FACE MILLS

90° Face Mills

HELITANG T490 LINE
T490 FLN
pages 240, 243, 249, 253

HELIQUAD
F90SP-10
page 241

HELI2000
HM90 F90AP
page 242

TANGMILL TANGENTIAL LINE
F90LN-N11
page 243

TANGFIN FINISH MILLING
HTF-R-LN10
page 241

HELIQUAD
F90SD-12
page 246

HELI3MILL HM390 LINE
HM390 FT
pages 237, 242, 251, 253

HELIDO TRIGON LINE
H690 FWN
pages 236, 239

HELIDO 690 LINE
H690 F90AX
pages 243, 255

HELIDO 490 LINE
H490 F90A
pages 240, 248, 254

TANGMILL TANGENTIAL LINE
F90LN-N15
page 250

HELI2000
HM90 F90A
page 252

MILLSHRED P290 LINE
P290 FPW
page 256

HELIPLUS
HP F90AT
page 257

LOGIQ8TANG T890 MILLING LINE
T890HT-R13
page 244

NEODO S90° LINE
S890 FSZ-R08
page 237

88° and 45° Endmills and Face Mills

HELIDO 890 LINE
S890 FSN-13
page 247

HELIOCTO
HOF/HOE...R06
page 258

HELIOCTO
HOF...R07
page 259

16MILL
F45WG
page 260

16MILL
F45NM
page 261

ISCARMILL
F45E
page 265

ISCARMILL
F45ST
page 265

HELIDO
S845 F45SX
page 267

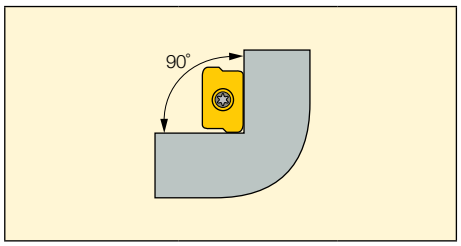
DOVEIQMILL 845 LINE
IQ845
pages 259, 260, 266

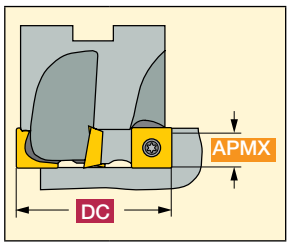
HELIDO 800 LINE
SOF45
page 262

HELIDO 800 HD LINE
SOF45-R18
page 269

HELIDO 800 HD LINE
SOF45-26
page 268

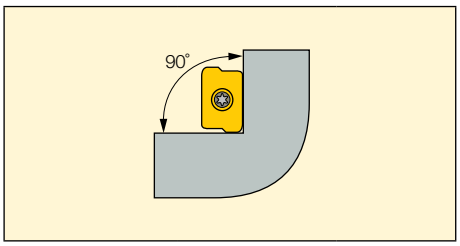
90° Face Mills Selection Guide

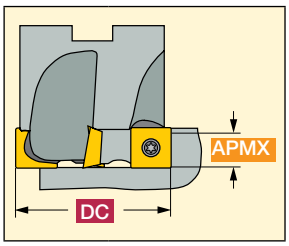




Tools	Pages	DC / APMX	1.0	1.25	1.5	2.0	2.5	3.0	4.0	5.0	6.0	8.0	10.0	12.0	Inserts
			Number of Teeth (Effective)												
HTF-R-LN10	241	.0098- .0197				5	6	7	8	9	10				HTP LN.. 1006
H690 FWN	236 239	.157 .275			5 7	5 7 9	7 8 10		8						H690 WN..04../07..
S890 FSZ-R08	237	.200			5 6	6 8	7 10	8 12	10 14	12 18					S890 SZMU-08...
HM390 FTC-07	237	.200		4	5 6										HM390 TCKT 07..
T490 FLN-08	240	.315		5	4 6	5 7	6 9								T490 LN..08..
H490 F90AX-09	240	.315			5 6	6 7	8 9								H490 AN..09..
HM390 FTP-10	242	.315			3 5	4 6	6 7								HM390 TP.. 10..
F90SP-10	241	.380				4 6	7	9	11						SPMT/R 10... QPMT/R 10.. XPMT 10.. SPCT 10...
HM90 F90AP-10	242	.390		3	5 6	6 7	7	8							HM90 AP..10 AP...10
H690 F90AX-10	243	.310		4 5	5 6	6 7	8								H690 TN.. 10..
F90LN-N11	245	.394				5 7	6	7	9	10					LN.. 11...
T490 FLN-11	243	.350				5 6	9	7	8						T490 LN.. 11...
T890HT FLN-R13	244	.374			3 4 5	4 5 6	6 7 8	6 7 9	8 12	9 15	12 20				T890 LN..1306

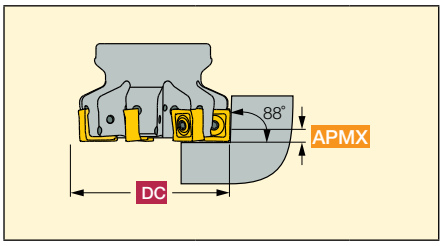
90° Face Mills Selection Guide

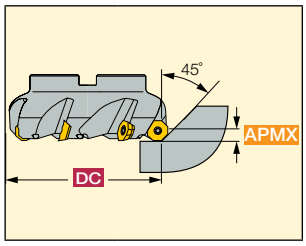




Tools	Pages	DC / APMX	1.0	1.25	1.5	2.0	2.5	3.0	4.0	5.0	6.0	8.0	10.0	12.0	Inserts
			Number of Teeth (Effective)												
F90SD-12	246	.465				3 5	4 6	5 7	6 8	9					SDMT 12... SDMR 12... QDMT 12... QDCT 12...
H490 F90AX-12	248	.472				5	4 6	5 7	9						H490 AN.. 12...
T490 FLN-13	249	.492			4 5	5 6	6 8	7 10	8 13	9	12	15			T490 LNMT 13..
F90LN-N15	250	.551				5		6 9	8						LN.. 15...
HM390 FTD-15	251	.512			4	3 4 5	4 5 6	5 6 7	6 8	7 9	8 10	11			HM390 TDKT 1505..
HM90 F90A-15	252	.560			3 4	3 5	4 6	5 7	7 9	8 10					HM90 AD.. 15...
T490FLN-16	253	.630				4	4 6	5 7							T490 LNMT 16...
HM390 FTD-19	253	.630						6	8						HM390 TDKT 1907
H490 F90AX-17	254	.642				3 4 5	4 6	5 7	5 8	7 10	8 12	10	12		H490 AN.. 17...
H690 F90AX-16	255	.531				3 4	4 5	5 6	6 8	7 9	8	11			HM690 TNKX 1606
P290 FPW	256	.472 .708			4 5	5 6	6	8	9						P290 ACCT P290 ACKT
HP F90AT-19	257	.713				4		6							HP AD.. 19...
HP F90AT-22	257	.807				3 4		6							HP AD.. 22...

88° and 45° Endmills and Face Mills Selection Guide





88° Face Mills

Tools	Pages	DC / APMX	1.0	1.25	1.5	2.0	2.5	3.0	4.0	5.0	6.0	8.0	10.0	12.0	Inserts
			Number of Teeth (Effective)												
S890 FSN-13	247	.354				4 5	5 7	7	8 11	9 14					S890 SN.. 13...

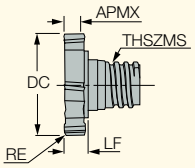
45° Endmills and Face Mills

Tools	Pages	DC / APMX	1.0	1.25	1.5	2.0	2.5	3.0	4.0	5.0	6.0	8.0	10.0	12.0	Inserts
			Number of Teeth (Effective)												
HOE / HOF	258 259	.100 .216 .315		3	4	3 4	4 5	5 6	6 7	8	9	12			OE.. 06.. OF.. 07... RF.. 19...
IQ845	259 260 266	.100 .180	3 4	4 5	4 6 7	4 5 9	5 7 11	6 8	7 10	9 12	11 15	14	17	20	IQ845 SYHU 05,07...
F45WG	260	.220						10	14	18					ON.. 08...
F45NM	261	.220					5	6	7	8	10	12	14		ON.. 08...
SOF45	262	.047- .311			4	4 6	6 8	7 10	8 12	10 16	12				ON.. 05... S845 SN.. 13...
F45ST	265	.260				4	5	5	6						SE.T 12...
F45E	265	.256				4	5	6	6						SE.. 12...
S845 F45SX-16	267	.276				5	5 7	6 8	7	8	10	12			S845 SX.. 16...
SOF45-R18	269	.197 .315				4	5	6 7	7 9	8 12	10 15	12 18	14 21	18 24	SNMU 18 ONMU 07 S845
SOF45-R26	268	.286 .433							5	6	8	10	12		SNMU 26 ONMU 10 S845

MULTI-MASTER
INDEXABLE SOLID CARBIDE LINE

MM FM

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



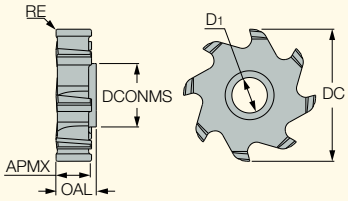
Designation	Dimensions DC	APMX	RE	NOF(1)	THSZMS	LF	∠	IC908	Recommended Machining Data f_z (inch/t)
MM FM100-36R0.2-06T05	.394	.1417	.0079	6	T05	.173	T-20/3*	●	.0016-.0039
MM FM120-36R0.2-06T05	.472	.1417	.0079	6	T05	.173	T-20/3*	●	.0016-.0039
MM FM160-48R0.4-06T06	.630	.1890	.0157	6	T06	.220	T-25/3*	●	.0020-.0039
MM FM200-60R0.4-06T08	.787	.2362	.0157	6	T08	.268	T-40/3 L*	●	.0020-.0039
MM FM250-75R0.4-06T10	.984	.2953	.0157	6	T10	.331	T-50/3 L*	●	.0020-.0039

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

T-FACE
FACEMILL

SD FM

Interchangeable Solid Carbide Face Milling Heads

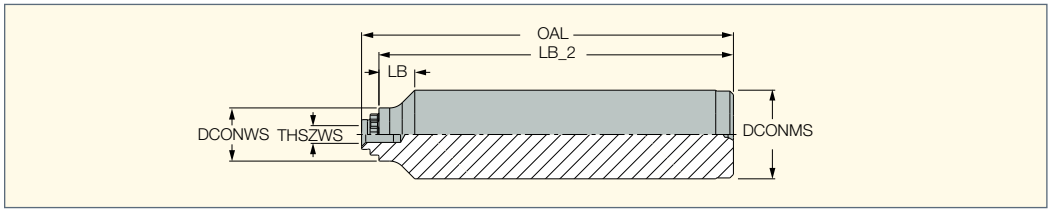


Designation	Dimensions DC	APMX	NOF(1)	RE	D1	DCONMS	OAL	IC908	Recommended Machining Data f_z (inch/t)
SD FM D1.25-312D-SP15	1.250	.3120	8	.0157	.330	.590	.314	●	.0016-.0060
SD FM D1.50-375D-SP17	1.500	.3750	10	.0157	.385	.669	.393	●	.0016-.0060
SD FM D2.00-468D-SP19	2.000	.4680	12	.0157	.385	.748	.551	●	.0016-.0060

• For shanks, see page 236 • For user guide, see pages 586-587
(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	LB_2	OAL	Shank[1]	Lbs
SD FM-S-A-L4.00-W100-SP15	1.000	.5910	M5x0.5	.398	4.000	4.193	W	.84
SD FM-S-A-L4.50-C100-SP15	1.000	.5910	M5x0.5	.398	4.500	4.693	C	.95
SD FM-S-A-L5.00-W125-SP17	1.250	.6690	M6x0.5	.492	5.000	5.236	W	1.63
SD FM-S-A-L5.50-C125-SP17	1.250	.6690	M6x0.5	.492	5.500	5.736	C	1.85
SD FM-S-A-L5.50-C125-SP19	1.250	.7480	M6x0.5	.551	5.500	5.835	C	1.85
SD FM-S-A-L5.00-W150-SP19	1.500	.7480	M6x0.5	.551	5.000	5.335	W	2.36

- Apply lubricant to the clamping screw

(1) C-Cylindrical, W-Weldon

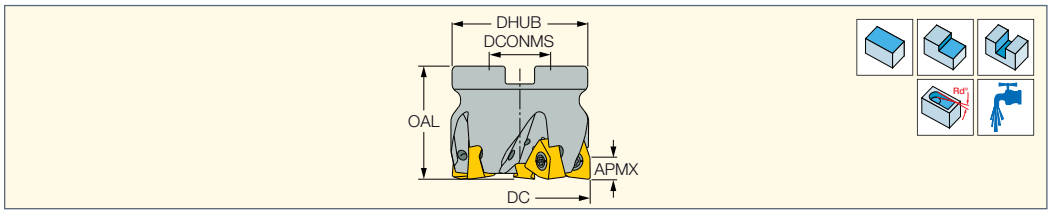
Spare Parts

Designation			
SD FM-S-A-L4.00-W100-SP15	SR M5X0.5-SP15-IP20-HG	BLD IP20/S7	SW6-T-SH
SD FM-S-A-L4.50-C100-SP15	SR M5X0.5-SP15-IP20-HG	BLD IP20/S7	SW6-T-SH
SD FM-S-A-L5.00-W125-SP17	SR M6X0.5-SP17-IP20-HG	BLD IP20/S7	SW6-T-SH
SD FM-S-A-L5.50-C125-SP17	SR M6X0.5-SP17-IP20-HG	BLD IP20/S7	SW6-T-SH
SD FM-S-A-L5.50-C125-SP19	SR M6X0.5-SP17-IP20-HG[a]	BLD IP20/S7	SW6-T-SH
SD FM-S-A-L5.00-W150-SP19	SR M6X0.5-SP17-IP20-HG[a]	BLD IP20/S7	SW6-T-SH

(a) Recommended tightening torque:88 lbf*in

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]	Lbs
H690 FWN D1.5-05-.75-R04	1.500	5	.157	1.440	.750	1.500	A	.6	.39
H690 FWN D1.5-07-.75-R04	1.500	7	.157	1.440	.750	1.500	A	.6	.43
H690 FWN D2.0-07-.75-R04	2.000	7	.157	1.850	.750	1.500	A	.5	.63
H690 FWN D2.0-09-.75-R04	2.000	9	.157	1.850	.750	1.500	A	.5	.84
H690 FWN D2.5-08-1.0-R04	2.500	8	.157	2.250	1.000	1.500	A	.2	.81
H690 FWN D2.5-10-1.0-R04	2.500	10	.157	2.250	1.000	1.500	A	.2	.79

- Insert clamping screw must be lubricated for every index.
- Tightening torque 8 lbfxin
- For user guide and cutting speed recommendations, see pages 586-591

(1) Number of inserts
(2) For adaptation options, see page 592
(3) Maximum ramping angle

For inserts, see pages: H690 WNMU 0403 (511)

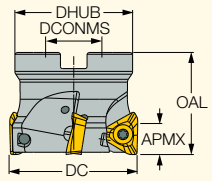
Spare Parts

Designation			
H690 FWN D1.5-05-.75-R04	SR M2.5X6-T7-60	SR UNF 3/8X1 B18.3	T-7/51
H690 FWN D1.5-07-.75-R04	SR M2.5X6-T7-60	SR UNF 3/8X1 B18.3	T-7/51
H690 FWN D2.0-07-.75-R04	SR M2.5X6-T7-60	SR UNF 3/8X1 B18.3	T-7/51
H690 FWN D2.0-09-.75-R04	SR M2.5X6-T7-60	SR UNF 3/8X1 B18.3	T-7/51
H690 FWN D2.5-08-1.0-R04	SR M2.5X6-T7-60		T-7/51
H690 FWN D2.5-10-1.0-R04	SR M2.5X6-T7-60		T-7/51

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)	Lbs			
HM390 FTC D1.25-04-.50-07	1.250	4	.200	1.250	1.200	.500	A	.8	.24	SR M2.5X6-T7-60	T-7/51	SR UNF 1/4X3/4 B18.3
HM390 FTC D1.50-05-.50-07	1.500	5	.200	1.250	1.380	.500	A	.6	.37	SR M2.5X6-T7-60	T-7/51	SR UNF 1/4X3/4 B18.3
HM390 FTC D1.50-06-.50-07	1.500	6	.200	1.250	1.380	.500	A	.6	.35	SR M2.5X6-T7-60	T-7/51	SR UNF 1/4X3/4 B18.3

- Insert clamping screw must be lubricated for every index
- Tightening torque .66 lbfxft
- For user guide see pages 586-591

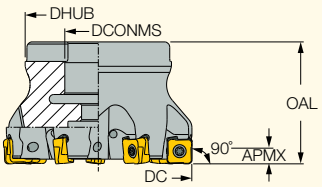
(1) Number of inserts
(2) For adaptation options, see page 592
(3) Maximum ramping angle

For inserts, see pages: HM390 TCKT/CT 0703 (487)

NEODO S90° LINE

S890 FSZ-R08

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



Designation	DC	APMX	OAL	CICT(1)	DHUB	DCONMS	Arbor	MIID(2)	Lbs
S890 FSZ D1.5-05-0.75-R08	1.500	.2000	1.500	5	1.440	.750	A	S890 SZMU 0804...	.46
S890 FSZ D1.5-06-0.75-R08	1.500	.2000	1.500	6	1.440	.750	A	S890 SZMU 0804...	.53
S890 FSZ D2.0-06-0.75-R08	2.000	.2000	1.500	6	1.850	.750	A	S890 SZMU 0804...	.86
S890 FSZ D2.0-08-0.75-R08	2.000	.2000	1.500	8	1.850	.750	A	S890 SZMU 0804...	.86
S890 FSZ D2.5-07-1.00-R08	2.500	.2000	1.750	7	2.250	1.000	A	S890 SZMU 0804...	1.76
S890 FSZ D2.5-10-1.00-R08	2.500	.2000	1.750	10	2.250	1.000	A	S890 SZMU 0804...	2.13
S890 FSZ D3.0-08-1.00-R08	3.000	.2000	1.750	8	2.250	1.000	B	S890 SZMU 0804...	1.74
S890 FSZ D3.0-12-1.00-R08	3.000	.2000	1.750	12	2.250	1.000	B	S890 SZMU 0804...	1.75
S890 FSZ D4.0-10-1.50-R08	4.000	.2000	2.000	10	3.230	1.500	B	S890 SZMU 0804...	3.44
S890 FSZ D4.0-14-1.50-R08	4.000	.2000	2.000	14	3.230	1.500	B	S890 SZMU 0804...	3.46
S890 FSZ D5.0-12-1.50-R08	5.000	.2000	2.000	12	3.800	1.500	B	S890 SZMU 0804...	4.63
S890 FSZ D5.0-18-1.50-R08	5.000	.2000	2.000	18	3.800	1.500	B	S890 SZMU 0804...	5.27

- For user guide, see pages 586-591

(1) Number of inserts
(2) Master insert identification

For inserts, see pages: S890 SZMU-0804PN (544)

Spare Parts

Designation			
S890 FSZ D1.5-05-0.75-R08	SR M3X0.5-L7.4 IP9(a)	IP-9/151(b)	SR UNF 3/8X1 B18.3
S890 FSZ D1.5-06-0.75-R08	SR M3X0.5-L7.4 IP9(a)	IP-9/151(b)	SR UNF 3/8X1 B18.3
S890 FSZ D2.0-06-0.75-R08	SR M3X0.5-L7.4 IP9(a)	IP-9/151(b)	SR UNF 3/8X1 B18.3
S890 FSZ D2.0-08-0.75-R08	SR M3X0.5-L7.4 IP9(a)	IP-9/151(b)	SR UNF 3/8X1 B18.3
S890 FSZ D2.5-07-1.00-R08	SR M3X0.5-L7.4 IP9(a)	IP-9/151(b)	SR UNF 1/2X20X1 B18.3
S890 FSZ D2.5-10-1.00-R08	SR M3X0.5-L7.4 IP9(a)	IP-9/151(b)	SR UNF 1/2X20X1 B18.3
S890 FSZ D3.0-08-1.00-R08	SR M3X0.5-L7.4 IP9(a)	IP-9/151(b)	
S890 FSZ D3.0-12-1.00-R08	SR M3X0.5-L7.4 IP9(a)	IP-9/151(b)	
S890 FSZ D4.0-10-1.50-R08	SR M3X0.5-L7.4 IP9(a)	IP-9/151(b)	
S890 FSZ D4.0-14-1.50-R08	SR M3X0.5-L7.4 IP9(a)	IP-9/151(b)	
S890 FSZ D5.0-12-1.50-R08	SR M3X0.5-L7.4 IP9(a)	IP-9/151(b)	
S890 FSZ D5.0-18-1.50-R08	SR M3X0.5-L7.4 IP9(a)	IP-9/151(b)	

(a) Recommended tightening torque: 17.7 lbf*in
(b) For limiting torque, use optional 7007382 BLD 4 IP09-2.0NM blade & 7007320 HSD 4-2.0NM handle.

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 .2″

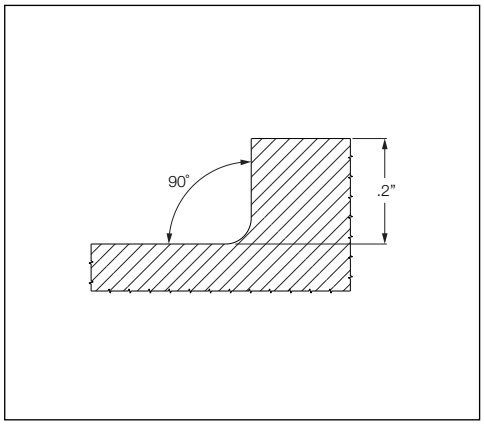
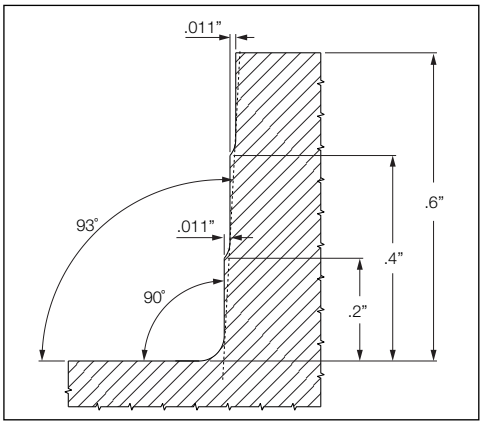


Fig. 2- Generated Profile for a Depth of Cut in Stepdown Milling



Starting Feed Per Tooth F_z for S890 Face Mills With Inserts S890 SZMU 08...

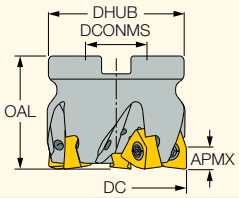
Workpiece material						F_z, IPT, for grades*				
ISO class DIN/ISO 513	Description	Typical representstive AISI/SAE/ASTM	Typical representstive DIN W.-Nr.	Hardness, HB	ISCAR mat. group**	IC 5100	IC810	IC808	IC845	IC5400
P	Non-alloy steel	1020	1.044	130-180	1			.004-.010	.004-.010	.004-.010
	Alloy steel	4340	1.658	260-300	8			.004-.007	.004-.007	.004-.007
		4340	1.658	HRC 35-42*	9			.004-.007	.004-.007	.004-.007
	High alloy steel	H13	1.234	200-220	10			.003-.005	.003-.005	.003-.005
	Martensitic s.s	420	1.402	200	12			.003-.005	.003-.005	.003-.005
M	Austenitic s.s.	304L	1.431	200	14			.004-.006	.004-.006	.004-.006
		316L	1.440	140	14			.004-.006	.004-.006	.004-.006
K	Grey cast iron	Class 40	0.6025 (GG25)	250	16	.006-.010	.006-.010			
	Nodular cast iron	Class 65-45-12	0.7050 (GGG50)	200	17	.005-.008	.005-.008			
H	Hard steel and cast iron	H11	1.234	HRC 45-49	38.1			.002-.004	.002-.004	.002-.004
		P20	1.2330	HRC 50-55	38.2			.002-.004	.002-.004	.002-.004

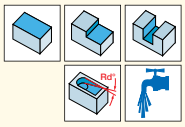
* Quenched and tempered

** ISCAR material group in accordance with VDI 3323 standard

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)	Lbs
H690 FWN D2.00-05-0.75R07	2.000	5	.275	1.810	.750	1.750	A	1.2	.90
H690 FWN D3.00-07-1.25R07	3.000	7	.275	2.750	1.250	1.750	A	1.0	2.03
H690 FWN D4.00-08-1.50R07	4.000	8	.275	3.250	1.500	2.000	B	.8	3.65

- For cutting speed recommendations, see pages 586-591

(1) Number of inserts
(2) For adaptation options, see page 592
(3) Maximum ramping angle

For inserts, see pages: H690 WNHU/WNMU 0705 (511)

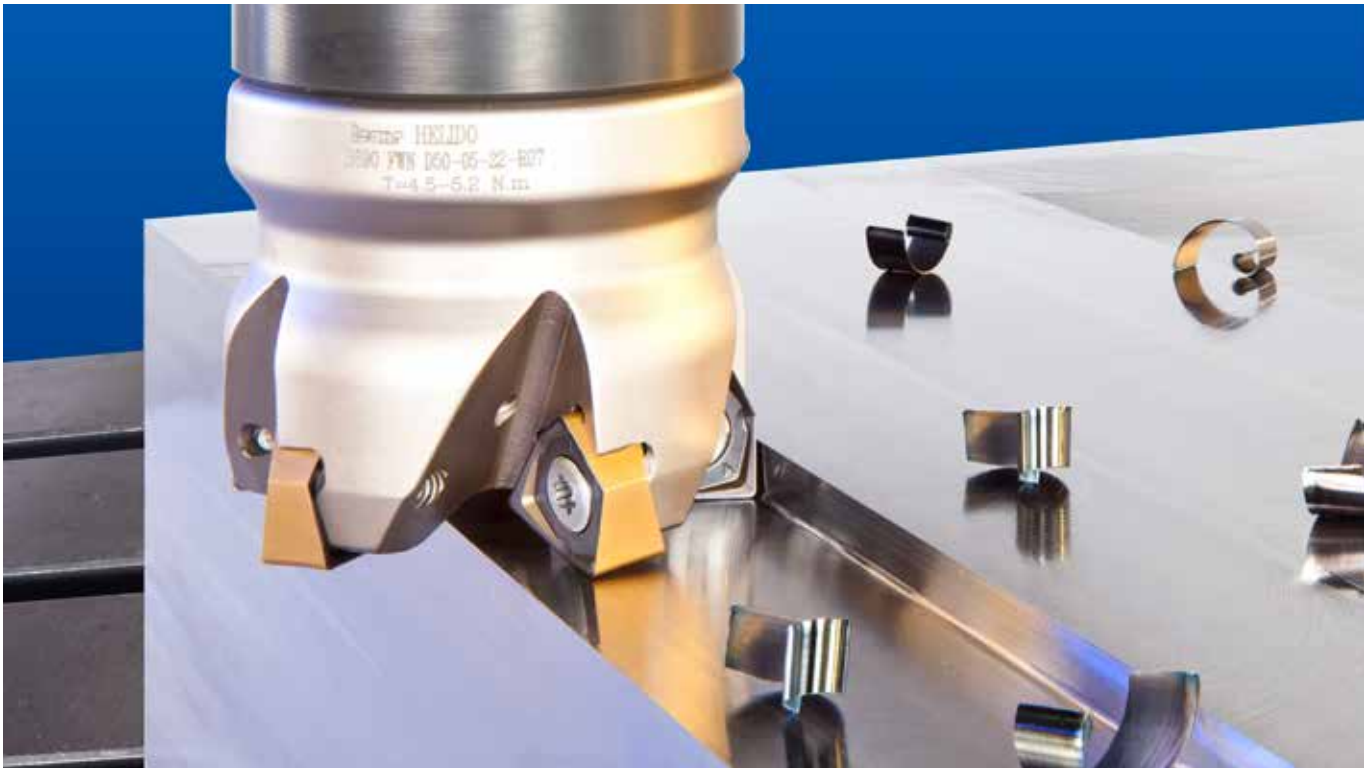
Table - Examples of Cutting Speed for H690 FWN/EWN...07 Cutters

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	590-820		490-720	490-720	430-660	390-590
	Alloy steel	8	4340	1.6582	260-300	490-660		430-590	430-590	390-560	330-460
	Alloy steel	9	4340	1.6582	HRC 35-42**	330-560		330-490	330-490	330-430	330-390
	High alloy steel	10	H13	1.2344	200-220	330-560		330-490	330-490	330-430	330-390
	Martensitic s.s.	12	420	1.4021	200	330-490				330-430	330-390
K	Grey cast iron	16	Class 40	0.6025 (GG25)	250	660-820	720-980	720-980		590-750	
	Nodular cast iron	17	Class 65-45-12	0.7050 (GGG50)	200	520-720	590-820	590-820		490-660	

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

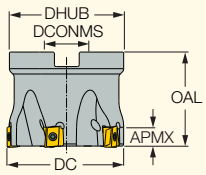
Spare Parts

Designation				
H690 FWN D2.00-05-0.75R07	SR M4X0.7IP15	BLD IP15/S7	SW6-T-SH	SR UNF 3/8X1 B18.3
H690 FWN D3.00-07-1.25R07	SR M4X0.7IP15	BLD IP15/S7	SW6-T-SH	SR UNF 5/8X1 B18.3
H690 FWN D4.00-08-1.50R07	SR M4X0.7IP15	BLD IP15/S7	SW6-T-SH	



HELITANG T490 LINE

T490 FLN-08
90° Face Mills Using Tangentially Clamped Inserts with 4 Helical, .315" Long Cutting Edges



Designation	DC	CICT(2)	APMX	OAL	DHUB	DCONMS	Arbor(3)	Lbs
T490 FLN D1.25-5-.50-08 (1)	1.250	5	.315	1.370	1.200	.500	A	.28
T490 FLN D1.50-4-.75-08	1.500	4	.315	1.570	1.440	.750	A	.43
T490 FLN D1.50-6-.75-08 (1)	1.500	6	.315	1.570	1.440	.750	A	.43
T490 FLN D2.00-5-.75-08	2.000	5	.315	1.570	1.890	.750	A	.87
T490 FLN D2.00-7-.75-08 (1)	2.000	7	.315	1.570	1.890	.750	A	.87
T490 FLN D2.50-6-1.0-08	2.500	6	.315	1.750	2.360	1.000	A	1.55
T490 FLN D2.50-9-1.0-08 (1)	2.500	9	.315	1.750	2.360	1.000	A	1.58

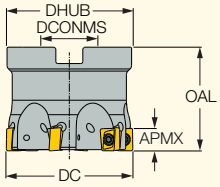
• When machining slots, regular pitch cutters should be used • For user guide, see pages 586-591
(1) Fine pitch
(2) Number of inserts
(3) For adaptation options see page 592
For inserts, see pages: T490 LNAR-P (522) • T490 LNMT/LNHT 0804 (518)

Spare Parts

Designation			
T490 FLN D1.25-5-.50-08	SR 10502813-HG-M	IP-7/51	
T490 FLN D1.50-4-.75-08	SR 10502813-HG-M	IP-7/51	SR UNF 3/8X1 B18.3
T490 FLN D1.50-6-.75-08	SR 10502813-HG-M	IP-7/51	SR UNF 3/8X1 B18.3
T490 FLN D2.00-5-.75-08	SR 10502813-HG-M	IP-7/51	SR UNF 3/8X1 B18.3
T490 FLN D2.00-7-.75-08	SR 10502813-HG-M	IP-7/51	SR UNF 3/8X1 B18.3
T490 FLN D2.50-6-1.0-08	SR 10502813-HG-M	IP-7/51	SR UNF 1/2X20X1 B18.3
T490 FLN D2.50-9-1.0-08	SR 10502813-HG-M	IP-7/51	SR UNF 1/2X20X1 B18.3

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)	Lbs
H490 F90AX D1.50-5-.75-09	1.500	5	.315	1.440	.750	1.570	A	.39
H490 F90AX D1.50-6-.75-09	1.500	6	.315	1.440	.750	1.570	A	.73
H490 F90AX D2.00-6-.75-09	2.000	6	.315	1.890	.750	1.570	A	.86
H490 F90AX D2.00-7-.75-09	2.000	7	.315	1.890	.750	1.570	A	.87
H490 F90AX D2.50-8-1.0-09	2.500	8	.315	2.360	1.000	1.750	A	1.54
H490 F90AX D2.50-9-1.0*09	2.500	9	.315	2.360	1.000	1.750	A	1.90

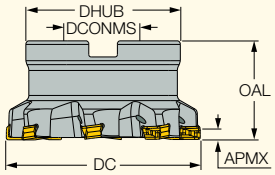
• For user guide, see pages 586-591
(1) Number of inserts
(2) For adaptation options see page 592
For inserts, see pages: H490 ANKX 0904-FF (512) • H490 ANKX/ANCX-09 (512)

Spare Parts

Designation				
H490 F90AX D1.50-5-.75-09	SR 10508082-HG	BLD T08/M7	SW4-SD	SR UNF 3/8X1 B18.3
H490 F90AX D1.50-6-.75-09	SR 10508082-HG	BLD T08/M7	SW4-SD	SR UNF 3/8X1 B18.3
H490 F90AX D2.00-6-.75-09	SR 10508082-HG	BLD T08/M7	SW4-SD	SR UNF 3/8X1 B18.3
H490 F90AX D2.00-7-.75-09	SR 10508082-HG	BLD T08/M7	SW4-SD	SR UNF 3/8X1 B18.3
H490 F90AX D2.50-8-1.0-09	SR 10508082-HG	BLD T08/M7	SW4-SD	SR UNF 1/2X20X1 B18.3
H490 F90AX D2.50-9-1.0*09	SR 10508082-HG	BLD T08/M7	SW4-SD	SR UNF 1/2X20X1 B18.3

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	CSP(2)	Lbs
HTF D2.0-05-0.75-R-LN10	2.000	.0098	5	1.574	1.850	.750	A	1	.75
HTF D2.5-06-1.00-R-LN10	2.500	.0118	6	1.750	2.252	1.000	A	1	1.31
HTF D3.0-07-1.00-R-LN10	3.000	.0138	7	2.000	2.252	1.000	A	1	1.26
HTF D4.0-08-1.50-R-LN10	4.000	.0157	8	2.000	3.228	1.500	B	1	3.04
HTF D5.0-09-1.50-R-LN10	5.000	.0177	9	2.000	3.800	1.500	B	1	5.64
HTF D6.0-10-2.00-R-LN10	6.000	.0197	10	2.000	5.000	2.000	C	0	7.56

- For user guide, see pages 586-591

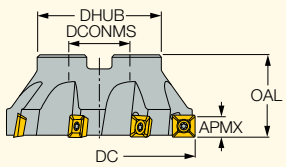
(1) Number of inserts
(2) 0 - Without coolant supply, 1 - With coolant supply
For inserts, see pages: HTP LN.. 1006 (580)

Spare Parts

Designation				
HTF D2.0-05-0.75-R-LN10	SR 34-550	BLD T10/S7	SW6-SD	SR UNF 3/8X1 B18.3
HTF D2.5-06-1.00-R-LN10	SR 34-550	BLD T10/S7	SW6-SD	SR UNF 1/2X20X1 B18.3
HTF D3.0-07-1.00-R-LN10	SR 34-550	BLD T10/S7	SW6-SD	SR UNF 1/2X1¼ B18.3
HTF D4.0-08-1.50-R-LN10	SR 34-550	BLD T10/S7	SW6-SD	
HTF D5.0-09-1.50-R-LN10	SR 34-550	BLD T10/S7	SW6-SD	
HTF D6.0-10-2.00-R-LN10	SR 34-550	BLD T10/S7	SW6-SD	

HELIQUAD

F90SP-10
90° Face Mills Carrying S/X/QPMT 1004... Inserts



Designation	DC(1)	CICT(2)	APMX	OAL	DHUB	DCONMS	RMPX°(3)	Arbor(4)	Lbs
F90SP D2.0-04-.75-10	2.000	4	.380	1.570	1.850	.750	2.0	A	1.32
F90SP D2.0-06-.75-10	2.000	6	.380	1.570	1.850	.750	2.0	A	1.65
F90SP D2.5-07-1.00-10	2.500	7	.380	1.750	2.250	1.000	.8	A	1.28
F90SP D3.0-09-1.00-10	3.000	9	.380	1.750	2.250	1.000	.8	B	1.32
F90SP D4.0-11-1.50-10	4.000	11	.380	2.000	3.230	1.500	.8	B	7.10

- For user guide see pages 586-591

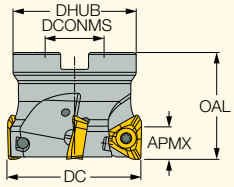
(1) D is .008" larger when QPMT inserts are used
(2) Number of inserts
(3) Maximum ramping angle
(4) For adaptation options, see page 592
For inserts, see pages: QPMR 1004-HQ-M (536) • QPMT 100408PDTN (536) • SPCT/SPMR PDR (537) • SPMT-HQ (536) • XPMT-HQ (537)

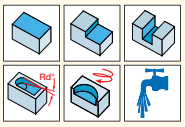
Spare Parts

Designation				
F90SP D2.0-04-.75-10	SR 10514114	SR UNF 3/8X1.25 B18.3	BLD IP15/M7	SW6-T-SH
F90SP D2.0-06-.75-10	SR 10514114	SR UNF 3/8X1.25 B18.3	BLD IP15/M7	SW6-T-SH
F90SP D2.5-07-1.00-10	SR 10514114	SR UNF 1/2X1¼ B18.3	BLD IP15/M7	SW6-T-SH
F90SP D3.0-09-1.00-10	SR 10514114		BLD IP15/M7	SW6-T-SH
F90SP D4.0-11-1.50-10	SR 10514114		BLD IP15/M7	SW6-T-SH

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)	Lbs
HM390 FTP D1.50-3-.50-10	1.500	3	.315	1.370	1.510	.500	A	1.6	.34
HM390 FTP D1.50-5-.50-10	1.500	5	.315	1.370	1.510	.500	A	1.6	.35
HM390 FTP D2.00-4-.75-10	2.000	4	.315	1.570	1.890	.750	A	1.2	.80
HM390 FTP D2.00-6-.75-10	2.000	6	.315	1.570	1.890	.750	A	1.2	.83
HM390 FTP D2.50-6-1.0-10	2.500	6	.315	1.770	2.400	1.000	A	.9	1.48
HM390 FTP D2.50-7-1.0-10	2.500	7	.315	1.770	2.400	1.000	A	.9	1.54

- For user guide, see pages 586-591

(1) Number of inserts
(2) For adaptation see page 592
(3) Maximum ramping angle

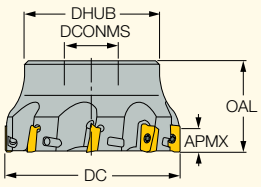
For inserts, see pages: HM390 TPKT/CT 1003 (488)

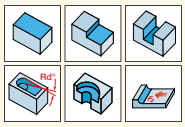
Spare Parts

Designation				
HM390 FTP D1.50-3-.50-10	SR 14-562/S	BLD T10/S7	SW6-SD	
HM390 FTP D1.50-5-.50-10	SR 14-562/S	BLD T10/S7	SW6-SD	SR UNF 1/4X1 B18.3
HM390 FTP D2.00-4-.75-10	SR 14-562/S	BLD T10/S7	SW6-SD	SR UNF 3/8X1 B18.3
HM390 FTP D2.00-6-.75-10	SR 14-562/S	BLD T10/S7	SW6-SD	SR UNF 3/8X1 B18.3
HM390 FTP D2.50-6-1.0-10	SR 14-562/S	BLD T10/S7	SW6-SD	SR UNF 1/2X20X1 B18.3
HM390 FTP D2.50-7-1.0-10	SR 14-562/S	BLD T10/S7	SW6-SD	SR UNF 1/2X20X1 B18.3

HELI2000

HM90 F90AP-10
90° Face Mills Carrying HM90 APKT 1003... Inserts





Designation	DC	CICT(1)	APMX	OAL	DHUB	DCONMS	RMPX°(2)	Arbor(3)	Lbs
HM90 F90AP D1.25-3-.50	1.250	3	.390	1.378	1.200	.500	2.2	A	.27
HM90 F90AP D1.50-5-.75	1.500	5	.390	1.570	1.440	.750	1.9	A	.43
HM90 F90AP D1.50-6-.75	1.500	6	.390	1.570	1.440	.750	1.9	A	.41
HM90 F90AP D2.00-6-.75	2.000	6	.390	1.570	1.890	.750	1.4	A	.83
HM90 F90AP D2.00-7-.75	2.000	7	.390	1.570	1.890	.750	1.4	A	.86
HM90 F90AP D2.50-7-1.00	2.500	7	.390	1.750	2.330	1.000	1.4	A	1.39
HM90 F90AP D3.00-8-1.00	3.000	8	.390	1.750	2.760	1.000	.9	A	2.04

- For user guide, see pages 586-591

(1) Number of inserts
(2) Maximum ramping angle
(3) For adaptation options, see page 592

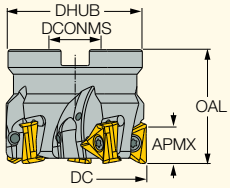
For inserts, see pages: APCR 1003PDFR-P (492) • APCT 1003PDR-HM (492) • APKR 1003PDR-HM (492) • APKT 1003..R (494) • APKT 1003..TR-RM (494) • APKT 1003PDR-HM (493) • APKT 1003PDTR-76 (494) • APKT 1003PDTR/L-RM (493) • APKT 1003R8T-FF (496) • APKW 100304 PDR (PCD) (491) • HM90 APCR 100304PDFR-P/DP (491) • HM90 APCT 1003 (490) • HM90 APKT 1003 (490) • HM90 APKT 1003PD-W (495) • HM90 APKW 1003PDR (495)

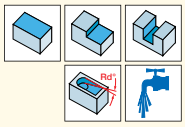
Spare Parts

Designation				
HM90 F90AP D1.25-3-.50	SR 34-505/HG	SW4-SD	BLD T08/M7	SR UNF 1/4X3/4 B18.3
HM90 F90AP D1.50-5-.75	SR 34-505/HG	SW4-SD	BLD T08/M7	SR UNF 3/8X1 B18.3
HM90 F90AP D1.50-6-.75	SR 34-505/HG	SW4-SD	BLD T08/M7	SR UNF 3/8X1 B18.3
HM90 F90AP D2.00-6-.75	SR 34-505/HG	SW4-SD	BLD T08/M7	SR UNF 3/8X1 B18.3
HM90 F90AP D2.00-7-.75	SR 34-505/HG	SW4-SD	BLD T08/M7	SR UNF 3/8X1 B18.3
HM90 F90AP D2.50-7-1.00	SR 34-505/HG	SW4-SD	BLD T08/M7	SR UNF 1/2X20X1 B18.3
HM90 F90AP D3.00-8-1.00	SR 34-505/HG	SW4-SD	BLD T08/M7	SR UNF 1/2X20X1 B18.3

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)	Lbs
H690 F90AX D1.25-4-.50-10	1.250	4	.310	1.200	.500	1.378	A	1.6	.27
H690 F90AX D1.25-5-.50-10	1.250	5	.310	1.200	.500	1.378	A	1.6	.26
H690 F90AX D1.50-5-.75-10	1.500	5	.310	1.440	.750	1.575	A	1.3	.41
H690 F90AX D1.50-6-.75-10	1.500	6	.310	1.440	.750	1.575	A	1.3	.40
H690 F90AX D2.00-6-.75-10	2.000	6	.310	1.890	.750	1.575	A	.8	.86
H690 F90AX D2.00-7-.75-10	2.000	7	.310	1.890	.750	1.575	A	.8	.87
H690 F90AX D2.50-8-1.0-10	2.500	8	.310	2.360	1.000	1.750	A	.5	1.49

- For user guide see pages 586-591

(1) Number of inserts
(2) For adaptation options, see page 592
(3) Maximum ramping angle

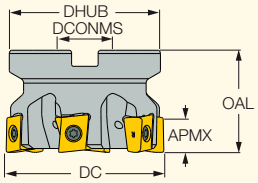
For inserts, see pages: H690 TNKX/TNCX 1005 (514)

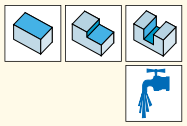
Spare Parts

Designation				
H690 F90AX D1.25-4-.50-10	SR 10508082-HG	BLD T08/M7	SW4-SD	SR UNF 1/4X3/4 B18.3
H690 F90AX D1.25-5-.50-10	SR 10508082-HG	BLD T08/M7	SW4-SD	SR UNF 1/4X3/4 B18.3
H690 F90AX D1.50-5-.75-10	SR 10508082-HG	BLD T08/M7	SW4-SD	SR UNF 3/8X1 B18.3
H690 F90AX D1.50-6-.75-10	SR 10508082-HG	BLD T08/M7	SW4-SD	SR UNF 3/8X1 B18.3
H690 F90AX D2.00-6-.75-10	SR 10508082-HG	BLD T08/M7	SW4-SD	SR UNF 3/8X1 B18.3
H690 F90AX D2.00-7-.75-10	SR 10508082-HG	BLD T08/M7	SW4-SD	SR UNF 3/8X1 B18.3
H690 F90AX D2.50-8-1.0-10	SR 10508082-HG	BLD T08/M7	SW4-SD	SR UNF 1/2X20X1 B18.3

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)	Lbs
T490 FLND2.00-05-.75-R-11	2.000	5	.350	1.570	1.850	.750	A	1.1	.79
T490 FLND2.00-06-.75-R-11	2.000	6	.350	1.570	1.850	.750	A	1.1	.81
T490 FLND2.50-09-1.0-R-11	2.500	9	.350	1.750	2.362	1.000	A	.7	1.36
T490 FLND3.00-07-1.0-R-11	3.000	7	.350	2.000	2.756	1.000	A	.0	2.18
T490 FLND4.00-08-1.5-R-11	4.000	8	.350	2.000	3.189	1.500	B	.0	3.30

- Important: Maximum clamping torque 28.3 lbf*in
- For user guide, see pages 586-591

(1) Number of inserts
(2) For adaptation options, see page 592
(3) Maximum ramping angle - valid only with T490 LNHT 1106PNTR-RD insert

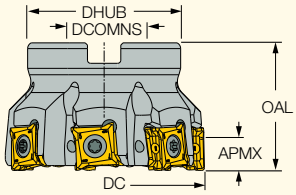
For inserts, see pages: T490 LNMT/LNHT 1106 (519)

Spare Parts

Designation				
T490 FLND2.00-05-.75-R-11	SR 34-535-SN	BLD T15/S7	SW6-SD	SR UNF 3/8X1 B18.3
T490 FLND2.00-06-.75-R-11	SR 34-535-SN	BLD T15/S7	SW6-SD	SR UNF 3/8X1 B18.3
T490 FLND2.50-09-1.0-R-11	SR 34-535-SN	BLD T15/S7	SW6-SD	SR UNF 1/2X20X1 B18.3
T490 FLND3.00-07-1.0-R-11	SR 34-535-SN	BLD T15/S7	SW6-SD	
T490 FLND4.00-08-1.5-R-11	SR 34-535-SN	BLD T15/S7	SW6-SD	

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	Lbs
T890HT FLND1.5-03-.75-R13	1.500	.3740	3	.750	1.440	1.574	A	.39
T890HT FLND1.5-04-.75-R13	1.500	.3740	4	.750	1.440	1.575	A	.39
T890HT FLND1.5-05-.75-R13	1.500	.3740	5	.750	1.440	1.574	A	.39
T890HT FLND2.0-04-.75-R13	2.000	.3740	4	.750	1.850	1.574	A	.78
T890HT FLND2.0-05-.75-R13	2.000	.3740	5	.750	1.850	1.574	A	.78
T890HT FLND2.0-06-.75-R13	2.000	.3740	6	.750	1.850	1.574	A	.81
T890HT FLND2.5-06-1.0-R13	2.500	.3740	6	1.000	2.252	1.750	A	1.40
T890HT FLND2.5-07-1.0-R13	2.500	.3740	7	1.000	2.252	1.750	A	1.41
T890HT FLND2.5-08-1.0-R13	2.500	.3740	8	1.000	2.252	1.750	A	1.41
T890HT FLND3.0-06-1.0-R13	3.000	.3740	6	1.000	2.252	2.000	B	1.81
T890HT FLND3.0-07-1.0-R13	3.000	.3740	7	1.000	2.252	2.000	B	1.82
T890HT FLND3.0-09-1.0-R13	3.000	.3740	9	1.000	2.252	2.000	B	1.90
T890HT FLND4.0-08-1.5-R13	4.000	.3740	8	1.500	3.228	2.000	B	3.43
T890HT FLND4.0-12-1.5-R13	4.000	.3740	12	1.500	3.228	2.000	B	3.61
T890HT FLND5.0-09-1.5-R13	5.000	.3740	9	1.500	3.800	2.000	B	5.34
T890HT FLND5.0-15-1.5-R13	5.000	.3740	15	1.500	3.800	2.000	B	5.85
T890HT FLND6.0-12-2.0-R13	6.000	.3740	12	2.000	5.000	2.000	B	7.30
T890HT FLND6.0-20-2.0-R13	6.000	.3740	20	2.000	5.000	2.000	B	7.85

[1] Number of inserts

For inserts, see pages: T890 LN.. 1306 (517)

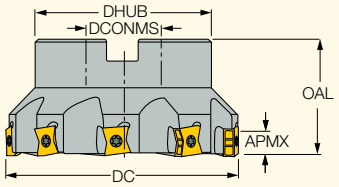
Spare Parts

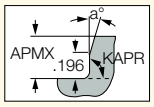
Designation				
T890HT FLND1.5-03-.75-R13	SR 10513105-L10.5[a]	BLD IP20/M7	SW6-T-SH	SR UNF 3/8X1-1421
T890HT FLND1.5-04-.75-R13	SR 10513105-L10.5[a]	BLD IP20/M7	SW6-T-SH	SR UNF 3/8X1-1421
T890HT FLND1.5-05-.75-R13	SR 10513105-L10.5[a]	BLD IP20/M7	SW6-T-SH	SR UNF 3/8X1-1421
T890HT FLND2.0-04-.75-R13	SR 10513105[a]	BLD IP20/M7	SW6-T-SH	SR UNF 3/8X1 B18.3
T890HT FLND2.0-05-.75-R13	SR 10513105[a]	BLD IP20/M7	SW6-T-SH	SR UNF 3/8X1 B18.3
T890HT FLND2.0-06-.75-R13	SR 10513105[a]	BLD IP20/M7	SW6-T-SH	SR UNF 3/8X1 B18.3
T890HT FLND2.5-06-1.0-R13	SR 10513105[a]	BLD IP20/M7	SW6-T-SH	SR UNF 1/2X20X1 B18.3
T890HT FLND2.5-07-1.0-R13	SR 10513105[a]	BLD IP20/M7	SW6-T-SH	SR UNF 1/2X20X1 B18.3
T890HT FLND2.5-08-1.0-R13	SR 10513105[a]	BLD IP20/M7	SW6-T-SH	SR UNF 1/2X20X1 B18.3
T890HT FLND3.0-06-1.0-R13	SR 10513105[a]	BLD IP20/M7	SW6-T-SH	
T890HT FLND3.0-07-1.0-R13	SR 10513105[a]	BLD IP20/M7	SW6-T-SH	
T890HT FLND3.0-09-1.0-R13	SR 10513105[a]	BLD IP20/M7	SW6-T-SH	
T890HT FLND4.0-08-1.5-R13	SR 10513105[a]	BLD IP20/M7	SW6-T-SH	
T890HT FLND4.0-12-1.5-R13	SR 10513105[a]	BLD IP20/M7	SW6-T-SH	
T890HT FLND5.0-09-1.5-R13	SR 10513105[a]	BLD IP20/M7	SW6-T-SH	
T890HT FLND5.0-15-1.5-R13	SR 10513105[a]	BLD IP20/M7	SW6-T-SH	
T890HT FLND6.0-12-2.0-R13	SR 10513105[a]	BLD IP20/M7	SW6-T-SH	
T890HT FLND6.0-20-2.0-R13	SR 10513105[a]	BLD IP20/M7	SW6-T-SH	

[a] Recommended tightening torque: 71.0 lbf*in

TANGMILL
TANGENTIAL LINE

F90LN-N11
90° Face Mills Carrying LN..1106... Tangentially Clamped Inserts





DC=1.574", a=6°, KAPR=91°
DC≥1.968", a=6°, KAPR=90°
DC≥2.48", a=5°, KAPR=90°

Designation	DC	CICT(3)	APMX	OAL	DHUB	DCONMS	Arbor(4)	Lbs
F90LN D2.00-05-.75-R/L-N11	2.000	5	.394	1.570	1.850	.750	A	.78
F90LN D2.00-07-.75-R-N11 (1)	2.000	7	.394	1.570	1.850	.750	A	.79
F90LN D2.50-06-1.00-R-N11	2.500	6	.394	1.750	2.360	1.000	B	1.12
F90LN D3.00-07-1.00-L-N11 (2)	3.000	7	.394	2.000	2.760	1.000	B	1.97
F90LN D3.00-07-1.00-R-N11 (2)	3.000	7	.394	2.000	2.760	1.000	B	1.98
F90LN D4.00-09-1.50-R-N11 (2)	4.000	9	.394	2.000	3.270	1.500	B	3.43
F90LN D5.00-10-1.50-R-N11 (2)	5.000	10	.394	2.000	3.740	1.500	B	5.06

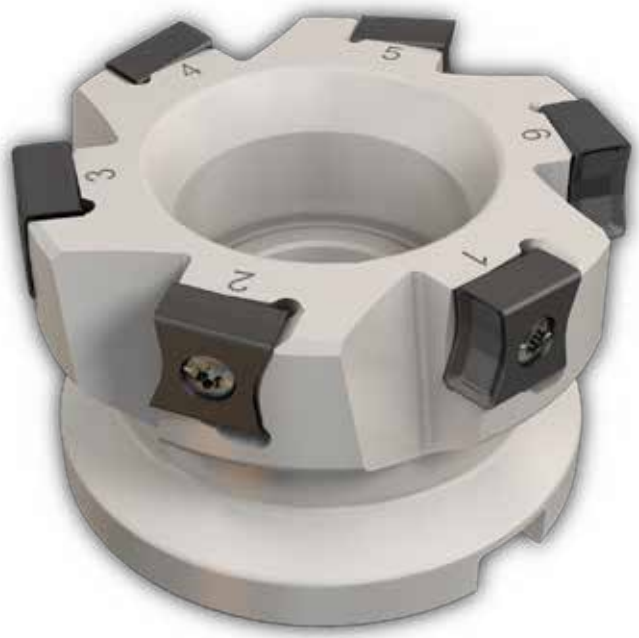
- For user guide, see pages 586-591

(1) Fine pitch
(2) For internal coolant, use a matching coolant set (to be ordered separately)
(3) Number of inserts
(4) For adaptation options, see page 592

For inserts, see pages: LNAR 1106 (524) • LNAR 1106 (PCD) (525) • LNAR 1106PN-R-S-W (PCD) (525) • LNAT 1106-W (525) • LNAW-11 (CBN) (526) • LNHT 1106 PN-N HT (524) • LNHT 1106 PN-R HT (523)

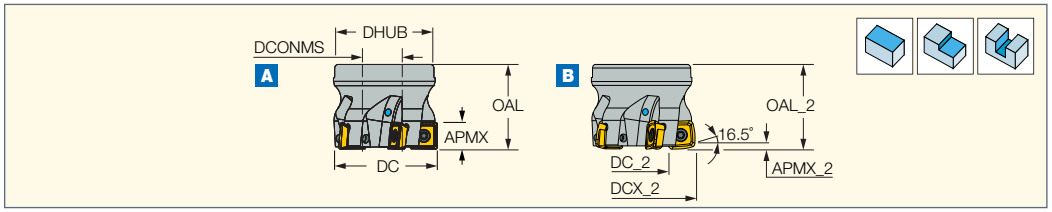
Spare Parts

Designation				
F90LN D2.00-05-.75-L-N11	SR 34-550	SW6-SD	BLD T10/S7	SR UNF 3/8X1 B18.3
F90LN D2.00-05-.75-R-N11	SR 34-550	SW6-SD	BLD T10/S7	SR UNF 3/8X1 B18.3
F90LN D2.00-07-.75-R-N11	SR 34-550	SW6-SD	BLD T10/S7	SR UNF 3/8X1 B18.3
F90LN D2.50-06-1.00-R-N11	SR 34-550	SW6-SD	BLD T10/S7	
F90LN D3.00-07-1.00-L-N11	SR 34-550	SW6-SD	BLD T10/S7	
F90LN D3.00-07-1.00-R-N11	SR 34-550	SW6-SD	BLD T10/S7	
F90LN D4.00-09-1.50-R-N11	SR 34-550	SW6-SD	BLD T10/S7	
F90LN D5.00-10-1.50-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)	Lbs
F90SD D2.00-03-0.75-12	2.000	3	.4650	1.500	1.850	.750	A	.62
F90SD D2.00-05-0.75-12	2.000	5	.4650	1.500	1.850	.750	A	.66
F90SD D2.50-04-1.00-12	2.500	4	.4650	1.750	2.250	1.000	A	1.18
F90SD D2.50-06-1.00-12	2.500	6	.4650	1.750	2.250	1.000	A	1.22
F90SD D3.00-05-1.00-12	3.000	5	.4650	1.750	2.250	1.000	B	1.45
F90SD D3.00-07-1.00-12	3.000	7	.4650	1.750	2.250	1.000	B	1.48
F90SD D4.00-06-1.50-12	4.000	6	.4650	2.000	3.230	1.500	B	3.13
F90SD D4.00-08-1.50-12	4.000	8	.4650	2.000	3.230	1.500	B	3.11
F90SD D5.00-09-1.50-12	5.000	9	.4650	2.000	3.800	1.500	B	5.20

