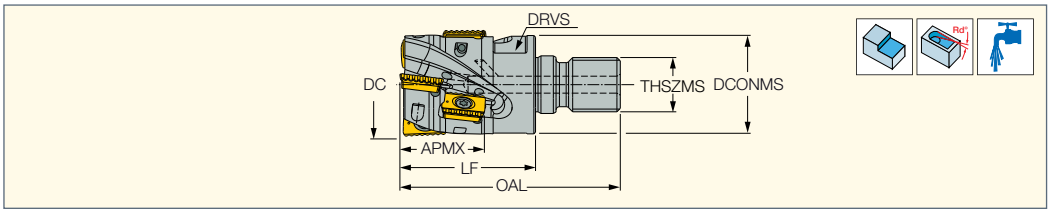
Designation	DC	APMX	NOF(1)	CICT(2)	LH	LPR	DF	Shank	kg			
FIN LNK D050-100-4-BT50	50.00	102.00	4	28	123.2	161.20	100.00	BT MAS-403	4.72	SR 34-535	BLD T15/M7	SW6-T

(1) Number of flutes
(2) Number of inserts
For inserts, see pages: FIN LNAT 1607PN-R (491)

MILLSHREDFLEXFIT P290 LINE

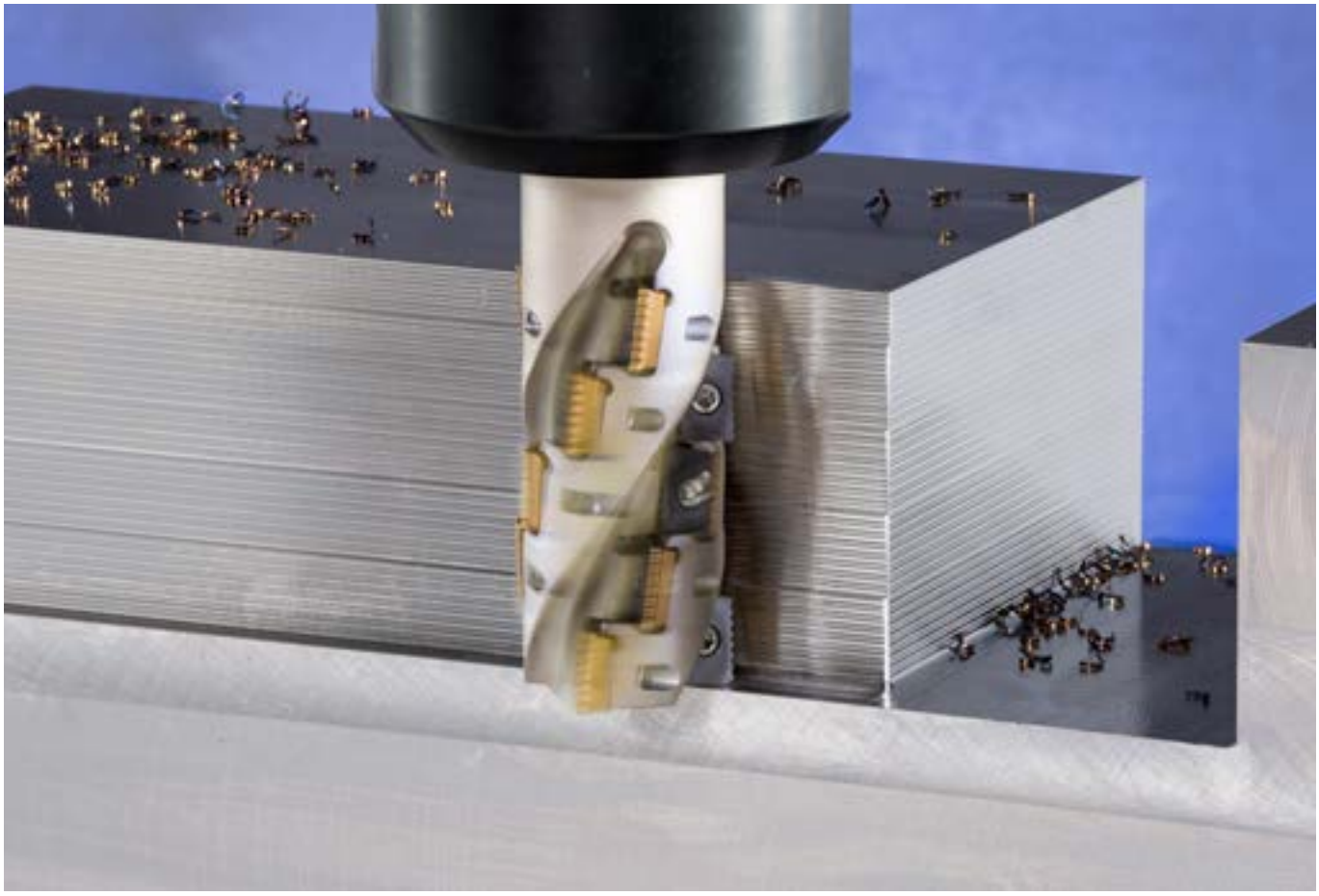
P290 ACK-M

Extended Flute Endmills with FLEXFIT Threaded Adaptation Carrying 12 mm Long Edged Inserts



Designation	DC	APMX	NOF(1)	CICT(2)	LF	DCONMS	THSZMS	OAL	DRVS(3)	RMPX°(4)	TQ_3(5)	kg		
P290 ACK D32-3-24-M16-12	32.00	24.00	3	6	40.00	29.00	M16	65.00	25.0	1.0	40	0.17	SR M3X0.5-L7.4 IP9(a)	IP-9/151

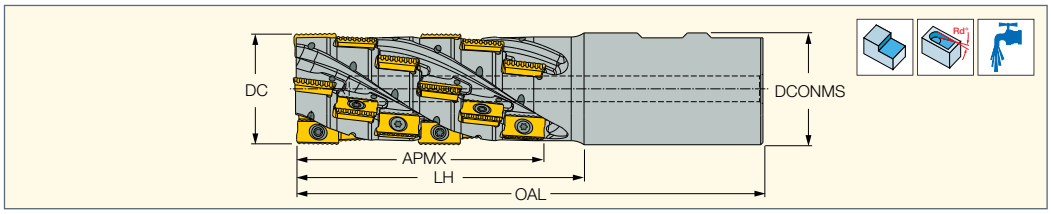
• Note: recommended a_e up to 0.2xDC • For adaptation options, see page 311 • For user guide, see pages 542-547 • When mounting items with FLEXFIT threaded adaptation to their holders, the mating surfaces and threaded areas must be thoroughly cleaned. Apply appropriate tightening torque to eliminate a gap between the mating faces. Estimated torque values are specified in the TQ_3 parameter
(1) Number of flutes
(2) Number of inserts
(3) Clamping wrench size
(4) Maximum ramping angle
(5) Tool tightening torque Nxm (lbfxin)
(a) Recommended tightening torque:2.0 N*m (20.0lbf*in)
For inserts, see pages: P290 ACCT/KT (461) • P290 ACKT (461)
For holders, see pages: BT-ODP (FLEXFIT) (314) • C#-ODP (FLEXFIT) (314) • CAB M-M (FLEXFIT) (312) • DIN69871-ODP (315) • ER-ODP (315) • HSK A-ODP (FLEXFIT) (316) • S M (312) • S M-C-H (312) • S M-CF (313)



MILLSHRED
P290 LINE

P290 ACK

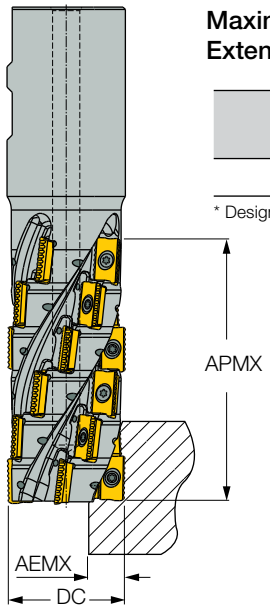
Extended Flute Endmills
Carrying 12 and 18 mm
Long Edged Inserts



Designation	DC	APMX	NOF(2)	CICT(3)	LH	OAL	DCONMS	RMPX°(4)	Shank(5)	kg
P290 ACK D25-3-24-W20-12	25.00	24.00	3	6	40.0	95.00	20.00	1.4	W	0.20
P290 ACK D25-3-36-W25-12	25.00	36.00	3	9	50.0	110.00	25.00	1.4	W	0.29
P290 ACK D32-3-36-W32-12	32.00	36.00	3	9	50.0	110.00	32.00	1.0	W	0.50
P290 ACK D32-3-48-W32-12	32.00	48.00	3	12	65.0	125.00	32.00	1.0	W	0.55
P290 ACK D32-3-60-W32-12	32.00	60.00	3	15	80.0	140.00	32.00	1.0	W	0.59
P290 ACK D32-3-84-W32-12	32.00	84.00	3	21	100.0	160.00	32.00	1.0	W	0.66
P290 ACK D32-3-36-W25-18 (1)	32.00	36.00	3	6	55.0	115.00	25.00	2.0	W	0.36
P290 ACK D40-3-53-W32-18	40.00	53.00	3	9	80.0	140.00	32.00	1.5	W	0.77
P290 ACK D40-3-71-W40-18	40.00	71.00	3	12	95.0	165.00	40.00	1.5	W	1.14
P290 ACK D40-3-90-W40-18	40.00	90.00	3	15	115.0	185.00	40.00	1.5	W	1.23
P290 ACK D40-3-125-W40-18	40.00	125.00	3	21	150.0	220.00	40.00	1.5	W	1.39
P290 ACK D50-4-53-W40-18	50.00	53.00	4	12	80.0	150.00	40.00	1.0	W	1.33
P290 ACK D50-4-105-W50-18	50.00	105.00	4	24	130.0	210.00	50.00	1.0	W	2.23
P290 ACK D50-3-160-W50-18	50.00	160.00	3	27	185.0	265.00	50.00	1.0	W	2.82

(1) Do not use with P290 ACKT...-FWR insert
(2) Number of flutes
(3) Number of inserts
(4) Maximum ramping angle
(5) W-Weldon

For inserts, see pages: P290 ACCT/KT (461) • P290 ACKT (461)



Maximum Width of Cut AE Max (AEMX)* for P290 ACK...
Extended Flute Cutters

APMX DC	Up to 1.5	Over 1.5 up to 2.5	Over 2.5
AEMX	0.2xDC	0.15xDC	0.1xDC

* Designation in accordance with standard ISO 13399 are given in parentheses

Spare Parts

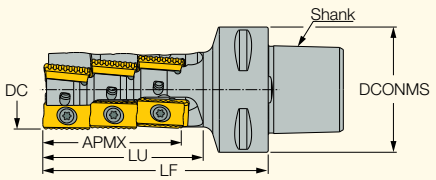
Designation				
P290 ACK D25-3-24-W20-12	SR M3X0.5-L7.4 IP9(a)	IP-9/151		
P290 ACK D25-3-36-W25-12	SR M3X0.5-L7.4 IP9(a)	IP-9/151		
P290 ACK D32-3-36-W32-12	SR M3X0.5-L7.4 IP9(a)	IP-9/151		
P290 ACK D32-3-48-W32-12	SR M3X0.5-L7.4 IP9(a)	IP-9/151		
P290 ACK D32-3-60-W32-12	SR M3X0.5-L7.4 IP9(a)	IP-9/151		
P290 ACK D32-3-84-W32-12	SR M3X0.5-L7.4 IP9(a)	IP-9/151		
P290 ACK D32-3-36-W25-18	SR 14-544/S		BLD T15/M7	SW6-T
P290 ACK D40-3-53-W32-18	SR 14-544/S		BLD T15/M7	SW6-T
P290 ACK D40-3-71-W40-18	SR 14-544/S		BLD T15/M7	SW6-T
P290 ACK D40-3-90-W40-18	SR 14-544/S		BLD T15/M7	SW6-T
P290 ACK D40-3-125-W40-18	SR 14-544/S		BLD T15/M7	SW6-T
P290 ACK D50-4-53-W40-18	SR 14-544/S		BLD T15/M7	SW6-T
P290 ACK D50-4-105-W50-18	SR 14-544/S		BLD T15/M7	SW6-T
P290 ACK D50-3-160-W50-18	SR 14-544/S		BLD T15/M7	SW6-T

(a) Recommended tightening torque:2.0 N*m

MILLSHREDCAMFIX
P290 LINE

P290 ACK-C#-18

Extended Flute Endmills with CAMFIX Shanks Carrying 18 mm Long Edged Inserts



Designation	DC	APMX	NOF(2)	CICT(3)	LU	LF	RMPX°(4)	DCONMS	Shank	CDI(5)	kg			
P290 ACK D32-3-36-C5-18 (1)	32.00	36.00	3	9	64.0	90.00	2.0	50.00	CAMFIX	1	0.79	SR 14-544/S	BLD T15/M7	SW6-T
P290 ACK D40-3-87-C6-18	40.00	87.00	3	15	106.0	134.60	1.5	63.00	CAMFIX	1	1.66	SR 14-544/S	BLD T15/M7	SW6-T
P290 ACK D63-5-87-C8-18	63.00	87.00	5	25	104.0	140.00	0.8	80.00	CAMFIX	1	4.00	SR 14-544/S	BLD T15/M7	SW6-T

- Note: recommended a_e up to 0.2xDC

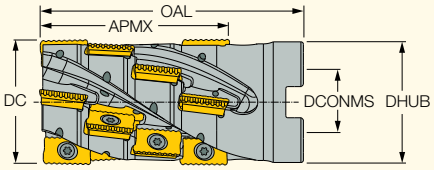
(1) Do not use with P290 ACKT...-FWR insert
(2) Number of flutes
(3) Number of inserts
(4) Maximum ramping angle
(5) 1 - Hole for data chip, 0 - Without hole for data chip

For inserts, see pages: P290 ACCT/KT (461) • P290 ACKT (461)

MILLSHRED
P290 LINE

P290 SM

Extended Flute Shell Mills Carrying 12 and 18 mm Long Edged Inserts



Designation	DC	APMX	NOF(1)	CICT(2)	OAL	DHUB	DCONMS	RMPX°(3)	Arbor(4)	kg
P290 SM D032-03-24-16-12	32.00	24.00	3	6	65.00	38.00	16.00	1.0	A	0.27
P290 SM D040-04-24-16-12	40.00	24.00	4	8	45.00	38.00	16.00	0.7	A	0.23
P290 SM D040-04-36-16-12	40.00	36.00	4	12	60.00	38.00	16.00	0.7	A	0.30
P290 SM D040-04-48-22-12	40.00	48.00	4	16	85.00	48.00	22.00	0.7	A	0.47
P290 SM D050-04-36-22-18	50.00	36.00	4	8	65.00	46.40	22.00	1.0	A	0.47
P290 SM D050-04-53-22-18	50.00	53.00	4	12	80.00	46.40	22.00	1.0	A	0.57
P290 SM D050-04-71-27-18	50.00	71.00	4	16	105.00	48.00	27.00	1.0	A	0.73
P290 SM D063-05-53-27-18	63.00	53.00	5	15	80.00	55.00	27.00	0.8	A	1.00
P290 SM D063-05-71-27-18	63.00	71.00	5	20	100.00	55.00	27.00	0.8	A	1.30
P290 SM D080-06-71-32-18	80.00	71.00	6	24	100.00	74.00	32.00	0.5	A	2.21
P290 SM D100-06-36-32-18	100.00	36.00	6	12	70.00	78.00	32.00	0.3	A	2.48
P290 SM D100-07-71-40-18	100.00	71.00	7	28	100.00	85.00	40.00	0.3	A	3.50

- Note: recommended a_e up to 0.2xDC

(1) Number of flutes
(2) Number of inserts
(3) Maximum ramping angle
(4) For adaptation options, see page 548

For inserts, see pages: P290 ACCT/KT (461) • P290 ACKT (461)

Spare Parts

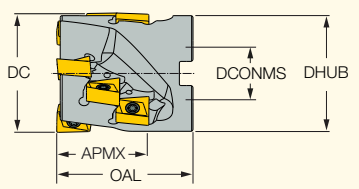
Designation					
P290 SM D032-03-24-16-12	SR M3X0.5-L7.4 IP9(a)	IP-9/151			SR M8X55-D11.5 DIN912
P290 SM D040-04-24-16-12	SR M3X0.5-L7.4 IP9(a)	IP-9/151			SR M8X35 DIN912
P290 SM D040-04-36-16-12	SR M3X0.5-L7.4 IP9(a)	IP-9/151			SR M8X45DIN912
P290 SM D040-04-48-22-12	SR M3X0.5-L7.4 IP9(a)	IP-9/151			SR M10X70DIN912
P290 SM D050-04-36-22-18	SR 14-544/S		BLD T15/M7	SW6-T	SR M10X50 DIN 912
P290 SM D050-04-53-22-18	SR 14-544/S		BLD T15/M7	SW6-T	SR M10X60DIN912
P290 SM D050-04-71-27-18	SR 14-544/S		BLD T15/M7	SW6-T	SR M12X70DIN912
P290 SM D063-05-53-27-18	SR 14-544/S		BLD T15/M7	SW6-T	SR M12X70DIN912
P290 SM D063-05-71-27-18	SR 14-544/S		BLD T15/M7	SW6-T	SR M12X70DIN912
P290 SM D080-06-71-32-18	SR 14-544/S		BLD T15/M7	SW6-T	SR M16X80 DIN 912
P290 SM D100-06-36-32-18	SR 14-544/S		BLD T15/M7	SW6-T	SR M16X50 DIN912
P290 SM D100-07-71-40-18	SR 14-544/S		BLD T15/M7	SW6-T	SR M20X80DIN912

(a) Recommended tightening torque:2.0 N*m

HELIDO 490 LINE

H490 SM-12

Extended Flute Shell Mills
Carrying H490 ANKX 12..
Double-Sided Rectangular Inserts
with 4 Helical Cutting Edges



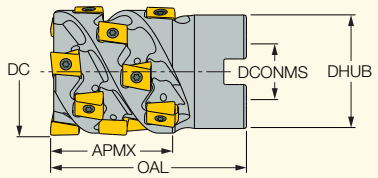
Designation	DC	CICT(1)	NOF(2)	APMX	OAL	DHUB	DCONMS	Arbor(3)	kg				
H490 SM D050-36-3-22-12	50.00	9	3	35.00	60.00	48.00	22.00	A	0.45	SR 14-544	BLD T15/M7	SW6-T	SR M10X40DIN912
H490 SM D063-48-4-27-12	63.00	16	4	47.00	70.00	60.00	27.00	A	0.89	SR 14-544	BLD T15/M7	SW6-T	SR M12X50DIN912

(1) Number of inserts
(2) Number of flutes
(3) For adaptation see page 548
For inserts, see pages: H490 ANKX/ANCX-12 (470)

HELITANG T490 LINE

T490 SM-08

Extended Flute Shell Mills
Carrying T490 LNMT/HT 0804...
Tangentially Clamped Inserts



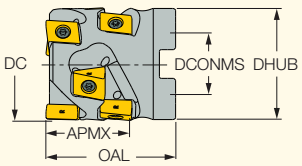
Designation	DC	APMX	NOF(1)	CICT(2)	OAL	DHUB	DCONMS	Arbor(3)	kg			
T490 SM D032-36-3-16-08	32.00	36.00	3	15	58.00	38.00	16.00	A	0.23	SR 10502813-HG-M	IP-7/51	SR M8X45DIN912
T490 SM D040-44-4-16-08	40.00	44.00	4	24	65.00	38.00	16.00	A	0.38	SR 10502813-HG-M	IP-7/51	SR M8X55DIN912
T490 SM D050-44-5-22-08	50.00	44.00	5	30	65.00	47.00	22.00	A	0.61	SR 10502813-HG-M	IP-7/51	SR M10X50 DIN 912

(1) Number of flutes
(2) Number of inserts
(3) For adaptation options, see page 548
For inserts, see pages: T490 LNAR-P (480) • T490 LNMT/LNHT 0804 (476)

HELITANG T490 LINE

T490 SM-11

Extended Flute Shell Mills
Carrying T490 LN#T 11...
Tangentially Clamped Inserts



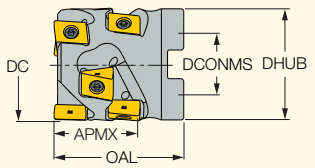
Designation	DC	APMX	NOF(1)	CICT(2)	OAL	DHUB	DCONMS	Arbor(3)	kg				
T490 SM-D40-51-3-22-11	40.00	51.00	3	18	72.00	38.00	22.00	A	0.31	SR 34-535/L10.5-SN	BLD T15/S7(a)	SW6-SD	SR M10X60DIN912
T490 SM-D50-51-3-22-11	50.00	51.00	3	18	71.00	48.00	22.00	A	0.59	SR 34-535-SN	BLD T15/S7(a)	SW6-SD	SR M10X60DIN912
T490 SM-D50-59-4-22-11	50.00	59.00	4	28	80.00	48.00	22.00	A	0.66	SR 34-535-SN	BLD T15/S7(a)	SW6-SD	SR M10X70DIN912
T490 SM-D63-59-4-27-11	63.00	59.00	4	28	81.00	60.00	27.00	A	1.16	SR 34-535-SN	BLD T15/S7(a)	SW6-SD	SR M12X70DIN912
T490 SM-D63-68-5-27-11	63.00	68.00	5	40	90.00	60.00	27.00	A	1.30	SR 34-535-SN	BLD T15/S7(a)	SW6-SD	SR M12X80DIN912

• Important: Maximum clamping torque 3.2 Nxm
(1) Number of flutes
(2) Number of inserts
(3) For adaptation see page 548
(a) Recommended key handle for limiting torque to 3.2 Nxm for this item is HSD 4-3.2NM (to be used with BLD 4 T15-4.8 blade)
For inserts, see pages: T490 LNMT/LNHT 1106 (477)

HELITANG T490 LINE

T490 SM-13

Extended Flute Shell Mills
Carrying T490 LNMT/HT 1306...
Tangentially Clamped Inserts



Designation	DC	APMX	NOF(1)	CICT(2)	OAL	DHUB	DCONMS	Arbor(3)	kg
T490 SM-D40-24-2-22-13	40.00	24.00	2	4	50.00	38.00	22.00	A	0.24
T490 SM-D40-36-3-22-13	40.00	36.00	3	9	62.00	38.00	22.00	A	0.29
T490 SM-D50-36-2-27-13	50.00	36.00	2	6	56.00	48.00	27.00	A	0.38
T490 SM-D50-36-3-22-13	50.00	36.00	3	9	56.00	48.00	22.00	A	0.43
T490 SM-D50-36-3-27-13	50.00	36.00	3	9	56.00	48.00	27.00	A	0.39
T490 SM-D50-47-4-22-13	50.00	47.00	4	16	68.00	48.00	22.00	A	0.54
T490 SM-D50-47-4-27-13	50.00	47.00	4	16	68.00	48.00	27.00	A	0.49
T490 SM-D63-36-4-27-13	63.00	36.00	4	12	60.00	58.00	27.00	A	0.79
T490 SM-D63-59-5-27-13	63.00	59.00	5	25	80.00	58.00	27.00	A	1.09
T490 SM-D80-58-5-32-13	80.00	58.00	5	25	75.00	74.00	32.00	A	1.73
T490 SM-D80-70-5-32-13	80.00	70.00	5	30	111.00	74.00	32.00	A	2.65
T490 SM-D100-59-6-40-13	100.00	59.00	6	30	86.00	88.00	40.00	A	3.11

(2) Number of flutes
(3) Number of inserts
(4) For adaptation options, see page 548
For inserts, see pages: T490 LNAR-P (480) • T490 LNMT 1306PNTR-FW (479) • T490 LNMT/LNHT/LNAR 1306 (478)

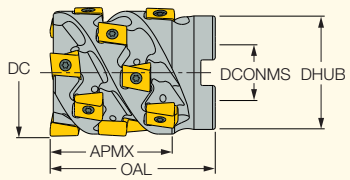
Spare Parts

Designation				
T490 SM-D40-24-2-22-13	SR 34-535/L10.5-SN	BLD T15/S7	SW6-T-SH	SR M10X40DIN912
T490 SM-D40-36-3-22-13	SR 34-535/L10.5-SN	BLD T15/S7	SW6-T-SH	SR M10X50 DIN 912
T490 SM-D50-36-2-27-13	SR 34-535-SN	BLD T15/S7	SW6-T-SH	SR M12X45DIN912
T490 SM-D50-36-3-22-13	SR 34-535-SN	BLD T15/S7	SW6-T-SH	SR M10X40DIN912
T490 SM-D50-36-3-27-13	SR 34-535-SN	BLD T15/S7	SW6-T-SH	SR M12X45DIN912
T490 SM-D50-47-4-22-13	SR 34-535-SN	BLD T15/S7	SW6-T-SH	SR M10X50 DIN 912
T490 SM-D50-47-4-27-13	SR 34-535-SN	BLD T15/S7	SW6-T-SH	SR M12X50DIN912
T490 SM-D63-36-4-27-13	SR 34-535-SN	BLD T15/S7	SW6-T-SH	SR M12X50DIN912
T490 SM-D63-59-5-27-13	SR 34-535-SN	BLD T15/S7	SW6-T-SH	SR M12X70DIN912
T490 SM-D80-58-5-32-13	SR 34-535-SN	BLD T15/S7	SW6-T-SH	SR M16X55DIN912
T490 SM-D80-70-5-32-13	SR 34-535-SN	BLD T15/S7	SW6-T-SH	SR M16X90DIN912
T490 SM-D100-59-6-40-13	SR 34-535-SN	BLD T15/S7	SW6-T-SH	SR M20X60DIN912

HELITANG T490 LINE

T490 SM-13FT

Basic Units for Modular
Extended Flute Shell Mills



Designation	DC	APMX	NOF(1)	CICT(2)	OAL	DHUB	DCONMS	Arbor(3)	kg
T490 SM-D50-47-2-27-13FT	50.00	47.00	2	8	66.50	58.00	27.00	A	0.59
T490 SM-D63-59-3-27-13FT	63.00	59.00	3	15	80.00	58.00	27.00	A	1.10
T490 SM-D80-70-4-32-13FT	80.00	70.00	4	24	95.00	74.00	32.00	A	2.23

(1) Number of flutes
(2) Number of inserts
(3) For adaptation options, see page 548
For inserts, see pages: T490 LNAR-P (480) • T490 LNMT 1306PNTR-FW (479) • T490 LNMT/LNHT/LNAR 1306 (478)

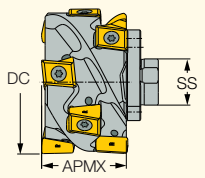
Spare Parts

Designation						
T490 SM-D50-47-2-27-13FT	SR 34-535-SN	BLD T15/S7	SW6-T-SH			SR M12X50DIN912
T490 SM-D63-59-3-27-13FT	SR 34-535-SN	BLD T15/S7	SW6-T-SH	SR M3X0.5X10DIN7991 10.9	PG D63	SR M12X60DIN912
T490 SM-D80-70-4-32-13FT	SR 34-535-SN	BLD T15/S7	SW6-T-SH	SR M3X0.5X10DIN7991 10.9	PG D63	SR M16X70DIN912

HELITANG T490 LINE

T490 CAP-13FT

Extension Units for Modular Extended Flute Shell Mills

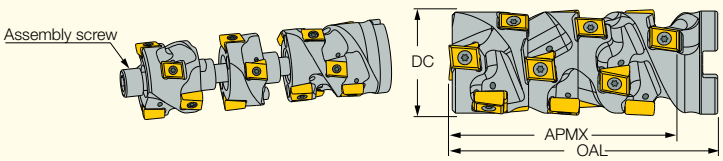


Designation	DC	APMX	NOF(1)	CICT(2)	SS	kg		
T490 CAP-D50-24-2-20-13FT	50.00	24.00	2	4	20	0.21	SR 34-535-SN	
T490 CAP-D50-36-2-20-13FT	50.00	36.00	2	6	20	0.32	SR 34-535-SN	
T490 CAP-D63-24-3-20-13FT	63.00	24.00	3	6	20	0.33	SR 34-535-SN	
T490 CAP-D63-24-4-2W0-13FT	63.00	24.00	4	8	20	0.34	SR 34-535-SN	SR M6X6 DIN916
T490 CAP-D63-36-3-20-13FT	63.00	36.00	3	9	20	0.51	SR 34-535-SN	
T490 CAP-D63-36-4-20-13FT	63.00	36.00	4	12	20	0.50	SR 34-535-SN	SR M6X6 DIN916
T490 CAP-D80-24-4-25-13FT	80.00	24.00	4	8	25	0.59	SR 34-535-SN	SR M6X8 DIN916
T490 CAP-D80-36-4-25-13FT	80.00	36.00	4	12	25	0.88	SR 34-535-SN	SR M6X8 DIN916

(1) Number of flutes
(2) Number of inserts

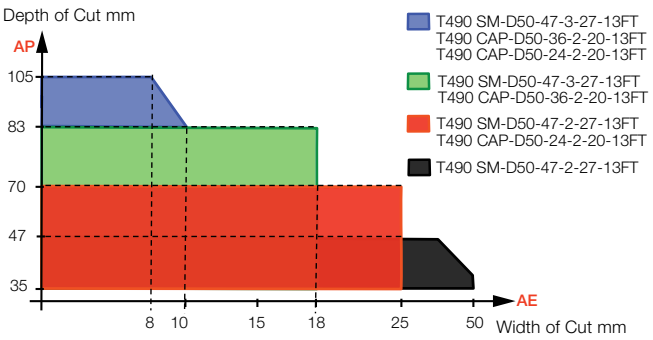
For inserts, see pages: T490 LNAR-P (480) • T490 LNMT 1306PNTR-FW (479) • T490 LNMT/LNHT/LNAR 1306 (478)

Modular Extended Flute Assembly

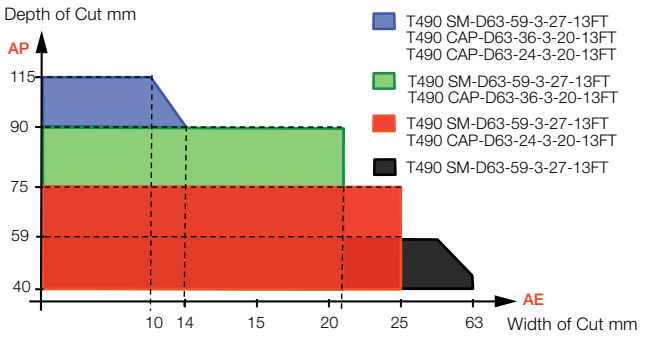


Shell Base Unit	Extension 1	Extension 2	DC	APMX	OAL	NOF	CICT	Assembly Screw
T490 SM-D50-47-2-27-13FT				47	66.5	2	8	SR M12x50 DIN912
	T490 CAP-D50-24-2-20-13FT		50	71	90		12	SR M12x70 DIN912
	T490 CAP-D50-36-2-20-13FT		50	83	102		14	SR M12x80 DIN912
	T490 CAP-D50-24-2-20-13FT	T490 CAP-D50-24-2-20-13FT	50	94	113		16	SR M12x100 DIN912
	T490 CAP-D50-24-2-20-13FT	T490 CAP-D50-36-2-20-13FT	50	106	125		18	SR M12x110 DIN912
T490 SM-D63-59-3-27-13FT				59	80	3	15	SR M12x60 DIN912
	T490 CAP-D63-24-3-20-13FT		63	82	103		21	SR M12x80 DIN912
	T490 CAP-D63-36-3-20-13FT		63	94	115		24	SR M12x100 DIN912
	T490 CAP-D63-24-3-20-13FT	T490 CAP-D63-24-3-20-13FT	63	106	127		27	SR M12x110 DIN912
	T490 CAP-D63-24-3-20-13FT	T490 CAP-D63-36-3-20-13FT	63	117	138		30	SR M12x120 DIN912

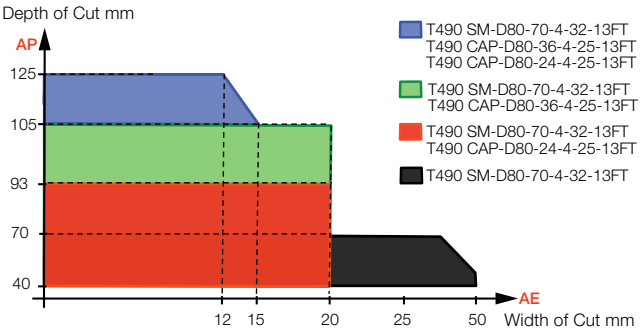
AP/AE Application Range for 50 mm Modular Extended Flute Cutters



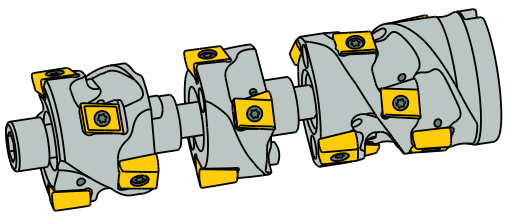
AP/AE Application Range for 63 mm Modular Extended Flute Cutters



AP/AE Application Range for 80 mm Modular Extended Flute Cutters



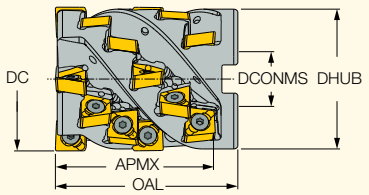
Workpiece: Alloy Steel



HELISLOT

SM-XN13

Extended Flute Shell Mills
Carrying XNMU 1306... Inserts



Designation	DC	APMX	NOF(1)	DCONMS	CICT(2)	LF	DHUB	Arbor	kg				
SM D063-69-3-27R XN13	63.00	69.00	3	27.00	18	80.00	61.30	A	1.05	SR M4-L15-D4.5	BLD IP15/S7	SW6-T-SH	SR M12X70DIN912
SM D063-69-4-27R XN13	63.00	69.00	4	27.00	24	80.00	61.30	A	0.95	SR M4-L15-D4.5	BLD IP15/S7	SW6-T-SH	SR M12X70DIN912
SM D080-69-5-32R XN13	80.00	69.00	5	32.00	30	85.00	78.30	A	2.50	SR M4-L15-D4.5	BLD IP15/M7	SW6-T-SH	SR M16X70DIN912

- Radial W.O.C. < 0.3xDC

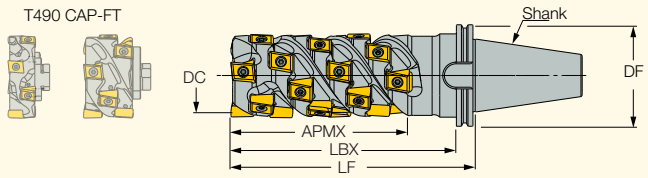
(1) Number of flutes
(2) Number of inserts

For inserts, see pages: XNMU 13 (514)

HELITANG T490 LINE

T490 LNK-INT50-FT

Basic Units of Modular Extended
Flute Endmills with DIN 69871
Tapered Shanks Carrying
T490 LNMT/HT 1306 Inserts



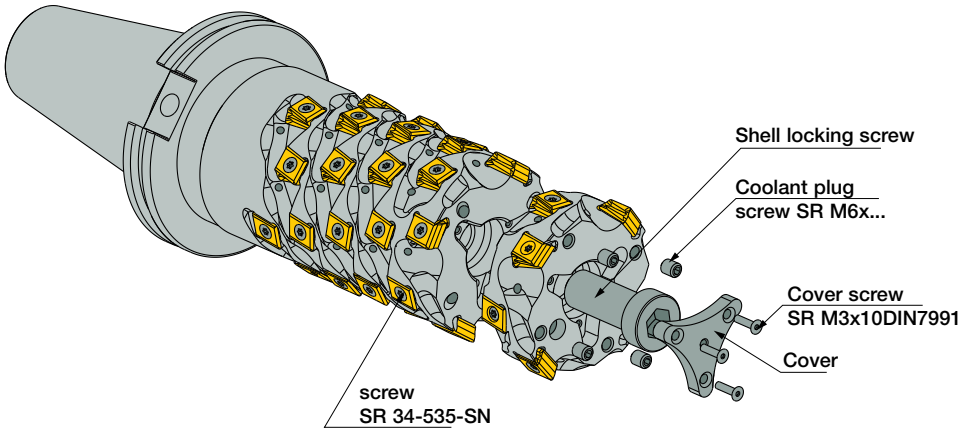
Designation	DC	APMX	LBX	LF	DF	NOF(1)	CICT(2)	Shank	kg
T490LNKD63-082-4-INT50-FT	63.00	82.00	125.9	145.00	97.50	4	28	DIN69871	5.15
T490LNK-D80-82-5-INT50-FT	80.00	82.00	125.5	144.60	97.50	5	35	DIN69871	6.08
T490LNKD80-105-4-INT50-FT	80.00	105.00	154.1	173.20	97.50	4	36	DIN69871	7.04

- Remove coolant plug screws (SR M6X..DIN916) prior to attaching extension units

(1) Number of flutes
(2) Number of inserts

For inserts, see pages: T490 LNAR-P (480) • T490 LNMT 1306PNTR-FW (479) • T490 LNMT/LNHT/LNAR 1306 (478)

Shell Base Unit	Extension	DC	APMX	OAL	NOF	CICT	Assembly Screw
T490 LNK-D63-082-4-INT50-FT		63	82	126	4	28	
	T490 CAP-24-4-20-13FT		106	150		36	SR M12x30 DIN912
	T490 CAP-36-4-20-13FT		118	162		40	SR M12X45DIN912 12.9
T490 LNK-D80-082-5-INT50-FT		80	82	125	5	45	
	T490 CAP-D80-24-25-13FT		106	149		55	SR M16x40 DIN912
			105	135		36	
T490 LNK-D80-105-4-INT50-FT	T490 CAP-D80-24-4-25-13FT	80	129	159	4	44	SR M16x40 DIN912
	T490 CAP-D80-36-4-25-13FT		141	171		48	SR M16x40 DIN912



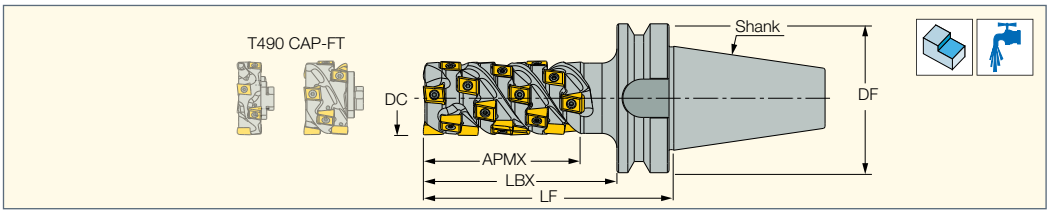
Spare Parts

Designation							
T490LNKD63-082-4-INT50-FT	SR 34-535-SN	BLD T15/S7	SW6-T-SH	SR M6X6 DIN916	SR M12X12 DIN912		
T490LNK-D80-82-5-INT50-FT	SR 34-535-SN	BLD T15/S7	SW6-T-SH			PG D63	SR M3X0.5X10DIN7991 10.9
T490LNKD80-105-4-INT50-FT	SR 34-535-SN	BLD T15/S7	SW6-T-SH	SR M6X8 DIN916		PG D63	SR M3X0.5X10DIN7991 10.9

HELITANG T490 LINE

T490 LNK-BT-FT

Basic Units of Modular Extended Flute Endmills with BT MAS-403 Tapered Shanks Carrying T490 LNMT/HT 1306 Inserts



Designation	DC	APMX	LBX	LF	DF	NOF(1)	CICT(2)	Shank	kg
T490LNK-D63-082-4-BT50-FT	63.00	82.00	107.0	145.00	100.00	4	28	BT MAS-403	5.32
T490LNK-D80-105-4-BT50-FT	80.00	105.00	135.2	173.20	100.00	4	36	BT MAS-403	7.35

- Remove coolant plug screws (SR M6X..DIN916) prior to attaching extension units

(1) Number of flutes
(2) Number of inserts

For inserts, see pages: T490 LNAR-P (480) • T490 LNMT 1306PNTR-FW (479) • T490 LNMT/LNHT/LNAR 1306 (478)

Shell Base Unit	Extension	DC	APMX	OAL	NOF	CICT	NOFAssembly Screw
T490 LNK-D63-082-4-BT50-FT			82	107		28	
	T490 CAP-D63-24-4-20-13FT	63	106	131	4	36	SR M12x30 DIN912
	T490 CAP-D63-36-4-20-13FT		118	143		40	SR M12X45DIN912 12.9
T490 LNK-D80-105-4-BT50-FT			105	135		36	
	T490 CAP-D80-24-4-25-13FT	80	129	159	4	44	SR M16x40 DIN912
	T490 CAP-D80-36-4-25-13FT		141	171		48	SR M16x40 DIN912

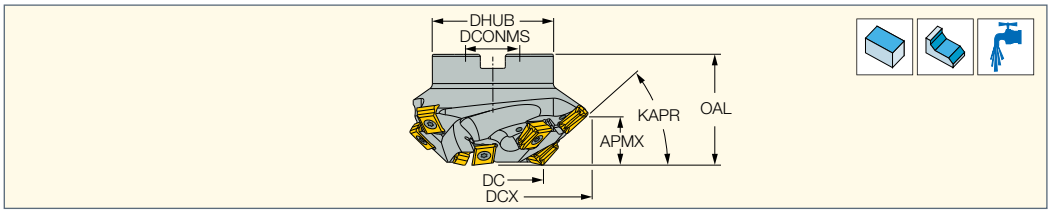
Spare Parts

Designation							
T490LNK-D63-082-4-BT50-FT	SR 34-535-SN	BLD T15/S7	SW6-T-SH	SR M6X6 DIN916	SR M12X12 DIN912		
T490LNK-D80-105-4-BT50-FT	SR 34-535-SN	BLD T15/S7	SW6-T-SH	SR M6X8 DIN916		PG D63	SR M3X0.5X10DIN7991 10.9

HELITANG

T4..-SM Conical Shell Mills

Conical Extended Flute Shell Mills Carrying T490 LNMT/LNHT 13... Tangentially Clamped Inserts



Designation	DC	KAPR(2)	APMX	DCX(3)	NOF(4)	ZNP(5)	OAL	DHUB	DCONMS	Arbor(6)	kg
T422 SM-D050-12-3-32-13 (1)	50.00	22.5	12.20	110.10	3	9	60.00	78.00	32.00	A	1.92
T425 SM-D050-13-3-32-13	50.00	25.0	13.55	109.20	3	9	60.00	78.00	32.00	A	1.85
T430 SM-D050-16-3-32-13	50.00	30.0	16.00	107.20	3	9	60.00	78.00	32.00	A	1.81
T440 SM-D050-28-3-27-13	50.00	40.0	28.88	118.80	3	12	65.00	60.00	27.00	A	1.99
T445 SM-D050-23-3-27-13	50.00	45.0	23.50	98.20	3	9	55.00	60.00	27.00	A	1.17
T445 SM-D050-47-3-32-13	50.00	45.0	47.50	145.60	3	18	76.00	80.00	32.00	A	3.41
T450 SM-D050-25-3-27-13	50.00	50.0	26.12	94.30	3	9	55.00	60.00	27.00	A	0.13
T460 SM-D050-30-3-27-13	50.00	60.0	30.00	85.20	3	9	55.00	60.00	27.00	A	0.96
T470 SM-D050-33-3-27-13	50.00	70.0	33.20	74.30	3	9	60.00	58.00	27.00	A	0.86
T475 SM-D050-34-3-27-13	50.00	75.0	34.50	68.60	3	9	55.00	60.00	27.00	A	0.73
T475 SM-D050-56-3-32-13	50.00	75.0	57.70	81.00	3	15	83.50	78.00	32.00	A	1.52

- Note: RPM should be considered according to the recommended speed applied on the outer diameter obtained by the specific D.O.C.
- For user guide, see pages 542-547

(1) On request
(2) Tool cutting edge angle
(3) Cutting diameter maximum
(4) Number of flutes
(5) Number of peripheral inserts
(6) For adaptation options, see page 548

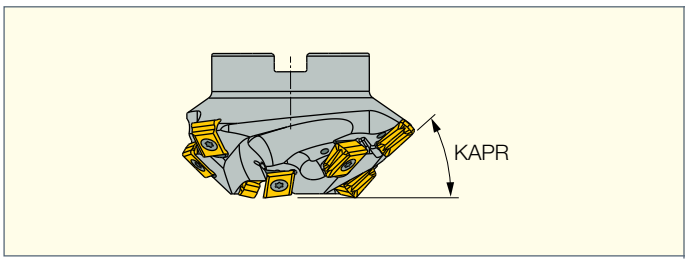
For inserts, see pages: T490 LNAR-P (464) • T490 LNMT 1306PNTR-FW (463) • T490 LNMT/LNHT/LNAR 1306 (462)

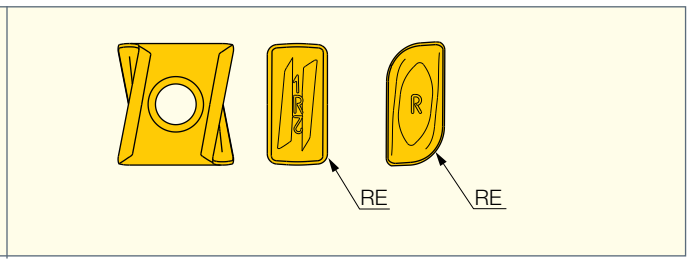
Spare Parts

Designation				
T422 SM-D050-12-3-32-13	SR 34-535-SN	BLD T15/S7	SW6-T-SH	SR M16X40DIN912
T425 SM-D050-13-3-32-13	SR 34-535-SN	BLD T15/S7	SW6-T-SH	SR M16X40DIN912
T430 SM-D050-16-3-32-13	SR 34-535-SN	BLD T15/S7	SW6-T-SH	SR M16X40DIN912
T440 SM-D050-28-3-27-13	SR 34-535-SN	BLD T15/S7	SW6-T-SH	SR M12X45DIN912
T445 SM-D050-23-3-27-13	SR 34-535-SN	BLD T15/S7	SW6-T-SH	SR M12X35DIN912
T445 SM-D050-47-3-32-13	SR 34-535-SN	BLD T15/S7	SW6-T-SH	SR M16X50 DIN912
T450 SM-D050-25-3-27-13	SR 34-535-SN	BLD T15/S7	SW6-T-SH	SR M12X35DIN912
T460 SM-D050-30-3-27-13	SR 34-535-SN	BLD T15/S7	SW6-T-SH	SR M12X35DIN912
T470 SM-D050-33-3-27-13	SR 34-535-SN	BLD T15/S7	SW6-T-SH	SR M12X50DIN912
T475 SM-D050-34-3-27-13	SR 34-535-SN	BLD T15/S7	SW6-T-SH	SR M12X35DIN912
T475 SM-D050-56-3-32-13	SR 34-535-SN	BLD T15/S7	SW6-T-SH	SR M16X60DIN912

Recommended Applications

The table and figures below show the applicability of the conical extended flute cutters carrying inserts with different corner radii.





Description	KAPR	Application Fig. for RE								
		0.8	1.2	1.6	2.4	3.1	4.0	5.0	6.0	6.4
T422 SM-D050-12-3-32-13	22.5	Fig. 1 & 2	Fig. 2	Fig. 2	Fig. 1 & 2	Fig. 1 & 2	Fig. 2	Fig. 2	Fig. 2	Fig. 2
T425 SM-D050-13-3-32-13	25	Fig. 1 & 2	Fig. 2	Fig. 2	Fig. 1 & 2	Fig. 1 & 2	Fig. 2	Fig. 1 & 2	Fig. 1 & 2	Fig. 1 & 2
T430 SM-D050-16-3-32-13	30	Fig. 1 & 2	Fig. 2	Fig. 2	Fig. 1 & 2	Fig. 1 & 2	Fig. 1 & 2	Fig. 1 & 2	Fig. 1 & 2	Fig. 1 & 2
T440 SM-D050-28-3-27-13	40	Fig. 2	Fig. 2	Fig. 2	Fig. 2	Fig. 2	Fig. 2	Fig. 2	Fig. 2	Fig. 2
T445 SM-D050-23-3-27-13	45	Fig. 1 & 2	Fig. 2	Fig. 2	Fig. 1 & 2	Fig. 1 & 2	Fig. 2	Fig. 2	Fig. 2	Fig. 2
T450 SM-D050-25-3-27-13	50	Fig. 1 & 2	Fig. 2	Fig. 2	Fig. 1 & 2	Fig. 1 & 2	Fig. 2	Fig. 2	Fig. 2	Fig. 2
T460 SM-D050-30-3-27-13	60	Fig. 1 & 2	Fig. 1 & 2	Fig. 1 & 2	Fig. 1 & 2	Fig. 1 & 2	Fig. 1 & 2	Fig. 1 & 2	Fig. 1 & 2	Fig. 1 & 2
T470 SM-D050-33-3-27-13	70	Fig. 1 & 2	Fig. 1 & 2	Fig. 1 & 2	Fig. 1 & 2	Fig. 1 & 2	Fig. 1 & 2	Fig. 1 & 2	Fig. 1 & 2	Fig. 1 & 2
T475 SM-D050-34-3-27-13	75	Fig. 1 & 2	Fig. 1 & 2	Fig. 1 & 2	Fig. 1 & 2	Fig. 1 & 2	Fig. 1 & 2	Fig. 1 & 2	Fig. 1 & 2	Fig. 1 & 2

KAPR - Tool cutting edge angle

Required to make a modification in the tool body

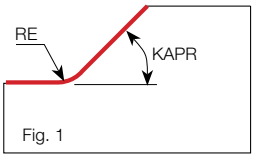


Fig. 1

Machined surface

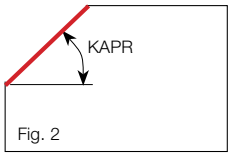


Fig. 2

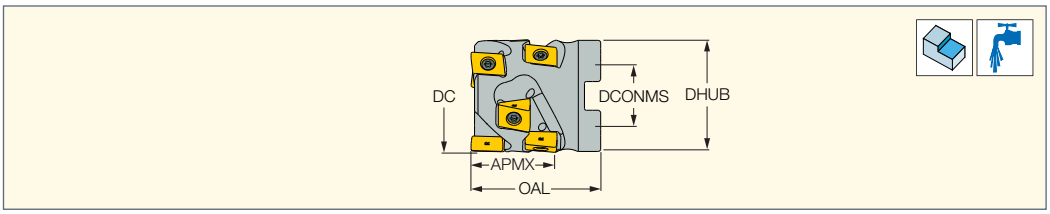
Fig. 3

For indexable inserts T490 LNHT 1306… with a corner radius of 4 mm and more, the tool body mast be modified according to Fig. 3.

HELITANG T490 LINE

T490 SM-16

Extended Flute Shell Mills
Carrying T490 LNMT/HT 1607...
Tangentially Clamped Inserts



Designation	DC	APMX	OAL	NOF(1)	CICT(2)	DHUB	DCONMS	Arbor(3)				
T490 SM D63-47-3-27-16	63.00	47.00	68.00	3	9	58.00	27.00	A	0.93	SR 14-591	BLD T20/M7	SW6-T

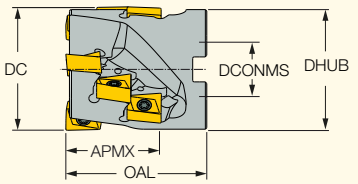
(1) Number of flutes
(2) Number of inserts
(3) For adaptation options, see page 548

For inserts, see pages: T490 LNAR-P (480) • T490 LNMT/LNHT 1607 (480)

HELIDO 490 LINE

H490 SM-17

Extended Flute Shell Mills
Carrying H490 ANKX 17..
Double-Sided Rectangular Inserts
with 4 Helical Cutting Edges



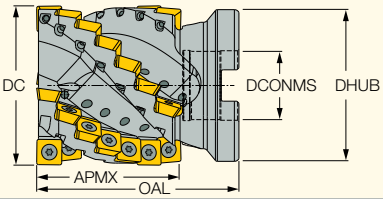
Designation	DC	APMX	NOF(1)	CICT(2)	OAL	DHUB	DCONMS	Arbor(3)	kg				
H490 SM D063-48-3-27-17C	63.00	46.50	3	9	70.00	59.40	27.00	A	1.93	SR 14-591	BLD T20/M7	SW6-T	SR M12X50DIN912
H490 SM D063-60-3-27-17C	63.00	58.50	3	12	85.00	59.40	27.00	A	1.13	SR 14-591	BLD T20/M7	SW6-T	SR M12X60DIN912
H490 SM D080-48-4-32-17C	80.00	46.50	4	12	70.00	76.40	32.00	A	1.56	SR 14-591	BLD T20/M7	SW6-T	SR M16X40DIN912

(1) Number of flutes
(2) Number of inserts
(3) For adaptation options, see page 548
For inserts, see pages: H490 ANKX/ANCX-17 (472)

XQUAD EXTENDED FLUTE

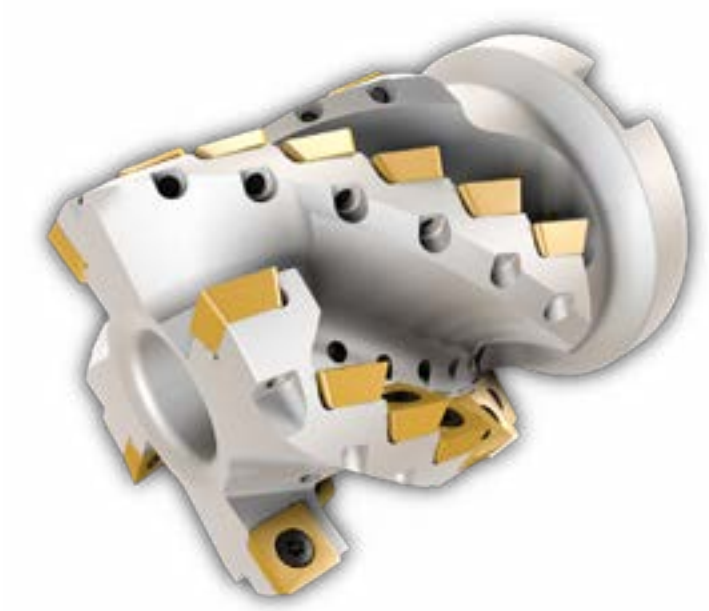
SDK-10-C/HP

Extended Flute Shell Mills Carrying
SDHW/T 100408... Inserts



Designation	DC	APMX	NOF(2)	DCONMS	CICT(3)	OAL	DHUB	Arbor(4)	kg				
SDK D050-48-03-22-10-C	50.00	48.00	3	22.00	18	75.00	48.00	A	0.54	SR M3.5X0.6-L8.5 IP10	BLD IP10/S7	SW6-SD	SR M10X60DIN912
SDK D050-48-03-27-10-C	50.00	48.00	3	27.00	18	80.00	49.00	A	0.57	SR M3.5X0.6-L8.5 IP10	BLD IP10/S7	SW6-SD	SR M12X65 DIN912
SDK D050-48-04-27-10-C	50.00	48.00	4	27.00	24	80.00	49.00	A	0.56	SR M3.5X0.6-L8.5 IP10	BLD IP10/S7	SW6-SD	SR M12X65 DIN912
SDK D050-48-04-27-10-HP (1)	50.00	48.00	4	27.00	24	80.00	49.00	A	0.57	SR M3.5X0.6-L8.5 IP10	BLD IP10/S7	SW6-SD	SR M12X65 DIN912
SDK D063-56-04-27-10-C	63.00	56.00	4	27.00	28	80.00	60.00	A	0.90	SR M3.5X0.6-L8.5 IP10	BLD IP10/S7	SW6-SD	SR M12X65 DIN912
SDK D080-64-05-32-10-C	80.00	64.00	5	32.00	40	85.00	78.00	A	1.61	SR M3.5X0.6-L8.5 IP10	BLD IP10/S7	SW6-SD	SR M16X65 DIN912

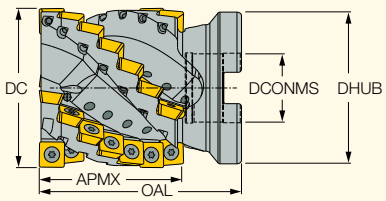
(1) Designed with coolant nozzles for high pressure coolant
(2) Number of flutes
(3) Number of inserts
(4) For adaptation see page 548
For inserts, see pages: SDHT/W 100408 (498)



XQUAD EXTENDED FLUTE

SDK-12-C/HP

Extended Flute Shell Mills
Carrying SDHT 1205... Inserts



Designation	DC	APMX	NOF(2)	DCONMS	CICT(3)	OAL	DHUB	Arbor(4)	kg
SDK D63-55-05-27-12-C	63.00	55.00	5	27.00	25	80.00	60.00	A	0.94
SDK D63-55-05-27-12-HP (1)	63.00	55.00	5	27.00	25	80.00	60.00	A	0.94
SDK D63-66-04-27-12-C	63.00	66.00	4	27.00	24	93.00	60.00	A	1.07
SDK D63-98-04-27-12-C	63.00	98.00	4	27.00	36	125.00	60.00	A	1.38
SDK D80-66-05-32-12-C	80.00	66.00	5	32.00	30	95.00	77.60	A	2.06
SDK D80-109-05-32-12-C	80.00	109.00	5	32.00	50	143.00	77.60	A	3.06
SDK D100-76-06-40-12-C	100.00	76.00	6	40.00	42	110.00	92.00	A	3.97
SDK D100-130-06-40-12-C	100.00	130.00	6	40.00	72	165.00	92.00	A	5.87

(1) With coolant nozzles for high pressure coolant
(2) Number of flutes
(3) Number of inserts
(4) For adaptation see page 548

For inserts, see pages: QDCT-PDN (497) • QDMT 1205..PDTN-M (498) • SDHT/X 120508 (498)

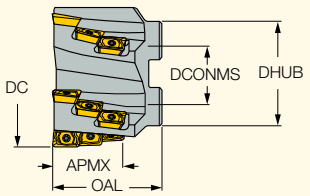
Spare Parts

Designation				
SDK D63-55-05-27-12-C	SR M4X0.7-L9.5 IP15-4623	BLD IP15/M7	SW6-T	SR M12X65 DIN912
SDK D63-55-05-27-12-HP	SR M4X0.7-L9.5 IP15-4623	BLD IP15/M7	SW6-T	SR M12X65 DIN912
SDK D63-66-04-27-12-C	SR M4X0.7-L9.5 IP15-4623	BLD IP15/M7	SW6-T	SR M12X80DIN912
SDK D63-98-04-27-12-C	SR M4X0.7-L9.5 IP15-4623	BLD IP15/M7	SW6-T	SR M12X110DIN912
SDK D80-66-05-32-12-C	SR M4X0.7-L9.5 IP15-4623	BLD IP15/M7	SW6-T	SR M16X70DIN912
SDK D80-109-05-32-12-C	SR M4X0.7-L9.5 IP15-4623	BLD IP15/M7	SW6-T	SR M16X120 DIN912
SDK D100-76-06-40-12-C	SR M4X0.7-L9.5 IP15-4623	BLD IP15/M7	SW6-T	SR M20X85 DIN912
SDK D100-130-06-40-12-C	SR M4X0.7-L9.5 IP15-4623	BLD IP15/M7	SW6-T	SR M20X140 DIN912

HELIMILL

SM

Extended Flute Shell
Mills Carrying HM90
ADKT 1505... Inserts



Designation	DC	APMX	NOF(1)	CICT(2)	OAL	DHUB	DCONMS	Arbor(3)	RMPX°(4)	kg
SM D50-25-27-M	50.00	25.00	3	6	56.00	47.70	27.00	A	0.9	0.43
SM D63-38-27-M	63.00	38.00	4	12	60.00	55.00	27.00	A	0.7	0.67

(1) Number of flutes
(2) Number of inserts
(3) For adaptation options, see page 548
(4) Maximum ramping angle

For inserts, see pages: ADCR 1505PDFR (456) • ADCT 1505PDFR-HM (457) • ADKR 1505PDR/L-HM (456) • ADKT 1505..R/L-HM (459) • ADKT 1505PDR/L-HM (458) • ADKT 1505PDTR-76 (459) • ADKT 1505PDTR/L-RM (458) • ADMT 1505PDR-HS (458) • HM90 ADCT 1505 (455) • HM90 ADCT 1505PDR-CF (455) • HM90 ADKT 1505 (454) • HM90 ADKW 1505PDR (462)

Spare Parts

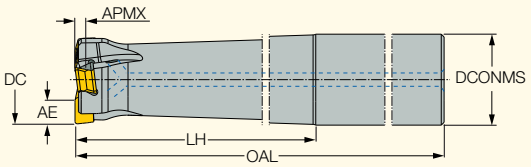
Designation				
SM D50-25-27-M	SR 14-544/S	BLD T15/M7	SW6-T	SR M12X50DIN912
SM D63-38-27-M	SR 14-544/S	BLD T15/M7	SW6-T	

PLUNGING CUTTERS

TANGPLUNGE
PLUNGING LINE

HTP-LN06

Side Plungers Carrying Tangentially Clamped Inserts with 4 Cutting Edges



Designation	DC	AE	APMX	CICT(1)	LH	OAL	DCONMS	Shank(2)	kg		
HTP D016-2-L120-C16-LN06	16.00	4.5	2.50	2	32.0	120.00	16.00	C	0.17	SR 14-560-HG	T-8/53
HTP D020-3-L150-C20-LN06	20.00	5.0	2.50	3	40.0	150.00	20.00	C	0.33	SR 14-560-HG	T-8/53
HTP D025-3-L150-C25-LN06	25.00	5.0	2.50	3	50.0	150.00	25.00	C	0.51	SR 14-560-HG	T-8/53
HTP D025-4-L130-C25-LN06	25.00	5.0	2.50	4	50.0	130.00	25.00	C	0.44	SR 14-560-HG	T-8/53

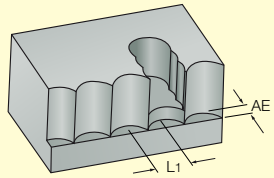
• 5 mm side plunging capacity and 2.5 mm maximum face milling DOC • For user guide, see pages 255-257

(1) Number of inserts

(2) C-Cylindrical

For inserts, see pages: HTP LN.. 0604 (536))

Side Step as a Function of the Width of the Plunge



AE - Width of plunge (mm)	Cutter Diameter (mm) 16	20	25
	L1 max - Step (effective diameter)		
1	7.75	8.72	9.80
2	10.58	12.00	13.56
3	12.49	1428	16.25
4	13.86	16.00	18.33
5	14.83	17.32	20.00

The relationship between the maximal step L1 max and the width of plunge AE is given by the following formula:

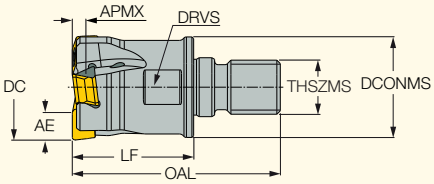
$L1\ max = 2x \sqrt{DC \times AE - AE^2}$

DC: cutter diameter

TANGPLUNGE
PLUNGING LINE
FLEXFIT

HTP-M-LN06

Side Plungers with FLEXFIT Threaded Connection Carrying Tangentially Clamped Inserts with 4 Cutting Edges



Designation	DC	AE	APMX	NOF(1)	LF	OAL	DCONMS	THSZMS	DRVS(2)	TQ_3(3)	kg		
HTP D16/.62-2-M08-LN06	15.95	4.5	2.50	2	30.00	47.50	13.00	M08	10.0	20	0.03	SR 14-560-HG	T-8/53
HTP D20-3-M10-LN06	20.00	5.0	2.50	3	30.00	50.00	18.00	M10	15.0	29	0.06	SR 14-560-HG	T-8/53
HTP D25/1.00-3-M12-LN06	25.20	5.0	2.50	3	35.00	57.00	21.00	M12	17.0	33	0.10	SR 14-560-HG	T-8/53

• 5 mm side plunging capacity and 2.5 mm maximum face milling DOC • When mounting items with FLEXFIT threaded adaptation to their holders, the mating surfaces and threaded areas must be thoroughly cleaned. Apply appropriate tightening torque to eliminate a gap between the mating faces. Estimated torque values are specified in the TQ_3 parameter

• For user guide, see pages 255-257

(1) Number of flutes

(2) Clamping wrench size

(3) Tool tightening torque Nxm (lbfxin)

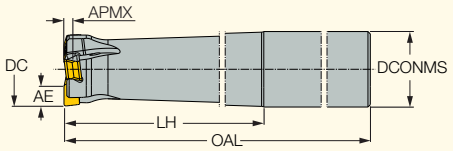
For inserts, see pages: HTP LN.. 0604 (536)

For holders, see pages: BT-ODP (FLEXFIT) (314) • C#-ODP (FLEXFIT) (314) • CAB M-M (FLEXFIT) (312) • DIN69871-ODP (315) • ER-ODP (315) • HSK A-ODP (FLEXFIT) (316) • S M (312) • S M-C-H (312) • S M-CF (313)

TANGPLUNGE
PLUNGING LINE

HTP-LN10

Side Plungers Carrying Tangentially Clamped Inserts with 4 Cutting Edges



Designation	DC	AE	APMX	CICT(1)	LH	OAL	DCONMS	Shank(2)	kg			
HTP D025-2-L200-C25-LN10	25.00	7.0	3.00	2	120.0	200.00	25.00	C	0.64	SR 34-550	BLD T10/S7	SW6-SD
HTP D032-3-L190-C25-LN10	32.00	8.0	3.00	3	50.0	190.00	25.00	C	0.68	SR 34-550	BLD T10/S7	SW6-SD
HTP D032-3-L210-C32-LN10	32.00	8.0	3.00	3	120.0	210.00	32.00	C	1.09	SR 34-550	BLD T10/S7	SW6-SD
HTP D032-3-L210-W32-LN10	32.00	8.0	3.00	3	120.0	210.00	32.00	W	1.09	SR 34-550	BLD T10/S7	SW6-SD
HTP D040-4-L250-C32-LN10	40.00	8.0	3.00	4	50.0	250.00	32.00	C	1.49	SR 34-550	BLD T10/S7	SW6-SD

• 8 mm side plunging capacity and 3 mm maximum face milling DOC • For user guide, see pages 255-257

(1) Number of inserts

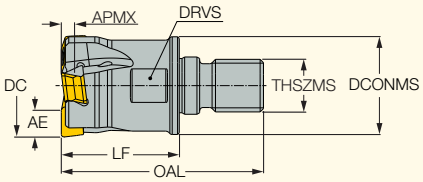
(2) C-Cylindrical, W-Weldon

For inserts, see pages: HTP LN.. 1006 (537)

TANGPLUNGE
PLUNGING LINE
FLEXFIT

HTP-M-LN10

Side Plungers with FLEXFIT Threaded Connection Carrying Tangentially Clamped Inserts with 4 Cutting Edges



Designation	DC	AE	APMX	CICT(1)	LF	OAL	DCONMS	THSZMS	DRVS(2)	TQ_3(3)	kg			
HTP D025-2-M12-LN10	25.00	7.0	3.00	2	35.00	57.00	21.00	M12	17.0	33	0.09	SR 34-550	BLD T10/S7	SW6-SD
HTP D032-3-M16-LN10	32.00	8.0	3.00	3	35.00	60.00	29.00	M16	25.0	40	0.16	SR 34-550	BLD T10/S7	SW6-SD
HTP D035-3-M16-LN10	35.00	8.0	3.00	3	43.00	68.00	29.00	M16	25.0	40	0.22	SR 34-550	BLD T10/S7	SW6-SD
HTP D042-4-M16-LN10	42.00	8.0	3.00	4	43.00	68.00	29.00	M16	25.0	40	0.26	SR 34-550	BLD T10/S7	SW6-SD

• 8 mm side plunging capacity and 3 mm maximum face milling DOC • When mounting items with FLEXFIT threaded adaptation to their holders, the mating surfaces and threaded areas must be thoroughly cleaned. Apply appropriate tightening torque to eliminate a gap between the mating faces. Estimated torque values are specified in the TQ_3 parameter

• For user guide, see pages 255-257

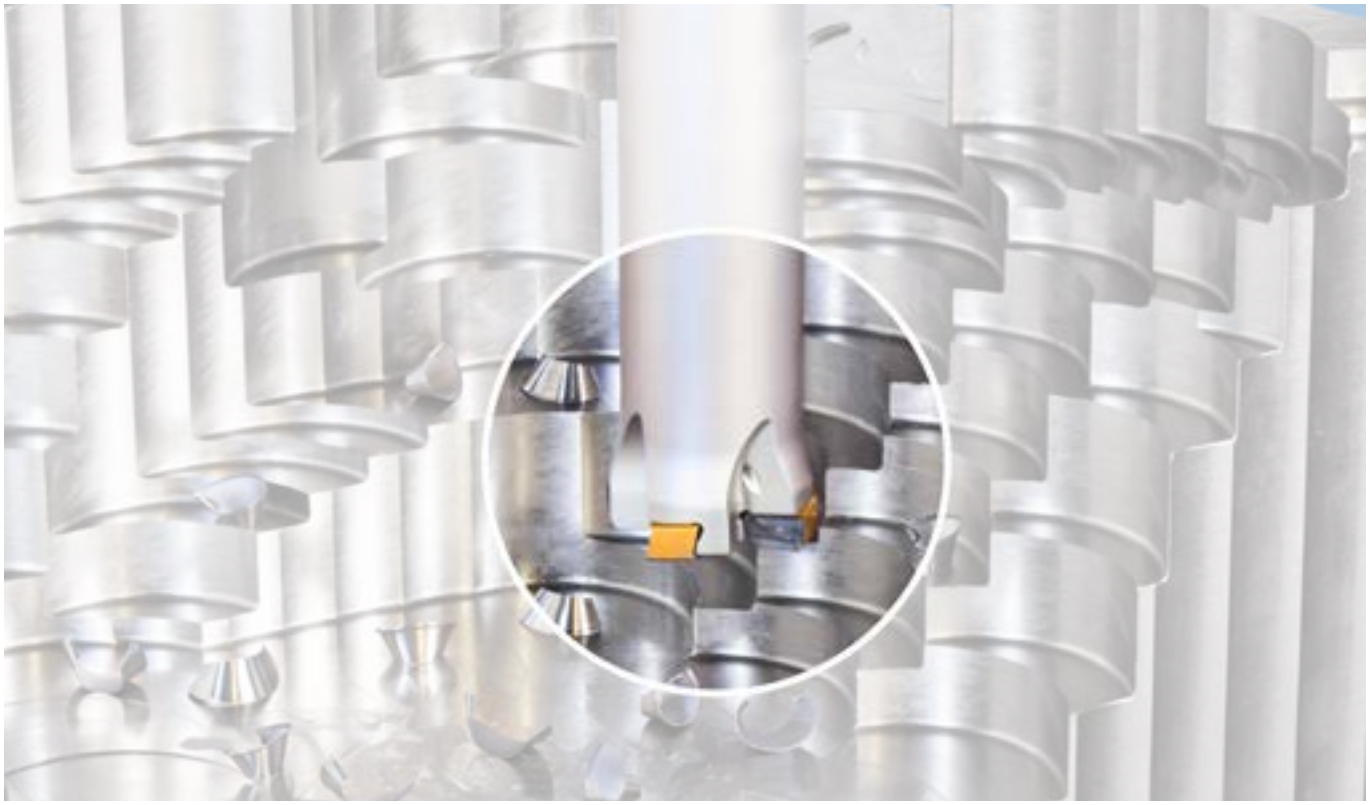
(1) Number of inserts

(2) Clamping wrench size

(3) Tool tightening torque Nxm (lbfxin)

For inserts, see pages: HTP LN.. 1006 (537)

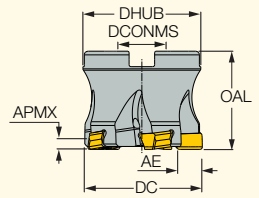
For holders, see pages: BT-ODP (FLEXFIT) (314) • C#-ODP (FLEXFIT) (314) • CAB M-M (FLEXFIT) (312) • DIN69871-ODP (315) • ER-ODP (315) • HSK A-ODP (FLEXFIT) (316) • S M (312) • S M-C-H (312) • S M-CF (313)



TANGPLUNGE PLUNGING LINE

HTP-R-LN10

Shell Mill Plungers Carrying Tangentially Clamped Inserts with 4 Cutting Edges



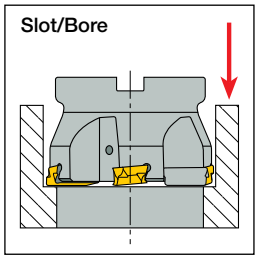
Designation	DC	APMX	AE	CICT(1)	OAL	DHUB	DCONMS	Arbor(2)	kg				
HTP D040-4-16-R-LN10	40.00	3.00	8.0	4	40.00	38.00	16.00	A	0.20	SR 34-550	BLD T10/S7	SW6-SD	SR M8X30DIN912
HTP D050-5-22-R-LN10	50.00	3.00	8.0	5	40.00	48.00	22.00	A	0.31	SR 34-550	BLD T10/S7	SW6-SD	SR M10X25C
HTP D052-5-22-R-LN10	52.00	3.00	8.0	5	40.00	48.00	22.00	A	0.34	SR 34-550	BLD T10/S7	SW6-SD	SR M10X25C

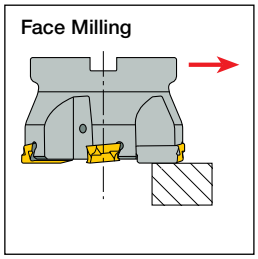
- 8 mm side plunging capacity and 3 mm maximum face milling DOC
- For user guide, see pages 255-257

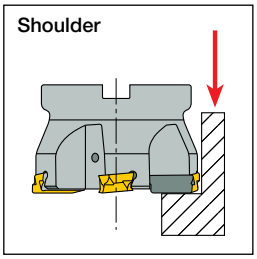
(1) Number of inserts

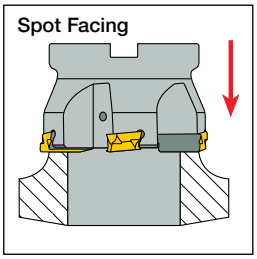
(2) For adaptation see page 548

For inserts, see pages: HTP LN.. 1006 (537)





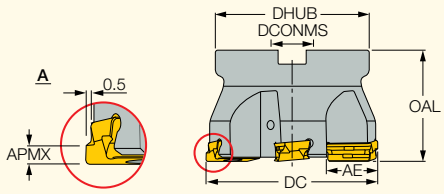




TANGPLUNGE PLUNGING LINE

HTP-R-LN16

Shell Mill Plungers Carrying Tangentially Clamped Inserts with 4 Cutting Edges



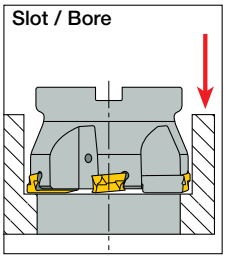
Designation	DC	AE	APMX	CICT(1)	OAL	DHUB	DCONMS	Arbor(2)	kg				
HTP D050-04-22-R-LN16	50.00	13.0	3.00	4	50.00	48.00	22.00	A	0.37	SR 34-535	BLD T15/S7	SW6-T-SH	SR PS 118-0271C
HTP D052-04-22-R-LN16	52.00	13.0	3.00	4	50.00	48.00	22.00	A	0.39	SR 34-535	BLD T15/S7	SW6-T-SH	SR PS 118-0271C
HTP D063-05-27-R-LN16	63.00	14.0	3.00	5	50.00	59.00	27.00	A	0.53	SR 34-535	BLD T15/S7	SW6-T-SH	SR M12X30C
HTP D066-05-27-R-LN16	66.00	14.0	3.00	5	50.00	62.00	27.00	A	0.60	SR 34-535	BLD T15/S7	SW6-T-SH	SR M12X30C
HTP D080-06-27-R-LN16	80.00	14.0	3.00	6	50.00	65.00	27.00	A	0.81	SR 34-535	BLD T15/S7	SW6-T-SH	SR M12X30C
HTP D080-06-31.75-R-LN16	80.00	14.0	3.00	6	63.00	76.00	31.75	A	1.20	SR 34-535	BLD T15/S7	SW6-T-SH	SR M16X40C
HTP D080-06-32-R-LN16	80.00	14.0	3.00	6	50.00	72.00	32.00	A	0.90	SR 34-535	BLD T15/S7	SW6-T-SH	SR M16X40C
HTP D100-07-31.75-R-LN16	100.00	14.0	3.00	7	63.00	96.00	31.75	B	2.23	SR 34-535	BLD T15/S7	SW6-T-SH	SR M16X40C
HTP D100-07-32-R-LN16	100.00	14.0	3.00	7	50.00	78.00	32.00	B	1.28	SR 34-535	BLD T15/S7	SW6-T-SH	

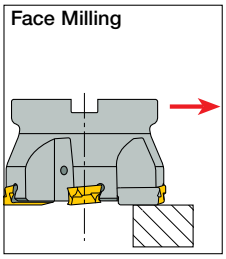
- 14 mm side plunging capacity and 3 mm maximum face milling DOC
- For user guide, see pages 255-257

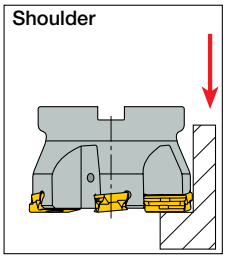
(1) Number of inserts

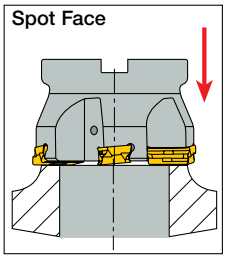
(2) For adaptation see page 548

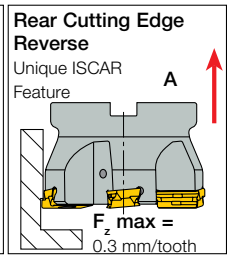
For inserts, see pages: HTP LN.. 1606 (537)











Recommended Cutting Conditions for Side Plunging

Plunging Cycle:

Step 1	Step 2	Step 3
Plunge in (axially-Z direction)	Back stroke (rapid) at an angle b≥2°	Move to the next cycle

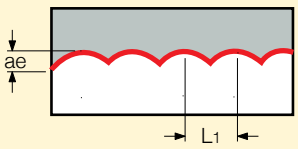
TANGPLUNGE - SIDE PLUNGING

ISO class DIN/ ISO 513	Description	ISCAR mat. group*	Typical Representative AISI/SAE/ ASTM	Typical Representative DIN W.-Nr.	Hardness HB	Insert HTP LN... type	Carbide grade for inserts	Cutting speed V_c, m/min	Feed F_z, mm/t	Coolant
P	Non-alloy steel and cast steel, free cutting steel	4	1060	1.1221	180-200	...ER	IC830/ IC928	80-130	0.12-0.15	Air blow
	Low alloy and cast steel (less than 5% of alloying elements)	8	4340	1.6582	260-300			80-120	0.1-0.15	
	Low alloy and cast steel (less than 5% of alloying elements)	9	3135	1.571	HRC 35-40**			80-120	0.08-0.15	
	High alloy steel	10	H13	1.2344	200-220			80-100	0.08-0.12	
	Martensitic s.s.	12	420	1.4021	200		IC830/ IC330/ IC328	80-100	0.08-0.12	Air blow/wet
M	Austenitic s.s.	14	304L	1.4306	200	...ER	IC830/ IC330/ IC328	60-80	0.08-0.1	Wet (emulsion)
K	Grey cast iron	16	Class 40	0.6025 (GG25)	250	...ER	IC810/ IC910	150-200	0.12-0.2	Air blow
	Nodular cast iron	17	Class 65-45-12	0.7050 (GGG50)	200			100-180	0.1-0.17	
S	Ni-based HTSA	34	Inconel 718	2.4668	350	...ER	IC328/ IC330	20-25	0.07-0.1	Wet (emulsion)
	Ti alloys	37	Ti6Al4V (Grade 5)	3.7164	HRC 34-36			35-40	0.07-0.1	
H	Hardened steel	38	4340	1.6582	HRC 45 max	...ETR	IC808/ IC908	70-100	0.08-0.1	Air blow

The table data refers to a cutter overhang of up to 4D (D-the diameter of a cutter)
* ISCAR material group in accordance with VDI 3323 standard
** Quenched and tempered

Table 1: L_1 as a Function of the Width of Cut and Cutter Diameter

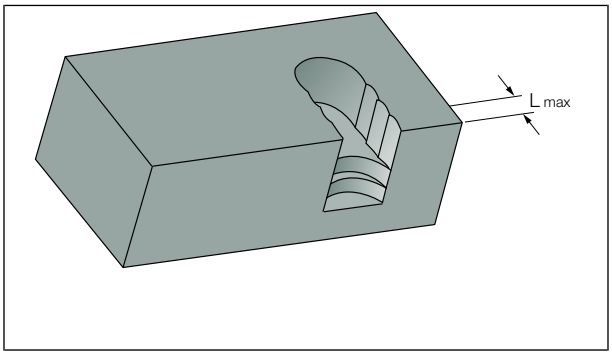
L1max = 2x Dxae-ae2	a_e - Width of Plunge (mm)	Cutter Diameter (mm) 50	52	63	66	80	100
		L1max - Step (effective diameter)					
	1	14.0	14.3	15.75	16.1	17.8	19.9
	3	23.8	24.3	26.8	27.5	30.4	34.1
	5	30.0	30.6	34.0	34.9	38.7	43.6
	6	32.5	33.2	37.0	37.9	42.1	47.5
	7	34.7	35.5	39.6	40.6	45.2	51.0
	8	36.6	37.5	41.9	43.0	48.0	54.3
	9	38.5	39.3	43.10	45.3	50.5	57.2
	10	40.0	41.0	46.0	47.3	52.9	60.0
	11	41.4	42.5	47.8	49.2	55.1	62.6
	12	42.7	43.8	49.5	50.9	57.1	65.0
	13	43.8	45.0	51.0	52.5	59.0	67.3
	14	-	-	52.4	53.9	60.8	69.4

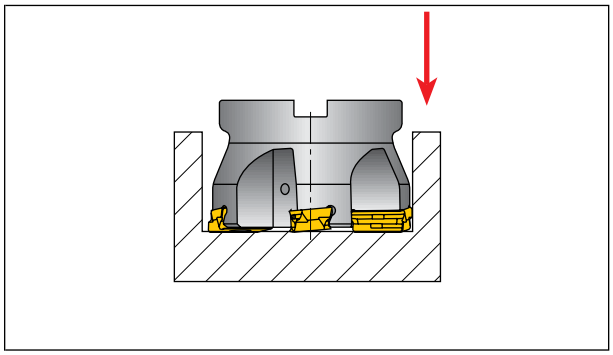


L1- Side step over
a_e- Width of plunge

TANGPLUNGE
PLUNGING LINE

Recommended Cutting Conditions for Slot Plunging





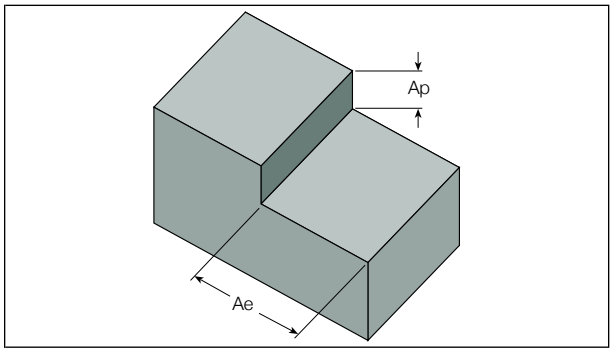
L- Width of Cut (mm)

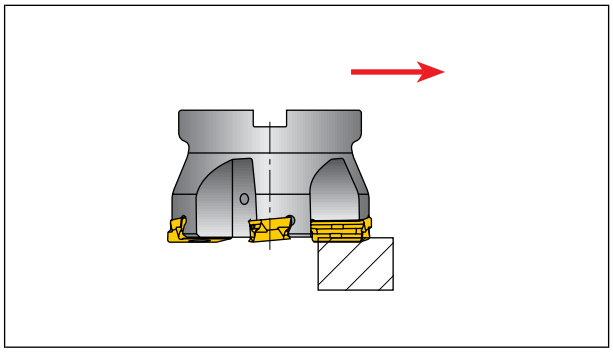
TANGPLUNGE - SLOT PLUNGING

Workpiece Material						Insert HTP LN... type	Carbide grade for inserts	Cutting speed V_c, m/min	Feed F_z, mm/t	Coolant
ISO class DIN/ ISO 513	Description	ISCAR mat. group*	Typical Representative AISI/SAE/ ASTM	Typical Representative DIN W.-Nr.	Hardness HB					
P	Non-alloy steel and cast steel, free cutting steel	4	1060	1.1221	180-200	...ER	IC830/ IC928	80-120	0.1-0.15	Air blow
P	Low alloy and cast steel (less than 5% of alloying elements)	8	4340	1.6582	260-300	...ER	IC830/ IC928	80-120	0.1-0.12	Air blow
P	Low alloy and cast steel (less than 5% of alloying elements)	9	3135	1.571	HRC 35-40**	...ER	IC830/ IC928	80-120	0.08-0.12	Air blow
P	High alloy steel	10	H13	1.2344	200-220	...ER	IC830/ IC928	80-100	0.08-0.1	Air blow
P	Martensitic s.s.	12	420	1.4021	200	...ER	IC830/ IC330/ IC328	80-100	0.08-0.1	Air blow/ wet
M	Austenitic s.s.	14	304L	1.4306	200	...ER	IC830/ IC330/ IC328	60-80	0.08-0.1	Wet (emulsion)
K	Grey cast iron	16	Class 40	0.6025 (GG25)	250	...ER	IC810/ IC910	150-200	0.12-0.18	Air blow
K	Nodular cast iron	17	Class 65-45-12	0.7050 (GGG50)	200	...ER	IC810/ IC910	100-180	0.1-0.15	Air blow
S	Ni-based HTSA	34	Inconel 718	2.4668	350	...ER	IC328/ IC330	20-25	0.07-0.09	Wet (emulsion)
S	Ti alloys	37	Ti6Al4V (Grade 5)	3.7164	HRC 34-36	...ER	IC328/ IC330	35-40	0.07-0.09	Wet (emulsion)
H	Hardened steel	38	4340	1.6582	HRC 45 max	...ETR	IC808/ IC908	70-100	0.08-0.09	Air blow

The table data refers to a cutter overhang of up to 4D (D-the diameter of a cutter)
* ISCAR material group in accordance with VDI 3323 standard
** Quenched and tempered

Recommended Cutting Conditions for Face Milling





TANGPLUNGE - FACE MILLING

Workpiece Material						Insert HTP LN... type	Carbide grade for inserts	Cutting speed V_c, m/min	Feed F_z, mm/t	Coolant
ISO class			Typical Representative							
DIN/ ISO 513	Description	ISCAR mat. group*	AISI/SAE/ ASTM	DIN W.-Nr.	Hardness HB					
P	Non-alloy steel and cast steel, free cutting steel	4	1060	1.1221	180-200	...ER	IC830/ IC928	80-120	0.1-0.2	Air blow
	Low alloy and cast steel (less than 5% of alloying elements)	8	4340	1.6582	260-300			80-120	0.1-0.18	
	Low alloy and cast steel (less than 5% of alloying elements)	9	3135	1.571	HRC 35-40**			80-120	0.1-0.15	
	High alloy steel	10	H13	1.2344	200-220			80-100	0.08-0.15	
	Martensitic s.s.	12	420	1.4021	200		IC830/ IC330/ IC328	80-100	0.08-0.15	Air blow/ wet
M	Austenitic s.s.	14	304L	1.4306	200	...ER	IC830/ IC330/ IC328	60-80	0.08-0.1	Wet (emulsion)
K	Grey cast iron	16	Class 40	0.6025 (GG25)	250	...ER	IC810/ IC910	150-200	0.12-0.2	Air blow
	Nodular cast iron	17	Class 65-45-12	0.7050 (GGG50)	200			100-180	0.1-0.18	
S	Ni-based HTSA	34	Inconel 718	2.4668	350	...ER	IC328/ IC330	20-25	0.08-0.12	Wet (emulsion)
	Ti alloys	37	Ti6Al4V (Grade 5)	3.7164	HRC 34-36			35-40	0.08-0.12	
H	Hardened steel	38	4340	1.6582	HRC 45 max	...ETR	IC808/ IC908	70-100	0.08-0.1	Air blow

The table data refers to a cutter overhang of up to 4xD and the maximal width of cut Ae=0.7xD (D-the diameter of a cutter)
The maximal depth of cut Ap is 2.5 mm for hardened steel and 3 mm for other material groups
* ISCAR material group in accordance with VDI 3323 standard
** Quenched and tempered

PROFILING TOOLS

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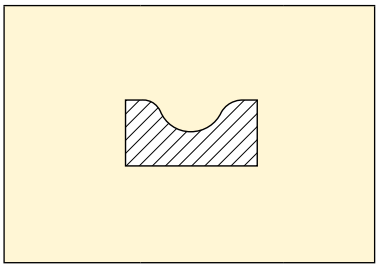
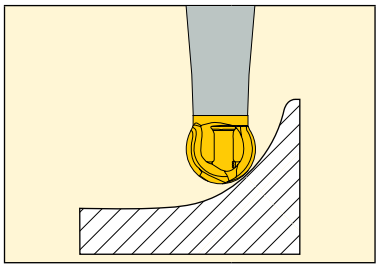
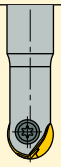
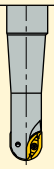
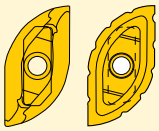
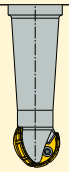
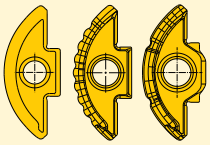
TOR6MILL - Multifunction Cutters 272
Round Cornered Cutters 277
MILLSHRED 279
HELIDO ROUND H400 Line 282
FLEXFIT Adaptation Systems 312

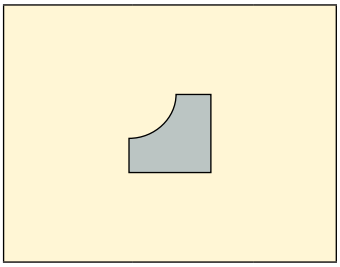
Ball Nose Selection Guide

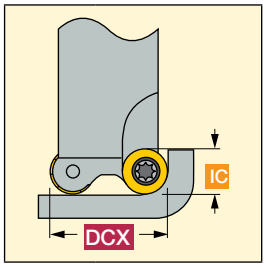




Tools	Pages	DCX 0.4-7	8	9	10	12	16	20	25	30	32	40	50	Inserts
EB... Solid Carbide Multi-Master	163 70	•	•	•	•	•	•	•	•					
 HCM D.. HCM-M HCM-MM	262 264 265				•	•	•	•	•					HBF-QF HBR-QF HCR-QF HCR-QP
 BCM	267					•	•	•	•	•	•	•	•	 BCR D...-QT BCR D...-CS
 BLP BLP -M	265 266						•	•	•	•	•	•	•	 BLR D...-QT BLR D...-MFW BLR D...-QCS

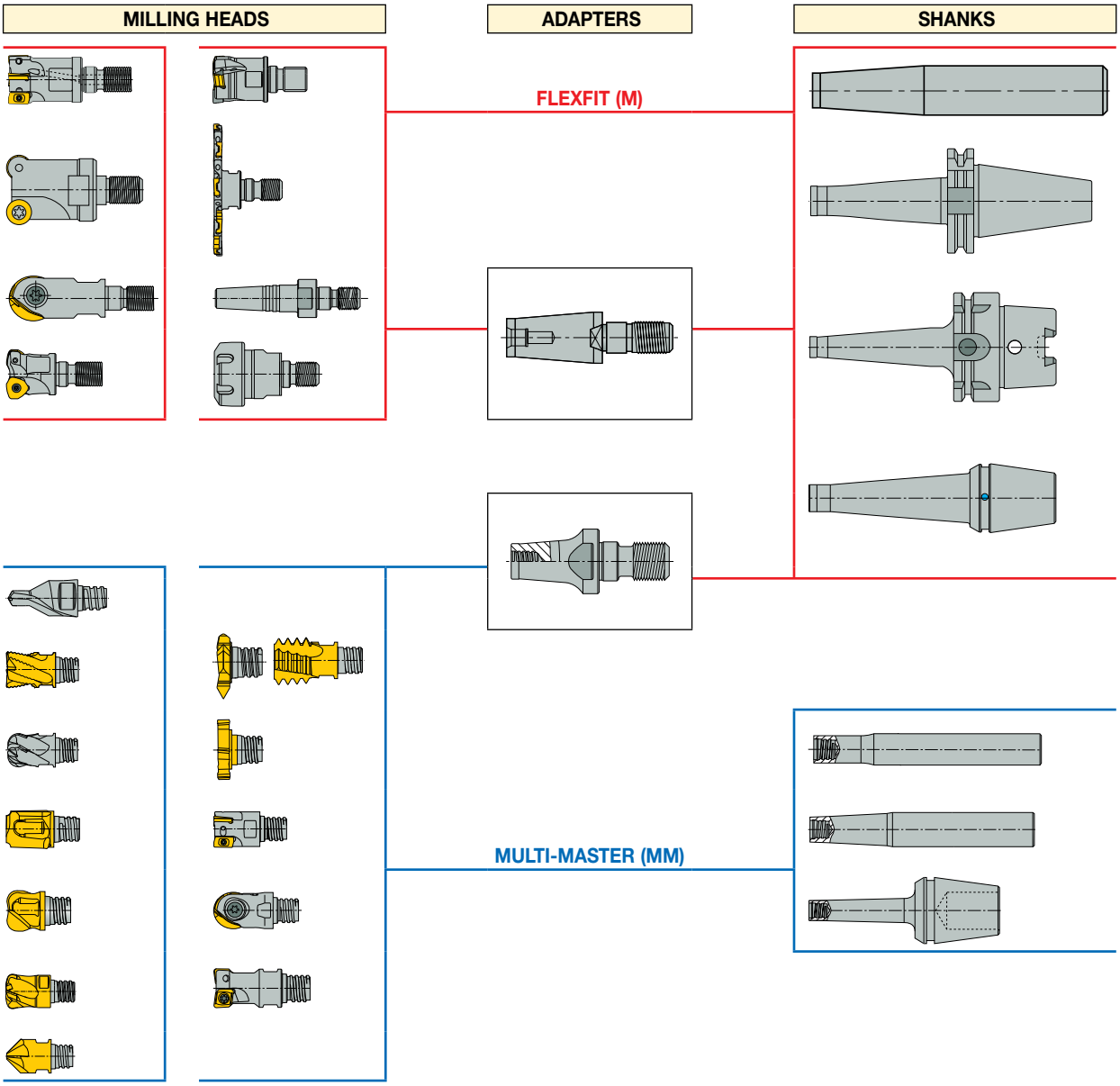
Face Mills 90° Selection Guide





Tools	Pages	DCX / IC	10	12	15	16	20	25	32	35	40	42	50	52	63	66	80	100	125	160	Inserts
			Toroidal																		
E93CN F93CN	269 271					•	•	•		•		•		•		•	•				CNHT ENHT
TR6 ER TR6 FR	272 275	5-7				•	•	•	•	•	•	•	•	•	•	•	•				TR6 TNCU TR90 TXMT TRFF TXMT TR45 TXMT
ER	277	5-8	•	•	•	•	•	•	•	•	•	•									RXCR... RXCW...
FRMT	278	10-12									•		•	•							RPHX/RPMX
FRN	278	12											•		•		•				RNGN
H400 ER-10 H400 FR-10 ER-10	282 283 277	10					•	•	•	•	•		•								H400 RNHU 10... RXCW 10... RXCR 10... RXMT 10...
H400 ER-12 H400 FR-12 ERW-12 FRW-12	282 284 279 281	12						•	•		•		•	•	•	•	•				RCMT 12... RCCW 12... RCCT 12... R90MT 12... H400 RNHU 12...
H606 ER-M H606 FR-12	285 286	12							•		•		•	•	•		•				H606 RXCU 1206
H400 FR-16 FRW-16 ER-16	285 281 277	16									•		•	•	•	•	•	•	•		H400 RNHU 16... RCMW 16... RCCW 16...
FRW-20	281	20															•	•	•	•	RCCW 20... RCMW 20...