• 1- with standard square insert • 2- with FF (fast feed) insert • For user guide, see pages 586-591

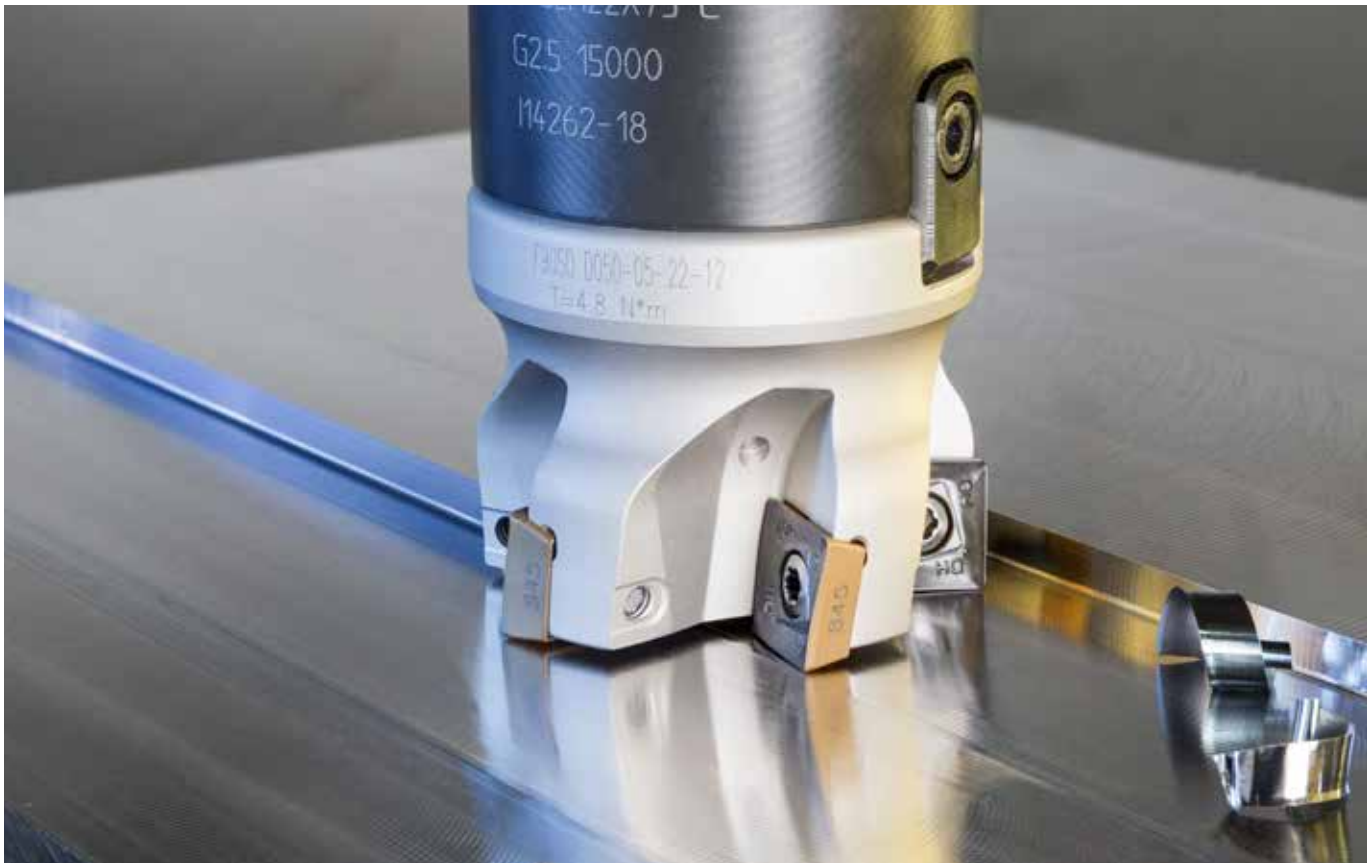
(1) Number of inserts

(2) For adaptation see page 592

For inserts, see pages: QDCT-PDN (538) • QDMT 1205..PDTN-M (539) • SDMR-HQ (538) • SDMT-PDR-HQ (537) • SDMT-PDR-RM (538)

Spare Parts

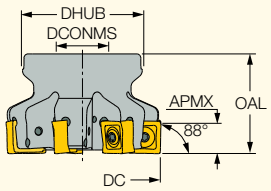
Designation				
F90SD D2.00-03-0.75-12	SR M4X0.7-L9.6 IP15	BLD IP15/S7	SW6-T-SH	SR UNF 3/8X1 B18.3
F90SD D2.00-05-0.75-12	SR M4X0.7-L9.6 IP15	BLD IP15/S7	SW6-T-SH	SR UNF 3/8X1 B18.3
F90SD D2.50-04-1.00-12	SR M4X0.7-L9.6 IP15	BLD IP15/S7	SW6-T-SH	SR UNF 1/2X20X1 B18.3
F90SD D2.50-06-1.00-12	SR M4X0.7-L9.6 IP15	BLD IP15/S7	SW6-T-SH	SR UNF 1/2X20X1 B18.3
F90SD D3.00-05-1.00-12	SR M4X0.7-L9.6 IP15	BLD IP15/M7	SW6-T-SH	
F90SD D3.00-07-1.00-12	SR M4X0.7-L9.6 IP15	BLD IP15/M7	SW6-T-SH	
F90SD D4.00-06-1.50-12	SR M4X0.7-L9.6 IP15	BLD IP15/M7	SW6-T-SH	
F90SD D4.00-08-1.50-12	SR M4X0.7-L9.6 IP15	BLD IP15/M7	SW6-T-SH	
F90SD D5.00-09-1.50-12	SR M4X0.7-L9.6 IP15	BLD IP15/M7	SW6-T-SH	



HELIDO 890 LINE

S890 FSN-13

88° Face Mills Carrying Inserts with 8 Cutting Edges



Designation	DC	APMX	OAL	CICT(2)	DHUB	DCONMS	Arbor(3)	Lbs
S890 FSN D2.0-04-0.75-R13	2.000	.354	1.750	4	1.771	.750	A	.71
S890 FSN D2.0-05-0.75-R13 (1)	2.000	.354	1.750	5	1.771	.750	A	.72
S890 FSN D2.5-05-1.00-R13	2.500	.354	1.750	5	2.220	1.000	A	1.10
S890 FSN D2.5-07-1.00-R13 (1)	2.500	.354	1.750	7	2.220	1.000	A	1.09
S890 FSN D3.0-07-1.00-R13	3.000	.354	1.750	7	2.220	1.000	B	1.41
S890 FSN D4.0-08-1.50-R13	4.000	.354	2.000	8	3.230	1.500	B	3.12
S890 FSN D4.0-11-1.50-R13 (1)	4.000	.354	2.000	11	3.230	1.500	B	3.15
S890 FSN D5.0-09-1.50-R13	5.000	.354	2.000	9	3.230	1.500	B	4.56
S890 FSN D5.0-14-1.50-R13 (1)	5.000	.354	2.000	14	3.230	1.500	B	4.86

- Use only Torx Plus keys
- For user guide, see pages 586-591

(1) Fine pitch
(2) Number of inserts
(3) For adaptation options, see page 592

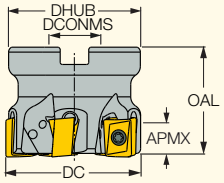
For inserts, see pages: S890 SNMU 1305PN... (544)

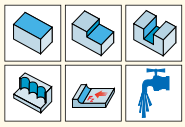
Spare Parts

Designation				
S890 FSN D2.0-04-0.75-R13	SR 11800745	BLD IP15/S7	SW6-T-SH	SR UNF 3/8X1 B18.3
S890 FSN D2.0-05-0.75-R13	SR 11800745	BLD IP15/S7	SW6-T-SH	SR UNF 3/8X1 B18.3
S890 FSN D2.5-05-1.00-R13	SR 11800745	BLD IP15/S7	SW6-T-SH	SR UNF 1/2X1¼ B18.3
S890 FSN D2.5-07-1.00-R13	SR 11800745	BLD IP15/S7	SW6-T-SH	SR UNF 1/2X1¼ B18.3
S890 FSN D3.0-07-1.00-R13	SR 11800745	BLD IP15/S7	SW6-T-SH	SR UNF 1/2X1¼ B18.3
S890 FSN D4.0-08-1.50-R13	SR 11800745	BLD IP15/S7	SW6-T-SH	
S890 FSN D4.0-11-1.50-R13	SR 11800745	BLD IP15/S7	SW6-T-SH	
S890 FSN D5.0-09-1.50-R13	SR 11800745	BLD IP15/S7	SW6-T-SH	
S890 FSN D5.0-14-1.50-R13	SR 11800745	BLD IP15/S7	SW6-T-SH	

HELIDO 490 LINE

H490 F90AX-12
90° Face Mills Carrying Double-Sided Inserts with 4 Helical Cutting Edges





Designation	DC	CICT(2)	APMX	OAL	DHUB	DCONMS	RMPX°(3)	Arbor(4)	Lbs
H490 F90AX D2.00-5-.75-12 (1)	2.000	5	.472	1.575	1.890	.750	1.5	A	.79
H490 F90AX D2.50-4-1.0-12	2.500	4	.472	1.750	2.360	1.000	1.5	A	1.41
H490 F90AX D2.50-6-1.0-12 (1)	2.500	6	.472	1.750	2.360	1.000	1.5	A	1.42
H490 F90AX D3.00-5-1.0-12	3.000	5	.472	2.000	2.600	1.000	-	A	2.23
H490 F90AX D3.00-7-1.0-12 (1)	3.000	7	.472	2.000	2.680	1.000	-	A	2.23
H490 F90AX D4.0-9-1.50-12	4.000	9	.472	2.000	3.150	1.500	-	B	3.08

- For user guide, see pages 586-591

(1) Fine pitch
(2) Number of inserts
(3) Maximum ramping angle - valid only when the H490 ANKX1205R 15T-FF insert is used
(4) For adaptation options, see page 592

For inserts, see pages: H490 ANKX/ANCX 1205-FF (513) • H490 ANKX/ANCX-12 (512)

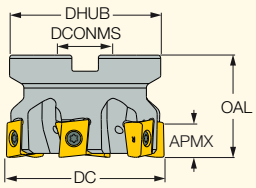
Spare Parts

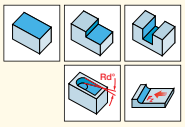
Designation				
H490 F90AX D2.00-5-.75-12	SR 14-544	BLD T15/M7	SW6-T	SR UNF 3/8X1.25 B18.3
H490 F90AX D2.50-4-1.0-12	SR 14-544	BLD T15/M7	SW6-T	SR UNF 1/2X1¼ B18.3
H490 F90AX D2.50-6-1.0-12	SR 14-544	BLD T15/M7	SW6-T	SR UNF 1/2X1¼ B18.3
H490 F90AX D3.00-5-1.0-12	SR 14-544	BLD T15/M7	SW6-T	SR UNF 1/2X1¼ B18.3
H490 F90AX D3.00-7-1.0-12	SR 14-544	BLD T15/M7	SW6-T	SR UNF 1/2X1¼ B18.3
H490 F90AX D4.0-9-1.50-12	SR 14-544	BLD T15/M7	SW6-T	

HELITANG T490 LINE

T490 FLN-13

90° Face Mills Using Tangentially Clamped Inserts with 4 Long Helical Cutting Edges





Designation	DC	CICT(1)	APMX	OAL	DHUB	DCONMS	Arbor(2)	RMPX°(3)	CSP(4)	Lbs
T490 FLN D1.50-4-.75-R-13	1.500	4	.492	1.570	1.440	.750	A	1.5	1	.41
T490 FLN D1.50-5-.75-R-13	1.500	5	.492	1.570	1.440	.750	A	1.5	1	.38
T490 FLN D2.00-5-.75-R-13	2.000	5	.492	1.570	1.850	.750	A	1.1	1	.75
T490 FLN D2.00-6-.75-R-13	2.000	6	.492	1.570	1.850	.750	A	1.1	1	.76
T490 FLN D2.50-6-1.0-R-13	2.500	6	.492	1.750	2.360	1.000	A	.8	1	1.29
T490 FLN D2.50-8-1.0-R-13	2.500	8	.492	1.750	2.360	1.000	A	.8	1	1.34
T490 FLN D3.00-7-1.0-R-13	3.000	7	.492	2.000	2.760	1.000	B	.4	1	2.03
T490 FLN D3.00-10-1.0-R13	3.000	10	.492	2.000	2.760	1.000	B	.4	1	2.05
T490 FLN D4.00-8-1.5-R-13	4.000	8	.492	2.000	3.190	1.500	B	.3	1	3.21
T490 FLN D4.00-13-1.5-R13	4.000	13	.492	2.000	3.190	1.500	B	.3	1	3.32
T490 FLN D5.00-9-1.5-R-13	5.000	9	.492	2.000	3.740	1.500	B	.2	1	5.46
T490 FLND6.00-12-2.0-R-13	6.000	12	.492	2.000	4.724	2.000	B	-	0	7.15
T490 FLND8.00-15-2.5-R-13	8.000	15	.492	2.500	5.310	2.500	B	.0	0	12.78

- When machining slots, coarse pitch cutters should be used
- For user guide, see pages 586-591

(1) Number of inserts

(2) For adaptation options, see page 592

(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

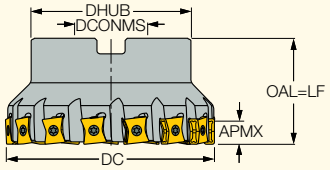
For inserts, see pages: T490 LNAR-P (522) • T490 LNMT 1306PNR-FF (521) • T490 LNMT 1306PNTR-FW (521) • T490 LNMT/LNHT/LNAR 1306 (520)

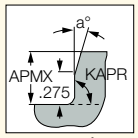
Spare Parts

Designation				
T490 FLN D1.50-4-.75-R-13	SR 34-535/L10.5-SN	BLD T15/S7	SW6-T-SH	SR UNF 3/8X1-1421
T490 FLN D1.50-5-.75-R-13	SR 34-535/L10.5-SN	BLD T15/S7	SW6-T-SH	SR UNF 3/8X1-1421
T490 FLN D2.00-5-.75-R-13	SR 34-535-SN	BLD T15/S7	SW6-T-SH	SR UNF 3/8X1 B18.3
T490 FLN D2.00-6-.75-R-13	SR 34-535-SN	BLD T15/S7	SW6-T-SH	SR UNF 3/8X1 B18.3
T490 FLN D2.50-6-1.0-R-13	SR 34-535-SN	BLD T15/S7	SW6-T-SH	SR UNF 1/2X20X1 B18.3
T490 FLN D2.50-8-1.0-R-13	SR 34-535-SN	BLD T15/S7	SW6-T-SH	SR UNF 1/2X20X1 B18.3
T490 FLN D3.00-7-1.0-R-13	SR 34-535-SN	BLD T15/S7	SW6-T-SH	
T490 FLN D3.00-10-1.0-R13	SR 34-535-SN	BLD T15/S7	SW6-T-SH	
T490 FLN D4.00-8-1.5-R-13	SR 34-535-SN	BLD T15/S7	SW6-T-SH	
T490 FLN D4.00-13-1.5-R13	SR 34-535-SN	BLD T15/S7	SW6-T-SH	
T490 FLN D5.00-9-1.5-R-13	SR 34-535-SN	BLD T15/S7	SW6-T-SH	
T490 FLND6.00-12-2.0-R-13	SR 34-535-SN	BLD T15/S7	SW6-T-SH	
T490 FLND8.00-15-2.5-R-13	SR 34-535-SN	BLD T15/S7	SW6-T-SH	

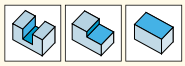
TANGMILL
TANGENTIAL LINE

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





DC=1.968", a=8°, KAPR=91°
DC=2.48", a=6°, KAPR=90°
DC≥3.937", a=4.5°, KAPR=90°



Designation	DC	CICT(2)	APMX	OAL	DHUB	DCONMS	Arbor(3)	Lbs
F90LN D2.00-05-.75-R-N15	2.000	5	.551	1.570	1.850	.750	A	.80
F90LN D3.00-06-1.00-R-N15 (1)	3.000	6	.551	2.000	2.756	1.000	B	2.10
F90LN D3.00-09-1.00-R-N15 (1)	3.000	9	.551	2.000	2.755	1.000	B	2.17
F90LN D4.00-08-1.50-L-N15 (1)	4.000	8	.551	2.000	3.189	1.500	B	3.42
F90LN D4.00-08-1.50-R-N15 (1)	4.000	8	.551	2.000	3.189	1.500	B	3.44

• Left-hand cutters are designated by a red groove • For user guide see pages 586-591

(1) For internal coolant, use a matching coolant set (should be ordered separately)

(2) Number of inserts

(3) For adaptation see page 592

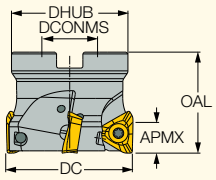
For inserts, see pages: LNAR 1506 (529) • LNAR 1506 PN-R-S (PCD) (530) • LNAT 1506-W (530) • LNAT 1506..PN-N MM (530) • LNAW-15 (CBN) (526) • LNHW 1506 PNTN (ceramic) (529) • LNKX 1506 1.5X45 PN-N (528) • LNKX 1506PN-N PL (528) • LNKX/LNMT 1506PNTN/PN-N MM (527) • LNMT 1506PN-R-TS (527) • LNMT/LNHT 1506...-N HT (529) • LNMT/LNHT 1506PN-R HT (528) • LNMW 1506 PNTN (527)

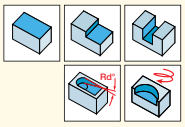
Spare Parts

Designation				
F90LN D2.00-05-.75-R-N15	SR 34-535	SW6-T-SH	BLD T15/M7	SR UNF 3/8X1 B18.3
F90LN D3.00-06-1.00-R-N15	SR 34-535	SW6-T-SH	BLD T15/M7	
F90LN D3.00-09-1.00-R-N15	SR 34-535	SW6-T-SH	BLD T15/M7	
F90LN D4.00-08-1.50-L-N15	SR 34-535	SW6-T-SH	BLD T15/M7	
F90LN D4.00-08-1.50-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)	Lbs
HM390 FTD D1.50-4-.50-15	1.500	4	.512	1.380	1.200	.500	A	2.0	1	.27
HM390 FTD D2.00-3-.75-15	2.000	3	.512	1.570	1.850	.750	A	1.6	1	.64
HM390 FTD D2.00-4-.75-15	2.000	4	.512	1.570	1.850	.750	A	1.6	1	.69
HM390 FTD D2.00-5-.75-15	2.000	5	.512	1.570	1.850	.750	A	1.6	1	.69
HM390 FTD D2.50-4-1.0-15	2.500	4	.512	1.750	2.340	1.000	A	1.2	1	1.23
HM390 FTD D2.50-5-1.0-15	2.500	5	.512	1.750	2.340	1.000	A	1.2	1	1.20
HM390 FTD D2.50-6-1.00-15	2.500	6	.512	1.750	2.340	1.000	A	1.2	1	1.31
HM390 FTD D3.00-5-1.0-15	3.000	5	.512	2.000	2.760	1.000	A	.9	1	2.27
HM390 FTD D3.00-6-1.0-15	3.000	6	.512	2.000	2.760	1.000	A	.9	1	2.30
HM390 FTD D3.00-7-1.00-15	3.000	7	.512	2.000	2.760	1.000	A	.9	1	2.38
HM390 FTD D4.00-6-1.5-15	4.000	6	.512	2.000	3.150	1.500	B	.7	1	2.79
HM390 FTD D4.00-8-1.5-15	4.000	8	.512	2.000	3.150	1.500	B	.7	1	3.11
HM390 FTD D5.00-7-1.5-15	5.000	7	.512	2.500	3.220	1.500	B	.5	1	4.86
HM390 FTD D5.00-9-1.5-15	5.000	9	.512	2.500	3.220	1.500	B	.5	1	5.33
HM390 FTD D6.00-8-2.0-15 (1)	6.000	8	.512	2.500	4.330	2.000	B	.4	0	6.83
HM390 FTD D6.00-10-2.0-15 (1)	6.000	10	.512	2.500	4.330	2.000	B	.4	0	7.72
HM390 FTD D8.00-11-2.5-15	8.000	11	.512	2.500	5.310	2.500	C	.3	0	11.73

- When assembled the HM390 TDKT 1505PDR-FW insert, tool diameter enlarges by .04"
- For user guide, see pages 586-591

(1) For internal coolant, use a matching coolant set (should be ordered separately)
(2) Number of inserts
(3) For adaptation options see page 592
(4) Maximum ramping angle
(5) 0 - Without coolant supply, 1 - With coolant supply

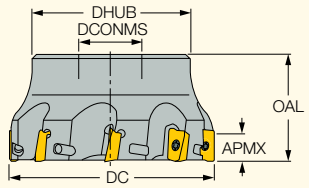
For inserts, see pages: HM390 TDCR 1505 (489) • HM390 TDKT/CT 1505 (488)

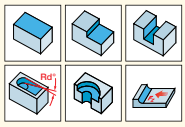
Spare Parts

Designation				
HM390 FTD D1.50-4-.50-15	SR 10511869	BLD IP20/S7	SW6-T	SR UNF 1/4-1
HM390 FTD D2.00-3-.75-15	SR 10505427	BLD IP20/S7	SW6-T	SR UNF 3/8X1 B18.3
HM390 FTD D2.00-4-.75-15	SR 10505427	BLD IP20/S7	SW6-T	SR UNF 3/8X1 B18.3
HM390 FTD D2.00-5-.75-15	SR 10511869	BLD IP20/S7	SW6-T	SR UNF 3/8X1 B18.3
HM390 FTD D2.50-4-1.0-15	SR 10505427	BLD IP20/S7	SW6-T	SR UNF 1/2X1¼ B18.3
HM390 FTD D2.50-5-1.0-15	SR 10505427	BLD IP20/S7	SW6-T	SR UNF 1/2X1¼ B18.3
HM390 FTD D2.50-6-1.00-15	SR 10505427	BLD IP20/S7	SW6-T	SR UNF 1/2X1¼ B18.3
HM390 FTD D3.00-5-1.0-15	SR 10505427	BLD IP20/S7	SW6-T	SR UNF 1/2X1¼ B18.3
HM390 FTD D3.00-6-1.0-15	SR 10505427	BLD IP20/S7	SW6-T	SR UNF 1/2X1¼ B18.3
HM390 FTD D3.00-7-1.00-15	SR 10505427	BLD IP20/S7	SW6-T	SR UNF 1/2X1¼ B18.3
HM390 FTD D4.00-6-1.5-15	SR 10505427	BLD IP20/S7	SW6-T	
HM390 FTD D4.00-8-1.5-15	SR 10505427	BLD IP20/S7	SW6-T	
HM390 FTD D5.00-7-1.5-15	SR 10505427	BLD IP20/S7	SW6-T	
HM390 FTD D5.00-9-1.5-15	SR 10505427	BLD IP20/S7	SW6-T	
HM390 FTD D6.00-8-2.0-15	SR 10505427	BLD IP20/S7	SW6-T	
HM390 FTD D6.00-10-2.0-15	SR 10505427	BLD IP20/S7	SW6-T	
HM390 FTD D8.00-11-2.5-15	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)	Lbs
HM90 F90A D1.50-3-.75	1.500	3	.560	1.570	1.440	.750	4.0	A	.37
HM90 F90A D1.50-4-.75	1.500	4	.560	1.570	1.440	.750	4.0	A	.35
HM90 F90A D2.00-3-.75	2.000	3	.560	1.570	1.890	.750	2.6	A	.77
HM90 F90A D2.00-5-.75	2.000	5	.560	1.570	1.890	.750	2.6	A	.72
HM90 F90A D2.50-4-1.00	2.500	4	.560	1.750	2.330	1.000	2.0	A	1.28
HM90 F90A D2.50-6-1.00	2.500	6	.560	1.750	2.330	1.000	2.0	A	1.20
HM90 F90A D3.00-5-1.00	3.000	5	.560	1.750	2.760	1.000	.8	A	1.98
HM90 F90A D3.00-7-1.00	3.000	7	.560	1.750	2.760	1.000	.8	A	1.91
HM90 F90A D4.00-6-1.50 (1)	4.000	6	.560	2.000	3.070	1.500	.7	B	3.20
HM90 F90A D4.00-8-1.50 (1)	4.000	8	.560	2.000	3.070	1.500	.7	B	3.08
HM90 F90A D5.00-7-1.50 (1)	5.000	7	.560	2.380	3.540	1.500	.5	B	5.74
HM90 F90A D5.00-9-1.50 (1)	5.000	9	.560	2.380	3.540	1.500	.5	B	5.86
HM90 F90A D6.00-8-2.00 (1)	6.000	8	.560	2.380	4.130	2.000	.4	B	7.02
HM90 F90A D6.00-10-2.00	6.000	10	.560	2.380	4.130	2.000	.4	B	7.11

- For user guide, see page 586-591

(1) For internal coolant, use a matching coolant set (to be ordered separately)
(2) Number of inserts
(3) Maximum ramping angle
(4) For adaptation options, see page 592

For inserts, see pages: ADCR 1505PDFR (499) • ADCT 1505PDFR-HM (499) • ADKR 1505PDR/L (499) • ADKT 1505-FF (502) • ADKT 1505..R/L-HM (502) • ADKT 1505PD-W (503) • ADKT 1505PDR/L-HM (500) • ADKT 1505PDTR-76 (501) • ADKT 1505PDTR/L-RM (501) • ADKW (CBN) (500) • ADKW (PCD) (500) • ADMT 1505PDR-HS (501) • HM90 ADCR 1505PDFR-P (498) • HM90 ADCT 1505 (497) • HM90 ADCT 1505PDR-CF (498) • HM90 ADKT 1505 (497) • HM90 ADKT 1505PD-W (502) • HM90 ADKW 1505PDR (504)

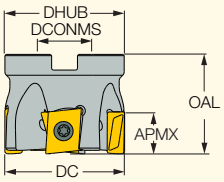
Spare Parts

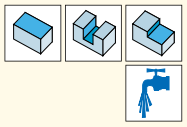
Designation				
HM90 F90A D1.50-3-.75	SR 14-544/S	BLD T15/M7	SW6-T-SH	SR 34-028
HM90 F90A D1.50-4-.75	SR 14-544/S	BLD T15/M7	SW6-T-SH	SR 34-028
HM90 F90A D2.00-3-.75	SR 14-544/S	BLD T15/M7	SW6-T-SH	SR UNF 3/8X1 B18.3
HM90 F90A D2.00-5-.75	SR 14-544/S	BLD T15/M7	SW6-T-SH	SR UNF 3/8X1 B18.3
HM90 F90A D2.50-4-1.00	SR 14-544	BLD T15/M7	SW6-T-SH	SR UNF 1/2X20X1 B18.3
HM90 F90A D2.50-6-1.00	SR 14-544/S	BLD T15/M7	SW6-T-SH	SR UNF 1/2X20X1 B18.3
HM90 F90A D3.00-5-1.00	SR 14-544	BLD T15/M7	SW6-T-SH	SR UNF 1/2X20X1 B18.3
HM90 F90A D3.00-7-1.00	SR 14-544	BLD T15/M7	SW6-T-SH	SR UNF 1/2X20X1 B18.3
HM90 F90A D4.00-6-1.50	SR 14-544/S	BLD T15/M7	SW6-T-SH	
HM90 F90A D4.00-8-1.50	SR 14-544	BLD T15/M7	SW6-T-SH	
HM90 F90A D5.00-7-1.50	SR 14-544	BLD T15/M7	SW6-T-SH	
HM90 F90A D5.00-9-1.50	SR 14-544	BLD T15/M7	SW6-T-SH	
HM90 F90A D6.00-8-2.00	SR 14-544	BLD T15/M7	SW6-T-SH	
HM90 F90A D6.00-10-2.00	SR 14-544	BLD T15/M7	SW6-T-SH	

HELITANG T490 LINE

T490 FLN-16

90° Face Mills Carrying Tangentially Clamped Inserts with 4 Long (.630") Helical Cutting Edges





Designation	DC	CICT(2)	APMX	OAL	DHUB	DCONMS	Arbor(3)	Lbs
T490 FLN D2.0-04-.75-16 (1)	2.000	4	.630	1.570	1.890	.750	A	.73
T490 FLN D2.5-04-1.0-16	2.500	4	.630	1.750	2.362	1.000	A	1.25
T490 FLN D2.5-06-1.0-16 (1)	2.500	6	.630	1.750	2.362	1.000	A	1.39
T490 FLN D3.0-05-1.0-16	3.000	5	.630	2.000	2.600	1.000	A	2.02
T490 FLN D3.0-07-1.0-16 (1)	3.000	7	.630	2.000	2.600	1.000	A	2.15

• When machining slots, regular pitch cutters should be used. • For user guide, see pages 586-591

(1) Fine pitch

(2) Number of inserts

(3) For adaptation options, see page 592

For inserts, see pages: T490 LNAR-P (522) • T490 LNMT/LNHT 1607 (522)

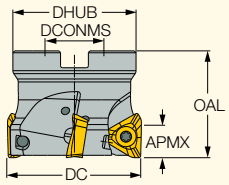
Spare Parts

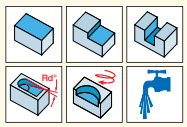
Designation				
T490 FLN D2.0-04-.75-16	SR 14-591	BLD T20/M7	SW6-T	SR UNF 3/8X1 B18.3
T490 FLN D2.5-04-1.0-16	SR 14-591	BLD T20/M7	SW6-T	SR UNF 1/2X20X1 B18.3
T490 FLN D2.5-06-1.0-16	SR 14-591	BLD T20/M7	SW6-T	SR UNF 1/2X20X1 B18.3
T490 FLN D3.0-05-1.0-16	SR 14-591	BLD T20/M7	SW6-T	SR UNF 1/2X1½ B18.3
T490 FLN D3.0-07-1.0-16	SR 14-591	BLD T20/M7	SW6-T	SR UNF 1/2X1½ B18.3

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)	RMPX°(3)	Lbs
HM390 FTD D3.00-6-1.00-19	3.000	6	.630	1.750	2.360	1.000	A	.9	1.69
HM390 FTD D4.00-8-1.50-19	4.000	8	.630	2.000	3.230	1.500	B	.7	3.21

(1) Number of inserts

(2) For adaptation options, see page 592

(3) Maximum ramping angle

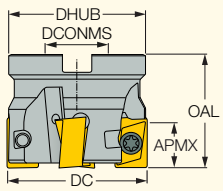
For inserts, see pages: HM390 TDKT 1907 (489)

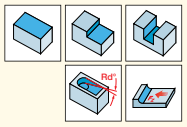
Spare Parts

Designation				
HM390 FTD D3.00-6-1.00-19	SR 14-591/H	BLD T20/S7	SW6-T	SR UNF 1/2X20X1 B18.3
HM390 FTD D4.00-8-1.50-19	SR 14-591/H	BLD T20/S7	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(3)	APMX	OAL	DHUB	DCONMS	Arbor(4)	RMPX°(5)	CSP(6)	Lbs
H490 F90AX D2.00-3-.75-17	2.000	3	.642	1.570	1.890	.750	A	3.8	1	.77
H490 F90AX D2.00-4-.75-17 (1)	2.000	4	.642	1.570	1.890	.750	A	3.8	1	.74
H490 F90AX D2.00-5-.75-17	2.000	5	.642	1.575	1.890	.750	A	3.8	1	.75
H490 F90AX D2.50-4-1.0-17	2.500	4	.642	1.750	2.360	1.000	A	2.0	1	1.27
H490 F90AX D2.50-6-1.0-17 (1)	2.500	6	.642	1.750	2.360	1.000	A	2.0	1	1.33
H490 F90AX D3.00-5-1.0-17	3.000	5	.642	2.000	2.600	1.000	A	1.5	1	2.08
H490 F90AX D3.00-7-1.0-17 (1)	3.000	7	.642	2.000	2.600	1.000	A	1.5	1	2.13
H490 F90AX D4.0-5-1.5-17	4.000	5	.642	2.000	3.210	1.500	B	1.0	1	3.04
H490 F90AX D4.0-8-1.5-17 (1)	4.000	8	.642	2.000	3.210	1.500	B	1.0	1	3.25
H490 F90AX D5.00-7-1.5-17	5.000	7	.642	2.500	3.540	1.500	B	-	1	5.65
H490 F90AX D5.0-10-1.5-17 (1)	5.000	10	.642	2.500	3.540	1.500	B	-	1	6.01
H490 F90AX D6.00-8-2.0-17 (2)	6.000	8	.642	2.500	4.720	2.000	B	-	0	8.37
H490 F90AX D6.0-12-2.0-17 (2)	6.000	12	.642	2.500	4.720	2.000	B	-	0	8.98
H490 F90AXD8.00-10-2.5-17	8.000	10	.642	2.500	5.310	2.500	C	-	0	13.46
H490 F90AXD10.0-12-2.5-17	10.000	12	.642	2.500	5.670	2.500	C	-	0	21.13

- Ramping angle is valid only when the H490 ANKX 1706R15T-FF insert is used (tool diameter is then 0.060" larger)
- For user guide, see pages 586-591

(1) Fine pitch
(2) For internal coolant, use a matching coolant set (to be ordered separately)
(3) Number of inserts
(4) For adaptation options, see page 592
(5) Maximum ramping angle
(6) 0 - Without coolant supply, 1 - With coolant supply

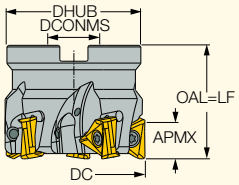
For inserts, see pages: H490 ANKX 1706-FF (514) • H490 ANKX/ANCX-17 (513)

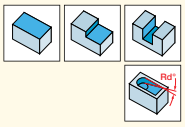
Spare Parts

Designation				
H490 F90AX D2.00-3-.75-17	SR 14-591	BLD T20/M7	SW6-T	SR UNF 3/8X1 B18.3
H490 F90AX D2.00-4-.75-17	SR 14-591	BLD T20/M7	SW6-T	SR UNF 3/8X1 B18.3
H490 F90AX D2.00-5-.75-17	SR 14-591	BLD T20/M7	SW6-T	SR UNF 3/8X1 B18.3
H490 F90AX D2.50-4-1.0-17	SR 14-591	BLD T20/M7	SW6-T	SR UNF 1/2X20X1 B18.3
H490 F90AX D2.50-6-1.0-17	SR 14-591	BLD T20/M7	SW6-T	SR UNF 1/2X20X1 B18.3
H490 F90AX D3.00-5-1.0-17	SR 14-591	BLD T20/M7	SW6-T	SR UNF 1/2X20X1 B18.3
H490 F90AX D3.00-7-1.0-17	SR 14-591	BLD T20/M7	SW6-T	SR UNF 1/2X20X1 B18.3
H490 F90AX D4.0-5-1.5-17	SR 14-591	BLD T20/M7	SW6-T	
H490 F90AX D4.0-8-1.5-17	SR 14-591	BLD T20/M7	SW6-T	
H490 F90AX D5.00-7-1.5-17	SR 14-591	BLD T20/M7	SW6-T	
H490 F90AX D5.0-10-1.5-17	SR 14-591	BLD T20/M7	SW6-T	
H490 F90AX D6.00-8-2.0-17	SR 14-591	BLD T20/M7	SW6-T	
H490 F90AX D6.0-12-2.0-17	SR 14-591	BLD T20/M7	SW6-T	
H490 F90AXD8.00-10-2.5-17	SR 14-591	BLD T20/M7	SW6-T	
H490 F90AXD10.0-12-2.5-17	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)	Lbs
H690 F90AX D2.00-3-.75-16	2.000	3	.531	1.570	1.890	.750	A	3.0	1	.77
H690 F90AX D2.00-4-.75-16	2.000	4	.531	1.570	1.890	.750	A	3.0	1	.74
H690 F90AX D2.50-4-1.0-16	2.500	4	.531	1.750	2.340	1.000	A	2.0	1	1.28
H690 F90AX D2.50-5-1.0-16	2.500	5	.531	1.750	2.340	1.000	A	2.0	1	1.30
H690 F90AX D3.00-5-1.0-16	3.000	5	.531	2.000	2.830	1.000	A	1.0	1	2.38
H690 F90AX D3.00-6-1.0-16	3.000	6	.531	2.000	2.830	1.000	A	1.0	1	2.44
H690 F90AX D4.00-6-1.5-16	4.000	6	.531	2.000	3.150	1.500	B	1.0	1	.06
H690 F90AX D4.00-8-1.5-16	4.000	8	.531	2.000	3.150	1.500	B	1.0	1	3.03
H690 F90AX D5.00-7-1.5-16	5.000	7	.531	2.500	3.230	1.500	B	.5	1	5.28
H690 F90AX D5.00-9-1.5-16	5.000	9	.531	2.500	3.230	1.500	B	.5	1	5.75
H690 F90AX D6.0-08-2.0-16	6.000	8	.531	2.500	3.940	2.000	B	-	0	6.46
H690 F90AX D8.0-11-2.5-16	8.000	11	.531	2.500	5.310	2.500	C	-	0	11.38

- For user guide see pages 586-591

(1) Number of inserts
(2) For adaptation options, see page 592
(3) Maximum ramping angle
(4) 0 - Without coolant supply, 1 - With coolant supply

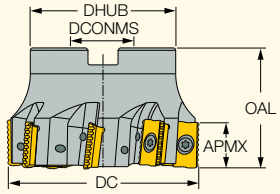
For inserts, see pages: H690 TNKX 1606 (516)

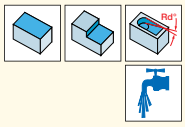
Spare Parts

Designation					
H690 F90AX D2.00-3-.75-16	SR 14-591	BLD T20/M7	SW6-T		SR UNF 3/8X1 B18.3 CONICA
H690 F90AX D2.00-4-.75-16	SR 14-591	BLD T20/M7	SW6-T		SR UNF 3/8X1 B18.3 CONICA
H690 F90AX D2.50-4-1.0-16	SR 14-591	BLD T20/M7	SW6-T	SR UNF 1/2X1¼ B18.3	
H690 F90AX D2.50-5-1.0-16	SR 14-591	BLD T20/M7	SW6-T	SR UNF 1/2X1¼ B18.3	
H690 F90AX D3.00-5-1.0-16	SR 14-591	BLD T20/M7	SW6-T	SR UNF 1/2X1¼ B18.3	
H690 F90AX D3.00-6-1.0-16	SR 14-591	BLD T20/M7	SW6-T	SR UNF 1/2X1¼ B18.3	
H690 F90AX D4.00-6-1.5-16	SR 14-591	BLD T20/M7	SW6-T		
H690 F90AX D4.00-8-1.5-16	SR 14-591	BLD T20/M7	SW6-T		
H690 F90AX D5.00-7-1.5-16	SR 14-591	BLD T20/M7	SW6-T		
H690 F90AX D5.00-9-1.5-16	SR 14-591	BLD T20/M7	SW6-T		
H690 F90AX D6.0-08-2.0-16	SR 14-591	BLD T20/M7	SW6-T		
H690 F90AX D8.0-11-2.5-16	SR 14-591	BLD T20/M7	SW6-T		

MILLSHRED P290 LINE

P290 FPW
90° Face Mills Carrying .472 and .708" Long Edged Inserts





Designation	DC	APMX	CICT(1)	OAL	DHUB	DCONMS	Arbor(2)	RMPX°(3)	Lbs
P290 FPW D1.50-5-.50-12	1.500	.472	5	1.250	1.380	.500	A	.7	.31
P290 FPW D2.00-6-.75-12	2.000	.472	6	1.575	1.770	.750	A	.5	.71
P290 FPW D1.50-4-.50-18	1.500	.708	4	1.575	1.380	.500	A	1.5	.34
P290 FPW D2.00-5-.75-18	2.000	.708	5	1.575	1.770	.750	A	1.0	.67
P290 FPW D2.50-6-1.00-18	2.500	.708	6	1.575	2.170	1.000	A	.8	1.10
P290 FPW D3.00-8-1.00-18	3.000	.708	8	1.575	2.170	1.000	A	.5	1.52
P290 FPW D4.00-9-1.5-18	4.000	.708	9	1.969	2.170	1.500	B	.3	3.23

- For user guide, see pages 586-591

(1) Number of inserts
(2) For adaptation options, see page 592
(3) Maximum ramping angle

For inserts, see pages: P290 ACCT/KT (503) • P290 ACKT (503)

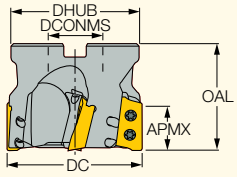
Spare Parts

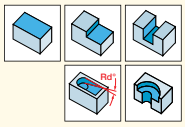
Designation					
P290 FPW D1.50-5-.50-12	SR M3X0.5-L7.4 IP9(a)	IP-9/151			SR UNF 1/4X3/4 B18.3
P290 FPW D2.00-6-.75-12	SR M3X0.5-L7.4 IP9(a)	IP-9/151			SR UNF 3/8X1 B18.3
P290 FPW D1.50-4-.50-18	SR 14-544/S		BLD T15/M7	SW6-T	SR UNF 1/4X1 B18.3
P290 FPW D2.00-5-.75-18	SR 14-544/S		BLD T15/M7	SW6-T-SH	SR UNF 3/8X1 B18.3
P290 FPW D2.50-6-1.00-18	SR 14-544/S		BLD T15/M7	SW6-T	SR UNF 1/2X20X1 B18.3
P290 FPW D3.00-8-1.00-18	SR 14-544/S		BLD T15/M7	SW6-T	SR UNF 1/2X20X1 B18.3
P290 FPW D4.00-9-1.5-18	SR 14-544/S		BLD T15/M7	SW6-T	

(a) Recommended tightening torque:20.0lbf*in

HELIPLUS

HP F90AT-19
90° Face Mills Carrying HP AD.. 1906... Long Edged Inserts





Designation	DC	CICT(1)	APMX	OAL	DHUB	DCONMS	RMPX°(2)	RPMX(3)	Arbor(4)	Lbs
HP F90AT D2.00-4-.75-19	2.000	4	.713	2.000	1.890	.750	5.0	14550	A	.88
HP F90AT D3.00-6-1.00-19	3.000	6	.713	2.000	2.330	1.000	2.5	11880	A	1.91

- 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 586-591

(1) Number of inserts
(2) Maximum ramping angle
(3) Maximum RPM
(4) For adaptation options, see page 592

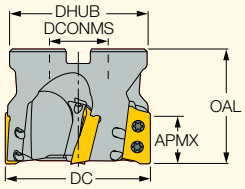
For inserts, see pages: HP ADCR 1906 (506) • HP ADKT/ADCT 1906 (506)

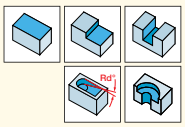
Spare Parts

Designation				
HP F90AT D2.00-4-.75-19	SR 14-571/L	BLD T10/S7	SW6-SD	SR UNF 3/8X1.25 B18.3
HP F90AT D3.00-6-1.00-19	SR 14-571/L	BLD T10/S7	SW6-SD	SR UNF 1/2X1¼ B18.3

HELIPLUS

HP F90AT-22
90° Face Mills Carrying HP AD.. 2207... Long Edged Inserts





Designation	DC	CICT(1)	APMX	OAL	DHUB	DCONMS	RMPX°(2)	RPMX(3)	Arbor(4)	CSP(5)	Lbs
HP F90AT D2.0-3-.75-22	2.000	3	.827	2.000	1.890	.750	5.0	13880	A	1	.88
HP F90AT D2.0-4-.75-22	2.000	4	.827	2.000	1.890	.750	5.0	13880	A	0	.79
HP F90AT D3.0-6-1.0-22	3.000	6	.827	2.000	2.480	1.000	1.8	11335	A	0	1.72

- 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 586-591

(1) Number of inserts
(2) Maximum ramping angle
(3) Maximum RPM
(4) For adaptation options, see page 592
(5) 0 - Without coolant supply, 1 - With coolant supply

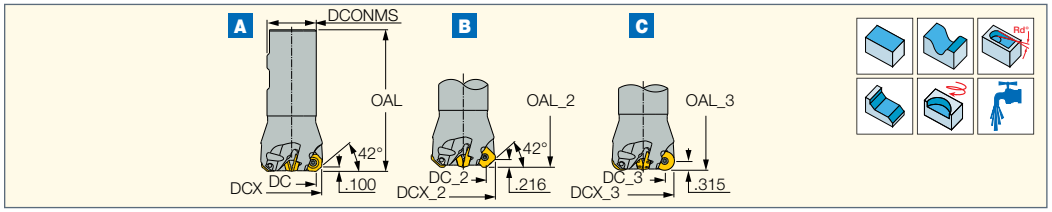
For inserts, see pages: HP ADCR 2207 (507) • HP ADKT/ADCT 2207 (506)

Spare Parts

Designation				
HP F90AT D2.0-3-.75-22	SR 14-544	BLD T15/M7	SW6-T-SH	SR UNF 3/8X1 B18.3
HP F90AT D2.0-4-.75-22	SR 14-544	BLD T15/M7	SW6-T-SH	SR UNF 3/8X1 B18.3
HP F90AT D3.0-6-1.0-22	SR 14-544	BLD T15/M7	SW6-T-SH	SR UNF 1/2X20X1 B18.3

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(3)	DC_3	DCX_3	OAL_3	RMPX°_3(4)	DCONMS	CICT(5)	Lbs
HOE D1.25-03-W1.25-R06	1.250	1.620	4.000	5.9	1.150	1.760	4.050	9.0	1.135	1.760	4.020	9.0	1.250	3	1.28
HOE D1.50-04-W1.50-R06	1.500	1.870	4.500	5.0	1.400	2.010	4.550	6.8	1.385	2.010	4.520	6.8	1.500	4	2.10
HOE D2.00-04-W1.50-R06	2.000	2.370	4.500	4.2	1.890	2.510	4.550	5.0	1.795	2.420	4.520	5.7	1.500	4	2.44

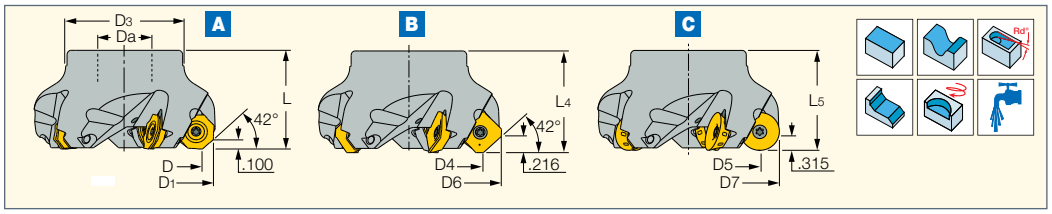
• A - with OEM. 060405... insert • B - with SECT/SEMT 1404... insert • C - with REM. 1505... round insert
(1) Cutting diameter maximum
(2) Maximum ramping angle with OE..inserts
(3) Maximum ramping angle with SE..inserts
(4) Maximum ramping angle with RE..inserts
(5) Number of inserts
For inserts, see pages: OECR (546) • OEMT/OEKT 060405 (546) • OEMW-AETN (547) • REMT-76 (571) • SECT/SEMT 1404 (554)

Spare Parts

Designation			
HOE D1.25-03-W1.25-R06	SR 14-544/S	BLD T15/S7	SW6-T-SH
HOE D1.50-04-W1.50-R06	SR 14-544/S	BLD T15/S7	SW6-T-SH
HOE D2.00-04-W1.50-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(3)	DC_3	DCX_3	OAL_3	RMPX°_3(4)	CICT(5)	DHUB	DCONMS	Arbor(6)	Lbs
HOF D1.50-04-0.75-R06	1.500	1.870	1.750	5.0	1.600	2.010	1.800	6.8	1.295	1.920	1.770	5.0	4	1.810	.750	A	.84
HOF D2.00-04-0.75-R06	2.000	2.370	1.750	4.2	1.890	2.510	1.800	5.0	1.795	2.420	1.770	5.7	4	1.810	.750	A	1.20
HOF D2.50-05-1.00-R06	2.500	2.870	1.750	3.2	2.400	3.010	1.800	4.0	2.295	2.920	1.770	4.0	5	2.360	1.000	B	1.77
HOF D3.00-06-1.00-R06	3.000	3.370	1.750	2.5	2.890	3.510	1.800	3.0	2.795	3.420	1.770	3.0	6	2.360	1.000	B	1.95
HOF D4.00-07-1.50-R06	4.000	4.370	2.000	1.9	3.890	4.510	2.050	2.3	3.795	4.420	2.020	2.2	7	3.220	1.500	B	3.88
HOF D5.00-08-1.50-R06	5.000	5.370	2.000	1.4	4.890	5.510	2.050	1.8	4.795	5.420	2.020	1.6	8	3.220	1.500	B	5.60

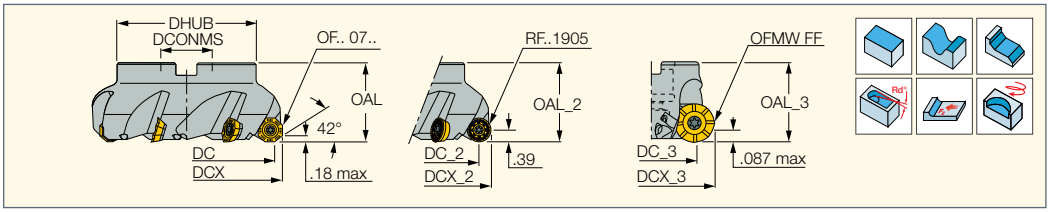
• A - with OEM. 060405... insert • B - with SECT/SEMT 1404... insert • C - with REM. 1505... round insert
(1) Cutting diameter maximum
(2) Maximum ramping angle with OE..inserts
(3) Maximum ramping angle with SE..inserts
(4) Maximum ramping angle with RE..inserts
(5) Number of inserts
(6) For adaptation options, see page 592
For inserts, see pages: OECR (546) • OEMT/OEKT 060405 (546) • OEMW-AETN (547) • REMT-76 (571) • SECT/SEMT 1404 (554)

Spare Parts

Designation				
HOF D1.50-04-0.75-R06	SR 14-544/S	BLD T15/S7	SW6-T-SH	SR UNF 3/8X1 B18.3
HOF D2.00-04-0.75-R06	SR 14-544	BLD T15/S7	SW6-T-SH	SR UNF 3/8X1 B18.3
HOF D2.50-05-1.00-R06	SR 14-544	BLD T15/S7	SW6-T-SH	SR UNF 1/2X20X1 B18.3
HOF D3.00-06-1.00-R06	SR 14-544	BLD T15/M7	SW6-T-SH	
HOF D4.00-07-1.50-R06	SR 14-544	BLD T15/M7	SW6-T-SH	
HOF D5.00-08-1.50-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)	Lbs
HOF D2.00-3- .75-R07	2.000	2.490	1.750	6.5	2.520	1.743	1.770	9.0	1.790	2.550	1.770	9.0	3	1.890	.750	A	.88
HOF D2.50-4-1.00-R07	2.500	2.972	1.750	5.0	3.020	2.243	1.770	6.0	2.290	3.050	1.770	6.0	4	2.213	1.000	A	1.36
HOF D3.00-5-1.00-R07 (1)	3.000	3.490	1.750	3.5	3.520	2.743	1.770	4.5	2.790	3.550	1.770	4.5	5	2.213	1.000	B	1.64
HOF D4.00-6-1.50-R07 (1)	4.000	4.490	2.000	2.5	4.520	3.743	2.020	3.0	3.790	4.550	2.020	3.0	6	3.268	1.500	B	3.43
HOF D5.00-8-1.50-R07 (1)	5.000	5.490	2.000	2.5	5.520	4.743	2.020	2.5	4.790	5.550	2.020	2.5	8	3.268	1.500	B	5.18
HOF D6.0-9-2.00-R07 (1)	6.000	6.490	2.000	2.0	6.520	5.743	2.020	1.8	5.730	6.550	2.020	2.5	9	3.937	2.000	B	6.57
HOF D8.0-12-2.50-R07	8.000	8.490	2.500	1.5	8.520	7.743	2.020	1.5	7.730	8.550	2.020	2.5	12	5.906	2.500	C	15.21

- Helical interpolation is applicable up to and including 4.0" diameter • For user guide see pages 586-591

(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 592

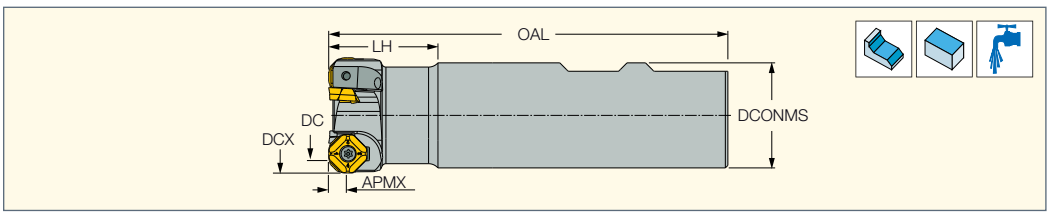
For inserts, see pages: OFCR/OFCT-AEN/AETN (548) • OFCR/OFCT-RW/AER (wiper) (548) • OFMT 07 (547) • OFMW-AETN (547) • OFMW-FF (549) • RFMT 1905-76 (573)

Spare Parts

Designation							
HOF D2.00-3- .75-R07	SR 14-591/H	BLD T20/S7	SW6-T	THOF-07R	SR M2.5X8 DIN912 TUFLOK	HW 2.0	SR UNF 3/8X1.25 B18.3
HOF D2.50-4-1.00-R07	SR 14-591/H	BLD T20/S7	SW6-T	THOF-07R	SR M2.5X10 DIN912 TUFLOK	HW 2.0	SR UNF 1/2X20X1 B18.3
HOF D3.00-5-1.00-R07	SR 14-591/H	BLD T20/S7	SW6-T	THOF-07R	SR M2.5X8 DIN912 TUFLOK	HW 2.0	
HOF D4.00-6-1.50-R07	SR 14-591/H	BLD T20/M7	SW6-T	THOF-07R	SR M2.5X10 DIN912 TUFLOK	HW 2.0	
HOF D5.00-8-1.50-R07	SR 14-591/H	BLD T20/M7	SW6-T	THOF-07R	SR M2.5X10 DIN912 TUFLOK	HW 2.0	
HOF D6.0-9-2.00-R07	SR 14-591/H	BLD T20/L7	SW6-T	THOF-07R	SR M2.5X10 DIN912 TUFLOK	HW 2.0	
HOF D8.0-12-2.50-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)	Lbs		
IQ845 ESYD0.62-3W0.75-R05	.620	.840	3	.100	3.250	1.000	.750	W	.32	SR M2.5X6-T7-60	T-7/51
IQ845 ESYD0.75-3W0.75-R05	.750	.960	3	.100	3.250	1.000	.750	W	.33	SR M2.5X6-T7-60	T-7/51
IQ845 ESYD1.00-3W1.00-R05	1.000	1.220	3	.100	3.500	1.000	1.000	W	.67	SR M2.5X6-T7-60	T-7/51
IQ845 ESYD1.00-4W1.00-R05	1.000	1.220	4	.100	3.500	1.000	1.000	W	.67	SR M2.5X6-T7-60	T-7/51
IQ845 ESYD1.25-4W1.25-R05	1.250	1.480	4	.100	4.000	1.000	1.250	W	1.24	SR M2.5X6-T7-60	T-7/51
IQ845 ESYD1.25-5W1.25-R05	1.250	1.480	5	.100	4.000	1.000	1.250	W	1.23	SR M2.5X6-T7-60	T-7/51
IQ845 ESYD1.50-6W1.50-R05	1.500	1.730	6	.100	4.000	1.000	1.500	W	1.78	SR M2.5X6-T7-60	T-7/51

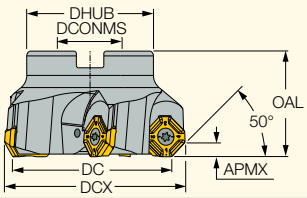
- For user guide, see pages 586-591

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

For inserts, see pages: IQ845 SYHU-05 (540)

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	DCONMS	Arbor(3)	DHUB	Lbs
IQ845 FSYD1.5-04-0.75-R05	1.500	1.730	4	.100	1.500	.750	A	1.500	.50
IQ845 FSYD1.5-07-0.75-R05	1.500	1.730	7	.100	1.500	.750	A	1.500	.46
IQ845 FSYD2.0-05-0.75-R05	2.000	2.230	5	.100	1.750	.750	A	1.750	1.21
IQ845 FSYD2.0-09-0.75-R05	2.000	2.230	9	.100	1.750	.750	A	1.750	1.43
IQ845 FSYD2.5-07-1.00-R05	2.500	2.730	7	.100	1.750	1.000	B	2.250	1.87
IQ845 FSYD2.5-11-1.00-R05	2.500	2.730	11	.100	1.750	1.000	B	2.250	1.98

- For user guide, see pages 586-591

(1) Cutting diameter maximum
(2) Number of inserts
(3) For adaptation options, see page 592

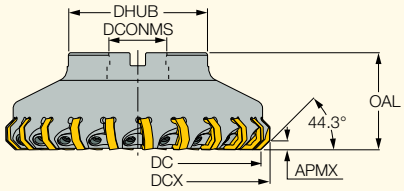
For inserts, see pages: IQ845 SYHU-05 (540)

Spare Parts

Designation			
IQ845 FSYD1.5-04-0.75-R05	SR M2.5X6-T7-60	T-7/51	SR UNF 3/8X1 B18.3
IQ845 FSYD1.5-07-0.75-R05	SR M2.5X6-T7-60	T-7/51	SR UNF 3/8X1 B18.3
IQ845 FSYD2.0-05-0.75-R05	SR M2.5X6-T7-60	T-7/51	SR UNF 3/8X1 B18.3
IQ845 FSYD2.0-09-0.75-R05	SR M2.5X6-T7-60	T-7/51	SR UNF 3/8X1 B18.3
IQ845 FSYD2.5-07-1.00-R05	SR M2.5X6-T7-60	T-7/51	
IQ845 FSYD2.5-11-1.00-R05	SR M2.5X6-T7-60	T-7/51	

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)	Lbs
F45WG D3.0-10-1.0-FX-R08 (1)	3.000	3.470	10	.220	1.750	2.210	1.000	B	1.90
F45WG D4.0-14-1.5-FX-R08 (1)	4.000	4.470	14	.220	2.000	3.270	1.500	B	3.94
F45WG D5.0-18-1.5-FX-R08 (1)	5.000	5.470	18	.220	2.000	3.270	1.500	B	5.65

- Note: Recommended wedge clamping torque: 75-80 lbfxinch
- For user guide see pages 586-591

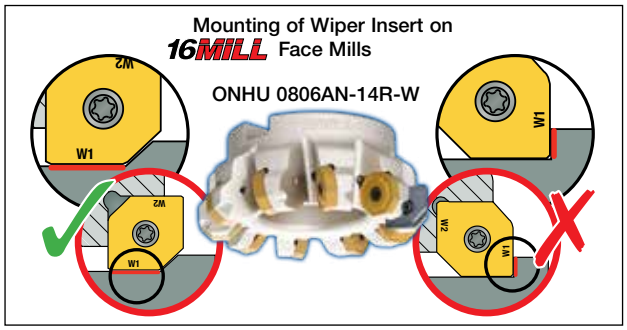
(1) For internal coolant through the holder, use a matching coolant set (should be ordered separately)
(2) Cutting diameter maximum
(3) Number of inserts
(4) For adaptation options, see page 592

For inserts, see pages: ONHQ-TN (557) • ONHU 0806-N-PL (557) • ONHU 0806AN-W (558) • ONHU/ONMU 080608 AN-N-HP (558) • ONHU/ONMU-08-TN-MM (557) • ONHU/ONMU-08-TN/HL (556)

Wiper Inserts

Wiper inserts are used on face mill cutters, provide improved surface finish and eliminate 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 avoid incorrect clamping orientation. Only correct mounting will provide high surface finish!