MULTI-MASTER and FLEXFIT Connection Options



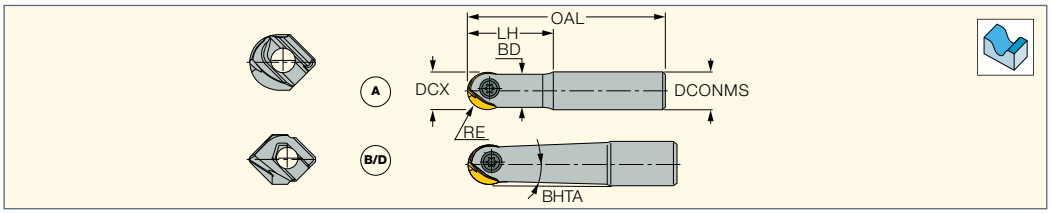
Features

Modular system reduces stock cost by using the same head with different shank options, enables machining with larger overhang, and the same head can be mounted on metric and inch combinations.

BALLPLUS

HCM D10

Ball Nose Multifunction
Endmills D=10 mm



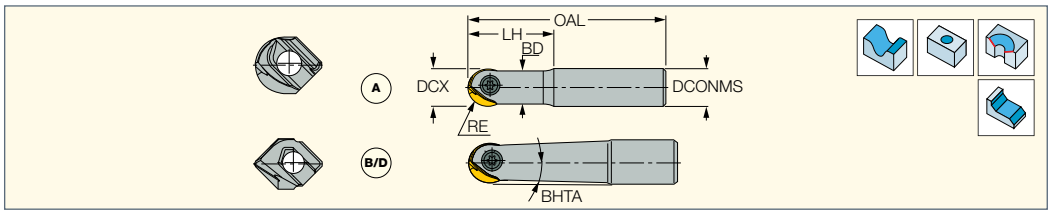
Designation	DCX(1)	RE	LH(2)	OAL(3)	DCONMS	Shank(4)	BHTA	BD	Type	kg			
HCM D10-A-L090-C10	10.00	5.00	25.0	90.00	10.00	C	-	9.20	A	0.05	SR 10504694	BLD T15/S7	SW6-T-SH
HCM D10-B-L125-C16	10.00	5.00	40.0	125.00	16.00	C	6.0	-	B	0.16	SR 10504694	BLD T15/S7	SW6-T-SH
HCM D10-D-L150-C12	10.00	5.00	50.0	150.00	12.00	C	1.8	-	D	0.12	SR 10504694	BLD T15/S7	SW6-T-SH

• The dimensions are for HBR inserts • For user guide, see pages 542-547
(1) Cutting diameter maximum
(2) Refers to HBR inserts
(3) Refers to HBR inserts
(4) C-Cylindrical
For inserts, see pages: HBR-QF (533) • HCR (533)

BALLPLUS

HCM D12

Ball Nose Multifunction
Endmills D=12 mm



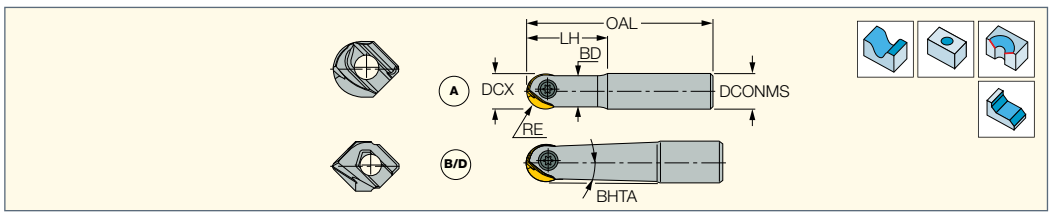
Designation	DCX(1)	RE	LH(2)	OAL(3)	DCONMS	Shank(4)	BHTA	BD	Type	kg			
HCM D12-A-L120-C12	12.00	6.00	30.0	120.00	12.00	C	-	10.60	A	0.10	SR 34-540	BLD T15/S7	SW6-T
HCM D12-B-L160-C20	12.00	6.00	50.0	160.00	20.00	C	5.0	-	B	0.32	SR 34-540	BLD T15/S7	SW6-T
HCM D12-D-L160-C16	12.00	6.00	60.0	160.00	16.00	C	1.0	-	D	0.21	SR 34-540	BLD T15/S7	SW6-T

• The dimensions are for HBR inserts • For user guide, see pages 542-547
(1) Cutting diameter maximum
(2) Refers to HBR inserts
(3) Refers to HBR inserts
(4) C-Cylindrical
For inserts, see pages: HBF-QF (533) • HBR-QF (533) • HCC-QF (534) • HCD-QF (534) • HCR (533)

BALLPLUS

HCM D16

Ball Nose Multifunction
Endmills D=16 mm



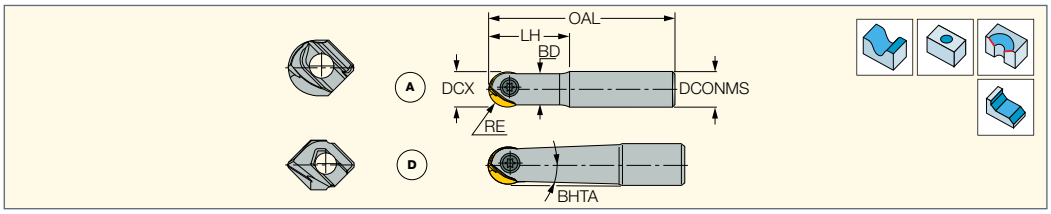
Designation	DCX(1)	LH(2)	OAL(3)	DCONMS	Shank(4)	BHTA	BD	Type	kg			
HCM D16-A-L130-C16	16.00	36.0	130.00	16.00	C	-	14.40	A	0.18	SR 10503579	BLD T20/S7	SW6-T
HCM D16-B-L160-C25	16.00	60.0	160.00	25.00	C	5.0	-	B	0.49	SR 10503579	BLD T20/S7	SW6-T
HCM D16-D-L160-C20	16.00	65.0	160.00	20.00	C	1.0	-	D	0.32	SR 10503579	BLD T20/S7	SW6-T

• The dimensions are for HBR inserts • For user guide, see pages 542-547
(1) Cutting diameter maximum
(2) Refers to HBR inserts
(3) Refers to HBR inserts
(4) C-Cylindrical
For inserts, see pages: HBF-QF (533) • HBR-QF (533) • HCC-QF (534) • HCD-QF (534) • HCR (533)

BALLPLUS

HCM D20

Ball Nose Multifunction
Endmills D=20 mm



Designation	DCX(1)	LH(2)	OAL(3)	DCONMS	Shank(4)	BHTA	BD	Type	kg			
HCM D20-A-L150-C20	20.00	60.0	150.00	20.00	C	-	18.00	A	0.32	SR 1052964	BLD T25/S7	SW6-T
HCM D20-D-L200-C25	20.00	90.0	200.00	25.00	C	1.0	-	D	0.61	SR 1052964	BLD T25/S7	SW6-T

• The dimensions are for HBR inserts • For user guide, see pages 542-547

(1) Cutting diameter maximum

(2) Refers to HBR inserts

(3) Refers to HBR inserts

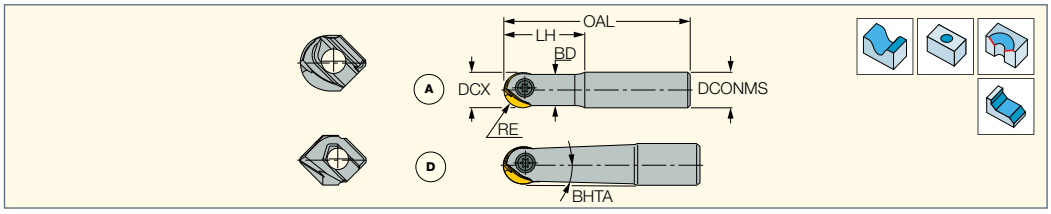
(4) C-Cylindrical

For inserts, see pages: HBF-QF (533) • HBR-QF (533) • HCC-QF (534) • HCD-QF (534) • HCR (533)

BALLPLUS

HCM D25

Ball Nose Multifunction
Endmills D=25 mm



Designation	DCX(1)	LH(2)	OAL(3)	DCONMS	Shank(4)	BHTA	BD	Type	kg			
HCM D25-A-L170-C25	25.00	70.0	170.00	25.00	C	-	22.00	A	0.55	SR 1051666	BLD T25/S7	SW6-T
HCM D25-D-L250-C32	25.00	125.0	250.00	32.00	C	1.8	-	D	1.20	SR 1051666	BLD T25/S7	SW6-T

• The dimensions are for HBR inserts • For user guide, see pages 542-547

(1) Cutting diameter maximum

(2) Refers to HBR inserts

(3) Refers to HBR inserts

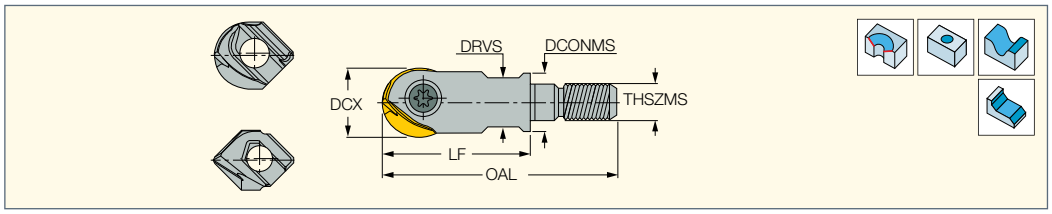
(4) C-Cylindrical

For inserts, see pages: HBF-QF (533) • HBR-QF (533) • HCC-QF (534) • HCD-QF (534) • HCR (533)

BALLPLUSFLEXFIT

HCM-M

Ball Nose Multifunction Endmills with FLEXFIT Threaded Adaptation



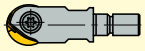
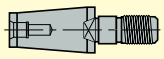
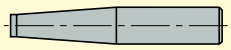
Designation	DCX(1)	LF(2)	OAL(3)	DCONMS	DRVS(4)	THSZMS	TQ_3(5)	kg
HCM D12/.50-M08	12.00	26.00	43.50	14.40	11.0	M08	20	0.03
HCM D16/.62-M08	16.00	30.00	47.50	14.40	11.0	M08	20	0.03
HCM D16/.62-M10	16.00	35.00	55.00	18.00	15.0	M10	29	0.05
HCM D20/.75-M10	20.00	37.00	57.00	18.00	15.0	M10	29	0.06
HCM D20/.75-M12	20.00	37.00	59.00	22.50	17.0	M12	33	0.07
HCM D25/1.0-M12	25.00	46.00	68.00	21.00	19.0	M12	33	0.11
HCM D25/1.0-M16	25.00	46.00	71.00	29.00	25.0	M16	40	0.16

• The dimensions are for HBR inserts • For user guide, see pages 542-547• When mounting items with FLEXFIT threaded adaptation to their holders, the mating surfaces and threaded areas must be thoroughly cleaned. Apply appropriate tightening torque to eliminate a gap between the mating faces. Estimated torque values are specified in the TQ_3 parameter

(1) Cutting diameter maximum
(2) Refers to HBR inserts
(3) Refers to HBR inserts
(4) Clamping wrench size
(5) Tool tightening torque Nxm (lbfxin)

For inserts, see pages: HBF-QF (533) • HBR-QF (533) • HCC-QF (534) • HCD-QF (534) • HCR (533)
For holders, see pages: BT-ODP (FLEXFIT) (314) • C#-ODP (FLEXFIT) (314) • CAB M-M (FLEXFIT) (312) • DIN69871-ODP (315) • ER-ODP (315) • HSK A-ODP (FLEXFIT) (316) • S M (312) • S M-C-H (312) • S M-CF (313)

Parts for Assembly

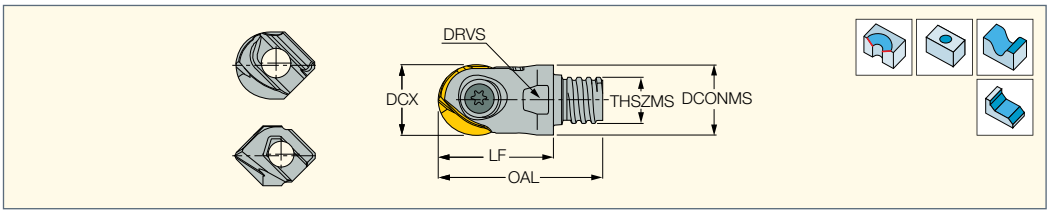
Milling Head	Adapter	Shank	Assembly Dimensions						
			DCX	LH	OAL	BHTA	DCONMS	Shank	Inserts
HCM D12/.50-M8	—	S M08-L73-C16	12	51	99	4	16	C	HBR HBF HCR HCD HCC
		S M08-L128-C16	12	106	154	4	16	C	
		S M08-L170-C20	12	93	196	4	20	C	
HCM D12/.50-M8	CAB M08M10	S M10-L80-C20	12	96	146	4	20	C	
		S M10-L130-C20	12	146	196	4	20	C	
		S M10-L200-C25	12	123	266	4	25	C	
HCM D16/.62-M8	—	S M8-L73-C16	16	55	103	—	16	C	
		S M8-L128-C16	16	110	158	—	16	C	
		S M8-L170-C20	16	97	200	0.96	20	C	
HCM D16/.62-M8	CAB M08M10	S M10-L80-C20	16	100	150	1.24	20	C	
		S M10-L130-C20	16	150	200	0.8	20	C	
		S M10-L200-C25	16	127	270	2.16	25	C	
HCM D16/.62-M10		S M10-L80-C20	16	60	110	2.5	20	C	
		S M10-L130-C20	16	110	160	2.5	20	C	
		S M10-L200-C25	16	87	230	3.26	25	C	
HCM D16/.62-M10	CAB M10M12	S M12-L86-C25	16	105	161	2.65	25	C	
		S M12-C32-L200	16	153	275	3.157	32	C	
HCM D20/.75-M10	—	S M10-L80-C20	20	67	117	–	20	C	
		S M10-L130-C20	20	117	167	–	20	C	
		S M10-L200-C25	20	94	237	1.7	25	C	
HCM D20/.75-M10	CAB M10M12	S M12-L86-C25	20	112	168	1.4	25	C	
		S M12-L200-C32	20	160	282	2.3	32	C	
HCM D20/.75-M12	—	S M12-L86-C25	20	67	123	3.0	25	C	
		S M12-L200-C32	20	115	237	3.3	32	C	
HCM D25/1.0-M12	CAB M12M16	S M16-L95 C32	25	131	191	1.8	32	C	
		S M16-L230 C32	25	146	326	1.5	32	C	
HCM D25/1.0-M16	—	S M16-L95 C32	25	81	141	3.5	32	C	
		S M16-L230 C32	25	96	276	3.5	32	C	

BALLPLUS

MULTI-MASTER

HCM-MM

Ball Nose Multifunction Endmills with MULTI-MASTER Threaded Adaptation



Designation	DCX(1)	OAL(2)	LF(3)	DCONMS	THSZMS	DRVS(4)	TQ	TQ_3(5)	kg			
HCM D12/.50-MMT08	12.00	28.00	20.00	11.50	T08	10.0	15.0	20	0.01	SR 34-540	BLD T15/S7	SW6-T
HCM D16/.62-MMT10	16.00	36.75	25.00	15.20	T10	13.0	28.0	33	0.03	SR 10503579	BLD T20/S7	SW6-T
HCM D20/.75-MMT12	20.00	48.80	35.00	18.50	T12	15.0	28.0	20	0.06	SR 1052964	BLD T25/S7	SW6-T
HCM D25/1.0-MMT15	25.00	63.00	46.00	24.00	T15	20.0	40.0	33	0.13	SR 1051666	BLD T25/S7	SW6-T

- The dimensions are for HBR inserts • Do not apply lubricant to the MULTI-MASTER threaded connection • For adaptation options, see page 261
- For user guide, see pages 542-547

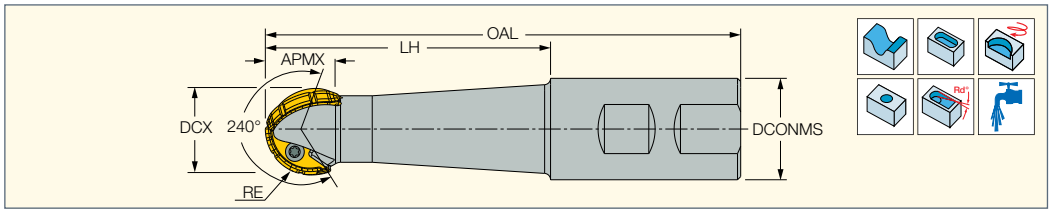
(1) Cutting diameter maximum
(2) Refers to HBR inserts
(3) Refers to HBR inserts
(4) Width across flats (wrench should be ordered separately)
(5) Tool tightening torque Nxm (lbfxin)

For inserts, see pages: HBF-QF (533) • HBR-QF (533) • HCC-QF (534) • HCD-QF (534) • HCR (533)
For holders, see pages: MM CAB (667) • MM GRT (shanks) (86) • MM S-A (stepped shanks) (84) • MM S-A (straight shanks) (87)
• MM S-A-C# (86) • MM S-A-HSK (609) • MM S-A-N (85) • MM S-A-SK (90) • MM S-B (85° conical shanks) (87) • MM S-D (89° conical shanks) (88)
• MM S-ER (89) • MM S-ER-H (89) • MM TS-A (86)

DROPMILL
3 FLUTE BALL NOSE

BLP Endmills

Three Flute 240° Ball Nose Endmills Carrying Double-Sided Inserts



Designation	DCX(1)	RE	APMX	NOF(2)	OAL	LH	DCONMS	Shank(3)	MIID(4)	kg
BLP D16-40-100-C16	16.00	8.00	12.00	3	100.00	40.0	16.00	C	BLR D160-MFW	0.12
BLP D20-70-130-C20	20.00	10.00	15.00	3	130.00	70.0	20.00	C	BLR D200-MFW	0.24
BLP D25-90-170-W25	25.00	12.50	18.75	3	170.00	90.0	25.00	W	BLR D250-MFW	0.49
BLP D30-90-150-W32	30.00	15.00	22.50	3	150.00	90.0	32.00	W	BLR D320-QCS	0.60
BLP D32-80-160-W32	32.00	16.00	24.00	3	160.00	80.0	32.00	W	BLR D320-QCS	0.74
BLP D40-100-180-W40	40.00	20.00	30.00	3	180.00	100.0	40.00	W	BLR D400-QCS	1.25
BLP D50-140-210-W40	50.00	25.00	37.50	3	210.00	140.0	40.00	W	BLR D400-QCS	2.00
BLP D50-320-400-W50	50.00	25.00	37.50	3	400.00	320.0	50.00	W	BLR D500-QCS	4.62

- For user guide, see pages 542-547

(1) Cutting diameter maximum
(2) Number of flutes
(3) C-Cylindrical, W-Weldon
(4) Master insert identification

For inserts, see pages: BLR (535)

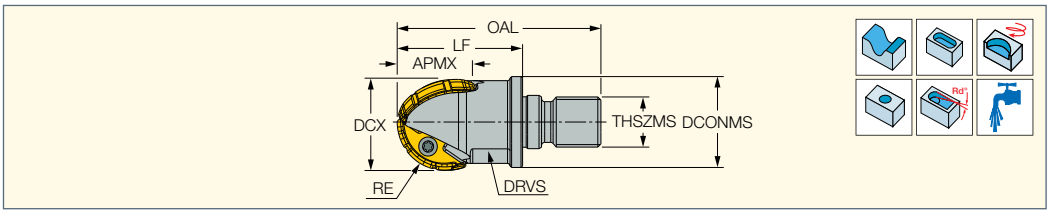
Spare Parts

Designation				
BLP D16-40-100-C16	SR M2.5X0.45-L6 IP7	IP-7/51		
BLP D20-70-130-C20	SR M3X0.5-L7.4 IP9	IP-9/151		
BLP D25-90-170-W25	SR M3.5X0.6-L8.5 IP10		BLD IP10/S7	SW6-SD
BLP D30-90-150-W32	SR M4X0.7-L11.5 IP15		BLD IP15/S7	SW6-T
BLP D32-80-160-W32	SR M4X0.7-L9.6 IP15		BLD IP15/S7	SW6-T
BLP D40-100-180-W40	SR M5-14 IP20		BLD IP20/S7	SW6-T
BLP D50-140-210-W40	SR M6X1-L18 IP25		BLD IP25/S7	SW6-T
BLP D50-320-400-W50	SR M6X1-L18 IP25		BLD IP25/S7	SW6-T

DROPMILL FLEXFIT
3 FLUTE BALL NOSE

BLP-M

Three Flute Fully Effective 240° Ball Nose Endmills with FLEXFIT Threaded Adaptation



Designation	DCX(1)	RE	NOF(2)	APMX	LF	OAL	THSZMS	DCONMS	DRVS(3)	MIID(4)	TQ_3(5)	kg
BLP D16-M08	16.00	8.00	3	12.00	23.00	40.50	M08	13.00	10.0	BLR D160-MFW	20	0.02
BLP D20-M08	20.00	10.00	3	15.00	28.00	45.50	M08	12.80	11.0	BLR D200-MFW	20	0.03
BLP D25-M12	25.00	12.50	3	18.75	35.00	57.00	M12	21.00	17.0	BLR D250-MFW	33	0.07
BLP D30-M12	30.00	15.00	3	22.50	40.00	62.00	M12	21.00	17.0	BLR D300-QCS	33	0.10
BLP D32-M12	32.00	16.00	3	24.00	40.00	62.00	M12	23.00	19.0	BLR D320-MFW	33	0.11
BLP D32-M16	32.00	16.00	3	24.00	40.00	65.00	M16	29.00	24.0	BLR D320-MFW	40	0.14
BLP D40-M16	40.00	20.00	3	30.00	53.00	78.00	M16	30.00	24.0	BLR D320-QCS	40	0.25

• For user guide, see pages 542-547• When mounting items with FLEXFIT threaded adaptation to their holders, the mating surfaces and threaded areas must be thoroughly cleaned. Apply appropriate tightening torque to eliminate a gap between the mating faces. Estimated torque values are specified in the TQ_3 parameter

(1) Cutting diameter maximum
(2) Number of flutes
(3) Clamping wrench size
(4) Master insert identification
(5) Tool tightening torque Nxm (lbfxin)

For inserts, see pages: BLR (535)

For holders, see pages: BT-ODP (FLEXFIT) (314) • C#-ODP (FLEXFIT) (314) • CAB M-M (FLEXFIT) (312) • DIN69871-ODP (315) • ER-ODP (315) • HSK A-ODP (FLEXFIT) (316) • S M (312) • S M-C-H (312) • S M-CF (313)

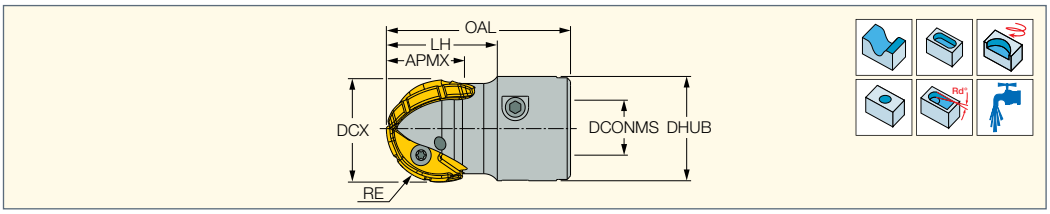
Spare Parts

Designation				
BLP D16-M08	SR M2.5X0.45-L6 IP7	IP-7/51		
BLP D20-M08	SR M3X0.5-L7.4 IP9	IP-9/151		
BLP D25-M12	SR M3.5X0.6-L8.5 IP10		BLD IP10/S7	SW6-SD
BLP D30-M12	SR M4X0.7-L11.5 IP15		BLD IP15/S7	SW6-T
BLP D32-M12	SR M4X0.7-L9.6 IP15		BLD IP15/S7	SW6-T
BLP D32-M16	SR M4X0.7-L9.6 IP15		BLD IP15/S7	SW6-T
BLP D40-M16	SR M5-14 IP20		BLD IP20/S7	SW6-T

DROPMILL
3 FLUTE BALL NOSE

BLP Shell Mill

Three Flute Fully Effective 240° Ball Nose Cutters with Shell Hole Adaptation



Designation	DCX(1)	RE	NOF(2)	APMX	LH	OAL	DHUB	DCONMS	MIID(3)	kg
BLP D50-22	50.00	25.00	3	37.50	50.0	83.00	47.00	22.00	BLR D500-MFW	0.61

• Use on face mill adapters with the supplied retention screw • For user guide, see pages 542-547

(1) Cutting diameter maximum
(2) Number of flutes
(3) Master insert identification

For inserts, see pages: BLR (535)

Spare Parts

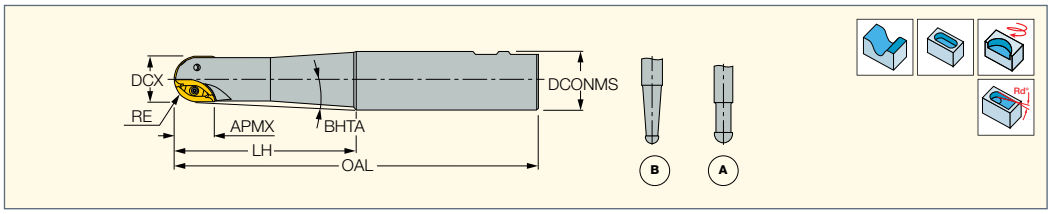
Designation						
BLP D50-22	SR M6X1-L18 IP25	BLD IP25/S7	SW6-T	SR M10X1X14-10700(a)	SR M10X20-10600(b)	HW 5.0

(a) Recommended tightening torque:22 Nxm
(b) Retaining knob for adapters

DROPMILL

BCM

Ball Nose Endmills with Tangent Straight Edge Inserts for Finish Profiling



Designation	DCX(2)	RE	APMX	CICT(3)	OAL	LH	DCONMS	a°	BHTA	Shank(4)	Type	CSP(5)	MIID(6)	kg
BCM D12-A-C12	12.00	6.00	11.40	2	120.00	30.0	12.00	-	-	C	A	0	BCR D120-QT	0.10
BCM D12-B-C16	12.00	6.00	11.40	2	160.00	60.0	16.00	2.0	2.0	C	B	0	BCR D120-QT	0.22
BCM D16-A-C16-C	16.00	8.00	13.00	2	130.00	36.0	16.00	-	-	C	A	1	BCR D160-QT	0.54
BCM D16-B-C20-C	16.00	8.00	13.00	2	160.00	60.0	20.00	2.2	2.2	C	B	1	BCR D160-QT	0.30
BCM D20-A-C20-C	20.00	10.00	17.00	2	160.00	65.0	20.00	-	-	C	A	1	BCR D200-QT	0.29
BCM D20-A-C20-CC (1)	20.00	10.00	17.00	2	160.00	65.0	20.00	-	-	C	A	1	BCR D200-QT	0.31
BCM D20-B-C25-C	20.00	10.00	17.00	2	200.00	90.0	25.00	1.5	1.5	C	B	1	BCR D200-QT	0.55
BCM D20-B-C25-CC (1)	20.00	10.00	17.00	2	200.00	90.0	25.00	1.5	1.5	C	B	1	BCR D200-QT	0.60
BCM D25-A-W25-C	25.00	12.50	20.00	2	170.00	70.0	25.00	-	-	W	A	1	BCR D250-QT	0.51
BCM D25-B-C32-C	25.00	12.50	20.00	2	220.00	95.0	32.00	2.4	2.4	C	B	1	BCR D250-QT	1.05
BCM D30-A-W32-C	30.00	15.00	26.00	2	160.00	67.0	32.00	-	-	W	A	1	BCR D300-QT	0.73
BCM D32-A-W32-C	32.00	16.00	27.00	2	160.00	65.0	32.00	-	-	W	A	1	BCR D320-CS	0.76
BCM D32-B-W40-C	32.00	16.00	27.00	2	250.00	125.0	40.00	2.1	2.1	W	B	1	BCR D320-CS	1.75
BCM D40-A-W32-C	40.00	20.00	36.00	2	160.00	88.0	32.00	-	-	W	A	1	BCR D400-CS	0.92
BCM D40-B-W40-C	40.00	20.00	36.00	2	250.00	125.0	40.00	-	-	W	B	1	BCR D400-CS	1.95
BCM D50-A-W50-C	50.00	25.00	43.00	2	212.00	132.0	50.00	-	-	W	A	1	BCR D500-CS	2.42

- For user guide, see pages 542-547

(1) Center Cutting
(2) Cutting diameter maximum
(3) Number of inserts
(4) C-Cylindrical, W-Weldon
(5) 0 - Without coolant supply, 1 - With coolant supply
(6) Master insert identification

For inserts, see pages: BCR (535)

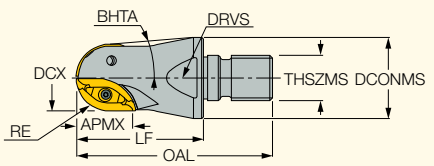
Spare Parts

Designation				
BCM D12-A-C12	SR 10503457			T-6/51
BCM D12-B-C16	SR 10503457			T-6/51
BCM D16-A-C16-C	SR 34-505/1 MHG 2.5X7.2			T-8/53
BCM D16-B-C20-C	SR 34-505/1 MHG 2.5X7.2			T-8/53
BCM D20-A-C20-C	SR 34-506/L			T-9/51
BCM D20-A-C20-CC	SR 34-506/L			T-9/51
BCM D20-B-C25-C	SR 34-506/L			T-9/51
BCM D20-B-C25-CC	SR 34-506/L			T-9/51
BCM D25-A-W25-C	SR 14-601	BLD T15/S7	SW6-T	
BCM D25-B-C32-C	SR 14-601	BLD T15/S7	SW6-T	
BCM D30-A-W32-C	SR 14-544	BLD T15/S7	SW6-T	
BCM D32-A-W32-C	SR 14-544	BLD T15/S7	SW6-T	
BCM D32-B-W40-C	SR 14-544	BLD T15/S7	SW6-T	
BCM D40-A-W32-C	SR 14-591/L	BLD T20/S7	SW6-T	
BCM D40-B-W40-C	SR 14-591/L	BLD T20/S7	SW6-T	
BCM D50-A-W50-C	SR 10503750	BLD T25/S7	SW6-T	

DROPMILLFLEXFIT

BCM-M

Ball Nose Endmills with FLEXFIT Threaded Adaptation Carrying Tangent Straight Edge Inserts for Finish Profiling



Designation	DCX(1)	RE	CICT(2)	APMX	LF	OAL	THSZMS	DCONMS	DRVS(3)	MIID(4)	TQ_3(5)	kg
BCM D25-M12	25.00	12.50	2	20.00	46.00	68.00	M12	23.00	19.0	BCR D250-QT	33	0.12
BCM D25-M16	25.00	12.50	2	20.00	46.00	71.00	M16	29.00	25.0	BCR D250-QT	40	0.16
BCM D32-M16	32.00	16.00	2	26.00	53.00	78.00	M16	29.00	25.0	BCR D320-CS	40	0.22

• For user guide, see pages 542-547 • When mounting items with FLEXFIT threaded adaptation to their holders, the mating surfaces and threaded areas must be thoroughly cleaned. Apply appropriate tightening torque to eliminate a gap between the mating faces. Estimated torque values are specified in the TQ_3 parameter

(1) Cutting diameter maximum
(2) Number of inserts
(3) Clamping wrench size
(4) Master insert identification
(5) Tool tightening torque Nxm (lbfxin)

For inserts, see pages: BCR (535)

For holders, see pages: BT-ODP (FLEXFIT) (314) • C#-ODP (FLEXFIT) (314) • CAB M-M (FLEXFIT) (312) • DIN69871-ODP (315) • ER-ODP (315) • HSK A-ODP (FLEXFIT) (316) • S M (312) • S M-C-H (312) • S M-CF (313)

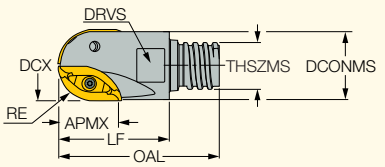
Spare Parts

Designation			
BCM D25-M12	SR 14-601	BLD T15/S7	SW6-T
BCM D25-M16	SR 14-601	BLD T15/S7	SW6-T
BCM D32-M16	SR 14-544	BLD T15/S7	SW6-T

DROPMILL MULTI-MASTER

BCM-MM

Ball Nose Endmills with MULTI-MASTER Threaded Adaptation Carrying Tangent Straight Edge Inserts for Finish Profiling



Designation	DCX(2)	RE	APMX	CICT(3)	LF	OAL	DRVS(4)	DCONMS	THSZMS	CSP(5)	MIID(6)	kg
BCM D12-MMT08	12.00	6.00	9.60	2	20.00	28.00	10.0	11.50	T08	0	BCR D120-QT	0.01
BCM D16-MMT10	16.00	8.00	12.70	2	25.00	36.80	13.0	15.20	T10	0	BCR D160-QT	0.03
BCM D20-MMT12	20.00	10.00	17.00	2	35.00	48.80	15.0	18.50	T12	0	BCR D200..	0.06
BCM D20-MMT12-CC (1)	20.00	10.00	17.00	2	35.00	48.80	15.0	18.50	T12	0	BCR D200..	0.10
BCM D25-MMT15-C	25.00	12.50	20.00	2	40.00	57.00	19.0	24.00	T15	1	BCR D250-QT	0.11

• Do not apply lubricant to the MULTI-MASTER threaded connection • For adaptation options, see page 261 • For user guide, see pages 542-547

(1) Center Cutting
(2) Cutting diameter maximum
(3) Number of inserts
(4) Clamping wrench size
(5) 0 - Without coolant supply, 1 - With coolant supply
(6) Master insert identification

For inserts, see pages: BCR (535)

For holders, see pages: MM CAB (667) • MM S-A (stepped shanks) (84) • MM S-A (straight shanks) (87) • MM S-A-C# (86) • MM S-A-HSK (609) • MM S-A-N (85) • MM S-A-SK (90) • MM S-B (85° conical shanks) (87) • MM S-D (89° conical shanks) (88) • MM S-ER (89) • MM S-ER-H (89) • MM TS-A (86)

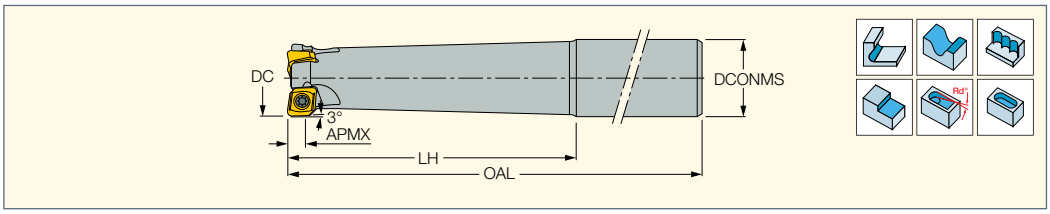
Spare Parts

Designation				
BCM D12-MMT08	SR 10503457	T-6/51		
BCM D16-MMT10	SR 34-505/1 MHG 2.5X7.2	T-8/53		
BCM D20-MMT12	SR 34-506/L	T-9/51		
BCM D20-MMT12-CC	SR 34-506/L	T-9/51		
BCM D25-MMT15-C	SR 14-601		BLD T15/S7	SW6-T

TORMILL

E93CN-07

Toroidal Bull Nose Endmills
with CNHT...Inserts



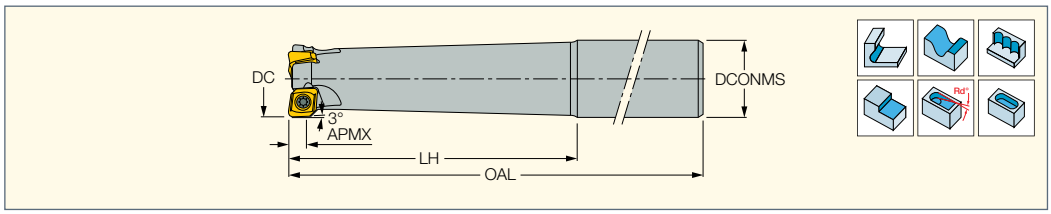
Designation	DC(1)	APMX	CICT(2)	LH	OAL	RMPX°(3)	DCONMS	Shank(4)	MIID(5)	kg
E93CN D16-2-L100-C15-07	16.00	5.00	2	20.0	100.00	4.0	15.00	C	CNHT 070315	0.13
E93CN D16-2-L110-C16-07	16.00	5.00	2	50.0	110.00	4.0	16.00	C	CNHT 070315	0.15
E93CN D20-3-L140-C19-07	20.00	5.00	3	20.0	140.00	3.0	19.00	C	CNHT 070315	0.29
E93CN D20-3-L160-C20-07	20.00	5.00	3	75.0	160.00	3.0	20.00	C	CNHT 070315	0.34
E93CN D25-4-L160-C24-07	25.00	5.00	4	20.0	160.00	2.0	24.00	C	CNHT 070315	0.54
E93CN D25-4-L180-C25-07	25.00	5.00	4	100.0	180.00	2.0	25.00	C	CNHT 070315	0.60

(1) The specified diameter is for inserts with a 1.0 mm radius.
(2) Number of inserts
(3) Maximum ramping angle
(4) C-Cylindrical
(5) Master insert identification
For inserts, see pages: CNHT/MT 07 (538)

TORMILL

E93CN-10

Toroidal Bull Nose Endmills
with ENHT... Inserts



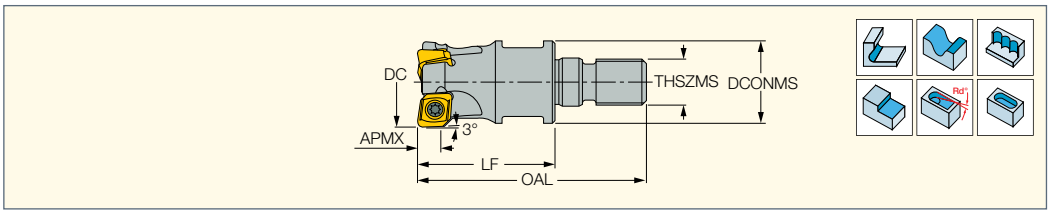
Designation	DC	APMX	CICT(1)	LH	OAL	RMPX°(2)	DCONMS	Shank	MIID(3)	kg		
E93CN D25-2-L180-C25-10	25.00	8.00	2	100.0	180.00	7.0	25.00	C	ENHT 100430	0.57	SR 34-506/L	T-9/51
E93CN D35-3-L200-C32-10	35.00	8.00	3	50.0	200.00	4.0	32.00	C	ENHT 100430	1.18	SR 34-506/L	T-9/51

(1) Number of inserts
(2) Maximum ramping angle
(3) Master insert identification
For inserts, see pages: ENHT (538)

TORMILLFLEXFIT

E93CN-M-07

Bull Nose Endmills with
FLEXFIT Threaded Adaptation
Carrying Toroidal Inserts



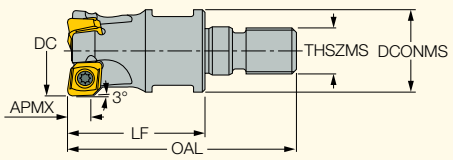
Designation	DC(1)	APMX	CICT(2)	LF	OAL	THSZMS	RMPX°(3)	DCONMS	DRVS(4)	MIID(5)	TQ_3(6)	kg
E93CN D16-2-M08-07	16.00	5.00	2	30.00	47.50	M08	4.0	13.00	10.0	CNHT 070315	20	0.03
E93CN D20-3-M10-07	20.00	5.00	3	30.00	50.00	M10	3.0	18.00	15.0	CNHT 070315	29	0.05
E93CN D25-4-M12-07	25.00	5.00	4	35.00	57.00	M12	2.0	21.00	17.0	CNHT 070315	33	0.09

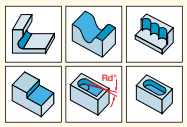
• When mounting items with FLEXFIT threaded adaptation to their holders, the mating surfaces and threaded areas must be thoroughly cleaned. Apply appropriate tightening torque to eliminate a gap between the mating faces. Estimated torque values are specified in the TQ_3 parameter
(1) The specified diameter is for inserts with a 1.0 mm radius.
(2) Number of inserts
(3) Maximum ramping angle
(4) Clamping wrench size
(5) Master insert identification
(6) Tool tightening torque Nxm (lbfxin)
For inserts, see pages: CNHT/MT 07 (538)
For holders, see pages: BT-ODP (FLEXFIT) (314) • C#-ODP (FLEXFIT) (314) • CAB M-M (FLEXFIT) (312) • DIN69871-ODP (315) • ER-ODP (315) • HSK A-ODP (FLEXFIT) (316) • S M (312) • S M-C-H (312) • S M-CF (313)

TORMILLFLEXFIT

E93CN-M-10

Bull Nose Endmills with FLEXFIT Threaded Adaptation Carrying Toroidal Inserts





Designation	DC	APMX	CICT(1)	LF	OAL	THSZMS	RMPX°(2)	DCONMS	DRVS(3)	MIID(4)	TQ_3(5)	kg		
E93CN D25-2-M12-10	25.00	7.00	2	35.00	57.00	M12	7.0	21.00	17.0	ENHT 100430	33	0.09	SR 34-506/L	T-9/51
E93CN D35-3-M16-10	35.00	8.50	3	43.00	68.00	M16	4.0	29.00	25.0	ENHT 100430	40	0.21	SR 34-506/L	T-9/51
E93CN D42-5-M16-10	42.00	8.50	5	43.00	68.00	M16	3.0	29.00	25.0	ENHT 100430	40	0.24	SR 34-506/L	T-9/51

- When mounting items with FLEXFIT threaded adaptation to their holders, the mating surfaces and threaded areas must be thoroughly cleaned. Apply appropriate tightening torque to eliminate a gap between the mating faces. Estimated torque values are specified in the TQ_3 parameter

(1) Number of inserts
(2) Maximum ramping angle
(3) Torque key size
(4) Master insert identification
(5) Tool tightening torque Nxm (lbfxin)

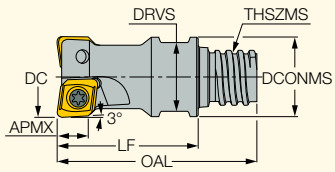
For inserts, see pages: ENHT (538)

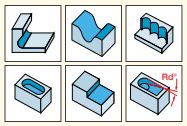
For holders, see pages: BT-ODP (FLEXFIT) (314) • C#-ODP (FLEXFIT) (314) • CAB M-M (FLEXFIT) (312) • DIN69871-ODP (315) • ER-ODP (315) • HSK A-ODP (FLEXFIT) (316) • S M (312) • S M-C-H (312) • S M-CF (313)

TORMILL MULTI-MASTER

E93CN-MM-07

Bull Nose Endmills with MULTI-MASTER Threaded Adaptation Carrying Toroidal Inserts





Designation	DC(1)	APMX	CICT(2)	LF	OAL	RMPX°(3)	THSZMS	DCONMS	DRVS(4)	MIID(5)	kg		
E93CN D16-2-MMT10-07	16.00	5.00	2	27.00	38.64	4.0	T10	15.00	13.0	CNHT 070315	0.03	SR 34-505/LHG	T-8/53
E93CN D20-3-MMT12-07	20.00	5.00	3	27.00	41.00	3.0	T12	19.00	16.0	CNHT 070315	0.05	SR 34-505/LHG	T-8/53

- Do not apply lubricant to the MULTI-MASTER threaded connection • For adaptation options, see page 261 • For user guide, see pages 542-547

(1) The specified diameter is for inserts with a 1.0 mm radius. For other radii options, see diameter change in the table below
(2) Number of inserts
(3) Maximum ramping angle
(4) Clamping wrench size
(5) Master insert identification

For inserts, see pages: CNHT/MT 07 (538)

For holders, see pages: MM S-A (stepped shanks) (84) • MM S-A (straight shanks) (87) • MM S-A-C# (86) • MM S-A-HSK (609) • MM S-A-N (85) • MM S-A-SK (90) • MM S-B (85° conical shanks) (87) • MM S-D (89° conical shanks) (88) • MM S-ER (89) • MM S-ER-H (89) • MM TS-A (86)

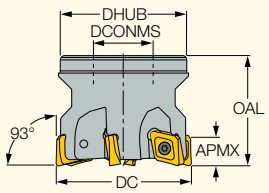
Diameter Change According to Insert Radius

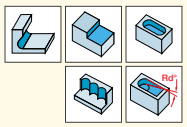
R	0.8	1.0	1.5	2.0	2.5	3.0
ΔD	+0.03	0.0	-0.07	-0.14	-0.21	-0.28

TORMILL

F93CN-10

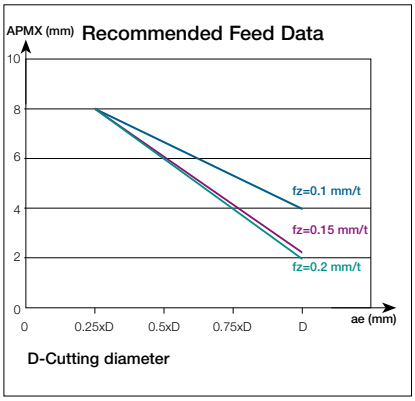
93° Face Mills with Toroidal Inserts

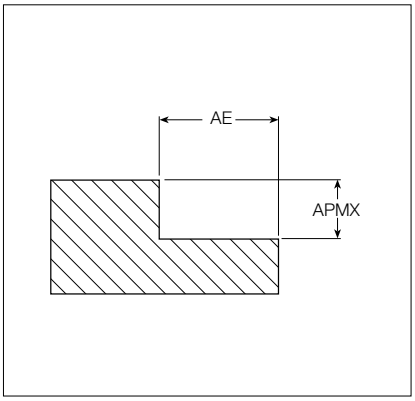




Designation	DC(1)	CICT(2)	APMX	OAL	DHUB	DCONMS	RMPX°(3)	Arbor(4)	kg			
F93CN D52-6-22-R-10	52.00	6	8.00	40.00	47.00	22.00	2.5	A	0.28	SR 34-506/L	BLD T09/M7	SW6-SD
F93CN D66-7-22-R-10	66.00	7	8.00	40.00	52.00	22.00	1.8	A	0.51	SR 34-506/L	BLD T09/M7	SW6-SD
F93CN D80-8-27-R-10	80.00	8	8.00	50.00	60.00	27.00	1.5	B	0.81	SR 34-506/L	BLD T09/M7	SW6-SD

(1) The specified diameter is for inserts with a 1.0 mm radius. For other radii options, see diameter change in the table below
(2) Number of inserts
(3) Maximum ramping angle
(4) For adaptation options, see page 548
For inserts, see pages: ENHT (538)





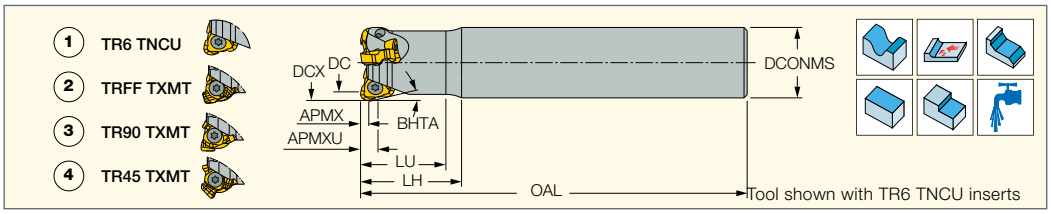
Diameter Change According to Insert Radius

R	0.8	1.0	1.5	2.0	2.5	3.0
ΔD	+0.03	0.0	-0.07	-0.14	-0.21	-0.28

TOR6MILL PROFILING

TR6 ER

Multifunction Endmills That Can Carry Four Different Insert Geometries



Designation	DCX(1)	DCX_2	DCX_3	DCX_4	DC	DC_2	DC_4	APMX	APMX_2	APMX_3	APMX_4	APMXU(2)	BHTA(3)	CICT(4)	LU	LU_2	LU_3	LU_4
TR6 ER D16-50-2-C16-07	16.00	16.00	16.00	-	14.00	12.10	-	1.00	0.60	2.50	-	2.00	21.0	2	46.50	46.70	46.80	-
TR6 ER D20-60-4-C20-07	20.00	20.00	20.00	-	18.00	16.10	-	1.00	0.60	2.50	-	2.00	21.0	4	56.50	56.70	56.80	-
TR6 ER D25-70-5-C25-07	25.00	25.00	25.00	-	23.00	21.10	-	1.00	0.60	2.50	-	2.00	21.0	5	65.50	65.70	65.80	-
TR6 ER D32-80-6-C32-07	32.00	32.00	32.00	-	30.00	28.10	-	1.00	0.60	2.50	-	2.00	21.0	6	75.50	75.70	75.80	-
TR6 ER D25-70-3-C25-10	25.00	24.60	25.00	26.80	20.00	19.00	20.60	2.50	0.80	4.00	3.00	4.20	20.5	3	65.00	65.15	64.91	65.12
TR6 ER D32-80-4-C32-10	32.00	31.60	32.00	33.80	27.00	26.00	27.60	2.50	0.80	4.00	3.00	4.20	20.5	4	75.00	75.15	74.91	75.12

Designation	LH	LH_2	LH_3	LH_4	OAL	OAL_2	OAL_3	OAL_4	DCONMS	MIID(5)	MIID_2(6)	MIID_3(7)	MIID_4(8)	kg
TR6 ER D16-50-2-C16-07	50.0	50.2	50.3	-	100.00	100.20	100.30	-	16.00	TR6 TNCU 070210	TRFF TXMT 0702	TR90 TXMT 070204	-	0.12
TR6 ER D20-60-4-C20-07	60.0	60.2	60.3	-	120.00	120.20	120.30	-	20.00	TR6 TNCU 070210	TRFF TXMT 0702	TR90 TXMT 070204	-	0.22
TR6 ER D25-70-5-C25-07	70.0	70.2	70.3	-	140.00	140.20	140.30	-	25.00	TR6 TNCU 070210	TRFF TXMT 0702	TR90 TXMT 070204	-	0.42
TR6 ER D32-80-6-C32-07	80.0	80.2	80.3	-	160.00	160.20	160.30	-	32.00	TR6 TNCU 070210	TRFF TXMT 0702	TR90 TXMT 070204	-	0.82
TR6 ER D25-70-3-C25-10	70.0	70.2	69.9	70.1	140.00	140.15	139.91	140.12	25.00	TR6 TNCU 100425	TRFF TXMT 1004	TR90 TXMT 100408	TR45 TXMT 1004	0.41
TR6 ER D32-80-4-C32-10	80.0	80.2	79.9	80.1	160.00	160.15	159.91	160.12	32.00	TR6 TNCU 100425	TRFF TXMT 1004	TR90 TXMT 100408	TR45 TXMT 1004	0.81

- Note: The data refers to master inserts , for other insert radii and geometries refer to the table below

(1) Cutting diameter maximum
(2) For undercutting with TR6 TNCU/TNMU inserts only
(3) For undercutting with TR6 TNCU/TNMU inserts only
(4) Number of inserts
(5) Master insert identification
(6) Master insert identification 2
(7) Master insert identification 3
(8) Master insert identification 4

For inserts, see pages: TR45 TXMT (540) • TR6 TNCU/MU (539) • TR90 TXMT (539) • TRFF TXMT (539)

Tool	Insert	DCX	DC	APMX	LU	LH	OAL	RMPX(1)	For undercutting APMX_2	For undercutting BHTA
TR6 ER D16-50-2-C16-07	TR6 TNCU 070205	16.00	15.00	0.50	46.40	49.90	99.90	-	1.60	17.0
	TR6 TNMU 070215		13.00	1.50	45.60	50.10	100.10	-	2.40	21.0
	TRFF TXMT 0702		12.10	0.60	46.70	50.20	100.20	1.1	-	-
	TR90 TXMT 070204		-	2.50	46.80	50.30	100.30	1.6	-	-
TR6 ER D20-60-4-C20-07	TR6 TNCU 070205	20.00	19.00	0.50	56.40	59.90	119.90	-	1.60	17.0
	TR6 TNMU 070215		17.00	1.50	56.60	60.10	120.10	-	2.40	21.0
	TRFF TXMT 0702		16.10	0.60	56.70	60.20	120.20	0.8	-	-
	TR90 TXMT 070204		-	2.50	56.80	60.30	120.30	1.2	-	-
TR6 ER D25-70-5-C25-07	TR6 TNCU 070205	25.00	24.00	0.50	65.40	69.90	139.90	-	1.60	17.0
	TR6 TNMU 070215		22.00	1.50	65.60	70.10	140.10	-	2.40	21.0
	TRFF TXMT 0702		21.10	0.60	65.70	70.20	140.20	0.6	-	-
	TR90 TXMT 070204		-	2.50	65.80	70.30	140.30	0.9	-	-
TR6 ER D32-80-6-C32-07	TR6 TNCU 070205	32.00	31.00	0.50	75.40	79.90	159.90	-	1.60	17.0
	TR6 TNMU 070215		29.00	1.50	75.60	80.10	160.10	-	2.40	21.0
	TRFF TXMT 0702		28.10	0.60	75.70	80.20	160.20	0.4	-	-
	TR90 TXMT 070204		-	2.50	75.80	80.30	160.30	0.7	-	-
TR6 ER D25-70-3-C25-10	TR6 TNCU 100405	25.00	24.00	0.50	64.52	69.52	139.52	-	1.80	17.5
	TR6 TNCU 100410		23.00	1.00	64.64	69.64	139.65	-	2.30	20.5
	TR6 TNCU/MU 100415		22.00	1.50	64.76	69.76	139.76	-	2.70	20.5
	TR6 TNCU 100420		21.00	2.00	64.88	69.88	139.88	-	3.50	20.5
	TR6 TNCU 100430		19.00	3.00	65.12	70.12	140.12	-	4.50	20.5
	TRFF TXMT 1004		19.00	0.80	65.15	70.15	140.15	1.7	-	-
	TR90 TXMT 100408		-	4.00	64.91	69.91	139.91	1.6	-	-
	TR45 TXMT 1004	26.80	20.60	3.00	65.12	70.12	140.12	1.4	-	-
TR6 ER D32-80-4-C32-10	TR6 TNCU 100405	32.00	31.00	0.50	75.52	79.52	159.52	-	1.80	17.5
	TR6 TNCU 100410		30.00	1.00	74.64	79.65	159.64	-	2.30	20.5
	TR6 TNCU/MU 100415		29.00	1.50	76.76	79.76	159.76	-	2.70	20.5
	TR6 TNCU 100420		28.00	2.00	74.88	79.88	159.88	-	3.50	20.5
	TR6 TNCU 100430		26.00	3.00	75.12	80.12	160.12	-	4.50	20.5
	TRFF TXMT 1004		26.00	0.80	75.15	80.15	160.15	1.2	-	-
	TR90 TXMT 100408		-	4.00	74.91	79.91	159.91	1.2	-	-
	TR45 TXMT 1004	33.80	27.60	3.00	75.12	80.12	160.12	1.0	-	-

(1) Maximum ramp down angle

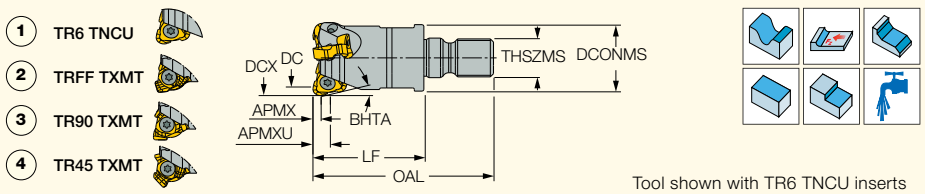
Spare Parts

Designation		
TR6 ER D16-50-2-C16-07	SR M2.5X0.45-L6 IP7	IP-7/51
TR6 ER D20-60-4-C20-07	SR M2.5X0.45-L6 IP7	IP-7/51
TR6 ER D25-70-5-C25-07	SR M2.5X0.45-L6 IP7	IP-7/51
TR6 ER D32-80-6-C32-07	SR M2.5X0.45-L6 IP7	IP-7/51
TR6 ER D25-70-3-C25-10	SR 10508600	T-9/51
TR6 ER D32-80-4-C32-10	SR 10508600	T-9/51

TOR6MILL FLEXFIT PROFILING

TR6 ER-M

Multifunction Endmills with FLEXFIT Threaded Adaptation That Can Carry Four Different Insert Geometries



Tool shown with TR6 TNCU inserts

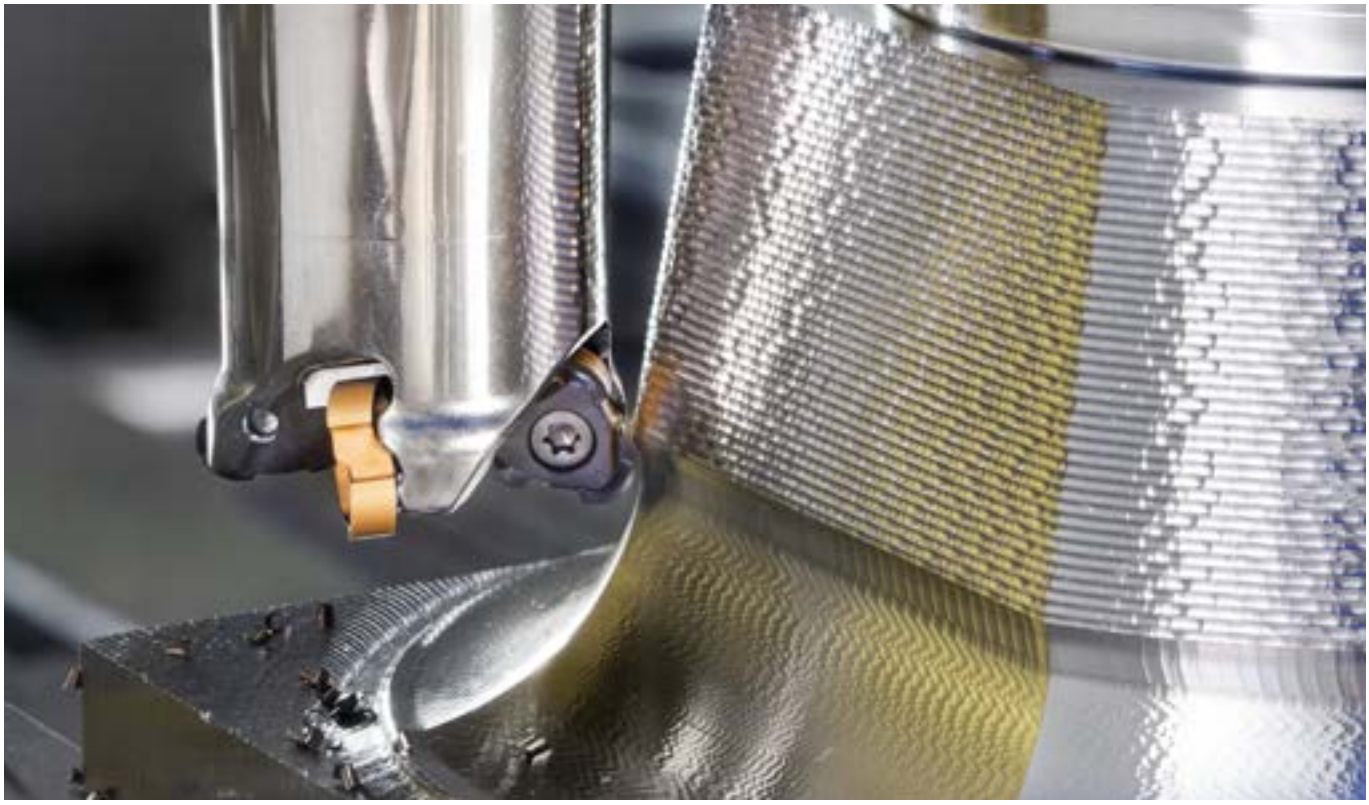
Designation	DCX(1)	DCX_2	DCX_3	DCX_4	DC	DC_2	DC_4	APMX	APMX_2	APMX_3	APMX_4	APMXU(2)	BHTA(3)	CICT(4)	LF	LF_2	LF_3	LF_4	OAL
TR6 ER D16/0.63-2-M08-07	16.00	16.00	16.00	-	14.00	12.10	-	1.00	0.60	2.50	-	2.00	21.0	2	24.64	24.90	25.00	-	42.20
TR6 ER D20/0.79-4-M10-07	20.00	20.00	20.00	-	18.00	16.10	-	1.00	0.60	2.50	-	2.00	21.0	4	24.64	24.90	25.00	-	44.70
TR6 ER D25/0.98-5-M12-07	25.00	25.00	25.00	-	23.00	21.10	-	1.00	0.60	2.50	-	2.00	21.0	5	29.64	29.90	30.00	-	51.70
TR6 ER D32/1.26-6-M16-07	32.00	32.00	32.00	-	30.00	28.10	-	1.00	0.60	2.50	-	2.00	21.0	6	34.64	34.90	35.00	-	59.70
TR6 ER D35/1.38-6-M16-07	35.00	35.00	35.00	-	33.00	31.10	-	1.00	0.60	2.50	-	2.00	21.0	6	34.64	34.90	35.00	-	59.70
TR6 ER D25/0.98-3-M12-10	25.00	24.60	25.00	26.80	20.00	20.60	20.60	2.50	0.80	4.00	3.00	4.20	20.5	3	24.97	25.15	25.12	25.12	47.00
TR6 ER D32/1.26-4-M16-10	32.00	31.60	32.00	33.80	27.00	27.60	27.60	2.50	0.80	4.00	3.00	4.20	20.5	4	34.97	35.15	35.12	35.12	60.00
TR6 ER D35/1.38-5-M16-10	35.00	34.60	35.00	36.80	30.00	30.60	30.60	2.50	0.80	4.00	3.00	4.20	20.5	5	34.97	35.15	35.12	35.12	60.00

Designation	OAL_2	OAL_3	OAL_4	DCONMS	THSZMS	MIID(5)	MIID_2(6)	MIID_3(7)	MIID_4(8)	DRVS(9)	TQ_3(10)	kg
TR6 ER D16/0.63-2-M08-07	42.40	42.50	-	13.00	M08	TR6 TNCU 070210	TRFF TXMT 0702	TR90 TXMT 070204	-	11.0	20	0.03
TR6 ER D20/0.79-4-M10-07	44.90	45.00	-	18.00	M10	TR6 TNCU 070210	TRFF TXMT 0702	TR90 TXMT 070204	-	15.0	29	0.05
TR6 ER D25/0.98-5-M12-07	51.90	52.00	-	21.00	M12	TR6 TNCU 070210	TRFF TXMT 0702	TR90 TXMT 070204	-	17.0	33	0.08
TR6 ER D32/1.26-6-M16-07	59.90	60.00	-	29.00	M16	TR6 TNCU 070210	TRFF TXMT 0702	TR90 TXMT 070204	-	25.0	40	0.18
TR6 ER D35/1.38-6-M16-07	59.90	60.00	-	29.00	M16	TR6 TNCU 070210	TRFF TXMT 0702	TR90 TXMT 070204	-	25.0	40	0.19
TR6 ER D25/0.98-3-M12-10	47.15	46.91	47.12	21.00	M12	TR6 TNCU 100425	TRFF TXMT 1004	TR90 TXMT 100408	TR45 TXMT 1004	19.0	33	0.06
TR6 ER D32/1.26-4-M16-10	60.15	59.91	60.12	29.00	M16	TR6 TNCU 100425	TRFF TXMT 1004	TR90 TXMT 100408	TR45 TXMT 1004	25.0	40	0.17
TR6 ER D35/1.38-5-M16-10	60.15	59.91	60.12	29.00	M16	TR6 TNCU 100425	TRFF TXMT 1004	TR90 TXMT 100408	TR45 TXMT 1004	25.0	40	0.18

• Note: The data refers to master inserts, for other insert radii and geometries refer to the table below • When mounting items with FLEXFIT threaded adaptation to their holders, the mating surfaces and threaded areas must be thoroughly cleaned. Apply appropriate tightening torque to eliminate a gap between the mating faces. Estimated torque values are specified in the TQ_3 parameter

(1) Cutting diameter maximum
(10) Tool tightening torque Nxm (lbfxin)
(2) For undercutting with TR6 TNCU/TNMU inserts only
(3) For undercutting with TR6 TNCU/TNMU inserts only
(4) Number of inserts
(5) Master insert identification
(6) Master insert identification 2
(7) Master insert identification 3
(8) Master insert identification 4
(9) Torque key size

For inserts, see pages: TR45 TXMT (540) • TR6 TNCU/MU (539) • TR90 TXMT (539) • TRFF TXMT (539)
For holders, see pages: BT-ODP (FLEXFIT) (314) • C#-ODP (FLEXFIT) (314) • CAB M-M (FLEXFIT) (312) • DIN69871-ODP (315) • ER-ODP (315) • HSK A-ODP (FLEXFIT) (316) • S M (312) • S M-C-H (312) • S M-CF (313)



Tool	Insert	DCX	DC	APMX	LF	OAL	RMPX	For undercutting APMX_2	For undercutting BHTA
TR6 ER D16/0.63-2-M08-07	TR6 TNCU 070205	16.00	15.00	0.50	24.6	42.1	-	1.60	17.0
	TR6 TNMU 070215		13.00	1.50	24.8	42.3	-	2.40	21.0
	TRFF TXMT 0702		12.10	0.60	24.9	42.4	1.1	-	-
	TR90 TXMT 070204		-	2.50	25.0	42.5	1.6	-	-
TR6 ER D20/0.79-4-M10-07	TR6 TNCU 070205	20.00	19.00	0.50	24.6	44.6	-	1.60	17.0
	TR6 TNMU 070215		17.00	1.50	24.8	44.8	-	2.40	21.0
	TRFF TXMT 0702		16.10	0.60	24.9	44.9	0.8	-	-
	TR90 TXMT 070204		-	2.50	25.0	45.0	1.2	-	-
TR6 ER D25/0.98-5-M12-07	TR6 TNCU 070205	25.00	24.00	0.50	29.6	51.6	-	1.60	17.0
	TR6 TNMU 070215		22.00	1.50	29.8	51.8	-	2.40	21.0
	TRFF TXMT 0702		21.10	0.60	29.9	51.9	0.6	-	-
	TR90 TXMT 070204		-	2.50	30.0	52.0	0.9	-	-
TR6 ER D32/1.26-6-M16-07	TR6 TNCU 070205	32.00	31.00	0.50	34.6	59.6	-	1.60	17.0
	TR6 TNMU 070215		29.00	1.50	34.8	59.8	-	2.40	21.0
	TRFF TXMT 0702		28.10	0.60	34.9	59.9	0.4	-	-
	TR90 TXMT 070204		-	2.50	35.0	60.0	0.7	-	-
TR6 ER D35/1.38-6-M16-07	TR6 TNCU 070205	35.00	34.00	0.50	34.6	59.6	-	1.60	17.0
	TR6 TNMU 070215		32.00	1.50	34.8	59.8	-	2.40	21.0
	TRFF TXMT 0702		31.10	0.60	34.9	59.9	0.4	-	-
	TR90 TXMT 070204		-	2.50	35	60	0.4	-	-
TR6 ER D25/0.98-3-M12-10	TR6 TNCU 100405	25.00	24.00	0.50	24.52	46.52	-	1.80	17.5
	TR6 TNCU 100410		23.00	1.00	24.64	46.64	-	2.30	20.5
	TR6 TNCU/MU 100415		22.00	1.50	24.76	46.76	-	2.70	20.5
	TR6 TNCU 100420		21.00	2.00	24.88	46.88	-	3.50	20.5
	TR6 TNCU 100430		19.00	3.00	25.12	47.12	-	4.50	20.5
	TRFF TXMT 1004		20.60	0.80	25.15	47.15	1.7	-	-
	TR90 TXMT 100408		-	4.00	24.91	46.91	1.6	-	-
	TR45 TXMT 1004	26.80	20.60	3.00	25.12	47.12	1.4	-	-
TR6 ER D32/1.26-4-M16-10	TR6 TNCU 100405	32.00	31.00	0.50	34.52	59.52	-	1.80	17.5
	TR6 TNCU 100410		30.00	1.00	34.64	59.64	-	2.30	20.5
	TR6 TNCU/MU 100415		29.00	1.50	34.76	59.76	-	2.70	20.5
	TR6 TNCU 100420		28.00	2.00	34.88	59.88	-	3.50	20.5
	TR6 TNCU 100430		26.00	3.00	35.12	60.12	-	4.50	20.5
	TRFF TXMT 1004		27.60	0.80	35.15	60.15	1.2	-	-
	TR90 TXMT 100408		-	4.00	34.91	59.91	1.1	-	-
	TR45 TXMT 1004	33.80	27.60	3.00	35.12	60.12	0.9	-	-
TR6 ER D35/1.38-5-M16-10	TR6 TNCU 100405	35.00	34.00	0.50	34.52	59.52	-	1.80	17.5
	TR6 TNCU 100410		33.00	1.00	34.64	59.64	-	2.30	20.5
	TR6 TNCU/MU 100415		32.00	1.50	34.76	59.76	-	2.70	20.5
	TR6 TNCU 100420		31.00	2.00	34.88	59.88	-	3.50	20.5
	TR6 TNCU 100430		29.00	3.00	35.12	60.12	-	4.50	20.5
	TRFF TXMT 1004		30.60	0.80	35.15	60.15	1.2	-	-
	TR90 TXMT 100408		-	4.00	34.91	59.91	1.1	-	-
	TR45 TXMT 1004	36.80	30.60	3.00	35.12	60.12	0.9	-	-

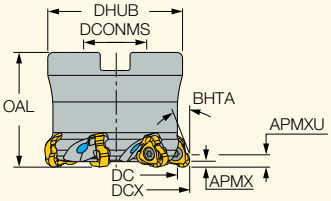
Spare Parts

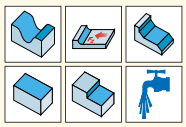
Designation		
TR6 ER D16/0.63-2-M08-07	SR M2.5X0.45-L6 IP7	IP-7/51
TR6 ER D20/0.79-4-M10-07	SR M2.5X0.45-L6 IP7	IP-7/51
TR6 ER D25/0.98-5-M12-07	SR M2.5X0.45-L6 IP7	IP-7/51
TR6 ER D32/1.26-6-M16-07	SR M2.5X0.45-L6 IP7	IP-7/51
TR6 ER D35/1.38-6-M16-07	SR M2.5X0.45-L6 IP7	IP-7/51
TR6 ER D25/0.98-3-M12-10	SR 10508600	T-9/51
TR6 ER D32/1.26-4-M16-10	SR 10508600	T-9/51
TR6 ER D35/1.38-5-M16-10	SR 10508600	T-9/51

TOR6MILL PROFILING

TR6 FR

Multifunction Face Mills That Can Carry Four Different Insert Geometries





Tool shown with TR6 TNCU inserts

Designation	DCX(1)	DCX_2	DCX_3	DCX_4	DC	DC_2	DC_4	APMX	APMX_2	APMX_3	APMX_4	APMXU(2)	BHTA(3)	CICT(4)
TR6 FR D40-06-16-10	40.00	39.60	40.00	41.80	35.00	34.00	35.60	2.50	0.80	4.00	3.00	4.20	20.5	6
TR6 FR D42-06-16-10	42.00	41.60	42.00	43.80	37.00	36.00	37.60	2.50	0.80	4.00	3.00	4.20	20.5	6
TR6 FR D50-07-22-10	50.00	49.60	50.00	51.80	45.00	44.00	45.60	2.50	0.80	4.00	3.00	4.20	20.5	7
TR6 FR D52-07-22-10	52.00	51.60	52.00	53.80	47.00	46.00	53.60	2.50	0.80	4.00	3.00	4.20	20.5	7
TR6 FR D63-08-22-10	63.00	62.60	63.00	64.80	58.00	57.00	56.60	2.50	0.80	4.00	3.00	4.20	20.5	8
TR6 FR D66-08-22-10	66.00	65.60	66.00	67.80	61.00	60.00	61.60	2.50	0.80	4.00	3.00	4.20	20.5	8
TR6 FR D80-10-27-10	80.00	79.60	80.00	81.80	75.00	74.00	75.60	2.50	0.80	4.00	3.00	4.20	20.5	10

Designation	OAL	OAL_2	OAL_3	OAL_4	DCONMS	DHUB	Arbor	MIID(5)	MIID_2(6)	MIID_3(7)	MIID_4(8)	kg
TR6 FR D40-06-16-10	37.00	37.15	36.91	37.12	16.00	32.00	A	TR6 TNCU 100425	TRFF TXMT 1004	TR90 TXMT 100408	TR45 TXMT 1004	0.14
TR6 FR D42-06-16-10	37.00	37.15	36.91	37.12	16.00	32.00	A	TR6 TNCU 100425	TRFF TXMT 1004	TR90 TXMT 100408	TR45 TXMT 1004	0.15
TR6 FR D50-07-22-10	40.00	40.15	39.91	40.12	22.00	47.00	A	TR6 TNCU 100425	TRFF TXMT 1004	TR90 TXMT 100408	TR45 TXMT 1004	0.29
TR6 FR D52-07-22-10	40.00	40.15	39.91	40.12	22.00	47.00	A	TR6 TNCU 100425	TRFF TXMT 1004	TR90 TXMT 100408	TR45 TXMT 1004	0.33
TR6 FR D63-08-22-10	40.00	40.15	39.91	40.12	22.00	48.00	A	TR6 TNCU 100425	TRFF TXMT 1004	TR90 TXMT 100408	TR45 TXMT 1004	0.42
TR6 FR D66-08-22-10	40.00	40.15	39.91	40.12	22.00	48.00	A	TR6 TNCU 100425	TRFF TXMT 1004	TR90 TXMT 100408	TR45 TXMT 1004	0.46
TR6 FR D80-10-27-10	50.00	50.15	49.91	50.12	27.00	60.00	A	TR6 TNCU 100425	TRFF TXMT 1004	TR90 TXMT 100408	TR45 TXMT 1004	0.91

- Note: The data refers to master inserts, for other insert radii and geometries refer to the table below

(1) Cutting diameter maximum
(2) For undercutting with TR6 TNCU/TNMU inserts only
(3) For undercutting with TR6 TNCU/TNMU inserts only
(4) Number of inserts
(5) Master insert identification
(6) Master insert identification 2
(7) Master insert identification 3
(8) Master insert identification 4

For inserts, see pages: TR45 TXMT (540) • TR6 TNCU/MU (539) • TR90 TXMT (539) • TRFF TXMT (539)

Spare Parts

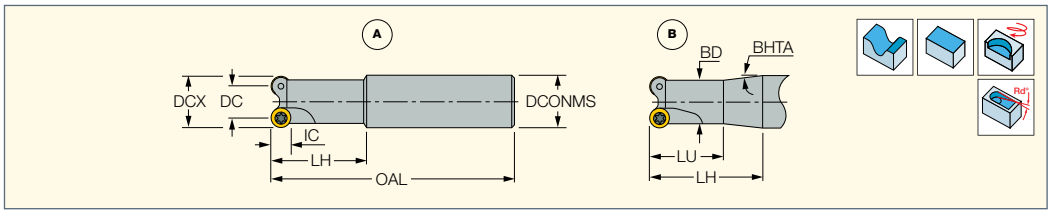
Designation			
TR6 FR D40-06-16-10	SR 10508600	T-9/51	SR M8X25DIN912
TR6 FR D42-06-16-10	SR 10508600	T-9/51	SR M8X25DIN912
TR6 FR D50-07-22-10	SR 10508600	T-9/51	SR M10X25 DIN912
TR6 FR D52-07-22-10	SR 10508600	T-9/51	SR M10X25 DIN912
TR6 FR D63-08-22-10	SR 10508600	T-9/51	SR M10X25 DIN912
TR6 FR D66-08-22-10	SR 10508600	T-9/51	SR M10X25 DIN912
TR6 FR D80-10-27-10	SR 10508600	T-9/51	SR M12X30DIN912

							For undercutting	
Tool	Insert	DCX	DC	APMX	OAL	RMPX	APMX_2	BHTA
TR6 FR D40-06-16-10	TR6 TNCU 100405	40.00	39.00	0.50	36.52	-	1.80	17.5
	TR6 TNCU 100410		38.00	1.00	36.64	-	2.30	20.5
	TR6 TNCU/MU 100415		37.00	1.50	36.76	-	2.70	20.5
	TR6 TNCU 100420		36.00	2.00	36.88	-	3.50	20.5
	TR6 TNCU 100430		34.00	3.00	37.12	-	4.50	20.5
	TRFF TXMT 1004		34.00	0.80	37.15	0.9	-	-
	TR90 TXMT 100408		-	4.00	36.91	0.9	-	-
	TR45 TXMT 1004	41.80	35.60	3.00	37.12	0.7	-	-
TR6 FR D42-06-16-10	TR6 TNCU 100405	42.00	41.00	0.50	36.52	-	1.80	17.5
	TR6 TNCU 100410		40.00	1.00	36.64	-	2.30	20.5
	TR6 TNCU/MU 100415		39.00	1.50	36.76	-	2.70	20.5
	TR6 TNCU 100420		38.00	2.00	36.88	-	3.50	20.5
	TR6 TNCU 100430		36.00	3.00	37.12	-	4.50	20.5
	TRFF TXMT 1004		36.00	0.80	37.15	0.90	-	-
	TR90 TXMT 100408		-	4.00	36.91	0.90	-	-
	TR45 TXMT 1004	43.80	37.60	3.00	37.12	0.70	-	-
TR6 FR D50-07-22-10	TR6 TNCU 100405	50.00	49.00	0.50	39.52	-	1.80	17.5
	TR6 TNCU 100410		48.00	1.00	39.64	-	2.30	20.5
	TR6 TNCU/MU 100415		47.00	1.50	39.76	-	2.70	20.5
	TR6 TNCU 100420		46.00	2.00	39.88	-	3.50	20.5
	TR6 TNCU 100430		44.00	3.00	40.12	-	4.50	20.5
	TRFF TXMT 1004		44.00	0.80	40.15	0.70	-	-
	TR90 TXMT 100408		-	4.00	39.91	0.70	-	-
	TR45 TXMT 1004	51.80	45.60	3.00	40.12	0.60	-	-
TR6 FR D52-07-22-10	TR6 TNCU 100405	52.00	51.00	0.50	39.52	-	1.80	17.5
	TR6 TNCU 100410		50.00	1.00	39.64	-	2.30	20.5
	TR6 TNCU/MU 100415		49.00	1.50	39.76	-	2.70	20.5
	TR6 TNCU 100420		48.00	2.00	39.88	-	3.50	20.5
	TR6 TNCU 100430		46.00	3.00	40.12	-	4.50	20.5
	TRFF TXMT 1004		46.00	0.80	40.15	0.70	-	-
	TR90 TXMT 100408		-	4.00	39.91	0.70	-	-
	TR45 TXMT 1004	53.80	53.80	3.00	40.12	0.60	-	-
TR6 FR D63-08-22-10	TR6 TNCU 100405	63.00	62.00	0.50	39.52	-	1.80	17.5
	TR6 TNCU 100410		61.00	1.00	39.64	-	2.30	20.5
	TR6 TNCU/MU 100415		60.00	1.50	39.76	-	2.70	20.5
	TR6 TNCU 100420		59.00	2.00	39.88	-	3.50	20.5
	TR6 TNCU 100430		57.00	3.00	40.12	-	4.50	20.5
	TRFF TXMT 1004		57.00	0.80	40.15	0.50	-	-
	TR90 TXMT 100408		-	4.00	39.91	0.50	-	-
	TR45 TXMT 1004	64.80	58.60	3.00	40.12	0.40	-	-
TR6 FR D66-08-22-10	TR6 TNCU 100405	66.00	65.00	0.50	39.52	-	1.80	17.5
	TR6 TNCU 100410		64.00	1.00	39.64	-	2.30	20.5
	TR6 TNCU/MU 100415		63.00	1.50	39.76	-	2.70	20.5
	TR6 TNCU 100420		62.00	2.00	39.88	-	3.50	20.5
	TR6 TNCU 100430		60.00	3.00	40.12	-	4.50	20.5
	TRFF TXMT 1004		60.00	0.80	40.15	0.50	-	-
	TR90 TXMT 100408		-	4.00	39.91	0.50	-	-
	TR45 TXMT 1004	67.80	61.60	3.00	40.12	0.40	-	-
TR6 FR D80-10-27-10	TR6 TNCU 100405	80.00	79.00	0.50	49.52	-	1.80	17.5
	TR6 TNCU 100410		78.00	1.00	49.64	-	2.30	20.5
	TR6 TNCU/MU 100415		77.00	1.50	49.76	-	2.70	20.5
	TR6 TNCU 100420		76.00	2.00	49.88	-	3.50	20.5
	TR6 TNCU 100430		74.00	3.00	50.12	-	4.50	20.5
	TRFF TXMT 1004		74.00	0.80	50.15	0.40	-	-
	TR90 TXMT 100408		-	4.00	49.91	0.40	-	-
	TR45 TXMT 1004	81.80	75.60	3.00	50.12	0.30	-	-

ROUNDMILL

ER

Endmills with Round Inserts for Profiling and Milling Round Corners



Designation	DCX(1)	DC	IC	BD	CICT(2)	LH	DCONMS	Shank(3)	RMPX°(4)	BHTA	OAL	LU	Type	MIID(5)	kg
ER D07A12-3-C12-05	12.00	7.00	5.00	11.70	3	40.0	12.00	C	6.0	-	100.00	-	A	RXCR 05T1	0.08
ER D08A15-2-C20-07	15.00	8.00	7.00	13.50	2	40.0	20.00	C	15.0	5.0	140.00	40.0	B	RXCR 0702	0.26
ER D08A16-2-C16-08	16.00	8.00	8.00	13.50	2	40.0	16.00	C	27.0	-	120.00	-	A	RXCR 0802	0.16
ER D17A25-3-C32-08	25.00	17.00	8.00	22.50	3	60.0	32.00	C	5.4	-	160.00	-	A	RXCR 0802	0.80
ER D10A20-2-C20-10	20.00	10.00	10.00	17.90	2	60.0	20.00	C	13.0	-	160.00	-	A	RXCR 10T3	0.34
ER D15A25-2-C25-10	25.00	15.00	10.00	22.80	2	60.0	25.00	C	6.0	-	160.00	-	A	RXCR 10T3	0.55
ER D22A32-4-C25-10	32.00	22.00	10.00	29.90	4	40.0	25.00	C	4.0	-	160.00	-	A	RXCR 10T3	0.62
ER D24A40-3-C32-16	40.00	24.00	16.00	30.00	3	50.0	32.00	C	20.0	-	160.00	-	A	RCCW 1605	0.90

(1) Cutting diameter maximum
(2) Number of inserts
(3) C-Cylindrical
(4) Maximum ramping angle
(5) Master insert identification

For inserts, see pages: RXCR (526) • RXCW (526) • RXMT 10 (526)

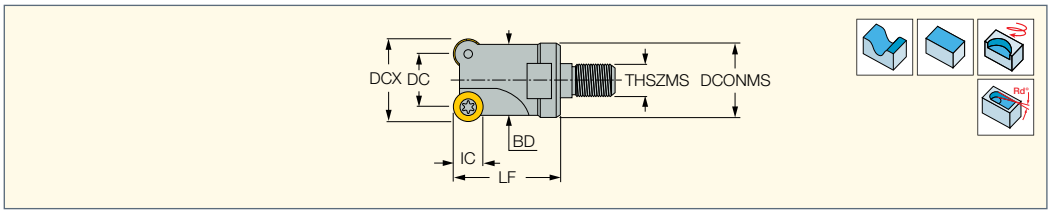
Spare Parts

Designation				
ER D07A12-3-C12-05	SR 34-533	T-6/51		
ER D08A15-2-C20-07	SR 14-560/S	T-8/53		
ER D08A16-2-C16-08	SR 14-560/S	T-8/53		
ER D17A25-3-C32-08		T-8/53		
ER D10A20-2-C20-10	SR 14-562/S	T-10/51		
ER D15A25-2-C25-10	SR 14-562/S	T-10/51		
ER D22A32-4-C25-10	SR 14-562	T-10/51		
ER D24A40-3-C32-16	SR 14-536		BLD T20/M7	SW6-T

ROUNDMILLFLEXFIT

ER-M

Endmills with FLEXFIT Threaded Adaptation Carrying Round Inserts for Profiling and Milling Round Corners



Designation	DCX(1)	DC	IC	BD	CICT(2)	DCONMS	LF	THSZMS	RMPX°(3)	TQ_3(4)	kg		
ER D10A15-4-M08-05	15.00	10.00	5.00	13.00	4	13.00	23.00	M08	13.0	20	0.03	SR 34-533	T-6/51
ER D15A20-5-M10-05	20.00	15.00	5.00	18.00	5	18.00	30.00	M10	4.3	29	0.06	SR 34-533	T-6/51
ER D08A15-3-M08-07	15.00	8.00	7.00	13.50	3	13.50	23.00	M08	15.0	20	0.03	SR 14-560/S	T-8/53
ER D13A20-4-M10-07	20.00	13.00	7.00	18.00	4	18.00	30.00	M10	5.0	29	0.06	SR 14-560/S	T-8/53
ER D08A16-2-M08-08	16.00	8.00	8.00	13.50	2	13.00	25.00	M08	27.0	20	0.02	SR 14-560/S	T-8/53
ER D12A20-2-M10-08	20.00	12.00	8.00	17.20	2	18.00	32.00	M10	6.5	29	0.05	SR 14-560/S	T-8/53
ER D10A20-2-M10-10	20.00	10.00	10.00	18.00	2	18.00	30.00	M10	28.0	29	0.05	SR 14-562/S	T-10/51
ER D15A25-2-M12-10	25.00	15.00	10.00	21.00	2	21.00	35.00	M12	12.0	33	0.09	SR 14-562/S	T-10/51
ER D15A25-3-M12-10	25.00	15.00	10.00	29.00	3	21.00	35.00	M12	12.0	33	0.09	SR 14-562/S	T-10/51
ER D22A32-4-M16-10	32.00	22.00	10.00	29.00	4	29.00	43.00	M16	7.3	40	0.20	SR 14-562	T-10/51
ER D25A35-4-M16-10	35.00	25.00	10.00	29.00	4	29.00	43.00	M16	5.5	40	0.22	SR 14-562	T-10/51
ER D32A42-5-M16-10	42.00	32.00	10.00	29.00	5	29.00	43.00	M16	4.5	40	0.25	SR 14-562	T-10/51

• When mounting items with FLEXFIT threaded adaptation to their holders, the mating surfaces and threaded areas must be thoroughly cleaned. Apply appropriate tightening torque to eliminate a gap between the mating faces. Estimated torque values are specified in the TQ_3 parameter

(1) Cutting diameter maximum
(2) Number of inserts
(3) Maximum ramping angle
(4) Tool tightening torque Nxm (lbfxin)