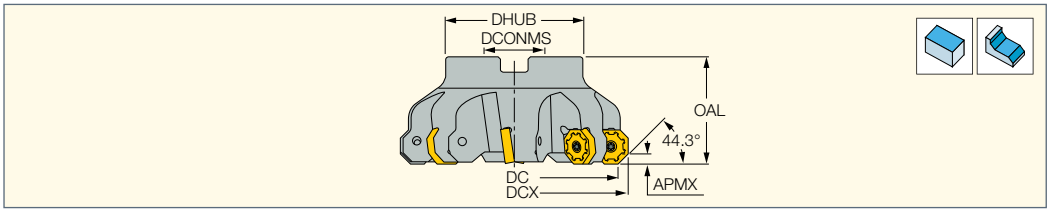


Spare Parts

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)	Lbs
F45NM D2.5-05-1.00-R08	2.500	2.990	5	.220	1.750	2.200	1.000	A	1.29
F45NM D3.0-06-1.00-R08 (1)	3.000	3.490	6	.220	1.750	2.210	1.000	B	1.58
F45NM D4.0-07-1.50-R08 (1)	4.000	4.490	7	.220	2.000	3.270	1.500	B	1.19
F45NM D5.0-08-1.50-R08 (1)	5.000	5.490	8	.220	2.000	3.270	1.500	B	5.04
F45NM D6.0-10-2.00-R08 (1)	6.000	6.490	10	.220	2.000	3.940	2.000	B	6.52
F45NM D8.0-12-2.50-R08	8.000	8.490	12	.220	2.500	5.310	2.500	C	13.84
F45NM D10.0-14-2.50-R08	10.000	10.490	14	.220	2.500	5.390	2.500	C	20.77

• Wiper inserts are used on face mill cutters, providing improved surface finish, thus eliminating the use of other finishing cutters • For user guide, see page 586-591

(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 592

For inserts, see pages: ONHQ-TN (557) • ONHU 0806-N-PL (557) • ONHU 0806AN-W (558) • ONHU/ONMU 080608 AN-N-HP (558) • ONHU/ONMU-08-TN-MM (557) • ONHU/ONMU-08-TN/HL (556)

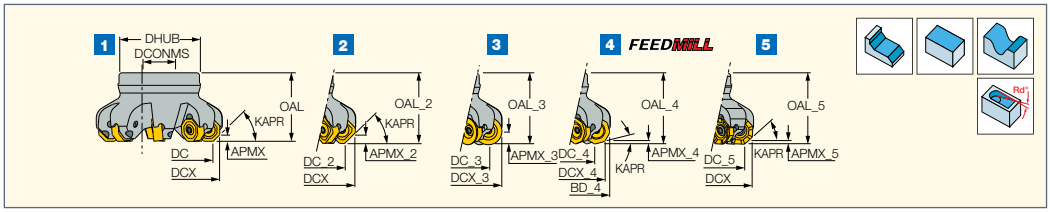
Spare Parts

Designation				
F45NM D2.5-05-1.00-R08	SR 14-591/H	BLD T20/S7	SW6-T	SR UNF 1/2X20X1 B18.3
F45NM D3.0-06-1.00-R08	SR 14-591/H	BLD T20/S7	SW6-T	
F45NM D4.0-07-1.50-R08	SR 14-591/H	BLD T20/S7	SW6-T	
F45NM D5.0-08-1.50-R08	SR 14-591/H	BLD T20/S7	SW6-T	
F45NM D6.0-10-2.00-R08	SR 14-591/H	BLD T20/L7	SW6-T	
F45NM D8.0-12-2.50-R08	SR 14-591/H	BLD T20/L7	SW6-T	
F45NM D10.0-14-2.50-R08	SR 14-591/H	BLD T20/L7	SW6-T	

HELIDO 800 LINE

SOF45

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



Designation	BD	DC	DCX(1)	DC_2	DCX_2	DC_3	DCX_3	DC_4	DCX_4	D4	DC_5	DCX_5	APMX	APMX_2	APMX_3	APMX_4
SOF45 8/16-D1.5-04-0.75R	1.9100	1.500	1.815	1.407	1.910	1.319	1.941	1.283	1.657	1.913	1.524	1.894	.138	.236	.311	.047
SOF45 8/16-D2.0-04-0.75R	2.4100	2.000	2.315	1.907	2.410	1.819	2.441	1.783	2.157	2.413	2.024	2.394	.138	.236	.311	.047
SOF45 8/16-D2.0-06-0.75R	2.4100	2.000	2.315	1.907	2.410	1.819	2.441	1.783	2.157	2.413	2.024	2.394	.138	.236	.311	.047
SOF45 8/16-D2.5-06-1.00R	2.9100	2.500	2.815	2.407	2.910	2.319	2.941	2.283	2.657	2.913	2.524	2.894	.138	.236	.311	.047
SOF45 8/16-D2.5-08-1.00R	2.9100	2.500	2.815	2.407	2.910	2.319	2.941	2.283	2.657	2.913	2.524	2.894	.138	.236	.311	.047
SOF45 8/16-D3.0-07-1.00R	3.4100	3.000	3.315	2.907	3.410	2.819	3.441	2.783	3.157	3.413	3.024	3.394	.138	.236	.311	.047
SOF45 8/16-D3.0-10-1.00R	3.4100	3.000	3.315	2.907	3.410	2.819	3.441	2.783	3.157	3.413	3.024	3.394	.138	.236	.311	.047
SOF45 8/16-D4.0-08-1.25R	4.4100	4.000	4.315	3.907	4.410	3.819	4.441	3.783	4.157	4.413	4.024	4.394	.138	.236	.311	.047
SOF45 8/16-D4.0-08-1.50R	4.4100	4.000	4.315	3.907	4.410	3.819	4.441	3.783	4.157	4.413	4.024	4.394	.138	.236	.311	.047
SOF45 8/16-D4.0-12-1.25R	4.4100	4.000	4.315	3.907	4.410	3.819	4.441	3.783	4.157	4.413	4.024	4.394	.138	.236	.311	.047
SOF45 8/16-D4.0-12-1.50R	4.4100	4.000	4.315	3.907	4.410	3.819	4.441	3.783	4.157	4.413	4.024	4.394	.138	.236	.311	.047
SOF45 8/16-D5.0-10-1.50R	5.4100	5.000	5.315	4.907	5.410	4.819	5.441	4.783	5.157	5.413	5.024	5.394	.138	.236	.311	.047
SOF45 8/16-D5.0-16-1.50R	5.4100	5.000	5.315	4.907	5.410	4.819	5.441	4.783	5.157	5.413	5.024	5.394	.138	.236	.311	.047
SOF45 8/16-D6.0-12-2.0-R	6.4100	6.000	6.315	5.907	6.410	5.819	6.441	5.783	6.157	6.413	6.024	6.394	.138	.236	.311	.047

Designation	APMX_5	OAL	OAL_2	OAL_3	OAL_4	OAL_5	CICT(2)	DCONMS	DHUB	RMPX°_3(3)	Arbor(4)	CSP(5)	Lbs
SOF45 8/16-D1.5-04-0.75R	.114	1.500	1.550	1.121	1.551	1.547	4	.750	1.440	3.7	A	1	.45
SOF45 8/16-D2.0-04-0.75R	.114	1.750	1.800	1.301	1.801	1.797	4	.750	1.890	5.6	A	1	1.08
SOF45 8/16-D2.0-06-0.75R	.114	1.750	1.800	1.301	1.801	1.797	6	.750	1.890	5.6	A	1	1.06
SOF45 8/16-D2.5-06-1.00R	.114	1.750	1.800	1.301	1.801	1.797	6	1.000	2.210	6.3	B	0	1.41
SOF45 8/16-D2.5-08-1.00R	.114	1.750	1.800	1.301	1.801	1.797	8	1.000	2.210	6.3	B	0	1.34
SOF45 8/16-D3.0-07-1.00R	.114	1.750	1.800	1.301	1.801	1.797	7	1.000	2.210	6.3	B	0	1.78
SOF45 8/16-D3.0-10-1.00R	.114	1.750	1.800	1.301	1.801	1.797	10	1.000	2.210	6.2	B	0	1.62
SOF45 8/16-D4.0-08-1.25R	.114	2.000	2.050	1.480	2.051	2.047	8	1.250	2.680	6.2	B	0	3.15
SOF45 8/16-D4.0-08-1.50R	.114	2.000	2.050	1.480	2.051	2.047	8	1.500	3.150	4.7	B	0	3.51
SOF45 8/16-D4.0-12-1.25R	.114	2.000	2.050	1.480	2.051	2.047	12	1.250	2.680	4.7	B	0	3.04
SOF45 8/16-D4.0-12-1.50R	.114	2.000	2.050	1.480	2.051	2.047	12	1.500	3.150	3.6	B	0	3.37
SOF45 8/16-D5.0-10-1.50R	.114	2.000	2.050	1.480	2.051	2.047	10	1.500	3.270	3.6	B	0	4.84
SOF45 8/16-D5.0-16-1.50R	.114	2.000	2.050	1.480	2.051	2.047	16	1.500	3.270	2.6	B	0	4.66
SOF45 8/16-D6.0-12-2.0-R	.114	2.000	2.050	1.480	2.051	2.047	12	2.000	3.940	2.0	B	0	6.28

Designation	MIID(6)	MIID_2(7)	MIID_3(8)	MIID_4(9)	MIID_5(10)
SOF45 8/16-D1.5-04-0.75R	ONHU 050500-PL	S845 SNHU 1305ANR-M	RXMT 1607N	OXMT 0507R08-FF	OXMT 050705-R-HP
SOF45 8/16-D2.0-04-0.75R	ONHU 050500-PL	S845 SNHU 1305ANR-M	RXMT 1607N	OXMT 0507R08-FF	OXMT 050705-R-HP
SOF45 8/16-D2.0-06-0.75R	ONHU 050500-PL	S845 SNHU 1305ANR-M	RXMT 1607N	OXMT 0507R08-FF	OXMT 050705-R-HP
SOF45 8/16-D2.5-06-1.00R	ONHU 050500-PL	S845 SNHU 1305ANR-M	RXMT 1607N	OXMT 0507R08-FF	OXMT 050705-R-HP
SOF45 8/16-D2.5-08-1.00R	ONHU 050500-PL	S845 SNHU 1305ANR-M	RXMT 1607N	OXMT 0507R08-FF	OXMT 050705-R-HP
SOF45 8/16-D3.0-07-1.00R	ONHU 050500-PL	S845 SNHU 1305ANR-M	RXMT 1607N	OXMT 0507R08-FF	OXMT 050705-R-HP
SOF45 8/16-D3.0-10-1.00R	ONHU 050500-PL	S845 SNHU 1305ANR-M	RXMT 1607N	OXMT 0507R08-FF	OXMT 050705-R-HP
SOF45 8/16-D4.0-08-1.25R	ONHU 050500-PL	S845 SNHU 1305ANR-M	RXMT 1607N	OXMT 0507R08-FF	OXMT 050705-R-HP
SOF45 8/16-D4.0-08-1.50R	ONHU 050500-PL	S845 SNHU 1305ANR-M	RXMT 1607N	OXMT 0507R08-FF	OXMT 050705-R-HP
SOF45 8/16-D4.0-12-1.25R	ONHU 050500-PL	S845 SNHU 1305ANR-M	RXMT 1607N	OXMT 0507R08-FF	OXMT 050705-R-HP
SOF45 8/16-D4.0-12-1.50R	ONHU 050500-PL	S845 SNHU 1305ANR-M	RXMT 1607N	OXMT 0507R08-FF	OXMT 050705-R-HP
SOF45 8/16-D5.0-10-1.50R	ONHU 050500-PL	S845 SNHU 1305ANR-M	RXMT 1607N	OXMT 0507R08-FF	OXMT 050705-R-HP
SOF45 8/16-D5.0-16-1.50R	ONHU 050500-PL	S845 SNHU 1305ANR-M	RXMT 1607N	OXMT 0507R08-FF	OXMT 050705-R-HP
SOF45 8/16-D6.0-12-2.0-R	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 586-591

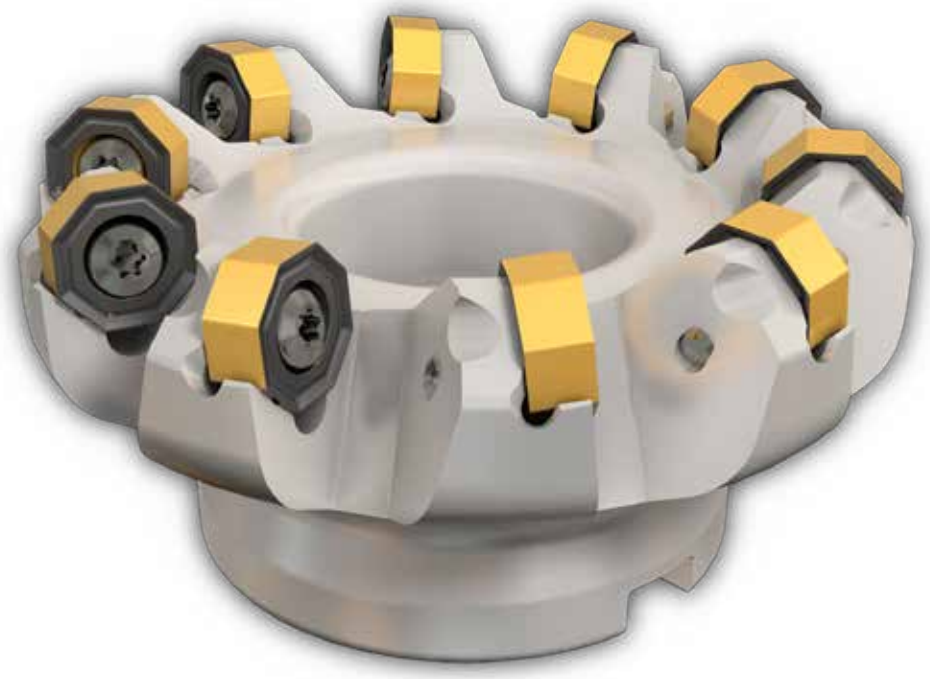
(1) Cutting diameter maximum
(10) Master insert identification 5
(2) Number of inserts
(3) Valid only with RXMT 1607N insert
(4) For adaptation options, see page 592
(5) 0 - Without coolant supply, 1 - With coolant supply
(6) Master insert identification
(7) Master insert identification 2
(8) Master insert identification 3
(9) Master insert identification 4

For inserts, see pages: ONHU 0505-W (545) • ONHU/ONMU-05 (545) • OXMT 0507 (546) • RXMT 1607 (570) • S845 SNHU 1305-W (541) • S845 SNMU/SNHU-13 (541)

Spare Parts

Designation				
SOF45 8/16-D1.5-04-0.75R	SR 11800745	BLD IP15/S7[a]	SW6-T-SH	SR UNF 3/8X1 B18.3
SOF45 8/16-D2.0-04-0.75R	SR 11800745	BLD IP15/S7[a]	SW6-T-SH	SR UNF 3/8X1 B18.3
SOF45 8/16-D2.0-06-0.75R	SR 11800745	BLD IP15/S7[a]	SW6-T-SH	SR UNF 3/8X1 B18.3
SOF45 8/16-D2.5-06-1.00R	SR 11800745	BLD IP15/S7[a]	SW6-T-SH	
SOF45 8/16-D2.5-08-1.00R	SR 11800745	BLD IP15/S7[a]	SW6-T-SH	
SOF45 8/16-D3.0-07-1.00R	SR 11800745	BLD IP15/S7[a]	SW6-T-SH	
SOF45 8/16-D3.0-10-1.00R	SR 11800745	BLD IP15/S7[a]	SW6-T-SH	
SOF45 8/16-D4.0-08-1.25R	SR 11800745	BLD IP15/S7[a]	SW6-T-SH	
SOF45 8/16-D4.0-08-1.50R	SR 11800745	BLD IP15/S7[a]	SW6-T-SH	
SOF45 8/16-D4.0-12-1.25R	SR 11800745	BLD IP15/S7[a]	SW6-T-SH	
SOF45 8/16-D4.0-12-1.50R	SR 11800745	BLD IP15/S7[a]	SW6-T-SH	
SOF45 8/16-D5.0-10-1.50R	SR 11800745	BLD IP15/S7[a]	SW6-T-SH	
SOF45 8/16-D5.0-16-1.50R	SR 11800745	BLD IP15/S7[a]	SW6-T-SH	
SOF45 8/16-D6.0-12-2.0-R	SR 11800745	BLD IP15/M7	SW6-T-SH	

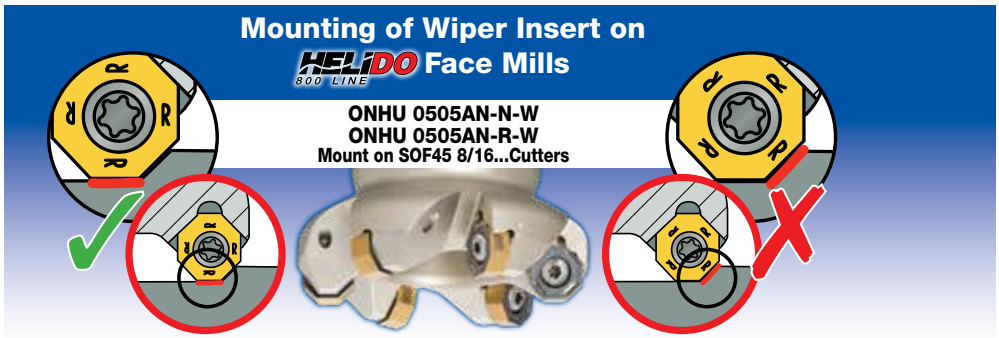
[a] IMPORTANT: Use only Torx Plus keys.



Wiper Inserts

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

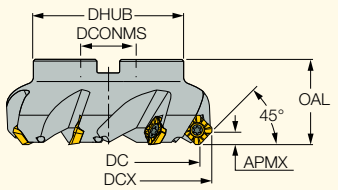
- ONHU 0505AN-R-W mounted on standard SOF45 milling cutters. This insert provides 8 right-hand wiper edges.
- ONHU 0505AN-N-W mounted on SOF45 milling cutters. This insert provides 4 right-hand wiper edges to be used on standard tools and 4 left-hand wiper edges to be used on special left-hand SOF45 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)	Lbs
F45ST D2.00- .75	2.000	2.470	4	.260	1.750	1.730	.750	B	.97
F45ST D2.50-1.00 (1)	2.500	2.980	5	.260	1.750	2.360	1.000	B	1.48
F45ST D3.00-1.00 (1)	3.000	3.510	5	.260	1.750	2.360	1.000	B	2.02
F45ST D4.00-1.50 (1)	4.000	4.400	6	.260	2.000	3.680	1.500	B	4.32

• 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 586-591
(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 592
For inserts, see pages: SEHT-AFN (552) • SEHW-AFTN (551) • SEKT-AF-R (550) • SEKT-AFTN (551) • SEMT 12..AFTN-76 (552) • SEMT 1204AF-R-HS (551)

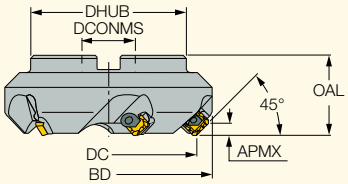
Spare Parts

Designation							
F45ST D2.00- .75	SR 34-523	BLD T15/M7	SW6-T	SR 14-601(b)*	TSE 12T3-N(b)*	SR TC-606(b)*	HW 3.5(b)*
F45ST D2.50-1.00	SR 34-523	BLD T15/M7	SW6-T			SR TC-606(b)	
F45ST D3.00-1.00	SR 34-523	BLD T15/M7	SW6-T	SR 14-601(b)	TSE 12T3-N(b)*	SR TC-606(b)*	HW 3.5(b)*
F45ST D4.00-1.50	SR 34-523	BLD T15/M7	SW6-T		TSE 12T3-N(b)*	SR TC-606(b)*	HW 3.5(b)*

(a) Optional for insert SE..12T3
(b) Optional for insert SE..12T3
(c) Optional for insert SE..12T3
(d) 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)	Lbs
F45E D 2.0- .75	2.000	2.6800	.256	4	1.700	1.730	.750	A	1.40
F45E D 2.5 -1.00	2.500	3.2200	.256	5	1.750	2.400	1.000	A	2.21
F45E D 3.0 -1.00	3.000	3.6600	.256	6	1.750	2.480	1.000	B	2.57
F45E D 4.0 -1.50 (1)	4.000	4.7000	.256	6	2.000	3.680	1.500	B	5.19

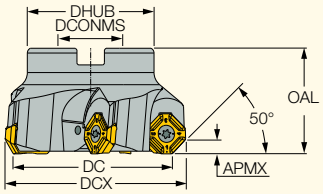
• For user guide, see pages 586-591
(1) For internal coolant, use a matching coolant set (should be ordered separately)
(2) Number of inserts
(3) For adaptation options, see page 592
For inserts, see pages: SEK-AF.. (552) • SEKR-AF-N-42 (553) • SEKR-AF..-76 (553) • SEKR-AFTR-HS (553)

Spare Parts

Designation						
F45E	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)	Lbs
IQ845 FSYD2.0-04-0.75-R07	2.000	2.370	4	.180	1.750	1.770	.750	A	1	.99
IQ845 FSYD2.0-05-0.75-R07	2.000	2.370	5	.180	1.750	1.770	.750	A	1	.97
IQ845 FSYD2.5-05-1.00-R07	2.500	2.870	5	.180	1.750	2.220	1.000	B	1	1.42
IQ845 FSYD2.5-07-1.00-R07	2.500	2.870	7	.180	1.750	2.220	1.000	B	1	1.35
IQ845 FSYD3.0-06-1.00-R07	3.000	3.370	6	.180	1.750	2.220	1.000	B	1	1.77
IQ845 FSYD3.0-08-1.00-R07	3.000	3.370	8	.180	1.750	2.220	1.000	B	1	1.66
IQ845 FSYD4.0-07-1.50-R07	4.000	4.370	7	.180	2.000	3.230	1.500	B	1	3.70
IQ845 FSYD4.0-10-1.50-R07	4.000	4.370	10	.180	2.000	3.230	1.500	B	1	3.63
IQ845 FSYD5.0-09-1.50-R07	5.000	5.370	9	.180	2.000	3.230	1.500	B	1	5.30
IQ845 FSYD5.0-12-1.50-R07	5.000	5.370	12	.180	2.000	3.230	1.500	B	1	5.24
IQ845 FSYD6.0-11-2.00-R07	6.000	6.370	11	.180	2.000	3.940	2.000	B	0	6.84
IQ845 FSYD6.0-15-2.00-R07	6.000	6.370	15	.180	2.000	3.940	2.000	B	0	6.72
IQ845 FSY D8.0-14-2.5-R07	8.000	8.370	14	.180	2.500	5.300	2.500	C	0	13.67
IQ845 FSYD10.0-17-2.5-R07	10.000	10.370	17	.180	2.500	5.300	2.500	C	0	18.46
IQ845 FSYD12.0-20-2.5-R07	12.000	12.370	20	.180	3.150	8.660	2.500	D	0	36.55

- For user guide, see pages 586-591

(1) Cutting diameter maximum
(2) Number of inserts
(3) For adaptation options, see page 592
(4) 0 - Without coolant supply, 1 - With coolant supply

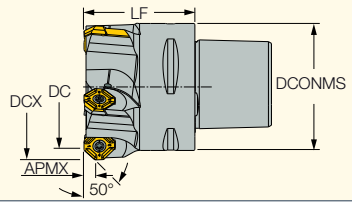
For inserts, see pages: IQ845 SYHU-07 (540)

Spare Parts

Designation				
IQ845 FSYD2.0-04-0.75-R07	SR M4X0.7IP15	BLD IP15/S7	SW6-T-SH	SR UNF 3/8X1 B18.3
IQ845 FSYD2.0-05-0.75-R07	SR M4X0.7IP15	BLD IP15/S7	SW6-T-SH	SR UNF 3/8X1 B18.3
IQ845 FSYD2.5-05-1.00-R07	SR M4X0.7IP15	BLD IP15/S7	SW6-T-SH	
IQ845 FSYD2.5-07-1.00-R07	SR M4X0.7IP15	BLD IP15/S7	SW6-T-SH	
IQ845 FSYD3.0-06-1.00-R07	SR M4X0.7IP15	BLD IP15/S7	SW6-T-SH	
IQ845 FSYD3.0-08-1.00-R07	SR M4X0.7IP15	BLD IP15/S7	SW6-T-SH	
IQ845 FSYD4.0-07-1.50-R07	SR M4X0.7IP15	BLD IP15/S7	SW6-T-SH	
IQ845 FSYD4.0-10-1.50-R07	SR M4X0.7IP15	BLD IP15/S7	SW6-T-SH	
IQ845 FSYD5.0-09-1.50-R07	SR M4X0.7IP15	BLD IP15/S7	SW6-T-SH	
IQ845 FSYD5.0-12-1.50-R07	SR M4X0.7IP15	BLD IP15/S7	SW6-T-SH	
IQ845 FSYD6.0-11-2.00-R07	SR M4X0.7IP15	BLD IP15/S7	SW6-T-SH	
IQ845 FSYD6.0-15-2.00-R07	SR M4X0.7IP15	BLD IP15/S7	SW6-T-SH	
IQ845 FSY D8.0-14-2.5-R07	SR M4X0.7IP15	BLD IP15/S7	SW6-T-SH	
IQ845 FSYD10.0-17-2.5-R07	SR M4X0.7IP15	BLD IP15/S7	SW6-T-SH	
IQ845 FSYD12.0-20-2.5-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)	Lbs			
IQ845 FSY D063-05-C6-R07	2.480	2.850	5	.181	2.165	63	1	3.38	SR M4X0.7IP15	BLD IP15/S7	SW6-T-SH

- For user guide, see pages 586-591

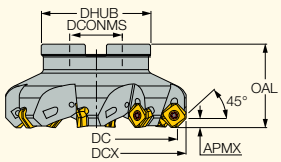
(1) Cutting diameter maximum
(2) Number of inserts
(3) 1 - Slot for data chip, 0 - Without slot for data chip

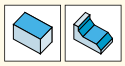
For inserts, see pages: IQ845 SYHU-07 (540)

HELIDO 845 LINE

S845 F45SX-16

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



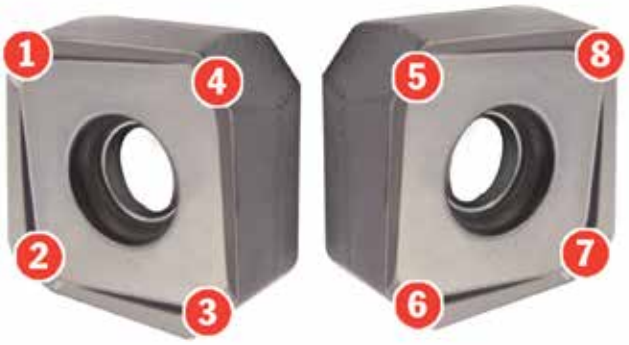


Designation	DC	CICT(3)	DCX(4)	APMX	OAL	DHUB	DCONMS	Arbor(5)	CSP(6)	Lbs
S845 F45SX D2.0-5-.75-R16 (1)	2.000	5	2.550	.276	1.750	1.930	.750	A	1	1.04
S845 F45SX D2.5-5-1.0-R16	2.500	5	3.080	.276	1.750	2.360	1.000	A	1	1.57
S845 F45SX D2.5-7-1.0-R16 (1)	2.500	7	3.127	.276	1.750	2.360	1.000	A	1	1.56
S845 F45SX D3.0-6-1.0-R16	3.000	6	3.580	.276	1.750	2.755	1.000	B	1	2.05
S845 F45SX D3.0-8-1.0-R16 (1)	3.000	8	3.580	.276	1.750	2.755	1.000	B	1	2.05
S845 F45SX D4.0-7-1.5-R16	4.000	7	4.580	.276	2.000	3.268	1.500	B	1	3.59
S845 F45SX D5.0-8-1.5-R16	5.000	8	5.580	.276	2.000	3.220	1.500	B	1	5.56
S845 F45SX D6.0-10-2.0R16 (2)	6.000	10	6.580	.276	2.000	4.330	2.000	B	0	6.43
S845 F45SX D8.0-12-2.5R16	8.000	12	8.580	.276	2.500	5.310	2.500	C	0	13.13

- Wiper inserts are used on face mill cutters, provide improved surface finish, eliminate the use of other finishing cutters.
- For user guide, see pages 586-591

(1) Fine pitch cutters, recommended for machining cast iron and steel - up to .16 " D.O.C.
(2) For internal coolant, use a matching coolant set (to be ordered separately)
(3) Number of inserts
(4) Cutting diameter maximum
(5) For adaptation options, see page 592
(6) 0 - Without coolant supply, 1 - With coolant supply

For inserts, see pages: S845 SXHU 1606-W (542) • S845 SXMU/SXCU-16 (542)



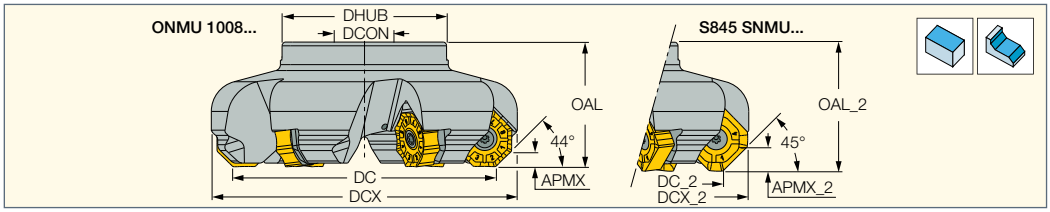
Spare Parts

Designation				
S845 F45SX D2.0-5-.75-R16	SR 14-591-M	BLD T20/M7	SW6-T	SR UNF 3/8X1.25 B18.3
S845 F45SX D2.5-5-1.0-R16	SR 14-591	BLD T20/M7	SW6-T	SR UNF 1/2X1¼ B18.3
S845 F45SX D2.5-7-1.0-R16	SR 14-591-M	BLD T20/M7	SW6-T	SR UNF 1/2X1¼ B18.3
S845 F45SX D3.0-6-1.0-R16	SR 14-591	BLD T20/M7	SW6-T	
S845 F45SX D3.0-8-1.0-R16	SR 14-591-M	BLD T20/M7	SW6-T	
S845 F45SX D4.0-7-1.5-R16	SR 14-591	BLD T20/M7	SW6-T	
S845 F45SX D5.0-8-1.5-R16	SR 14-591	BLD T20/M7	SW6-T	
S845 F45SX D6.0-10-2.0R16	SR 14-591	BLD T20/M7	SW6-T	
S845 F45SX D8.0-12-2.5R16	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)	Lbs
SOF45 D4.0-05-1.50-R26	4.160	4.900	.286	2.420	4.000	.433	2.500	5	3.270	1.500	B	1	5.15
SOF45 D5.0-06-1.50-R26	5.160	5.960	.286	2.420	5.000	.433	2.500	6	3.270	1.500	B	1	7.60
SOF45 D6.0-08-2.00-R26	6.160	6.960	.286	2.420	6.000	.433	2.500	8	3.940	2.000	B	0	8.71
SOF45 D8.0-10-2.50-R26	8.160	8.960	.286	2.420	8.000	.433	2.500	10	5.320	2.500	C	0	15.45
SOF45 D10.0-12-2.50-R26	10.160	10.905	.286	2.420	10.000	.433	2.500	12	5.320	2.500	C	0	23.15

- For user guide, see pages 586-591

(1) Cutting diameter maximum

(2) Number of inserts

(3) For adaptation options, see page 592

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

For inserts, see pages: ONMU 1008 (550) • S845 SNMU 2608 (543)

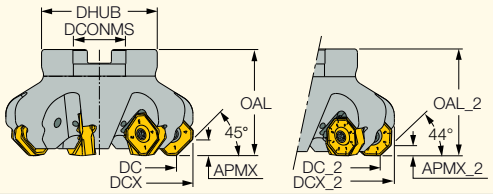
Spare Parts

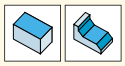
Designation					
SOF45 D4.0-05-1.50-R26	SR 1/4-28XIP25	TSOF 26-N	SR M3.5X0.6-6.5 T10	BLD IP25/S7	SW6-T
SOF45 D5.0-06-1.50-R26	SR 1/4-28XIP25	TSOF 26-N	SR M3.5X0.6-6.5 T10	BLD IP25/S7	SW6-T
SOF45 D6.0-08-2.00-R26	SR 1/4-28XIP25	TSOF 26-N	SR M3.5X0.6-6.5 T10	BLD IP25/M7	SW6-T
SOF45 D8.0-10-2.50-R26	SR 1/4-28XIP25	TSOF 26-N	SR M3.5X0.6-6.5 T10	BLD IP25/M7	SW6-T
SOF45 D10.0-12-2.50-R26	SR 1/4-28XIP25	TSOF 26-N	SR M3.5X0.6-6.5 T10	BLD IP25/L7	SW6-T

HELIDO 800 HD 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(3)	CSP(4)	Lbs
SOF45 D2.0-04-0.75-R18	2.000	2.670	.315	2.000	2.110	2.670	.197	1.940	4	1.750	.750	A	1	1.25
SOF45 D2.5-05-1.00-R18	2.500	3.170	.315	2.000	2.610	3.170	.197	1.940	5	2.250	1.000	A	1	1.90
SOF45 D3.0-06-1.00-R18	3.000	3.670	.315	2.000	3.110	3.670	.197	1.940	6	2.250	1.000	A	1	2.48
SOF45 D3.0-07-1.00-R18	3.000	3.670	.315	2.000	3.110	3.670	.197	1.940	7	2.250	1.000	A	1	2.42
SOF45 D4.0-07-1.50-R18	4.000	4.670	.315	2.250	4.110	4.670	.197	2.190	7	3.250	1.500	B	1	4.41
SOF45 D4.0-09-1.50-R18	4.000	4.670	.315	2.250	4.110	4.670	.197	2.190	9	3.250	1.500	B	1	4.41
SOF45 D5.0-08-1.50-R18	5.000	5.670	.315	2.500	5.110	5.670	.197	2.440	8	3.250	1.500	B	1	7.25
SOF45 D5.0-12-1.50-R18	5.000	5.670	.315	2.500	5.110	5.670	.197	2.440	12	3.250	1.500	B	1	7.18
SOF45 D6.0-10-2.00-R18	6.000	6.670	.315	2.500	6.110	6.670	.197	2.440	10	4.000	2.000	B	0	8.89
SOF45 D6.0-15-2.00-R18	6.000	6.670	.315	2.500	6.110	6.670	.197	2.440	15	4.000	2.000	B	0	8.71
SOF45 D8.0-12-2.50-R18	8.000	8.670	.315	2.500	8.110	8.670	.197	2.440	12	5.000	2.500	C	0	14.34
SOF45 D8.0-18-2.50-R18	8.000	8.670	.315	2.500	8.110	8.670	.197	2.440	18	5.000	2.500	C	0	14.51
SOF45 D10.0-14-2.50-R18	10.000	10.670	.315	2.500	10.110	10.670	.197	2.440	14	5.000	2.500	C	0	21.99
SOF45 D10.0-21-2.50-R18	10.000	10.670	.315	2.500	10.110	10.670	.197	2.440	21	5.000	2.500	C	0	21.89
SOF45 D12.0-18-2.50-R18	12.000	12.670	.315	3.150	12.110	12.670	.197	3.090	18	9.000	2.500	C	0	43.55
SOF45 D12.0-24-2.50-R18	12.000	12.670	.315	3.150	12.110	12.670	.197	3.090	24	9.000	2.500	C	0	43.30

- For user guide, see pages 586-591

(1) Cutting diameter maximum
(2) Number of inserts
(3) For adaptation options, see page 592
(4) 0 - Without coolant supply, 1 - With coolant supply

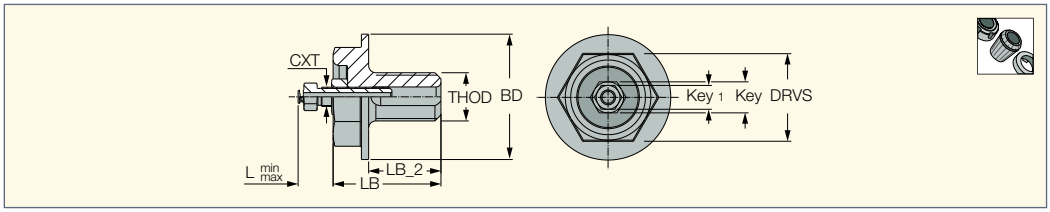
For inserts, see pages: ONHU 0706AN-R-W (550) • ONMU/ONHU 0706 (549) • S845 SNHU 1806AN-N-W (543) • S845 SNMU/SNHU 1806 (542)

Spare Parts

Designation				
SOF45 D2.0-04-0.75-R18	SR M5X0.8 16 IP20	BLD IP20/S7	SW6-T	SR UNF 3/8X1 B18.3
SOF45 D2.5-05-1.00-R18	SR M5X0.8 16 IP20	BLD IP20/S7	SW6-T	SR UNF 1/2X20X1 B18.3
SOF45 D3.0-06-1.00-R18	SR M5X0.8 16 IP20	BLD IP20/S7	SW6-T	SR UNF 1/2X20X1 B18.3
SOF45 D3.0-07-1.00-R18	SR M5X0.8 16 IP20	BLD IP20/S7	SW6-T	SR UNF 1/2X20X1 B18.3
SOF45 D4.0-07-1.50-R18	SR M5X0.8 16 IP20	BLD IP20/S7	SW6-T	
SOF45 D4.0-09-1.50-R18	SR M5X0.8 16 IP20	BLD IP20/S7	SW6-T	
SOF45 D5.0-08-1.50-R18	SR M5X0.8 16 IP20	BLD IP20/S7	SW6-T	
SOF45 D5.0-12-1.50-R18	SR M5X0.8 16 IP20	BLD IP20/S7	SW6-T	
SOF45 D6.0-10-2.00-R18	SR M5X0.8 16 IP20	BLD IP20/M7	SW6-T	
SOF45 D6.0-15-2.00-R18	SR M5X0.8 16 IP20	BLD IP20/M7	SW6-T	
SOF45 D8.0-12-2.50-R18	SR M5X0.8 16 IP20	BLD IP20/M7	SW6-T	
SOF45 D8.0-18-2.50-R18	SR M5X0.8 16 IP20	BLD IP20/M7	SW6-T	
SOF45 D10.0-14-2.50-R18	SR M5X0.8 16 IP20	BLD IP20/M7	SW6-T	
SOF45 D10.0-21-2.50-R18	SR M5X0.8 16 IP20	BLD IP20/M7	SW6-T	
SOF45 D12.0-18-2.50-R18	SR M5X0.8 16 IP20	BLD IP20/M7	SW6-T	
SOF45 D12.0-24-2.50-R18	SR M5X0.8 16 IP20	BLD IP20/M7	SW6-T	

Accessories

COOLANT SET
Clamping Screws with Adjustable Protruding Nozzles for Shell-Type Face Mills



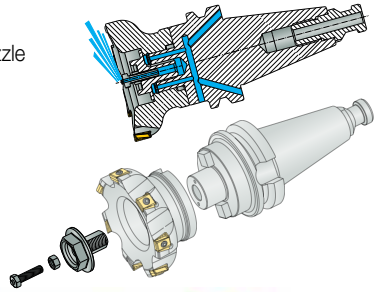
Designation	BD	THOD	CXT	LB	LB_2	L min	L max	Key	Key 1	DRVS[1]
COOLANT SET SR 1/2 1C	1.190	1/2-20	10-32	1.170	.719	.06	.560	.313	.375	1.188
COOLANT SET SR 5/8 1-1/4C	1.500	5/8-18	10-32	1.400	.875	.06	.560	.313	.375	1.313
COOLANT SET SR 3/4 1-1/2C	1.870	3/4-16	5/16-24	1.540	.937	.09	1.000	.438	.500	1.313
COOLANT SET SR 1 2C	2.480	1-14	5/16-24	1.740	.937	.10	1.000	.438	.500	1.688

(1) Torque key size

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

The protrusion of the nozzle screw can be easily adjusted according to the countersink depth, insert size or any other application requirements. 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 ANSI/ASME B107.9M-1994 or BS 3555 standards).



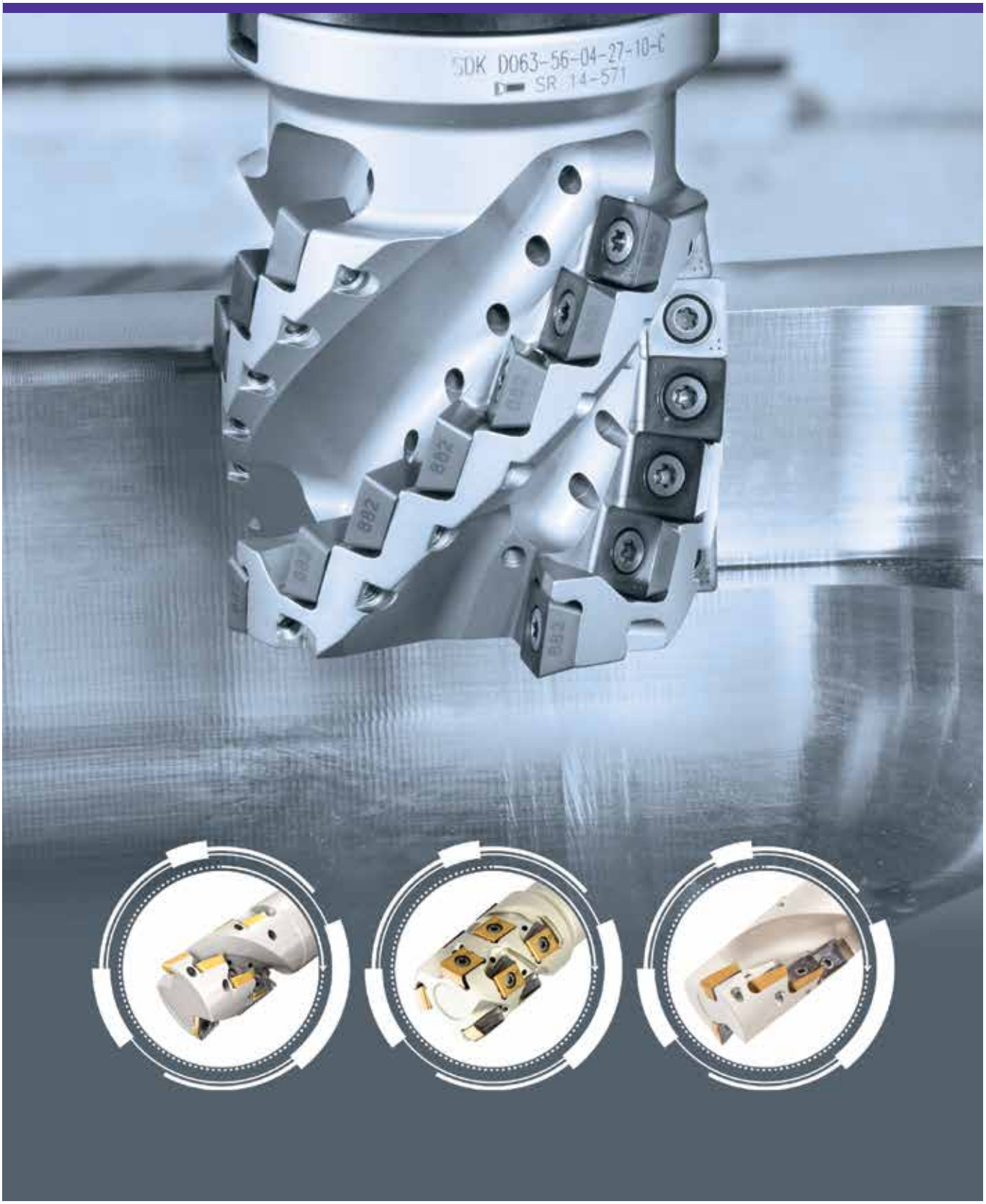
Assembly with a Lock Nut

Assembly without a Lock Nut

Spare Parts

Designation			
COOLANT SET SR 1/2 1C	NOZZLE 10-32 UNF	FLAT WASHER M5 DIN125A SS	NUT UNF 10-32" SS
COOLANT SET SR 5/8 1-1/4C	NOZZLE 10-32 UNF	FLAT WASHER M5 DIN125A SS	NUT UNF 10-32" SS
COOLANT SET SR 3/4 1-1/2C	NOZZLE 5/16-24 UNF	FLAT WASHER M8 DIN125A SS	NUT UNF 5/16-24 SS
COOLANT SET SR 1 2C	NOZZLE 5/16-24 UNF	FLAT WASHER M8 DIN125A SS	NUT UNF 5/16-24 SS

EXTENDED FLUTE CUTTERS



Extended Flute Mills

HELIPLUS

HP ANK
page 275

HELIDO 845 LINE

H490 ANK
page 275

HELI3MILL HM390 LINE

HM390 TPK/SM
pages 276-277

HELITANG T490 LINE

T490 LNK/LNM
pages 278-279, 287

HELIMILL

ADK/APK-FE
pages 280-281

HELIQUAD

SPK
page 280

MILLSHRED P290 LINE

P290 ACK/SM
pages 281-284

HELITANG T490 LINE

T490 SM
pages 285-286

HELIDO 845 LINE

H490 SM
pages 285, 289

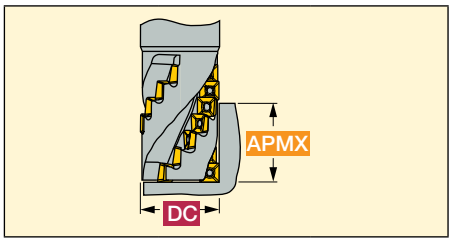
XQUAD EXTENDED FLUTE

SDK-C/HP
pages 289-290

HELIMILL

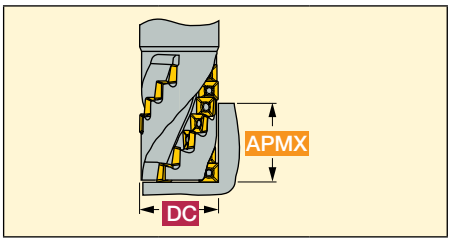
SM
page 290

90° Extended Flute Mills Selection Guide



Tools	Pages	APMX / Flutes DC .75	1.00	1.25	1.50	2.00	Inserts
HP ANK-07	275	.85/2		1.40/4			HP AN.. 07...
H490 ANK-09	275		1.40/2	1.68/3			H490 AN..09..
HM390 TPK-10	276		1.10/2	1.65/2	1.95/4		HM390 TP.. 10..
HM390 SM-10	277				1.93/4	1.93/5	HM390 TP.. 10..
T490 LNM-08	278		1.16/2	1.44/3			T490 LN.T 08...
T490 LNK-11	278			1.36/2	2.02/4		T490 LN..T1106
T490 LNK-13	279				1.43/2 1.89/2	1.87/3 2.32/4 3.20/3	T490 LN.. 13...

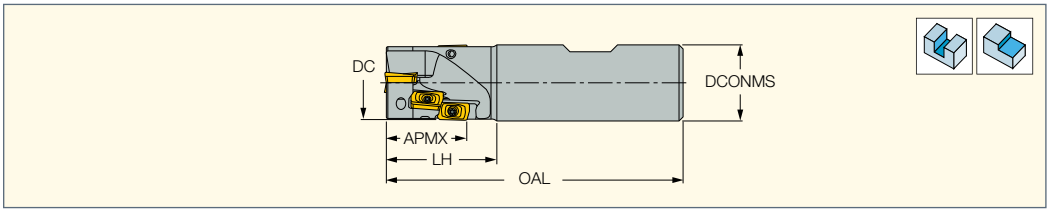
90° Extended Flute Mills Selection Guide



Tools	Pages	APMX / Flutes DC .75	1.00	1.25	1.50	2.00	2.50	3.00	4.00	Inserts
APK-FE	280	1.15/1	1.47/2	1.86/2	2.06/2 2.20/3					AP.. 10... FPKT 10...
SPK	280			1.40/2	1.70/3					SPMT 10... XPMT 10.. QPMT 10..
ADK	281			1.00/2	1.50/2	2.00/3 4.00/2				HM AD.. 15... AD.. 15...
P290 ACK	282		.90/3 1.40/3	1.40/3 1.90/3 2.40/3 3.30/3	2.10/3 2.80/3 3.50/3	2.10/3 4.10/3 6.30/3				P290 AC...T
P290 SM	284			.90/3	.90/4 1.40/4 1.90/4	1.40/4 2.10/4 2.80/4	2.80/5	2.80/6	1.40/6	P290 AC...T
T490 SM	285 286			1.44/3	1.43/2 2.02/3	1.41/3 1.87/4 2.35/4	1.44/4 2.32/5	1.87/5 3.24/5	2.32/6	T490 LN..
H490 SM	285 289			1.12/3			1.83/3	1.83/4		H490 AN..
SDK-C/HP	289 290					1.90/3 1.90/4	2.17/5 2.22/4 2.60/4 3.88/4	2.53/5 2.60/5 4.31/5	3.03/6 5.15/6	SD.. 10 SD..12 QD..12
SM	290					1.00/3	1.50/4	1.50/5	1.50/6	HM AD.. 15... AD.. 15...