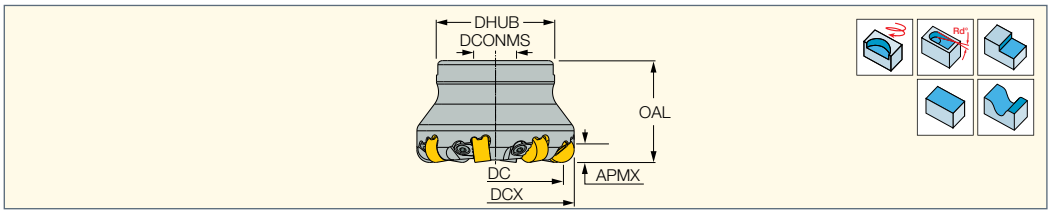
For inserts, see pages: R90CW (527) • RXCR (526) • RXCW (526) • RXMT 10 (526)

For holders, see pages: BT-ODP (FLEXFIT) (314) • C#-ODP (FLEXFIT) (314) • CAB M-M (FLEXFIT) (312) • DIN69871-ODP (315) • ER-ODP (315) • HSK A-ODP (FLEXFIT) (316) • S M (312) • S M-C-H (312) • S M-CF (313)

ROUNDMILL

FRN

Face Mill for Wedge-Clamped Double-Sided Round Insert



Designation	DCX(1)	DC	APMX	OAL	DCONMS	DHUB	STDLET	CICT(2)	MDN(3)	MDX(4)	RMPX°(5)	kg
FRN D038A050-05-22-12	50.00	37.30	3.00	40.00	22.00	45.00	A	5	87.30	99.00	0.4	0.46
FRN D051A063-06-22-12	63.00	50.30	3.00	40.00	22.00	47.00	A	6	113.30	125.00	0.3	0.63
FRN D068A080-07-27-12	80.00	67.30	3.00	50.00	27.00	58.00	A	7	147.30	159.00	0.3	0.85

- Radius for programing: 6.35

(1) Cutting diameter maximum
(2) Number of inserts
(3) For interpolation
(4) For interpolation
(5) Maximum ramping angle

For inserts, see pages: RNGN-Ceramic (531)

Spare Parts

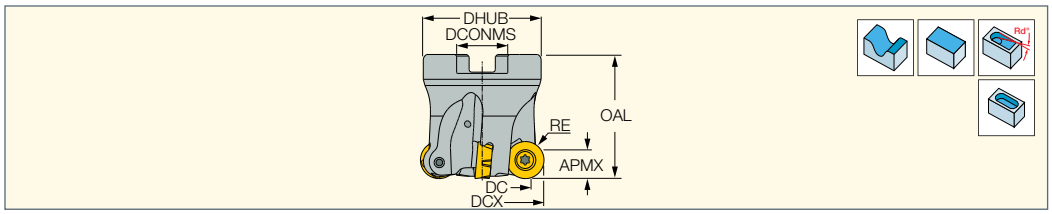
Designation			
FRN	WEDGE SCREW(a)	LW 1207C	T-W3

(a) Recommended tightening torque:4.8 Nm

ROUNDMILL

FRMT

Face Mills for Productive Machining of 3D Surfaces of Blades in Turbomachinery



Designation	DCX(1)	DC	RE	APMX	CICT(2)	OAL	DCONMS	RMPX°(3)	Arbor(4)	DHUB	MIID(5)	kg
FRMT D030A040-05-16-10	40.00	30.00	5.00	3.10	5	40.00	16.00	1.0	A	38.00	RP...X 1003M0 ...	0.20
FRMT D028A040-04-16-12	40.00	28.00	6.00	3.80	4	40.00	16.00	1.0	A	38.00	RP...X 1204M0 ...	0.20
FRMT D038A050-05-22-12	50.00	38.00	6.00	3.80	5	40.00	22.00	2.5	A	48.00	RP...X 1204M0 ...	0.29
FRMT D038A050-06-22-12	50.00	38.00	6.00	3.80	6	40.00	22.00	1.0	A	48.00	RP...X 1204M0 ...	0.29
FRMT D040A052-05-22-12	52.00	40.00	6.00	3.80	5	40.00	22.00	2.5	A	48.00	RP...X 1204M0 ...	0.31
FRMT D040A052-06-22-12	52.00	40.00	6.00	3.80	6	40.00	22.00	1.0	A	48.00	RP...X 1204M0 ...	0.30

(1) Cutting diameter maximum
(2) Number of inserts
(3) Maximum ramping angle
(4) For adaptation see page 548
(5) Insert identification

For inserts, see pages: RPHX/RPMX (530)

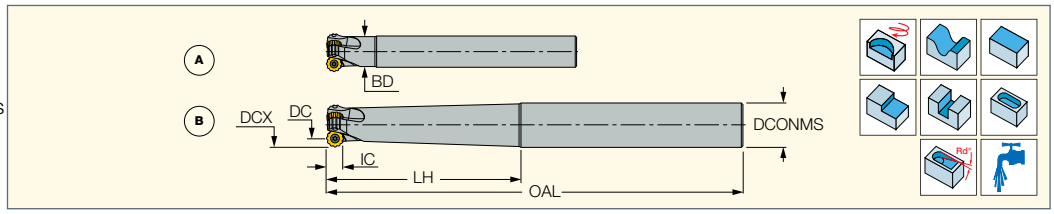
Spare Parts

Designation			
FRMT D030A040-05-16-10	SR 10504970	SW6-SD	BLD IP15/S7
FRMT D028A040-04-16-12	SR 76-2067	SW6-T	BLD T15/S7
FRMT D038A050-05-22-12	SR 76-2067	SW6-T	BLD T15/S7
FRMT D038A050-06-22-12	SR 76-2067	SW6-T	BLD T15/S7
FRMT D040A052-05-22-12	SR 76-2067	SW6-T	BLD T15/S7
FRMT D040A052-06-22-12	SR 76-2067	SW6-T	BLD T15/S7

MILLSHRED ROUND LINE

ERW

Rough Profiling Endmills with Serrated or Regular Round Inserts



Designation	DCX(1)	DC	IC	CICT(2)	LH	OAL	DCONMS	Shank(3)	BD	RMPX°(4)	Type
ERW D015A025-B-3-C25-10	25.00	15.00	10.00	3	50.0	150.00	25.00	C	-	3.0	B
ERW D022A032-A-4-C25-10	32.00	22.00	10.00	4	-	170.00	25.00	C	-	4.0	A
ERW D030A040-A-5-C32-10	40.00	30.00	10.00	5	-	200.00	32.00	C	-	3.0	A
ERW D013A025-B-2-C25-12	25.00	13.00	12.00	2	50.0	180.00	25.00	C	-	2.0	B
ERW D020A032-A-3-C25-12	32.00	20.00	12.00	3	40.0	200.00	25.00	C	24.00	7.0	A
ERW D020A032-B-3-C32-12	32.00	20.00	12.00	3	140.0	300.00	32.00	C	-	7.0	B
ERW D028A040-A-4-C32-12	40.00	28.00	12.00	4	50.0	250.00	32.00	C	31.00	5.0	A

- For user guide, see pages 287-289

(1) Cutting diameter maximum
(2) Number of inserts
(3) C-Cylindrical
(4) Maximum ramping angle

For inserts, see pages: RCMT/RCCT-MO (528) • RCMT/RCMW/RCCW-FW (529) • RCMW/RCCW-MO (528)

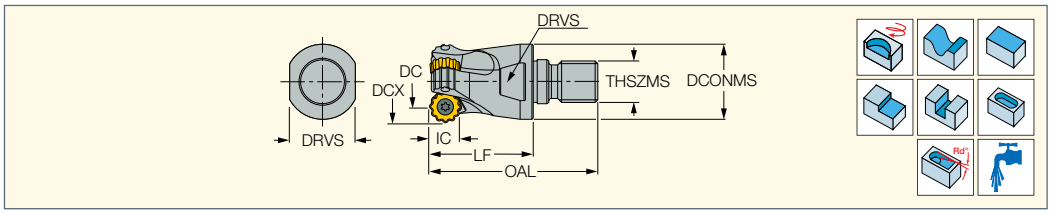
Spare Parts

Designation				
ERW D015A025-B-3-C25-10	SR 34-506/L	T-9/51		
ERW D022A032-A-4-C25-10	SR 34-506/L	T-9/51		
ERW D030A040-A-5-C32-10	SR 34-506/L	T-9/51		
ERW D013A025-B-2-C25-12	SR 14-601		BLD T15/S7	SW6-T
ERW D020A032-A-3-C25-12	SR 14-601		BLD T15/S7	SW6-T
ERW D020A032-B-3-C32-12	SR 14-601		BLD T15/S7	SW6-T
ERW D028A040-A-4-C32-12	SR 14-601		BLD T15/S7	SW6-T

MILLSHREDFLEXFIT ROUND LINE

ERW-M

Rough Profiling Tools with a FLEXFIT Adaptation



Designation	DCX(1)	DC	IC	APMX	CICT(2)	DCONMS	OAL	LF	DRVS(3)	THSZMS	RMPX°(4)	TQ_3(5)	kg
ERW D015A025-3-M12-10	25.00	15.00	10.00	5.00	3	21.00	52.00	30.00	17.0	M12	3.0	33	0.06
ERW D022A032-4-M16-10	32.00	22.00	10.00	5.00	4	29.00	55.00	30.00	25.0	M16	4.0	40	0.12
ERW D013A025-2-M12-12	25.00	13.00	12.00	6.00	2	21.00	57.00	35.00	17.0	M12	2.0	33	0.08
ERW D020A032-3-M16-12	32.00	20.00	12.00	6.00	3	29.00	65.00	40.00	25.0	M16	7.0	40	0.15
ERW D028A040-4-M16-12	40.00	28.00	12.00	6.00	4	29.00	65.00	40.00	25.0	M16	5.0	40	0.19

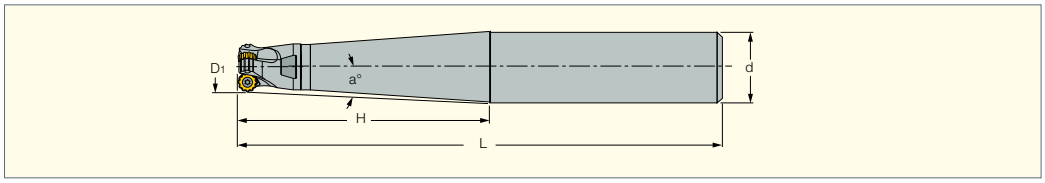
• For user guide, see pages 287-289 • When mounting items with FLEXFIT threaded adaptation to their holders, the mating surfaces and threaded areas must be thoroughly cleaned. Apply appropriate tightening torque to eliminate a gap between the mating faces. Estimated torque values are specified in the TQ_3 parameter

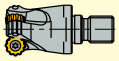
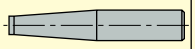
(1) Cutting diameter maximum
(2) Number of inserts
(3) Clamping wrench size
(4) Maximum ramping angle
(5) Tool tightening torque Nxm (lbfxin)

For inserts, see pages: RCMT/RCCT-MO (528) • RCMT/RCMW/RCCW-FW (529) • RCMW/RCCW-MO (528)
For holders, see pages: BT-ODP (FLEXFIT) (314) • C#-ODP (FLEXFIT) (314) • CAB M-M (FLEXFIT) (312) • DIN69871-ODP (315) • ER-ODP (315) • HSK A-ODP (FLEXFIT) (316) • S M (312) • S M-C-H (312) • S M-CF (313)

ERW-M

Assembly of Button and Shredding Insert Endmills with FLEXFIT Connection



Milling Head	Adapter	Shank	Assembly Dimensions						
			D1	H	L	a°	d	Rd°	Inserts
ERW D015A025-3-M12-10	S M12-L086-C25		25	60	116	-	25	3	RCMT 1004... RCCT 1004...
	S M12-L200-C32		25	108	230	1.9	32	3	
ERW D022A032-4-M16-10	S M16-L95-C32		32	65	125	-	32	4	
	S M16-L230-C32		32	80	260	-	32	4	
ERW D013A025-2-M12-12	S M12-L086-C25		25	70	126	-	25	2	RCMT 1206... RCCW 1206... RCCT 1206...
	S M12-L200-C32		25	118	240	1.8	32	2	
ERW D020A032-3-M16-12	S M16-L95-C32		32	75	85	-	32	7	
	S M16-L230-C32		32	90	220	-	32	7	
ERW D028A040-4-M16-12	S M16-L95-C32		40	75	85	-	32	5	
	S M16-L230-C32		40	90	220	-	32	5	

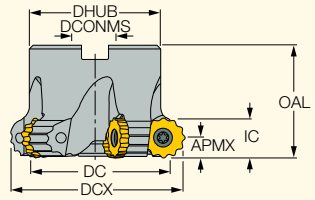
Spare Parts

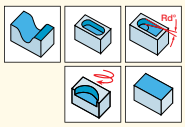
Designation				
ERW D015A025-3-M12-10	SR 34-506/L	T-9/51		
ERW D022A032-4-M16-10	SR 34-506/L	T-9/51		
ERW D013A025-2-M12-12	SR 14-601		BLD T15/S7	SW6-T
ERW D020A032-3-M16-12	SR 14-601		BLD T15/S7	SW6-T
ERW D028A040-4-M16-12	SR 14-601		BLD T15/S7	SW6-T

MILLSHRED ROUND LINE

FRW

Rough Profiling Face Mills with Serrated or Regular Round Inserts





Designation	DCX(1)	DC	IC	APMX	CICT(2)	OAL	DHUB	DCONMS	RMPX°(3)	CSP(4)	Arbor(5)	MIID(6)	kg
FRW D030A040-05-16-10	40.00	30.00	10.00	5.00	5	35.00	35.00	16.00	3.0	1	A	RCCT 1004MO	0.16
FRW D028A040-04-16-12	40.00	28.00	12.00	6.00	4	40.00	35.00	16.00	6.5	1	A	RCCT 1206MO	0.15
FRW D038A050-05-22-12	50.00	38.00	12.00	6.00	5	45.00	45.00	22.00	5.0	1	A	RCCT 1206MO	0.29
FRW D040A052-05-22-12	52.00	40.00	12.00	6.00	5	45.00	45.00	22.00	5.0	1	A	RCCT 1206MO	0.31
FRW D051A063-06-22-12	63.00	51.00	12.00	6.00	6	45.00	48.00	22.00	4.0	1	A	RCCT 1206MO	0.46
FRW D054A066-06-27-12	66.00	54.00	12.00	6.00	6	50.00	50.00	27.00	4.0	1	A	RCCT 1206MO	0.54
FRW D068A080-07-27-12	80.00	68.00	12.00	6.00	7	50.00	58.50	27.00	3.0	0	B	RCCT 1206MO	0.71
FRW D034A050-04-22-16	50.00	34.00	16.00	8.00	4	54.00	42.00	22.00	11.0	1	A	RCMT 1607MO	0.26
FRW D036A052-04-22-16	52.00	36.00	16.00	8.00	4	50.00	42.00	22.00	10.0	1	A	RCMT 1607MO	0.26
FRW D047A063-05-22-16	63.00	47.00	16.00	8.00	5	45.00	48.00	22.00	7.0	1	A	RCMT 1607MO	0.40
FRW D050A066-05-22-16	66.00	50.00	16.00	8.00	5	45.00	48.00	22.00	6.0	1	A	RCMT 1607MO	0.42
FRW D050A066-05-27-16	66.00	50.00	16.00	8.00	5	50.00	50.00	27.00	6.0	1	A	RCMT 1607MO	0.46
FRW D064A080-06-27-16	80.00	64.00	16.00	8.00	6	50.00	58.50	27.00	5.0	0	B	RCMT 1607MO	0.65
FRW D084A100-07-32-16	100.00	84.00	16.00	8.00	7	50.00	70.00	32.00	4.0	0	B	RCMT 1607MO	1.11
FRW D109A125-07-40-16	125.00	109.00	16.00	8.00	7	63.00	90.00	40.00	3.0	0	B	RCMT 1607MO	2.33
FRW D060A080-05-27-20	80.00	60.00	20.00	10.00	5	50.00	58.50	27.00	7.0	0	B	RCMT 2009MO	0.61
FRW D080A100-06-32-20	100.00	80.00	20.00	10.00	6	50.00	70.00	32.00	5.0	0	B	RCMT 2009MO	0.98
FRW D105A125-07-40-20	125.00	105.00	20.00	10.00	7	63.00	82.00	40.00	4.0	0	B	RCMT 2009MO	1.98
FRW D140A160-08-40-20	160.00	140.00	20.00	10.00	8	63.00	116.00	40.00	3.0	0	C	RCMT 2009MO	3.55

- For user guide, see pages 287-289

(1) Cutting diameter maximum
(2) Number of inserts
(3) Maximum ramping angle
(4) 0 - Without coolant supply, 1 - With coolant supply
(5) For adaptation options, see page 548
(6) Master insert identification

For inserts, see pages: RCMT/RCCT-MO (528) • RCMT/RCMW/RCCW-FW (529) • RCMW/RCCW-MO (528)

Spare Parts

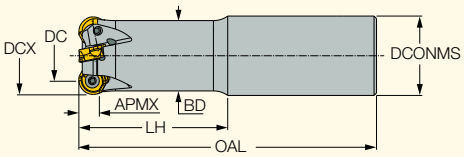
Designation					
FRW D030A040-05-16-10	SR 34-506/L			T-9/51	SR M8X25DIN912
FRW D028A040-04-16-12	SR 14-601	BLD T15/S7	SW6-T		SR M8X25DIN912
FRW D038A050-05-22-12	SR 14-601	BLD T15/S7	SW6-T		SR M10X25 DIN912
FRW D040A052-05-22-12	SR 14-601	BLD T15/M7	SW6-T		SR M10X25 DIN912
FRW D051A063-06-22-12	SR 14-601	BLD T15/M7	SW6-T		SR M10X25 DIN912
FRW D054A066-06-27-12	SR 14-601	BLD T15/M7	SW6-T		
FRW D068A080-07-27-12	SR 14-601	BLD T15/M7	SW6-T		
FRW D034A050-04-22-16	SR 14-536/M	BLD T20/M7	SW6-T		SR M10X30 DIN912
FRW D036A052-04-22-16	SR 14-536/M	BLD T20/M7	SW6-T		SR M10X30 DIN912
FRW D047A063-05-22-16	SR 14-536/M	BLD T20/M7	SW6-T		SR M10X25 DIN912
FRW D050A066-05-22-16	SR 14-536/M	BLD T20/M7	SW6-T		SR M10X25 DIN912
FRW D050A066-05-27-16	SR 14-536/M	BLD T20/M7	SW6-T		SR M12X30DIN912
FRW D064A080-06-27-16	SR 14-536/M	BLD T20/M7	SW6-T		
FRW D084A100-07-32-16	SR 14-536/M	BLD T20/M7	SW6-T		
FRW D109A125-07-40-16	SR 14-536/M	BLD T20/L7	SW6-T		
FRW D060A080-05-27-20	SR 14-2120(a)	BLD IP25/M7(b)	SW6-T		
FRW D080A100-06-32-20	SR 14-2120(a)	BLD IP25/M7(b)	SW6-T		
FRW D105A125-07-40-20	SR 14-2120(a)	BLD IP25/L7(b)	SW6-T		
FRW D140A160-08-40-20	SR 14-2120(a)	BLD IP25/L7(b)	SW6-T		

(a) Recommended tightening torque:9 N*m
(b) Torx Plus

HELIDO ROUND H400 LINE

H400 ER-10

Endmills Carrying Double-Sided Inserts with Four 5 mm Radius Cutting Edges

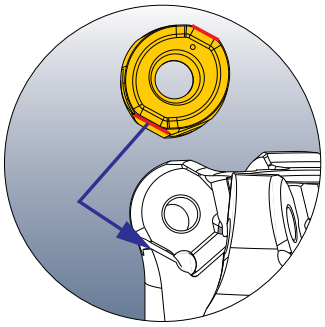


Designation	DCX(1)	DC	BD	CICT(2)	APMX	LH	OAL	DCONMS	Shank(3)	RMPX°(4)	MIID(5)	kg
H400 ER D20-2-060-C20-10	20.00	10.00	17.50	2	7.50	60.0	160.00	20.00	C	-	H400 RNHU 1004-ML	0.33
H400 ER D25-3-060-C25-10	25.00	15.00	21.60	3	7.50	60.0	120.00	25.00	C	5.8	H400 RNHU 1004-ML	0.35
H400 ER D32-5-060-C32-10	32.00	22.00	29.60	5	7.50	60.0	120.00	32.00	C	3.8	H400 RNHU 1004-ML	0.59

(1) Cutting diameter maximum
(2) Number of inserts
(3) C-Cylindrical
(4) Maximum ramping angle
(5) Master insert identification

For inserts, see pages: H400 RNHU (532)

Insert Clamping Orientation



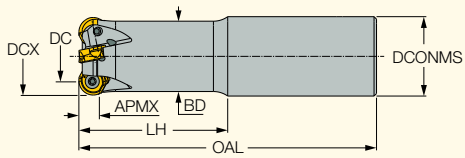
Spare Parts

Designation		
H400 ER-10	SR 10508600	T-9/51

HELIDO ROUND H400 LINE

H400 ER-12

Endmills Carrying Double-Sided Inserts with Four 6 mm Radius Cutting Edges



Designation	DCX(1)	DC	BD	CICT(2)	APMX	LH	OAL	DCONMS	Shank(3)	RMPX°(4)	MIID(5)	kg
H400 ER D25-2-060-C25-12	25.00	13.00	21.60	2	8.70	60.0	120.00	25.00	C	5.6	H400 RNHU 1205-AX	0.34
H400 ER D32-4-060-C32-12	32.00	20.00	28.40	4	8.70	60.0	120.00	32.00	C	5.6	H400 RNHU 1205-AX	0.58
H400 ER D40-5-060-C32-12	40.00	28.00	31.50	5	8.70	60.0	150.00	32.00	C	3.7	H400 RNHU 1205-AX	0.80

(1) Cutting diameter maximum
(2) Number of inserts
(3) C-Cylindrical
(4) Maximum ramping angle
(5) Master insert identification

For inserts, see pages: H400 RNHU (532)

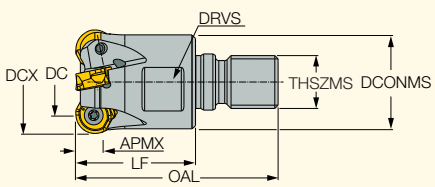
Spare Parts

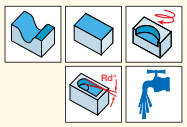
Designation		
H400 ER-12	SR 14-571	T-10/51

HELIDO FLEXFIT
ROUND H400 LINE

H400 ER-M

Endmills with FLEXFIT Threaded Connection Carrying Double-Sided Inserts with Four Radius Cutting Edges





Designation	DCX(1)	DC	DCONMS	CICT(2)	APMX	LF	OAL	DRVS(3)	RMPX°(4)	THSZMS	MIID(5)	TQ_3(6)	kg
H400 ER D20-2-M10-10	20.00	10.00	16.60	2	7.50	25.00	45.00	15.0	-	M10	H400 RNHU 1004-ML	29	0.04
H400 ER D25-3-M12-10	25.00	15.00	21.00	3	7.50	28.00	50.00	19.0	5.8	M12	H400 RNHU 1004-ML	33	0.07
H400 ER D32-5-M16-10	32.00	22.00	29.60	5	7.50	35.00	60.00	25.0	3.8	M16	H400 RNHU 1004-ML	40	0.17
H400 ER D25-2-M12-12	25.00	13.00	21.60	2	8.70	28.00	50.00	19.0	5.6	M12	H400 RNHU 1205-AX	33	0.07
H400 ER D32-4-M16-12	32.00	20.00	28.40	4	8.70	35.00	60.00	25.0	5.6	M16	H400 RNHU 1205-AX	40	0.15
H400 ER D40-5-M16-12	40.00	28.00	29.00	5	8.70	35.00	60.00	25.0	3.7	M16	H400 RNHU 1205-AX	40	0.19

• When mounting items with FLEXFIT threaded adaptation to their holders, the mating surfaces and threaded areas must be thoroughly cleaned. Apply appropriate tightening torque to eliminate a gap between the mating faces. Estimated torque values are specified in the TQ_3 parameter

(1) Cutting diameter maximum
(2) Number of inserts
(3) Clamping wrench size
(4) Maximum ramping angle
(5) Master insert identification
(6) Tool tightening torque Nxm (lbfxin)

For inserts, see pages: H400 RNHU (532)

For holders, see pages: BT-ODP (FLEXFIT) (314) • C#-ODP (FLEXFIT) (314)• CAB M-M (FLEXFIT) (312) • DIN69871-ODP (315) • ER-ODP (315) • HSK A-ODP (FLEXFIT) (316) • S M (312) • S M-C-H (312) • S M-CF (313)

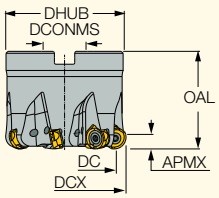
Spare Parts

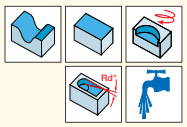
Designation		
H400 ER D20-2-M10-10	SR 10508600	T-9/51
H400 ER D25-3-M12-10	SR 10508600	T-9/51
H400 ER D32-5-M16-10	SR 10508600	T-9/51
H400 ER D25-2-M12-12	SR 14-571	T-10/51
H400 ER D32-4-M16-12	SR 14-571	T-10/51
H400 ER D40-5-M16-12	SR 14-571	T-10/51

HELIDO ROUND H400 LINE

H400 FR-10

Face Mills Carrying Double-Sided Inserts with Four 5 mm Radius Cutting Edges





Designation	DCX(1)	DC	CICT(2)	APMX	OAL	DHUB	DCONMS	RMPX°(3)	Arbor(4)	MIID(5)	kg
H400 FR D040-06-16-10	40.00	30.00	6	7.50	35.00	37.60	16.00	2.6	A	H400 RNHU 1004-ML	0.18
H400 FR D050-07-22-10	50.00	40.00	7	7.50	40.00	47.00	22.00	1.9	A	H400 RNHU 1004-ML	0.33

(1) Cutting diameter maximum
(2) Number of inserts
(3) Maximum ramping angle
(4) For adaptation options, see page 548
(5) Master insert identification
For inserts, see pages: H400 RNHU (532)

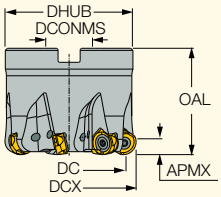
Spare Parts

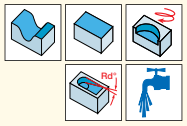
Designation			
H400 FR D040-06-16-10	SR 10508600	T-9/51	SR M8X25DIN912
H400 FR D050-07-22-10	SR 10508600	T-9/51	SR M10X25 DIN912

HELIDO ROUND H400 LINE

H400 FR-12

Face Mills Carrying Double-Sided Inserts with Four 6 mm Radius Cutting Edges

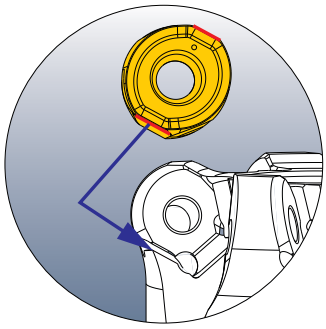




Designation	DCX(1)	DC	CICT(2)	APMX	OAL	DHUB	DCONMS	RMPX°(3)	Arbor(4)	MIID(5)	kg
H400 FR D040-05-16-12	40.00	28.00	5	8.70	40.00	38.00	16.00	3.7	A	H400 RNHU 1205-AX	0.20
H400 FR D050-06-22-12	50.00	38.00	6	8.70	50.00	45.00	22.00	2.6	A	H400 RNHU 1205-AX	0.39
H400 FR D052-06-22-12	52.00	40.00	6	8.70	50.00	45.00	22.00	2.5	A	H400 RNHU 1205-AX	0.42
H400 FR D063-07-22-12	63.00	51.00	7	8.70	50.00	60.00	22.00	1.9	A	H400 RNHU 1205-AX	0.79
H400 FR D066-07-27-12	66.00	54.00	7	8.70	50.00	61.00	27.00	1.8	A	H400 RNHU 1205-AX	0.78
H400 FR D080-08-27-12	80.00	68.00	8	8.70	50.00	62.00	27.00	1.5	A	H400 RNHU 1205-AX	1.03

(1) Cutting diameter maximum
(2) Number of inserts
(3) Maximum ramping angle
(4) For adaptation options, see page 548
(5) Master insert identification
For inserts, see pages: H400 RNHU (532)

Insert Clamping Orientation



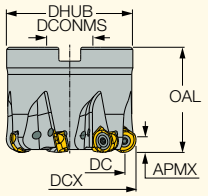
Spare Parts

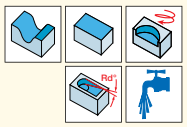
Designation			
H400 FR D040-05-16-12	SR 14-571	T-10/51	SR M8X25DIN912
H400 FR D050-06-22-12	SR 14-571	T-10/51	SR M10X25 DIN912
H400 FR D052-06-22-12	SR 14-571	T-10/51	SR M10X25 DIN912
H400 FR D063-07-22-12	SR 14-571	T-10/51	SR M10X25 DIN912
H400 FR D066-07-27-12	SR 14-571	T-10/51	SR M12X30DIN912
H400 FR D080-08-27-12	SR 14-571	T-10/51	SR M12X30DIN912

HELIDO ROUND H400 LINE

H400 FR-16

Face Mills Carrying Double-Sided Inserts with Four 8 mm Radius Cutting Edges

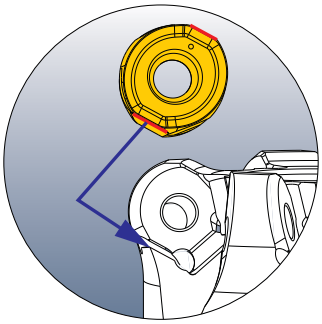




Designation	DCX(1)	DC	CICT(2)	APMX	OAL	DHUB	DCONMS	RMPX°(3)	Arbor(4)	kg	MIID(5)
H400 FR D050-05-22-16	50.00	34.00	5	12.00	50.00	47.00	22.00	3.3	A	0.41	H400 RNHU 1606-AX
H400 FR D063-06-22-16	63.00	47.00	6	12.00	50.00	48.00	22.00	2.5	A	0.74	H400 RNHU 1606-AX
H400 FR D066-06-27-16	66.00	50.00	6	12.00	50.00	60.60	27.00	2.3	A	0.79	H400 RNHU 1606-AX
H400 FR D080-07-27-16	80.00	64.00	7	12.00	50.00	63.60	27.00	1.8	A	1.09	H400 RNHU 1606-AX
H400 FR D100-09-32-16	100.00	84.00	9	12.00	49.60	84.00	32.00	1.3	A	0.00	H400 RNHU 1606-AX
H400 FR D125-11-40-16	125.00	109.00	11	12.00	55.00	84.00	40.00	1.0	A	3.02	H400 RNHU 1606-AX

(1) Cutting diameter maximum
(2) Number of inserts
(3) Maximum ramping angle
(4) For adaptation options, see page 548
(5) Master insert identification
For inserts, see pages: H400 RNHU (532)

Insert Clamping Orientation



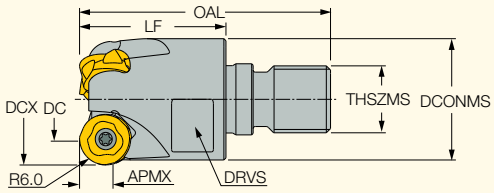
Spare Parts

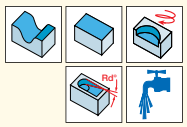
Designation				
H400 FR D050-05-22-16	SR 14-591/H	BLD T20/M7	SW6-T	SR M10X25 DIN912
H400 FR D063-06-22-16	SR 14-591/H	BLD T20/M7	SW6-T	SR M10X25 DIN912
H400 FR D066-06-27-16	SR 14-591/H	BLD T20/M7	SW6-T	SR M12X30DIN912
H400 FR D080-07-27-16	SR 14-591/H	BLD T20/M7	SW6-T	SR M12X30DIN912
H400 FR D100-09-32-16	SR 14-591/H	BLD T20/M7	SW6-T	
H400 FR D125-11-40-16	SR 14-591/H	BLD T20/M7	SW6-T	

HELIDO FLEXFIT ROUND H606 LINE

H606 ER-M

Endmills with FLEXFIT Threaded Connection Carrying Double-Sided Inserts with Six 6 mm Radius Cutting Edges





Designation	DCX(1)	DC	DCONMS	CICT(2)	APMX	LF	OAL	DRVS(3)	RMPX°(4)	THSZMS	TQ_3(5)	kg		
H606 ER D032-03-M16-12	32.00	20.00	29.00	3	6.00	35.00	60.00	25.0	2.5	M16	40	0.15	SR 14-571	T-10/51(a)

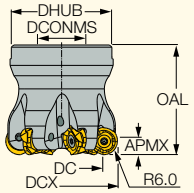
- When mounting items with FLEXFIT threaded adaptation to their holders, the mating surfaces and threaded areas must be thoroughly cleaned. Apply appropriate tightening torque to eliminate a gap between the mating faces. Estimated torque values are specified in the TQ_3 parameter

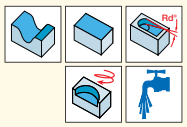
(1) Cutting diameter maximum
(2) Number of inserts
(3) Clamping wrench size
(4) Maximum ramping angle
(5) Tool tightening torque Nxm (lbfxin)
(a) For limiting torque, use optional 7007383 BLD 4 T10-3.2NM blade & 7007321 HSD 4-3.2NM handle
For inserts, see pages: H606 RXCU 1206 (532)
For holders, see pages: BT-ODP (FLEXFIT) (314) • C#-ODP (FLEXFIT) (314) • CAB M-M (FLEXFIT) (312) • DIN69871-ODP (315) • ER-ODP (315) • HSK A-ODP (FLEXFIT) (316) • S M (312) • S M-C-H (312) • S M-CF (313)

HELIDO ROUND H606 LINE

H606 FR-12

Face Mills Carrying Double-Sided Inserts with Six 6 mm Radius Cutting Edges





Designation	DCX(1)	DC	CICT(2)	APMX	OAL	DHUB	DCONMS	RMPX°(3)	Arbor(4)	kg
H606 FR D040-04-16-12	40.00	28.00	4	6.00	45.00	38.00	16.00	2.0	A	0.22
H606 FR D050-06-22-12	50.00	38.00	6	6.00	50.00	47.00	22.00	1.3	A	0.38
H606 FR D052-06-22-12	52.00	40.00	6	6.00	50.00	47.00	22.00	1.3	A	0.39
H606 FR D063-07-22-12	63.00	51.00	7	6.00	50.00	48.00	22.00	1.0	A	0.52
H606 FR D080-08-27-12	80.00	68.00	8	6.00	50.00	58.00	27.00	0.7	A	0.83

(1) Cutting diameter maximum
(2) Number of inserts
(3) Maximum ramping angle
(4) For adaptation options, see page 548
For inserts, see pages: H606 RXCU 1206 (532)

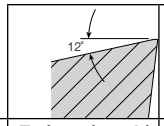
Spare Parts

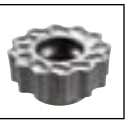
Designation			
H606 FR D040-04-16-12	SR 14-571	T-10/51(a)	SR PS 118-0416
H606 FR D050-06-22-12	SR 14-571	T-10/51(a)	SR M10X25 DIN912
H606 FR D052-06-22-12	SR 14-571	T-10/51(a)	SR M10X25 DIN912
H606 FR D063-07-22-12	SR 14-571	T-10/51(a)	SR M10X25 DIN912
H606 FR D080-08-27-12	SR 14-571	T-10/51(a)	SR M12X30DIN912

(a) For limiting torque, use optional 7007383 BLD 4 T10-3.2NM blade & 7007321 HSD 4-3.2NM handle

Machining Recommendations

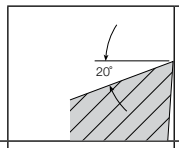
- Excellent tool stability
- Chips split into small pieces
- Optimal chip flow with easy evacuation, even from deep cavities
- High tooth load capability, up to 8 mm depth-of-cut, which will significantly reduce machining time
- Small cutting forces, therefore the required machining power is low

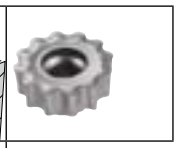




RCMT 1607-FW

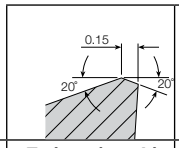
Material Group	Hardness (HB)	Typical Materials	Depth Ap (mm)	V_c (m/min)	F_z (mm/tooth)	Recommended
Low carbon steel	125-180	C15, ST37, 1.0401	4	150	0.3	✓✓
Low alloy steel	170-220	CK45,1.1231,16MnCr5	4	150	0.3	✓✓
High alloy steel	200-260	X20Cr13,1.4923	4	150	0.3	✓✓
Tool & die steel	280-370	1.2379,1.2311	3	150	0.3	✓✓
Stainless steel	150-270	1.4404,316,321	-	-	-	-
Grey cast iron	200-250	GG25,GRADE220	5	150-180	0.3	✓
S.G. iron	180-250	GGG60,SNG600/3	5	110-150	0.3	✓
Titanium	450-500	TiAl4Mo4Sn4Si0.5	4	50	0.2	✓
Aluminum	75-130	G-AlSi12	-	-	-	-
Hardened die steel	38-42 HRc	1.2344,1.2379	3	120	0.2	✓
Hardened die steel	48-52 HRc	1.2762,1.1545	-	-	-	-





RCMT 1607-FW-F20

Material Group	Hardness (HB)	Typical Materials	Depth Ap (mm)	V_c (m/min)	F_z (mm/tooth)	Recommended
Low carbon steel	125-180	C15,ST37,1.0401	3	150	0.3	✓
Low alloy steel	170-220	CK45,1.1231,16MnCr5	-	-	-	-
High alloy steel	200-260	X20Cr13,1.4923	-	-	-	-
Tool & die steel	280-370	1.2379,1.2311	-	-	-	-
Stainless steel	150-270	1.4306,304, 1.4404,316	6	100	0.1	✓✓
Grey cast iron	200-250	GG25,GRADE220	-	-	-	-
S.G. iron	180-250	GGG60,SNG600/3	-	-	-	-
Titanium	450-500	TiAl4Mo4Sn4Si0.5	-	-	-	-
Aluminum	75-130	G-AlSi12	6	850	0.4	✓✓
Hardened die steel	38-42 HRc	1.2344,1.2379	-	-	-	✓
Hardened die steel	48-52 HRc	1.2762,1.1545	-	-	-	-

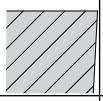


RCMT 1607 FW-T20

Material Group	Hardness (HB)	Typical Materials	Depth Ap (mm)	V_c (m/min)	F_z (mm/tooth)	Recommended
Low carbon steel	125-180	C15,ST37,1.0401	3	150	0.3	✓
Low alloy steel	170-220	CK45,1.1231,16MnCr5	3	150	0.3	✓
High alloy steel	200-260	X20Cr13,1.4923	-	-	-	-
Tool & die steel	280-370	1.2379,1.2311	-	-	-	-
Stainless steel	150-270	1.4031, 420	6	120	0.2	✓✓
Grey cast iron	200-250	GG25,GRADE220	-	-	-	-
S.G. iron	180-250	GGG60,SNG600/3	-	-	-	-
Titanium	450-500	TiAl4Mo4Sn4Si0.5	-	-	-	-
Aluminum	75-130	G-AlSi12	-	-	-	-
Hardened die steel	38-42 HRc	1.2344,1.2379	-	-	-	-
Hardened die steel	48-52 HRc	1.2762,1.1545	-	-	-	-

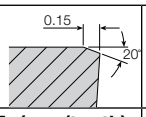
✓✓ Most Recommended
✓ Second option

RCCW 1607-FW



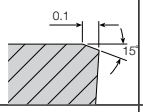
Material Group	Hardness (HB)	Typical Materials	Depth Ap (mm)	V_c (m/min)	F_z (mm/tooth)	Recommended
Low carbon steel	125-180	C15,ST37,1.0401	4	150	0.3	✓
Low alloy steel	170-220	CK45,1.1231,16MnCr5	4	150	0.3	✓✓
High alloy steel	200-260	X20Cr13,1.4923	4	150	0.3	✓✓
Tool & die steel	280-370	1.2379,1.2311	4	150	0.3	✓✓
Stainless steel	150-270	1.4404,316,321	-	-	-	-
Grey cast iron	200-250	GG25,GRADE220	-	-	-	-
S.G. iron	180-250	GGG60,SNG600/3	-	-	-	-
Titanium	450-500	TiAl4Mo4Sn4Si0.5	-	-	-	-
Aluminum	75-130	G-AlSi12	-	-	-	-
Hardened die steel	38-42 HRc	1.2344,1.2379	4	120	0.2	✓
Hardened die steel	48-52 HRc	1.2762,1.1545	-	-	-	-

RCMW 1607-T-FW



Material Group	Hardness (HB)	Typical Materials	Depth Ap (mm)	V_c (m/min)	F_z (mm/tooth)	Recommended
Low carbon steel	125-180	C15,ST37,1.0401	-	-	-	-
Low alloy steel	170-220	CK45,1.1231,16MnCr5	4	150	0.3	✓
High alloy steel	200-260	X20Cr13,1.4923	4	150	0.3	✓✓
Tool & die steel	280-370	1.2379,1.2311	3	150	0.3	✓✓
Stainless steel	150-270	1.4404,316,321	-	-	-	-
Grey cast iron	200-250	GG25,GRADE220	5	150-180	0.3	✓✓
S.G. iron	180-250	GGG60,SNG600/3	5	110-150	0.3	✓✓
Titanium	450-500	TiAl4Mo4Sn4Si0.5	-	-	-	-
Alumnum	75-130	G-AlSi12	-	-	-	-
Hardened die steel	38-42 HRc	1.2344,1.2379	-	-	-	-
Hardened die steel	48-52 HRc	1.2762,1.1545	-	-	-	-

RCMW 1607-T-FPW

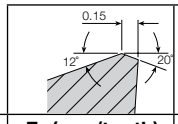


Material Group	Hardness (HB)	Typical Materials	Depth Ap (mm)	V_c (m/min)	F_z (mm/tooth)	Recommended
Low carbon steel	125-180	C15,ST37,1.0401	4	150	0.3	✓
Low alloy steel	170-220	CK45,1.1231,16MnCr5	4	150	0.3	✓✓
High alloy steel	200-260	X20Cr13,1.4923	4	150	0.3	✓✓
Tool & die steel	280-370	1.2379,1.2311	4	150	0.3	✓✓
Stainless steel	150-270	1.4404,316,321	-	-	-	-
Grey cast iron	200-250	GG25,GRADE220	-	-	-	-
S.G. iron	180-250	GGG60,SNG600/3	-	-	-	-
Titanium	450-500	TiAl4Mo4Sn4Si0.5	-	-	-	-
Aluminum	75-130	G-AlSi12	-	-	-	-
Hardened die steel	38-42 HRc	1.2344,1.2379	4	120	0.25	✓✓
Hardened die steel	48-52 HRc	1.2762,1.1545	4	80	0.1	✓✓

✓✓ Most Recommended
✓ Second option

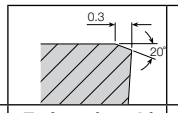
Machining Recommendations

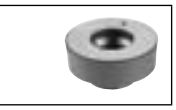
RCMT 1607MO



Material Group	Hardness (HB)	Typical Materials	Depth Ap (mm)	V_c (m/min)	F_z (mm/tooth)	Recommended
Low carbon steel	125-180	C15,ST37,1.0401	4	180	0.3	✓
Low alloy steel	170-220	CK45,1.1231,16MnCr5	4	180	0.3	✓✓
High alloy steel	200-260	X20Cr13,1.4923	4	180	0.3	✓✓
Tool & die steel	280-370	1.2379,1.2311	-	-	-	-
Stainless steel	150-270	1.4031, 420	6	120	0.3	✓✓
Grey cast iron	200-250	GG25,GRADE220	-	-	-	-
S.G. iron	180-250	GGG60,SNG600/3	-	-	-	-
Titanium	450-500	TiAl4Mo4Sn4Si0.5	-	-	-	-
Aluminum	75-130	G-AlSi12	-	-	-	-
Hardened die steel	38-42 HRc	1.2344,1.2379	-	-	-	-
Hardened die steel	48-52 HRc	1.2762,1.1545	-	-	-	-

RCMW 1607MO



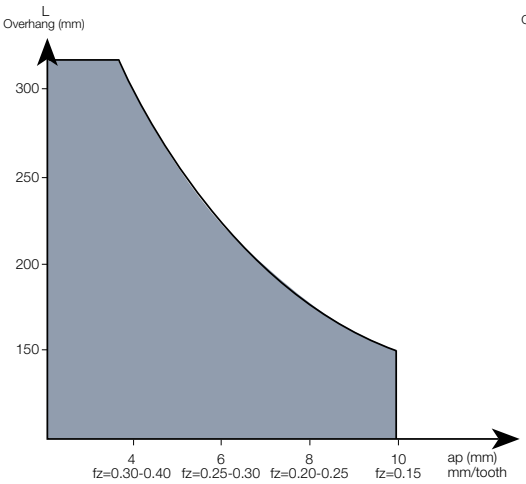


Material Group	Hardness (HB)	Typical Materials	Depth Ap (mm)	V_c (m/min)	F_z (mm/tooth)	Recommended
Low carbon steel	125-180	C15,ST37,1.0401	-	-	-	-
Low alloy steel	170-220	CK45,1.1231,16MnCr5	2	180	0.7	✓✓
High alloy steel	200-260	X20Cr13,1.4923	2	180	0.7	✓✓
Tool & die steel	280-370	1.2379,1.2311	2	150	0.5	✓✓
Stainless steel	150-270	1.4404,316,321	-	-	-	-
Grey cast iron	200-250	GG25,GRADE220	2	300	0.7	✓✓
S.G. iron	180-250	GGG60,SNG600/3	2	220	0.5	✓✓
Titanium	450-500	TiAl4Mo4Sn4Si0.5	-	-	-	-
Aluminum	75-130	G-AlSi12	-	-	-	-
Hardened die steel	38-42 HRc	1.2344,1.2379	2	150	0.4	✓
Hardened die steel	48-52 HRc	1.2762,1.1545	-	-	-	-