HELIPLUS

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



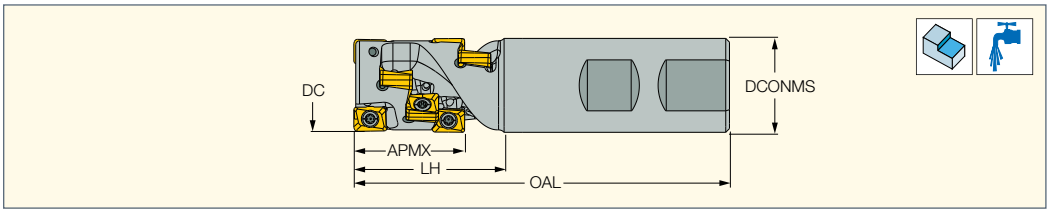
Designation	DC	APMX	NOF(1)	CICT(2)	LH	OAL	DCONMS	Shank(3)	Lbs		
HP ANK D.75-.85-02-W.75-7	.750	.850	2	6	1.250	3.500	.750	W	.37	SR 34-533/L/HG	T-6/51
HP ANK D1.25-1.4-4W1.25-7	1.250	1.400	4	20	1.800	4.300	1.250	W	.98	SR 34-533/L/HG	T-6/51

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

For inserts, see pages: HP ANCR 0702PNFR (484) • HP ANKT/ANCT 0702..PN-R/PNTR (484) • HP ANKW 070204PNTR (484)

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)	Lbs
H490 ANK D1.0-1.4-W1.0-09	1.000	1.400	2	10	1.570	3.930	1.000	W	.69
H490 ANKD1.25-1.68-W1.2-9	1.250	1.680	3	18	1.960	4.520	1.250	W	1.11

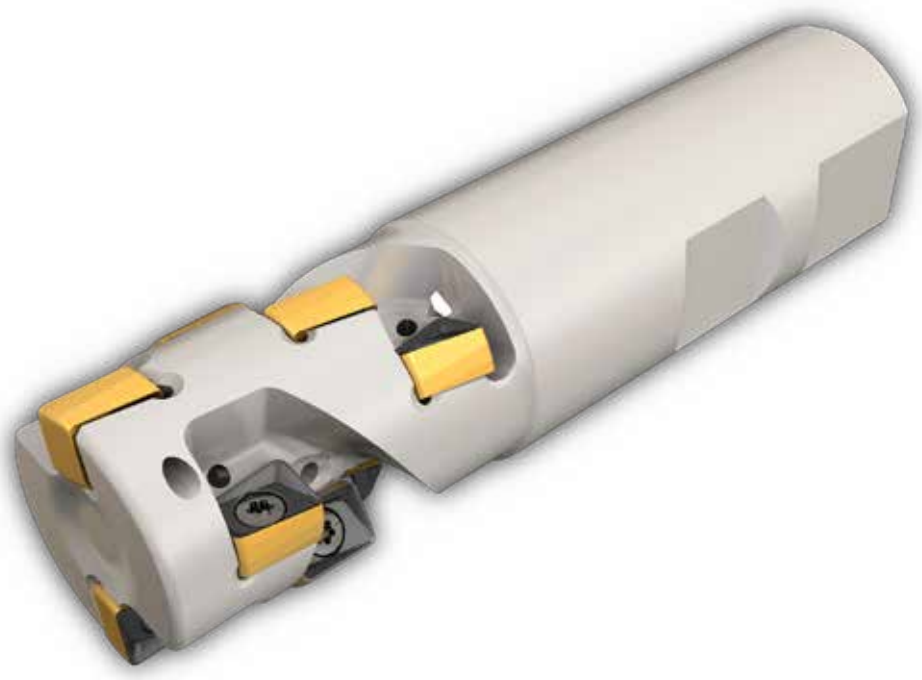
- For user guide, see pages 586-591

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

For inserts, see pages: H490 ANKX/ANCX-09 (512)

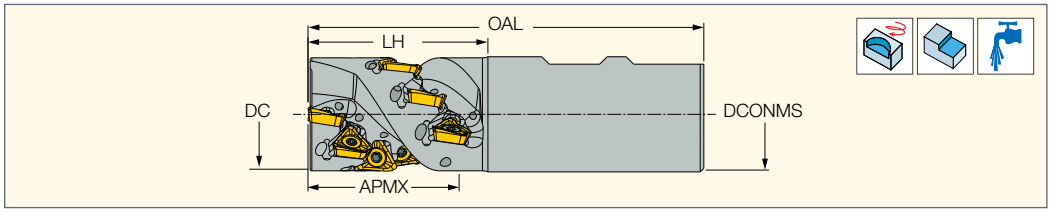
Spare Parts

Designation			
H490 ANK-09	SR 10508082-HG	BLD T08/M7	SW4-SD



HELI3MILL HM390 LINE

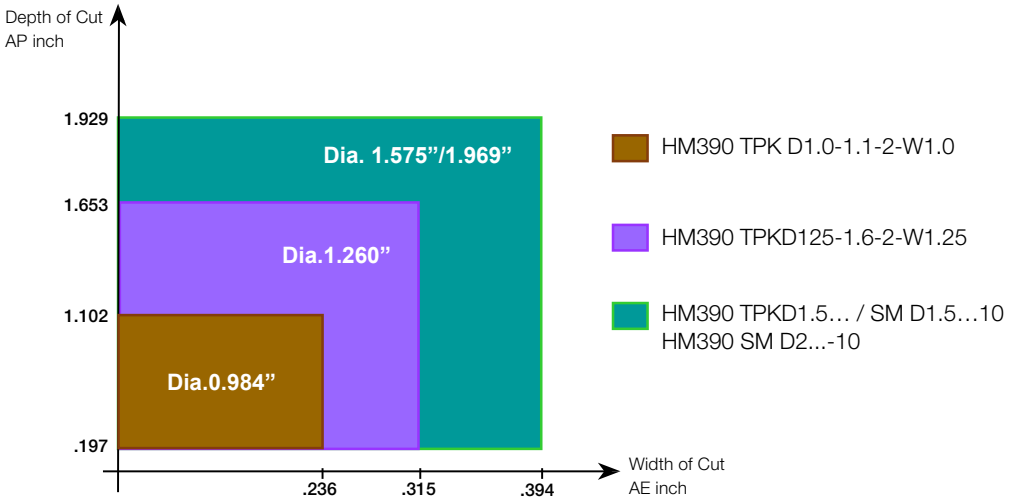
HM390 TPK-10
Extended Flute Endmills
Carrying HM390 TPKT 1003
Triangular Inserts with 3
Helical Cutting Edges



Designation	DC	APMX	NOF(1)	CICT(2)	LH	OAL	DCONMS	Shank(3)	Lbs
HM390 TPK D1.0-1.1-2-W1.0	1.000	1.100	2	8	1.397	3.740	1.000	W	.69
HM390 TPKD125-1.6-2-W1.25	1.250	1.653	2	12	2.220	4.500	1.250	W	2.05
HM390 TPKD1.5-1.9-4-W1.25	1.500	1.949	4	28	2.216	4.750	1.250	W	1.29

(1) Number of flutes
(2) Number of inserts
(3) W-Weldon
For inserts, see pages: HM390 TPKT/CT 1003 (488)

Extended Flute HELI3MILL HM390-10 Cutters with HM390 TPKT 1003... Inserts AP/AE Application Range



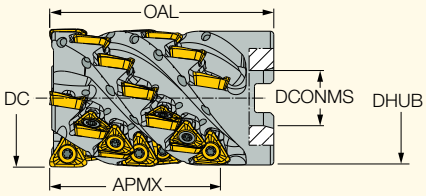
Spare Parts

Designation			
HM390 TPK-10	SR 14-562/S(a)	BLD T10/S7	SW6-SD

(a) Recommended tightening torque:28 lbf*in

HELI3MILL HM390 LINE

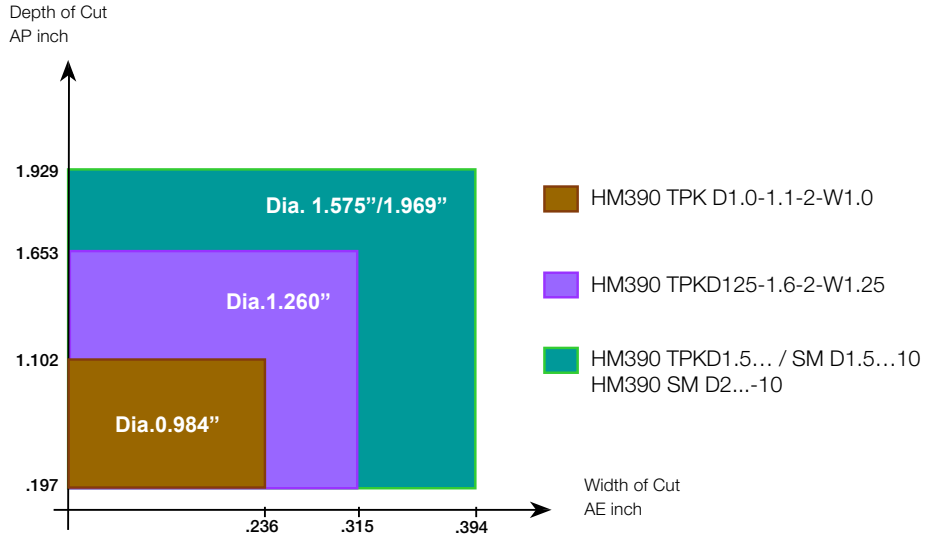
HM390 SM-10
Extended Flute Shell Mills
Carrying HM390 TPKT 1003
Triangular Inserts with 3
Helical Cutting Edges



Designation	DC	APMX	NOF(1)	CICT(2)	OAL	DHUB	DCONMS	Arbor	Lbs
HM390 SM D1.5-2.-4-.75-10	1.500	1.929	4	28	2.750	1.452	.750	A	.70
HM390 SM D2.-1.9-5-.75-10	2.000	1.929	5	35	2.598	1.952	.750	A	1.71

(1) Number of flutes
(2) Number of inserts
For inserts, see pages: HM390 TPKT/CT 1003 (488)

Extended Flute HELI3MILL HM390-10 Cutters with HM390 TPKT 1003... Inserts AP/AE Application Range



Spare Parts

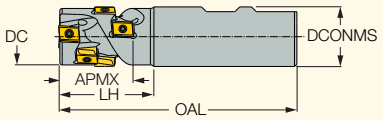
Designation				
HM390 SM D1.5-2.-4-.75-10	SR 14-562/S(a)	SR UNF 3/8X2.5 B18.3	BLD T10/S7	SW6-SD
HM390 SM D2.-1.9-5-.75-10	SR 14-562/S(a)	SR UNF 3/8X2 B18.3	BLD T10/S7	SW6-SD

(a) Recommended tightening torque:28 lbf*in

HELITANG T490 LINE

T490 LNM-08

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



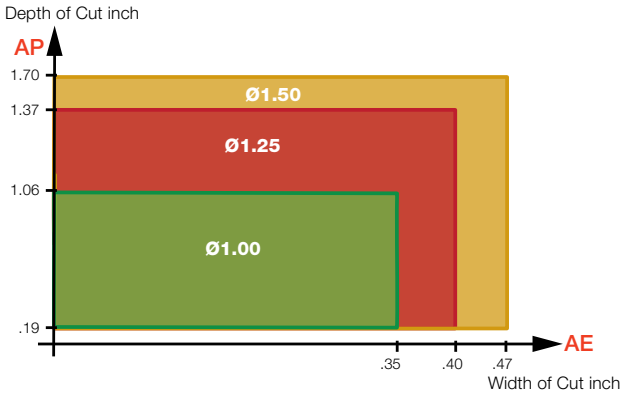
Designation	DC	APMX	NOF(1)	CICT(2)	LH	OAL	DCONMS	Shank(3)	Lbs		
T490 LNMD1.00-11-2-W100-8	1.000	1.160	2	8	1.500	4.000	1.000	W	.71	SR 10502813-HG-M	IP-7/51
T490 LNMD1.25-14-3-W125-8	1.250	1.440	3	15	1.870	4.250	1.250	W	1.15	SR 10502813-HG-M	IP-7/51

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

For inserts, see pages: T490 LNAR-P (522) • T490 LNMT/LNHT 0804 (518)

AP/AE Application Range with T490 LNMT 0804PNR Insert

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

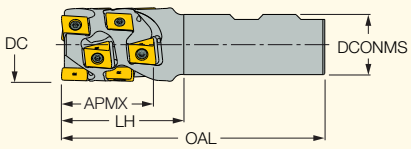


T490 LNM D1.0-125-2-W1.0-8 | T490 LNM D1.25-14-3-W125-8 | T490 LNM D1.5-172-4-W125-8

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)	Lbs			
T490LNKD1.25-13-2-W125-11	1.250	1.364	2	8	1.693	4.000	1.250	W	.00	SR 34-535/L10.5-SN	BLD T15/S7	SW6-SD
T490LNKD1.50-20-3-W125-11	1.500	2.020	3	18	2.360	4.700	1.250	W	1.32	SR 34-535/L10.5-SN	BLD T15/S7	SW6-SD

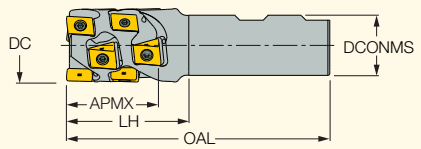
• Important: Maximum clamping torque 28.3 lbf*in
(1) Number of flutes
(2) Number of inserts
(3) W-Weldon

For inserts, see pages: T490 LNMT/LNHT 1106 (519)

HELITANG T490 LINE

T490 LNK-13

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



Designation	DC	APMX	NOF(1)	CICT(2)	LH	OAL	DCONMS	Shank(3)	Lbs			
T490 LNKD1.5-14-2-W125-13	1.500	1.430	2	6	1.970	4.500	1.250	W	1.42	SR 34-535-SN	BLD T15/S7	SW6-T-SH
T490 LNKD1.5-18-2-W125-13	1.500	1.890	2	8	2.470	5.000	1.250	W	1.56	SR 34-535-SN	BLD T15/S7	SW6-T-SH
T490 LNKD2.0-18-3-W150-13	2.000	1.870	3	12	2.160	5.250	1.500	W	2.58	SR 34-535-SN	BLD T15/S7	SW6-T-SH
T490 LNKD2.0-23-4-W150-13	2.000	2.320	4	20	2.560	5.250	1.500	W	2.54	SR 34-535-SN	BLD T15/S7	SW6-T-SH

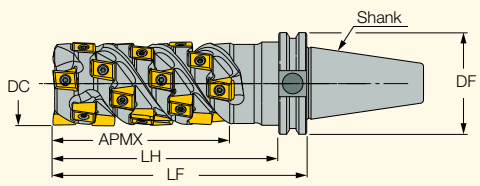
(1) Number of flutes
(2) Number of inserts
(3) W-Weldon

For inserts, see pages: T490 LNAR-P (522) • T490 LNMT 1306PNTR-FW (521) • T490 LNMT/LNHT/LNAR 1306 (520)

HELITANG T490 LINE

T490 LNK-CAT50

Modular Extended Flute
Endmills with Caterpillar
Tapered Shanks, Carrying
T490 LNMT/HT 1306 Inserts



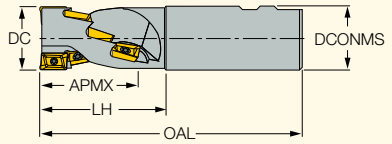
Designation	DC	APMX	ZEFF	CICT(1)	LH	LF	DF	Shank	Lbs			
T490LNKD2.0-3.2-3-CAT5013	2.000	3.200	3	21	4.96	5.700	1.968	CATERPILLAR	8.42	SR 34-535-SN	BLD T15/S7	SW6-T-SH

(1) Number of inserts

For inserts, see pages: T490 LNAR-P (522) • T490 LNMT 1306PNTR-FW (521) • T490 LNMT/LNHT/LNAR 1306 (520)

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)	Lbs
APK D .75-1.12-W.75FE	.750	1.150	1	4	1.430	3.500	.750	W	4.0	.35
APK D1.00-1.50-W1-FE	1.000	1.470	2	8	1.870	4.250	1.000	W	4.0	.73
APK D1.25-1.75W1.25FE	1.250	1.860	2	12	2.120	4.500	1.250	W	1.4	1.22
APK D1.50-2.00-W1.25	1.500	2.060	2	12	2.500	5.000	1.250	W	1.5	1.69
APK D1.50-2.0-W1.25FE	1.500	2.200	3	18	2.720	5.000	1.250	W	1.5	1.59

- 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

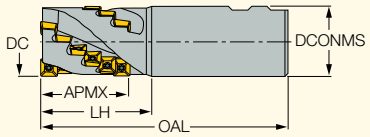
For inserts, see pages: APCT 1003PDR-HM (492) • APKT 1003..R (494) • APKT 1003..TR-RM (494) • APKT 1003PDR-HM (493) • APKT 1003PDTR-76 (494) • APKT 1003PDTR/L-RM (493) • HM90 APKW 1003PDR (495)

Spare Parts

Designation					
APK D .75-1.12-W.75FE	SR 34-505/HG	T-8/53			
APK D1.00-1.50-W1-FE	SR 34-505/MHG	T-8/53			
APK D1.25-1.75W1.25FE	SR 34-505/LHG	T-8/53			
APK D1.50-2.00-W1.25	SR 34-505/LHG	T-8/53			
APK D1.50-2.0-W1.25FE	SR 34-505/LHG		BLD T08/M7	SW4-SD	ZPN 3-10 DRW 34-507

HELIQUAD

SPK
Extended Flute Carrying
Square inserts 1.25-2.00 dia.



Designation	DC	APMX	NOF(1)	CICT(2)	LH	OAL	DCONMS	Shank(3)	RMPX°(4)	Lbs
SPK 1.25-1.4W1.25-10	1.250	1.400	2	8	2.000	4.500	1.250	W	2.0	1.23
SPK 1.5-1.7W1.25-10	1.500	1.700	3	15	2.150	4.750	1.250	W	1.5	1.42

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

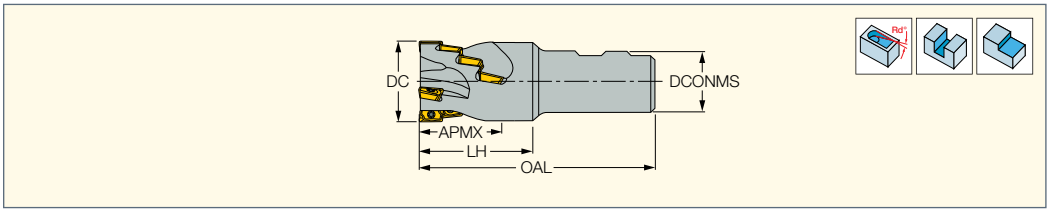
For inserts, see pages: QPMT 100408PDTN (536) • SPCT/SPMR PDR (537) • SPMT-HQ (536) • XPMT-HQ (537)

Spare Parts

Designation				
SPK 1.25-1.4W1.25-10	SR 14-544/S	BLD T15/M7	SW6-SD	ZPN 3X7 DRW 34-507
SPK 1.5-1.7W1.25-10	SR 14-544/S	BLD T15/M7	SW6-SD	ZPN 3-10 DRW 34-507

HELIMILL

ADK
Extended Flute Cutters with ADKT/R-15... Inserts



Designation	DC	APMX	NOF(1)	CICT(2)	LH	OAL	DCONMS	Shank(3)	RMPX°(4)	Lbs
ADK D1.25-1.00-W1.25	1.250	1.000	2	4	1.57	4.000	1.250	W	2.5	1.07
ADK D1.50-1.50-W1.25	1.500	1.500	2	6	1.97	4.500	1.250	W	2.0	1.39
ADK D2.00-2.00-W1.5	2.000	2.000	3	12	2.05	5.100	1.500	W	.9	2.45
ADK D2.00-4.00-W1.50	2.000	4.000	2	16	4.35	7.500	1.500	W	.9	3.51

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

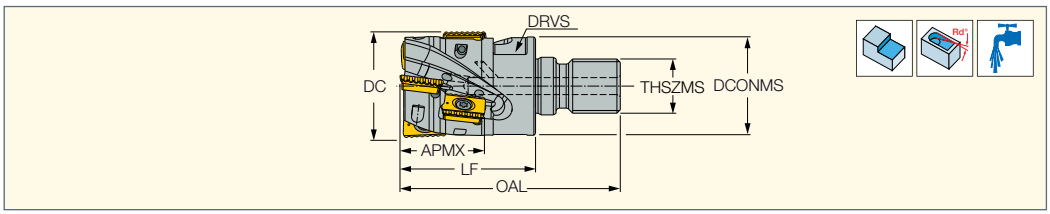
For inserts, see pages: ADCR 1505PDFR (499) • ADCT 1505PDFR-HM (499) • ADKR 1505PDR/L (499) • ADKT 1505..R/L-HM (502) • ADKT 1505PDR/L-HM (500) • ADKT 1505PDTR-76 (501) • ADKT 1505PDTR/L-RM (501) • ADMT 1505PDR-HS (501) • HM90 ADCT 1505 (497) • HM90 ADCT 1505PDR-CF (498) • HM90 ADKT 1505 (497) • HM90 ADKW 1505PDR (504)

Spare Parts

Designation						
ADK D1.25-1.00-W1.25	SR 14-544/S				T-15/51	ZPN 4-18
ADK D1.50-1.50-W1.25	SR 14-544/S	BLD T15/M7	SW6-T			
ADK D2.00-2.00-W1.5	SR 14-544/S	BLD T15/M7	SW6-T			
ADK D2.00-4.00-W1.50	SR 14-544/S	BLD T15/M7	SW6-T	SW6-T-SH		

MILLSHRED P290 LINE
FLEXFIT

P290 ACK-M
Extended Flute Endmills with FLEXFIT Threaded Adaptation Carrying .472" Long Edged Inserts



Designation	DC	APMX	NOF(1)	CICT(2)	LF	DCONMS	THSZMS	OAL	DRVS(3)	RMPX°(4)	TQ_3(5)	Lbs
P290 ACK D32-3-24-M16-12	1.260	.945	3	6	1.575	1.142	M16	2.559	.984	1.0	355	.37

• For adaptation see page 353 • For user guide see pages 586-591 • 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)

For inserts, see pages: P290 ACCT/KT (503) • P290 ACKT (503)

For holders, see pages: BT-ODP (FLEXFIT) (356) • C#-ODP (FLEXFIT) (356) • CAB M-M (FLEXFIT) (354) • CAT-ODP (FLEXFIT) (360) • DIN69871-ODP (Metric) (357) • ER-ODP (358) • HSK A-ODP (FLEXFIT) (359) • S M (354) • S M-CF (355)

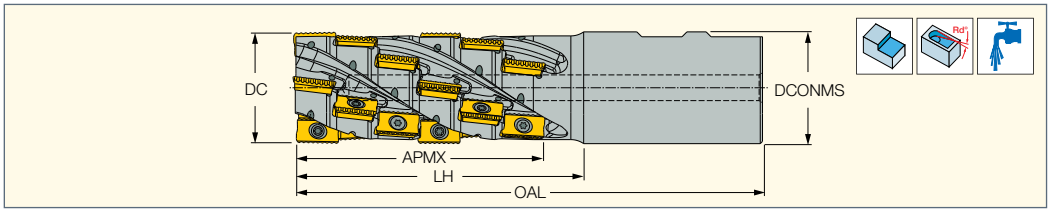
Spare Parts

Designation		
P290 ACK-M	SR M3X0.5-L7.4 IP9(a)	IP-9/151

(a) Recommended tightening torque:20.0 lbf*in

MILLSHRED P290 LINE

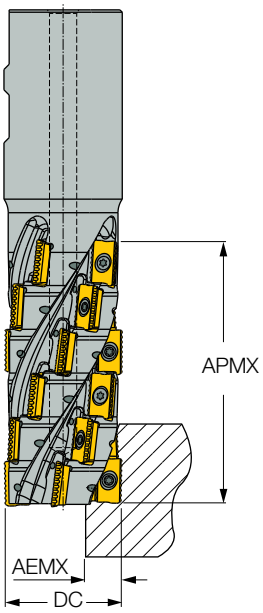
P290 ACK
Extended Flute Endmills
Carrying .472 and .708"
Long Edged Inserts



Designation	DC	APMX	NOF(2)	CICT(3)	LH	OAL	DCONMS	RMPX°(4)	Shank(5)	Lbs
P290 ACK100-3-0.9-W.75-12	1.000	.900	3	6	1.570	3.740	.750	1.4	W	.42
P290 ACK100-3-1.4-W100-12	1.000	1.400	3	9	1.970	4.330	1.000	1.4	W	.67
P290 ACK125-3-1.4-W125-12	1.250	1.400	3	9	1.970	4.330	1.250	1.0	W	1.08
P290 ACK125-3-1.9-W125-12	1.250	1.900	3	12	2.560	4.920	1.250	1.0	W	1.18
P290 ACK125-3-2.4-W125-12	1.250	2.400	3	15	3.150	5.510	1.250	1.0	W	1.27
P290 ACK125-3-3.3-W125-12	1.250	3.300	3	21	3.940	6.230	1.250	1.0	W	1.36
P290 ACK1.25-3-1.4-W1.-18 (1)	1.250	1.400	3	6	2.165	4.645	1.000	2.0	W	.82
P290 ACK1.5-3-2.1-W125-18	1.500	2.100	3	9	2.950	5.310	1.250	1.5	W	1.42
P290 ACK1.5-3-2.8-W150-18	1.500	2.800	3	12	3.540	6.300	1.500	1.5	W	2.15
P290 ACK1.5-3-3.5-W150-18	1.500	3.500	3	15	4.330	7.090	1.500	1.5	W	2.32
P290 ACK2.0-4-2.1-W150-18	2.000	2.100	4	12	3.150	5.910	1.500	1.0	W	2.84
P290 ACK2.0-4-4.1-W200-18	2.000	4.100	4	24	5.120	8.460	2.000	1.0	W	5.25
P290 ACK2.0-3-6.3-W200-18	2.000	6.300	3	27	7.280	10.630	2.000	1.0	W	6.61

(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 (503) • P290 ACKT (503)



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 parenthesis

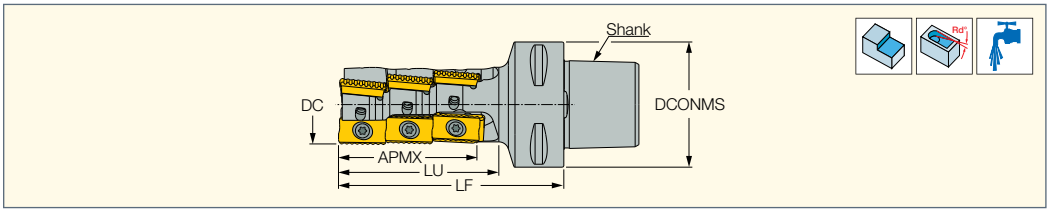
Spare Parts

Designation				
P290 ACK100-3-0.9-W.75-12	SR M3X0.5-L7.4 IP9(a)	IP-9/151		
P290 ACK100-3-1.4-W100-12	SR M3X0.5-L7.4 IP9(a)	IP-9/151		
P290 ACK125-3-1.4-W125-12	SR M3X0.5-L7.4 IP9(a)	IP-9/151		
P290 ACK125-3-1.9-W125-12	SR M3X0.5-L7.4 IP9(a)	IP-9/151		
P290 ACK125-3-2.4-W125-12	SR M3X0.5-L7.4 IP9(a)	IP-9/151		
P290 ACK125-3-3.3-W125-12	SR M3X0.5-L7.4 IP9(a)	IP-9/151		
P290 ACK1.25-3-1.4-W1.-18	SR 14-544/S		BLD T15/M7	SW6-T
P290 ACK1.5-3-2.1-W125-18	SR 14-544/S		BLD T15/M7	SW6-T
P290 ACK1.5-3-2.8-W150-18	SR 14-544/S		BLD T15/M7	SW6-T
P290 ACK1.5-3-3.5-W150-18	SR 14-544/S		BLD T15/M7	SW6-T
P290 ACK2.0-4-2.1-W150-18	SR 14-544/S		BLD T15/M7	SW6-T
P290 ACK2.0-4-4.1-W200-18	SR 14-544/S		BLD T15/M7	SW6-T
P290 ACK2.0-3-6.3-W200-18	SR 14-544/S		BLD T15/M7	SW6-T

(a) Recommended tightening torque:20.0lbf*in

MILLSHRED P290 LINE
CAMFIX

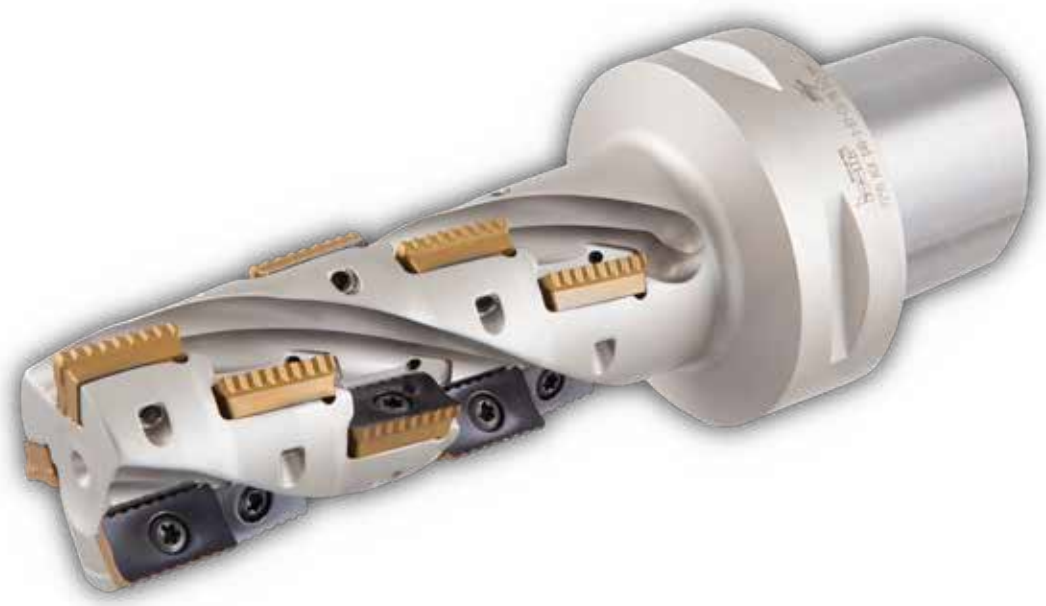
P290 ACK-C#-18
Extended Flute Endmills with CAMFIX Shanks Carrying .709" Long Edged Inserts



Designation	DC	APMX	NOF(2)	CICT(3)	LU	LF	RMPX°(4)	DCONMS	Shank	CDI(5)	Lbs			
P290 ACK D32-3-36-C5-18 (1)	1.260	1.417	3	6	2.52	3.543	2.0	1.968	CAMFIX	1	1.75	SR 14-544/S	BLD T15/M7	SW6-T
P290 ACK D40-3-87-C6-18	1.575	3.425	3	15	4.17	5.299	1.5	2.480	CAMFIX	1	3.67	SR 14-544/S	BLD T15/M7	SW6-T
P290 ACK D63-5-87-C8-18	2.480	3.425	5	25	4.09	5.512	.8	3.150	CAMFIX	1	8.82	SR 14-544/S	BLD T15/M7	SW6-T

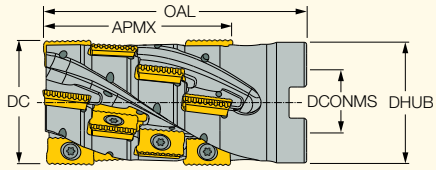
(1) Do not use with P290 ACKT...-FWR insert
(2) Number of flutes
(3) Number of inserts
(4) Maximum ramping angle
(5) 1 - Slot for data chip, 0 - Without slot for data chip

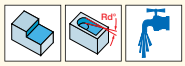
For inserts, see pages: P290 ACCT/KT (503) • P290 ACKT (503)



MILLSHRED
P290 LINE

P290 SM
Extended Flute Shell Mills
Carrying .472 and .708"
Long Edged Inserts





Designation	DC	APMX	NOF(2)	CICT(3)	OAL	DHUB	DCONMS	RMPX°(4)	Arbor(5)	Lbs
P290 SM D1.25-3-0.9-.5-12	1.250	.900	3	6	2.240	1.380	.500	1.0	A	.45
P290 SM D1.5-4-0.9-.75-12	1.500	.900	4	8	2.086	1.770	.750	.7	A	.46
P290 SM D1.5-4-1.4-.75-12	1.500	1.400	4	12	2.520	1.417	.750	.7	A	.58
P290 SM D1.5-4-1.9-.75-12	1.500	1.900	4	16	3.030	1.770	.750	.7	A	.82
P290 SM D2.0-4-1.4-.75-18	2.000	1.400	4	8	2.560	1.860	.750	1.0	A	1.18
P290 SM D2.0-4-2.1-.75-18	2.000	2.100	4	12	3.150	1.860	.750	1.0	A	1.38
P290 SM D2.0-4-2.1-1.0-18 (1)	2.000	2.100	4	12	3.150	1.970	1.000	.8	A	2.43
P290 SM D2.0-4-2.8-1.0-18 (1)	2.000	2.800	4	16	4.130	1.970	1.000	.8	A	1.78
P290 SM D2.5-5-2.8-1.0-18	2.500	2.800	5	20	3.940	2.170	1.000	.8	A	2.96
P290 SM D3.-6-2.8-1.25-18	3.000	2.800	6	24	3.940	2.680	1.250	.5	A	4.14
P290 SM D4.-6-1.4-1.50-18	4.000	1.400	6	12	2.755	3.346	1.500	.3	A	5.49

(1) It is recommended to mount the tool on CAT50 SEM 1X1.97X3.00C adapter
(2) Number of flutes
(3) Number of inserts
(4) Maximum ramping angle
(5) For adaptation options, see page 592
For inserts, see pages: P290 ACCT/KT (503) • P290 ACKT (503)

Spare Parts

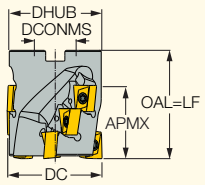
Designation					
P290 SM D1.25-3-0.9-.5-12	SR M3X0.5-L7.4 IP9(a)	IP-9/151			SR UNF 1/4X1-3/4 B18.3
P290 SM D1.5-4-0.9-.75-12	SR M3X0.5-L7.4 IP9(a)	IP-9/151			SR UNF 3/8X1.5 B18.3
P290 SM D1.5-4-1.4-.75-12	SR M3X0.5-L7.4 IP9(a)	IP-9/151			SR UNF 3/8X2 B18.3
P290 SM D1.5-4-1.9-.75-12	SR M3X0.5-L7.4 IP9(a)	IP-9/151			SR UNF 3/8X2.5 B18.3
P290 SM D2.0-4-1.4-.75-18	SR 14-544/S		BLD T15/M7	SW6-T	SR UNF 3/8X2 B18.3
P290 SM D2.0-4-2.1-.75-18	SR 14-544/S		BLD T15/M7	SW6-T	SR UNF 3/8X2.5 B18.3
P290 SM D2.0-4-2.1-1.0-18	SR 14-544/S		BLD T15/M7	SW6-T	SR-NF50-250
P290 SM D2.0-4-2.8-1.0-18	SR 14-544/S		BLD T15/M7	SW6-T	SR UNF 1/2X3¼ B18.3
P290 SM D2.5-5-2.8-1.0-18	SR 14-544/S		BLD T15/M7	SW6-T	SR UNF 1/2X2.75 B18.3
P290 SM D3.-6-2.8-1.25-18	SR 14-544/S		BLD T15/M7	SW6-T	SR UNF 5/8X3 B18.3
P290 SM D4.-6-1.4-1.50-18	SR 14-544/S		BLD T15/M7	SW6-T	

(a) Recommended tightening torque:20.0lbf*in

HELIDO 490 LINE

H490 SM-09

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



Designation	DC	APMX	NOF(1)	CICT(2)	OAL	DHUB	DCONMS	Arbor(3)	Lbs
H490 SMD1.25-1.12-3-.5-09	1.250	1.120	3	12	1.770	1.191	.500	A	.32

(1) Number of flutes
(2) Number of inserts
(3) For adaptation options, see page 592
For inserts, see pages: H490 ANKX/ANCX-09 (512)

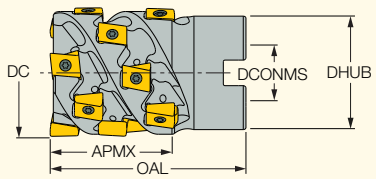
Spare Parts

Designation				
H490 SM-09	SR 10508082-HG	BLD T08/M7	SW4-SD	SR UNF 1/4X1 B18.3

HELITANG T490 LINE

T490 SM-08

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



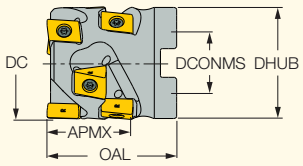
Designation	DC	APMX	NOF(1)	CICT(2)	OAL	DHUB	DCONMS	Arbor(3)	Lbs			
T490 SMD1.25-1.44-3-.50-8	1.250	1.440	3	15	2.250	1.377	.500	A	.52	SR 10502813-HG-M	IP-7/51	SR UNF 1/4X1-3/4 B18.3

(1) Number of flutes
(2) Number of inserts
(3) For adaptation options, see page 592
For inserts, see pages: T490 LNAR-P (522) • T490 LNMT/LNHT 0804 (518)

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)	Lbs
T490 SM-D1.50-2-3-.75-11	1.500	2.020	3	18	2.800	1.402	.750	A	.63
T490 SM-D2.0-2.3-4-1.0-11	2.000	2.350	4	28	3.250	1.921	1.000	A	1.43

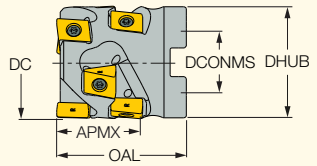
• Important: Maximum clamping torque 28.3 lbf*in
(1) Number of flutes
(2) Number of inserts
(3) For adaptation see page 592
For inserts, see pages: T490 LNMT/LNHT 1106 (519)

Spare Parts

Designation				
T490 SM-D1.50-2-3-.75-11	SR 34-535/L10.5-SN	BLD T15/S7	SW6-SD	SR UNF 3/8X2.5-2903
T490 SM-D2.0-2.3-4-1.0-11	SR 34-535-SN	BLD T15/S7	SW6-SD	SR-NF50-250

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)	Lbs
T490 SM-D1.5-14-2-.75-13	1.500	1.430	2	6	2.440	1.400	.750	A	.62
T490 SM-D2.0-14-3-1.0-13	2.000	1.410	3	9	2.200	1.920	1.000	A	.92
T490 SM-D2.0-18-4-1.0-13	2.000	1.870	4	16	2.700	1.920	1.000	A	1.18
T490 SM-D2.5-14-4-1.0-13	2.500	1.410	4	12	2.362	2.160	1.000	A	1.75
T490 SM-D2.5-23-5-1.0-13	2.500	2.320	5	25	2.950	2.200	1.000	A	2.26
T490 SM-D3.0-18-5-1.25-13	3.000	1.870	5	20	2.700	2.795	1.250	A	3.18
T490 SM-D3.0-32-5-1.25-13	3.000	3.240	5	35	4.000	2.795	1.250	A	.30
T490 SM-D4.0-23-6-1.50-13	4.000	2.320	6	30	3.220	3.346	1.500	A	6.79

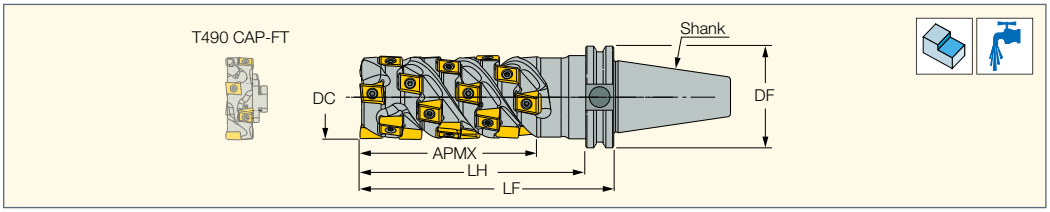
(1) Number of flutes
(2) Number of inserts
(3) For adaptation options, see page 592
For inserts, see pages: T490 LNAR-P (522) • T490 LNMT 1306PNTR-FW (521) • T490 LNMT/LNHT/LNAR 1306 (520)

Spare Parts

Designation				
T490 SM-D1.5-14-2-.75-13	SR 34-535/L10.5-SN	BLD T15/S7	SW6-T-SH	
T490 SM-D2.0-14-3-1.0-13	SR 34-535-SN	BLD T15/S7	SW6-T-SH	SR UNF 1/2X1¾ B18.3
T490 SM-D2.0-18-4-1.0-13	SR 34-535-SN	BLD T15/S7	SW6-T-SH	SR UNF 1/2X2 B18.3
T490 SM-D2.5-14-4-1.0-13	SR 34-535-SN	BLD T15/S7	SW6-T-SH	SR UNF 1/2X2 B18.3
T490 SM-D2.5-23-5-1.0-13	SR 34-535-SN	BLD T15/S7	SW6-T-SH	SR UNF 1/2X2.25 B18.3
T490 SM-D3.0-18-5-1.25-13	SR 34-535-SN	BLD T15/S7	SW6-T-SH	SR UNF 5/8X2 B18.3
T490 SM-D3.0-32-5-1.25-13	SR 34-535-SN	BLD T15/S7	SW6-T-SH	SR UNF 5/8X3 B18.3
T490 SM-D4.0-23-6-1.50-13	SR 34-535-SN	BLD T15/S7	SW6-T-SH	SR UNF 3/4X2¼ B18.3

HELITANG T490 LINE

T490 LNK-CAT50-FT
Basic Units of Modular Extended Flute Endmills with Caterpillar Tapered Shanks, Carrying T490 LNMT/HT 1306 Inserts



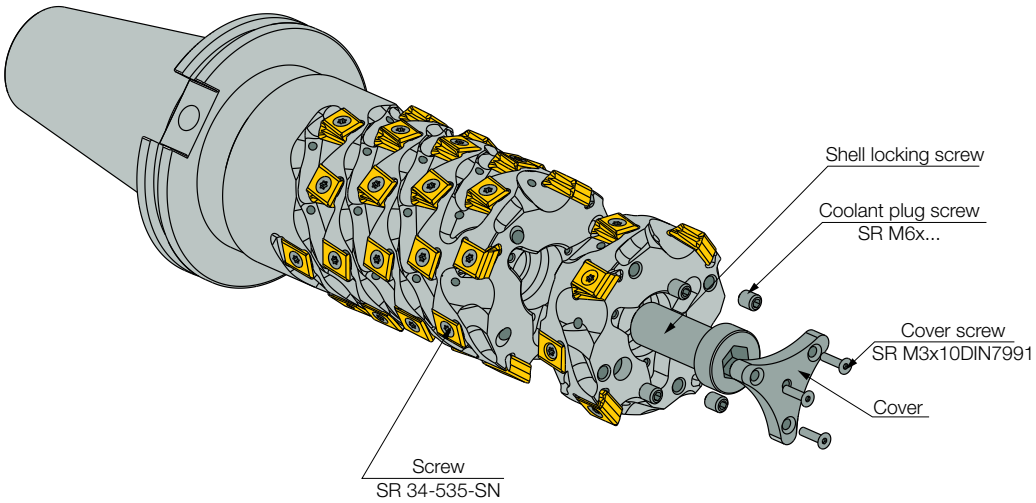
Designation	DC	APMX	NOF(1)	CICT(2)	LDRED	LF	DF	Shank	Lbs
T490LNKD3.0-4.1-4-CAT50FT	3.000	4.150	4	36	6.07	6.818	1.968	CATERPILLAR	14.10

- 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 (522) • T490 LNMT 1306PNTR-FW (521) • T490 LNMT/LNHT/LNAR 1306 (520)

Shell Base Unit	Extension	DC	APMX	LF	NOF	CICT	Assembly Screw
T490LNKD3.0-4.1-4-CAT50FT		3.00	4.150	6.818	4	36	
	T490CAPD3.0-1.0-4-25-13FT		5.112	6.989		44	SR M16x40 DIN912

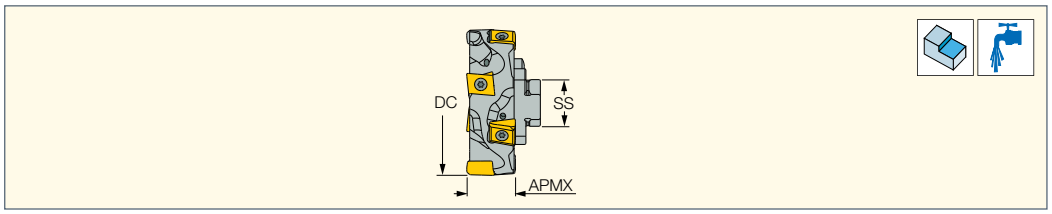


Spare Parts

Designation						
T490LNKD3.0-4.1-4-CAT50FT	SR 34-535-SN	BLD T15/S7	SW6-T-SH	SR M5X6 DIN913	SR M3X0.5X10DIN7991 10.9	PG D63

HELITANG T490 LINE

T490 CAP 13FT
Extension Units for Modular Extended Flute Shell Mills



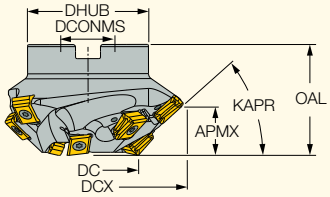
Designation	DC	APMX	NOF(1)	CICT(2)	SS	Lbs			
T490CAPD3.0-1.0-4-25-13FT	3.000	.960	4	8	.984	1.17	SR 34-535-SN	SR M6X8 DIN916	SR M16X40DIN912

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

For inserts, see pages: T490 LNAR-P (522) • T490 LNMT 1306PNTR-FW (521) • T490 LNMT/LNHT/LNAR 1306 (520)

HELITANG

T430/T445/T460 SM
30°, 45° and 60° Extended Flute Face Mills, Carrying T490 LNMT/LNHT 13... Tangentially Clamped Inserts



Designation	DC	APMX	DCX(1)	KAPR(2)	NOF(3)	ZNP(4)	OAL	DHUB	DCONMS	Arbor(5)	Lbs
T430 SMD2.0-.63-3-1.25-13	2.000	.637	4.252	30.0	3	9	2.500	2.560	1.250	A	3.84
T445 SMD2.0-.94-3-1.25-13	2.000	.940	3.900	45.0	3	9	2.250	2.560	1.250	A	2.84
T445 SMD2.5-.94-4-1.25-13	2.500	.940	4.403	45.0	4	12	2.250	2.560	1.250	A	3.61
T460 SMD2.0-1.18-3-1.0-13	2.000	1.180	3.388	60.0	3	9	2.165	2.360	1.000	A	2.21

• 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 586-591

(1) Cutting diameter maximum
(2) Tool cutting edge angle
(3) Number of flutes
(4) Number of peripheral inserts
(5) For adaptation see page 592

For inserts, see pages: T490 LNAR-P (522) • T490 LNMT 1306PNTR-FW (521) • T490 LNMT/LNHT/LNAR 1306 (520)

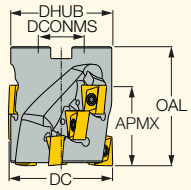
Spare Parts

Designation				
T430 SMD2.0-.63-3-1.25-13	SR 34-535-SN	BLD T15/S7	SW6-T-SH	SR UNF 5/8X1.5 B18.3
T445 SMD2.0-.94-3-1.25-13	SR 34-535-SN	BLD T15/S7	SW6-T-SH	SR UNF 5/8X1.25 B18.3
T445 SMD2.5-.94-4-1.25-13	SR 34-535-SN	BLD T15/S7	SW6-T-SH	SR UNF 5/8X1.25 B18.3
T460 SMD2.0-1.18-3-1.0-13	SR 34-535-SN	BLD T15/S7	SW6-T-SH	SR UNF 1/2X1½ B18.3

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)	Lbs
H490 SMD2.5-1.8-3-1.00-17	2.500	1.830	3	9	2.760	2.360	1.000	A	2.00
H490 SMD3.0-1.8-4-1.25-17	3.000	1.830	4	12	2.760	2.860	1.250	A	3.10

- Inserts with corner radii larger than .031" should only be used on the face of the cutter

(1) Number of flutes
(2) Number of inserts
(3) For adaptation see page 592

For inserts, see pages: H490 ANKX/ANCX-17 (513)

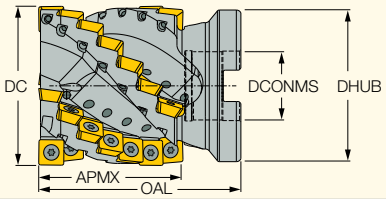
Spare Parts

Designation				
H490 SMD2.5-1.8-3-1.00-17	SR 14-591	BLD T20/M7	SW6-T	SR UNF 1/2X2 B18.3
H490 SMD3.0-1.8-4-1.25-17	SR 14-591	BLD T20/M7	SW6-T	SR UNF 5/8X2 B18.3

XQUAD EXTENDED FLUTE

SDK-10-C/HP

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



Designation	DC	APMX	NOF(1)	CICT(2)	OAL	DCONMS	DHUB	Arbor(3)	Lbs
SDK D2.0-1.9-3-1.00-10-C	2.000	1.9071	3	18	3.150	1.000	1.921	A	1.28
SDK D2.0-1.9-4-1.00-10-C	2.000	1.9071	4	24	3.150	1.000	1.921	A	1.27
SDK D2.0-1.9-4-1.00-10-HP	2.000	1.9071	4	24	3.150	1.000	1.921	A	1.29
SDK D2.5-2.2-4-1.00-10-C	2.500	2.2177	4	28	3.150	1.000	2.205	A	1.94
SDK D3.0-2.5-5-1.25-10-C	3.000	2.5276	5	40	3.346	1.250	2.795	A	3.16

(1) Number of flutes
(2) Number of inserts
(3) For adaptation see page 592

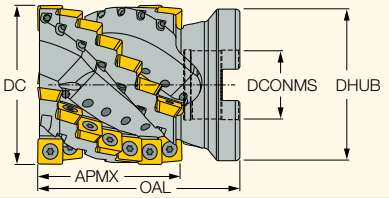
For inserts, see pages: SDHT/W 100408 (539)

Spare Parts

Designation				
SDK D2.0-1.9-3-1.00-10-C	SR M3.5X0.6-L8.5 IP10	BLD IP10/S7	SW6-SD	SR-NF50-250
SDK D2.0-1.9-4-1.00-10-C	SR M3.5X0.6-L8.5 IP10	BLD IP10/S7	SW6-SD	SR-NF50-250
SDK D2.0-1.9-4-1.00-10-HP	SR M3.5X0.6-L8.5 IP10	BLD IP10/S7	SW6-SD	SR-NF50-250
SDK D2.5-2.2-4-1.00-10-C	SR M3.5X0.6-L8.5 IP10	BLD IP10/S7	SW6-SD	SR-NF50-250
SDK D3.0-2.5-5-1.25-10-C	SR M3.5X0.6-L8.5 IP10	BLD IP10/S7	SW6-SD	SR UNF 5/8X2.5 B18.3

XQUAD EXTENDED FLUTE

SDK-12-C/HP
Extended Flute Shell Mills
Carrying SDHT 1205... Inserts



Designation	DC	APMX	NOF(1)	CICT(2)	OAL	DCONMS	DHUB	Arbor(3)	Lbs	MIID(4)
SDK D2.5-2.1-05-1.0-12-C	2.500	2.1730	5	25	3.150	1.000	2.252	A	2.15	SDHT 1205
SDK D2.5-2.1-05-1.0-12-HP	2.500	2.1730	5	25	3.150	1.000	2.252	A	2.15	SDHT 1205
SDK D2.5-2.6-04-1.0-12-C	2.500	2.6030	4	24	3.661	1.000	2.252	A	2.40	SDHT 1205
SDK D2.5-3.8-04-1.0-12-C	2.500	3.8790	4	36	4.921	1.000	2.252	A	2.70	SDHT 1205
SDK D3.0-2.6-05-1.25-12-C	3.000	2.6030	5	30	3.661	1.250	2.874	A	3.76	SDHT 1205
SDK D3.0-4.3-05-1.25-12-C	3.000	4.3090	5	50	5.630	1.250	2.874	A	5.82	SDHT 1205
SDK D4.0-3.0-06-1.5-12-C	4.000	3.0280	6	42	4.331	1.500	3.228	A	8.76	SDHT 1205
SDK D4.0-5.1-06-1.5-12-C	4.000	5.1540	6	72	6.496	1.500	3.228	A	13.23	SDHT 1205

(1) Number of flutes
(2) Number of inserts
(3) For adaptation see page 592
(4) Master insert identification

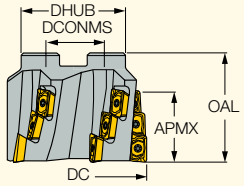
For inserts, see pages: QDCT-PDN (538) • QDMT 1205..PDTN-M (539) • SDHT/X 120508 (539)

Spare Parts

Designation				
SDK D2.5-2.1-05-1.0-12-C	SR M4X0.7-L9.5 IP15-4623	BLD IP15/M7	SW6-T	SR-NF50-250
SDK D2.5-2.1-05-1.0-12-HP	SR M4X0.7-L9.5 IP15-4623	BLD IP15/M7	SW6-T	SR-NF50-250
SDK D2.5-2.6-04-1.0-12-C	SR M4X0.7-L9.5 IP15-4623	BLD IP15/M7	SW6-T	SR UNF 1/2X3 B18.3
SDK D2.5-3.8-04-1.0-12-C	SR M4X0.7-L9.5 IP15-4623	BLD IP15/M7	SW6-T	SR UNF 1/2X4.25 B18.3
SDK D3.0-2.6-05-1.25-12-C	SR M4X0.7-L9.5 IP15-4623	BLD IP15/M7	SW6-T	SR UNF 5/8X2.75 B18.3
SDK D3.0-4.3-05-1.25-12-C	SR M4X0.7-L9.5 IP15-4623	BLD IP15/M7	SW6-T	SR UNF 5/8X4.75 B18.3
SDK D4.0-3.0-06-1.5-12-C	SR M4X0.7-L9.5 IP15-4623	BLD IP15/M7	SW6-T	SR UNF 3/4X3.5 B18.3
SDK D4.0-5.1-06-1.5-12-C	SR M4X0.7-L9.5 IP15-4623	BLD IP15/M7	SW6-T	SR UNF 3/4X5-1/2 B18.3

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)	Lbs
SM D2.00-1.00-1.00-M	2.000	1.000	3	6	2.000	1.910	1.000	A	.9	.90
SM D2.5 -1.50-1.00-M	2.500	1.500	4	12	2.380	2.130	1.000	A	.7	1.56
SM D3.00-1.50-1.25-M	3.000	1.500	5	15	2.380	2.680	1.250	B	.6	2.42
SM D4.00-1.50-1.50-M	4.000	1.500	6	18	2.380	3.820	1.500	B	.4	4.57

(1) Number of flutes
(2) Number of inserts
(3) For adaptation options, see page 592
(4) Maximum ramping angle

For inserts, see pages: ADCR 1505PDFR (499) • ADCT 1505PDFR-HM (499) • ADKR 1505PDR/L (499) • ADKT 1505..R/L-HM (502) • ADKT 1505PDR/L-HM (500) • ADKT 1505PDTR-76 (501) • ADKT 1505PDTR/L-RM (501) • ADMT 1505PDR-HS (501) • HM90 ADCT 1505 (497) • HM90 ADCT 1505PDR-CF (498) • HM90 ADKT 1505 (497) • HM90 ADKW 1505PDR (504)

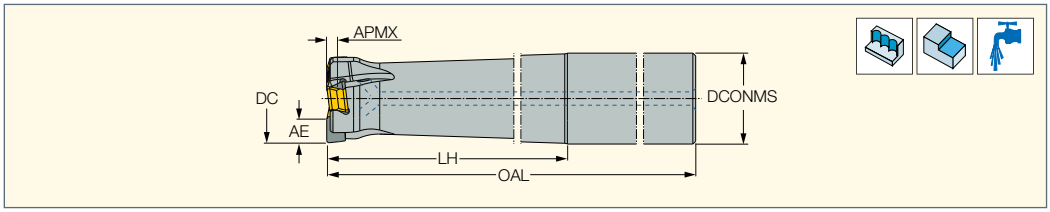
Spare Parts

Designation				
SM D2.00-1.00-1.00-M	SR 14-544/S	BLD T15/M7	SW6-T	SR UNF 1/2X1½ B18.3
SM D2.5 -1.50-1.00-M	SR 14-544/S	BLD T15/M7	SW6-T	SR UNF 1/2X1½ B18.3
SM D3.00-1.50-1.25-M	SR 14-544/S	BLD T15/M7	SW6-T	
SM D4.00-1.50-1.50-M	SR 14-544/S	BLD T15/M7	SW6-T-SH	

PLUNGING CUTTERS

TANGPLUNGE
PLUNGING LINE

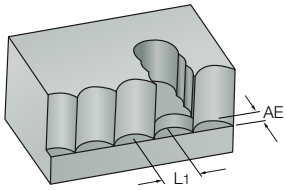
HTP-LN06
Side Plungers Carrying Tangentially Clamped Inserts with 4 Cutting Edges



Designation	DC	AE	APMX	CICT(1)	LH	OAL	DCONMS	Shank(2)	Lbs		
HTP D.62-2-L4.5-C.62-LN06	.625	.157	.098	2	1.250	4.500	.625	C	.34	SR 14-560-HG	T-8/53
HTP D.75-2-L6.0-C.75-LN06	.750	.197	.098	2	1.500	6.000	.750	C	.68	SR 14-560-HG	T-8/53
HTP D1.0-4-L5.0-W1.0-LN06	1.000	.197	.098	4	2.000	5.000	1.000	W	.96	SR 14-560-HG	T-8/53

• .197" side plunging capacity and .098" maximum face milling DOC • For user guide, see pages 296-298
(1) Number of inserts
(2) C-Cylindrical, W-Weldon
For inserts, see pages: HTP LN.. 0604 (579)

Side Step As a Function of the Width of the Plunge



The relationship between the maximal step L_1 max and the width of plunge a_e is given by the following formula:

$$L_1 \max = 2 \cdot \sqrt{DC \cdot AE - AE^2}$$

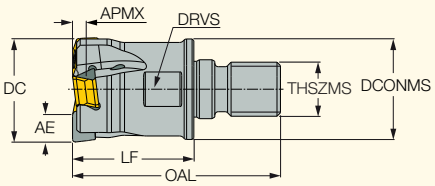
DC: cutter diameter

L_1 - Side stepover
AE - Width of plunge

	Cutter Diameter (inch)		
	.625	.750	1.000
a_e - Width of plunge (inch)	L1 max - Step (effective diameter)		
.040	.304	.335	.389
.080	.415	.460	.539
.120	.489	.546	.645
.160	.543	.611	.729
.200	.581	.660	.795

TANGPLUNGE
PLUNGING LINE
FLEXFIT

HTP-M-LN06
Side Plungers with FLEXFIT Threaded Connection Carrying Tangentially Clamped Inserts with 4 Cutting Edges