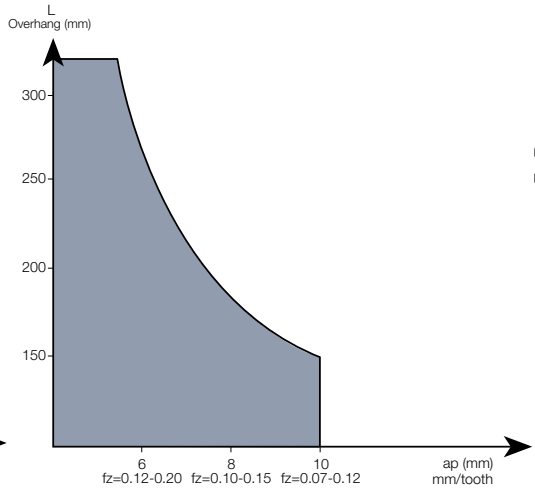
✓✓ Most Recommended
✓ Second option

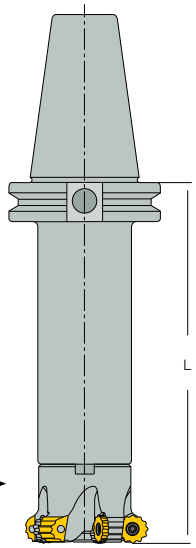
Feed Limit Recommendations as a Function of Overhang and Depth of Cut

Carbon and Alloy Steel

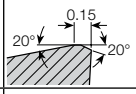
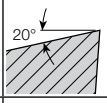
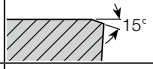


Stainless Steel





Insert Selection Guide

Insert Designation	RCMT...FW	RCMT...FW-T20	RCMT...FW-F20	RCCT...MO	RCCW...MO
RC...1206					
Workpiece					
Geometry	Positive rake face	Positive rake face with T-Land	Positive rake face sharp edge	Positive rake face	Flat top face with a T-Land
Alloy steel	VVV	V	V	V	VVV
Mold steel	VVV	V	V	V	VVV
Stainless steel		VVV(1)	VVV(2)	VVV	
Grey cast iron	VV				VVV
Aluminum			VVV	VV	
High temp. alloys	V		VV	VVV	
Hardened mold steel (45 HRc max)	V				V

Applications	Helical Interpolation	Shouldering	Contour Milling	Ramping Down	Plunging	Profiling	Pocket Milling

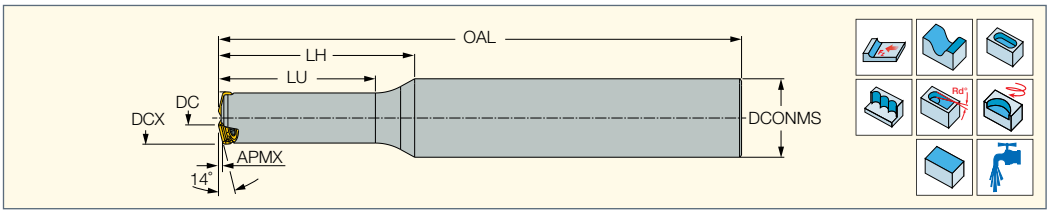
(1) Recommended for martensitic stainless steel
(2) Recommended for austenitic stainless steel
V Least recommended
VV Second option
VVV Most recommended

FAST FEED MILLING TOOLS

NAN3FEED NANO FEED MILL

FFT3 EFM-02

Small Diameter Endmills Carrying Single-Sided Triangular Inserts for Fast Feed Milling



Designation	DCX(1)	DC	APMX	AE(2)	CICT(3)	LU	LH	OAL	DCONMS	Shank(4)	RMPX°(5)	MDN(6)	MDX(7)	MIID(8)	TQ(9)	kg
FFT3 EFM D08-2-060-C10-02	8.00	2.20	0.60	2.9	2	17.00	20.0	60.00	10.00	C	10.8	10.20	15.00	FFT3 TXMT 0201205T	0.5	0.03
FFT3 EFM D08-2-080-C12-02	8.00	2.20	0.60	2.9	2	26.00	30.0	80.00	12.00	C	10.8	10.20	15.00	FFT3 TXMT 0201205T	0.5	0.05
FFT3 EFM D10-3-070-C10-02	10.00	4.20	0.60	2.9	3	19.50	20.0	70.00	10.00	C	4.7	14.20	19.00	FFT3 TXMT 0201205T	0.5	0.04
FFT3 EFM D10-3-090-C12-02	10.00	4.20	0.60	2.9	3	30.00	33.0	90.00	12.00	C	4.7	14.20	19.00	FFT3 TXMT 0201205T	0.5	0.06

• Radius for programming 1.1 mm • To generate a straight surface without cusps, the width of cut must not exceed DC

(1) Cutting diameter maximum
(2) Maximum plunging width
(3) Number of inserts
(4) C-Cylindrical
(5) Maximum ramping angle
(6) Machinable diameter minimum for interpolation
(7) Machinable diameter maximum for interpolation
(8) Master insert identification
(9) Recommended tightening torque (N*m) for insert screw

For inserts, see pages: FFT3 TXMT 02 (445)

Spare Parts

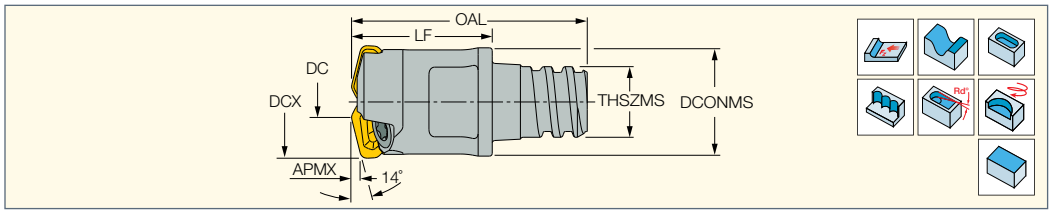
Designation		
FFT3 EFM-02	SR M2X0.4-2.9 T6-HG(a)	T-6/5 MAGNET 3X3

(a) Recommended tightening torque:0.5 N*m

NAN3FEED NANO FEED MILL
MULTI-MASTER

FFT3 EFM-MM 02

Small Diameter Endmills with a MULTI-MASTER Threaded Adaptation Carrying Triangular Inserts for Fast Feed Milling



Designation	DCX(1)	DC	APMX	AE(2)	CICT(3)	LF	DCONMS	THSZMS	OAL	DRVS(4)	RMPX°(5)	MDN(6)	MDX(7)	MIID(8)	TQ(9)	kg
FFT3 EFMD08/.31-2MMT05-02	8.00	2.20	0.60	2.9	2	10.00	7.60	T05	16.75	5.5	10.8	10.20	15.00	FFT3 TXMT 0201205T	0.5	0.01
FFT3 EFMD10/.39-3MMT06-02	10.00	4.20	0.60	2.9	3	10.00	9.70	T06	16.30	8.0	4.7	14.20	19.00	FFT3 TXMT 0201205T	0.5	0.01

• For adaptation, see pages 261 • For user guide, see pages 542-547 • Radius for programing 1.1 mm • To generate a straight surface without cusps, the width of cut must not exceed DC

(1) Cutting diameter maximum
(2) Maximum plunging width

(3) Number of inserts
(4) Torque key size
(5) Maximum ramping angle
(6) Machinable diameter minimum for interpolation
(7) Machinable diameter maximum for interpolation
(8) Master insert identification
(9) Recommended tightening torque (N*m) for insert screw

For inserts, see pages: FFT3 TXMT 02 (445)

For holders, see pages: MM CAB (667) • MM CAB-T-T (91) • MM GRT (shanks) (86) • MM S-A (stepped shanks) (84) • MM S-A (straight shanks) (87) • MM S-A-C# (86) • MM S-A-HSK (609) • MM S-A-N (85) • MM S-A-SK (90) • MM S-B (85° conical shanks) (87) • MM S-D (89° conical shanks) (88) • MM S-ER (89) • MM S-ER-H (89) • MM TS-A (86)

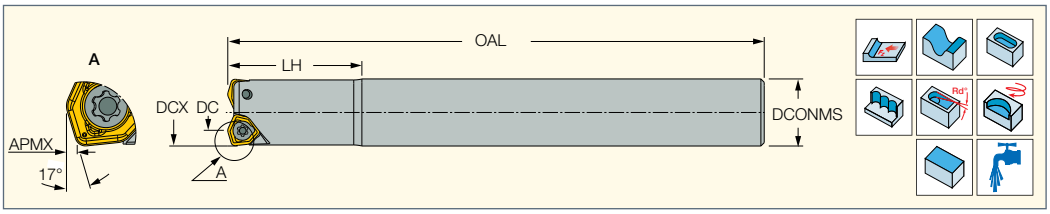
Spare Parts

Designation		
FFT3 EFM-MM 02	SR M2X0.4-2.9 T6-HG	T-6/5 MAGNET 3X3

MICRO3FEED
MF 300 ENDMILL

FFT3 EFM-03

Endmills Carrying Single-Sided Small Trigon Inserts for Fast Feed Milling



Designation	DCX(1)	DC	APMX	AE(2)	CICT(3)	LH	OAL	DCONMS	Shank(4)	RMPX°(5)	MDN(6)	MDX(7)	MIID(8)	kg
FFT3 EFM D08-1-080-C12-03	8.00	3.60	0.60	2.2	1	20.0	80.00	12.00	C	1.1	11.60	15.00	FFT3 WXMT 030206T	0.00
FFT3 EFM D10-2-080-C10-03	10.00	5.60	0.60	2.2	2	20.0	80.00	10.00	C	6.9	15.60	19.00	FFT3 WXMT 030206T	0.11
FFT3 EFM D12-3-120-C12-03	12.00	7.60	0.60	2.2	3	25.0	120.00	12.00	C	4.7	19.60	23.00	FFT3 WXMT 030206T	0.14
FFT3 EFM D16-4-140-C16-03	16.00	11.60	0.60	2.2	4	35.0	140.00	16.00	C	2.9	27.60	31.00	FFT3 WXMT 030206T	0.18
FFT3 EFM D20-5-160-C20-03	20.00	15.60	0.60	2.2	5	43.0	160.00	20.00	C	2.0	35.60	39.00	FFT3 WXMT 030206T	0.37
FFT3 EFM D25-6-180-C25-03	25.00	20.60	0.60	2.2	6	53.0	180.00	25.00	C	1.5	45.60	49.00	FFT3 WXMT 030206T	0.62

• Radius for programming 1.1 mm • To generate a straight surface without cusps, the width of cut must not exceed DC

(1) Cutting diameter maximum
(2) Maximum plunging width
(3) Number of inserts
(4) C-Cylindrical
(5) Maximum ramping angle
(6) Machinable diameter minimum for interpolation
(7) Machinable diameter maximum for interpolation
(8) Master insert identification

For inserts, see pages: FFT3 WXMT 03 (521)

Spare Parts

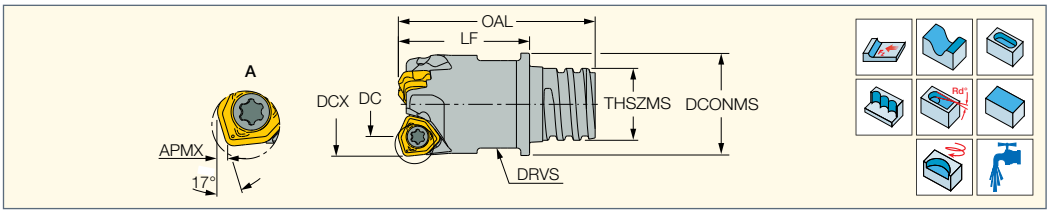
Designation		
FFT3 EFM-03	TS 18041I/HG(a)	T-6IP/51

(a) Recommended tightening torque:0.5 Nxm

MICRO3FEED
MF 300 ENDMILL
MULTI-MASTER

FFT3 EFM-MM 03

Endmills with a MULTI-MASTER Threaded Adaptation Carrying Single-Sided Small Trigon Inserts for Fast Feed Milling



Designation	DCX(1)	DC	APMX	AE(2)	CICT(3)	LF	DCONMS	THSZMS	OAL	DRVS(4)	RMPX°(5)	MDN(6)	MDX(7)	MIID(8)	kg
FFT3 EFMD10/.39-2MMT06-03	10.00	5.60	0.60	2.2	2	10.00	9.70	T06	16.30	8.0	6.9	15.60	19.00	FFT3 WXMT 030206T	0.02
FFT3 EFMD12/.47-3MMT08-03	12.00	7.60	0.60	2.2	3	15.00	11.70	T08	22.50	10.0	4.7	19.60	23.00	FFT3 WXMT 030206T	0.03
FFT3 EFMD16/.63-4MMT10-03	16.00	11.60	0.60	2.2	4	20.00	15.30	T10	31.30	13.0	2.9	27.60	31.00	FFT3 WXMT 030206T	0.05
FFT3 EFMD20/.78-5MMT12-03	20.00	15.60	0.60	2.2	5	25.00	19.00	T12	38.30	16.0	2.0	35.60	39.00	FFT3 WXMT 030206T	0.07
FFT3 EFMD25/.98-6MMT15-03	25.00	20.60	0.60	2.2	6	30.00	24.00	T15	47.00	20.0	1.5	45.60	49.00	FFT3 WXMT 030206T	0.00

• Radius for programming 1.1 mm • To generate a straight surface without cusps, the width of cut must not exceed DC

(1) Cutting diameter maximum
(2) Maximum plunging width
(3) Number of inserts
(4) Torque key size
(5) Maximum ramping angle
(6) Machinable diameter minimum for interpolation
(7) Machinable diameter maximum for interpolation
(8) Master insert identification

For inserts, see pages: FFT3 WXMT 03 (521)

For holders, see pages: MM CAB (667) • MM CAB-T-T (91) • MM GRT (shanks) (86) • MM S-A (stepped shanks) (84) • MM S-A (straight shanks) (87) • MM S-A-C# (86) • MM S-A-HSK (609) • MM S-A-N (85) • MM S-A-SK (90) • MM S-B (85° conical shanks) (87) • MM S-D (89° conical shanks) (88) • MM S-ER (89) • MM S-ER-H (89) • MM TS-A (86)

Spare Parts

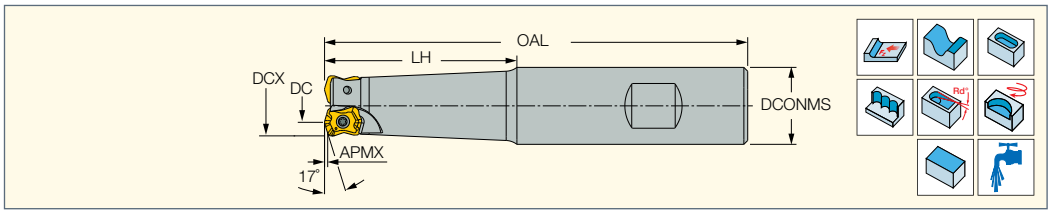
Designation		
FFT3 EFM-MM 03	TS 18041I/HG(a)	T-6IP/51

(a) Recommended tightening torque: 0.5 Nxm

LOGIQ4FEED HIGH FEED MILLING

FFX4 ED

Endmills Carrying Small Double-Sided "Bone Shaped" Inserts with 4 Cutting Edges for Fast Feed Milling



Designation	DCX(1)	DC	APMX	AE(2)	CICT(3)	LH	KAPR(4)	OAL	DCONMS	RMPX°(5)	MDN(6)	MDX(7)	Shank(8)	Rg(9)	MIID(10)	TQ(11)	kg
FFX4 ED12-1-030-C12-04	12.00	4.60	0.80	3.7	1	30.0	17.0	90.00	12.00	3.6	16.60	23.00	C	1.80	FFX4 XNMU 040310T	0.9	0.07
FFX4 ED16-2-030-C16-04	16.00	8.60	0.80	3.7	2	30.0	17.0	120.00	16.00	4.3	24.60	31.00	C	1.80	FFX4 XNMU 040310T	0.9	0.16
FFX4 ED16-2-050-W20-04	16.00	8.60	0.80	3.7	2	50.0	17.0	110.00	20.00	4.3	24.60	31.00	W	1.80	FFX4 XNMU 040310T	0.9	0.20
FFX4 ED20-3-050-C20-04	20.00	12.60	0.80	3.7	3	50.0	17.0	140.00	20.00	2.7	32.60	39.00	C	1.80	FFX4 XNMU 040310T	0.9	0.29
FFX4 ED20-3-060-W20-04	20.00	12.60	0.80	3.7	3	60.0	17.0	120.00	20.00	2.7	32.60	39.00	W	1.80	FFX4 XNMU 040310T	0.9	0.24
FFX4 ED25-4-060-C25-04	25.00	17.60	0.80	3.7	4	60.0	17.0	150.00	25.00	1.8	42.60	49.00	C	1.80	FFX4 XNMU 040310T	0.9	0.50
FFX4 ED25-4-080-W25-04	25.00	17.60	0.80	3.7	4	80.0	17.0	140.00	25.00	1.8	42.60	49.00	W	1.80	FFX4 XNMU 040310T	0.9	0.45
FFX4 ED32-5-080-W32-04	32.00	24.60	0.80	3.7	5	80.0	17.0	150.00	32.00	1.2	56.60	63.00	W	1.80	FFX4 XNMU 040310T	0.9	0.80
FFX4 ED32-5-120-C32-04	32.00	24.60	0.80	3.7	5	120.0	17.0	205.00	32.00	1.2	56.60	63.00	C	1.80	FFX4 XNMU 040310T	0.9	1.02

- To generate a straight surface without cusps, the width of cut must not exceed DC

(1) Cutting diameter maximum
(2) Maximum plunging width
(3) Number of inserts
(4) Tool cutting edge angle
(5) Maximum ramping angle
(6) Machinable diameter minimum for interpolation
(7) Machinable diameter maximum for interpolation
(8) C-Cylindrical, W-Weldon
(9) Radius for programming
(10) Master insert identification
(11) Recommended tightening torque (N*m) for insert screw

For inserts, see pages: FFX4 XNMU-04 (523)

Spare Parts

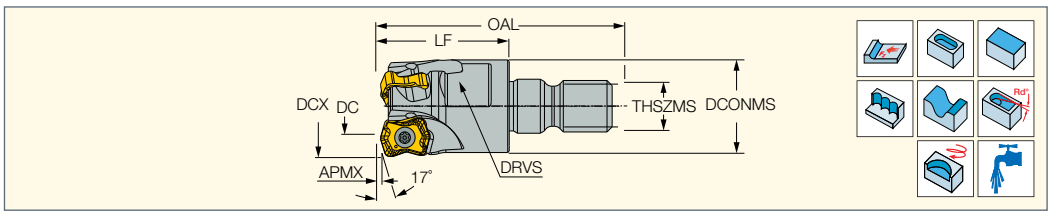
Designation		
FFX4 ED	SR M2.5X6-T7-60	T-7/51

LOGIQ4FEED HIGH FEED MILLING

FLEXFIT

FFX4 ED-M

Endmills with FLEXFIT Adaptation Carrying Small "Bone Shaped" Inserts with 4 Cutting Edges for Fast Feed Milling



Designation	DCX(1)	DC	CICT(2)	APMX	AE(3)	THSZMS	LF	OAL	DCONMS	RMPX°(4)	MDN(5)	MDX(6)	DRVS(7)	Rg(8)	MIID(9)	TQ(10)	TQ_3(11)	kg
FFX4 ED20/.78-3-M10-04	20.00	12.60	3	0.80	3.7	M10	25.00	45.00	18.00	2.7	32.60	39.00	15.0	1.80	FFX4 XNMU 040310T	0.9	29	0.04
FFX4 ED25/.98-4-M12-04	25.00	17.60	4	0.80	3.7	M12	30.00	52.00	21.00	1.8	42.60	49.00	19.0	1.80	FFX4 XNMU 040310T	0.9	33	0.08
FFX4 ED32/1.26-5-M16-04	32.00	24.60	5	0.80	3.7	M16	35.00	60.00	29.00	1.2	56.60	63.00	27.0	1.80	FFX4 XNMU 040310T	0.9	40	0.18
FFX4 ED35/1.38-5-M16-04	35.00	27.60	5	0.80	3.7	M16	35.00	60.00	29.00	1.1	62.60	69.00	25.0	1.80	FFX4 XNMU 040310T	0.9	40	0.20
FFX4 ED42/1.65-6-M16-04	42.00	34.60	6	0.80	3.7	M16	40.00	65.00	29.00	0.8	76.60	83.00	25.0	1.80	FFX4 XNMU 040310T	0.9	40	0.30

- To generate a straight surface without cusps, the width of cut must not exceed DC
- When mounting items with FLEXFIT threaded adaptation to their holders, the mating surfaces and threaded areas must be thoroughly cleaned. Apply appropriate tightening torque to eliminate a gap between the mating faces. Estimated torque values are specified in the TQ_3 parameter

(1) Cutting diameter maximum
(2) Number of inserts
(3) Maximum plunging width
(4) Maximum ramping angle
(5) Machinable diameter minimum for interpolation
(6) Machinable diameter maximum for interpolation
(7) Torque key size
(8) Radius for programming
(9) Master insert identification
(10) Recommended tightening torque (N*m) for insert screw
(11) Tool tightening torque Nxm (lbfxin)

For inserts, see pages: FFX4 XNMU-04 (523)
For holders, see pages: BT-ODP (FLEXFIT) (314) • C#-ODP (FLEXFIT) (314) • CAB M-M (FLEXFIT) (312) • DIN69871-ODP (315) • ER-ODP (315) • HSK A-ODP (FLEXFIT) (316) • S M (312) • S M-C-H (312) • S M-CF (313)

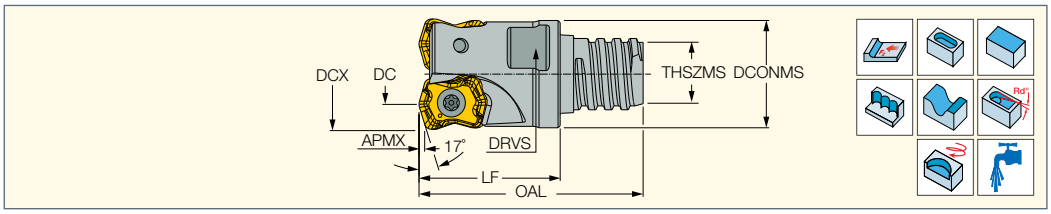
Spare Parts

Designation		
FFX4 ED-M	SR M2.5X6-T7-60	T-7/51

LOGIQ4FEED HIGH FEED MILLING
MULTI-MASTER

FFX4 ED-MM

Endmills with MULTI-MASTER Adaptation Carrying Small "Bone Shaped" Inserts with 4 Cutting Edges for Fast Feed Milling



Designation	DCX(1)	DC	CICT(2)	APMX	AE(3)	THSZMS	LF	OAL	DCONMS	RMPX°(4)	MDN(5)	MDX(6)	DRVS(7)	MIID(8)	TQ(9)	Rg(10)	kg
FFX4 ED16/.63-2-MMT10-04	16.00	8.60	2	0.80	3.7	T10	20.00	31.75	15.20	4.3	24.60	31.00	13.0	FFX4 XNMU 040310T	0.9	1.80	0.02
FFX4 ED20/.78-3-MMT12-04	20.00	12.60	3	0.80	3.7	T12	25.00	38.30	18.80	2.7	32.60	39.00	15.0	FFX4 XNMU 040310T	0.9	1.80	0.04
FFX4 ED25/.98-4-MMT15-04	25.00	17.60	4	0.80	3.7	T15	30.00	47.00	24.00	1.8	42.60	49.00	19.0	FFX4 XNMU 040310T	0.9	1.80	0.14

- To generate a straight surface without cusps,the width of cut must not exceed DC

(1) Cutting diameter maximum
(2) Number of inserts
(3) Maximum plunging width
(4) Maximum ramping angle
(5) Machinable diameter minimum for interpolation
(6) Machinable diameter maximum for interpolation
(7) Torque key size
(8) Master insert identification
(9) Recommended tightening torque (N*m) for insert screw
(10) Radius for programming

For inserts, see pages: FFX4 XNMU-04 (523)

For holders, see pages: MM CAB-T-T (91) • MM S-A (stepped shanks) (84) • MM S-A (straight shanks) (87) • MM S-A-C# (86) • MM S-A-HSK (609) • MM S-A-N (85) • MM S-A-SK (90) • MM S-B (85° conical shanks) (87) • MM S-D (89° conical shanks) (88) • MM S-ER (89) • MM S-ER-H (89) • MM TS-A (86)

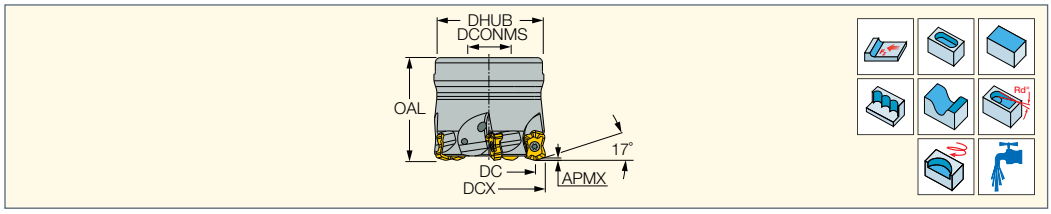
Spare Parts

Designation		
FFX4 ED-MM	SR M2.5X6-T7-60	T-7/51

LOGIQ4FEED HIGH FEED MILLING

FFX4 FD-04

Face Mills Carrying "Bone Shaped" Inserts with 4 Cutting Edges for Fast Feed Milling



Designation	DCX(1)	DC	CICT(2)	APMX	AE(3)	OAL	DCONMS	DHUB	RMPX°(4)	MDN(5)	MDX(6)	Arbor	Rg(7)	MIID(8)	kg
FFX4 FD032-5-16-04	32.00	24.60	5	0.80	3.7	40.00	16.00	38.00	1.2	56.60	63.00	A	1.80	FFX4 XNMU 040310T	0.12
FFX4 FD040-6-16-04	40.00	32.60	6	0.80	3.7	40.00	16.00	38.00	0.9	72.60	79.00	A	1.80	FFX4 XNMU 040310T	0.23
FFX4 FD042-6-16-04	42.00	34.60	6	0.80	3.7	40.00	16.00	38.00	0.8	76.60	83.00	A	1.80	FFX4 XNMU 040310T	0.50
FFX4 FD050-7-22-04	50.00	42.60	7	0.80	3.7	40.00	22.00	48.00	0.7	92.60	99.00	A	1.80	FFX4 XNMU 040310T	0.39
FFX4 FD052-7-22-04	52.00	44.60	7	0.80	3.7	40.00	22.00	48.00	0.7	96.60	103.00	A	1.80	FFX4 XNMU 040310T	0.44

- To generate a straight surface without cusps, the width of cut must not exceed DC

(1) Cutting diameter maximum
(2) Number of inserts
(3) Maximum plunging width
(4) Maximum ramping angle
(5) Machinable diameter minimum for interpolation
(6) Machinable diameter maximum for interpolation
(7) Radius for programming
(8) Master insert identification

For inserts, see pages: FFX4 XNMU-04 (523)

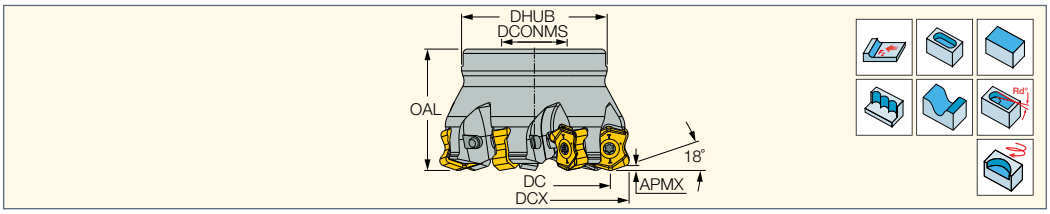
Spare Parts

Designation			
FFX4 FD032-5-16-04	SR M2.5X6-T7-60	T-7/51	SR M8X25-D11.5
FFX4 FD040-6-16-04	SR M2.5X6-T7-60	T-7/51	SR M8X25DIN912
FFX4 FD042-6-16-04	SR M2.5X6-T7-60	T-7/51	SR M8X25DIN912
FFX4 FD050-7-22-04	SR M2.5X6-T7-60	T-7/51	SR M10X25 DIN912
FFX4 FD052-7-22-04	SR M2.5X6-T7-60	T-7/51	SR M10X25 DIN912

LOGIQ4FEED
HIGH FEED MILLING

FFX4 FD-08

Face Mills Carrying "Bone Shaped" Inserts with 4 Cutting Edges for Fast Feed Milling



Designation	DCX(1)	DC	CICT(2)	APMX	AE	OAL	DCONMS	DHUB	Rd°	MDN(3)	MDX(4)	Arbor	Rg(5)	MIID(6)	kg
FFX4 FD050-4-22-08	50.00	34.40	4	2.00	7.8	50.00	22.00	48.00	3.3	84.40	99.00	A	4.00	FFX4 XNMU 080620	0.58
FFX4 FD063-5-22-08	63.00	47.40	5	2.00	7.8	45.00	22.00	48.00	2.3	110.40	125.00	A	4.00	FFX4 XNMU 080620T	0.48
FFX4 FD080-7-27-08	80.00	64.40	7	2.00	7.8	50.00	27.00	60.00	1.6	144.40	159.00	B	4.00	FFX4 XNMU 080620T	0.95
FFX4 FD100-8-32-08	100.00	84.40	8	2.00	7.8	50.00	32.00	78.00	1.2	184.40	199.00	B	4.00	FFX4 XNMU 080620T	1.24
FFX4 FD125-10-40-08	125.00	109.40	10	2.00	7.8	63.00	40.00	92.00	0.9	234.40	249.00	B	4.00	FFX4 XNMU 080620T	2.40

- To generate a straight surface without cusps, the width of cut must not exceed DC

(1) Cutting diameter maximum
(2) Number of inserts
(3) For interpolation
(4) For interpolation
(5) Radius for programming
(6) Master insert identification

For inserts, see pages: FFX4 XNMU-08 (524)

Spare Parts

Designation				
FFX4 FD050-4-22-08	SR M5-14 IP20	SW6-T	BLD IP20/S7	SR PS 118-0273
FFX4 FD063-5-22-08	SR M5-14 IP20	SW6-T	BLD IP20/S7	SR M10X25 DIN912
FFX4 FD080-7-27-08	SR M5-14 IP20	SW6-T	BLD IP20/S7	SR M12X30DIN912
FFX4 FD100-8-32-08	SR M5-14 IP20	SW6-T	BLD IP20/S7	
FFX4 FD125-10-40-08	SR M5-14 IP20	SW6-T	BLD IP20/S7	

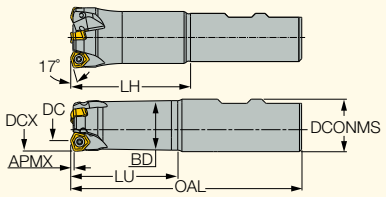
HELI6FEED UPFEED LINE

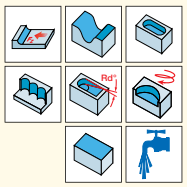
FF EWX

Fast Feed Endmills Carrying Double-Sided Inserts with 6 Cutting Edges

Fig. 1

Fig. 2





Designation	DCX(1)	DC	APMX	CICT(2)	BD	LU	LH	OAL	DCONMS	Shank(3)	RMPX°(4)	MDN(5)	MDX(6)	Fig.	MIID(7)	TQ(8)	kg
FF EWX D16-2-030-C16-04	16.00	8.60	0.80	2	14.90	30.0	-	113.00	16.00	C	5.0	24.60	31.00	2	H600 WXCU 040310T	0.9	0.15
FF EWX D16-2-030-W16-04	16.00	8.60	0.80	2	14.90	30.0	-	81.00	16.00	W	5.0	24.60	31.00	2	H600 WXCU 040310T	0.9	0.10
FF EWX D16-2-050-W20-04	16.00	8.60	0.80	2	14.90	50.0	-	109.00	20.00	W	5.0	24.60	31.00	2	H600 WXCU 040310T	0.9	0.19
FF EWX D16-2-070-C20-04	16.00	8.60	0.80	2	14.90	70.0	-	159.00	20.00	C	5.0	24.60	31.00	2	H600 WXCU 040310T	0.9	0.28
FF EWX D16-2-080-W20-04	16.00	8.60	0.80	2	14.90	80.0	-	139.00	20.00	W	5.0	24.60	31.00	2	H600 WXCU 040310T	0.9	0.22
FF EWX D20-3-040-W20-04	20.00	12.60	0.80	3	18.90	40.0	-	93.00	20.00	W	4.8	32.60	39.00	2	H600 WXCU 040310T	0.9	0.19
FF EWX D20-3-050-C20-04	20.00	12.60	0.80	3	18.90	50.0	-	133.00	20.00	C	4.8	32.60	39.00	2	H600 WXCU 040310T	0.9	0.28
FF EWX D20-3-060-W20-04	20.00	12.60	0.80	3	18.90	60.0	-	113.00	20.00	W	4.8	32.60	39.00	2	H600 WXCU 040310T	0.9	0.23
FF EWX D20-3-100-C20-04	20.00	12.60	0.80	3	18.90	100.0	-	183.00	20.00	C	4.8	32.60	39.00	2	H600 WXCU 040310T	0.9	0.38
FF EWX D20-3-100-W20-04	20.00	12.60	0.80	3	18.90	100.0	-	153.00	20.00	W	4.8	32.60	39.00	2	H600 WXCU 040310T	0.9	0.31
FF EWX D25-3-050-W25-05	25.00	15.00	1.00	3	23.60	50.0	53.0	110.00	25.00	W	5.0	40.00	49.00	2	H600 WXCU 05T312T	2.0	0.34
FF EWX D25-3-060-C25-05	25.00	15.00	1.00	3	23.60	60.0	63.0	145.00	25.00	C	5.0	40.00	49.00	2	H600 WXCU 05T312T	2.0	0.47
FF EWX D25-3-080-W25-05	25.00	15.00	1.00	3	23.60	80.0	83.0	140.00	25.00	W	5.0	40.00	49.00	2	H600 WXCU 05T312T	2.0	0.44
FF EWX D25-3-120-C25-05	25.00	15.00	1.00	3	23.60	120.0	123.0	205.00	25.00	C	5.0	40.00	49.00	2	H600 WXCU 05T312T	2.0	0.66
FF EWX D25-3-120-W25-05	25.00	15.00	1.00	3	23.60	120.0	123.0	180.00	25.00	W	5.0	40.00	49.00	2	H600 WXCU 05T312T	2.0	0.56
FF EWX D32-4-040-C25-05	32.00	22.00	1.00	4	27.00	-	40.0	180.00	25.00	C	4.0	54.00	63.00	1	H600 WXCU 05T312T	2.0	0.63
FF EWX D32-4-060-W25-05	32.00	22.00	1.00	4	27.00	60.0	63.0	120.00	25.00	W	4.0	54.00	63.00	1	H600 WXCU 05T312T	2.0	0.43
FF EWX D32-4-060-W32-05	32.00	22.00	1.00	4	27.00	-	63.0	125.00	32.00	W	4.0	54.00	63.00	2	H600 WXCU 05T312T	2.0	0.64
FF EWX D32-4-070-C32-05	32.00	22.00	1.00	4	30.60	70.0	73.0	155.00	32.00	C	4.0	54.00	63.00	2	H600 WXCU 05T312T	2.0	0.81
FF EWX D32-4-100-W25-05	32.00	22.00	1.00	4	27.00	-	100.0	160.00	25.00	W	4.0	54.00	63.00	1	H600 WXCU 05T312T	2.0	0.60
FF EWX D32-4-100-W32-05	32.00	22.00	1.00	4	30.60	100.0	103.0	165.00	32.00	W	4.0	54.00	63.00	2	H600 WXCU 05T312T	2.0	0.84
FF EWX D32-4-120-C32-05	32.00	22.00	1.00	4	30.60	120.0	123.0	205.00	32.00	C	4.0	54.00	63.00	2	H600 WXCU 05T312T	2.0	1.06
FF EWX D32-4-150-W32-05	32.00	22.00	1.00	4	30.60	150.0	153.0	215.00	32.00	W	4.0	54.00	63.00	2	H600 WXCU 05T312T	2.0	1.08
FF EWX D40-5-L50-C32-05	40.00	30.00	1.00	5	34.00	-	50.0	250.00	32.00	C	2.8	70.00	79.00	1	H600 WXCU 05T312T	2.0	1.40
FF EWX D40-5-S50-C32-05	40.00	30.00	1.00	5	34.00	-	50.0	150.00	32.00	C	2.8	70.00	79.00	1	H600 WXCU 05T312T	2.0	0.85
FF EWX D40-5-060-W32-05	40.00	30.00	1.00	5	34.00	-	60.0	125.00	32.00	W	2.8	70.00	79.00	1	H600 WXCU 05T312T	2.0	0.72
FF EWX D40-5-200-W40-05	40.00	30.00	1.00	5	38.60	200.0	203.0	275.00	40.00	W	2.8	70.00	79.00	2	H600 WXCU 05T312T	2.0	2.08
FF EWX D32-3-060-W32-07	32.00	19.00	1.50	3	30.70	60.0	63.0	125.00	32.00	W	6.3	51.00	63.00	2	H600 WXCU 070515T	4.8	0.60
FF EWX D32-3-070-C32-07	32.00	19.00	1.50	3	30.70	70.0	73.0	155.00	32.00	C	6.3	51.00	63.00	2	H600 WXCU 070515T	4.8	0.76
FF EWX D32-3-100-W32-07	32.00	19.00	1.50	3	30.70	100.0	103.0	165.00	32.00	W	6.3	51.00	63.00	2	H600 WXCU 070515T	4.8	0.78
FF EWX D32-3-120-C32-07	32.00	19.00	1.50	3	30.70	120.0	123.0	205.00	32.00	C	6.3	51.00	63.00	2	H600 WXCU 070515T	4.8	0.99
FF EWX D40-4-S50-C32-07	40.00	27.00	1.50	4	-	50.0	52.2	150.00	32.00	C	4.2	77.00	79.00	1	H600 WXCU 070515T	4.8	0.84

- For machining recommendations and radius for programming, see table on page 522
- To generate a straight surface without cusps, the width of cut must not exceed DC
- For user guide, see pages 542-547

(1) Cutting diameter maximum
(2) Number of inserts
(3) C-Cylindrical, W-Weldon
(4) Maximum ramping angle
(5) For interpolation
(6) For interpolation
(8) Recommended tightening torque (N*m) for insert screw

For inserts, see pages: H600 WXCU (522)

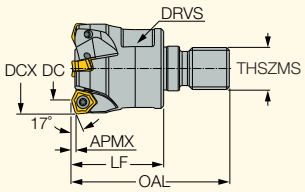
Spare Parts

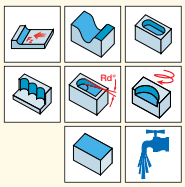
Designation				
FF EWX D...-04	SR M2.5X6-T7-60	T-7/51		
FF EWX D...-05	SR 10508600	T-9/51		
FF EWX D...-07	SR 34-535-SN		BLD T15/S7	SW6-T-SH

HELI 6 FEED FLEXFIT
UPFEED LINE

FF EWX-M

Fast Feed Endmills with FLEXFIT Threaded Connection Carrying Double-Sided Inserts with 6 Cutting Edges





Designation	DCX(1)	DC	APMX	CICT(2)	LF	OAL	THSZMS	RMPX°(3)	MDN(4)	MDX(5)	DRVS(6)	MIID(7)	TQ(8)	TQ_3(9)	kg
FF EWX D20-3-M10-04	20.00	12.60	0.80	3	25.00	45.00	M10	4.8	32.60	39.00	15.0	H600 WXCU 040310HP	0.9	29	0.05
FF EWX D25-4-M12-04	25.00	17.60	0.80	4	30.00	52.00	M12	3.3	42.60	49.00	19.0	H600 WXCU 040310HP	0.9	33	0.09
FF EWX D25-3-M12-05	25.00	15.00	1.00	3	30.00	52.00	M12	5.0	40.00	49.00	19.0	H600 WXCU 05T312T	2.0	33	0.09
FF EWX D32-4-M16-05	32.00	22.00	1.00	4	35.00	60.00	M16	4.0	54.00	63.00	25.0	H600 WXCU 05T312T	2.0	40	0.17
FF EWX D35-4-M16-05	35.00	25.00	1.00	4	35.00	60.00	M16	3.5	60.00	69.00	25.0	H600 WXCU 05T312T	2.0	40	0.19
FF EWX D40-5-M16-05	40.00	30.00	1.00	5	40.00	65.00	M16	2.8	70.00	79.00	25.0	H600 WXCU 05T312T	2.0	40	0.26
FF EWX D32-3-M16-07	32.00	19.00	1.50	3	35.00	60.00	M16	6.3	51.00	63.00	25.0	H600 WXCU 070515HP	4.8	40	0.16
FF EWX D40-4-M16-07	40.00	27.00	1.50	4	40.00	65.00	M16	4.2	67.00	79.00	25.0	H600 WXCU 070515HP	4.8	40	0.24

- For machining recommendations and radius for programming, see table on page 522 • To generate a straight surface without cusps, the width of cut must not exceed DC
- For user guide, see pages 542-547

(1) Cutting diameter maximum
(2) Number of inserts
(3) Maximum ramping angle
(4) Machinable diameter minimum for interpolation
(5) Machinable diameter maximum for interpolation
(6) Clamping wrench size
(7) Master insert identification
(8) Recommended tightening torque (N*m) for insert screw
(9) Tool tightening torque Nxm (lbfxin)

For inserts, see pages: H600 WXCU (522)
For holders, see pages: BT-ODP (FLEXFIT) (314) • C#-ODP (FLEXFIT) (314) • CAB M-M (FLEXFIT) (312) • DIN69871-ODP (315) • ER-ODP (315) • HSK A-ODP (FLEXFIT) (316) • S M (312) • S M-C-H (312) • S M-CF (313)

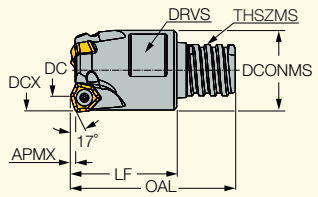
Spare Parts

Designation				
FF EWX D20-3-M10-04	SR M2.5X6-T7-60	T-7/51		
FF EWX D25-4-M12-04	SR M2.5X6-T7-60	T-7/51		
FF EWX D25-3-M12-05	SR 10508600	T-9/51		
FF EWX D32-4-M16-05	SR 10508600	T-9/51		
FF EWX D35-4-M16-05	SR 10508600	T-9/51		
FF EWX D40-5-M16-05	SR 10508600	T-9/51		
FF EWX D32-3-M16-07	SR 34-535-SN		BLD T15/S7	SW6-T-SH
FF EWX D40-4-M16-07	SR 34-535-SN		BLD T15/S7	SW6-T-SH

HELI6FEED UPFEED LINE
MULTI-MASTER

FF EWX-MM

Fast Feed Endmills with MULTI-MASTER Threaded Connection Carrying Double-Sided Inserts with 6 Cutting Edges



Designation	DCX(1)	DC	APMX	CICT(2)	THSZMS	LF	OAL	DCONMS	DRVS(3)	TQ(4)	RMPX°(5)	MDN(6)	MDX(7)	MIID(8)	kg
FF EWX D16-2-MMT10-04	16.00	8.60	0.80	2	T10	19.50	31.25	15.20	12.0	0.9	5.0	24.60	31.00	H600 WXCU 040310HP	0.02
FF EWX D20-3-MMT12-04	20.00	12.60	0.80	3	T12	25.00	38.80	18.80	15.0	0.9	4.8	32.60	39.00	H600 WXCU 040310HP	0.05
FF EWX D25-4-MMT15-04	25.00	17.60	0.80	4	T15	30.00	47.00	23.90	19.0	0.9	3.3	42.60	49.00	H600 WXCU 040310HP	0.10
FF EWX D25-3-MMT15-05	25.00	15.00	1.00	3	T15	30.00	47.00	23.90	19.0	2.0	5.0	40.00	49.00	H600 WXCU 05T312T	0.09

- For machining recommendations and radius for programming, see table on page 522
- Do not apply lubricant to the MULTI-MASTER threaded connection.
- To generate a straight surface without cusps, the width of cut must not exceed DC
- For adaptation options, see page 261
- For user guide, see pages 542-547

(1) Cutting diameter maximum
(2) Number of inserts
(3) Width across flats (wrench should be ordered separately)
(4) Recommended tightening torque (N*m) for insert screw
(5) Maximum ramping angle
(6) For interpolation
(7) For interpolation
(8) Master insert identification

For inserts, see pages: H600 WXCU (522)
For holders, see pages: MM S-A (stepped shanks) (84) • MM S-A (straight shanks) (87) • MM S-A-C# (86) • MM S-A-HSK (609) • MM S-A-N (85) • MM S-A-SK (90) • MM S-B (85° conical shanks) (87) • MM S-D (89° conical shanks) (88) • MM S-ER (89) • MM S-ER-H (89) • MM TS-A (86)

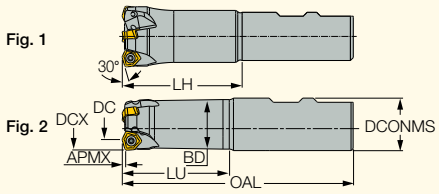
Spare Parts

Designation		
FF EWX D16-2-MMT10-04	SR M2.5X6-T7-60	T-7/51
FF EWX D20-3-MMT12-04	SR M2.5X6-T7-60	T-7/51
FF EWX D25-4-MMT15-04	SR M2.5X6-T7-60	T-7/51
FF EWX D25-3-MMT15-05	SR 10508600	T-9/51