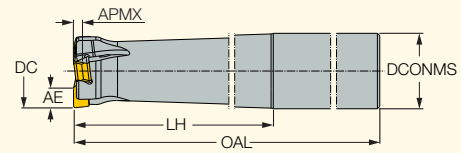


Designation	DC	AE	APMX	NOF(1)	LF	OAL	DCONMS	THSZMS	DRVS(2)	TQ_3(3)	Lbs		
HTP D16/.62-2-M08-LN06	.628	.177	.098	2	1.181	1.870	.512	M08	.394	180	.07	SR 14-560-HG	T-8/53
HTP D20-3-M10-LN06	.787	.197	.098	3	1.181	1.968	.709	M10	.591	260	.13	SR 14-560-HG	T-8/53
HTP D25/1.00-3-M12-LN06	.992	.197	.098	3	1.378	2.244	.827	M12	.669	295	.21	SR 14-560-HG	T-8/53

• .197" side plunging capacity and .098" 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 296-298
(1) Number of flutes
(2) Clamping wrench size
(3) Tool tightening torque Nxm (lbfxin)
For inserts, see pages: HTP LN.. 0604 (579)
For holders, see pages: BT-ODP (FLEXFIT) (356) • C#-ODP (FLEXFIT) (356) • CAB M-M (FLEXFIT) (354) • CAT-ODP (FLEXFIT) (360) • DIN69871-ODP (Metric) (357) • ER-ODP (358) • HSK A-ODP (FLEXFIT) (359) • S M (354) • S M-CF (355)

TANGPLUNGE
PLUNGING LINE

HTP-LN10
Side Plungers Carrying Tangentially Clamped Inserts with 4 Cutting Edges

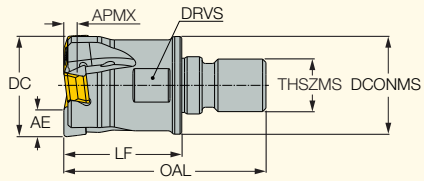


Designation	DC	AE	APMX	CICT(1)	LH	OAL	DCONMS	Shank(2)	Lbs			
HTP D1.00-2-L08-C1.0-LN10	1.000	.295	.118	2	4.000	8.000	1.000	C	1.59	SR 34-550	BLD T10/S7	SW6-SD
HTP D1.00-2-L08-W1.0-LN10	1.000	.295	.118	2	4.000	8.000	1.000	W	1.51	SR 34-550	BLD T10/S7	SW6-SD
HTP D1.25-3-L7.5-C1.0LN10	1.250	.315	.118	3	2.000	7.500	1.000	C	1.55	SR 34-550	BLD T10/S7	SW6-SD
HTP D1.25-3-L7.5-W1.0LN10	1.250	.315	.118	3	2.000	7.500	1.000	W	1.54	SR 34-550	BLD T10/S7	SW6-SD
HTP D1.50-4-L10-C1.25LN10	1.500	.315	.118	4	2.000	10.000	1.250	C	3.25	SR 34-550	BLD T10/S7	SW6-SD
HTP D1.50-4-L10-W1.25LN10	1.500	.315	.118	4	2.000	10.000	1.250	W	3.25	SR 34-550	BLD T10/S7	SW6-SD

• .315" side plunging capacity and .118" maximum face milling DOC • For user guide, see pages 296-298
(1) Number of inserts
(2) C-Cylindrical, W-Weldon
For inserts, see pages: HTP LN.. 1006 (580)

TANGPLUNGE
PLUNGING LINE
FLEXFIT

HTP-M-LN10
Side Plungers with FLEXFIT Threaded Connection Carrying Tangentially Clamped Inserts with 4 Cutting Edges

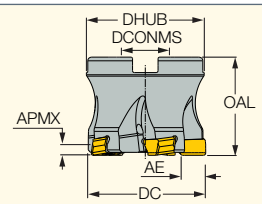


Designation	DC	AE	APMX	CICT(1)	LF	OAL	DCONMS	THSZMS	DRVS(2)	Lbs	TQ_3(3)			
HTP D1.00-2-M12-LN10	1.000	.295	.118	2	1.380	2.240	.830	M12	.670	.20	295	SR 34-550	BLD T10/S7	SW6-SD

• .295" side plunging capacity and .118" 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 296-298
(1) Number of inserts
(2) Clamping wrench size
(3) Tool tightening torque Nxm (lbfxin)
For inserts, see pages: HTP LN.. 1006 (580)
For holders, see pages: BT-ODP (FLEXFIT) (356) • C#-ODP (FLEXFIT) (356) • CAB M-M (FLEXFIT) (354) • CAT-ODP (FLEXFIT) (360) • ER-ODP (358) • HSK A-ODP (FLEXFIT) (359) • S M (354) • S M-CF (355)

TANGPLUNGE
PLUNGING LINE

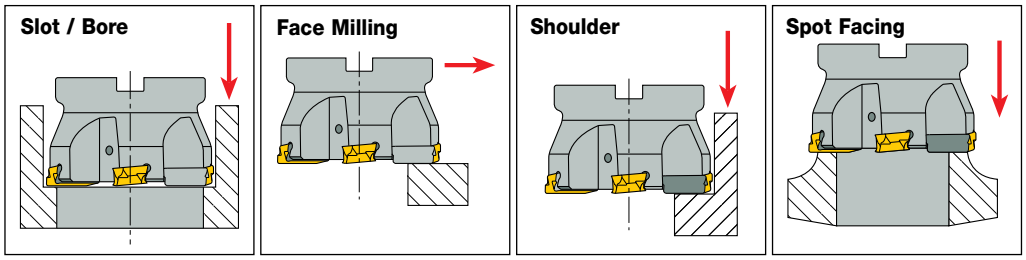
HTP-R-LN10
Shell Mill Plungers Carrying Tangentially Clamped Inserts with 4 Cutting Edges



Designation	DC	APMX	AE	CICT(1)	OAL	DHUB	DCONMS	Arbor(2)	Lbs
HTP D1.50-4-.50-R-LN10	1.500	.118	.315	4	1.570	1.420	.500	A	.41
HTP D2.00-5-.75-R-LN10	2.000	.118	.315	5	1.570	1.890	.750	A	.77

- .315" side plunging capacity and .118" maximum face milling DOC
- For user guide, see pages 296-298

(1) Number of inserts
(2) For adaptation, see page 592
For inserts, see pages: HTP LN.. 1006 (580)



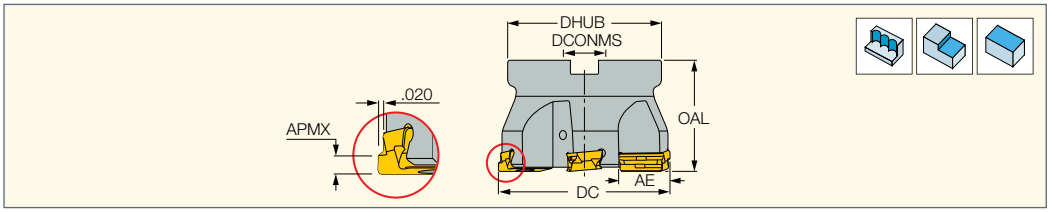
Spare Parts

Designation				
HTP D1.50-4-.50-R-LN10	SR 34-550	BLD T10/S7	SW6-SD	
HTP D2.00-5-.75-R-LN10	SR 34-550	BLD T10/S7	SW6-SD	SR UNF 3/8X1C

TANGPLUNGE
PLUNGING LINE

HTP-R-LN16

Shell Mill Plungers Carrying Tangentially Clamped Inserts with 4 Cutting Edges

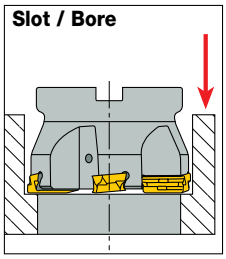


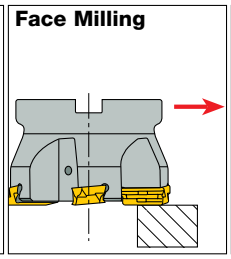
Designation	DC	AE	APMX	CICT(1)	OAL	DHUB	DCONMS	Arbor(2)	CSP(3)	Lbs
HTP D2.00-04-.75-R-LN16	2.000	.512	.118	4	1.570	1.771	.750	A	1	.58
HTP D2.50-05-.75-R-LN16	2.500	.551	.118	5	1.750	1.890	.750	A	1	1.06
HTP D2.50-05-1.00-R-LN16	2.500	.551	.118	5	1.750	2.362	1.000	A	1	1.10
HTP D3.00-06-1.00-R-LN16	3.000	.551	.118	6	2.000	2.362	1.000	A	1	1.63
HTP D3.00-06-1.25-R-LN16	3.000	.551	.118	6	2.000	2.756	1.250	A	1	1.91
HTP D4.00-07-1.50-R-LN16	4.000	.551	.118	7	2.000	3.110	1.500	B	1	2.58
HTP D5.00-9-1.50-R-LN16	5.000	.551	.118	9	2.500	3.740	1.500	B	1	6.38
HTP D6.00-10-2.00-R-LN16	6.000	.551	.118	10	2.000	4.724	2.000	B	0	7.60

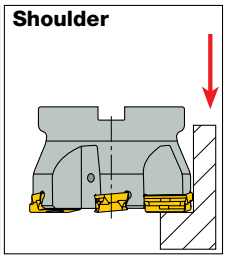
- .551" side plunging capacity and .118" maximum face milling DOC
- For user guide, see pages 296-298

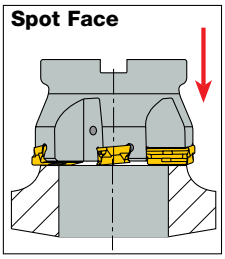
(1) Number of inserts
(2) For adaptation, see page 592
(3) 0 - Without coolant supply, 1 - With coolant supply

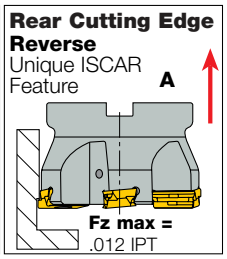
For inserts, see pages: HTP LN.. 1606 (580)











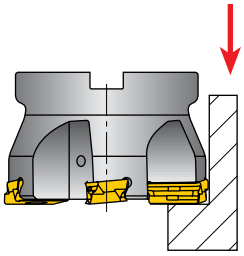
Spare Parts

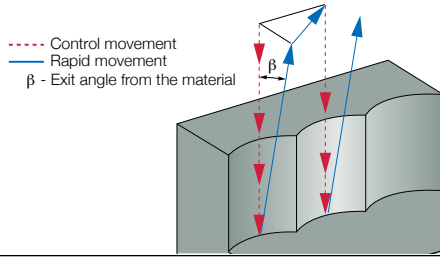
Designation				
HTP D2.00-04-.75-R-LN16	SR 34-535	BLD T15/S7	SW6-T-SH	SR UNF 3/8X1-1421
HTP D2.50-05-.75-R-LN16	SR 34-535	BLD T15/S7	SW6-T-SH	SR UNF 3/8X1C
HTP D2.50-05-1.00-R-LN16	SR 34-535	BLD T15/S7	SW6-T-SH	SR UNF 1/2X1.25C
HTP D3.00-06-1.00-R-LN16	SR 34-535	BLD T15/S7	SW6-T-SH	SR UNF 1/2X1.25C
HTP D3.00-06-1.25-R-LN16	SR 34-535	BLD T15/S7	SW6-T-SH	SR UNF 5/8X1C
HTP D4.00-07-1.50-R-LN16	SR 34-535	BLD T15/S7	SW6-T-SH	
HTP D5.00-9-1.50-R-LN16	SR 34-535	BLD T15/S7	SW6-T-SH	
HTP D6.00-10-2.00-R-LN16	SR 34-535	BLD T15/S7	SW6-T-SH	

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





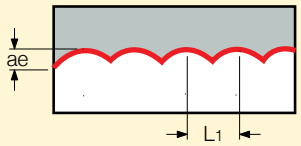
TANG-PLUNGE - SIDE PLUNGING

Workpiece Material											
ISO class		ISCAR	Typical Representative			Insert HTP	Carbide	Cutting	Feed		
DIN/ ISO 513	Description	mat. group*	AISI/SAE/ASTM	DIN W.-Nr.	Hardness HB	LN... type	grade for inserts	speed V_c, SFM	F_z, IPT	Coolant
P	Non-alloy steel and cast steel, free cutting steel	4	1060	1.1221	180-200	...ER	IC830/IC928	260-425	.005-.006	Air blow
	Low alloy and cast steel (less than 5% of alloying elements)	8	4340	1.6582	260-300			260-395	.004-.006	
	Low alloy and cast steel (less than 5% of alloying elements)	9	3135	1.571	HRC 35-40**			260-395	.003-.006	
	High alloy steel	10	H13	1.2344	200-220			260-330	.003-.005	
	Martensitic s.s.	12	420	1.4021	200		IC830/IC330/ IC328	260-330	.003-.005	Air blow/ wet
M	Austenitic s.s.	14	304L	1.4306	200	...ER	IC830/IC330/ IC328	195-260	.003-.004	Wet (emulsion)
K	Grey cast iron	16	Class 40	0.6025 (GG25)	250	...ER	IC810/IC910	490-655	.005-.008	Air blow
	Nodular cast iron	17	Class 65-45-12	0.7050 (GGG50)	200			330-590	.004-.007	
S	Ni-based HTSA	34	Inconel 718	2.4668	350	...ER	IC328/IC330	65-80	.003-.004	Wet (emulsion)
	Ti alloys	37	Ti6Al4V (Grade 5)	3.7164	HRC 34-36			115-130	.003-.004	
H	Hardened steel	38	4340	1.6582	HRC 45 max	...ETR	IC808/IC908	230-330	.003-.004	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

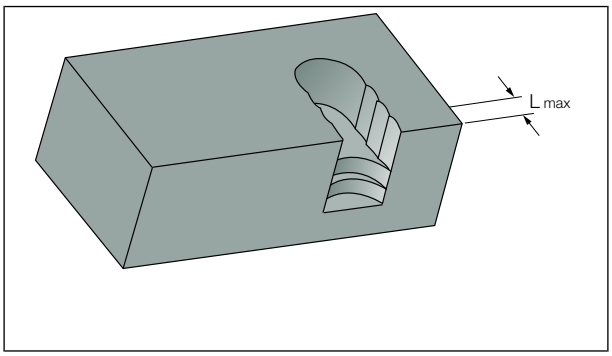
Table 1: L1 as a Function of the Width of Cut and Cutter Diameter

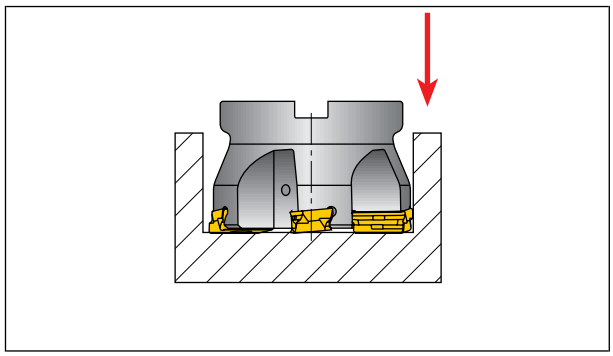
L1max = 2x Dxae-ae2	a_e - Width of plunge (inch)	Cutter Diameter (inch)			
		2.0″	2.5″	3.0″	4.0″
		L1max - Step (effective diameter)			
	.04	.56	.62	.68	.79
	.12	.94	1.06	1.17	1.35
	.20	1.19	1.35	1.49	1.73
	.24	1.29	1.46	1.62	1.89
	.28	1.38	1.57	1.73	2.03
	.31	1.46	1.66	1.84	2.15
	.35	1.53	1.74	1.94	2.27
	.39	1.59	1.82	2.03	2.38
	.43	1.65	1.89	2.11	2.49
	.47	1.70	1.96	2.19	2.58
	.51	1.75	2.02	2.26	2.67
	.55	-	2.07	2.32	2.76



L1- Side step over a_e- Width of plunge

Recommended Cutting Conditions for Slot Plunging





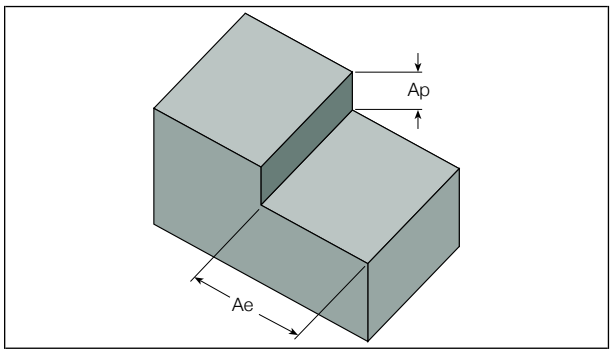
L- Width of Cut (mm)

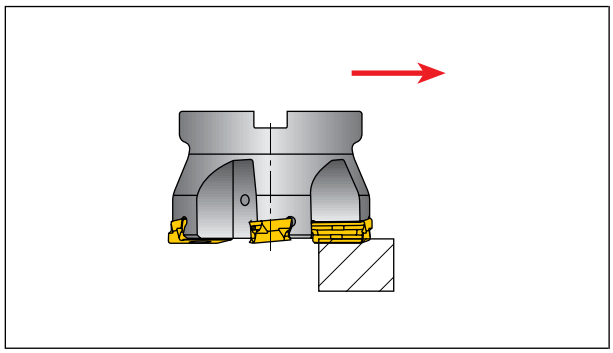
TANG-PLUNGE - SLOT PLUNGING

Workpiece Material						Insert HTP LN... type	Carbide grade for inserts	Cutting speed V_c, SFM	Feed F_z, IPT	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	260-395	.004-.006	Air blow
	Low alloy and cast steel (less than 5% of alloying elements)	8	4340	1.6582	260-300			260-395	.004-.005	
	Low alloy and cast steel (less than 5% of alloying elements)	9	3135	1.571	HRC 35-40**			260-395	.003-.005	
	High alloy steel	10	H13	1.2344	200-220			260-330	.003-.004	
	Martensitic s.s.	12	420	1.4021	200		IC830/ IC330/ IC328	260-330	.003-.005	Air blow/ wet
M	Austenitic s.s.	14	304L	1.4306	200	...ER	IC830/ IC330/ IC328	195-260	.003-.004	Wet (emulsion)
K	Grey cast iron	16	Class 40	0.6025 (GG25)	250	...ER	IC810/ IC910	490-655	.005-.007	Air blow
	Nodular cast iron	17	Class 65-45-12	0.7050 (GGG50)	200			330-590	.004-.006	
S	Ni-based HTSA	34	Inconel 718	2.4668	350	...ER	IC328/ IC330	65-80	.003-.004	Wet (emulsion)
	Ti alloys	37	Ti6Al4V (Grade 5)	3.7164	HRC 34-36			115-130	.003-.004	
H	Hardened steel	38	4340	1.6582	HRC 45 max	...ETR	IC808/ IC908	230-330	.003-.004	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





TANG-PLUNGE - FACE MILLING

Workpiece Material						Ins ert HTP LN... type	Carbide grade for inserts	Cutting speed V_c, SFM	Feed F_z, IPT	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	260-395	.004-.008	Air blow
	Low alloy and cast steel (less than 5% of alloying elements)	8	4340	1.6582	260-300			260-395	.004-.007	
	Low alloy and cast steel (less than 5% of alloying elements)	9	3135	1.571	HRC 35-40**			260-395	.004-.006	
	High alloy steel	10	H13	1.2344	200-220			260-330	.003-.006	
	Martensitic s.s.	12	420	1.4021	200		IC830/ IC330/ IC328	260-330	.003-.006	Air blow/ wet
M	Austenitic s.s.	14	304L	1.4306	200	...ER	IC830/ IC330/ IC328	195-260	.003-.004	Wet (emulsion)
K	Grey cast iron	16	Class 40	0.6025 (GG25)	250	...ER	IC810/ IC910	490-655	.005-.008	Air blow
	Nodular cast iron	17	Class 65-45-12	0.7050 (GGG50)	200			330-590	.004-.007	
S	Ni-based HTSA	34	Inconel 718	2.4668	350	...ER	IC328/ IC330	65-80	.003-.005	Wet (emulsion)
	Ti alloys	37	Ti6Al4V (Grade 5)	3.7164	HRC 34-36			115-130	.003-.005	
H	Hardened steel	38	4340	1.6582	HRC 45 max	...ETR	IC808/ IC908	230-330	.003-.004	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 .1" for hardened steel and .12" for other material groups
* ISCAR material group in accordance with VDI 3323 standard
** Quenched and tempered

PROFILING TOOLS

CONTENTS

Ball Nose Endmills 304

TORMILL - Toroidal Endmills and Face Mills 311

TOR6MILL - Multifunction Cutters 313

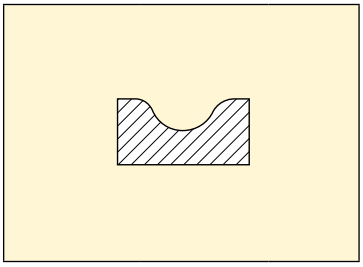
Round Cornered Cutters 317

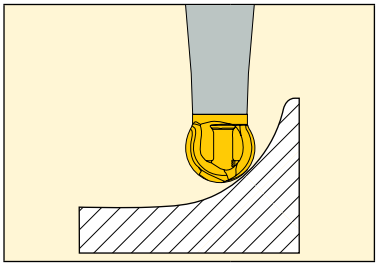
MILLSHRED 318

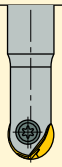
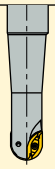
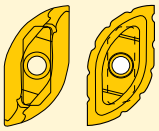
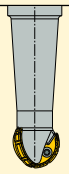
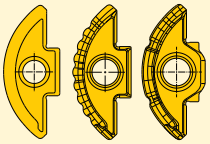
HELIDO ROUND H400 Line 321

FLEXFIT Adaptation Systems 354

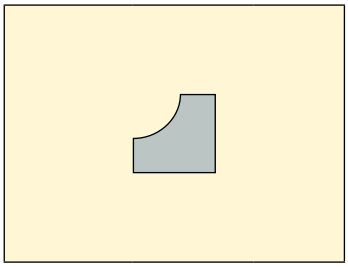
Ball Nose Selection Guide

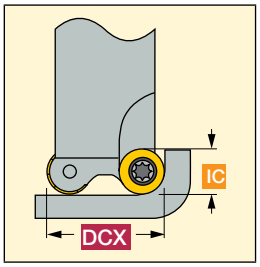




Tools	Pages	DCX .125-.250	.313	.375	.500	.625	.630	.750	.787	1.000	1.250	1.500	2.000	Inserts
EBI... Solid Carbide Multi-Master	140 66	•	•	•	•	•		•		•				
 HCM D.. HCM-M HCM-MM	304-307			•	•	•	•	•	•	•				HBF-QF HBR-QF HCR-QF HCR-QP HCD-QF HTR-QF
 BCM BCM-M BCM-MM	309-310				•	•		•		•	•	•	•	 BCR D...-QT BCR D...-CS
 BLP BLP -M	307-308						•	•	•	•	•	•	•	 BLR D...-QT BLR D...-MFW BLR D...-QCS

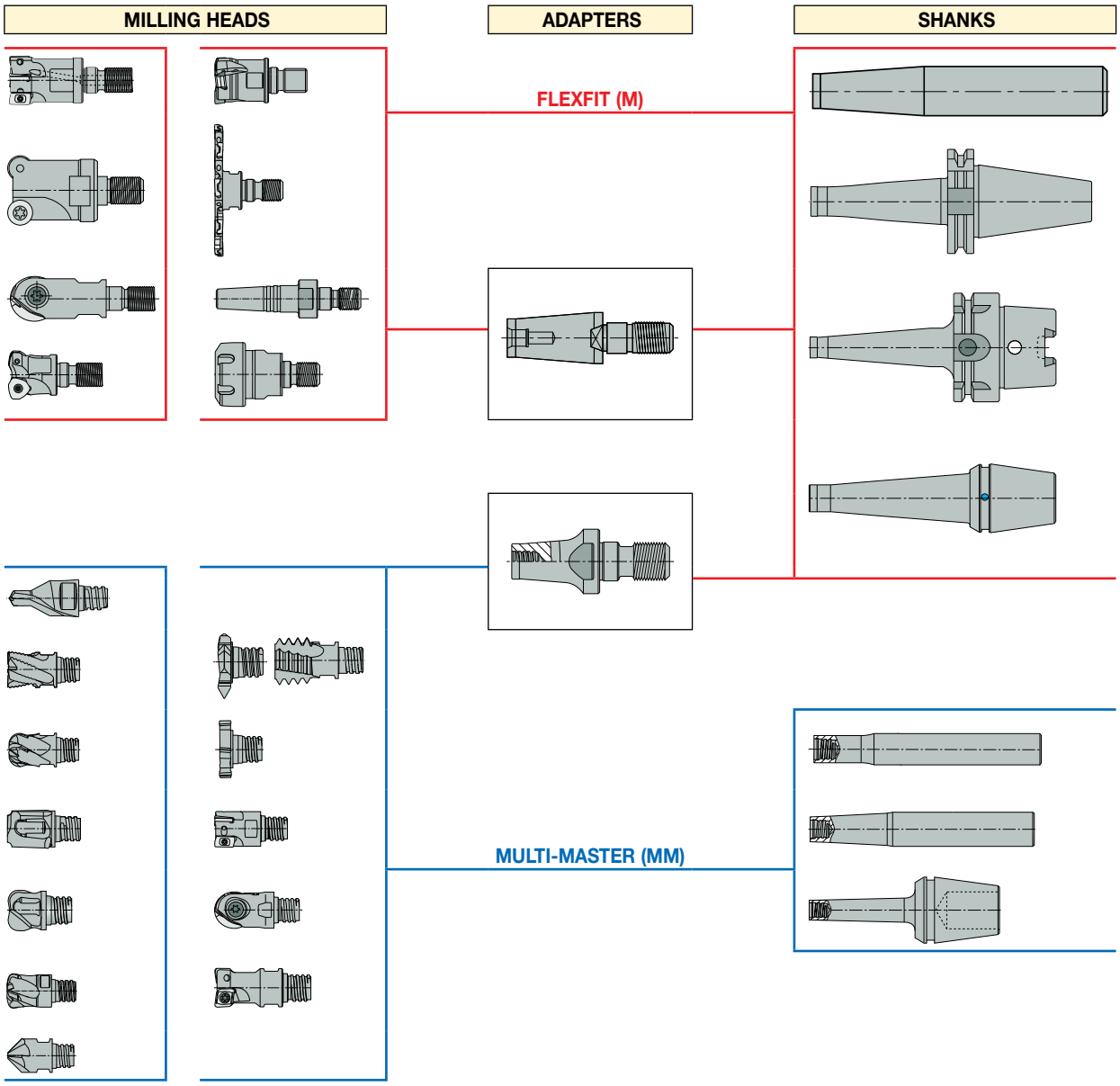
90° Face Mills
Selection Guide





Tools	Pages	DCX / IC	.625	.750	.787	.984	1.00	1.25	1.26	1.50	1.575	2.00	2.50	3.00	4.00	5.00	Inserts
			Toroidal														
E93CN	311-312		•	•			•										CNHT
TR6 ER TR6 FR	313-316	.375	•	•	•	•	•	•	•	•		•	•	•			TR6 TNCU TR90 TXMT TRFF TXMT TR45 TXMT
ER	317	.375		•			•	•									RXCR... RXCW...
FRMT	318	.472								•		•					RPHX/RPMX
FRN	317	.197										•		•			RNGN
H400 ER-10 H400 FR-10	321-322	.236			•	•	•	•	•	•							H400 RNHU 10... RXCW 10... RXCR 10... RXMT 10...
H400 ER-12 H400 FR-12 ERW-12 FRW-12	318-323	.236				•	•	•	•	•	•	•	•	•			RCMT 12... RCCW 12... RCCT 12... R90MT 12... H400 RNHU 12...
H606 ER-.50 H606 FR-.50	324-325	.250								•		•	•	•	•		H606 RXCU 43
H606 ER-M H606 FR-12	325-326	.630				•		•	•	•	•	•	•	•			H606 RXCU 1206
H400 FR-16 FRW-16	324 320	.315										•	•	•	•	•	H400 RNHU 16... RCMW 16... RCCW 16...
FRW-20	320	.787												•	•	•	RCMT 20 RCCW 20... RCMW 20...

MULTI-MASTER and FLEXFIT Connection Options

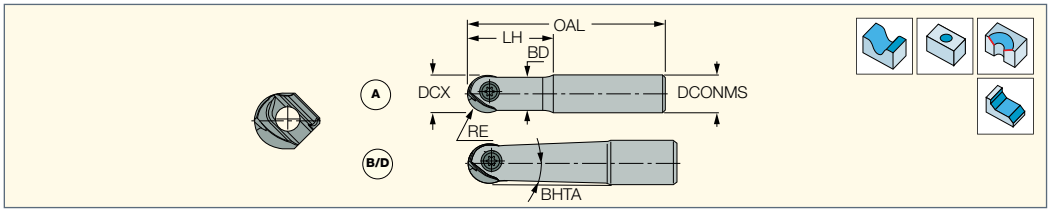


Features

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

BALLPLUS

HCM D.38
Ball Nose Multifunction
Endmills D=.375"

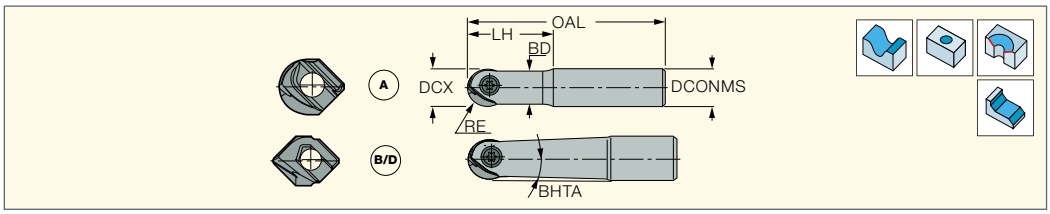


Designation	DCX(1)	RE	LH(2)	OAL(3)	DCONMS	Shank(4)	BHTA	BD	Type	Lbs			
HCM D.38-A-L3.5-C.38	.375	.1880	1.000	3.500	.375	C	-	.340	A	.10	SR 10504694	BLD T15/S7	SW6-T-SH
HCM D.38-B-L5.0-C.62	.375	.1880	1.000	5.000	.625	C	4.70	-	B	.35	SR 10504694	BLD T15/S7	SW6-T-SH
HCM D.38-D-L6.0-C.50	.375	.1880	2.000	6.000	.500	C	1.80	-	D	.28	SR 10504694	BLD T15/S7	SW6-T-SH

• The dimensions are for HBR inserts • Insert screw tightening torque 44-48 lbfxin • For user guide, see pages 586-591
(1) Cutting diameter maximum
(2) Refers to HBR inserts
(3) Refers to HBR inserts
(4) C-Cylindrical
For inserts, see pages: HBR-QF (576) • HCR (577)

BALLPLUS

HCM D.50
Ball Nose Multifunction
Endmills D=.500"

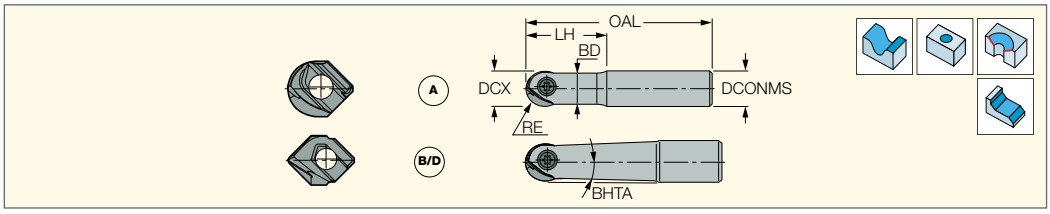


Designation	DCX(1)	RE	LH(2)	OAL(3)	DCONMS	Shank(4)	BHTA	BD	Type	Lbs			
HCM D.50-A-L4.7-C.50	.500	.2500	1.200	4.700	.500	C	-	.417	A	.23	SR 34-540	BLD T15/S7	SW6-T
HCM D.50-B-L6.5-C.75	.500	.2500	2.000	6.500	.750	C	5.00	-	B	.69	SR 34-540	BLD T15/S7	SW6-T
HCM D.50-D-L6.5-C.62	.500	.2500	2.400	6.500	.625	C	1.50	-	D	.47	SR 34-540	BLD T15/S7	SW6-T

• The dimensions are for HBR inserts • Insert screw tightening torque 53-58 lbfxin • For user guide, see pages 586-591
(1) Cutting diameter maximum
(2) Refers to HBR inserts
(3) Refers to HBR inserts
(4) C-Cylindrical
For inserts, see pages: HBF-QF (576) • HBR-QF (576) • HCR (577)

BALLPLUS

HCM D.625
Ball Nose Multifunction
Endmills D=.625"

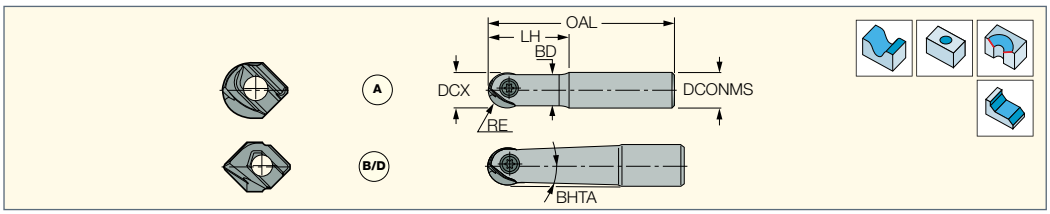


Designation	DCX(1)	RE	LH(2)	OAL(3)	DCONMS	Shank(4)	BHTA	BD	Type	Lbs			
HCM D.62-A-L5.0-C.62	.625	.3130	1.400	5.100	.625	C	-	.563	A	.40	SR 10503579	BLD T20/S7	SW6-T
HCM D.62-B-L6.7-C1.0	.625	.3130	2.400	6.700	1.000	C	5.00	-	B	1.20	SR 10503579	BLD T20/S7	SW6-T
HCM D.62-D-L6.5-C.75	.625	.3130	2.500	6.500	.750	C	1.50	-	D	.67	SR 10503579	BLD T20/S7	SW6-T

• The dimensions are for HBR inserts • Insert screw tightening torque 65-70 lbfxin • For user guide, see pages 586-591
(1) Cutting diameter maximum
(2) Refers to HBR inserts
(3) Refers to HBR inserts
(4) C-Cylindrical
For inserts, see pages: HBF-QF (576) • HBR-QF (576) • HCR (577)

BALLPLUS

HCM D.75
Ball Nose Multifunction
Endmills D=.750"



Designation	DCX(1)	RE	LH(2)	OAL(3)	DCONMS	Shank(4)	BHTA	BD	Type	Lbs			
HCM D.75-A-L6.0-C.75	.750	.3750	2.400	6.000	.750	C	-	.673	A	.64	SR 1052964	BLD T25/S7	SW6-T
HCM D.75-D-L8.0-C1.0	.750	.3750	3.500	8.000	1.000	C	1.00	-	D	1.37	SR 1052964	BLD T25/S7	SW6-T

• The dimensions are for HBR inserts • Insert screw tightening torque 105-110 lbfxin • For user guide, see pages 586-591

(1) Cutting diameter maximum

(2) Refers to HBR inserts

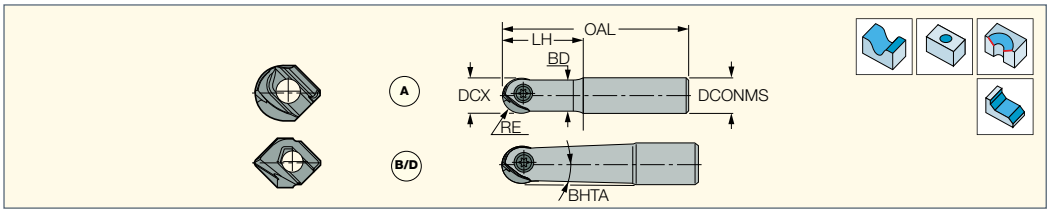
(3) Refers to HBR inserts

(4) C-Cylindrical

For inserts, see pages: HBF-QF (576) • HBR-QF (576) • HCR (577)

BALLPLUS

HCM D1.0
Ball Nose Multifunction
Endmills D=1.000"



Designation	DCX(1)	RE	LH(2)	OAL(3)	DCONMS	Shank(4)	BHTA	BD	Type	Lbs			
HCM D1.0-A-L6.7-C1.0	1.000	.5000	2.800	6.700	1.000	C	-	.866	A	1.25	SR 1051666	BLD T25/S7	SW6-T
HCM D1.0-D-L10.-C1.25	1.000	.5000	5.000	10.000	1.250	C	1.60	-	D	2.68	SR 1051666	BLD T25/S7	SW6-T

• The dimensions are for HBR inserts • For user guide, see pages 586-591

(1) Cutting diameter maximum

(2) Refers to HBR inserts

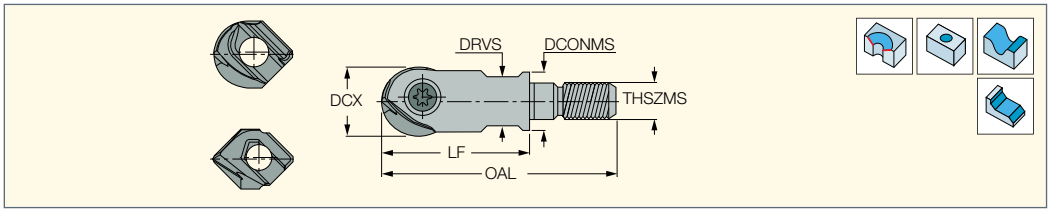
(3) Refers to HBR inserts

(4) C-Cylindrical

For inserts, see pages: HBF-QF (576) • HBR-QF (576) • HCR (577)

BALLPLUS FLEXFIT

HCM-M
Ball Nose Multifunction
Endmills with FLEXFIT
Threaded Adaptation



Designation	DCX(1)	LF(2)	OAL(3)	DCONMS	DRVS(4)	THSZMS	TQ_3(5)	Lbs			
HCM D12/.50-M08	.472	1.024	1.713	.567	.433	M08	180	.06	SR 34-540	BLD T15/S7	SW6-T
HCM D16/.62-M08	.630	1.181	1.870	.567	.433	M08	180	.07	SR 10503579	BLD T20/S7	SW6-T
HCM D16/.62-M10	.630	1.378	2.165	.709	.591	M10	260	.11	SR 10503579	BLD T20/S7	SW6-T
HCM D20/.75-M10	.787	1.457	2.244	.709	.591	M10	260	.13	SR 1052964	BLD T25/S7	SW6-T
HCM D20/.75-M12	.787	1.457	2.323	.886	.669	M12	295	.16	SR 1052964	BLD T25/S7	SW6-T
HCM D25/1.0-M12	.984	1.811	2.677	.827	.748	M12	295	.25	SR 1051666	BLD T25/S7	SW6-T
HCM D25/1.0-M16	.984	1.811	2.795	1.142	.984	M16	355	.35	SR 1051666	BLD T25/S7	SW6-T

• The dimensions are for HBR inserts • For user guide, see pages 586-591• When mounting items with FLEXFIT threaded adaptation, 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 (576) • HBR-QF (576) • HCD-QF (577) • HCR (577)
For holders, see pages: BT-ODP (FLEXFIT) (356) • C#-ODP (FLEXFIT) (356) • CAB M-M (FLEXFIT) (354) • CAT-ODP (FLEXFIT) (360) • DIN69871-ODP (Metric) (357) • ER-ODP (358) • HSK A-ODP (FLEXFIT) (359) • S M (354) • S M-CF (355)

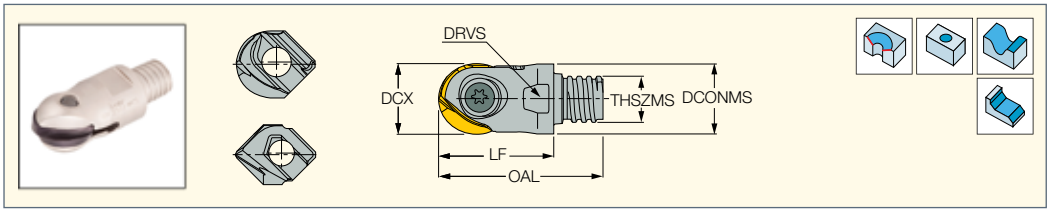
Parts for Assembly

Milling Head	Adapter	Shank	Assembly Dimensions						
			DCX	LH	OAL	BHTA	DCONMS	Shank	Inserts
HCM D12/.50-M8	--	S M08-L3.00-C.62	.500	2.01	4.02	4.00	.625	C	HBR HBF HCR HCD HCC
		S M08-L6.50-C.75	.500	3.65	7.52	4.00	.750	C	
HCM D12/.50-M8	CAB M08M10	S M10-L3.00-C.75	.500	3.78	5.59	4.00	.750	C	
		S M10-L8.00-C1.00	.500	4.85	10.60	4.00	1.000	C	
HCM D16/.62-M8	--	S M8-L3.00-C.62	.625	2.16	4.18	-	.625	C	
		S M8-L6.50-C.75	.625	3.81	7.68	1.02	.750	C	
HCM D16/.62-M8	CAB M08M10	S M10-L3.00-C.75	.625	3.93	5.75	1.06	.750	C	
		S M10-L8.00-C1.00	.625	5.00	10.75	2.28	1.000	C	
HCM D16/.62-M10		S M10-L3.00-C.75	.625	2.56	4.37	2.50	.750	C	
		S M10-L8.00-C1.00	.625	3.63	9.37	3.23	1.000	C	
HCM D16/.62-M10	CAB M10M12	S M12-L8.00-C1.25	.625	6.21	11.15	3.00	1.250	C	
HCM D20/.75-M10	--	S M10-L3.00-C.75	.75	2.63	4.46	-	.75	C	
		S M10-L8.00-C1.00	.75	3.70	9.46	2.14	1.00	C	
HCM D20/.75-M10	CAB M10M12	S M12-L8.00-C1.25	.75	6.30	11.23	2.41	1.25	C	
HCM D20/.75-M12	--	S M12-L8.00-C1.25	.75	4.52	9.46	3.45	1.25	C	
HCM D20/.75-M12	CAB M12M16	S M16-L4.0-W1.25	.75	4.80	7.43	4.00	1.25	C	
		S M16-L9.00-C1.25	.75	5.40	12.48	4.00	1.25	C	
HCM D25/1.0-M12	--	S M10-L8.00-C1.25	1.00	4.87	9.81	1.47	1.25	C	
HCM D25/1.0-M16	CAB M12M16	S M16-L4.00-W1.25	1.00	5.15	7.78	1.54	1.25	C	
		S M16-L9.00-C1.25	1.00	5.74	12.83	1.36	1.25	C	
HCM D25/1.0-M16	--	S M16-L4.0-W1.25	1.00	3.18	5.81	3.50	1.25	C	
		S M16-L9.00-C1.25	1.00	3.78	10.86	3.50	1.25	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)	Lbs			
HCM D12/.50-MMT08	.472	1.102	.787	.453	T08	.394	132.76	180	.03	SR 34-540	BLD T15/S7	SW6-T
HCM D16/.62-MMT10	.630	1.447	.984	.598	T10	.512	247.82	295	.06	SR 10503579	BLD T20/S7	SW6-T
HCM D20/.75-MMT12	.787	1.921	1.378	.728	T12	.591	247.82	180	.12	SR 1052964	BLD T25/S7	SW6-T
HCM D25/1.0-MMT15	.984	2.480	1.811	.945	T15	.787	354.03	355	.29	SR 1051666	BLD T25/S7	SW6-T

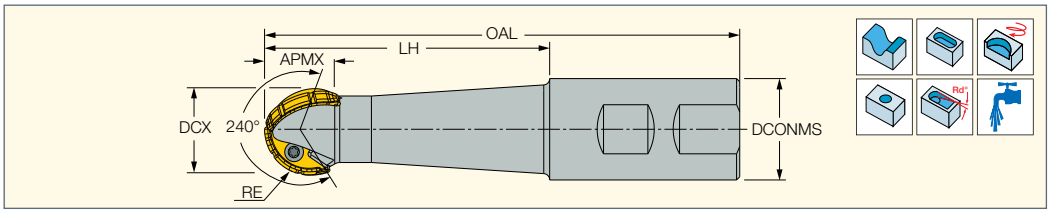
- The dimensions are for HBR inserts. • Do not apply lubricant to the MULTI-MASTER threaded connection • For adaptation options, see page 303
- For user guide, see pages 586-591

(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 (576) • HBR-QF (576) • HCD-QF (577) • HCR (577)
For holders, see pages: MM CAB (733) • MM GRT (shanks) (85) • MM S-A (stepped shanks) (83) • MM S-A (straight shanks) (86) • MM S-A-C# (84) • MM S-A-HSK (672) • MM S-B (85° conical shanks) (86) • MM S-D (89° conical shanks) (87) • MM S-ER (88) • MM S-ER-H (89) • MM TS-A (85)

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	MIID(3)	Lbs
BLP D0.62-1.5-4.0-C.62	.625	.3120	.468	3	4.000	1.500	.625	C	BLR D0.62-QT	.00
BLP D0.75-2.5-5.0-C.75	.750	.3750	.562	3	5.000	2.500	.750	C	BLR D0.75-QT	.51
BLP D1.0-3.5-6.0-W1.0	1.000	.5000	.750	3	6.000	3.500	1.000	W	BLR D1.0-QT	.00
BLP D1.25-3.0-6.0-W1.25	1.250	.6250	.937	3	6.000	3.000	1.250	W	BLR D1.25-QT	.00
BLP D1.5-4.0-7.0-W1.50	1.500	.7500	1.125	3	7.000	4.000	1.500	W	BLR D1.50-QT	.00
BLP D2.00-4.7-8.0-W2.0	2.000	1.0000	1.500	3	8.000	4.700	2.000	W	BLR D2.00-QT	.00

- For user guide, see pages 586-591

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

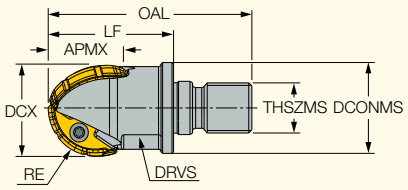
For inserts, see pages: BLR (578)

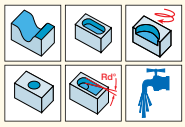
Spare Parts

Designation				
BLP D0.62-1.5-4.0-C.62	SR M2.5X0.45-L6 IP7	IP-7/51		
BLP D0.75-2.5-5.0-C.75	SR M3X0.5-L7.4 IP9	IP-9/151		
BLP D1.0-3.5-6.0-W1.0	SR M3.5X0.6-L8.5 IP10		BLD IP10/S7	SW6-SD
BLP D1.25-3.0-6.0-W1.25	SR M4X0.7-L9.6 IP15		BLD IP15/S7	SW6-SD
BLP D1.5-4.0-7.0-W1.50	SR M5-14 IP20		BLD IP20/S7	SW6-T
BLP D2.00-4.7-8.0-W2.0	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)	Lbs
BLP D16/.62-M08	.625	.3120	3	.468	.942	1.631	M12	.512	9.600	BLR D0.62-QT	355	.00
BLP D0.75-M08	.750	.3750	3	.562	1.141	1.830	M12	.512	9.600	BLR D0.75-QT	355	.00
BLP D25/1.0-M12	1.000	.5000	3	.750	1.385	2.252	M08	.826	17.000	BLR D1.0-QT	355	.07
BLP D32/1.25-M12	1.250	.6250	3	.937	1.570	2.436	M16	.905	17.100	BLR D1.25-QT	355	.00
BLP D32/1.25-M16	1.250	.6250	3	.937	1.577	2.554	M16	1.141	25.100	BLR D1.25-QT	355	.00
BLP D1.5-M16	1.500	.7500	3	1.125	2.047	3.031	M08	1.141	25.100	BLR D1.50-QT	355	.00

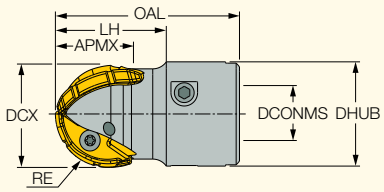
• For user guide, see pages 586-591• When mounting items with FLEXFIT threaded adaptation, the mating surfaces and threaded areas must be thoroughly cleaned. Apply appropriate tightening torque to eliminate a gap between the mating faces. Estimated torque values are specified in the TQ_3 parameter
(1) Cutting diameter maximum
(2) Number of flutes
(3) Torque key size
(4) Master insert identification
(5) Tool tightening torque Nxm (lbfxin)
For inserts, see pages: BLR (578)
For holders, see pages: BT-ODP (FLEXFIT) (356) • C#-ODP (FLEXFIT) (356) • CAB M-M (FLEXFIT) (354) • CAT-ODP (FLEXFIT) (360) • ER-ODP (358) • HSK A-ODP (FLEXFIT) (359) • S M (354) • S M-CF (355)

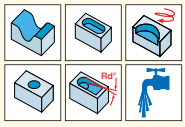
Spare Parts

Designation				
BLP D16/.62-M08	SR M2.5X0.45-L6 IP7	IP-7/51		
BLP D0.75-M08	SR M3X0.5-L7.4 IP9	IP-9/151		
BLP D25/1.0-M12	SR M3.5X0.6-L8.5 IP10		BLD IP10/S7	SW6-SD
BLP D32/1.25-M12	SR M4X0.7-L9.6 IP15		BLD IP15/S7	SW6-T
BLP D32/1.25-M16	SR M4X0.7-L9.6 IP15		BLD IP15/S7	SW6-T
BLP D1.5-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)	Lbs
BLP D2.00-1.0	2.000	1.0000	3	1.500	1.984	3.200	1.909	1.000	BLR D2.00-QT	.00

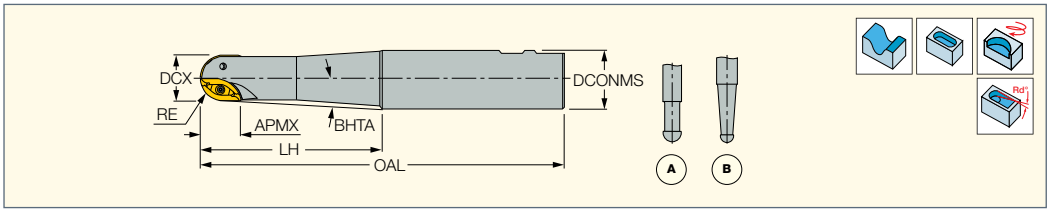
• Use on face mill adapters with the supplied retention screw • For user guide, see pages 586-591
(1) Cutting diameter maximum
(2) Number of flutes
(3) Master insert identification
For inserts, see pages: BLR (578)

Spare Parts

Designation						
BLP Shell Mill	SR M6X1-L18 IP25	BLD IP25/S7	SW6-T	SR M10X1X14-10700	SR 1/2-20 UNF-17230	HW 5.0

DROPMILL

BCM
Ball Nose Endmills with
Tangent Straight Edge
Inserts for Finish Profiling



Designation	DCX(1)	RE	APMX	CICT(2)	OAL	LH	DCONMS	Shank(3)	Type	BHTA	CSP(4)	MIID(5)	Lbs
BCM D.50-A-C.50	.500	.2500	.400	2	4.720	1.180	.500	C	A	-	0	BCR D.50-QT	.24
BCM D.50-B-C.62	.500	.2500	.400	2	6.500	2.400	.625	C	B	1.72	0	BCR D.50-QT	.48
BCM D.62-A-C.62-C	.625	.3100	.500	2	5.000	1.410	.620	C	A	-	1	BCR D.62-QT	.34
BCM D.62-B-C.75-C	.625	.3100	.500	2	6.000	3.030	.750	C	B	1.32	1	BCR D.62-QT	.54
BCM D.75-A-C.75-C	.750	.3750	.610	2	6.000	2.250	.750	C	A	-	1	BCR D.75-QT	.56
BCM D.75-B-C1.00-C	.750	.3750	.610	2	8.000	3.000	1.000	C	B	2.58	1	BCR D.75-QT	1.30
BCM D1.00-A-W1.00-C	1.000	.5000	.790	2	6.700	2.750	1.000	W	A	-	1	BCR D1.00-QT	1.16
BCM D1.00-B-W1.25-C	1.000	.5000	.790	2	8.750	3.750	1.250	W	B	2.20	1	BCR D1.00-QT	2.24
BCM D1.25-A-W1.25-C	1.250	.6250	1.020	2	6.300	2.520	1.250	W	A	-	1	BCR D1.25-QT	1.65
BCM D1.25-B-W1.50-C	1.250	.6250	1.020	2	10.000	5.000	1.500	W	B	1.64	1	BCR D1.25-QT	3.62
BCM D1.50-A-W1.25-C	1.500	.7500	1.330	2	6.370	3.500	1.250	W	A	-	1	BCR D1.50-CS	1.92
BCM D1.50-B-W1.50-C	1.500	.7500	1.330	2	10.000	5.000	1.500	W	B	-	1	BCR D1.50-CS	3.90
BCM D2.00-A-W2.00-C	2.000	1.0000	1.720	2	8.450	5.200	2.000	W	A	-	1	BCR D2.00-CS	3.40

- For user guide, see pages 586-591

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

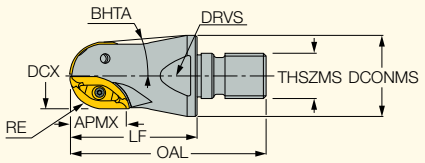
For inserts, see pages: BCR (579)

Spare Parts

Designation				
BCM D.50-A-C.50	SR 10503457			T-6/51
BCM D.50-B-C.62	SR 10503457			T-6/51
BCM D.62-A-C.62-C	SR 34-505/1 MHG 2.5X7.2			T-8/53
BCM D.62-B-C.75-C	SR 34-505/1 MHG 2.5X7.2			T-8/53
BCM D.75-A-C.75-C	SR 34-506/L			T-9/51
BCM D.75-B-C1.00-C	SR 34-506/L			T-9/51
BCM D1.00-A-W1.00-C	SR 14-601	BLD T15/S7	SW6-T	
BCM D1.00-B-W1.25-C	SR 14-601	BLD T15/S7	SW6-T	
BCM D1.25-A-W1.25-C	SR 14-544	BLD T15/S7	SW6-T	
BCM D1.25-B-W1.50-C	SR 14-544	BLD T15/S7	SW6-T	
BCM D1.50-A-W1.25-C	SR 14-591/L	BLD T20/S7	SW6-T	
BCM D1.50-B-W1.50-C	SR 14-591/L	BLD T20/S7	SW6-T	
BCM D2.00-A-W2.00-C	SR 10503750	BLD T25/S7	SW6-T	

DROPMILL FLEXFIT

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



Designation	DCX(1)	RE	APMX	CICT(2)	LF	OAL	THSZMS	DCONMS	DRVS(3)	MIID(4)	TQ_3(5)	Lbs
BCM D1.00-M12	1.000	.5000	.787	2	1.811	2.677	M12	.905	.750	BCR D1.00-QT	295	.26
BCM D1.25-M16	1.250	.6250	1.024	2	2.087	3.071	M16	1.142	.937	BCR D1.25-QT	355	.47

• For user guide, see pages 586-591 • When mounting items with FLEXFIT threaded adaptation, 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)

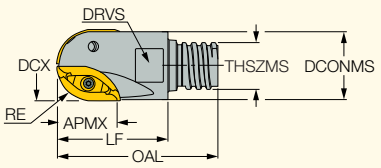
For inserts, see pages: BCR (579)
For holders, see pages: BT-ODP (FLEXFIT) (356) • C#-ODP (FLEXFIT) (356) • CAB M-M (FLEXFIT) (354) • CAT-ODP (FLEXFIT) (360) • ER-ODP (358) • HSK A-ODP (FLEXFIT) (359) • S M (354) • S M-CF (355)

Spare Parts

Designation			
BCM D1.00-M12	SR 14-601	BLD T15/S7	SW6-T
BCM D1.25-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(1)	RE	APMX	CICT(2)	LF	OAL	DRVS(3)	DCONMS	THSZMS	MIID(4)	Lbs
BCM D.50-MMT08	.500	.2500	.440	2	.780	1.100	.370	.450	T08	BCR D.50-QT	.03
BCM D.62-MMT10	.625	.3100	.500	2	1.000	1.440	.500	.600	T10	BCR D.62-QT	.07
BCM D.75-MMT12	.750	.3700	.610	2	1.380	1.920	.560	.720	T12	BCR D.75-QT	.13

• Do not apply lubricant to the MULTI-MASTER threaded connection • For adaptation options, see page 303 • For user guide, see pages 586-591

(1) Cutting diameter maximum
(2) Number of inserts
(3) Width across flats (wrench should be ordered separately)
(4) Master insert identification