HELI6FEED UPFEED LINE

MF EWX

Moderate Feed Endmills Carrying Double-Sided Inserts with 6 Cutting Edges



Designation	DCX(1)	DC	APMX	CICT(2)	LU	LH	OAL	DCONMS	Shank(3)	BD	RMPX°(4)	MDN(5)	MDX(6)	Fig.	MIID(7)	TQ(8)	kg
MF EWX D16-2-040-W20-04	16.00	9.00	1.50	2	40.0	47.0	99.00	20.00	W	14.90	3.8	25.00	31.00	2	H600 WXCU 040310T	0.9	0.16
MF EWX D20-3-050-C20-04	20.00	13.00	1.50	3	50.0	52.7	134.00	20.00	C	18.90	2.4	33.00	39.00	2	H600 WXCU 040310T	0.9	0.24
MF EWX D20-3-050-W20-04	20.00	13.00	1.50	3	50.0	52.7	104.00	20.00	W	18.90	2.4	33.00	39.00	2	H600 WXCU 040310T	0.9	0.18
MF EWX D25-3-060-W25-05	25.00	15.50	2.00	3	60.0	63.0	120.00	25.00	W	23.60	3.0	40.50	49.00	2	H600 WXCU 05T312T	2.0	0.33
MF EWX D32-4-080-W32-05	32.00	22.50	2.00	4	80.0	83.0	145.00	32.00	W	30.60	1.9	54.50	63.00	2	H600 WXCU 05T312T	2.0	0.70
MF EWX D32-3-080-C32-07	32.00	19.70	2.70	3	80.0	83.0	165.00	32.00	C	30.70	3.0	51.70	63.00	2	H600 WXCU 070515T	4.8	0.80
MF EWX D32-3-080-W32-07	32.00	19.70	2.70	3	80.0	83.0	145.00	32.00	W	30.70	3.0	51.70	63.00	2	H600 WXCU 070515T	4.8	0.70
MF EWX D40-4-090-C32-07	40.00	27.70	2.70	4	90.0	92.0	190.00	32.00	C	36.80	2.0	67.70	79.00	1	H600 WXCU 070515T	4.8	1.16

- For machining recommendations and radius for programming, see table on page 522
- To generate a straight surface without cusps, the width of cut must not exceed DC
- For user guide, see pages 542-547

(1) Cutting diameter maximum
(2) Number of inserts
(3) C-Cylindrical, W-Weldon
(4) Maximum ramping angle
(5) For interpolation
(6) For interpolation
(7) Master insert identification
(8) Recommended tightening torque (N*m) for insert screw

For inserts, see pages: H600 WXCU (522)

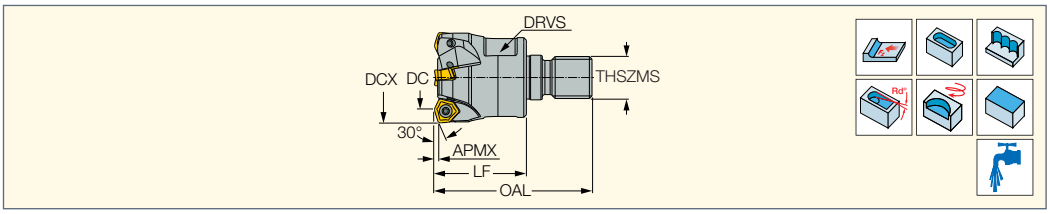
Spare Parts

Designation				
MF EWX D16-2-040-W20-04	SR M2.5X6-T7-60	T-7/51		
MF EWX D20-3-050-C20-04	SR M2.5X6-T7-60	T-7/51		
MF EWX D20-3-050-W20-04	SR M2.5X6-T7-60	T-7/51		
MF EWX D25-3-060-W25-05	SR 10508600	T-9/51		
MF EWX D32-4-080-W32-05	SR 10508600	T-9/51		
MF EWX D32-3-080-C32-07	SR 34-535-SN		BLD T15/S7	SW6-T-SH
MF EWX D32-3-080-W32-07	SR 34-535-SN		BLD T15/S7	SW6-T-SH
MF EWX D40-4-090-C32-07	SR 34-535-SN		BLD T15/S7	SW6-T-SH

HELI6FEEDFLEXFIT UPFEED LINE

MF EWX-M

Moderate Feed Endmills with FLEXFIT Threaded Connection Carrying Double-Sided Inserts with 6 Cutting Edges



Designation	DCX(1)	DC	APMX	CICT(2)	LF	OAL	THSZMS	DRVS(3)	RMPX°(4)	MDN(5)	MDX(6)	MIID(7)	TQ(8)	TQ_3(9)	kg
MF EWX D20-3-M10-04	20.00	13.00	1.50	3	28.00	48.00	M10	14.0	2.4	33.00	39.00	H600 WXCU 040310T	0.9	29	0.05
MF EWX D25-4-M12-04	25.00	18.00	1.50	4	32.00	54.00	M12	17.0	1.7	43.00	49.00	H600 WXCU 040310T	0.9	33	0.09
MF EWX D25-3-M12-05	25.00	15.50	2.00	3	30.00	52.00	M12	17.0	3.0	40.50	49.00	H600 WXCU 05T312T	2.0	33	0.07
MF EWX D32-4-M16-05	32.00	22.50	2.00	4	35.00	60.00	M16	24.0	1.9	54.50	63.00	H600 WXCU 05T312T	2.0	40	0.16
MF EWX D32-3-M16-07	32.00	19.70	2.70	3	35.00	60.00	M16	24.0	3.0	51.70	63.00	H600 WXCU 070515HP	4.8	40	0.15

- For machining recommendations and radius for programming, see table on page 522 • To generate a straight surface without cusps, the width of cut must not exceed DC
- For user guide, see pages 542-547

(1) Cutting diameter maximum
(2) Number of inserts
(3) Clamping wrench size
(4) Maximum ramping angle
(5) For interpolation
(6) For interpolation
(7) Master insert identification
(8) Recommended tightening torque (N*m) for insert screw
(9) Tool tightening torque Nxm (lbfxin)

For inserts, see pages: H600 WXCU (522)

For holders, see pages: BT-ODP (FLEXFIT) (314) • C#-ODP (FLEXFIT) (314) • CAB M-M (FLEXFIT) (312) • DIN69871-ODP (315) • ER-ODP (315) • HSK A-ODP (FLEXFIT) (316) • S M (312) • S M-C-H (312) • S M-CF (313)

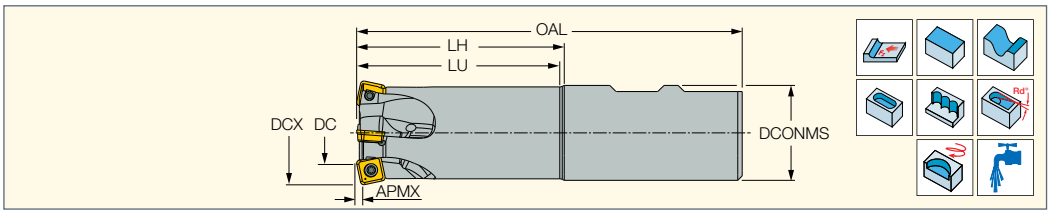
Spare Parts

Designation				
MF EWX D20-3-M10-04	SR M2.5X6-T7-60	T-7/51		
MF EWX D25-4-M12-04	SR M2.5X6-T7-60	T-7/51		
MF EWX D25-3-M12-05	SR 10508600	T-9/51		
MF EWX D32-4-M16-05	SR 10508600	T-9/51		
MF EWX D32-3-M16-07	SR 34-535-SN		BLD T15/S7	SW6-T-SH

MILL4FEED

FFQ4 D-W-09

Fast Feed Endmills Carrying Single-Sided Inserts with 4 Cutting Edges



Designation	DC	DCX(1)	APMX	AE(2)	CICT(3)	LU	LH	DCONMS	OAL	RMPX°(4)	MDN(5)	MDX(6)	MIID(7)	TQ(8)	kg
FFQ4 D022-2-044-W20-09	7.70	22.00	1.20	7.1	2	-	44.0	20.00	94.00	8.2	29.70	43.00	FFQ4 SOMT 090412T	2.0	0.19
FFQ4 D025-3-050-W25-09	10.70	25.00	1.20	7.1	3	-	50.0	25.00	110.00	5.5	35.70	49.00	FFQ4 SOMT 090412T	2.0	0.25
FFQ4 D032-4-064-W25-09	17.70	32.00	1.20	7.1	4	-	64.0	25.00	120.00	3.2	49.70	63.00	FFQ4 SOMT 090412T	2.0	0.50
FFQ4 D035-5-070-W32-09	20.70	35.00	1.20	7.1	5	68.50	70.0	32.00	130.00	2.7	55.70	69.00	FFQ4 SOMT 090412T	2.0	0.70

- To generate a straight surface without cusps, the width of cut must not exceed DC • Radius for programming: for insert SOMT 2.5 mm, for insert SOMW 3 mm
- When mounting insert SOMW, APMX=1.0 mm • For slot milling or machining with high tool overhang, the maximum depth of cut should be reduced by 50%
- For user guide, see pages 542-547

(1) Cutting diameter maximum
(2) Maximum plunging width
(3) Number of inserts
(4) Maximum ramping angle
(5) Machinable diameter minimum for interpolation
(6) Machinable diameter maximum for interpolation
(7) Master insert identification
(8) Recommended tightening torque (N*m) for insert screw

For inserts, see pages: FFQ4 SOMT/W 0904 (517)

Spare Parts

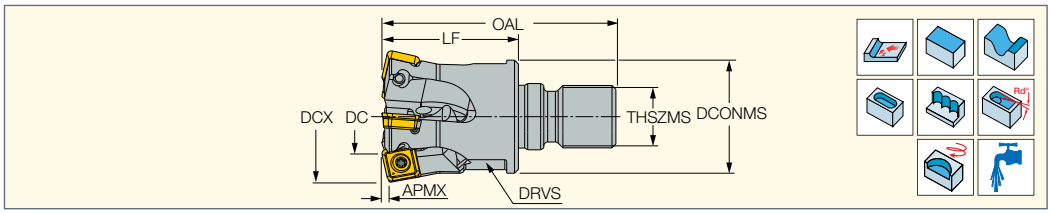
Designation		
FFQ4 D-W-09	SR M3X0.5-L7.4 IP9(a)	IP-9/151

(a) Recommended tightening torque:2.0 N*m

MILL4FEED

FFQ4 D-M-09

Fast Feed Endmills with FLEXFIT Threaded Adaptation Carrying Single-Sided Inserts with 4 Cutting Edges



Designation	DC	DCX(1)	APMX	AE(2)	CICT(3)	LF	OAL	DCONMS	THSZMS	RMPX°(4)	MDN(5)	MDX(6)	DRVS(7)	MIID(8)	TQ(9)	TQ_3(10)	kg
FFQ4 D022-02-M10-09	7.70	22.00	1.20	7.1	2	25.00	45.00	18.00	M10	8.2	29.70	43.00	15.0	FFQ4 SOMT 090412T	2.0	29	0.04
FFQ4 D025-02-M12-09	10.70	25.00	1.20	7.1	2	30.00	52.00	21.00	M12	5.5	35.70	49.00	17.0	FFQ4 SOMT 090412T	2.0	33	0.05
FFQ4 D025-03-M12-09	10.70	25.00	1.20	7.1	3	30.00	52.00	21.00	M12	5.5	35.70	49.00	17.0	FFQ4 SOMT 090412T	2.0	33	0.07
FFQ4 D032-03-M16-09	17.70	32.00	1.20	7.1	3	35.00	60.00	29.00	M16	3.2	49.70	63.00	25.0	FFQ4 SOMT 090412T	2.0	40	0.14
FFQ4 D032-04-M16-09	17.70	32.00	1.20	7.1	4	35.00	60.00	29.00	M16	3.2	49.70	63.00	25.0	FFQ4 SOMT 090412T	2.0	40	0.14
FFQ4 D035-05-M16-09	20.70	35.00	1.20	7.1	5	35.00	60.00	29.00	M16	2.7	55.70	69.00	25.0	FFQ4 SOMT 090412T	2.0	40	0.16
FFQ4 D040-05-M16-09	25.70	40.00	1.20	7.1	5	35.00	60.00	29.00	M16	2.0	65.70	79.00	25.0	FFQ4 SOMT 090412T	2.0	40	0.18

- To generate a straight surface without cusps, the width of cut must not exceed DC • Radius for programming: for insert SOMT 2.5 mm, for insert SOMW 3 mm
- When mounting insert SOMW, APMX=1.0 mm • For slot milling or machining with high tool overhang, the maximum depth of cut should be reduced by 50%
- For user guide, see pages 542-547

(1) Cutting diameter maximum
(2) Maximum plunging width
(3) Number of inserts
(4) Maximum ramping angle
(5) Machinable diameter minimum for interpolation
(6) Machinable diameter maximum for interpolation
(7) Torque key size
(8) Master insert identification
(9) Recommended tightening torque (N*m) for insert screw
(10) Tool tightening torque Nxm (lbfxin)

For inserts, see pages: FFQ4 SOMT/W 0904 (517)
For holders, see pages: BT-ODP (FLEXFIT) (314) • C#-ODP (FLEXFIT) (314) • CAB M-M (FLEXFIT) (312) • DIN69871-ODP (315) • ER-ODP (315) • HSK A-ODP (FLEXFIT) (316) • S M (312) • S M-C-H (312) • S M-CF (313)

Spare Parts

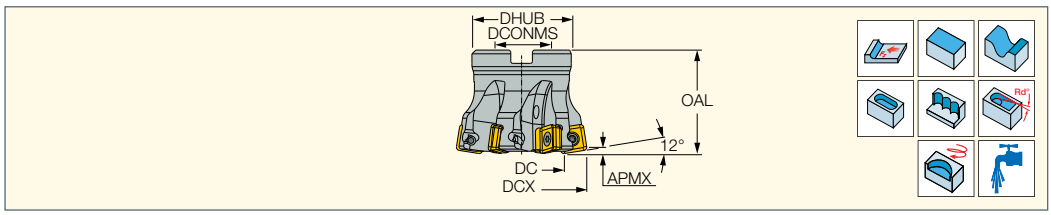
Designation		
FFQ4 D-M-09	SR M3X0.5-L7.4 IP9(a)	IP-9/151

(a) Recommended tightening torque:2.0 N*m

MILL4FEED

FFQ4 D-09

Fast Feed Face Mills Carrying Single-Sided Inserts with 4 Cutting Edges



Designation	DC	DCX(1)	APMX	AE(2)	CICT(3)	OAL	DCONMS	DHUB	RMPX°(4)	MDN(5)	MDX(6)	Arbor	MIID(7)	TQ(8)	kg
FFQ4 D40-05-16-09	25.70	40.00	1.20	7.1	5	35.00	16.00	38.00	2.0	65.70	79.00	A	FFQ4 SOMT 090412T	2.0	0.17
FFQ4 D50-07-22-09	35.70	50.00	1.20	7.1	7	40.00	22.00	48.00	1.5	85.70	99.00	A	FFQ4 SOMT 090412T	2.0	0.36
FFQ4 D52-07-22-09	37.70	52.00	1.20	7.1	7	40.00	22.00	48.00	1.4	89.70	103.00	A	FFQ4 SOMT 090412T	2.0	0.34
FFQ4 D63-08-22-09	48.70	63.00	1.20	7.1	8	45.00	22.00	48.00	1.1	111.70	125.00	A	FFQ4 SOMT 090412T	2.0	0.49

- To generate a straight surface without cusps, the width of cut must not exceed DC • Radius for programming: for insert SOMT 2.5 mm, for insert SOMW 3 mm
- When mounting insert SOMW, APMX=1.0 mm • For slot milling or machining with high tool overhang, the maximum depth of cut should be reduced by 50%
- For user guide, see pages 542-547

(1) Cutting diameter maximum
(2) Maximum plunging width
(3) Number of inserts
(4) Maximum ramping angle
(5) Machinable diameter minimum for interpolation
(6) Machinable diameter maximum for interpolation
(7) Master insert identification
(8) Recommended tightening torque (N*m) for insert screw

For inserts, see pages: FFQ4 SOMT/W 0904 (517)

Spare Parts

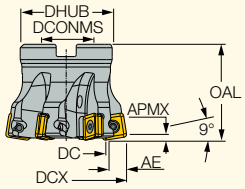
Designation			
FFQ4 D40-05-16-09	SR M3X0.5-L7.4 IP9(a)	IP-9/151	SR M8X25DIN912
FFQ4 D50-07-22-09	SR M3X0.5-L7.4 IP9(a)	IP-9/151	SR M10X25 DIN912
FFQ4 D52-07-22-09	SR M3X0.5-L7.4 IP9(a)	IP-9/151	SR M10X25 DIN912
FFQ4 D63-08-22-09	SR M3X0.5-L7.4 IP9(a)	IP-9/151	SR M10X30 DIN912

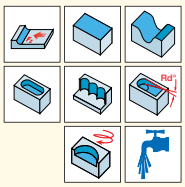
(a) Recommended tightening torque:2.0 N*m

MILL4FEED

FFQ4 D-12

Fast Feed Face Mills
Carrying Single-Sided Inserts
with 4 Cutting Edges





Designation	DC	DCX(1)	APMX	AE(2)	CICT(3)	OAL	DHUB	DCONMS	Arbor	RMPX°(4)	MDN(5)	MDX(6)	MIID(7)	TQ(8)	kg
FFQ4 D040-3-16-12	18.00	40.00	1.50	10.0	3	45.00	38.00	16.00	A	4.3	58.00	79.00	FFQ4 SOMT 120516HP	4.8	0.23
FFQ4 D040-4-16-12	18.00	40.00	1.50	10.0	4	45.00	38.00	16.00	A	4.3	58.00	79.00	FFQ4 SOMT 120516HP	4.8	0.22
FFQ4 D050-4-22-12	28.00	50.00	1.50	10.0	4	50.00	48.00	22.00	A	2.7	78.00	99.00	FFQ4 SOMT 120516HP	4.8	0.38
FFQ4 D050-5-22-12	28.00	50.00	1.50	10.0	5	50.00	48.00	22.00	A	2.7	78.00	99.00	FFQ4 SOMT 120516HP	4.8	0.37
FFQ4 D052-5-22-12	29.00	52.00	1.50	10.0	5	50.00	48.00	22.00	A	2.5	81.00	103.00	FFQ4 SOMT 120516HP	4.8	0.39
FFQ4 D063-6-22-12	41.00	63.00	1.50	10.0	6	50.00	48.00	22.00	A	1.8	104.00	125.00	FFQ4 SOMT 120516HP	4.8	0.50
FFQ4 D066-6-27-12	43.00	66.00	1.50	10.0	6	50.00	60.00	27.00	A	1.6	109.00	131.00	FFQ4 SOMT 120516HP	4.8	0.65
FFQ4 D080-7-27-12	58.00	80.00	1.50	10.0	7	50.00	60.00	27.00	A	1.2	138.00	159.00	FFQ4 SOMT 120516HP	4.8	0.84
FFQ4 D100-8-32-12	78.00	100.00	1.50	10.0	8	50.00	78.00	32.00	B	0.9	178.00	199.00	FFQ4 SOMT 120516HP	4.8	1.30
FFQ4 D125-10-40-12	103.00	125.00	1.50	10.0	10	63.00	92.00	40.00	B	0.7	228.00	249.00	FFQ4 SOMT 120516HP	4.8	2.17

- To generate a straight surface without cusps, the width of cut must not exceed DC
- Radius for programming: for insert SOMT 3 mm, for insert SOMW 4 mm
- When mounting insert SOMW, APMX=1.2 mm
- For slot milling or machining with high tool overhang, the maximum depth of cut should be reduced by 50%
- For user guide, see pages 542-547

(1) Cutting diameter maximum
(2) Maximum plunging width
(3) Number of inserts
(4) Maximum ramping angle
(5) Machinable diameter minimum for interpolation
(6) Machinable diameter maximum for interpolation
(7) Master insert identification
(8) Recommended tightening torque (N*m) for insert screw

For inserts, see pages: FFQ4 SOMT/W 1205 (518)

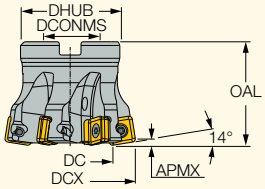
Spare Parts

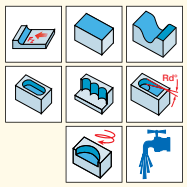
Designation					
FFQ4 D040-3-16-12	SR M4X0.7-L9.6 IP15	SW6-T	BLD IP15/S7		SR PS 118-0416
FFQ4 D040-4-16-12	SR M4X0.7-L9.6 IP15	SW6-T	BLD IP15/S7		SR PS 118-0416
FFQ4 D050-4-22-12	SR M4X0.7-L9.6 IP15	SW6-T	BLD IP15/S7	SR M10X35 DIN912	
FFQ4 D050-5-22-12	SR M4X0.7-L9.6 IP15	SW6-T	BLD IP15/S7	SR M10X35 DIN912	
FFQ4 D052-5-22-12	SR M4X0.7-L9.6 IP15	SW6-T	BLD IP15/S7	SR M10X35 DIN912	
FFQ4 D063-6-22-12	SR M4X0.7-L9.6 IP15	SW6-T	BLD IP15/S7	SR M10X35 DIN912	
FFQ4 D066-6-27-12	SR M4X0.7-L9.6 IP15	SW6-T	BLD IP15/S7	SR M12X30DIN912	
FFQ4 D080-7-27-12	SR M4X0.7-L9.6 IP15	SW6-T	BLD IP15/S7	SR M12X30DIN912	
FFQ4 D100-8-32-12	SR M4X0.7-L9.6 IP15	SW6-T	BLD IP15/S7		
FFQ4 D125-10-40-12	SR M4X0.7-L9.6 IP15	SW6-T	BLD IP15/S7		

MILL4FEED

FFQ4 D-17

Fast Feed Face Mills
Carrying Single-Sided Inserts
with 4 Cutting Edges





Designation	DCX(1)	DC	APMX	AE(2)	CICT(3)	OAL	DCONMS	Da	DHUB	RMPX°(4)	MDN(5)	MDX(6)	CSP(7)	Arbor	MIID(8)	TQ(9)	kg
FFQ4 D080-06-27-17	80.00	50.80	3.00	14.6	6	50.00	27.00	27.00	60.00	1.2	130.80	159.00	1	A	FFQ4 SOMT 170625T	9.0	0.78
FFQ4 D100-07-32-17	100.00	70.80	3.00	14.6	7	50.00	32.00	32.00	78.00	0.8	170.80	199.00	1	A	FFQ4 SOMT 170625T	9.0	1.18
FFQ4 D125-08-40-17	125.00	95.80	3.00	14.6	8	63.00	40.00	40.00	92.00	0.6	220.80	249.00	1	B	FFQ4 SOMT 170625T	9.0	2.48
FFQ4 D160-10-40-17	160.00	130.80	3.00	14.6	10	63.00	40.00	40.00	95.00	0.2	290.80	319.00	0	C	FFQ4 SOMT 170625T	9.0	2.90

- To generate a straight surface without cusps, the width of cut must not exceed DC
- Radius for programming: for insert SOMT 5.5 mm, for insert SOMW 6.4 mm
- When mounting insert SOMW, APMX=2.5 mm
- For slot milling or machining with high tool overhang, the maximum depth of cut should be reduced by 50%
- For user guide, see pages 542-547

(1) Cutting diameter maximum
(2) Maximum plunging width
(3) Number of inserts
(4) Maximum ramping angle
(5) Machinable diameter minimum for interpolation
(6) Machinable diameter maximum for interpolation
(7) 0 - Without coolant supply, 1 - With coolant supply
(8) Master insert identification
(9) Recommended tightening torque (N*m) for insert screw

For inserts, see pages: FFQ4 SOMT/W 1706 (519)

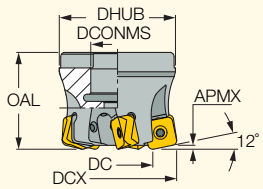
Spare Parts

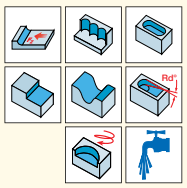
Designation				
FFQ4 D080-06-27-17	SR M5-14 IP20	SW6-T	BLD IP20/S7	SR M12X30DIN912
FFQ4 D100-07-32-17	SR M5-14 IP20	SW6-T	BLD IP20/S7	SR M16X30 DIN912
FFQ4 D125-08-40-17	SR M5-14 IP20	SW6-T	BLD IP20/S7	
FFQ4 D160-10-40-17	SR M5-14 IP20	SW6-T	BLD IP20/S7	

NEOFEED
HIGH FEED LINE

FFQ8-12

Fast Feed Face Mills Carrying
Double-Sided Inserts
with 8 Cutting Edges





Designation	DC	DCX(1)	APMX	CICT(2)	OAL	DHUB	DCONMS	Arbor	RMPX°(3)	MDN(4)	MDX(5)	MIID(6)	kg
FFQ8 D050-05-22-12	30.60	50.00	1.50	5	40.00	48.00	22.00	A	0.3	80.60	99.00	FFQ8 SZMU 120520	0.46
FFQ8 D063-06-22-12	43.60	63.00	1.50	6	40.00	48.00	22.00	A	0.2	106.60	125.00	FFQ8 SZMU 120520	0.94
FFQ8 D080-07-27-12	60.60	80.00	1.50	7	50.00	60.00	27.00	A	0.2	140.60	159.00	FFQ8 SZMU 120520	1.98
FFQ8 D100-08-32-12	80.60	100.00	1.50	8	50.00	78.00	32.00	B	0.1	180.60	199.00	FFQ8 SZMU 120520	3.03

- Radius for programming 3.6 mm
- For user guide, see pages 542-547
- To generate a straight surface without cusps, the width of cut must not exceed DC
- For slot milling or machining with high tool overhang, the maximum depth of cut should be reduced by 30%.

(1) Cutting diameter maximum
(2) Number of inserts
(3) Maximum ramping angle
(4) Machinable diameter minimum for interpolation
(5) Machinable diameter maximum for interpolation
(6) Master insert identification

For inserts, see pages: FFQ8 SZMU (520)

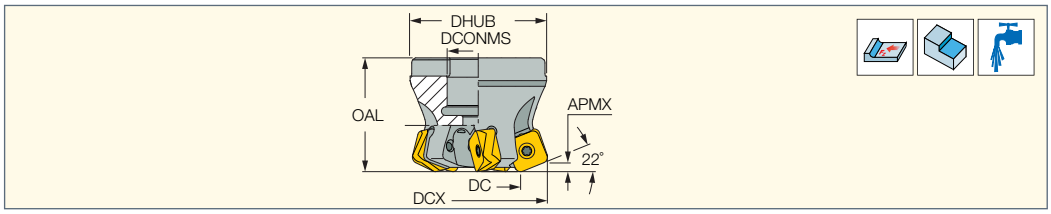
Spare Parts

Designation				
FFQ8 D050-05-22-12	SR M4X0.7-L11.5 IP15	BLD IP15/S7	SW6-T-SH	SR M10X25 DIN912
FFQ8 D063-06-22-12	SR M4X0.7-L11.5 IP15	BLD IP15/S7	SW6-T-SH	SR M10X25 DIN912
FFQ8 D080-07-27-12	SR M4X0.7-L11.5 IP15	BLD IP15/S7	SW6-T-SH	SR M12X30DIN912
FFQ8 D100-08-32-12	SR M4X0.7-L11.5 IP15	BLD IP15/M7	SW6-T-SH	

NEOFEED HIGH FEED LINE

MFQ8-12

Moderate Feed Face Mills Carrying Double-Sided Inserts with 8 Cutting Edges



Designation	DC	DCX(1)	APMX	CICT(2)	OAL	DHUB	DCONMS	Arbor	MIID(3)	kg
MFQ8 D050-05-22-12	31.60	50.00	3.00	5	40.00	48.00	22.00	A	FFQ8 SZMU 120520	0.44
MFQ8 D063-06-22-12	44.60	63.00	3.00	6	40.00	48.00	22.00	A	FFQ8 SZMU 120520	0.84
MFQ8 D080-07-27-12	61.60	80.00	3.00	7	50.00	60.00	27.00	A	FFQ8 SZMU 120520	1.84
MFQ8 D100-08-32-12	81.60	100.00	3.00	8	50.00	78.00	32.00	B	FFQ8 SZMU 120520	2.95

- Radius for programming 5.0 mm • For user guide, see pages 542-547 • To generate a straight surface without cusps, the width of cut must not exceed DC
- For slot milling or machining with high tool overhang, the maximum depth of cut should be reduced by 30%.

(1) Cutting diameter maximum
(2) Number of inserts
(3) Master insert identification

For inserts, see pages: FFQ8 SZMU (520)

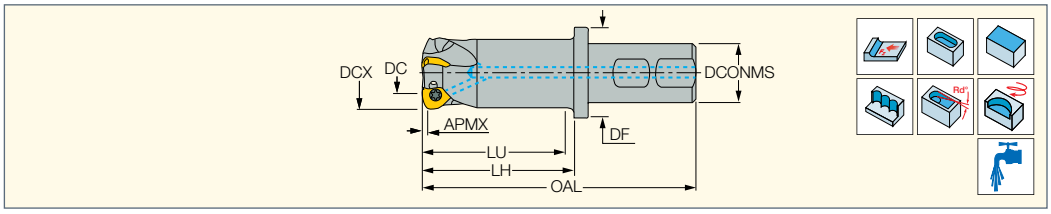
Spare Parts

Designation				
MFQ8 D050-05-22-12	SR M4X0.7-L11.5 IP15	BLD IP15/S7	SW6-T-SH	SR M10X40-1638
MFQ8 D063-06-22-12	SR M4X0.7-L11.5 IP15	BLD IP15/S7	SW6-T-SH	SR M10X25 DIN912
MFQ8 D080-07-27-12	SR M4X0.7-L11.5 IP15	BLD IP15/S7	SW6-T-SH	SR M12X30DIN912
MFQ8 D100-08-32-12	SR M4X0.7-L11.5 IP15	BLD IP15/M7	SW6-T-SH	

FEEDMILL

FF EW

Fast Feed Endmills with FF WOMT... Inserts

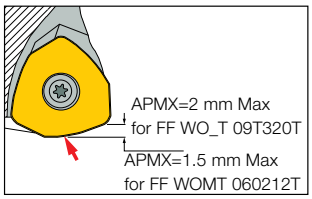


Designation	DCX(1)	DC	APMX	CICT(2)	LH	LU	OAL	DF	DCONMS	Shank(3)	RMPX°(4)	TQ(5)	MIID(6)	kg
FF EW D25-050-W25-06-C	25.00	11.00	1.30	2	53.0	-	118.00	-	25.00	W	5.0	2.0	FF WOMT0602	0.37
FF EW D25-080-C25-06-C	25.00	11.00	1.30	2	83.0	-	180.00	-	25.00	C	5.0	2.0	FF WOMT0602	0.58
FF EW D25-080-W25-06-C	25.00	11.00	1.30	2	83.0	-	148.00	-	25.00	W	5.0	2.0	FF WOMT0602	0.46
FF EW D25-120-C24-06-C	25.00	11.00	1.30	2	121.4	-	220.00	-	24.00	C	5.0	2.0	FF WOMT0602	0.68
FF EW D32-060-W25-06-C	32.00	18.00	1.30	3	63.0	-	128.00	30.40	25.00	W	4.0	2.0	FF WOMT0602	0.52
FF EW D32-100-C32-06-C	32.00	18.00	1.30	3	103.0	-	230.00	-	32.00	C	4.0	2.0	FF WOMT0602	1.28
FF EW D32-100-W25-06-C	32.00	18.00	1.30	3	103.0	-	168.00	30.40	25.00	W	4.0	2.0	FF WOMT0602	0.73
FF EW D40-150-W32-09-C	40.00	19.20	2.00	3	150.0	147.0	217.50	50.00	32.00	W	5.0	5.0	FF WOMT09T3	1.56

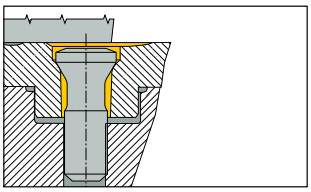
- For user guide, see pages 542-547

(1) Cutting diameter maximum
(2) Number of inserts
(3) C-Cylindrical, W-Weldon
(4) Maximum ramping angle
(5) Insert tightening torque
(6) Master insert identification

For inserts, see pages: FF WOCT/WOMT/WOMW (521)



Cutting forces are directed axially towards the spindle, enabling cutting at very high feeds with high stability and no vibrations.



A cylinder at the bottom of the insert provides very rigid clamping, absorbing most of the forces usually exerted on the clamping screw.

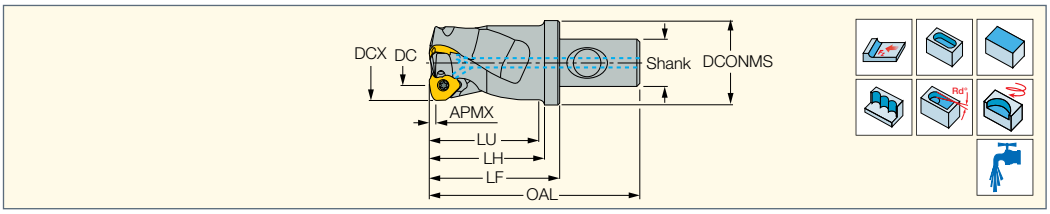
Spare Parts

Designation				
FF EW D25-050-W25-06-C	SR 34-506/M	T-9/51		
FF EW D25-080-C25-06-C	SR 34-506/M	T-9/51		
FF EW D25-080-W25-06-C	SR 34-506/M	T-9/51		
FF EW D25-120-C24-06-C	SR 34-506/M	T-9/51		
FF EW D32-060-W25-06-C	SR 34-506/M	T-9/51		
FF EW D32-100-C32-06-C	SR 34-506/M	T-9/51		
FF EW D32-100-W25-06-C	SR 34-506/M	T-9/51		
FF EW D40-150-W32-09-C	SR 34-535		BLD T15/S7	SW6-T

FEEDMILLCLICKFIT

FF EW-CF

Fast Feed Endmills with
CLICKFIT Shanks



Designation	DCX(1)	DC	CICT(2)	APMX	LU	LH	LF	OAL	DCONMS	RMPX°(3)	Shank	TQ(4)	MIID(5)	kg
FF EW D32-060-CF4-06-C	32.00	18.00	3	1.30	60.0	64.00	72.00	114.00	44.00	4.0	CF4	2.0	FF WOMT0602	0.54
FF EW D32-100-CF4-06-C	32.00	18.00	3	1.30	100.0	104.00	112.00	154.00	44.00	4.0	CF4	2.0	FF WOMT0602	0.74

- For user guide, see pages 542-547

(1) Cutting diameter maximum
(2) Number of inserts
(3) Maximum ramping angle
(4) Insert tightening torque
(5) Master insert identification

For inserts, see pages: FF WOCT/WOMT/WOMW (521)

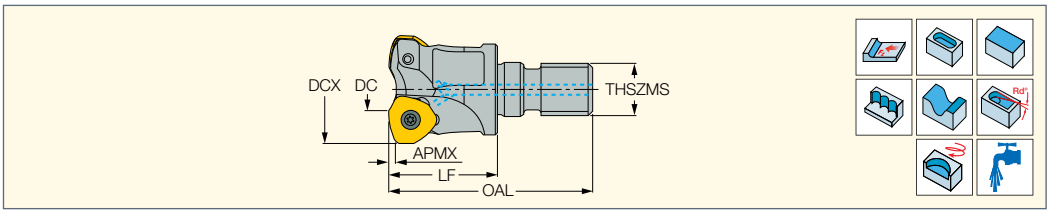
Spare Parts

Designation		
FF EW-CF	SR 34-506/M	T-9/51

FEEDMILLFLEXFIT

FF EW-M

Fast Feed Endmills with
FLEXFIT Threaded Adaptation



Designation	DCX(1)	DC	CICT(2)	APMX	THSZMS	LF	OAL	RMPX°(3)	TQ(4)	MIID(5)	TQ_3(6)	kg
FF EW D25-M12-06-C	25.00	11.00	2	1.30	M12	25.00	47.00	5.0	2.0	FF WOMT0602	33	0.06
FF EW D32-M16-06-C	32.00	18.00	3	1.30	M16	35.00	60.00	4.0	2.0	FF WOMT0602	40	0.16
FF EW D40-M16-06-C	40.00	26.00	4	1.30	M16	40.00	65.00	2.5	2.0	FF WOMT0602	40	0.23

- For user guide, see pages 542-547 • When mounting items with FLEXFIT threaded adaptation to their holders, the mating surfaces and threaded areas must be thoroughly cleaned. Apply appropriate tightening torque to eliminate a gap between the mating faces. Estimated torque values are specified in the TQ_3 parameter

(1) Cutting diameter maximum
(2) Number of inserts
(3) Maximum ramping angle
(4) Insert tightening torque
(5) Master insert identification
(6) Tool tightening torque Nxm (lbfxin)

For inserts, see pages: FF WOCT/WOMT/WOMW (521)

For holders, see pages: BT-ODP (FLEXFIT) (314) • C#-ODP (FLEXFIT) (314) • CAB M-M (FLEXFIT) (312) • DIN69871-ODP (315) • ER-ODP (315) • HSK A-ODP (FLEXFIT) (316) • S M (312) • S M-C-H (312) • S M-CF (313)

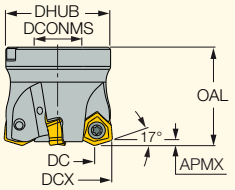
Spare Parts

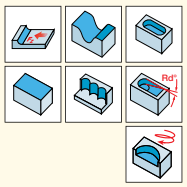
Designation		
FF EW-M	SR 34-506/M	T-9/51

HELI6FEED UPFEED LINE

FF FWX

Fast Feed Face Mills Carrying Double-Sided Inserts with 6 Cutting Edges





Designation	DC	DCX(1)	APMX	CICT(2)	OAL	DHUB	DCONMS	Arbor(3)	RMPX°(4)	MDN(5)	MDX(6)	CSP(7)	MIID(8)	TQ(9)	kg
FF FWX D040-05-16-05	30.10	40.00	1.00	5	35.00	38.00	16.00	A	2.8	70.10	79.00	1	H600 WXCU 05T312T	2.0	0.20
FF FWX D050-06-22-05	40.10	50.00	1.00	6	40.00	48.00	22.00	A	2.0	90.10	99.00	1	H600 WXCU 05T312T	2.0	0.36
FF FWX D052-06-22-05	42.10	52.00	1.00	6	40.00	48.00	22.00	A	1.9	94.10	103.00	1	H600 WXCU 05T312T	2.0	0.37
FF FWX D040-04-16-07	27.00	40.00	1.50	4	35.00	38.00	16.00	A	4.2	67.00	79.00	1	H600 WXCU 070515HP	4.8	0.18
FF FWX D050-05-22-07	37.00	50.00	1.50	5	40.00	48.00	22.00	A	2.9	87.00	99.00	1	H600 WXCU 070515HP	4.8	0.33
FF FWX D052-05-22-07	39.00	52.00	1.50	5	40.00	48.00	22.00	A	2.8	91.00	103.00	1	H600 WXCU 070515HP	4.8	0.33
FF FWX D063-06-22-07	50.00	63.00	1.50	6	40.00	61.00	22.00	A	2.1	113.00	125.00	1	H600 WXCU 070515HP	4.8	0.58
FF FWX D080-07-32-07	67.00	80.00	1.50	7	55.00	76.00	32.00	A	1.6	147.00	159.00	1	H600 WXCU 070515HP	4.8	1.38
FF FWX D100-08-32-07	87.00	100.00	1.50	8	50.00	78.00	32.00	B	1.2	187.00	199.00	1	H600 WXCU 070515HP	4.8	1.47
FF FWX D050-04-22-08	34.00	50.00	2.00	4	45.00	48.00	22.00	A	4.8	84.00	99.00	1	H600 WXCU 080612T	9.0	0.34
FF FWX D052-04-22-08	36.00	52.00	2.00	4	45.00	48.00	22.00	A	4.5	88.00	103.00	1	H600 WXCU 080612T	9.0	0.37
FF FWX D063-05-22-08	47.00	63.00	2.00	5	45.00	61.00	22.00	A	3.3	110.00	125.00	1	H600 WXCU 080612T	9.0	0.61
FF FWX D063-05-27-08	47.00	63.00	2.00	5	50.00	61.00	27.00	A	3.3	110.00	125.00	1	H600 WXCU 080612T	9.0	0.65
FF FWX D066-05-22-08	50.00	66.00	2.00	5	45.00	61.00	22.00	A	3.1	116.00	131.00	1	H600 WXCU 080612T	9.0	0.68
FF FWX D066-05-27-08	50.00	66.00	2.00	5	50.00	61.00	27.00	A	3.1	116.00	131.00	1	H600 WXCU 080612T	9.0	0.72
FF FWX D080-06-32-08	64.00	80.00	2.00	6	55.00	76.00	32.00	A	2.3	144.00	159.00	1	H600 WXCU 080612T	9.0	1.24
FF FWX D100-07-32-08	84.00	100.00	2.00	7	50.00	78.00	32.00	B	1.7	184.00	199.00	1	H600 WXCU 080612T	9.0	1.42
FF FWX D125-09-40-08	109.00	125.00	2.00	9	55.00	90.00	40.00	B	1.3	234.00	249.00	1	H600 WXCU 080612T	9.0	2.37
FF FWX D160-11-40-08	144.00	160.00	2.00	11	55.00	95.00	40.00	C	1.0	304.00	319.00	0	H600 WXCU 080612T	9.0	0.00

- For machining recommendations and radius for programming, see table on page 522
- To generate a straight surface without cusps, the width of cut must not exceed DC
- For user guide, see pages 542-547

(1) Cutting diameter maximum
(2) Number of inserts
(3) For adaptation options, see page 548
(4) Maximum ramping angle
(5) For interpolation
(6) For interpolation
(7) 0 - Without coolant supply, 1 - With coolant supply
(8) Master insert identification
(9) Recommended tightening torque (N*m) for insert screw

For inserts, see pages: H600 WXCU (522)

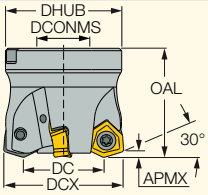
Spare Parts

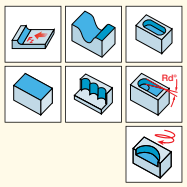
Designation					
FF FWX D040-05-16-05	SR 10508600	T-9/51			SR M8X25DIN912
FF FWX D050-06-22-05	SR 10508600	T-9/51			SR M10X25 DIN912
FF FWX D052-06-22-05	SR 10508600	T-9/51			SR M10X25 DIN912
FF FWX D040-04-16-07	SR 34-535-SN		BLD T15/S7	SW6-T-SH	SR M8X25-D11.5
FF FWX D050-05-22-07	SR 34-535-SN		BLD T15/S7	SW6-T-SH	SR M10X25 DIN912
FF FWX D052-05-22-07	SR 34-535-SN		BLD T15/S7	SW6-T-SH	SR M10X25 DIN912
FF FWX D063-06-22-07	SR 34-535-SN		BLD T15/S7	SW6-T-SH	SR M10X25 DIN912
FF FWX D080-07-32-07	SR 34-535-SN		BLD T15/S7	SW6-T-SH	SR M16X30 DIN912
FF FWX D100-08-32-07	SR 34-535-SN		BLD T15/M7	SW6-T-SH	
FF FWX D050-04-22-08	SR 14-591/H		BLD T20/S7	SW6-T	SR M10X25 DIN912
FF FWX D052-04-22-08	SR 14-591/H		BLD T20/S7	SW6-T	SR M10X25 DIN912
FF FWX D063-05-22-08	SR 14-591/H		BLD T20/S7	SW6-T	SR M10X25 DIN912
FF FWX D063-05-27-08	SR 14-591/H		BLD T20/S7	SW6-T	SR M12X30DIN912
FF FWX D066-05-22-08	SR 14-591/H		BLD T20/S7	SW6-T	SR M10X25 DIN912
FF FWX D066-05-27-08	SR 14-591/H		BLD T20/S7	SW6-T	SR M12X30DIN912
FF FWX D080-06-32-08	SR 14-591/H		BLD T20/S7	SW6-T	SR M16X30 DIN912
FF FWX D100-07-32-08	SR 14-591/H		BLD T20/M7	SW6-T	
FF FWX D125-09-40-08	SR 14-591/H		BLD T20/L7	SW6-T	
FF FWX D160-11-40-08	SR 14-591/H		BLD T20/L7	SW6-T	