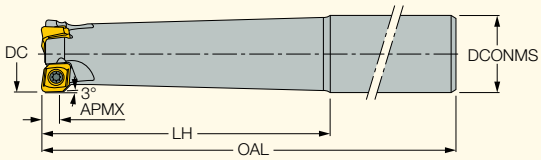
For inserts, see pages: BCR (579)
For holders, see pages: MM CAB (733) • MM S-A (stepped shanks) (83) • MM S-A (straight shanks) (86) • MM S-A-C# (84) • MM S-A-HSK (672) • MM S-B (85° conical shanks) (86) • MM S-D (89° conical shanks) (87) • MM S-ER (88) • MM S-ER-H (89) • MM TS-A (85)

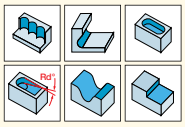
Spare Parts

Designation		
BCM D.50-MMT08	SR 10503457	T-6/51
BCM D.62-MMT10	SR 34-505/1 MHG 2.5X7.2	T-8/53
BCM D.75-MMT12	SR 34-506/L	T-9/51

TORMILL

E93CN-07
Toroidal Bull Nose Endmills with CNHT...and ENHT... Inserts





Designation	DC(1)	APMX	CICT(2)	LH	OAL	RMPX°(3)	DCONMS	Shank(4)	MIID(5)	Lbs
E93CN D.750-3L60C.750-07	.750	.200	3	3.000	6.000	3.0	.750	C	CNHT 070315	.63
E93CN D1.00-4L70C1.00-07	1.000	.200	4	4.000	7.000	2.0	1.000	C	CNHT 070315	1.36

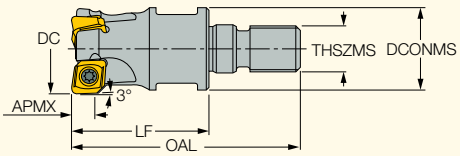
(1) The specified diameter is for inserts with a .039" radius. For other radii options, see diameter change in the table below
(2) Number of inserts
(3) Maximum ramping angle
(4) C-Cylindrical
(5) Master insert identification
For inserts, see pages: CNHT/MT 07 (581)

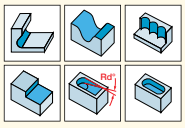
Spare Parts

Designation		
E93CN-07	SR 34-505/LHG	T-8/53

TORMILL FLEXFIT

E93CN-M-07
Bull Nose Endmills with FLEXFIT Threaded Adaptation Carrying Toroidal Inserts





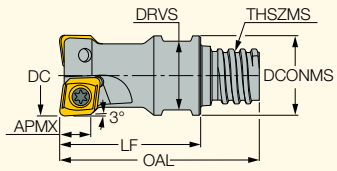
Designation	DC(1)	APMX	CICT(2)	LF	OAL	THSZMS	RMPX°(3)	DCONMS	MIID(4)	TQ_3(5)	Lbs		
E93CN D1.00-4-M12-07	1.000	.200	4	1.380	2.240	M12	2.0	.830	CNHT 070315	295	.21	SR 34-505/LHG	T-8/53

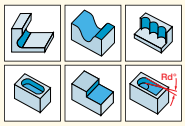
• When mounting items with FLEXFIT threaded adaptation, the mating surfaces and threaded areas must be thoroughly cleaned. Apply appropriate tightening torque to eliminate a gap between the mating faces. Estimated torque values are specified in the TQ_3 parameter
(1) The specified diameter is for inserts with a .039" radius. For other radii options, see diameter change in the table below
(2) Number of inserts
(3) Maximum ramping angle
(4) Master insert identification
(5) Tool tightening torque Nxm (lbfxin)
For inserts, see pages: CNHT/MT 07 (581)
For holders, see pages: BT-ODP (FLEXFIT) (356) • C#-ODP (FLEXFIT) (356) • CAB M-M (FLEXFIT) (354) • CAT-ODP (FLEXFIT) (360) • ER-ODP (358) • HSK A-ODP (FLEXFIT) (359) • S M (354) • S M-CF (355)

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	THSZMS	RMPX°(3)	DCONMS	DRVS(4)	Lbs	MIID(5)		
E93CN D.62-2-MMT10-07	.625	.200	2	1.058	1.520	T10	4.0	.590	.512	.00	CNHT 070315	SR 34-505/LHG	T-8/53
E93CN D.75-3-MMT12-07	.750	.200	3	1.021	1.560	T12	3.0	.700	.630	.10	CNHT 070315	SR 34-505/LHG	T-8/53

• Do not apply lubricant to the MULTI-MASTER threaded connection • For adaptation options, see page 303 • For user guide, see pages 586-591

(1) The specified diameter is for inserts with a .039" radius. For other radii options, see diameter change in the table below

(2) Number of inserts

(3) Maximum ramping angle

(4) Width across flats (wrench should be ordered separately)

(5) Master insert identification

For inserts, see pages: CNHT/MT 07 (581)

For holders, see pages: MM S-A (straight shanks) (86) • MM S-B (85° conical shanks) (86) • MM S-D (89° conical shanks) (87) • MM S-ER (88) • MM S-ER-H (89)

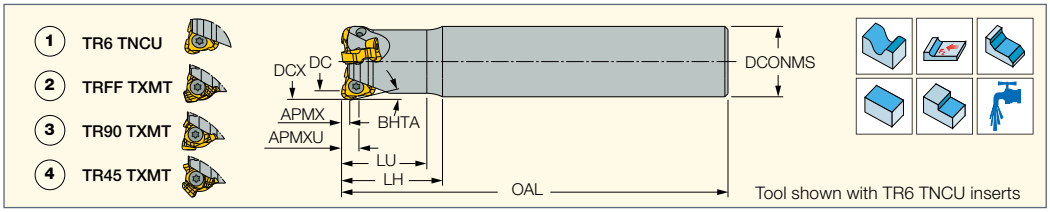
Diameter Change According to Insert Radius

R	.02	.031	.039	.059	.078	.098	.118
ΔD	+.0024	+.0012	.000	-.0027	-.0055	-.0083	-.011

TOR6MILL PROFILING

TR6 ER

Multifunction Endmills That 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
TR6 ERD0.62-2-2.0W0.62-07	.625	.625	.625	-	.546	.466	-	.0390	.0240	.0980	-	.0790	18.00	2	1.8600	1.8700	1.8700
TR6 ERD0.75-4-2.5W0.75-07	.750	.750	.750	-	.671	.596	-	.0390	.0240	.0980	-	.0790	18.00	4	2.3600	2.3700	2.3700
TR6 ERD1.00-5-3.0W1.00-07	1.000	1.000	1.000	-	.921	.846	-	.0390	.0240	.0980	-	.0790	18.00	5	2.8300	2.8400	2.8400
TR6 ERD1.25-6-4.0W1.25-07	1.250	1.250	1.250	-	1.171	1.096	-	.0390	.0240	.0980	-	.0790	18.00	6	3.8300	3.8400	3.8400
TR6 ERD1.00-3-3.0W1.00-10	1.000	1.000	1.000	1.070	.803	.763	.826	.0980	.0310	.1570	.1180	.1650	17.00	3	2.8000	2.8100	2.8000
TR6 ERD1.25-4-3.5W1.25-10	1.250	1.250	1.250	1.320	1.053	.763	.826	.0980	.0310	.1570	.1180	.1650	17.00	4	3.3000	3.3100	3.3000

Designation	LU_4	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)	Lbs
TR6 ERD0.62-2-2.0W0.62-07	-	1.860	1.87	1.87	-	3.910	3.917	3.921	-	.625	TR6 TNCU 070210	TRFF TXMT 0702	TR90 TXMT 070204	-	.26
TR6 ERD0.75-4-2.5W0.75-07	-	2.360	2.37	2.37	-	4.530	4.538	4.542	-	.750	TR6 TNCU 070210	TRFF TXMT 0702	TR90 TXMT 070204	-	.41
TR6 ERD1.00-5-3.0W1.00-07	-	2.830	2.84	2.84	-	5.280	5.288	5.292	-	1.000	TR6 TNCU 070210	TRFF TXMT 0702	TR90 TXMT 070204	-	.17
TR6 ERD1.25-6-4.0W1.25-07	-	3.830	3.84	3.84	-	6.280	6.288	6.292	-	1.250	TR6 TNCU 070210	TRFF TXMT 0702	TR90 TXMT 070204	-	1.68
TR6 ERD1.00-3-3.0W1.00-10	2.8000	3.000	3.01	3.00	3.00	5.280	5.285	5.276	5.284	1.000	TR6 TNCU 100425	TRFF TXMT 1004	TR90 TXMT 100408	TR45 TXMT 1004	.88
TR6 ERD1.25-4-3.5W1.25-10	3.3000	3.500	3.51	3.50	3.50	5.780	5.785	5.776	5.784	1.250	TR6 TNCU 100425	TRFF TXMT 1004	TR90 TXMT 100408	TR45 TXMT 1004	1.54

- 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 (583) • TR6 TNCU/MU (582) • TR90 TXMT (582) • TRFF TXMT (582)

Tool	Insert	DCX	DC	APMX	LU	LH	OAL	RMPX	For undercutting APMX_2	For undercutting BHTA
TR6 ERD0.62-2-2.0W0.62-07	TR6 TNCU 070205	0.62	.580	.020	1.856	1.856	3.906	-	.063	17.0
	TR6 TNMU 070215		.501	.059	1.863	1.863	3.913	-	.094	21.0
	TRFF TXMT 0702		.466	.024	1.867	1.867	3.917	1.1	-	-
	TR90 TXMT 070204		-	.098	1.871	1.871	3.921	1.6	-	-
TR6 ERD0.75-4-2.5W0.75-07	TR6 TNCU 070205	0.75	.710	.020	2.356	2.356	4.526	-	.063	17.0
	TR6 TNMU 070215		.631	.059	2.364	2.364	4.534	-	.094	21.0
	TRFF TXMT 0702		.596	.024	2.368	2.368	4.538	0.8	-	-
	TR90 TXMT 070204		-	.098	2.372	2.372	4.542	1.2	-	-
TR6 ERD1.00-5-3.0W1.00-07	TR6 TNCU 070205	1.00	.960	.020	2.826	2.826	5.276	-	.063	17.0
	TR6 TNMU 070215		.881	.059	2.834	2.834	5.284	-	.094	21.0
	TRFF TXMT 0702		.846	.024	2.838	2.838	5.288	0.6	-	-
	TR90 TXMT 070204		-	.098	2.842	2.842	5.292	0.9	-	-
TR6 ERD1.25-6-4.0W1.25-07	TR6 TNCU 070205	1.25	1.210	.020	3.826	3.826	6.276	-	.063	17.0
	TR6 TNMU 070215		1.131	.059	3.834	3.834	6.284	-	.094	21.0
	TRFF TXMT 0702		1.096	.024	3.838	3.838	6.288	0.4	-	-
	TR90 TXMT 070204		-	.098	3.842	3.842	6.292	0.7	-	-
TR6 ERD1.00-3-3.0W1.00-10	TR6 TNCU 100405	1.00	.960	.020	2.781	2.981	5.261	-	.070	17.5
	TR6 TNCU 100410		.921	.039	2.785	2.985	5.265	-	.090	20.5
	TR6 TNCU/MU 100415		.881	.059	2.790	2.990	5.270	-	.106	20.5
	TR6 TNCU 100420		.842	.079	2.795	2.995	5.275	-	.137	20.5
	TR6 TNCU 100430		.763	.118	2.804	3.004	5.284	-	.177	20.5
	TRFF TXMT 1004		.763	.031	2.805	3.005	5.285	1.7	-	-
	TR90 TXMT 100408		-	.157	2.796	2.996	5.276	1.6	-	-
	TR45 TXMT 1004	1.07	.826	.118	2.804	3.004	5.284	1.4	-	-
TR6 ERD1.25-4-3.5W1.25-10	TR6 TNCU 100405	1.25	.960	.020	3.281	3.481	5.761	-	.070	17.5
	TR6 TNCU 100410		.921	.039	3.285	3.485	5.765	-	.090	20.5
	TR6 TNCU/MU 100415		.881	.059	3.290	3.490	5.770	-	.106	20.5
	TR6 TNCU 100420		.842	.079	3.295	3.495	5.775	-	.137	20.5
	TR6 TNCU 100430		.763	.118	3.304	3.504	5.784	-	.177	20.5
	TRFF TXMT 1004		.763	.031	3.305	3.505	5.785	1.2	-	-
	TR90 TXMT 100408		-	.157	3.296	3.496	5.776	1.2	-	-
	TR45 TXMT 1004	1.32	.826	.118	3.304	3.504	5.784	1.0	-	-

(1) Maximum ramp down angle

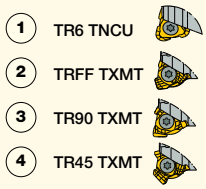
Spare Parts

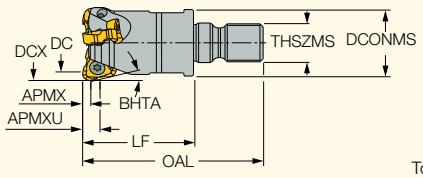
Designation		
TR6 ERD0.62-2-2.0W0.62-07	SR M2.5X0.45-L6 IP7	IP-7/51
TR6 ERD0.75-4-2.5W0.75-07	SR M2.5X0.45-L6 IP7	IP-7/51
TR6 ERD1.00-5-3.0W1.00-07	SR M2.5X0.45-L6 IP7	IP-7/51
TR6 ERD1.25-6-4.0W1.25-07	SR M2.5X0.45-L6 IP7	IP-7/51
TR6 ERD1.00-3-3.0W1.00-10	SR 10508600	T-9/51
TR6 ERD1.25-4-3.5W1.25-10	SR 10508600	T-9/51

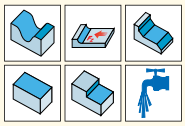
TOR6MILL PROFILING FLEXFIT

TR6 ER-M

Multifunction Endmills with FLEXFIT Threaded Adaptation That 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
TR6 ER D16/0.63-2-M08-07	.630	.630	.630	-	.551	.476	-	.0394	.0236	.0984	-	.0787	18.00	2	.970	.980	.984	-
TR6 ER D20/0.79-4-M10-07	.787	.787	.787	-	.709	.634	-	.0394	.0236	.0984	-	.0787	18.00	4	.970	.980	.984	-
TR6 ER D25/0.98-5-M12-07	.984	.984	.984	-	.906	.831	-	.0394	.0236	.0984	-	.0787	18.00	5	1.167	1.177	1.181	-
TR6 ER D32/1.26-6-M16-07	1.260	1.260	1.260	-	1.181	1.106	-	.0394	.0236	.0984	-	.0787	18.00	6	1.364	1.374	1.378	-
TR6 ER D35/1.38-6-M16-07	1.378	1.378	1.378	-	1.299	1.224	-	.0394	.0236	.0984	-	.0787	18.00	6	1.364	1.374	1.378	-
TR6 ER D25/0.98-3-M12-10	.984	.969	.984	1.055	.787	.811	.811	.0984	.0315	.1575	.1181	.1654	17.00	3	.983	.990	.989	.989
TR6 ER D32/1.26-4-M16-10	1.260	1.244	1.260	1.331	1.063	1.087	1.087	.0984	.0315	.1575	.1181	.1654	17.00	4	1.377	1.384	1.383	1.383
TR6 ER D35/1.38-5-M16-10	1.378	1.362	1.378	1.449	1.181	1.205	1.205	.0984	.0315	.1575	.1181	.1654	17.00	5	1.377	1.384	1.383	1.383

Designation	OAL	OAL_2	OAL_3	OAL_4	DCONMS	THSZMS	MIID(5)	MIID_2(6)	MIID_3(7)	MIID_4(8)	DRVS(9)	TQ_3(10)	Lbs
TR6 ER D16/0.63-2-M08-07	1.661	1.669	1.673	-	.512	M08	TR6 TNCU 070210	TRFF TXMT 0702	TR90 TXMT 070204	-	.433	180	.07
TR6 ER D20/0.79-4-M10-07	1.760	1.768	1.772	-	.709	M10	TR6 TNCU 070210	TRFF TXMT 0702	TR90 TXMT 070204	-	.591	260	.11
TR6 ER D25/0.98-5-M12-07	2.035	2.043	2.047	-	.827	M12	TR6 TNCU 070210	TRFF TXMT 0702	TR90 TXMT 070204	-	.669	295	.18
TR6 ER D32/1.26-6-M16-07	2.350	2.358	2.362	-	1.142	M16	TR6 TNCU 070210	TRFF TXMT 0702	TR90 TXMT 070204	-	.984	355	.40
TR6 ER D35/1.38-6-M16-07	2.350	2.358	2.362	-	1.142	M16	TR6 TNCU 070210	TRFF TXMT 0702	TR90 TXMT 070204	-	.984	355	.42
TR6 ER D25/0.98-3-M12-10	1.850	1.856	1.847	1.855	.827	M12	TR6 TNCU 100425	TRFF TXMT 1004	TR90 TXMT 100408	TR45 TXMT 1004	.748	295	.13
TR6 ER D32/1.26-4-M16-10	2.362	2.368	2.359	2.367	1.142	M16	TR6 TNCU 100425	TRFF TXMT 1004	TR90 TXMT 100408	TR45 TXMT 1004	.984	355	.37
TR6 ER D35/1.38-5-M16-10	2.362	2.368	2.359	2.367	1.142	M16	TR6 TNCU 100425	TRFF TXMT 1004	TR90 TXMT 100408	TR45 TXMT 1004	.984	355	.39

• 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 (583) • TR6 TNCU/MU (582) • TR90 TXMT (582) • TRFF TXMT (582)
For holders, see pages: BT-ODP (FLEXFIT) (356) • C#-ODP (FLEXFIT) (356) • CAB M-M (FLEXFIT) (354) • CAT-ODP (FLEXFIT) (360) • DIN69871-ODP (Metric) (357) • ER-ODP (358) • HSK A-ODP (FLEXFIT) (359) • S M (354) • S M-CF (355)

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	.630	.590	.020	.968	1.657	-	.063	17.0
	TR6 TNCU 070215		.511	.059	.976	1.665	-	.094	21.0
	TRFF TXMT 0702		.476	.024	.980	1.669	1.1	-	-
	TR90 TXMT 070204		-	.098	.984	1.673	1.6	-	-
TR6 ER D20/0.79-4-M10-07	TR6 TNCU 070205	.787	.748	.020	.968	1.755	-	.063	17.0
	TR6 TNCU 070215		.669	.059	.976	1.763	-	.094	21.0
	TRFF TXMT 0702		.633	.024	.980	1.767	0.8	-	-
	TR90 TXMT 070204		-	.098	.984	1.771	1.2	-	-
TR6 ER D25/0.98-5-M12-07	TR6 TNCU 070205	.984	.944	.020	1.165	2.031	-	.063	17.0
	TR6 TNCU 070215		.866	.059	1.173	2.039	-	.094	21.0
	TRFF TXMT 0702		.830	.024	1.177	2.043	0.6	-	-
	TR90 TXMT 070204		-	.098	1.181	2.047	0.9	-	-
TR6 ER D32/1.26-6-M16-07	TR6 TNCU 070205	1.260	1.220	.020	1.362	2.346	-	.063	17.0
	TR6 TNCU 070215		1.141	.059	1.370	2.354	-	.094	21.0
	TRFF TXMT 0702		1.106	.024	1.374	2.358	0.4	-	-
	TR90 TXMT 070204		-	.098	1.377	2.362	0.7	-	-
TR6 ER D35/1.38-6-M16-07	TR6 TNCU 070205	1.377	1.338	.020	1.362	2.346	-	.063	17.0
	TR6 TNCU 070215		1.259	.059	1.370	2.354	-	.094	21.0
	TRFF TXMT 0702		1.224	.024	1.374	2.358	0.4	-	-
	TR90 TXMT 070204		-	.098	1.377	2.362	0.4	-	-
TR6 ER D25/0.98-3-M12-10	TR6 TNCU 100405	.984	.944	.020	.965	1.831	-	.070	17.5
	TR6 TNCU 100410		.905	.039	.970	1.836	-	.090	20.5
	TR6 TNCU/MU 100415		.866	.059	.974	1.840	-	.106	20.5
	TR6 TNCU 100420		.826	.079	.979	1.845	-	.137	20.5
	TR6 TNCU 100430		.748	.118	.988	1.855	-	.177	20.5
	TRFF TXMT 1004		.811	.031	.986	1.856	1.7	-	-
	TR90 TXMT 100408		-	.157	.976	1.846	1.6	-	-
	TR45 TXMT 1004	1.055	.811	.118	.988	1.855	1.4	-	-
TR6 ER D32/1.26-4-M16-10	TR6 TNCU 100405	1.259	1.220	.020	1.359	2.343	-	.070	17.5
	TR6 TNCU 100410		1.181	.039	1.363	2.348	-	.090	20.5
	TR6 TNCU/MU 100415		1.141	.059	1.368	2.352	-	.106	20.5
	TR6 TNCU 100420		1.102	.079	1.373	2.357	-	.137	20.5
	TR6 TNCU 100430		1.023	.118	1.382	2.366	-	.177	20.5
	TRFF TXMT 1004		1.086	.031	1.383	2.368	1.2	-	-
	TR90 TXMT 100408		-	.157	1.774	2.358	1.1	-	-
	TR45 TXMT 1004	1.330	1.086	.118	1.382	2.366	0.9	-	-
TR6 ER D35/1.38-5-M16-10	TR6 TNCU 100405	1.377	1.338	.020	1.359	2.343	-	.070	17.5
	TR6 TNCU 100410		1.299	.039	1.363	2.348	-	.090	20.5
	TR6 TNCU/MU 100415		1.259	.059	1.368	2.352	-	.106	20.5
	TR6 TNCU 100420		1.220	.079	1.373	2.357	-	.137	20.5
	TR6 TNCU 100430		1.141	.118	1.382	2.366	-	.177	20.5
	TRFF TXMT 1004		1.204	.031	1.383	2.368	1.2	-	-
	TR90 TXMT 100408		-	.157	1.374	2.358	1.1	-	-
	TR45 TXMT 1004	1.448	1.204	.118	1.382	2.366	0.9	-	-

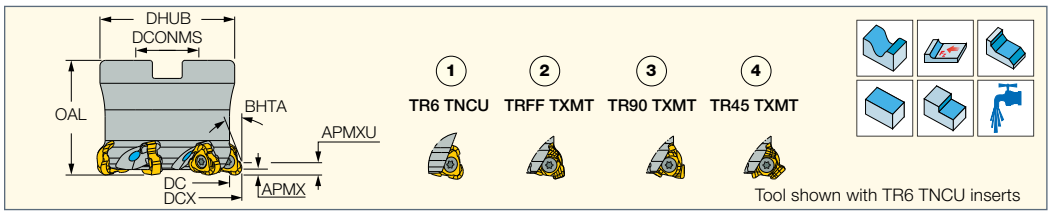
Spare Parts

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 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)
TR6 FR D1.50-06-0.50-10	1.500	1.500	1.500	1.560	1.303	1.263	1.315	.0980	.0310	.1570	.1180	.1650	17.00	6
TR6 FR D2.00-07-0.75-10	2.000	2.000	2.000	2.062	1.803	1.763	1.815	.0980	.0310	.1570	.1180	.1650	17.00	7
TR6 FR D2.50-08-1.00-10	2.500	2.500	2.500	2.562	2.303	2.263	2.315	.0980	.0310	.1570	.1180	.1650	17.00	8
TR6 FR D3.00-10-1.25-10	3.000	3.000	3.000	3.063	2.803	2.763	2.815	.0980	.0310	.1570	.1180	.1650	17.00	10

Designation	OAL	OAL_2	OAL_3	OAL_4	DCONMS	DHUB	Arbor	MIID(5)	MIID_2(6)	MIID_3(7)	MIID_4(8)	Lbs
TR6 FR D1.50-06-0.50-10	1.250	1.255	1.246	1.254	.500	1.250	A	TR6 TNCU 100425	TRFF TXMT 1004	TR90 TXMT 100408	TR45 TXMT 1004	.28
TR6 FR D2.00-07-0.75-10	1.500	1.505	1.496	1.504	.750	1.800	A	TR6 TNCU 100425	TRFF TXMT 1004	TR90 TXMT 100408	TR45 TXMT 1004	.73
TR6 FR D2.50-08-1.00-10	1.750	1.755	1.746	1.754	1.000	2.250	A	TR6 TNCU 100425	TRFF TXMT 1004	TR90 TXMT 100408	TR45 TXMT 1004	.99
TR6 FR D3.00-10-1.25-10	2.000	2.005	1.996	2.004	1.250	2.870	A	TR6 TNCU 100425	TRFF TXMT 1004	TR90 TXMT 100408	TR45 TXMT 1004	2.39

- 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 (583) • TR6 TNCU/MU (582) • TR90 TXMT (582) • TRFF TXMT (582)

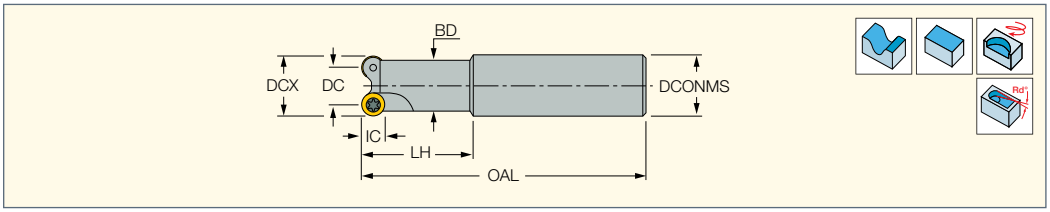
Tool	Insert	DCX	DC	APMX	OAL	RMPX	For undercutting APMX_2	For undercutting BHTA
TR6 FR D1.50-06-0.50-10	TR6 TNCU 100405	1.50	1.460	.020	1.231	-	.059	17.5
	TR6 TNCU 100410		1.421	.039	1.235	-	.090	20.5
	TR6 TNCU/MU 100415		1.381	.059	1.240	-	.106	20.5
	TR6 TNCU 100420		1.342	.079	1.245	-	.137	20.5
	TR6 TNCU 100430		1.263	.118	1.254	-	.177	20.5
	TRFF TXMT 1004		1.263	.031	1.255	0.9	-	-
	TR90 TXMT 100408		-	.157	1.246	0.9	-	-
	TR45 TXMT 1004	1.560	1.315	.118	1.254	0.7	-	-
TR6 FR D2.00-07-0.75-10	TR6 TNCU 100405	2.00	1.460	.020	1.481	-	.059	17.5
	TR6 TNCU 100410		1.421	.039	1.485	-	.090	20.5
	TR6 TNCU/MU 100415		1.381	.059	1.490	-	.106	20.5
	TR6 TNCU 100420		1.342	.079	1.495	-	.137	20.5
	TR6 TNCU 100430		1.263	.118	1.504	-	.177	20.5
	TRFF TXMT 1004		1.263	.031	1.505	0.7	-	-
	TR90 TXMT 100408		-	.157	1.496	0.7	-	-
	TR45 TXMT 1004	2.062	1.315	.118	1.504	0.6	-	-
TR6 FR D2.50-08-1.00-10	TR6 TNCU 100405	2.50	1.460	.020	1.731	-	.059	17.5
	TR6 TNCU 100410		1.421	.039	1.735	-	.090	20.5
	TR6 TNCU/MU 100415		1.381	.059	1.740	-	.106	20.5
	TR6 TNCU 100420		1.342	.079	1.745	-	.137	20.5
	TR6 TNCU 100430		1.263	.118	1.754	-	.177	20.5
	TRFF TXMT 1004		1.263	.031	1.755	0.5	-	-
	TR90 TXMT 100408		-	.157	1.746	0.5	-	-
	TR45 TXMT 1004	2.562	1.315	.118	1.754	0.4	-	-
TR6 FR D3.00-10-1.25-10	TR6 TNCU 100405	3.00	1.460	.020	1.981	-	.059	17.5
	TR6 TNCU 100410		1.421	.039	1.985	-	.090	20.5
	TR6 TNCU/MU 100415		1.381	.059	1.990	-	.106	20.5
	TR6 TNCU 100420		1.342	.079	1.995	-	.137	20.5
	TR6 TNCU 100430		1.263	.118	2.004	-	.177	20.5
	TRFF TXMT 1004		1.263	.031	2.005	0.4	-	-
	TR90 TXMT 100408		-	.157	1.996	0.4	-	-
	TR45 TXMT 1004	3.063	1.315	.118	2.004	0.3	-	-

Spare Parts

Designation			
TR6 FR D1.50-06-0.50-10	SR 10508600	T-9/51	SR UNF 1/4X3/4 B18.3
TR6 FR D2.00-07-0.75-10	SR 10508600	T-9/51	SR UNF 3/8X1 B18.3
TR6 FR D2.50-08-1.00-10	SR 10508600	T-9/51	SR UNF 1/2X20X1 B18.3
TR6 FR D3.00-10-1.25-10	SR 10508600	T-9/51	SR UNF 5/8X1 B18.3

ROUNDMILL

ER
Endmills with Round Inserts for Profiling and Milling Round Corners



Designation	DCX(1)	IC	DC	CICT(2)	LH	DCONMS	Shank(3)	OAL	MIID(4)	Lbs
ER D038A075-2-C.75-.38	.750	.375	.380	2	2.500	.750	C	6.500	RXMT 32	.71
ER D062A100-2-C1.00-.38	1.000	.375	.620	2	1.380	1.000	C	6.500	RXMT 32	1.31
ER D087A125-4-C1.00-.38	1.250	.375	.870	4	1.580	1.000	C	6.500	RXMT 32	1.41

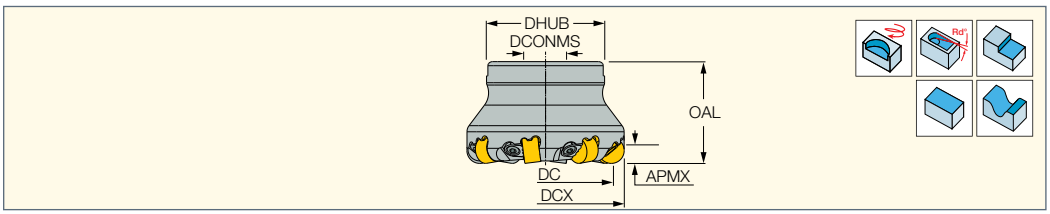
(1) Cutting diameter maximum
(2) Number of inserts
(3) C-Cylindrical
(4) Master insert identification
For inserts, see pages: RXCR (569) • RXCW (569) • RXMT 10 (570)

Spare Parts

Designation		
ER D038A075-2-C.75-.38	SR 14-562/S	T-10/51
ER D062A100-2-C1.00-.38	SR 14-562/S	T-10/51
ER D087A125-4-C1.00-.38	SR 14-562	T-10/51

ROUNDMILL

FRN
Face Mill for Wedge-Clamped Double-Sided Round Inserts



Designation	DCX(1)	DC	APMX	OAL	DCONMS	DHUB	STDLET	CICT(2)	MDN(3)	MDX(4)	RMPX°(5)	Lbs
FRN D153A200-5-.75-12	2.000	1.500	.1180	1.570	.750	1.750	A	5	3.500	3.930	.6	1.04
FRN D253A300-7-1.0-12	3.000	2.500	.1180	1.750	1.000	2.750	A	7	5.500	5.940	.5	1.76

• Radius for programing: .25"
(1) Cutting diameter maximum
(2) Number of inserts
(3) Machinable diameter minimum for interpolation
(4) Machinable diameter maximum for interpolation
(5) Maximum ramping angle
For inserts, see pages: RNG-Ceramic (574)

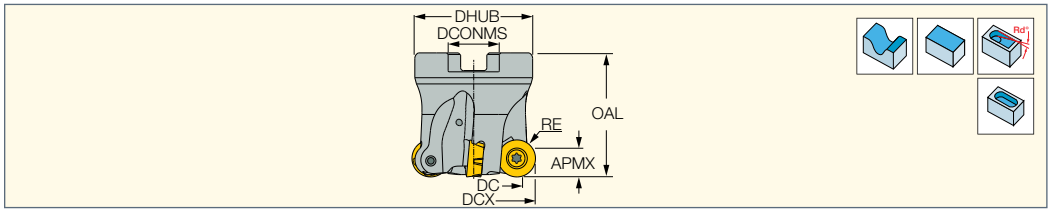
Spare Parts

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

(a) Recommended tightening torque:42.5 lbfxin

ROUNDMILL

FRMT
Face Mills for Machining 3D Surfaces of Turbomachinery Blades



Designation	DCX(1)	DC	RE	APMX	CICT(2)	OAL	DCONMS	RMPX°(3)	Arbor	DHUB	Lbs
FRMT D1.50-04-0.50-12	1.500	1.030	.2360	.1490	4	1.500	.500	1.0	A	1.420	.36
FRMT D2.00-05-0.75-12	2.000	1.530	.2360	.1490	5	1.580	.750	2.5	A	1.850	.69
FRMT D2.00-06-0.75-12	2.000	1.530	.2360	.1490	6	1.580	.750	1.0	A	1.850	.69

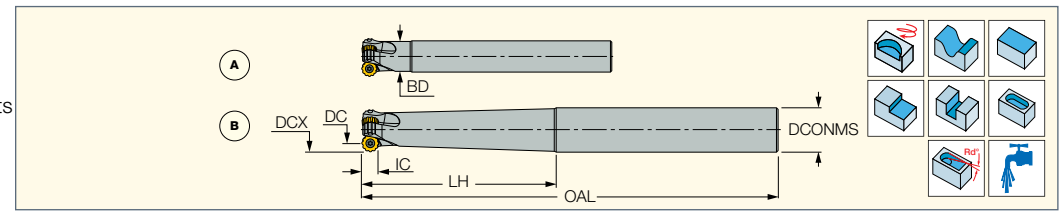
(1) Cutting diameter maximum
(2) Number of inserts
(3) Maximum ramping angle
For inserts, see pages: RPHX/RPMX (573)

Spare Parts

Designation			
FRMT	SR 76-2067	BLD T15/S7	SW6-T

MILLSHRED ROUND LINE

ERW
Rough Profiling Endmills with Serrated or Regular Round Inserts



Designation	DCX(1)	DC	BD	IC	APMX	CICT(2)	LH	OAL	DCONMS	RMPX°(3)	Type	Lbs
ERW D053A100-B-2-C1.00-12	1.000	.530	-	.472	.236	2	2.000	7.000	1.000	2.0	B	1.31
ERW D078A125-A-3-C1.00-12	1.250	.780	.9610	.472	.236	3	1.600	8.000	1.000	7.0	A	1.57
ERW D078A125-B-3-C1.25-12	1.250	.780	-	.472	.236	3	5.500	12.000	1.250	7.0	B	3.42
ERW D103A150-A-4-C1.25-12	1.500	1.030	1.1810	.472	.236	4	2.000	10.000	1.250	5.0	A	3.17

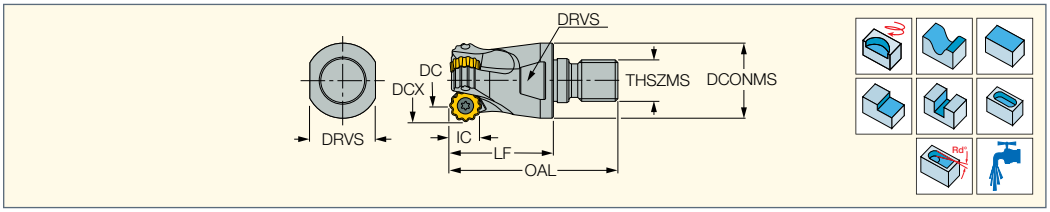
• For user guide, see pages 327-330
(1) Cutting diameter maximum
(2) Number of inserts
(3) Maximum ramping angle
For inserts, see pages: RCMT/RCCT-MO (571) • RCMT/RCMW/RCCW-FW (572) • RCMW/RCCW-MO (571)

Spare Parts

Designation			
ERW	SR 14-601	BLD T15/S7	SW6-T

MILLSHRED ROUND LINE
FLEXFIT

ERW-M
Rough Profiling Tools with a FLEXFIT Adaptation



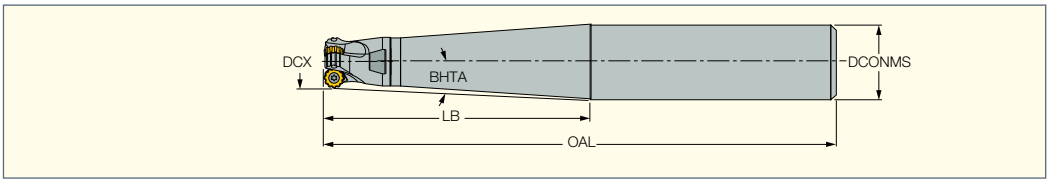
Designation	DCX(1)	DC	IC	APMX	CICT(2)	DCONMS	OAL	LF	DRVS(3)	THSZMS	RMPX°(4)	TQ_3(5)	Lbs
ERW D015A025-3-M12-10	.984	.591	.394	.197	3	.827	2.047	1.181	.669	M12	3.0	295	.14
ERW D022A032-4-M16-10	1.260	.866	.394	.197	4	1.142	2.165	1.181	.984	M16	4.0	355	.27
ERW D053A100-2-M12-12	1.000	.530	.470	.240	2	.830	2.240	1.380	.669	M12	7.0	295	.17
ERW D020A032-3-M16-12	1.260	.787	.472	.236	3	1.142	2.559	1.575	.984	M16	7.0	355	.34

• For user guide, see pages 327-330 • When mounting items with FLEXFIT threaded adaptation, 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 (571) • RCMT/RCMW/RCCW-FW (572) • RCMW/RCCW-MO (571)
For holders, see pages: BT-ODP (FLEXFIT) (356) • C#-ODP (FLEXFIT) (356) • CAB M-M (FLEXFIT) (354) • CAT-ODP (FLEXFIT) (360) • DIN69871-ODP (Metric) (357) • ER-ODP (358) • HSK A-ODP (FLEXFIT) (359) • S M (354) • S M-CF (355)

ERW-M
Assembly of Button and Shredding Insert Endmills with FLEXFIT Connection



Milling Head	Shank	Assembly Dimensions						
		DCX	LB	OAL	BHTA	DCONMS	RMPX	Inserts
ERW D053A100-2-M12-12	S M12-L8.00-C1.2	1.00	4.44	9.38	1.7	1.25	7	RCMT 1206... RCMW 1206... RCCT 1206...

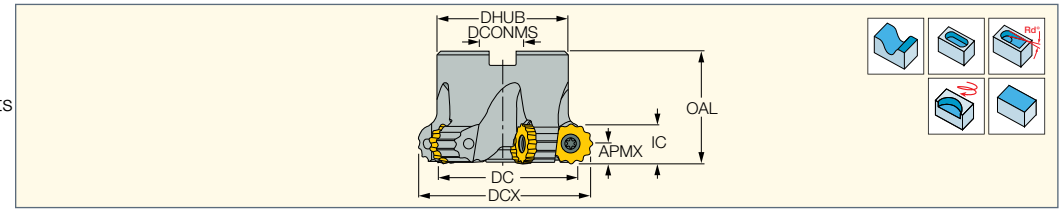
Spare Parts

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 D053A100-2-M12-12	SR 14-601		BLD T15/S7	SW6-T
ERW D020A032-3-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)	Lbs
FRW D030A040-05-16-10	1.575	1.181	.394	.197	5	1.378	1.378	.630	3.0	1	A	RCCT 1004MO	.34
FRW D103A150-4-.5-12	1.500	1.030	.472	.236	4	1.250	1.378	.500	6.5	1	A	RCCT 1206MO	.26
FRW D153A200-5-.75-12	2.000	1.530	.472	.236	5	1.750	1.772	.750	5.0	1	A	RCCT 1206MO	.71
FRW D203A250-6-1.00-12	2.500	2.030	.472	.236	6	1.750	2.126	1.000	4.0	1	A	RCCT 1206MO	1.16
FRW D253A300-7-1.00-12	3.000	2.530	.472	.236	7	1.750	2.126	1.000	3.0	0	B	RCCT 1206MO	1.25
FRW D137A200-4-.75-16	2.000	1.370	.630	.315	4	2.000	1.772	.750	11.0	1	A	RCMT 1607MO	.65
FRW D187A250-5-1.00-16	2.500	1.870	.630	.315	5	1.750	2.126	1.000	7.0	1	A	RCMT 1607MO	.95
FRW D237A300-6-1.00-16	3.000	2.370	.630	.315	6	1.750	2.126	1.000	5.0	0	B	RCMT 1607MO	1.08
FRW D337A400-7-1.50-16	4.000	3.370	.630	.315	7	2.000	3.150	1.500	4.0	0	B	RCMT 1607MO	2.63
FRW D221A300-5-1.00-20	3.000	2.210	.787	.390	5	1.750	2.126	1.000	7.0	0	B	RCMT 2009MO	.98
FRW D321A400-6-1.50-20	4.000	3.210	.787	.390	6	2.000	3.150	1.500	5.0	0	B	RCMT 2009MO	2.47
FRW D421A500-7-1.50-20	5.000	4.210	.787	.390	7	2.380	3.307	1.500	4.0	0	B	RCMT 2009MO	4.64

- For user guide, see pages 327-330

(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 592

(6) Master insert identification

For inserts, see pages: RCMT/RCCT-MO (571) • RCMT/RCMW/RCCW-FW (572) • RCMW/RCCW-MO (571)

Spare Parts

Designation					
FRW D030A040-05-16-10	SR 34-506/L			T-9/51	SR M8X25DIN912
FRW D103A150-4-.5-12	SR 14-601	BLD T15/S7	SW6-T		SR UNF 1/4X3/4 B18.3
FRW D153A200-5-.75-12	SR 14-601	BLD T15/S7	SW6-T		SR UNF 3/8X1 B18.3
FRW D203A250-6-1.00-12	SR 14-601	BLD T15/M7	SW6-T		SR UNF 1/2X1¼ B18.3
FRW D253A300-7-1.00-12	SR 14-601	BLD T15/M7	SW6-T		
FRW D137A200-4-.75-16	SR 14-536/M	BLD T20/M7	SW6-T		SR UNF 3/8X1 B18.3
FRW D187A250-5-1.00-16	SR 14-536/M	BLD T20/M7	SW6-T		SR UNF 1/2X1¼ B18.3
FRW D237A300-6-1.00-16	SR 14-536/M	BLD T20/M7	SW6-T		
FRW D337A400-7-1.50-16	SR 14-536/M	BLD T20/M7	SW6-T		
FRW D221A300-5-1.00-20	SR 14-2120(a)	BLD IP25/M7(b)	SW6-T		
FRW D321A400-6-1.50-20	SR 14-2120(a)	BLD IP25/M7(b)	SW6-T		
FRW D421A500-7-1.50-20	SR 14-2120(a)	BLD IP25/L7(b)	SW6-T		

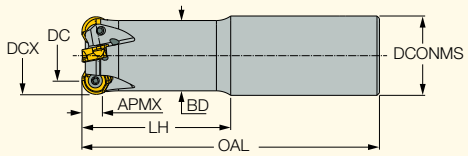
(a) Recommended tightening torque:80lbf*in

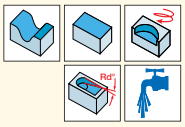
(b)

HELIDO ROUND H400 LINE

H400 ER-10

Endmills Carrying Double-Sided Inserts with Four .197" Radius Cutting Edges



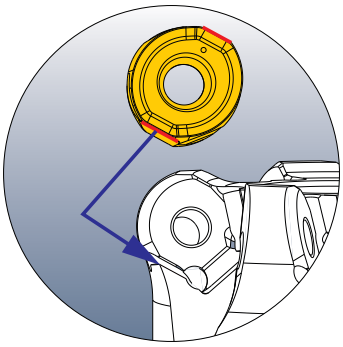


Designation	DCX(1)	DC	BD	CICT(2)	APMX	LH	OAL	DCONMS	Shank(3)	RMPX°(4)	MIID(5)	Lbs
H400 ERD1.00-3-2.5W100-10	1.000	.530	.850	3	.295	2.500	5.000	1.000	W	5.8	H400 RNHU 1004-ML	.82
H400 ERD1.25-5-2.5W125-10	1.250	.780	1.150	5	.295	2.500	5.000	1.250	W	3.8	H400 RNHU 1004-ML	1.32

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

For inserts, see pages: H400 RNHU (575)

Insert Clamping Orientation



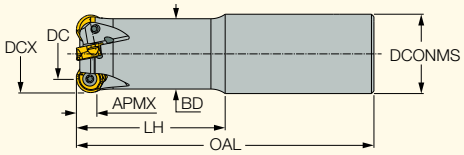
Spare Parts

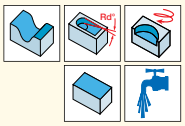
Designation		
H400 ER-10	SR 10508600	T-9/51

HELIDO ROUND H400 LINE

H400 ER-12

Endmills Carrying Double-Sided Inserts with Four .236" Radius Cutting Edges





Designation	DCX(1)	DC	BD	CICT(2)	APMX	LH	OAL	DCONMS	Shank(3)	RMPX°(4)	MIID(5)	Lbs
H400 ERD1.25-4-2.5W125-12	1.250	.777	1.118	4	.340	2.500	4.725	1.250	W	5.6	H400 RNHU 1205-AX	1.22

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

For inserts, see pages: H400 RNHU (575)

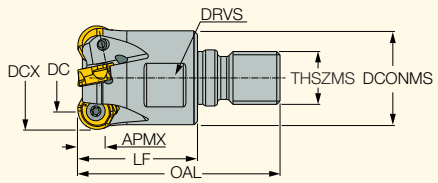
Spare Parts

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)	Lbs
H400 ER D20-2-M10-10	.787	.394	.654	2	.295	.984	1.772	.591	-	M10	H400 RNHU 1004-ML	260	.08
H400 ER D25-3-M12-10	.984	.591	.827	3	.295	1.102	1.969	.748	5.8	M12	H400 RNHU 1004-ML	295	.15
H400 ER D32-5-M16-10	1.260	.866	1.165	5	.295	1.378	2.362	.984	3.8	M16	H400 RNHU 1004-ML	355	.38
H400 ER D25-2-M12-12	.984	.512	.850	2	.343	1.102	1.969	.748	5.6	M12	H400 RNHU 1205-AX	295	.15
H400 ER D32-4-M16-12	1.260	.787	1.118	4	.343	1.378	2.362	.984	5.6	M16	H400 RNHU 1205-AX	355	.34
H400 ER D40-5-M16-12	1.575	1.102	1.142	5	.343	1.378	2.362	.984	3.7	M16	H400 RNHU 1205-AX	355	.41

• 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 (575)

For holders, see pages: BT-ODP (FLEXFIT) (356) • C#-ODP (FLEXFIT) (356) • CAB M-M (FLEXFIT) (354) • CAT-ODP (FLEXFIT) (360) • DIN69871-ODP (Metric) (357) • ER-ODP (358) • HSK A-ODP (FLEXFIT) (359) • S M (354) • S M-CF (355)

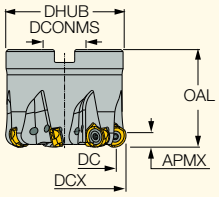
Spare Parts

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 .197" Radius Cutting Edges



Designation	DCX(1)	DC	CICT(2)	APMX	OAL	DHUB	DCONMS	RMPX°(3)	Arbor(4)	MIID(5)	Lbs
H400 FR D1.50-06-0.50-10	1.500	1.030	6	.295	1.400	1.480	.500	2.6	A	H400 RNHU 1004-ML	.39

(1) Cutting diameter maximum
(2) Number of inserts
(3) Maximum ramping angle
(4) For adaptation options, see page 592
(5) Master insert identification

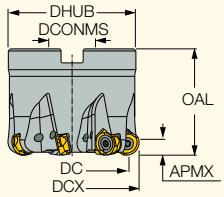
For inserts, see pages: H400 RNHU (575)

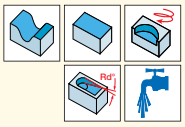
Spare Parts

Designation			
H400 FR-10	SR 10508600	T-9/51	SR UNF 1/4X3/4 B18.3

HELIDO
ROUND H400 LINE

H400 FR-12
Face Mills Carrying
Double-Sided Inserts with
Four .236" Radius Cutting Edges



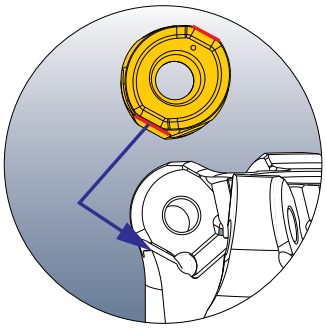


Designation	DCX(1)	DC	CICT(2)	APMX	OAL	DHUB	DCONMS	RMPX°(3)	Arbor(4)	MIID(5)	Lbs
H400 FR D1.50-05-0.50-12	1.500	1.264	5	.340	1.380	1.378	.500	4.0	A	H400 RNHU 1205-AX	.36
H400 FR D2.00-06-0.75-12	2.000	1.764	6	.340	1.770	1.772	.750	2.5	A	H400 RNHU 1205-AX	.83
H400 FR D2.50-07-1.00-12	2.500	2.264	7	.340	1.970	2.362	1.000	1.9	A	H400 RNHU 1205-AX	1.66
H400 FR D3.00-08-1.00-12	3.000	2.736	8	.340	1.970	2.717	1.000	1.5	A	H400 RNHU 1205-AX	2.48

(1) Cutting diameter maximum
(2) Number of inserts
(3) Maximum ramping angle
(4) For adaptation options, see page 592
(5) Master insert identification

For inserts, see pages: H400 RNHU (575)

Insert Clamping Orientation

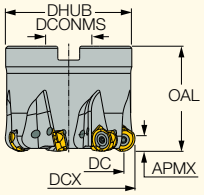


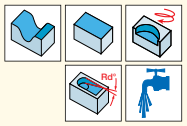
Spare Parts

Designation			
H400 FR D1.50-05-0.50-12	SR 14-571	T-10/51	SR UNF 1/4X3/4 B18.3
H400 FR D2.00-06-0.75-12	SR 14-571	T-10/51	SR UNF 3/8X1 B18.3
H400 FR D2.50-07-1.00-12	SR 14-571	T-10/51	SR UNF 1/2X1¼ B18.3
H400 FR D3.00-08-1.00-12	SR 14-571	T-10/51	SR UNF 1/2X1¼ B18.3

HELIDO ROUND H400 LINE

H400 FR-16
Face Mills Carrying Double-Sided Inserts with Four .315" Radius Cutting Edges

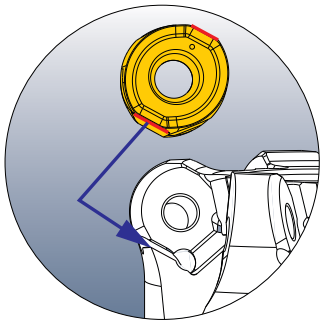




Designation	DCX(1)	DC	CICT(2)	APMX	OAL	DHUB	DCONMS	RMPX°(3)	Arbor(4)	MIID(5)	Lbs
H400 FR D2.00-05-0.75-16	2.000	1.370	5	.470	1.500	1.921	.750	3.5	A	H400 RNHU 1606-AX	.71
H400 FR D2.50-06-1.00-16	2.500	1.870	6	.470	1.650	2.406	1.000	2.5	A	H400 RNHU 1606-AX	1.30
H400 FR D3.00-07-1.00-16	3.000	2.370	7	.470	1.750	2.394	1.000	1.9	A	H400 RNHU 1606-AX	1.71
H400 FR D4.00-09-1.50-16	4.000	3.370	9	.470	2.000	3.307	1.500	1.3	A	H400 RNHU 1606-AX	3.42
H400 FR D5.00-11-1.5-16	5.000	4.370	11	.470	2.000	3.799	1.500	1.0	B+	H400 RNHU 1606-AX	6.62

(1) Cutting diameter maximum
(2) Number of inserts
(3) Maximum ramping angle
(4) For adaptation options, see page 592
(5) Master insert identification
For inserts, see pages: H400 RNHU (575)

Insert Clamping Orientation

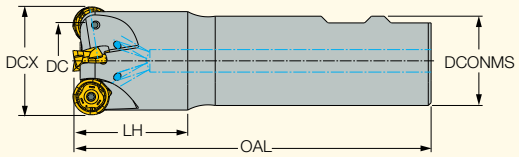


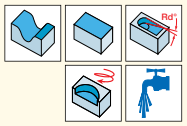
Spare Parts

Designation				
H400 FR D2.00-05-0.75-16	SR 14-591/H	BLD T20/M7	SW6-T	SR UNF 3/8X1 B18.3
H400 FR D2.50-06-1.00-16	SR 14-591/H	BLD T20/M7	SW6-T	SR UNF 1/2X20X1 B18.3
H400 FR D3.00-07-1.00-16	SR 14-591/H	BLD T20/M7	SW6-T	
H400 FR D4.00-09-1.50-16	SR 14-591/H	BLD T20/M7	SW6-T	
H400 FR D5.00-11-1.5-16	SR 14-591/H	BLD T20/M7	SW6-T	

HELIDO ROUND H606 LINE

H606 ER
Endmills Carrying Double-Sided Inserts with six .250" Radius Cutting Edges





Designation	DCX(1)	DC	APMX	DCONMS	CICT(2)	LH	OAL	Lbs
H606 ER D1.5-04-W1.25-.50	1.500	1.028	.2360	1.250	4	1.600	5.000	1.57

(1) Cutting diameter maximum
(2) Number of inserts
For inserts, see pages: H606 RXCU 43 (575)

Spare Parts

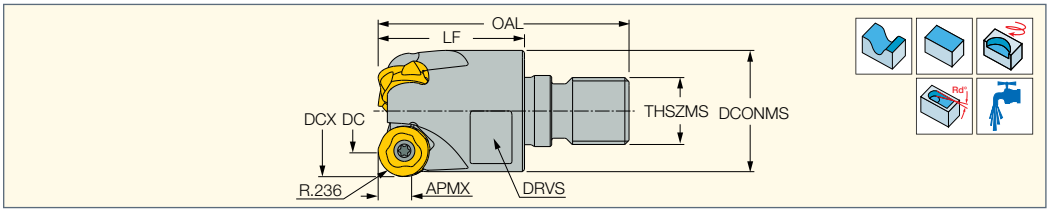
Designation		
H606 ER	SR 14-571	T-10/51(a)

(a) For limiting torque, use optional 7007383 BLD 4 T10-23.38LBF.IN blade & 7007321 HSD 4-23.38LBF.IN handle

HELIDO FLEXFIT
ROUND H606 LINE

H606 ER-M

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



Designation	DCX(1)	DC	DCONMS	CICT(2)	APMX	LF	OAL	DRVS(3)	RMPX°(4)	THSZMS	TQ_3(5)	Lbs		
H606 ER D032-03-M16-12	1.260	.787	1.142	3	.236	1.378	2.362	.984	2.5	M16	355	.34	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

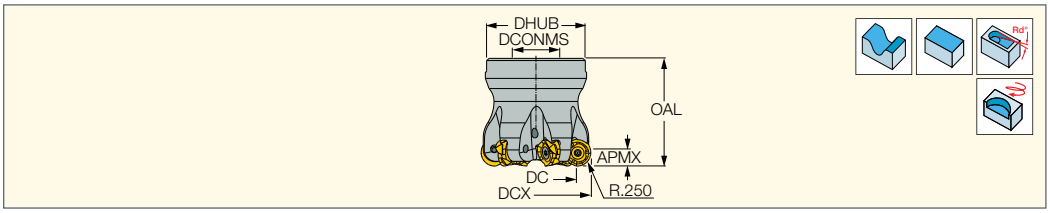
For inserts, see pages: H606 RXCU 1206 (576)

For holders, see pages: BT-ODP (FLEXFIT) (356) • C#-ODP (FLEXFIT) (356) • CAB M-M (FLEXFIT) (354) • CAT-ODP (FLEXFIT) (360) • DIN69871-ODP (Metric) (357) • ER-ODP (358) • HSK A-ODP (FLEXFIT) (359) • S M (354) • S M-CF (355)

HELIDO
ROUND H606 LINE

H606 FR-.50

Face Mills Carrying Double-Sided Inserts with Six .250" Radius Cutting Edges



Designation	DCX(1)	DC	CICT(2)	APMX	OAL	DHUB	DCONMS	RMPX°(3)	Arbor(4)	Lbs
H606 FR D2.00-06-0.75-.50	2.000	1.500	6	.250	2.000	1.772	.750	1.3	A	.81
H606 FR D2.50-07-1.00-.50	2.500	2.000	7	.250	2.000	2.165	1.000	1.0	A	1.33
H606 FR D3.00-08-1.00-.50	3.000	2.500	8	.250	2.000	2.165	1.000	.7	A	1.67
H606 FR D4.00-09-1.50-.50	4.000	3.500	9	.250	2.000	3.307	1.500	.6	A	3.59

(1) Cutting diameter maximum
(2) Number of inserts
(3) Maximum ramping angle
(4) For adaptation see page 592

For inserts, see pages: H606 RXCU 43 (575)

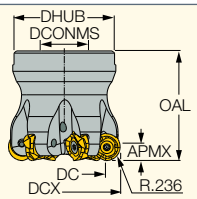
Spare Parts

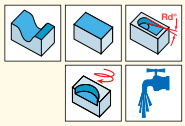
Designation			
H606 FR D2.00-06-0.75-.50	SR 14-571	T-10/51(a)	SR UNF 3/8X1 B18.3
H606 FR D2.50-07-1.00-.50	SR 14-571	T-10/51(a)	SR UNF 1/2X20X1 B18.3
H606 FR D3.00-08-1.00-.50	SR 14-571	T-10/51(a)	SR UNF 1/2X20X1 B18.3
H606 FR D4.00-09-1.50-.50	SR 14-571	T-10/51(a)	

(a) For limiting torque, use optional 7007383 BLD 4 T10-23.38LBF.IN blade & 7007321 HSD 4-23.38LBF.IN handle

HELIDO
ROUND H606 LINE

H606 FR-12
Face Mills Carrying
Double-Sided Round Inserts
with Six Cutting Edges





Designation	DCX(1)	DC	CICT(2)	APMX	OAL	DHUB	DCONMS	RMPX°(3)	Arbor(4)	Lbs
H606 FR D2.00-06-0.75-12	2.000	1.528	6	.236	2.000	1.772	.750	1.3	A	.83
H606 FR D2.50-07-1.00-12	2.500	2.028	7	.236	2.000	2.200	1.000	1.0	A	1.38
H606 FR D3.00-08-1.00-12	3.000	2.528	8	.236	2.000	2.165	1.000	.8	A	1.70

(1) Cutting diameter maximum
(2) Number of inserts
(3) Maximum ramping angle
(4) For adaptation options, see page 592
For inserts, see pages: H606 RXCU 1206 (576)

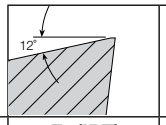
Spare Parts

Designation			
H606 FR D2.00-06-0.75-12	SR 14-571	T-10/51(a)	SR UNF 3/8X1 B18.3
H606 FR D2.50-07-1.00-12	SR 14-571	T-10/51(a)	SR UNF 1/2X20X1 B18.3
H606 FR D3.00-08-1.00-12	SR 14-571	T-10/51(a)	SR UNF 1/2X20X1 B18.3

(a) For limiting torque, use optional 7007383 BLD 4 T10-23.38LBF.IN blade & 7007321 HSD 4-23.38LBF.IN handle

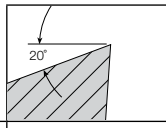
Machining Recommendations

- Excellent tool stability
- Chips split into small pieces
- Optimal chip flow with easy evacuation, even from deep cavities
- High tooth load capability, up to .315″ depth-of-cut, for reduced machining time
- Small cutting forces, low machining power required
- 4 indexing options when using the SHREDMILL inserts and 8 indexing options when using the round insert
- Several chipformers available and rake configurations, designed for a large variety of workpiece materials



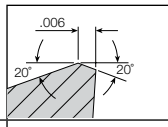
RCMT 1607-FW

Material Group	Hardness (HB)	Typical Materials	Depth Ap (inch)	V_c (SFM)	F_z (IPT)	Recommended
Low carbon steel	125-180	M1015, 1020	.157	490	.012	✓✓
Low alloy steel	170-220	4NO, 5115	.157	490	.012	✓✓
High alloy steel	200-260	A353, 2515	.157	490	.012	✓✓
Tool & die steel	280-370	D2, M13	.118	490	.012	✓✓
Stainless steel	150-270	316, 321	-	-	-	-
Grey cast iron	200-250	Class 25, Class 30	.200	490-590	.012	✓
S.G. iron	180-250	65-45-1/2, 80-55-06	.200	360-490	.012	✓
Titanium	450-500	R56401	.157	160	.008	✓
Aluminum	75-130	A413.2	-	-	-	-
Hardened die steel	38-42 HRC	D2, H13	.118	390	.008	✓
Hardened die steel	48-52 HRC	P20, W110	-	-	-	-



RCMT 1607-FW-F20

Material Group	Hardness (HB)	Typical Materials	Depth Ap (inch)	V_c (SFM)	F_z (IPT)	Recommended
Low carbon steel	125-180	M1015, 1020	.118	490	.012	✓
Low alloy steel	170-220	4NO, 5115	-	-	-	-
High alloy steel	200-260	A353, 2515	-	-	-	-
Tool & die steel	280-370	D2, M13	-	-	-	-
Stainless steel	150-270	316, 321	.236	330	.004	✓✓
Grey cast iron	200-250	Class 25, Class 30	-	-	-	-
S.G. iron	180-250	65-45-1/2, 80-55-06	-	-	-	-
Titanium	450-500	R56401	-	-	-	-
Aluminum	75-130	A413.2	.236	2800	.016	✓✓
Hardened die steel	38-42 HRC	D2, H13	-	-	-	✓
Hardened die steel	48-52 HRC	P20, W110	-	-	-	-



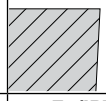
RCMT 1607 FW-T20

Material Group	Hardness (HB)	Typical Materials	Depth Ap (inch)	V_c (SFM)	F_z (IPT)	Recommended
Low carbon steel	125-180	M1015, 1020	.118	490	.012	✓
Low alloy steel	170-220	4NO, 5115	.118	490	.012	✓
High alloy steel	200-260	A353, 2515	-	-	-	-
Tool & die steel	280-370	D2, M13	-	-	-	-
Stainless steel	150-270	316, 321	.236	390	.008	✓✓
Grey cast iron	200-250	Class 25, Class 30	-	-	-	-
S.G. iron	180-250	65-45-1/2, 80-55-06	-	-	-	-
Titanium	450-500	R56401	-	-	-	-
Aluminum	75-130	A413.2	-	-	-	-
Hardened die steel	38-42 HRC	D2, H13	-	-	-	-
Hardened die steel	48-52 HRC	P20, W110	-	-	-	-

✓✓ Most Recommended
✓ Second option

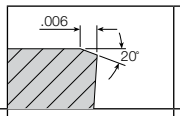
Machining Recommendations

RCCW 1607-FW



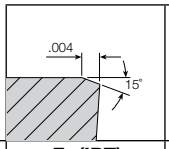
Material Group	Hardness (HB)	Typical Materials	Depth Ap (inch)	V_c (SFM)	F_z (IPT)	Recommended
Low carbon steel	125-180	M1015, 1020	.157	490	.012	✓
Low alloy steel	170-220	4NO, 5115	.157	490	.012	✓✓
High alloy steel	200-260	A353, 2515	.157	490	.012	✓✓
Tool & die steel	280-370	D2, M13	.157	490	.012	✓✓
Stainless steel	150-270	316, 321	-	-	-	-
Grey cast iron	200-250	Class 25, Class 30	-	-	-	-
S.G. iron	180-250	65-45-1/2, 80-55-06	-	-	-	-
Titanium	450-500	R56401	-	-	-	-
Aluminum	75-130	A413.2	-	-	-	-
Hardened die steel	38-42 HRC	D2, H13	.157	390	.008	✓
Hardened die steel	48-52 HRC	P20, W110	-	-	-	-

RCMW 1607-T-FW



Material Group	Hardness (HB)	Typical Materials	Depth Ap (inch)	V_c (SFM)	F_z (IPT)	Recommended
Low carbon steel	125-180	M1015, 1020	-	-	-	-
Low alloy steel	170-220	4NO, 5115	.157	490	.012	✓
High alloy steel	200-260	A353, 2515	.157	490	.012	✓✓
Tool & die steel	280-370	D2, M13	.118	490	.012	✓✓
Stainless steel	150-270	316, 321	-	-	-	-
Grey cast iron	200-250	Class 25, Class 30	.197	490-590	.012	✓✓
S.G. iron	180-250	65-45-1/2, 80-55-06	.197	360-490	.012	✓✓
Titanium	450-500	R56401	-	-	-	-
Aluminum	75-130	A413.2	-	-	-	-
Hardened die steel	38-42 HRC	D2, H13	-	-	-	-
Hardened die steel	48-52 HRC	P20, W110	-	-	-	-

RCMW 1607-T-FPW

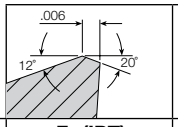


Material Group	Hardness (HB)	Typical Materials	Depth Ap (inch)	V_c (SFM)	F_z (IPT)	Recommended
Low carbon steel	125-180	M1015, 1020	.157	490	.012	✓
Low alloy steel	170-220	4NO, 5115	.157	490	.012	✓✓
High alloy steel	200-260	A353, 2515	.157	490	.012	✓✓
Tool & die steel	280-370	D2, M13	.157	490	.012	✓✓
Stainless steel	150-270	316, 321	-	-	-	-
Grey cast iron	200-250	Class 25, Class 30	-	-	-	-
S.G. iron	180-250	65-45-1/2, 80-55-06	-	-	-	-
Titanium	450-500	R56401	-	-	-	-
Aluminum	75-130	A413.2	-	-	-	-
Hardened die steel	38-42 HRC	D2, H13	.157	390	.010	✓✓
Hardened die steel	48-52 HRC	P20, W110	.157	260	.004	✓✓

✓✓ Most Recommended
✓ Second option

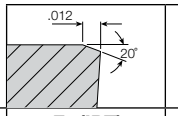
Machining Recommendations

RCMT 1607MO



Material Group	Hardness (HB)	Typical Materials	Depth Ap (inch)	V_c (SFM)	F_z (IPT)	Recommended
Low carbon steel	125-180	M1015, 1020	.157	590	.012	✓
Low alloy steel	170-220	4NO, 5115	.157	590	.012	✓✓
High alloy steel	200-260	A353, 2515	.157	590	.012	✓✓
Tool & die steel	280-370	D2, M13	-	-	-	-
Stainless steel	150-270	316, 321	.236	390	.012	✓✓
Grey cast iron	200-250	Class 25, Class 30	-	-	-	-
S.G. iron	180-250	65-45-1/2, 80-55-06	-	-	-	-
Titanium	450-500	R56401	-	-	-	-
Aluminum	75-130	A413.2	-	-	-	-
Hardened die steel	38-42 HRC	D2, H13	-	-	-	-
Hardened die steel	48-52 HRC	P20, W110	-	-	-	-

RCMW 1607MO

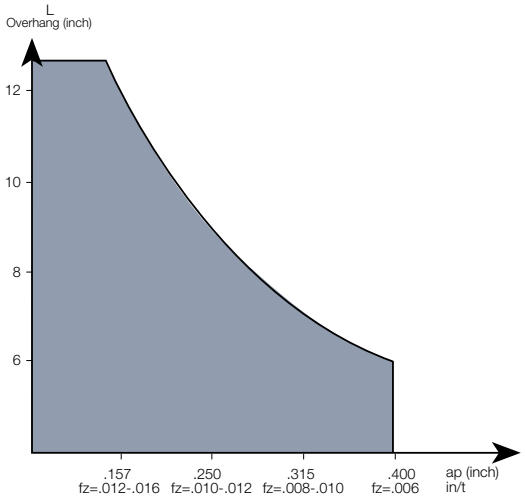


Material Group	Hardness (HB)	Typical Materials	Depth Ap (inch)	V_c (SFM)	F_z (IPT)	Recommended
Low carbon steel	125-180	M1015, 1020	-	-	-	-
Low alloy steel	170-220	4NO, 5115	.079	590	.028	✓✓
High alloy steel	200-260	A353, 2515	.079	590	.028	✓✓
Tool & die steel	280-370	D2, M13	.079	490	.020	✓✓
Stainless steel	150-270	316, 321	-	-	-	-
Grey cast iron	200-250	Class 25, Class 30	.079	980	.028	✓✓
S.G. iron	180-250	65-45-1/2, 80-55-06	.079	720	.020	✓✓
Titanium	450-500	R56401	-	-	-	-
Aluminum	75-130	A413.2	-	-	-	-
Hardened die steel	38-42 HRC	D2, H13	.079	490	.016	✓
Hardened die steel	48-52 HRC	P20, W110	-	-	-	-

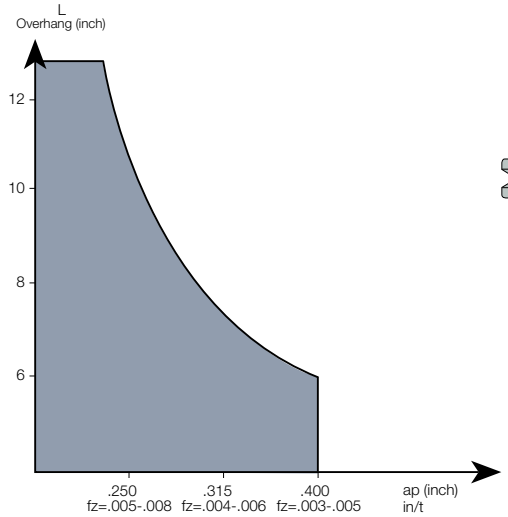
✓✓ Most Recommended
✓ Second option

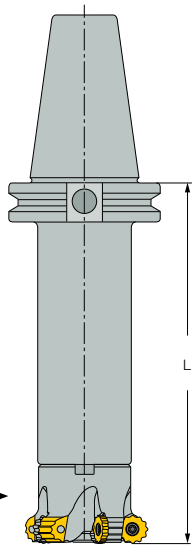
Feed Limit Recommendations as a Function of Overhang and Depth of Cut

Carbon and Alloy Steel

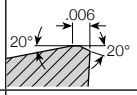
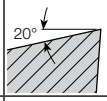
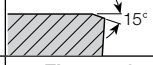


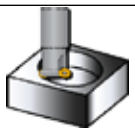
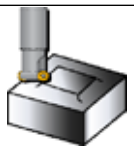
Stainless Steel





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

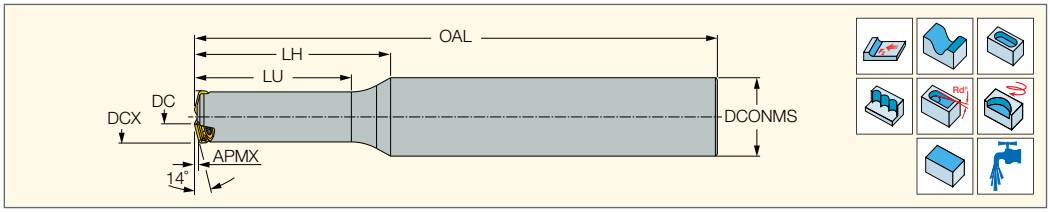
(1) Recommended for martensitic stainless steel
(2) Recommended for austenitic stainless steel
V Least recommended
VV Second option
VVV Most recommended

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)	Lbs
FFT3 EFM D08-2-060-C10-02	.315	.087	.0236	.114	2	.6693	.787	2.362	.394	C	10.8	.402	.591	FFT3 TXMT 0201205T	4.50	.07
FFT3 EFM D08-2-080-C12-02	.315	.087	.0236	.114	2	1.0236	1.181	3.150	.472	C	10.8	.402	.591	FFT3 TXMT 0201205T	4.50	.11
FFT3 EFM D10-3-070-C10-02	.394	.165	.0236	.114	3	.7677	.787	2.756	.394	C	4.7	.559	.748	FFT3 TXMT 0201205T	4.50	.09
FFT3 EFM D10-3-090-C12-02	.394	.165	.0236	.114	3	1.1811	1.299	3.543	.472	C	4.7	.559	.748	FFT3 TXMT 0201205T	4.50	.13

• Radius for programming .043 inch • 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 (lbf*in) for insert screw

For inserts, see pages: FFT3 TXMT 02 (486)

Spare Parts

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

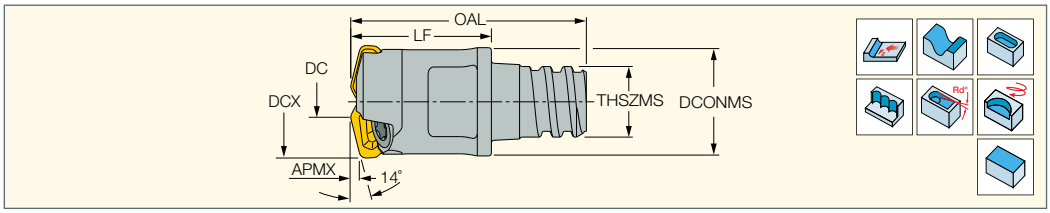
(a) Recommended tightening torque:4.42 lbf*in

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)	Lbs
FFT3 EFMD08/.31-2MMT05-02	.315	.087	.0236	.114	2	.394	.299	T05	.659	.217	10.8	.402	.591	FFT3 TXMT 0201205T	4.50	.02
FFT3 EFMD10/.39-3MMT06-02	.394	.165	.0236	.114	3	.394	.382	T06	.642	.315	4.7	.559	.748	FFT3 TXMT 0201205T	4.50	.02

• For adaptation, see page 303 • For user guide, see pages 586-591 • Radius for programing .043" • 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 (lbf*in) for insert screw

For inserts, see pages: FFT3 TXMT 02 (486)

For holders, see pages: MM CAB (733) • MM CAB-T-T (90) • MM GRT (shanks) (85) • MM S-A (stepped shanks) (83) • MM S-A (straight shanks) (86) • MM S-A-C# (84) • MM S-A-HSK (672) • MM S-B (85° conical shanks) (86) • MM S-D (89° conical shanks) (87) • MM S-ER (88) • MM S-ER-H (89) • MM TS-A (85)

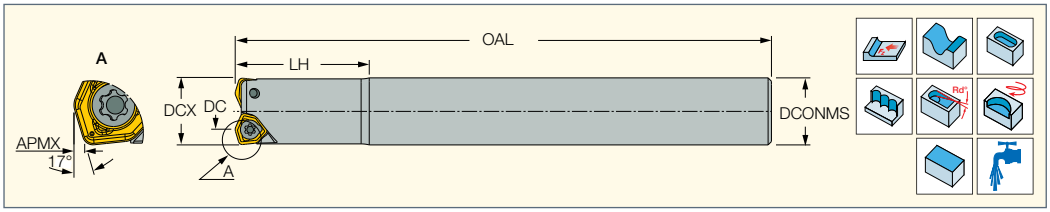
Spare Parts

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 Fed Milling



Designation	DCX(1)	DC	APMX	AE(2)	CICT(3)	LH	OAL	DCONMS	Shank(4)	RMPX°(5)	MDN(6)	MDX(7)	MIID(8)	Lbs
FFT3 EFMD.38-2-3.0C.38-03	.375	.200	.0236	.086	2	.750	3.000	.375	C	7.5	.575	.711	FFT3 WXMT 030206T	.08
FFT3 EFMD.50-3-5.0C.50-03	.500	.325	.0236	.086	3	1.000	5.000	.500	C	4.0	.823	.961	FFT3 WXMT 030206T	.24
FFT3 EFMD.62-4-5.5C.62-03	.625	.450	.0236	.086	4	1.250	5.500	.625	C	2.5	1.075	1.211	FFT3 WXMT 030206T	.40

• Radius for programming .043" • 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 (563)

Spare Parts

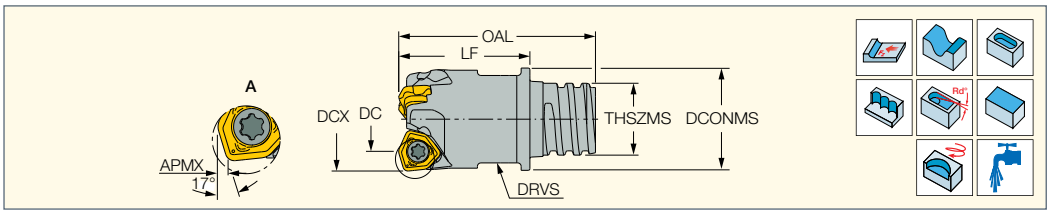
Designation		
FFT3 EFM-03	TS 18041I/HG(a)	T-6IP/51

(a) Recommended tightening torque: 4.5 lbfxin

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 Fed Milling



Designation	DCX(1)	DC	APMX	AE(2)	CICT(3)	LF	DCONMS	THSZMS	OAL	DRVS(4)	RMPX°(5)	MDN(6)	MDX(7)	MIID(8)	Lbs
FFT3 EFMD10/.39-2MMT06-03	.394	.220	.0236	.087	2	.394	.382	T06	.642	.315	6.9	.614	.748	FFT3 WXMT 030206T	.04
FFT3 EFMD12/.47-3MMT08-03	.472	.299	.0236	.087	3	.591	.461	T08	.886	.394	4.7	.772	.906	FFT3 WXMT 030206T	.07
FFT3 EFMD16/.63-4MMT10-03	.630	.457	.0236	.087	4	.787	.602	T10	1.232	.512	2.9	1.087	1.220	FFT3 WXMT 030206T	.11
FFT3 EFMD.75-5-MMT12-03	.750	.580	.0236	.087	5	.984	.710	T12	1.508	.630	2.0	1.330	1.460	FFT3 WXMT 030206T	.00
FFT3 EFMD20/.78-5MMT12-03	.787	.614	.0236	.087	5	.984	.748	T12	1.508	.630	2.0	1.402	1.535	FFT3 WXMT 030206T	.15
FFT3 EFMD25/.98-6MMT15-03	.984	.811	.0236	.087	6	1.181	.945	T15	1.850	.787	1.5	1.795	1.929	FFT3 WXMT 030206T	.00
FFT3 EFMD1.00-6-MMT15-03	1.000	.830	.0236	.087	6	1.181	.960	T15	1.850	.787	1.5	1.830	1.960	FFT3 WXMT 030206T	.25

• Radius for programming .043" • 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 (563)

For holders, see pages: MM CAB (733) • MM CAB-T-T (90) • MM GRT (shanks) (85) • MM S-A (stepped shanks) (83) • MM S-A (straight shanks) (86) • MM S-A-C# (84) • MM S-A-HSK (672) • MM S-B (85° conical shanks) (86) • MM S-D (89° conical shanks) (87) • MM S-ER (88) • MM S-ER-H (89) • MM TS-A (85)

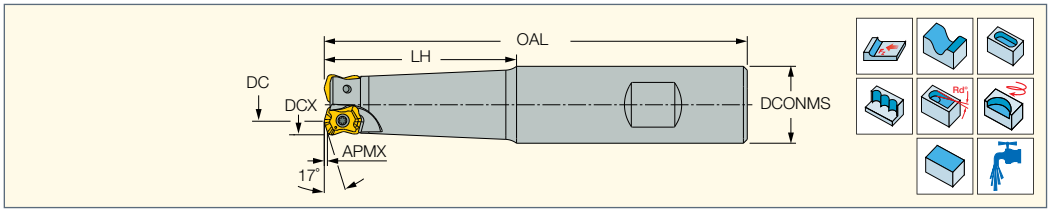
Spare Parts

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

(a) Recommended tightening torque: 4.5 lbfxin

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	OAL	DCONMS	Shank(4)	RMPX°(5)	MDN(6)	MDX(7)	Rg(8)	MIID(9)	Lbs
FFX4 ED0.50-1-1.2W0.50-04	.500	.209	.0310	.145	1	1.200	3.250	.500	W	3.4	.709	.961	.071	FFX4 XNMU 040310T	.15
FFX4 ED0.62-2-1.5W0.62-04	.625	.334	.0310	.145	2	1.500	3.500	.625	W	4.3	.959	1.211	.071	FFX4 XNMU 040310T	.25
FFX4 ED0.62-2-2.0W0.75-04	.625	.334	.0310	.145	2	2.000	4.250	.750	W	4.3	.959	1.211	.071	FFX4 XNMU 040310T	.39
FFX4 ED0.75-3-2.0W0.75-04	.750	.459	.0310	.145	3	2.000	4.250	.750	W	2.9	1.209	1.461	.071	FFX4 XNMU 040310T	.44
FFX4 ED0.75-3-2.5W0.75-04	.750	.459	.0310	.145	3	2.500	5.000	.750	W	2.9	1.209	1.461	.071	FFX4 XNMU 040310T	.50
FFX4 ED1.00-4-2.0W1.00-04	1.000	.709	.0310	.145	4	2.000	4.500	1.000	W	1.8	1.709	1.961	.071	FFX4 XNMU 040310T	.02
FFX4 ED1.00-4-3.0W1.00-04	1.000	.709	.0310	.145	4	3.000	5.500	1.000	W	1.8	1.709	1.961	.071	FFX4 XNMU 040310T	1.03
FFX4 ED1.25-5-2.5W1.00-04	1.250	.959	.0310	.145	5	2.500	5.000	1.000	W	1.2	2.209	2.461	.071	FFX4 XNMU 040310T	1.21
FFX4 ED1.25-5-3.0W1.25-04	1.250	.959	.0310	.145	5	3.000	5.500	1.250	W	1.2	2.209	2.461	.071	FFX4 XNMU 040310T	1.50

- 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) W - Weldon
(5) Maximum ramping angle
(6) Machinable diameter minimum for interpolation
(7) Machinable diameter maximum for interpolation
(8) Radius for programming
(9) Master insert identification

For inserts, see pages: FFX4 XNMU-04 (565)

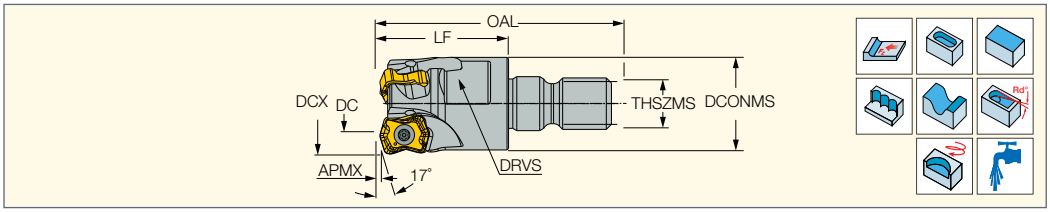
Spare Parts

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
FFX4 ED20/.78-3-M10-04	.787	.496	3	.0315	.146	M10	.984	1.772	.709
FFX4 ED25/.98-4-M12-04	.984	.693	4	.0315	.146	M12	1.181	2.047	.827
FFX4 ED32/1.26-5-M16-04	1.260	.969	5	.0315	.146	M16	1.378	2.362	1.142
FFX4 ED35/1.38-5-M16-04	1.378	1.087	5	.0315	.146	M16	1.378	2.362	1.142
FFX4 ED42/1.65-6-M16-04	1.654	1.362	6	.0315	.146	M16	1.575	2.559	1.142

Designation	RMPX°(4)	MDN(5)	MDX(6)	DRVS(7)	Rg(8)	MIID(9)	TQ(10)	TQ_3(11)	Lbs
FFX4 ED20/.78-3-M10-04	2.7	1.283	1.535	.591	.071	FFX4 XNMU 040310T	.04	260	.09
FFX4 ED25/.98-4-M12-04	1.8	1.677	1.929	.748	.071	FFX4 XNMU 040310T	.04	295	.18
FFX4 ED32/1.26-5-M16-04	1.2	2.228	2.480	1.063	.071	FFX4 XNMU 040310T	.04	355	.40
FFX4 ED35/1.38-5-M16-04	1.1	2.465	2.717	.984	.071	FFX4 XNMU 040310T	.04	355	.44
FFX4 ED42/1.65-6-M16-04	.8	3.016	3.268	.984	.071	FFX4 XNMU 040310T	.04	355	.66

• 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 areasmust 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 (lbf*in) for insert screw
(11) Tool tightening torque Nxm (lbfxin)

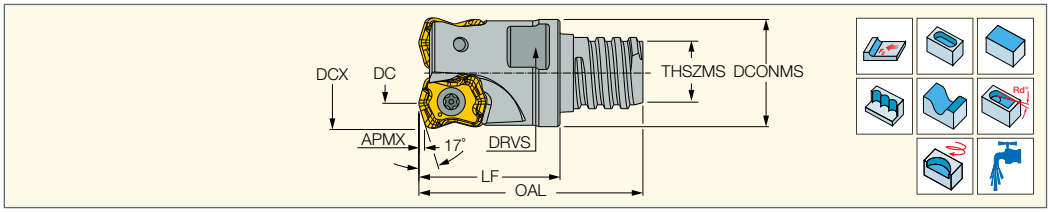
For inserts, see pages: FFX4 XNMU-04 (565)
For holders, see pages: BT-ODP (FLEXFIT) (356) • C#-ODP (FLEXFIT) (356) • CAB M-M (FLEXFIT) (354) • CAT-ODP (FLEXFIT) (360) • DIN69871-ODP (Metric) (357) • ER-ODP (358) • HSK A-ODP (FLEXFIT) (359) • S M (354) • S M-CF (355)

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)	Lbs
FFX4 ED16/.63-2-MMT10-04	.630	.339	2	.0315	.146	T10	.787	1.250	.598	4.3	.969	1.220	.512	FFX4 XNMU 040310T	.04	.071	.05
FFX4 ED20/.78-3-MMT12-04	.787	.496	3	.0315	.146	T12	.984	1.508	.740	2.7	1.283	1.535	.591	FFX4 XNMU 040310T	.04	.071	.10
FFX4 ED25/.98-4-MMT15-04	.984	.693	4	.0315	.146	T15	1.181	1.850	.945	1.8	1.677	1.929	.748	FFX4 XNMU 040310T	.04	.071	.32

- 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 (lbf*in) for insert screw
(10) Radius for programming

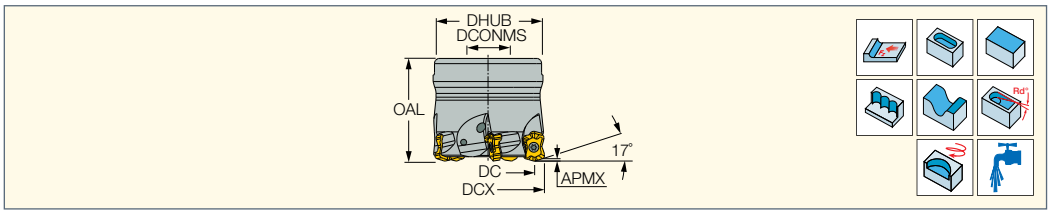
For inserts, see pages: FFX4 XNMU-04 (565)
For holders, see pages: MM CAB-T-T (90) • MM S-A (stepped shanks) (83) • MM S-A (straight shanks) (86) • MM S-A-C# (84) • MM S-A-HSK (672) • MM S-B (85° conical shanks) (86) • MM S-D (89° conical shanks) (87) • MM S-ER (88) • MM S-ER-H (89) • MM TS-A (85)

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	DHUB	DCONMS	Arbor	RMPX°(4)	MDN(5)	MDX(6)	Rg(7)	MIID(8)	Lbs
FFX4 FD1.50-6-.50-04	1.500	1.209	6	.0310	.145	1.500	1.417	.500	A	1.0	2.709	2.961	.071	FFX4 XNMU 040310T	.51
FFX4 FD2.00-7-.75-04	2.000	1.709	7	.0310	.145	1.500	1.850	.750	A	.6	3.709	3.961	.071	FFX4 XNMU 040310T	.86

- 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) Ramping angle maximum
(5) Machinable diameter minimum for interpolation
(6) Machinable diameter maximum for interpolation
(7) Radius for programming
(8) Master insert identification

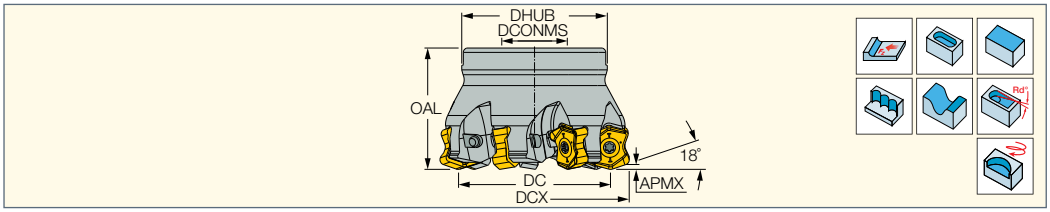
For inserts, see pages: FFX4 XNMU-04 (565)

Spare Parts

Designation			
FFX4 FD1.50-6-.50-04	SR M2.5X6-T7-60	SR UNF 1/4X1 B18.3	T-7/51
FFX4 FD2.00-7-.75-04	SR M2.5X6-T7-60	SR UNF 3/8X1 B18.3	T-7/51

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	DHUB	DCONMS	Arbor	Rd°	MDN(3)	MDX(4)	Rg(5)	MIID(6)	Lbs
FFX4 FD2.00-4-0.75-08	2.000	1.386	4	.0780	.307	1.750	1.850	.750	A	3.2	3.386	3.961	.157	FFX4 XNMU 080620T	1.32
FFX4 FD2.50-5-1.00-08	2.500	1.886	5	.0780	.307	1.750	2.252	1.000	A	2.2	4.386	4.961	.157	FFX4 XNMU 080620T	1.50
FFX4 FD3.00-6-1.00-08	3.000	2.386	6	.0780	.307	2.000	2.252	1.000	A	1.7	5.386	5.961	.157	FFX4 XNMU 080620T	1.98
FFX4 FD4.00-8-1.50-08	4.000	3.386	8	.0780	.307	2.000	3.228	1.500	B	1.0	7.386	7.961	.157	FFX4 XNMU 080620T	2.87
FFX4 FD5.00-10-1.50-08	5.000	4.386	10	.0780	.307	2.000	3.800	1.500	B	.9	9.386	9.961	.157	FFX4 XNMU 080620T	5.51

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

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

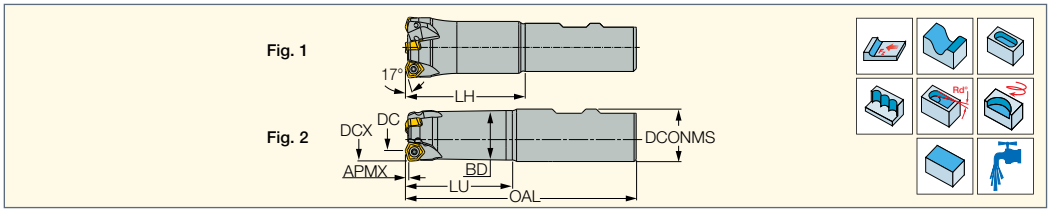
For inserts, see pages: FFX4 XNMU-08 (566)

Spare Parts

Designation				
FFX4 FD2.00-4-0.75-08	SR M5-14 IP20	SR UNF 3/8X1 B18.3	SW6-T	BLD IP20/S7
FFX4 FD2.50-5-1.00-08	SR M5-14 IP20	SR UNF 1/2X20X1 B18.3	SW6-T	BLD IP20/S7
FFX4 FD3.00-6-1.00-08	SR M5-14 IP20	SR UNF 1/2X1¼ B18.3	SW6-T	BLD IP20/S7
FFX4 FD4.00-8-1.50-08	SR M5-14 IP20		SW6-T	BLD IP20/S7
FFX4 FD5.00-10-1.50-08	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



Designation	DCX(1)	DC	APMX	CICT(2)	LU	LH	OAL	BD	DCONMS	Shank(3)	RMPX°(4)	MDN(5)	MDX(6)	TQ(7)	MIID(8)	Fig.	Lbs
FF EWXD0.62-2-1.5W0.62-04	.625	.333	.030	2	1.50	1.600	3.550	.580	.625	W	5.0	.958	1.211	8.00	H600 WXCU 040310T	2	.25
FF EWXD0.62-2-2.0W0.75-04	.625	.333	.030	2	2.00	2.250	4.350	.580	.750	W	5.0	.958	1.211	8.00	H600 WXCU 040310T	2	.38
FF EWXD0.62-2-3.0W0.75-04	.625	.333	.030	2	3.00	3.250	5.350	.580	.750	W	5.0	.958	1.211	8.00	H600 WXCU 040310T	2	.00
FF EWXD0.75-3-1.5W0.75-04	.750	.458	.030	3	1.50	1.600	3.650	.700	.750	W	5.0	1.208	1.461	8.00	H600 WXCU 040310T	2	.37
FF EWXD0.75-3-2.5W0.75-04	.750	.458	.030	3	2.50	2.600	4.650	.700	.750	W	5.0	1.208	1.461	8.00	H600 WXCU 040310T	2	.47
FF EWXD0.75-3-3.5W0.75-04	.750	.458	.030	3	3.50	3.600	5.650	.700	.750	W	5.0	1.208	1.461	8.00	H600 WXCU 040310T	2	.57
FF EWXD1.00-3-2.0W1.00-05	1.000	.610	.039	3	2.00	2.120	4.450	.950	1.000	W	5.0	1.610	1.961	17.70	H600 WXCU 05T312T	2	.82
FF EWXD1.00-3-3.0W1.00-05	1.000	.610	.039	3	3.00	3.120	5.450	.950	1.000	W	5.0	1.610	1.961	17.70	H600 WXCU 05T312T	2	.99
FF EWXD1.00-3-5.0W1.00-05	1.000	.610	.039	3	5.00	5.120	7.450	.950	1.000	W	5.0	1.610	1.961	17.70	H600 WXCU 05T312T	2	1.35
FF EWXD1.25-4-2.5W1.00-05	1.250	.860	.039	4	2.50	2.620	4.950	1.078	1.000	W	4.0	2.110	2.461	17.70	H600 WXCU 05T312T	1	1.04
FF EWXD1.25-4-2.5W1.25-05	1.250	.860	.039	4	2.50	2.620	4.950	1.200	1.250	W	4.0	2.110	2.461	17.70	H600 WXCU 05T312T	2	1.39
FF EWXD1.25-4-4.0W1.00-05	1.250	.860	.039	4	4.00	4.120	6.450	1.078	1.000	W	4.0	2.110	2.461	17.70	H600 WXCU 05T312T	1	1.39
FF EWXD1.25-4-4.0W1.25-05	1.250	.860	.039	4	4.00	4.120	6.450	1.200	1.250	W	4.0	2.110	2.461	17.70	H600 WXCU 05T312T	2	1.80
FF EWXD1.25-4-6.0W1.25-05	1.250	.860	.039	4	6.00	6.120	8.450	1.200	1.250	W	4.0	2.110	2.461	17.70	H600 WXCU 05T312T	2	2.33
FF EWXD1.50-5-2.5W1.25-05	1.500	1.110	.039	5	2.50	2.620	4.950	1.328	1.250	W	3.0	2.610	2.961	17.70	H600 WXCU 05T312T	1	1.54
FF EWXD1.50-5-4.0W1.25-05	1.500	1.110	.039	5	4.00	4.120	6.450	1.328	1.250	W	3.0	2.610	2.961	17.70	H600 WXCU 05T312T	1	2.06
FF EWXD1.50-5-6.0W1.25-05	1.500	1.110	.039	5	6.00	6.120	8.450	1.328	1.250	W	3.0	2.610	2.961	17.70	H600 WXCU 05T312T	1	2.78
FF EWXD1.50-5-7.5W1.50-05	1.500	1.110	.039	5	7.50	7.620	10.350	1.450	1.500	W	3.0	2.610	2.961	17.70	H600 WXCU 05T312T	2	4.06
FF EWXD1.25-3-2.5W1.25-07	1.250	.740	.059	3	2.50	2.620	4.950	1.200	1.250	W	6.3	1.990	2.461	42.50	H600 WXCU 070515T	2	1.28
FF EWXD1.25-3-4.0W1.25-07	1.250	.740	.059	3	4.00	4.120	6.450	1.200	1.250	W	6.3	1.990	2.461	42.50	H600 WXCU 070515T	2	1.66
FF EWXD1.25-3-6.0W1.25-07	1.250	.740	.059	3	6.00	6.120	8.450	1.200	1.250	W	6.3	1.990	2.461	42.50	H600 WXCU 070515T	2	2.16
FF EWXD1.50-4-2.5W1.25-07	1.500	.990	.059	4	2.50	2.590	4.950	1.330	1.250	W	4.6	2.490	2.961	42.50	H600 WXCU 070515T	1	1.30
FF EWXD1.50-4-4.0W1.25-07	1.500	.990	.059	4	4.00	4.090	6.450	1.330	1.250	W	4.6	2.490	2.961	42.50	H600 WXCU 070515T	1	2.04

- For machining recommendations and radius for programming, refer to information of related insert
- To generate a straight surface without cusps, the width of cut must not exceed DC
- For user guide, see pages 586-591

(1) Cutting diameter maximum
(2) Number of inserts
(3) W-Weldon
(4) Maximum ramping angle
(5) Machinable diameter minimum for interpolation
(6) Machinable diameter maximum for interpolation
(7) Recommended tightening torque (lbf*in) for insert screw
(8) Master insert identification

For inserts, see pages: H600 WXCU (564)

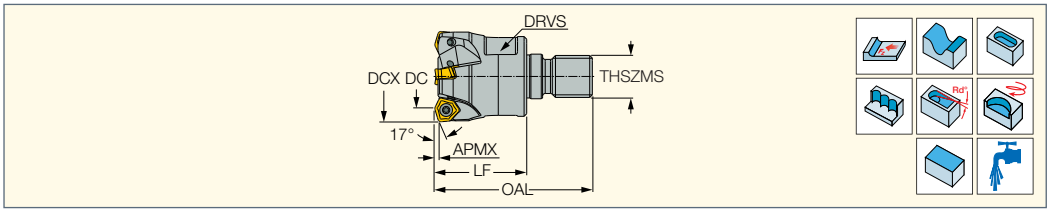
Spare Parts

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

HELI6FEED UPFEED LINE

FLEXFIT

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)	Lbs
FF EWX D20-3-M10-04	.787	.496	.031	3	.984	1.772	M10	4.8	1.283	1.535	.591	H600 WXCU 040310HP	8.00	260	.10
FF EWX D25-4-M12-04	.984	.693	.031	4	1.181	2.047	M12	3.3	1.677	1.929	.748	H600 WXCU 040310HP	8.00	295	.20
FF EWX D25-3-M12-05	.984	.591	.039	3	1.181	2.047	M12	5.0	1.575	1.929	.748	H600 WXCU 05T312T	17.70	295	.19
FF EWX D32-4-M16-05	1.260	.866	.039	4	1.378	2.362	M16	4.0	2.126	2.480	.984	H600 WXCU 05T312T	17.70	355	.38
FF EWX D35-4-M16-05	1.378	.984	.039	4	1.378	2.362	M16	3.5	2.362	2.717	.984	H600 WXCU 05T312T	17.70	355	.42
FF EWX D40-5-M16-05	1.575	1.181	.039	5	1.575	2.559	M16	2.8	2.756	3.110	.984	H600 WXCU 05T312T	17.70	355	.57
FF EWX D32-3-M16-07	1.260	.748	.059	3	1.378	2.362	M16	6.3	2.008	2.480	.984	H600 WXCU 070515HP	42.50	355	.35
FF EWX D40-4-M16-07	1.575	1.063	.059	4	1.575	2.559	M16	4.2	2.638	3.110	.984	H600 WXCU 070515HP	42.50	355	.52

- For machining recommendations and radius for programming, see table on page 564
- To generate a straight surface without cusps, the width of cut must not exceed DC
- For user guide, see pages 586-591

(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 (lbf*in) for insert screw
(9) Tool tightening torque Nxm (lbfxin)

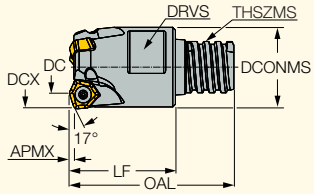
For inserts, see pages: H600 WXCU (564)
For holders, see pages: BT-ODP (FLEXFIT) (356) • C#-ODP (FLEXFIT) (356) • CAB M-M (FLEXFIT) (354) • CAT-ODP (FLEXFIT) (360) • DIN69871-ODP (Metric) (357) • ER-ODP (358) • HSK A-ODP (FLEXFIT) (359) • S M (354) • S M-CF (355)

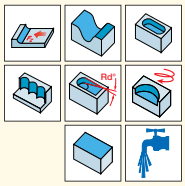
Spare Parts

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)	Lbs
FF EWX D0.62-2-MMT10-04	.625	.330	.031	2	T10	.750	1.210	.600	.500	8.00	5.0	.960	1.221	H600 WXCU 040310HP	.05
FF EWX D16-2-MMT10-04	.630	.339	.031	2	T10	.768	1.230	.598	.472	7.97	5.0	.969	1.220	H600 WXCU 040310HP	.05
FF EWX D0.75-3-MMT12-04	.750	.460	.031	3	T12	1.000	1.540	.720	.562	8.00	5.0	1.210	1.461	H600 WXCU 040310HP	.10
FF EWX D20-3-MMT12-04	.787	.496	.031	3	T12	.984	1.528	.740	.591	7.97	4.8	1.283	1.535	H600 WXCU 040310HP	.11
FF EWX D25-4-MMT15-04	.984	.693	.031	4	T15	1.181	1.850	.941	.748	7.97	3.3	1.677	1.929	H600 WXCU 040310HP	.21
FF EWX D25-3-MMT15-05	.984	.591	.039	3	T15	1.181	1.850	.941	.748	17.70	5.0	1.575	1.929	H600 WXCU 05T312T	.20

- For machining recommendations and radius for programming, see table on page 564
- 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 303
- For user guide, see pages 586-591

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

For inserts, see pages: H600 WXCU (564)
For holders, see pages: MM S-A (stepped shanks) (83) • MM S-A (straight shanks) (86) • MM S-A-C# (84) • MM S-A-HSK (672) • MM S-B (85° conical shanks) (86) • MM S-D (89° conical shanks) (87) • MM S-ER (88) • MM S-ER-H (89) • MM TS-A (85)

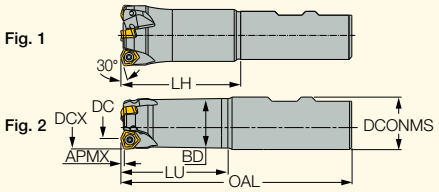
Spare Parts

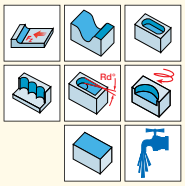
Designation		
FF EWX D0.62-2-MMT10-04	SR M2.5X6-T7-60	T-7/51
FF EWX D16-2-MMT10-04	SR M2.5X6-T7-60	T-7/51
FF EWX D0.75-3-MMT12-04	SR M2.5X6-T7-60	T-7/51
FF EWX D20-3-MMT12-04	SR M2.5X6-T7-60	T-7/51
FF EWX D25-4-MMT15-04	SR M2.5X6-T7-60	T-7/51
FF EWX D25-3-MMT15-05	SR 10508600	T-9/51

HELI6FEED UPFEED LINE

MF EWX

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





Designation	DCX(1)	DC	CICT(2)	LU	LH	OAL	APMX	DCONMS	BD	Shank(3)	RMPX°(4)	MDN(5)	MDX(6)	MIID(7)	TQ(8)	Fig.	Lbs
MF EWXD0.62-2-1.5W0.75-04	.625	.350	2	1.50	1.750	3.850	.059	.750	.580	W	3.8	.975	1.211	H600 WXCU 040310T	8.00	2	.33
MF EWXD0.75-3-2.0W0.75-04	.750	.470	3	2.00	2.100	4.200	.059	.750	.710	W	2.6	1.220	1.461	H600 WXCU 040310T	8.00	2	.37
MF EWXD1.00-3-2.5W1.00-05	1.000	.630	3	2.50	2.650	5.000	.079	1.000	.940	W	2.9	1.630	1.961	H600 WXCU 05T312T	17.70	2	.80
MF EWXD1.25-4-3.0W1.25-05	1.250	.880	4	3.00	3.150	5.500	.079	1.250	1.200	W	1.9	2.130	2.461	H600 WXCU 05T312T	17.70	2	1.46
MF EWXD1.25-3-3.0W1.25-07	1.250	.770	3	3.00	3.150	5.500	.106	1.250	1.200	W	3.0	2.020	2.461	H600 WXCU 070515T	42.50	2	1.39
MF EWXD1.50-4-3.5W1.25-07	1.500	1.020	4	3.50	6.000	6.000	.106	1.250	1.375	W	2.2	2.520	2.961	H600 WXCU 070515T	42.50	1	1.93

- For machining recommendations and radius for programming, see table on page 564
- To generate a straight surface without cusps, the width of cut must not exceed DC
- For user guide, see pages 586-591

(1) Cutting diameter maximum
(2) Number of inserts
(3) W-Weldon
(4) Maximum ramping angle
(5) Machinable diameter minimum for interpolation
(6) Machinable diameter maximum for interpolation
(7) Master insert identification
(8) Recommended tightening torque (lbf*in) for insert screw

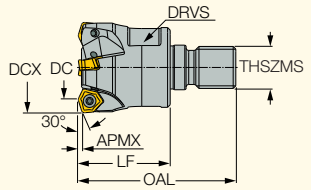
For inserts, see pages: H600 WXCU (564)

Spare Parts

Designation				
MF EWXD0.62-2-1.5W0.75-04	SR M2.5X6-T7-60	T-7/51		
MF EWXD0.75-3-2.0W0.75-04	SR M2.5X6-T7-60	T-7/51		
MF EWXD1.00-3-2.5W1.00-05	SR 10508600	T-9/51		
MF EWXD1.25-4-3.0W1.25-05	SR 10508600	T-9/51		
MF EWXD1.25-3-3.0W1.25-07	SR 34-535-SN		BLD T15/S7	SW6-T-SH
MF EWXD1.50-4-3.5W1.25-07	SR 34-535-SN		BLD T15/S7	SW6-T-SH

HELI6FEED UPFEED LINE
FLEXFIT

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)	Lbs
MF EWX D20-3-M10-04	.787	.512	.059	3	1.102	1.890	M10	.551	2.4	1.299	1.535	H600 WXCU 040310T	8.00	260	.11
MF EWX D25-4-M12-04	.984	.709	.059	4	1.260	2.126	M12	.669	1.7	1.693	1.929	H600 WXCU 040310T	8.00	295	.20
MF EWX D25-3-M12-05	.984	.610	.079	3	1.181	2.047	M12	.669	3.0	1.594	1.929	H600 WXCU 05T312T	17.70	295	.16
MF EWX D32-4-M16-05	1.260	.886	.079	4	1.378	2.362	M16	.945	1.9	2.146	2.480	H600 WXCU 05T312T	17.70	355	.36
MF EWX D32-3-M16-07	1.260	.776	.106	3	1.378	2.362	M16	.945	3.0	2.035	2.480	H600 WXCU 070515HP	42.50	355	.32

- For machining recommendations and radius for programming, see table on page 564 • To generate a straight surface without cusps, the width of cut must not exceed DC
- For user guide, see pages 586-591

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

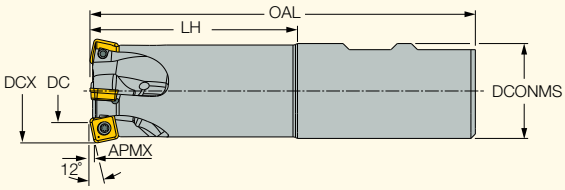
For inserts, see pages: H600 WXCU (564)
For holders, see pages: BT-ODP (FLEXFIT) (356) • C#-ODP (FLEXFIT) (356) • CAB M-M (FLEXFIT) (354) • CAT-ODP (FLEXFIT) (360)
• DIN69871-ODP (Metric) (357) • ER-ODP (358) • HSK A-ODP (FLEXFIT) (359) • S M (354) • S M-CF (355)

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	DCX(1)	DC	APMX	AE(2)	CICT(3)	LH	DCONMS	OAL	RMPX°(4)	MDN(5)	MDX(6)	MIID(7)	TQ(8)	Lbs
FFQ4 D0.87-2-1.7-W0.75-09	.875	.311	.0470	.280	2	1.750	.750	3.800	8.0	1.186	1.711	FFQ4 SOMT 090412T	17.70	.39
FFQ4 D1.00-3-2.0-W1.00-09	1.000	.437	.0470	.280	3	2.000	1.000	4.300	5.4	1.437	1.961	FFQ4 SOMT 090412T	17.70	.74
FFQ4 D1.25-4-2.5-W1.00-09	1.250	.689	.0470	.280	4	2.500	1.000	4.800	3.3	1.939	2.461	FFQ4 SOMT 090412T	17.70	.91
FFQ4 D1.50-5-3.0-W1.25-09	1.500	.938	.0470	.280	5	3.000	1.250	5.300	2.2	2.438	2.961	FFQ4 SOMT 090412T	17.70	1.55

- To generate a straight surface without cusps, the width of cut must not exceed DC • Radius for programming: for insert SOMT .098", for insert SOMW .118"
- When mounting insert SOMW, APMX=.039" • For slot milling or machining with high tool overhang, the maximum depth of cut should be reduced by 50%
- For user guide, see pages 586-591

(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 (lbf*in) for insert screw

For inserts, see pages: FFQ4 SOMT/W 0904 (559)

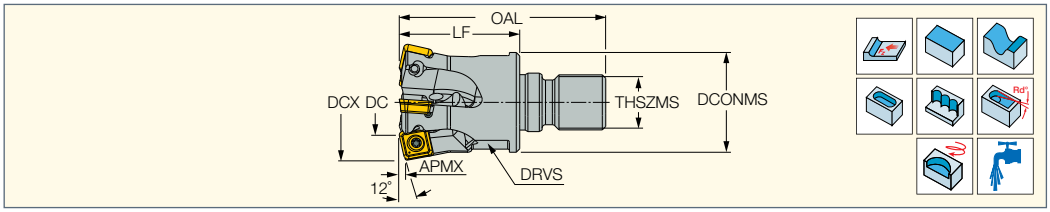
Spare Parts

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

(a) Recommended tightening torque:17.7 lbf*in

MILL4FEED
FLEXFIT

FFQ4 D-M-09
Fast Feed Endmills with FLEXFIT Threaded Adaptation Carrying Single-Sided Inserts with 4 Cutting Edges



Designation	DCX(1)	DC	APMX	AE(2)	CICT(3)	THSZMS	LF	OAL	DCONMS	RMPX°(4)	MDN(5)	MDX(6)	DRVS(7)	MIID(8)	TQ(9)	TQ_3(10)	Lbs
FFQ4 D1.50-05-M16-09	1.500	.933	.0470	.280	5	M16	1.400	2.400	1.142	2.3	2.433	2.961	.984	FFQ4 SOMT 090412T	17.70	355	.39

- To generate a straight surface without cusps, the width of cut must not exceed DC • Radius for programming: for insert SOMT .098", for insert SOMW .118"
- When mounting insert SOMW, APMX=.039" • For slot milling or machining with high tool overhang, the maximum depth of cut should be reduced by 50%
- For user guide, see pages 586-591

(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 (lbf*in) for insert screw
(10) Tool tightening torque Nxm (lbfxin)

For inserts, see pages: FFQ4 SOMT/W 0904 (559)
For holders, see pages: BT-ODP (FLEXFIT) (356) • C#-ODP (FLEXFIT) (356) • CAB M-M (FLEXFIT) (354) • CAT-ODP (FLEXFIT) (360) • ER-ODP (358) • HSK A-ODP (FLEXFIT) (359) • S M (354) • S M-CF (355)

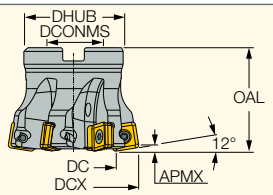
Spare Parts

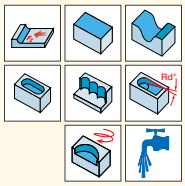
Designation		
FFQ4 D-M-09	SR M3X0.5-L7.4 IP9(a)	IP-9/151

(a) Recommended tightening torque:17.7 lbf*in

MILL4FEED

FFQ4 D-09
Fast Feed Face Mills
Carrying Single-Sided Inserts
with 4 Cutting Edges





Designation	DCX(1)	DC	APMX	AE(2)	CICT(3)	OAL	DCONMS	DHUB	Arbor	RMPX°(4)	MDN(5)	MDX(6)	MIID(7)	TQ(8)	Lbs
FFQ4 D1.50-05-0.50-09	1.500	.933	.0470	.280	5	1.400	.500	1.417	A	2.2	2.433	2.961	FFQ4 SOMT 090412T	17.70	.38
FFQ4 D2.00-07-0.75-09	2.000	1.439	.0470	.280	7	1.600	.750	1.850	A	1.5	3.439	3.961	FFQ4 SOMT 090412T	17.70	.77
FFQ4 D2.50-08-1.00-09	2.500	1.937	.0470	.280	8	1.850	1.000	2.252	A	1.1	4.437	4.961	FFQ4 SOMT 090412T	17.70	1.38