HELI6FEED UPFEED LINE

MF FWX

Moderate Feed Face Mills
Carrying Double-Sided Inserts
with 6 Cutting Edges





Designation	DC	DCX(1)	APMX	CICT(2)	OAL	DHUB	DCONMS	Arbor(3)	RMPX°(4)	MDN(5)	MDX(6)	CSP(7)	MIID(8)	TQ(9)	kg
MF FWX D040-05-16-05	30.60	40.00	2.00	5	35.00	38.00	16.00	A	1.4	70.60	79.00	1	H600 WXCU 05T312T	2.0	0.17
MF FWX D050-06-22-05	40.50	50.00	2.00	6	40.00	48.00	22.00	A	1.0	90.50	99.00	1	H600 WXCU 05T312T	2.0	0.30
MF FWX D052-06-22-05	42.50	52.00	2.00	6	40.00	48.00	22.00	A	1.0	94.50	103.00	1	H600 WXCU 05T312T	2.0	0.32
MF FWX D063-08-22-05	53.50	63.00	2.00	8	40.00	48.00	22.00	A	0.8	116.50	125.00	1	H600 WXCU 05T312T	2.0	0.41
MF FWX D040-04-16-07	27.70	40.00	2.70	4	35.00	38.00	16.00	A	2.0	67.70	79.00	1	H600 WXCU 070515HP	4.8	0.17
MF FWX D050-05-22-07	37.70	50.00	2.70	5	40.00	48.00	22.00	A	1.4	87.70	99.00	1	H600 WXCU 070515HP	4.8	0.31
MF FWX D052-05-22-07	39.70	52.00	2.70	5	40.00	48.00	22.00	A	1.3	91.70	103.00	1	H600 WXCU 070515HP	4.8	0.32
MF FWX D063-06-22-07	50.70	63.00	2.70	6	40.00	48.00	22.00	A	1.0	113.70	125.00	1	H600 WXCU 070515HP	4.8	0.42
MF FWX D080-07-32-07	67.70	80.00	2.70	7	55.00	76.00	32.00	A	0.8	147.70	159.00	1	H600 WXCU 070515HP	4.8	1.21
MF FWX D100-08-32-07	87.70	100.00	2.70	8	50.00	78.00	32.00	B	0.6	187.70	199.00	1	H600 WXCU 070515HP	4.8	1.46
MF FWX D050-04-22-08	34.70	50.00	3.50	4	45.00	48.00	22.00	A	2.5	84.70	99.00	1	H600 WXCU 080612T	9.0	0.32
MF FWX D063-05-27-08	47.70	63.00	3.50	5	50.00	61.00	27.00	A	1.7	110.70	125.00	1	H600 WXCU 080612T	9.0	0.63
MF FWX D066-05-27-08	50.70	66.00	3.50	5	50.00	61.00	27.00	A	1.7	116.70	131.00	1	H600 WXCU 080612T	9.0	0.64
MF FWX D080-06-32-08	64.70	80.00	3.50	6	55.00	76.00	32.00	A	1.2	144.70	159.00	1	H600 WXCU 080612T	9.0	1.13
MF FWX D100-07-32-08	84.70	100.00	3.50	7	50.00	78.00	32.00	B	0.9	184.70	199.00	1	H600 WXCU 080612T	9.0	1.37
MF FWX D125-09-40-08	109.70	125.00	3.50	9	55.00	90.00	40.00	B	0.7	234.70	249.00	1	H600 WXCU 080612T	9.0	2.36
MF FWX D160-11-40-08	144.70	160.00	3.50	11	55.00	95.00	40.00	C	0.5	304.70	319.00	0	H600 WXCU 080612T	9.0	3.63

- For machining recommendations and radius for programming, see table on page 522
- To generate a straight surface without cusps, the width of cut must not exceed DC
- For user guide, see pages 542-547

(1) Cutting diameter maximum
(2) Number of inserts
(3) For adaptation options, see page 548
(4) Maximum ramping angle
(5) For interpolation
(6) For interpolation
(7) 0 - Without coolant supply, 1 - With coolant supply
(8) Master insert identification
(9) Recommended tightening torque (N*m) for insert screw

For inserts, see pages: H600 WXCU (522)

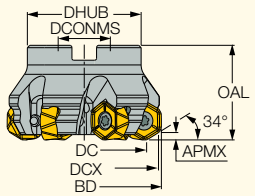
Spare Parts

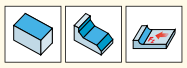
Designation					
MF FWX D040-05-16-05	SR 10508600	T-9/51			SR M8X25DIN912
MF FWX D050-06-22-05	SR 10508600	T-9/51			SR M10X25 DIN912
MF FWX D052-06-22-05	SR 10508600	T-9/51			SR M10X25 DIN912
MF FWX D063-08-22-05	SR 10508600	T-9/51			SR M10X25 DIN912
MF FWX D040-04-16-07	SR 34-535-SN		BLD T15/S7	SW6-T-SH	SR M8X25-D11.5
MF FWX D050-05-22-07	SR 34-535-SN		BLD T15/S7	SW6-T-SH	SR M10X25 DIN912
MF FWX D052-05-22-07	SR 34-535-SN		BLD T15/S7	SW6-T-SH	SR M10X25 DIN912
MF FWX D063-06-22-07	SR 34-535-SN		BLD T15/S7	SW6-T-SH	SR M10X25 DIN912
MF FWX D080-07-32-07	SR 34-535-SN		BLD T15/S7	SW6-T-SH	SR M16X30 DIN912
MF FWX D100-08-32-07	SR 34-535-SN		BLD T15/M7	SW6-T-SH	
MF FWX D050-04-22-08	SR 14-591/H		BLD T20/S7	SW6-T	SR M10X25 DIN912
MF FWX D063-05-27-08	SR 14-591/H		BLD T20/S7	SW6-T	SR M12X30DIN912
MF FWX D066-05-27-08	SR 14-591/H		BLD T20/S7	SW6-T	SR M12X30DIN912
MF FWX D080-06-32-08	SR 14-591/H		BLD T20/S7	SW6-T	SR M16X30 DIN912
MF FWX D100-07-32-08	SR 14-591/H		BLD T20/M7	SW6-T	
MF FWX D125-09-40-08	SR 14-591/H		BLD T20/L7	SW6-T	
MF FWX D160-11-40-08	SR 14-591/H		BLD T20/L7	SW6-T	

HELI 12 FEED
UPFEED LINE

MF FHX-R06

34° Face Mills Carrying Hexagonal Inserts with 12 Cutting Edges





Designation	DCX(1)	BD	DC	CICT(2)	APMX	OAL	DHUB	DCONMS	Arbor(3)	CSP(4)	MIID(5)	TQ(6)	kg
MF FHX D063-06-22-R06	63.00	65.40	53.40	6	3.00	40.00	48.00	22.00	A	1	H1200 HXCU 0606-HPR	9.0	0.46
MF FHX D080-07-27-R06	80.00	82.40	70.40	7	3.00	50.00	60.00	27.00	A	1	H1200 HXCU 0606-HPR	9.0	0.98
MF FHX D080-07-32-R06	80.00	82.40	70.40	7	3.00	50.00	66.00	32.00	A	1	H1200 HXCU 0606-HPR	9.0	0.86
MF FHX D100-09-32-R06	100.00	102.40	90.40	9	3.00	50.00	78.00	32.00	B	1	H1200 HXCU 0606-HPR	9.0	1.57
MF FHX D125-11-40-R06	125.00	127.40	115.40	11	3.00	50.00	92.00	40.00	B	1	H1200 HXCU 0606-HPR	9.0	2.44
MF FHX D160-13-40-R06	160.00	162.40	150.40	13	3.00	55.00	95.00	40.00	C	0	H1200 HXCU 0606-HPR	9.0	3.48

- Radius for programming according to D1 diameter is 5.4 mm
- When machining next to shoulders, maximum width of cut should be 0.3xD
- To generate a straight surface without cusps, the width of cut must not exceed DC
- For cutting speed recommendations, see pages 542-547

(1) Cutting diameter maximum
(2) Number of inserts
(3) For adaptation options, see page 548
(4) 0 - Without coolant supply, 1 - With coolant supply
(5) Master insert identification
(6) Recommended tightening torque (N*m) for insert screw

For inserts, see pages: H1200 HXCU 0606 (524)

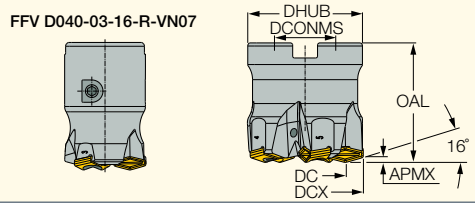
Spare Parts

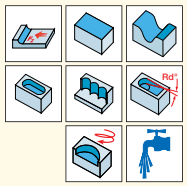
Designation				
MF FHX D063-06-22-R06	SR 14-591/H	BLD T20/S7	SW6-T	SR M10X25 DIN912
MF FHX D080-07-27-R06	SR 14-591/H	BLD T20/S7	SW6-T	SR M12X30DIN912
MF FHX D080-07-32-R06	SR 14-591/H	BLD T20/S7	SW6-T	SR M16X30 DIN912
MF FHX D100-09-32-R06	SR 14-591/H	BLD T20/M7	SW6-T	
MF FHX D125-11-40-R06	SR 14-591/H	BLD T20/M7	SW6-T	
MF FHX D160-13-40-R06	SR 14-591/H	BLD T20/M7	SW6-T	

TANG 4 FEED
HI-FEED MILLING

FFV-D-R-VN07

Fast Feed Shell Mill Carrying Tangentially Clamped Inserts with 4 Cutting Edges





Designation	DCX(2)	DC	APMX	AE(3)	CICT(4)	OAL	DCONMS	DHUB	RMPX°(5)	MDN(6)	MDX(7)	Arbor	MIID(8)	TQ(9)	kg
FFV D040-03-16-R-VN07 (1)	40.00	25.00	1.50	7.5	3	60.00	16.00	25.00	3.0	65.00	79.00	Special	FF VNMT 0706ZN-ER	4.8	0.36
FFV D050-05-22-R-VN07	50.00	35.00	1.50	7.5	5	50.00	22.00	48.00	3.2	85.00	99.00	A	FF VNMT 0706ZN-ER	4.8	0.47
FFV D063-06-22-R-VN07	63.00	48.00	1.50	7.5	6	40.00	22.00	48.00	2.2	111.00	125.00	A	FF VNMT 0706ZN-ER	4.8	0.00
FFV D080-07-27-R-VN07	80.00	65.00	1.50	7.5	7	50.00	27.00	60.00	1.5	145.00	159.00	B	FF VNMT 0706ZN-ER	4.8	0.81
FFV D100-08-32-R-VN07	100.00	85.00	1.50	7.5	8	50.00	32.00	78.00	1.2	185.00	199.00	B	FF VNMT 0706ZN-ER	4.8	1.61

- Radius for programming 2.8 mm
- To generate a straight surface without cusps, the width of cut must not exceed DC

(1) Use with the supplied retention screw this screw was designed to be used instead of the standard cutter's frontal screw
(2) Cutting diameter maximum
(3) Maximum plunging width
(4) Number of inserts
(5) Maximum ramping angle
(6) Machinable diameter minimum for interpolation
(7) Machinable diameter maximum for interpolation
(8) Master insert identification
(9) Recommended tightening torque (N*m) for insert screw

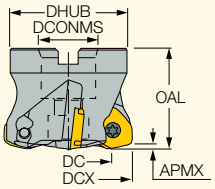
For inserts, see pages: FF VNMT 0706 (525)

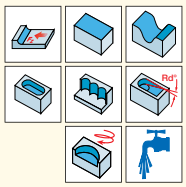
Spare Parts

Designation						
FFV D040-03-16-R-VN07	SR M4X0.7-L11.5 IP15	BLD IP15/S7	SW6-T-SH	SR M8X17-13685		HW 4.0
FFV D050-05-22-R-VN07	SR M4X0.7-L11.5 IP15	BLD IP15/S7	SW6-T-SH		SR PS 118-0271C	
FFV D063-06-22-R-VN07	SR M4X0.7-L11.5 IP15	BLD IP15/S7	SW6-T-SH	SR M10X25 DIN912		
FFV D080-07-27-R-VN07	SR M4X0.7-L11.5 IP15	BLD IP15/S7	SW6-T-SH			
FFV D100-08-32-R-VN07	SR M4X0.7-L11.5 IP15	BLD IP15/S7	SW6-T-SH			

FEEDMILL

FF FW
Fast Feed Face Mills





Designation	DCX(1)	DC	APMX	CICT(2)	OAL	DHUB	DCONMS	RMPX°(3)	Arbor(4)	MIID(5)	kg
FF FW D40-16-06-C	40.00	26.00	1.30	4	35.00	38.00	16.00	2.5	A	FF WOMT0602	0.17
FF FW D50-22-06-C	50.00	36.00	1.30	5	40.00	48.00	22.00	2.0	A	FF WOMT0602	0.31
FF FW D52-22-06-C	52.00	38.00	1.30	5	40.00	48.00	22.00	1.9	A	FF WOMT0602	0.34
FF FW D50-22-09-C	50.00	29.20	2.00	4	50.00	47.00	22.00	4.0	A	FF WOMT09T3	0.34
FF FW D52-22-09-C	52.00	31.20	2.00	4	40.00	47.00	22.00	4.0	A	FF WOMT09T3	0.27
FF FW D63-22-09-C	63.00	42.20	2.00	5	40.00	58.00	22.00	3.0	A	FF WOMT09T3	0.47
FF FW D63-27-09-C	63.00	42.20	2.00	5	50.00	61.00	27.00	3.0	A	FF WOMT09T3	0.57
FF FW D66-22-09-C	66.00	45.20	2.00	5	40.00	61.00	22.00	2.8	A	FF WOMT09T3	0.56
FF FW D66-27-09-C	66.00	45.20	2.00	5	50.00	61.00	27.00	2.8	A	FF WOMT09T3	0.64
FF FW D80-32-09-C	80.00	59.20	2.00	5	50.00	75.00	32.00	2.0	A	FF WOMT09T3	0.97
FF FW D100-32-09-C	100.00	79.20	2.00	6	50.00	78.00	32.00	1.5	B	FF WOMT09T3	1.32

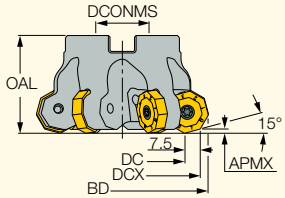
(1) Cutting diameter maximum
(2) Number of inserts
(3) Maximum ramping angle
(4) For adaptation options, see page 548
(5) Master insert identification
For inserts, see pages: FF WOCT/WOMT/WOMW (521)

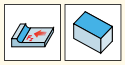
Spare Parts

Designation					
FF FW D40-16-06-C	SR 34-506/M			T-9/51	SR M8X25DIN912
FF FW D50-22-06-C	SR 34-506/M			T-9/51	SR M10X25 DIN912
FF FW D52-22-06-C	SR 34-506/M			T-9/51	SR M10X25 DIN912
FF FW D50-22-09-C	SR 34-535	BLD T15/S7	SW6-T		SR PS 118-0273
FF FW D52-22-09-C	SR 34-535	BLD T15/S7	SW6-T		SR M10X25 DIN912
FF FW D63-22-09-C	SR 34-535	BLD T15/S7	SW6-T		SR M10X25 DIN912
FF FW D63-27-09-C	SR 34-535	BLD T15/S7	SW6-T		SR M12X30DIN912
FF FW D66-22-09-C	SR 34-535	BLD T15/S7	SW6-T		SR M10X25 DIN912
FF FW D66-27-09-C	SR 34-535	BLD T15/S7	SW6-T		SR M12X30DIN912
FF FW D80-32-09-C	SR 34-535	BLD T15/S7	SW6-T		SR M16X30 DIN912
FF FW D100-32-09-C	SR 34-535	BLD T15/M7	SW6-T		

16FEEDMILL

FF NM
Fast Feed Face Mills Carrying Octagonal ONHU/MU 0806... Inserts with 16 Cutting Edges

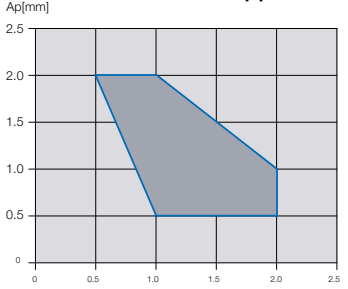




Designation	DCX(1)	DC	CICT(2)	APMX	OAL	Rg(3)	DCONMS	Arbor(4)	MIID(5)	kg			
FF NM D080-06-27-R08	80.00	64.50	6	2.00	50.00	8.00	27.00	A	ONHU 080608-TN	0.84	SR 14-591/H	BLD T20/S7	SW6-T

(1) Cutting diameter maximum
(2) Number of inserts
(3) Radius for programming
(4) For adaptation options, see page 548
(5) Master insert identification
For inserts, see pages: ONHU/ONMU-08-TN-MM (515) • ONHU/ONMU-08-TN/HL (515)

Recommended Application Range



Width of Cut (a_e) = 56 mm

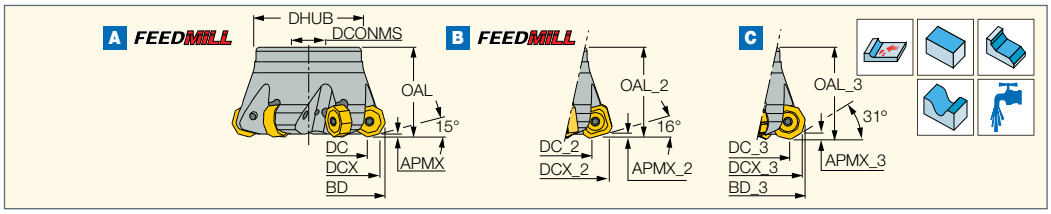
Cutting Data Recommendation

Material	Vc [m/min]
Steel AISI 4340/34CrNiMO6	120-150
Nodular cast iron GGG 50	170

HELIDO 800 LINE

FF SOF

Multifunction Fast Feed Milling Cutter for Octagonal and Square Insert Contours with Various Entry Angles



Designation	DC	DCX(1)	BD	APMX	OAL	DC_2	DCX_2	APMX_2	OAL_2	DC_3	DCX_3	BD_3	APMX_3	OAL_3
FF SOF 8/16-D063-06-22R	52.60	63.00	68.40	1.20	40.00	49.50	69.20	2.20	40.40	56.60	66.80	70.40	2.70	40.90
FF SOF 8/16 D080-07-27R	69.60	80.00	85.40	1.20	40.00	66.50	86.20	2.20	40.40	73.60	83.80	87.40	2.70	40.90
FF SOF 8/16 D100-08-32R	89.60	100.00	105.40	1.20	50.00	86.50	106.20	2.20	50.40	93.60	103.80	107.40	2.70	50.90

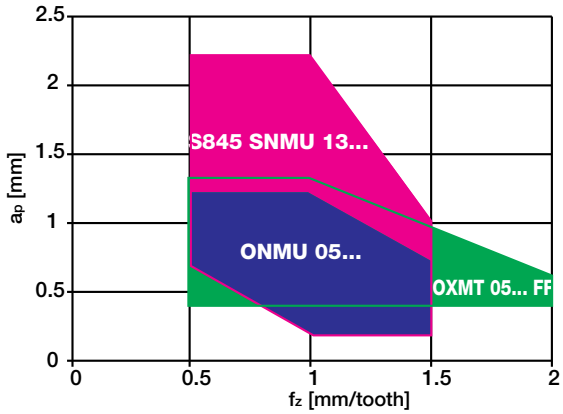
Designation	CICT(2)	DHUB	DCONMS	Arbor(3)	MIID(4)	kg				
FF SOF 8/16-D063-06-22R	6	65.60	22.00	B	ONHU 050500-N-HP	0.48	SR 11800745	BLD IP15/S7	SW6-T-SH	SR M10X25 DIN912
FF SOF 8/16 D080-07-27R	7	82.60	27.00	B	ONHU 050500-N-HP	1.04	SR 11800745	BLD IP15/S7	SW6-T-SH	SR M12X30DIN912
FF SOF 8/16 D100-08-32R	8	102.60	32.00	B	ONHU 050500-N-HP	1.47	SR 11800745	BLD IP15/S7	SW6-T-SH	

- A- with ONMU 0505... insert • B- with S845 SNMU 1305... insert • C- with OXMT 0507R08-FF insert • Use only Torx Plus keys
- For user guide, see pages 542-547

(1) Cutting diameter maximum
(2) Number of inserts
(3) For adaptation options, see page 548
(4) Master insert identification

For inserts, see pages: ONHU/ONMU-05 (504) • OXMT 0507 (505) • S845 SNMU/SNHU-13 (500)

Application Range According to Insert Type

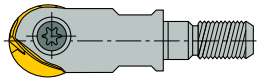


Material: SAE 4340
a_e: 0.7xD
V_c: 150-170 m/min

FLEXFIT

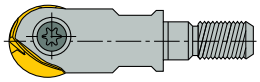
Milling Heads

M12



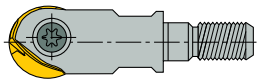
D20/.75

M12



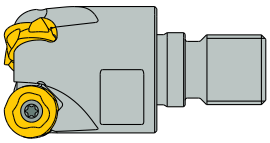
D25/1.00

M16



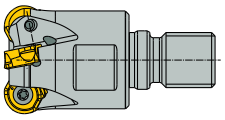
D25/1.00

M16



ERCM D32-...

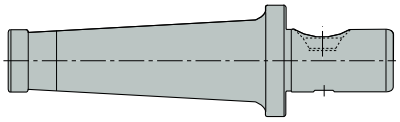
M16



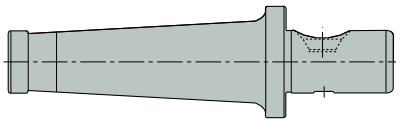
ERCM D40-...

Extensions

M12...CF4

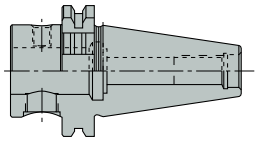


M16...CF4



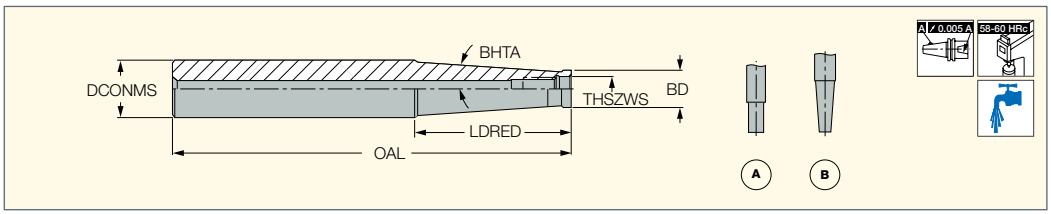
CLICKFIT

Adapter



Straight Shank
FLEXFIT

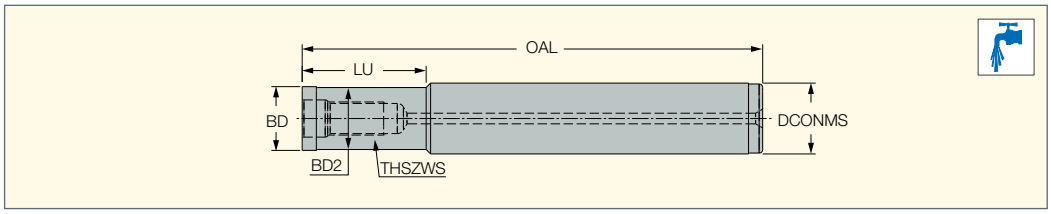
S M
Shanks for Tools with FLEXFIT Threaded Connection



Designation	OAL	LDRED	DCONMS	Shank	BD	BHTA	THSZWS	Type	kg
S M06-L60 C10	60.00	20.0	10.00	C	9.70	-	M06	A	0.03
S M06-L105-C12	105.00	60.0	12.00	C	9.70	1.2	M06	B	0.06
S M06-L125-C16	125.00	60.0	16.00	C	9.70	3.3	M06	B	0.13
S M08-L73 C16	73.00	25.0	16.00	C	13.00	-	M08	A	0.09
S M08-L128-C16	128.00	80.0	16.00	C	13.00	0.9	M08	B	0.15
S M08-L170-C20	170.00	66.8	20.00	C	13.00	3.3	M08	B	0.33
S M10-L80 C20	80.00	30.0	20.00	C	18.00	-	M10	A	0.16
S M10-L130-C20	130.00	80.0	20.00	C	18.00	0.6	M10	B	0.25
S M10-L200-C25	200.00	57.2	25.00	C	19.00	3.3	M10	B	0.65
S M12-L86-C25	86.00	30.0	25.00	C	21.00	5.1	M12	A	0.27
S M12-L200-C32	200.00	78.0	32.00	C	21.00	4.4	M12	B	1.02
S M16-L95-C32	95.00	35.0	32.00	C	29.00	1.7	M16	A	0.50
S M16-L230-C32	230.00	50.0	32.00	C	29.00	1.8	M16	B	1.27

FLEXFIT
Straight Shank

S M-C-H
Carbide Shanks with Coolant Channels for Tools with FLEXFIT Threaded Connection

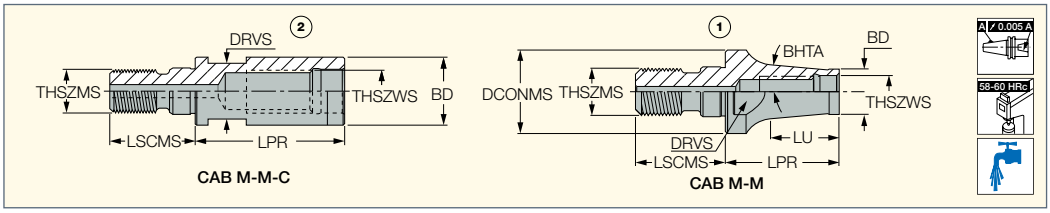


Designation	DCONMS	THSZWS	OAL	LU	BD	BD_2	kg
S M08-L150-C16-C-H	16.00	M08	150.00	80.0	15.30	15.30	0.39
S M08-L200-C16-C-H	16.00	M08	200.00	140.0	15.30	15.30	0.59
S M08-L250-C16-C-H	16.00	M08	250.00	180.0	15.30	15.30	0.84
S M10-L150-C20-C-H	20.00	M10	150.00	80.0	18.50	18.50	0.73
S M10-L200-C20-C-H	20.00	M10	200.00	140.0	18.00	17.50	0.91
S M10-L250-C20-C-H	20.00	M10	250.00	180.0	18.00	17.50	1.04
S M12-L200-C25-C-H	25.00	M12	200.00	100.0	21.00	20.50	1.41
S M12-L250-C25-C-H	25.00	M12	250.00	180.0	24.00	24.00	1.78
S M12-L300-C25-C-H	25.00	M12	300.00	180.0	21.00	20.50	2.04
S M16-L200-C32-C-H	32.00	M16	200.00	100.0	29.00	29.00	2.11
S M16-L250-C32-C-H	32.00	M16	250.00	180.0	29.00	29.00	2.36
S M16-L300-C32-C-H	32.00	M16	300.00	180.0	29.00	29.00	2.81

- For adaptation options, see page 311

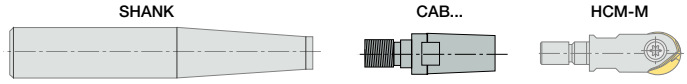
FLEXFIT

CAB M-M (FLEXFIT)
Reducers and Extensions with Coolant Holes for the Modular FLEXFIT System



Designation	THSZWS	THSZMS	BD	LPR	LU	DCONMS	LSCMS	DRVS[1]	Fig.	BHTA	kg
CAB M06M08	M06	M08	9.70	30.00	24.80	13.00	17.50	9.5	1.	5.7	0.02
CAB M08M08-C	M08	M08	13.00	30.00	-	-	17.50	9.6	2.	-	0.02
CAB M08M10	M08	M10	13.00	40.00	33.40	18.00	20.20	15.0	1.	5.2	0.07
CAB M10M10-C	M10	M10	18.00	35.00	-	-	20.00	15.0	2.	-	0.06
CAB M10M12	M10	M12	18.00	45.00	36.40	21.00	22.00	17.0	1.	2.5	0.09
CAB M12M12-C	M12	M12	21.00	40.00	-	-	22.00	17.0	2.	-	0.08
CAB M12M16	M12	M16	21.00	50.00	42.50	29.00	25.00	25.0	1.	6.3	0.18
CAB M16M16-C	M16	M16	29.00	40.00	-	-	25.00	25.0	2.	-	0.16

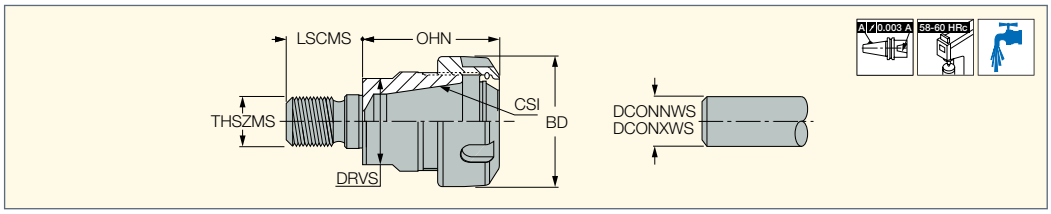
(1) Clamping wrench size



FLEXFIT

CDP ER-M

DIN 6499 ER Collet Chucks with Threaded FLEXFIT Adaptations

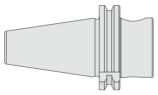


Designation	CSI	THSZMS	DCONNWS(1)	DCONXWS(2)	OHN(3)	LSCMS	BD	DRVS(4)	TQ_3(5)	kg
CDP ER11 M10 M	ER11	M10	0.5	7.0	27.0	20.00	16.00	15.0	29	0.03
CDP ER11 M12 M	ER11	M12	0.5	7.0	27.0	22.00	16.00	17.0	33	0.04
CDP ER16 M10 M	ER16	M10	0.5	10.0	38.1	20.00	22.00	17.0	29	0.05
CDP ER16 M12 M	ER16	M12	0.5	10.0	37.1	22.00	22.00	17.0	33	0.06
CDP ER16 M16	ER16	M16	0.5	10.0	36.6	25.00	28.00	25.0	40	0.10
CDP ER20 M16	ER20	M16	1.0	13.0	45.5	25.00	34.00	25.0	40	0.19
CDP ER25 M16	ER25	M16	1.0	16.0	44.5	25.00	42.00	28.0	40	0.15

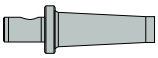
• When mounting items with FLEXFIT threaded adaptation to their holders, the mating surfaces and threaded areas must be thoroughly cleaned. Apply appropriate tightening torque to eliminate a gap between the mating faces. Estimated torque values are specified in the TQ_3 parameter

(1) Minimum diameter
(2) Maximum diameter
(3) Minimum overhang
(4) Torque key size
(5) Tool tightening torque Nxm (lbfxin)

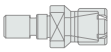
SHANK



SM...CF4



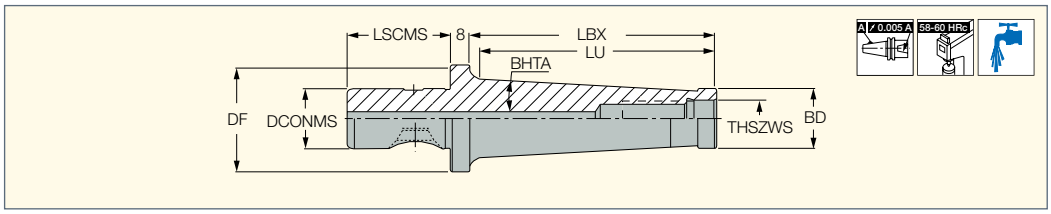
CDP...



CLICKFIT FLEXFIT

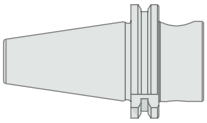
S M-CF

CLICKFIT to FLEXFIT Adapters

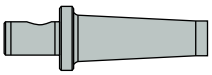


Designation	THSZWS	BD	LBX	LU	DF	LSCMS	BHTA	DCONMS	kg
S M12-L85/3.30-CF4	M12	21.00	85.0	81.30	44.00	42.00	4.4	25.00	0.23
S M12-L140/5.50-CF4	M12	21.00	140.0	139.10	44.00	42.00	4.4	25.00	0.98
S M16-L130/5.11-CF4	M16	29.00	130.0	126.80	44.00	42.00	2.6	25.00	0.23
S M16-L170/6.70-CF4	M16	29.00	170.0	168.60	44.00	42.00	2.0	25.00	1.30

SHANK



SM...CF4



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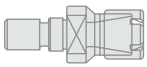
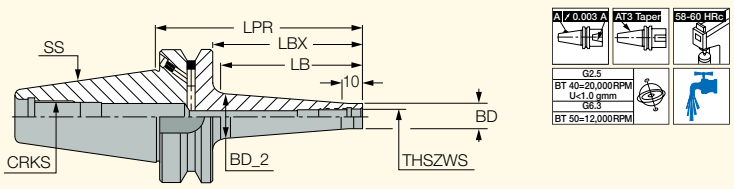


BT MASFLEXFIT

BT-ODP (FLEXFIT)

FLEXFIT Threaded Adaptation with Integral BT MAS-403 Tapered Shanks (ADB type)



Designation	SS	THSZWS	BD	BD_2	LPR	LBX	LB	CRKS	CDI[1]	kg
BT40 ODP 6X 66	40	M06	9.80	13.00	66.00	39.0	30.00	M16	0	0.98
BT40 ODP 6X106	40	M06	9.80	23.00	106.00	79.0	70.00	M16	0	0.14
BT40 ODP 8X 66	40	M08	13.00	15.00	66.00	30.0	30.00	M16	0	0.99
BT40 ODP10X 66	40	M10	18.00	20.00	66.00	30.0	30.00	M16	0	1.03
BT40 ODP10X106	40	M10	18.00	28.00	106.00	79.0	70.00	M16	0	1.24
BT40 ODP12X 66	40	M12	21.00	24.00	66.00	39.0	30.00	M16	0	1.05
BT40 ODP12X106	40	M12	21.00	31.00	106.00	79.0	70.00	M16	0	1.23
BT40 ODP16X 66	40	M16	29.00	28.60	66.00	39.0	35.00	M16	0	1.06
BT40 ODP16X106	40	M16	29.00	34.00	106.00	79.0	70.00	M16	0	1.32
BT50 ODP 12X 94	50	M12	23.00	30.00	94.00	56.0	50.00	M24	0	3.85
BT50 ODP 12X144	50	M12	23.00	40.00	144.00	106.0	100.00	M24	0	4.28
BT50 ODP 12X194	50	M12	23.00	40.00	194.00	156.0	150.00	M24	0	4.57
BT50 ODP 16X 94	50	M16	29.00	34.00	94.00	56.0	50.00	M24	0	3.75
BT50 ODP 16X144	50	M16	29.00	40.00	144.00	106.0	100.00	M24	0	4.19
BT50 ODP 16X194	50	M16	29.00	55.00	194.00	156.0	150.00	M24	0	5.24
BT50 ODP 16X244	50	M16	29.00	60.00	244.00	206.0	200.00	M24	0	5.60

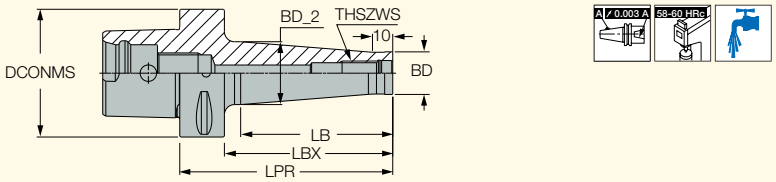
- The coolant passages in the B-type flange are blocked with screws which can be removed when required.

(1) 1 - Hole for data chip, 0 - Without hole for data chip

FLEXFIT CAMFIX

C#-ODP (FLEXFIT)

FLEXFIT Threaded Connection Shanks with CAMFIX (ISO 26623-1) Adaptation



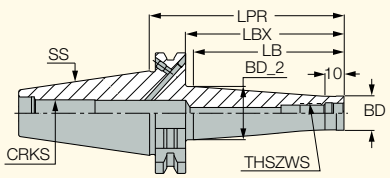
Designation	DCONMS	THSZWS	BD	BD_2	LPR	LBX	LB	CDI[1]	kg
C3 ODP 12X53	32.00	M12	21.00	26.00	53.00	38.0	23.00	0	0.32
C4 ODP 10X53	40.00	M10	18.00	23.00	53.00	33.0	23.00	1	0.33
C4 ODP 12X53	40.00	M12	21.00	26.00	53.00	33.0	23.00	1	0.33
C4 ODP 16X53	40.00	M16	29.00	34.00	53.00	33.0	23.00	1	0.40
C5 ODP 10X103	50.00	M10	18.00	28.00	103.00	83.0	75.00	1	0.10
C5 ODP 10X53	50.00	M10	18.00	19.50	53.00	33.0	25.00	1	0.49
C5 ODP 12X103	50.00	M12	21.00	31.00	103.00	83.0	75.00	1	0.72
C5 ODP 12X53	50.00	M12	21.00	23.50	53.00	33.0	25.00	1	0.50
C5 ODP 16X103	50.00	M16	29.00	36.00	103.00	83.0	75.00	1	0.85
C5 ODP 16X53	50.00	M16	29.00	34.00	53.00	33.0	25.00	1	0.65
C6 ODP 10X105	63.00	M10	18.00	28.00	105.00	83.0	75.00	1	1.00
C6 ODP 10X130	63.00	M10	18.00	32.00	130.00	108.0	100.00	1	0.00
C6 ODP 10X55	63.00	M10	18.00	19.50	55.00	33.0	25.00	1	0.82
C6 ODP 12X105	63.00	M12	21.00	31.00	105.00	83.0	75.00	1	1.07
C6 ODP 12X130	63.00	M12	21.00	36.00	130.00	108.0	100.00	1	1.26
C6 ODP 12X55	63.00	M12	21.00	23.50	55.00	33.0	25.00	1	0.84
C6 ODP 16X105	63.00	M16	29.00	34.00	105.00	83.0	75.00	1	1.20
C6 ODP 16X130	63.00	M16	29.00	41.00	130.00	108.0	100.00	1	1.49
C6 ODP 16X55	63.00	M16	29.00	34.00	55.00	33.0	25.00	1	0.89

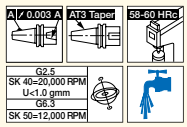
(1) 1 - Hole for data chip, 0 - Without hole for data chip

DIN69871FLEXFIT

DIN69871-ODP

FLEXFIT Threaded Connection Shanks with Integral DIN 69871 Form ADB Taper Adaptation





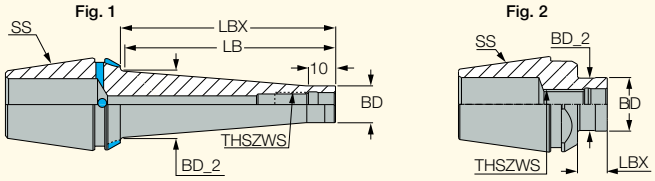
Designation	SS	THSZWS	BD	BD_2	LPR	LBX	LB	CRKS	CDI(1)	kg
DIN69871 40 ODP 6X58	40	M06	9.80	13.00	58.00	38.9	30.00	M16	0	0.82
DIN69871 40 ODP 6X98	40	M06	9.80	23.00	98.00	78.9	70.00	M16	0	0.91
DIN69871 40 ODP 8X58	40	M08	13.10	15.00	58.00	38.9	30.00	M16	0	0.82
DIN69871 40 ODP 8X98	40	M08	13.10	23.00	98.00	78.9	70.00	M16	0	0.92
DIN69871 40 ODP10X58	40	M10	18.00	20.00	58.00	38.9	30.00	M16	0	0.84
DIN69871 40 ODP10X98	40	M10	18.00	28.00	98.00	78.9	70.00	M16	0	1.00
DIN69871 40 ODP12X58	40	M12	21.00	24.00	58.00	38.9	30.00	M16	0	0.88
DIN69871 40 ODP12X98	40	M12	21.00	31.00	98.00	78.9	70.00	M16	0	1.07
DIN69871 40 ODP16X58	40	M16	29.00	28.60	58.00	38.9	35.00	M16	0	0.91
DIN69871 40 ODP16X98	40	M16	29.00	34.00	98.00	78.9	70.00	M16	0	1.15
DIN69871 50 ODP12X 78	50	M12	23.00	30.00	78.00	58.9	50.00	M24	0	2.74
DIN69871 50 ODP12X128	50	M12	23.00	40.00	128.00	108.9	100.00	M24	0	3.14
DIN69871 50 ODP12X178	50	M12	23.00	40.00	178.00	158.9	150.00	M24	0	3.38
DIN69871 50 ODP12X228	50	M12	23.00	46.00	228.00	208.9	200.00	M24	0	4.14
DIN69871 50 ODP16X 78	50	M16	29.00	34.00	78.00	58.9	50.00	M24	0	2.95
DIN69871 50 ODP16X128	50	M16	29.00	40.00	128.00	108.9	100.00	M24	0	3.20
DIN69871 50 ODP16X178	50	M16	29.00	55.00	178.00	158.9	150.00	M24	0	4.08
DIN69871 50 ODP16X228	50	M16	29.00	55.00	228.00	208.9	200.00	M24	0	4.64

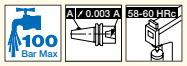
(1) 1 - Hole for data chip, 0 - Without hole for data chip

ERCOLLET FLEXFIT

ER-ODP

FLEXFIT Threaded Adaptation with Integral ER Collet for ER Collet Chucks



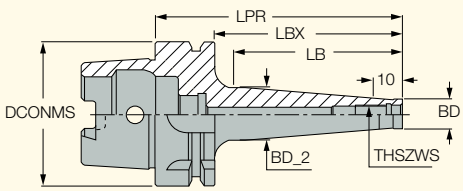


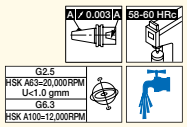
Designation	SS	THSZWS	LB	LBX	BD	BD_2	Fig.	kg
ER16 ODP M08X02	ER16	M08	2.50	2.50	12.00	12.00	2	0.04
ER16 ODP M08X10	ER16	M08	10.50	10.50	12.00	12.00	2	0.04
ER20 ODP M08X02	ER20	M08	2.00	2.00	13.00	13.00	2	0.05
ER20 ODP M08X10	ER20	M08	10.00	10.00	13.00	12.60	2	0.05
ER25 ODP M08X02	ER25	M08	2.00	2.00	13.00	13.00	2	0.05
ER25 ODP M08X10	ER25	M08	10.00	10.00	13.00	12.60	2	0.09
ER25 ODP M10X02	ER25	M10	2.00	2.00	18.00	18.00	2	0.05
ER25 ODP M10X25	ER25	M10	23.00	25.00	18.00	17.60	1	0.11
ER25 ODP M12X02	ER25	M12	2.70	2.70	20.60	19.20	2	0.08
ER25 ODP M12X10	ER25	M12	10.00	10.00	20.00	20.00	2	0.10
ER32 ODP M 8X25	ER32	M08	22.00	25.00	13.10	15.00	1	0.15
ER32 ODP M 8X50	ER32	M08	49.00	50.00	13.10	23.00	1	0.21
ER32 ODP M 8X75	ER32	M08	74.00	75.00	13.10	23.00	1	0.26
ER32 ODP M08X02	ER32	M08	2.00	2.00	13.00	13.00	2	0.15
ER32 ODP M08X10	ER32	M08	10.00	10.00	13.00	12.60	2	0.14
ER32 ODP M10X02	ER32	M10	2.00	2.00	18.00	18.00	2	0.15
ER32 ODP M10X10	ER32	M10	10.00	10.00	18.00	17.60	2	0.15
ER32 ODP M10X25	ER32	M10	23.00	25.00	18.00	20.00	1	0.17
ER32 ODP M10X50	ER32	M10	49.00	50.00	18.00	24.00	1	0.24
ER32 ODP M12X02	ER32	M12	2.00	2.00	21.00	21.00	2	0.15
ER32 ODP M12X10	ER32	M12	10.00	10.00	21.00	20.60	2	0.17
ER32 ODP M12X25	ER32	M12	24.00	25.00	21.00	24.00	1	0.18
ER32 ODP M12X50	ER32	M12	49.00	50.00	21.00	24.00	1	0.26
ER32 ODP M16X02	ER32	M16	2.50	2.50	27.00	27.00	2	0.15
ER32 ODP M16X10	ER32	M16	10.50	10.50	27.00	27.00	2	0.18
ER32 ODP M16X25	ER32	M16	25.50	25.50	27.00	27.00	1	0.20

FLEXFIT HSK

HSK A-ODP (FLEXFIT)

FLEXFIT Threaded Adaptation
with HSK DIN 69893/A
Tapered Shanks





Designation	DCONMS	THSZWS	BD	BD_2	LPR	LBX	LB	CDI[1]	kg
HSK A32 ODP12X42	32.00	M12	21.00	20.60	42.00	22.0	-	1	0.17
HSK A40 ODP12X30*	40.00	M12	21.00	20.60	30.00	10.0	-	1	0.21
HSK A50 ODP12X48	50.00	M12	21.00	20.60	48.00	22.0	-	1	0.46
HSK A63 ODP6X109	63.00	M06	9.80	23.00	109.00	83.0	75.00	1	0.74
HSK A63 ODP6X59	63.00	M06	9.80	11.50	59.00	33.0	25.00	1	0.66
HSK A63 ODP8X109	63.00	M08	13.10	23.00	109.00	83.0	75.00	1	0.77
HSK A63 ODP8X59	63.00	M08	13.10	15.00	59.00	33.0	25.00	1	0.68
HSK A63 ODP10X109	63.00	M10	18.00	28.00	109.00	83.0	75.00	1	0.87
HSK A63 ODP10X59	63.00	M10	18.00	20.00	59.00	33.0	25.00	1	0.70
HSK A63 ODP12X109	63.00	M12	21.00	31.00	109.00	83.0	75.00	1	0.93
HSK A63 ODP12X59	63.00	M12	21.00	23.50	59.00	33.0	25.00	1	0.71
HSK A63 ODP16X109	63.00	M16	29.00	34.00	109.00	83.0	75.00	1	1.05
HSK A63 ODP16X59	63.00	M16	29.00	34.60	59.00	33.0	25.00	1	0.79
HSK A100 ODP12X137	100.00	M12	23.00	30.00	137.00	108.0	100.00	1	2.58
HSK A100 ODP12X187	100.00	M12	23.00	40.00	187.00	158.0	150.00	1	2.86
HSK A100 ODP12X237	100.00	M12	23.00	46.00	237.00	208.0	200.00	1	3.40
HSK A100 ODP12X87	100.00	M12	23.00	30.00	87.00	58.0	50.00	1	2.23
HSK A100 ODP16X137	100.00	M16	29.00	41.50	137.00	108.0	100.00	1	2.68
HSK A100 ODP16X187	100.00	M16	29.00	55.00	187.00	158.0	150.00	1	3.58
HSK A100 ODP16X237	100.00	M16	29.00	55.00	237.00	208.0	200.00	1	4.07
HSK A100 ODP16X87	100.00	M16	29.00	31.50	87.00	58.0	50.00	1	2.20

- A cooling tube must be used with all coolant through HSK spindles (should be ordered separately).

(1) 1 - Hole for data chip, 0 - Without hole for data chip