- To generate a straight surface without cusps, the width of cut must not exceed DC
- Radius for programming: for insert SOMT .098", for insert SOMW .118"
- When mounting insert SOMW, APMX=.039"
- For slot milling or machining with high tool overhang, the maximum depth of cut should be reduced by 50%
- For user guide, see pages 586-591

(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 (lbf*in) for insert screw

For inserts, see pages: FFQ4 SOMT/W 0904 (559)

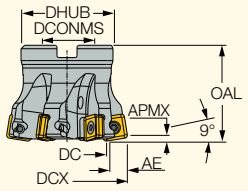
Spare Parts

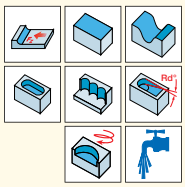
Designation			
FFQ4 D1.50-05-0.50-09	SR M3X0.5-L7.4 IP9(a)	IP-9/151	
FFQ4 D2.00-07-0.75-09	SR M3X0.5-L7.4 IP9(a)	IP-9/151	SR UNF 3/8X1 B18.3
FFQ4 D2.50-08-1.00-09	SR M3X0.5-L7.4 IP9(a)	IP-9/151	SR UNF 1/2X1¼ B18.3

(a) Recommended tightening torque:17.7 lbf*in

MILL4FEED

FFQ4 D-12
Fast Feed Face Mills
Carrying Single-Sided Inserts
with 4 Cutting Edges





Designation	DCX(1)	DC	APMX	AE(2)	CICT(3)	LF	DHUB	DCONMS	Arbor(4)	RMPX°(5)	MDN(6)	MDX(7)	MIID(8)	TQ(9)	Lbs
FFQ4 D2.0-5-0.75-12	2.000	1.136	.059	.394	5	2.000	1.850	.750	A	2.6	3.136	3.961	FFQ4 SOMT 120516HP	42.50	.88
FFQ4 D2.5-6-1.00-12	2.500	1.636	.059	.394	6	2.000	2.252	1.000	A	1.7	4.136	4.961	FFQ4 SOMT 120516HP	42.50	1.30
FFQ4 D3.0-7-1.00-12	3.000	2.136	.059	.394	7	2.000	2.252	1.000	A	1.3	5.136	5.961	FFQ4 SOMT 120516HP	42.50	1.72
FFQ4 D4.0-8-1.50-12	4.000	3.136	.059	.394	8	2.000	3.228	1.500	B	.9	7.136	7.961	FFQ4 SOMT 120516HP	42.50	2.92
FFQ4 D5.0-10-1.50-12	5.000	4.110	.059	.394	10	2.000	3.799	1.500	B	.7	9.110	9.961	FFQ4 SOMT 120516HP	42.50	5.51

- To generate a straight surface without cusps, the width of cut must not exceed DC
- Radius for programming: for insert SOMT .118" for insert SOMW .157"
- When mounting insert SOMW, APMX=.047"
- For slot milling or machining with high tool overhang, the maximum depth of cut should be reduced by 50%
- For user guide, see pages 586-591

(1) Cutting diameter maximum
(2) Maximum plunging width
(3) Number of inserts
(4) For adaptation options, see page 592
(5) Maximum ramping angle
(6) Machinable diameter minimum for interpolation
(7) Machinable diameter maximum for interpolation
(8) Master insert identification
(9) Recommended tightening torque (lbf*in) for insert screw

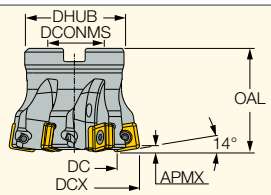
For inserts, see pages: FFQ4 SOMT/W 1205 (560)

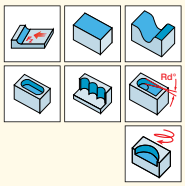
Spare Parts

Designation				
FFQ4 D2.0-5-0.75-12	SR M4X0.7-L9.6 IP15	SW6-T	BLD IP15/S7	SR UNF 3/8X1.5 B18.3
FFQ4 D2.5-6-1.00-12	SR M4X0.7-L9.6 IP15	SW6-T	BLD IP15/S7	SR UNF 1/2X1¼ B18.3
FFQ4 D3.0-7-1.00-12	SR M4X0.7-L9.6 IP15	SW6-T	BLD IP15/S7	SR UNF 1/2X1¼ B18.3
FFQ4 D4.0-8-1.50-12	SR M4X0.7-L9.6 IP15	SW6-T	BLD IP15/S7	
FFQ4 D5.0-10-1.50-12	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(2)	DC	APMX	AE(3)	CICT(4)	OAL	DCONMS	DHUB	RMPX°(5)	MDN(6)	MDX(7)	CSP(8)	Arbor	MIID(9)	TQ(10)	Lbs
FFQ4 D3.00-06-1.25-17	3.000	1.850	.1180	.574	6	2.000	1.250	2.874	1.2	4.850	5.961	1	A	FFQ4 SOMT 170625T	80.00	1.79
FFQ4 D4.00-07-1.50-17	4.000	2.850	.1180	.574	7	2.000	1.500	3.228	.8	6.850	7.961	1	A	FFQ4 SOMT 170625T	80.00	2.91
FFQ4 D5.00-08-1.50-17	5.000	3.850	.1180	.574	8	2.250	1.500	3.228	.6	8.850	9.961	1	B	FFQ4 SOMT 170625T	80.00	4.44
FFQ4 D6.00-10-2.00-17 (1)	6.000	4.850	.1180	.574	10	2.500	2.000	5.000	.4	10.850	11.961	0	B	FFQ4 SOMT 170625T	80.00	9.81

- To generate a straight surface without cusps, the width of cut must not exceed DC
- Radius for programming: for insert SOMT .217" for insert SOMW .252"
- When mounting insert SOMW, APMX=.098"
- For slot milling or machining with high tool overhang, the maximum depth of cut should be reduced by 50%
- For user guide, see pages 586-591

(1) For internal coolant, use a matching coolant set (to be ordered separately)
(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) 0 - Without coolant supply, 1 - With coolant supply
(9) Master insert identification
(10) Recommended tightening torque (lbf*in) for insert screw

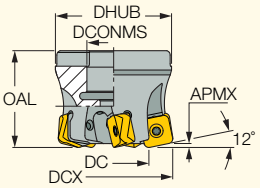
For inserts, see pages: FFQ4 SOMT/W 1706 (561)

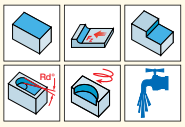
Spare Parts

Designation			
FFQ4 D3.00-06-1.25-17	SR M5-14 IP20	BLD IP20/S7	SW6-T
FFQ4 D4.00-07-1.50-17	SR M5-14 IP20	BLD IP20/S7	SW6-T-SH
FFQ4 D5.00-08-1.50-17	SR M5-14 IP20	BLD IP20/S7	SW6-T
FFQ4 D6.00-10-2.00-17	SR M5-14 IP20	BLD IP20/S7	SW6-T

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)	Lbs
FFQ8 D2.00-05-0.75-12	1.236	2.000	.0600	5	1.625	1.850	.750	A	.3	3.236	3.960	FFQ8 SZMU 120520	1.61
FFQ8 D2.50-06-1.00-12	1.736	2.500	.0600	6	1.750	2.250	1.000	A	.2	4.236	4.960	FFQ8 SZMU 120520	1.94
FFQ8 D3.00-07-1.00-12	2.236	3.000	.0600	7	1.750	2.250	1.000	A	.2	5.236	5.960	FFQ8 SZMU 120520	3.64
FFQ8 D4.00-08-1.50-12	3.236	4.000	.0600	8	2.000	3.230	1.500	B	.1	7.236	7.960	FFQ8 SZMU 120520	6.17

- Radius for programming .142"
- To generate a straight surface without cusps, the width of cut most 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) Recommended tightening torque (lbfxin) for insert screw

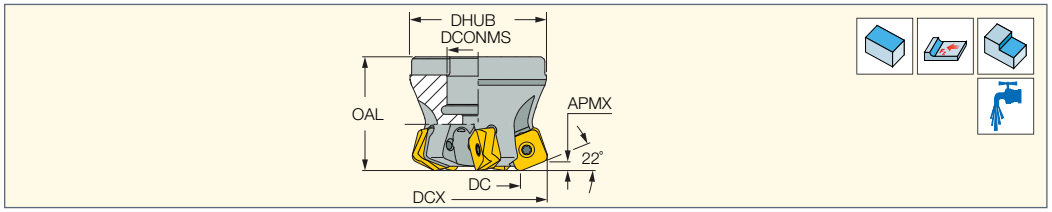
For inserts, see pages: FFQ8 SZMU (562)

Spare Parts

Designation				
FFQ8 D2.00-05-0.75-12	SR M4X0.7-L11.5 IP15	BLD IP15/S7	SW6-T-SH	SR UNF 3/8X1 B18.3
FFQ8 D2.50-06-1.00-12	SR M4X0.7-L11.5 IP15	BLD IP15/S7	SW6-T-SH	SR UNF 1/2X20X1 B18.3
FFQ8 D3.00-07-1.00-12	SR M4X0.7-L11.5 IP15	BLD IP15/S7	SW6-T-SH	SR UNF 1/2X20X1 B18.3
FFQ8 D4.00-08-1.50-12	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)	Lbs
MFQ8 D2.00-05-0.75-12	1.276	2.000	.1180	5	1.625	1.850	.750	A	FFQ8 SZMU 120520	1.48
MFQ8 D2.50-06-1.00-12	1.776	2.500	.1180	6	1.750	2.250	1.000	A	FFQ8 SZMU 120520	2.43
MFQ8 D3.00-07-1.00-12	2.276	3.000	.1180	7	1.750	2.250	1.000	A	FFQ8 SZMU 120520	3.38
MFQ8 D4.00-08-1.50-12	3.276	4.000	.1180	8	2.000	3.230	1.500	B	FFQ8 SZMU 120520	4.41

• Radius for programming .197" • To generate a straight surface without cusps, the width of cut most 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) Recommended tightening torque (lbfxin) for insert screw

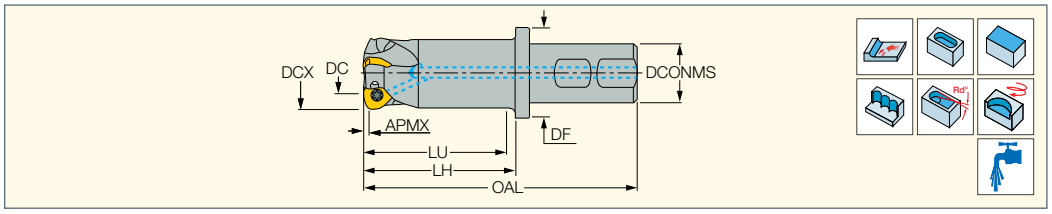
For inserts, see pages: FFQ8 SZMU (562)

Spare Parts

Designation				
MFQ8 D2.00-05-0.75-12	SR M4X0.7-L11.5 IP15	BLD IP15/S7	SW6-T-SH	SR UNF 3/8X1 B18.3
MFQ8 D2.50-06-1.00-12	SR M4X0.7-L11.5 IP15	BLD IP15/S7	SW6-T-SH	SR UNF 1/2X20X1 B18.3
MFQ8 D3.00-07-1.00-12	SR M4X0.7-L11.5 IP15	BLD IP15/S7	SW6-T-SH	SR UNF 1/2X20X1 B18.3
MFQ8 D4.00-08-1.50-12	SR M4X0.7-L11.5 IP15	BLD IP15/M7	SW6-T-SH	

FEEDMILL

FF EW
Fast Feed Endmills with FF WO.. Inserts

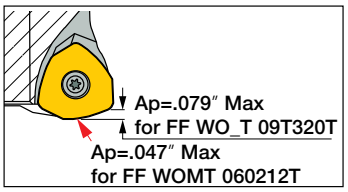


Designation	DCX(1)	DC	CICT(2)	APMX	LH	LU	OAL	DF	DCONMS	Shank(3)	RMPX°(4)	TQ(5)	MIID(6)	Lbs
FF EW D1.00-2.0-W1.0-06-C	1.000	.450	2	.047	2.120	-	4.760	-	1.000	W	5.0	18.00	FF WOMT0602	.87
FF EW D1.00-3.0-W1.0-06-C	1.000	.450	2	.047	3.120	-	5.770	-	1.000	W	5.0	18.00	FF WOMT0602	1.04
FF EW D1.25-2.5-W1.0-06-C	1.250	.700	3	.047	2.620	2.50	5.260	1.200	1.000	W	4.0	18.00	FF WOMT0602	1.21
FF EW D1.25-4.0-W1.0-06-C	1.250	.700	3	.047	4.120	4.00	6.760	1.200	1.000	W	4.0	18.00	FF WOMT0602	1.65
FF EW D1.5-4.0-W1.25-09-C	1.500	.680	3	.079	3.890	4.00	6.580	1.970	1.250	W	5.0	44.00	FF WOMT09T3	2.31
FF EW D1.5-6.0-W1.25-09-C	1.500	.680	3	.079	5.890	6.00	8.580	1.970	1.250	W	5.0	44.00	FF WOMT09T3	3.19

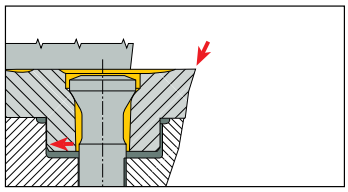
•For user guide, see pages 586-591

(1) Cutting diameter maximum
(2) Number of inserts
(3) W-Weldon
(4) Maximum ramping angle
(5) Insert tightening torque
(6) Master insert identification

For inserts, see pages: FF WOCT/WOMT/WOMW (563)



Cutting forces are directed axially towards the spindle, enabling cutting at very high feeds with high stability and no vibrations.



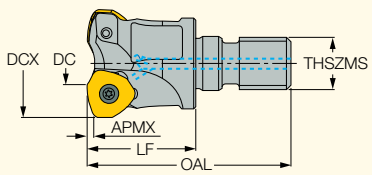
A cylinder at the bottom of the insert provides very rigid clamping, absorbing most of the forces usually exerted on the clamping screw.

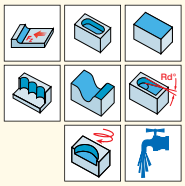
Spare Parts

Designation				
FF EW D1.00-2.0-W1.0-06-C	SR 34-506/M	T-9/51		
FF EW D1.00-3.0-W1.0-06-C	SR 34-506/M	T-9/51		
FF EW D1.25-2.5-W1.0-06-C	SR 34-506/M	T-9/51		
FF EW D1.25-4.0-W1.0-06-C	SR 34-506/M	T-9/51		
FF EW D1.5-4.0-W1.25-09-C	SR 34-535		BLD T15/S7	SW6-T
FF EW D1.5-6.0-W1.25-09-C	SR 34-535		BLD T15/S7	SW6-T

FEEDMILL FLEXFIT

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)	Lbs
FF EW D25-M12-06-C	.984	.433	2	.047	M12	.984	1.850	5.0	17.70	FF WOMT0602	295	.12
FF EW D32-M16-06-C	1.260	.709	3	.047	M16	1.378	2.362	4.0	17.70	FF WOMT0602	355	.35
FF EW D40-M16-06-C	1.575	1.024	4	.047	M16	1.575	2.559	2.5	17.70	FF WOMT0602	355	.50

•For user guide, see pages 586-591 • 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 (563)
For holders, see pages: BT-ODP (FLEXFIT) (356) • C#-ODP (FLEXFIT) (356) • CAB M-M (FLEXFIT) (354) • CAT-ODP (FLEXFIT) (360) • DIN69871-ODP (Metric) (357) • ER-ODP (358) • HSK A-ODP (FLEXFIT) (359) • S M (354) • S M-CF (355)

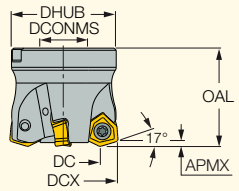
Spare Parts

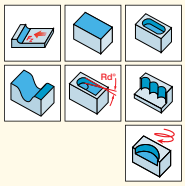
Designation		
FF EW-M	SR 34-506/M	T-9/51

HELI6FEED UPFEED LINE

FF FWX

Fast Feed Face Mills Carrying Double-Sided Inserts with 6 Cutting Edges





Designation	DC	DCX(2)	APMX	CICT(3)	OAL	DHUB	DCONMS	Arbor(4)	RMPX°(5)	MDN(6)	MDX(7)	CSP(8)	MIID(9)	TQ(10)	lbs
FF FWX D1.50-05-0.50-05	1.110	1.500	.039	5	1.250	1.378	.500	A	3.0	2.610	2.961	1	H600 WXCU 05T312T	17.70	.36
FF FWX D2.00-06-0.75-05	1.610	2.000	.039	6	1.500	1.772	.750	A	2.0	3.610	3.961	1	H600 WXCU 05T312T	17.70	.76
FF FWX D1.50-04-0.50-07	.990	1.500	.059	4	1.250	1.378	.500	A	4.6	2.490	2.961	1	H600 WXCU 070515HP	42.50	.32
FF FWX D2.00-05-0.75-07	1.490	2.000	.059	5	1.500	1.772	.750	A	2.5	3.490	3.961	1	H600 WXCU 070515HP	42.50	.70
FF FWX D2.50-06-1.00-07	1.990	2.500	.059	6	1.750	2.402	1.000	A	2.1	4.490	4.961	1	H600 WXCU 070515HP	42.50	1.42
FF FWX D3.00-07-1.25-07	2.528	3.000	.059	7	2.000	2.850	1.250	A	1.7	5.528	5.961	1	H600 WXCU 070515HP	42.50	2.46
FF FWX D4.00-08-1.50-07	3.488	4.000	.059	8	2.000	3.110	1.500	B	1.2	7.488	7.961	1	H600 WXCU 070515HP	42.50	3.20
FF FWX D2.00-04-0.75-08	1.370	2.000	.079	4	1.750	1.772	.750	A	4.7	3.370	3.961	1	H600 WXCU 080612T	80.00	.77
FF FWX D2.50-05-1.00-08	1.870	2.500	.079	5	1.750	2.402	1.000	A	3.3	4.370	4.961	1	H600 WXCU 080612T	80.00	1.30
FF FWX D3.00-06-1.25-08	2.370	3.000	.079	6	2.000	2.850	1.250	A	2.5	5.370	5.961	1	H600 WXCU 080612T	80.00	2.26
FF FWX D4.00-07-1.50-08	3.370	4.000	.079	7	2.000	3.110	1.500	B	1.7	7.370	7.961	1	H600 WXCU 080612T	80.00	2.98
FF FWX D5.00-09-1.50-08	4.370	5.000	.079	9	2.000	3.500	1.500	B	1.3	9.370	9.961	1	H600 WXCU 080612T	80.00	4.88
FF FWX D6.00-10-2.00-08 (1)	5.370	6.000	.079	10	2.250	3.858	2.000	B	1.0	11.370	11.961	0	H600 WXCU 080612T	80.00	7.04

- For machining recommendations and radius for programming, see table on page 564
- To generate a straight surface without cusps, the width of cut must not exceed DC
- For user guide, see pages 586-591

(1) For internal coolant, use a matching coolant set (should be ordered separately)
(2) Cutting diameter maximum
(3) Number of inserts
(4) For adaptation see page 592
(5) Maximum ramping angle
(6) Machinable diameter minimum for interpolation
(7) Machinable diameter maximum for interpolation
(8) 0 - Without coolant supply, 1 - With coolant supply
(9) Master insert identification
(10) Recommended tightening torque (lbf*in) for insert screw

For inserts, see pages: H600 WXCU (564)

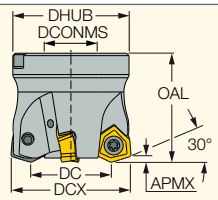
Spare Parts

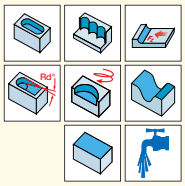
Designation					
FF FWX D1.50-05-0.50-05	SR 10508600	T-9/51			SR UNF 1/4X3/4 B18.3
FF FWX D2.00-06-0.75-05	SR 10508600	T-9/51			SR UNF 3/8X1 B18.3
FF FWX D1.50-04-0.50-07	SR 34-535-SN		BLD T15/S7	SW6-T-SH	SR UNF 1/4X3/4 B18.3
FF FWX D2.00-05-0.75-07	SR 34-535-SN		BLD T15/S7	SW6-T-SH	SR UNF 3/8X1 B18.3
FF FWX D2.50-06-1.00-07	SR 34-535-SN		BLD T15/S7	SW6-T-SH	SR UNF 1/2X20X1 B18.3
FF FWX D3.00-07-1.25-07	SR 34-535-SN		BLD T15/S7	SW6-T-SH	SR UNF 5/8X1 B18.3
FF FWX D4.00-08-1.50-07	SR 34-535-SN		BLD T15/M7	SW6-T-SH	
FF FWX D2.00-04-0.75-08	SR 14-591/H		BLD T20/S7	SW6-T	SR UNF 3/8X1 B18.3
FF FWX D2.50-05-1.00-08	SR 14-591/H		BLD T20/S7	SW6-T	SR UNF 1/2X20X1 B18.3
FF FWX D3.00-06-1.25-08	SR 14-591/H		BLD T20/S7	SW6-T	SR UNF 5/8X1 B18.3
FF FWX D4.00-07-1.50-08	SR 14-591/H		BLD T20/M7	SW6-T	
FF FWX D5.00-09-1.50-08	SR 14-591/H		BLD T20/L7	SW6-T	
FF FWX D6.00-10-2.00-08	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)	Lbs	MIID(7)	TQ(8)
MF FWX D1.50-05-0.50-05	1.128	1.500	.079	5	1.250	1.378	.500	A	1.5	2.628	2.961	.31	H600 WXCU 05T312T	17.70
MF FWX D2.00-06-0.75-05	1.628	2.000	.079	6	1.500	1.772	.750	A	1.0	3.628	3.961	.63	H600 WXCU 05T312T	17.70
MF FWX D2.50-08-1.00-05	2.127	2.500	.079	8	1.625	2.250	1.000	A	.8	4.627	4.961	1.14	H600 WXCU 05T312T	17.70
MF FWX D1.50-04-0.50-07	1.020	1.500	.106	4	1.250	1.378	.500	A	2.2	2.520	2.961	.31	H600 WXCU 070515HP	42.50
MF FWX D2.00-05-0.75-07	1.520	2.000	.106	5	1.500	1.772	.750	A	1.4	3.520	3.961	.64	H600 WXCU 070515HP	42.50
MF FWX D2.00-04-0.75-08	1.398	2.000	.138	4	1.750	1.772	.750	A	2.5	3.398	3.961	.71	H600 WXCU 080612T	80.00
MF FWX D2.50-05-1.00-08	1.898	2.500	.138	5	1.750	2.402	1.000	A	1.7	4.398	4.961	1.25	H600 WXCU 080612T	80.00
MF FWX D3.00-06-1.25-08	2.398	3.000	.138	6	2.000	2.850	1.250	A	1.3	5.398	5.961	2.09	H600 WXCU 080612T	80.00
MF FWX D4.00-07-1.50-08	3.398	4.000	.138	7	2.000	3.110	1.500	B	.9	7.398	7.961	2.80	H600 WXCU 080612T	80.00
MF FWX D5.00-09-1.50-08	4.398	5.000	.138	9	2.000	3.500	1.500	B	.7	9.398	9.961	4.82	H600 WXCU 080612T	80.00

- For machining recommendations and radius for programming, see table on page 564
- To generate a straight surface without cusps, the width of cut must not exceed DC
- For user guide, see pages 586-591

(1) Cutting diameter maximum
(2) Number of inserts
(3) For adaptation options, see page 592
(4) Maximum ramping angle
(5) Machinable diameter minimum for interpolation
(6) Machinable diameter maximum for interpolation
(7) Master insert identification
(8) Recommended tightening torque (lbf*in) for insert screw

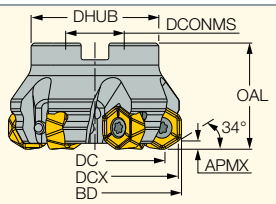
For inserts, see pages: H600 WXCU (564)

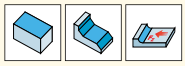
Spare Parts

Designation					
MF FWX D1.50-05-0.50-05	SR 10508600	T-9/51			SR UNF 1/4X3/4 B18.3
MF FWX D2.00-06-0.75-05	SR 10508600	T-9/51			SR UNF 3/8X1 B18.3
MF FWX D2.50-08-1.00-05	SR 10508600	T-9/51			SR UNF 1/2X20X1 B18.3
MF FWX D1.50-04-0.50-07	SR 34-535-SN		BLD T15/S7	SW6-T-SH	SR UNF 1/4X3/4 B18.3
MF FWX D2.00-05-0.75-07	SR 34-535-SN		BLD T15/S7	SW6-T-SH	SR UNF 3/8X1 B18.3
MF FWX D2.00-04-0.75-08	SR 14-591/H		BLD T20/S7	SW6-T	SR UNF 3/8X1 B18.3
MF FWX D2.50-05-1.00-08	SR 14-591/H		BLD T20/S7	SW6-T	SR UNF 1/2X20X1 B18.3
MF FWX D3.00-06-1.25-08	SR 14-591/H		BLD T20/S7	SW6-T	SR UNF 5/8X1 B18.3
MF FWX D4.00-07-1.50-08	SR 14-591/H		BLD T20/M7	SW6-T	
MF FWX D5.00-09-1.50-08	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)	Lbs
MF FHX D2.00-05-0.75-R06	2.000	2.091	1.625	5	.118	1.500	1.770	.750	A	1	H1200 HXCU 0606-HPR	80.00	1.32
MF FHX D2.50-06-1.00-R06	2.500	2.590	2.120	6	.118	1.750	2.250	1.000	A	1	H1200 HXCU 0606-HPR	80.00	1.31
MF FHX D3.00-07-1.25-R06	3.000	3.090	2.620	7	.118	1.750	2.750	1.250	A	1	H1200 HXCU 0606-HPR	80.00	1.94
MF FHX D4.00-09-1.50-R06	4.000	4.090	3.620	9	.118	2.000	3.250	1.500	B	1	H1200 HXCU 0606-HPR	80.00	3.37
MF FHX D5.00-11-1.50-R06	5.000	5.090	4.620	11	.118	2.000	3.500	1.500	B	1	H1200 HXCU 0606-HPR	80.00	5.36
MF FHX D6.00-13-2.00-R06	6.000	6.090	5.620	13	.118	2.250	4.000	2.000	B	0	H1200 HXCU 0606-HPR	80.00	7.67

- Radius for programming according to D1 diameter is .213" • 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 586-591

(1) Cutting diameter maximum
(2) Number of inserts
(3) For adaptation options, see page 592
(4) 0 - Without coolant supply, 1 - With coolant supply
(5) Master insert identification
(6) Recommended tightening torque (lbf*in) for insert screw

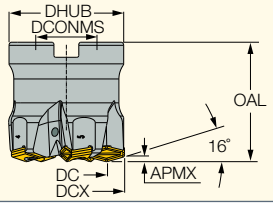
For inserts, see pages: H1200 HXCU 0606 (567)

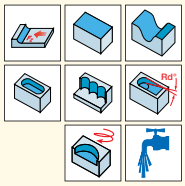
Spare Parts

Designation				
MF FHX D2.00-05-0.75-R06	SR 14-591/H	BLD T20/S7	SW6-T	SR UNF 3/8X1-1421
MF FHX D2.50-06-1.00-R06	SR 14-591/H	BLD T20/S7	SW6-T	SR UNF 1/2X20X1 B18.3
MF FHX D3.00-07-1.25-R06	SR 14-591/H	BLD T20/S7	SW6-T	SR UNF 5/8X1 B18.3
MF FHX D4.00-09-1.50-R06	SR 14-591/H	BLD T20/M7	SW6-T	
MF FHX D5.00-11-1.50-R06	SR 14-591/H	BLD T20/M7	SW6-T	
MF FHX D6.00-13-2.00-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(1)	DC	AE(2)	APMX	CICT(3)	OAL	DCONMS	DHUB	RMPX°(4)	MDN(5)	MDX(6)	Arbor	MIID(7)	TQ(8)	Lbs
FFV D2.0-05-.75-R-VN07	2.000	1.417	.295	.0590	5	2.000	.750	1.850	3.1	3.417	3.961	A	FF VNMT 0706ZN-ER	46.00	1.01
FFV D2.5-06-1.0-R-VN07	2.500	1.890	.295	.0590	6	1.750	1.000	2.252	2.2	4.390	4.961	A	FF VNMT 0706ZN-ER	46.00	1.35
FFV D3.0-07-1.0-R-VN07	3.000	2.402	.295	.0590	7	2.000	1.000	2.252	1.5	5.402	5.961	B	FF VNMT 0706ZN-ER	46.00	1.63
FFV D4.0-08-1.5-R-VN07	4.000	3.386	.295	.0590	8	2.000	1.500	3.228	1.2	7.386	7.961	B	FF VNMT 0706ZN-ER	46.00	3.43

- Radius for programming .110" • 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) Maximum ramping angle
(5) Machinable diameter minimum for interpolation
(6) Machinable diameter maximum for interpolation
(7) Master insert identification
(8) Recommended tightening torque (lbf*in) for insert screw

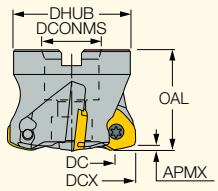
For inserts, see pages: FF VNMT 0706 (568)
For holders, see pages: BT-FC-SEM-C (715) • BT-SEM (713) • C#-SEM-C (689) • CAT-FC-SEM-C (622) • CAT-SEM (620) • CAT-SEM-C (621) • HSK A-SEM (663) • HSK A-SEM-C (669) • HSK E-SEM (662) • HSK FM-SEM (666)

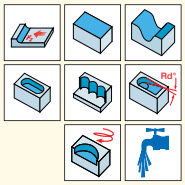
Spare Parts

Designation				
FFV D2.0-05-.75-R-VN07	SR M4X0.7-L11.5 IP15	BLD IP15/S7	SW6-T-SH	SR UNF 3/8X1 B18.3
FFV D2.5-06-1.0-R-VN07	SR M4X0.7-L11.5 IP15	BLD IP15/S7	SW6-T-SH	SR UNF 1/2X20X1 B18.3
FFV D3.0-07-1.0-R-VN07	SR M4X0.7-L11.5 IP15	BLD IP15/S7	SW6-T-SH	
FFV D4.0-08-1.5-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)	Lbs
FF FW D2.00-.75-09-C	2.000	1.180	.079	4	1.570	1.772	.750	1.5	A	.57
FF FW D2.50-1.00-09-C	2.500	1.680	.079	5	1.750	2.402	1.000	1.0	A	1.26
FF FW D3.00-1.25-09-C	3.000	2.180	.079	5	1.750	2.953	1.250	.5	A	1.78
FF FW D4.00-1.50-09-C	4.000	3.180	.079	6	2.000	3.110	1.500	1.5	B	2.73

• For user guide see pages 596-591 • The CP (Coarse Pitch) tools were designed to run .098 IPT at .08" DOC, while the regular pitch cutter run at .138 IPT at .04" DOC.

(1) Cutting diameter maximum

(2) Number of inserts

(3) Maximum ramping angle

(4) For adaptation see page

For inserts, see pages: FF WOCT/WOMT/WOMW (563)

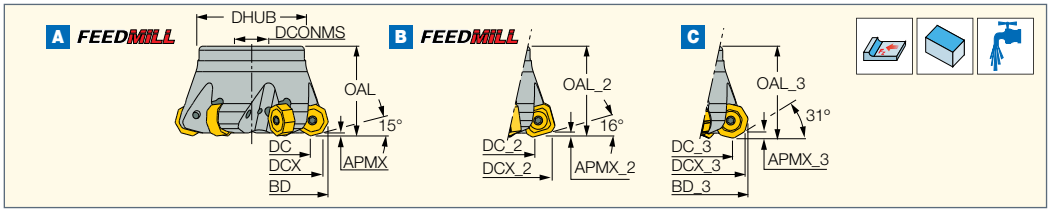
Spare Parts

Designation				
FF FW D2.00-.75-09-C	SR 34-535	BLD T15/S7	SW6-T	SR UNF 3/8X1 B18.3
FF FW D2.50-1.00-09-C	SR 34-535	BLD T15/S7	SW6-T	SR UNF 1/2X1¼ B18.3
FF FW D3.00-1.25-09-C	SR 34-535	BLD T15/S7	SW6-T	SR UNF 5/8X1 B18.3
FF FW D4.00-1.50-09-C	SR 34-535	BLD T15/M7	SW6-T	

HELIDO 800 LINE

FF SOF

Multifunction Fast Feed Milling Cutter for Octagonal and Square Insert Shapes with Various Entry Angles



Designation	DCX(1)	BD	DC	APMX	OAL	DC_2	DCX_2	APMX_2	OAL_2	DC_3	DCX_3
FF SOF 8/16 D2.5-06-1.00R	2.500	2.711	2.092	.047	1.750	1.969	2.743	.087	1.768	2.248	2.650
FF SOF 8/16 D3.0-07-1.00R	3.000	3.211	2.592	.047	1.750	2.469	3.243	.087	1.768	2.748	3.150

Designation	BD_3	APMX_3	OAL_3	CICT(2)	DCONMS	DHUB	Arbor(3)	lbs
FF SOF 8/16 D2.5-06-1.00R	2.791	.106	1.785	6	1.000	2.220	B	1.27
FF SOF 8/16 D3.0-07-1.00R	3.291	.106	1.785	7	1.000	2.220	B	1.76

• A- with ONMU 0505... insert • B- with S845 SNMU 1305... insert • C- with OXMT 0507R08-FF insert • Use only Torx Plus keys

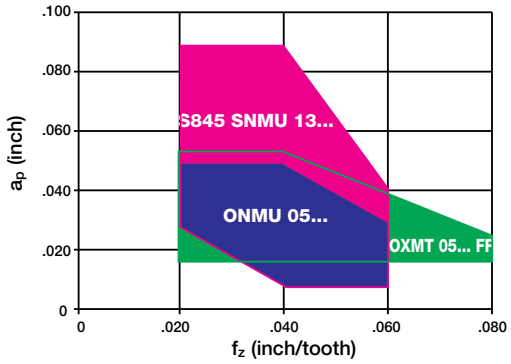
(1) Cutting diameter maximum

(2) Number of inserts

(3) For adaptation options, see page 592

For inserts, see pages: ONHU/ONMU-05 (545) • OXMT 0507 (546) • S845 SNMU/SNHU-13 (541)

Application Range According to Insert Type



Material: SAE 4340
a_e: 0.7xD
V_c: 500-560 SFM

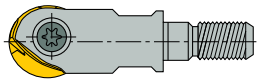
Spare Parts

Designation				
FF SOF	SR 11800745	BLD IP15/S7	SW6-T-SH	SR UNF 1/2X20X1 B18.3

FLEXFIT

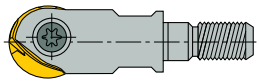
Milling Heads

M12



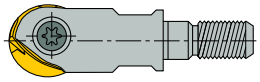
D20/.75

M12



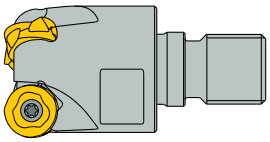
D25/1.00

M16



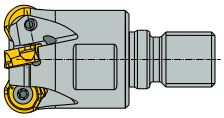
D25/1.00

M16



ERCM D32/1.25

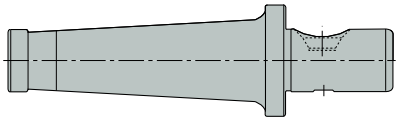
M16



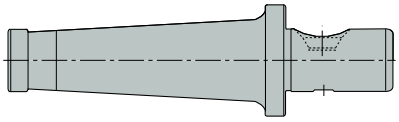
ERCM D40/1.50

Extensions

M12...CF4

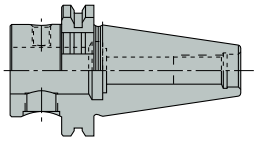


M16...CF4



CLICKFIT

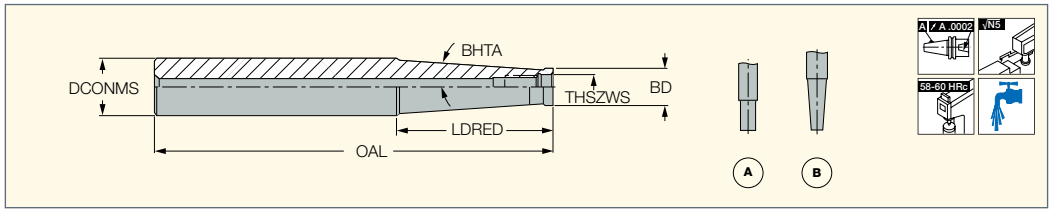
Adapter



Straight Shank

FLEXFIT

S M
Shanks for Tools with FLEXFIT Threaded Connection



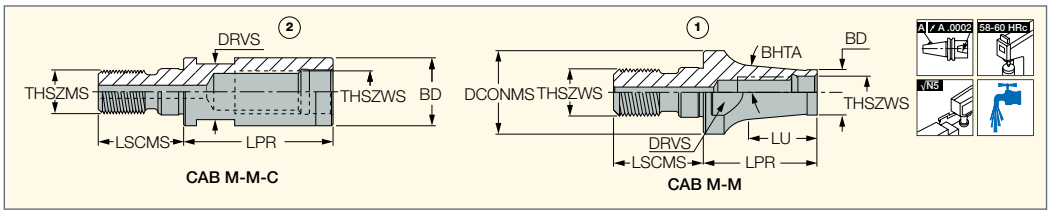
Designation	THSZWS	DCONMS	BD	OAL	LDRED	Shank[1]	BHTA	Type	Lbs
S M08 L3.00 C.62	M08	.620	.512	3.000	.98	C	-	A	.20
S M08-L5.0-W.625	M08	.625	.512	5.000	3.15	W	1.00	B	.49
S M08-L6.50-C.75	M08	.750	.512	6.500	2.63	C	3.10	B	.66
S M10-L3.00 C.75	M10	.750	.709	3.000	1.18	C	-	A	.30
S M10-L5.0-W.750	M10	.750	.709	5.000	3.15	W	.20	B	.49
S M10-L8.00-C1.00	M10	1.000	.709	8.000	2.25	C	3.60	B	1.54
S M12-L3.5-W1.00	M12	1.000	.827	3.500	1.18	W	4.80	B	.61
S M12-L8.00-C1.25	M12	1.250	.827	8.000	3.07	C	4.30	B	2.21
S M16-L4.0-W1.25	M16	1.250	1.142	4.000	1.38	W	1.70	B	1.12
S M16-L9.00-C1.25	M16	1.250	1.142	9.000	1.97	C	1.60	B	2.87

(1) C-Cylindrical, W-Weldon

For tools, see pages: BLP-M (308)

FLEXFIT

CAB M-M (FLEXFIT)
Reducers and Extensions with Coolant Holes for the Modular FLEXFIT System

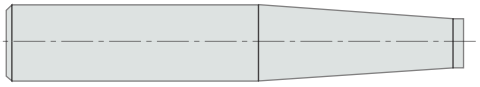


Designation	THSZWS	THSZMS	BD	LPR	LU	DCONMS	LSCMS	DRVS[1]	Fig.	BHTA	Lbs
CAB M06M08	M06	M08	.382	1.181	.976	.512	.689	.374	1.	5.70	.04
CAB M08M08-C	M08	M08	.512	1.181	-	-	.689	.378	2.	-	.04
CAB M08M10	M08	M10	.512	1.575	1.315	.709	.795	.591	1.	5.20	.15
CAB M10M10-C	M10	M10	.709	1.378	-	-	.787	.591	2.	-	.13
CAB M10M12	M10	M12	.709	1.772	1.433	.827	.866	.669	1.	2.50	.20
CAB M12M12-C	M12	M12	.827	1.575	-	-	.866	.669	2.	-	.18
CAB M12M16	M12	M16	.827	1.969	1.673	1.142	.984	.984	1.	6.30	.39
CAB M16M16-C	M16	M16	1.142	1.575	-	-	.984	.984	2.	-	.35

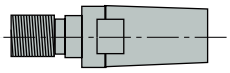
(1) Clamping wrench size

For tools, see pages: BLP-M (308)

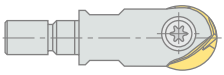
SHANK



CAB...



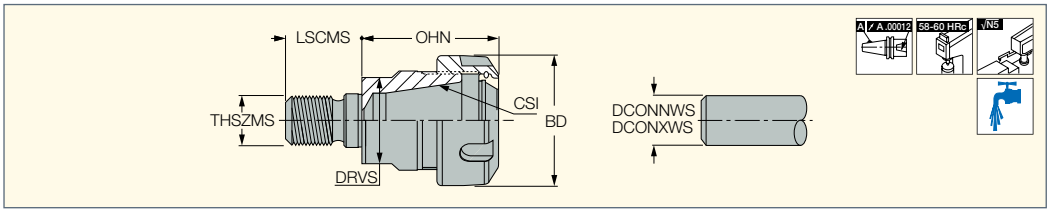
HCM-M



FLEXFIT

CDP ER-M

DIN 6499 ER Collet Chucks with Threaded FLEXFIT Adaptations

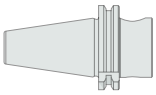


Designation	CSI	THSZMS	DCONNWS(1)	DCONXWS(2)	OHN(3)	LSCMS	BD	DRVS(4)	TQ_3(5)	kg
M E T R I C										
CDP ER11 M10 M	ER11	M10	0.5	7.0	27.0	20.00	16.00	15.0	29	0.03
CDP ER11 M12 M	ER11	M12	0.5	7.0	27.0	22.00	16.00	17.0	33	0.04
CDP ER16 M10 M	ER16	M10	0.5	10.0	38.1	20.00	22.00	17.0	29	0.05
CDP ER16 M12 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

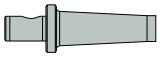
- When mounting items with FLEXFIT threaded adaptation to their holders, the mating surfaces and threaded areas must be thoroughly cleaned. Apply appropriate tightening torque to eliminate a gap between the mating faces. Estimated torque values are specified in the TQ_3 parameter

(1) Minimum diameter
(2) Maximum diameter
(3) Minimum overhang
(4) Torque key size
(5) Tool tightening torque Nxm (lbfxin)

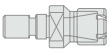
SHANK



SM...CF4



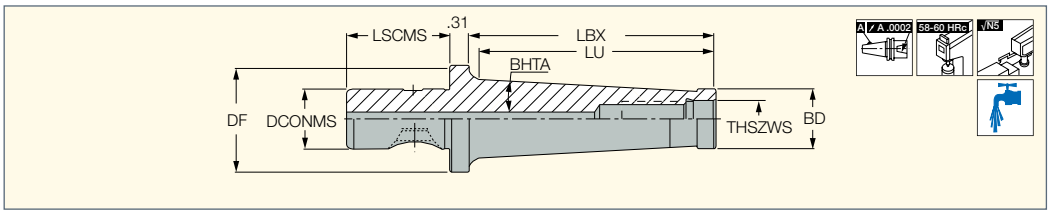
CDP...



CLICKFIT FLEXFIT

S M-CF

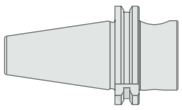
CLICKFIT to FLEXFIT Adapters



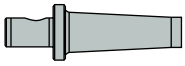
Designation	THSZWS	BD	LBX	LU	DF	LSCMS	BHTA	DCONMS	Lbs
S M12-L85/3.30-CF4	M12	.827	3.35	3.201	1.732	1.654	4.40	.984	.51
S M12-L140/5.50-CF4	M12	.827	5.51	5.476	1.732	1.654	4.40	.984	2.16
S M16-L130/5.11-CF4	M16	1.142	5.12	4.992	1.732	1.654	2.60	.984	.51
S M16-L170/6.70-CF4	M16	1.142	6.69	6.638	1.732	1.654	2.00	.984	2.87

For tools, see pages: BLP-M (308)

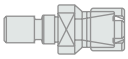
SHANK



SM...CF4

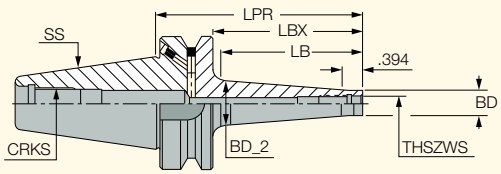


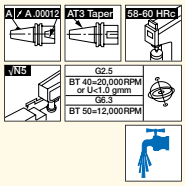
CDP...



BT MAS FLEXFIT

BT-ODP (FLEXFIT)
FLEXFIT Threaded Adaptation with Integral BT MAS-403 Tapered Shanks (ADB type)





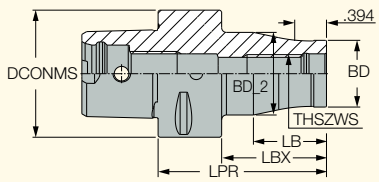
Designation	SS	THSZWS	BD	BD_2	LPR	LBX	LB	CRKS	CDI(1)	Lbs
BT40 ODP 6X 66	40	M06	.386	.512	2.598	1.535	1.181	M16	0	2.16
BT40 ODP 6X106	40	M06	.386	.906	4.173	3.110	2.756	M16	0	.31
BT40 ODP 8X 66	40	M08	.512	.591	2.598	1.181	1.181	M16	0	2.18
BT40 ODP10X 66	40	M10	.709	.787	2.598	1.181	1.181	M16	0	2.27
BT40 ODP10X106	40	M10	.709	1.102	4.173	3.110	2.756	M16	0	2.74
BT40 ODP12X 66	40	M12	.827	.945	2.598	1.535	1.181	M16	0	2.32
BT40 ODP12X106	40	M12	.827	1.220	4.173	3.110	2.756	M16	0	2.71
BT40 ODP16X 66	40	M16	1.142	1.126	2.598	1.535	1.378	M16	0	2.35
BT40 ODP16X106	40	M16	1.142	1.339	4.173	3.110	2.756	M16	0	2.91
BT50 ODP 12X 94	50	M12	.906	1.181	3.701	2.205	1.968	M24	0	8.48
BT50 ODP 12X144	50	M12	.906	1.575	5.669	4.173	3.937	M24	0	9.43
BT50 ODP 12X194	50	M12	.906	1.575	7.638	6.142	5.906	M24	0	10.08
BT50 ODP 16X 94	50	M16	1.142	1.339	3.701	2.205	1.968	M24	0	8.26
BT50 ODP 16X144	50	M16	1.142	1.575	5.669	4.173	3.937	M24	0	9.23
BT50 ODP 16X194	50	M16	1.142	2.165	7.638	6.142	5.906	M24	0	11.55
BT50 ODP 16X244	50	M16	1.142	2.362	9.606	8.110	7.874	M24	0	12.35

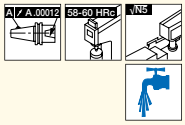
- The coolant passages in the B-type flange are blocked with screws which can be removed when required.

(1) 1 - Slot for data chip, 0 - Without slot for data chip

FLEXFIT CAMFIX

C#-ODP (FLEXFIT)
FLEXFIT Threaded Connection Shanks with CAMFIX (ISO 26623-1) Adaptation





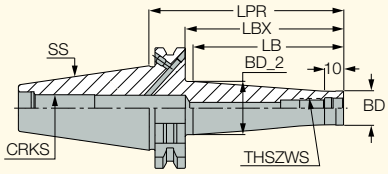
Designation	DCONMS	THSZWS	BD	BD_2	LPR	LBX	LB	CDI(1)	Lbs		
C3 ODP 12X53	1.260	M12	.827	1.024	2.087	1.496	.906	0	.71		
C4 ODP 10X53	1.575	M10	.709	.906	2.087	1.299	.906	1	.74	COOLING TUBE C4*	WRENCH COOL TUBE C4*
C4 ODP 12X53	1.575	M12	.827	1.024	2.087	1.299	.906	1	.74	COOLING TUBE C4*	WRENCH COOL TUBE C4*
C4 ODP 16X53	1.575	M16	1.142	1.339	2.087	1.299	.906	1	.89	COOLING TUBE C4*	WRENCH COOL TUBE C4*
C5 ODP 10X53	1.968	M10	.709	.768	2.087	1.299	.984	1	1.07	COOLING TUBE C5*	WRENCH COOL TUBE C5*
C5 ODP 12X103	1.968	M12	.827	1.220	4.055	3.268	2.953	1	1.59	COOLING TUBE C5*	WRENCH COOL TUBE C5*
C5 ODP 12X53	1.968	M12	.827	.925	2.087	1.299	.984	1	1.10	COOLING TUBE C5*	WRENCH COOL TUBE C5*
C5 ODP 16X103	1.968	M16	1.142	1.417	4.055	3.268	2.953	1	1.88	COOLING TUBE C5*	WRENCH COOL TUBE C5*
C5 ODP 16X53	1.968	M16	1.142	1.339	2.087	1.299	.984	1	1.43	COOLING TUBE C5*	WRENCH COOL TUBE C5*
C6 ODP 10X105	2.480	M10	.709	1.102	4.134	3.268	2.953	1	2.21	COOLING TUBE C6*	WRENCH COOL TUBE C6*
C6 ODP 10X130	2.480	M10	.709	1.260	5.118	4.252	3.937	1	.00	COOLING TUBE C6*	WRENCH COOL TUBE C6*
C6 ODP 10X55	2.480	M10	.709	.768	2.165	1.299	.984	1	1.82	COOLING TUBE C6*	WRENCH COOL TUBE C6*
C6 ODP 12X105	2.480	M12	.827	1.220	4.134	3.268	2.953	1	2.35	COOLING TUBE C6*	WRENCH COOL TUBE C6*
C6 ODP 12X130	2.480	M12	.827	1.417	5.118	4.252	3.937	1	2.78	COOLING TUBE C6*	WRENCH COOL TUBE C6*
C6 ODP 12X55	2.480	M12	.827	.925	2.165	1.299	.984	1	1.85	COOLING TUBE C6*	WRENCH COOL TUBE C6*
C6 ODP 16X105	2.480	M16	1.142	1.339	4.134	3.268	2.953	1	2.65	COOLING TUBE C6*	WRENCH COOL TUBE C6*
C6 ODP 16X130	2.480	M16	1.142	1.614	5.118	4.252	3.937	1	3.29	COOLING TUBE C6*	WRENCH COOL TUBE C6*
C6 ODP 16X55	2.480	M16	1.142	1.339	2.165	1.299	.984	1	1.97	COOLING TUBE C6*	WRENCH COOL TUBE C6*

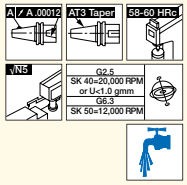
(1) 1 - Slot for data chip, 0 - Without slot for data chip

* Optional, to be ordered separately

DIN69871 FLEXFIT

DIN69871-ODP
FLEXFIT Threaded Connection Shanks with Integral DIN 69871 Form ADB Taper Adaptation





M E T R I C

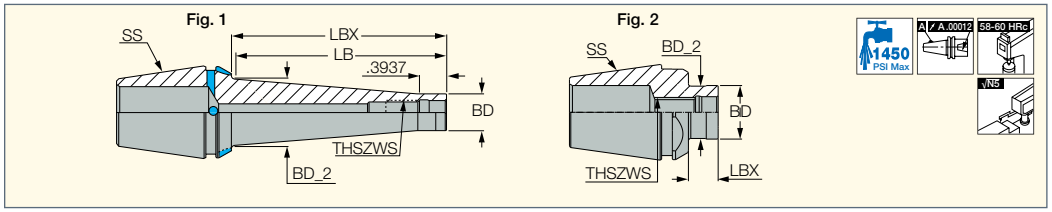
Designation	SS	THSZWS	BD	BD_2	LPR	LBX	LB	CRKS	CDI[1]	kg
DIN69871 40 ODP 6X58	40	M06	9.80	13.00	58.00	38.9	30.00	M16	0	0.82
DIN69871 40 ODP 6X98	40	M06	9.80	23.00	98.00	78.9	70.00	M16	0	0.91
DIN69871 40 ODP 8X58	40	M08	13.10	15.00	58.00	38.9	30.00	M16	0	0.82
DIN69871 40 ODP 8X98	40	M08	13.10	23.00	98.00	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 - Slot for data chip, 0 - Without slot for data chip

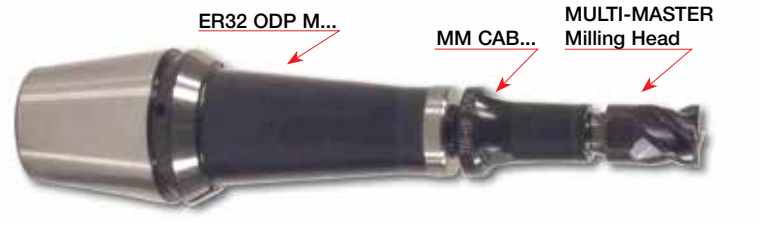
ERCOLLET

FLEXFIT

ER-ODP
FLEXFIT Threaded Adaptation
with Integral ER Collet
for ER Collet Chucks



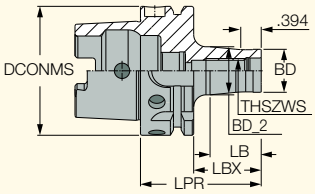
Designation	SS	THSZWS	LB	LBX	BD	BD_2	Fig.	Lbs
ER16 ODP M08X02	ER16	M08	.098	.098	.472	.472	2	.09
ER16 ODP M08X10	ER16	M08	.413	.413	.472	.472	2	.10
ER20 ODP M08X02	ER20	M08	.079	.079	.512	.512	2	.11
ER20 ODP M08X10	ER20	M08	.394	.394	.512	.496	2	.11
ER25 ODP M08X02	ER25	M08	.079	.079	.512	.512	2	.11
ER25 ODP M08X10	ER25	M08	.394	.394	.512	.496	2	.20
ER25 ODP M10X02	ER25	M10	.079	.079	.709	.709	2	.11
ER25 ODP M10X25	ER25	M10	.906	.984	.709	.693	1	.24
ER25 ODP M12X02	ER25	M12	.106	.106	.811	.756	2	.17
ER25 ODP M12X10	ER25	M12	.394	.394	.787	.787	2	.22
ER32 ODP M08X25	ER32	M08	.866	.984	.516	.591	1	.33
ER32 ODP M08X50	ER32	M08	1.929	1.968	.516	.906	1	.46
ER32 ODP M08X75	ER32	M08	2.913	2.953	.516	.906	1	.57
ER32 ODP M08X02	ER32	M08	.079	.079	.512	.512	2	.33
ER32 ODP M08X10	ER32	M08	.394	.394	.512	.496	2	.31
ER32 ODP M10X02	ER32	M10	.079	.079	.709	.709	2	.32
ER32 ODP M10X10	ER32	M10	.394	.394	.709	.693	2	.33
ER32 ODP M10X25	ER32	M10	.906	.984	.709	.787	1	.37
ER32 ODP M10X50	ER32	M10	1.929	1.968	.709	.945	1	.53
ER32 ODP M12X02	ER32	M12	.079	.079	.827	.827	2	.32
ER32 ODP M12X10	ER32	M12	.394	.394	.827	.811	2	.38
ER32 ODP M12X25	ER32	M12	.945	.984	.827	.945	1	.40
ER32 ODP M12X50	ER32	M12	1.929	1.968	.827	.945	1	.57
ER32 ODP M16X02	ER32	M16	.098	.098	1.063	1.063	2	.33
ER32 ODP M16X10	ER32	M16	.413	.413	1.063	1.063	2	.40
ER32 ODP M16X25	ER32	M16	1.004	1.004	1.063	1.063	2	.44

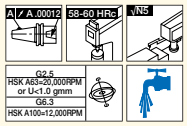


FLEXFIT HSK

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)	Lbs		
HSK A32 ODP12X42	1.260	M12	.827	.811	1.654	.866	-	1	.37	COOLING TUBE HSK A32*	WRENCH COOL TUBE HSK32*
HSK A50 ODP12X48	1.968	M12	.827	.811	1.890	.866	-	1	1.01	COOLING TUBE HSK A50*	WRENCH COOL TUBE HSK50*
HSK A63 ODP6X109	2.480	M06	.386	.906	4.291	3.268	2.953	1	1.63	COOLING TUBE HSK A63*	WRENCH COOL TUBE HSK63*
HSK A63 ODP8X109	2.480	M08	.516	.906	4.291	3.268	2.953	1	1.70	COOLING TUBE HSK A63*	WRENCH COOL TUBE HSK63*
HSK A63 ODP8X59	2.480	M08	.516	.591	2.323	1.299	.984	1	1.50	COOLING TUBE HSK A63*	WRENCH COOL TUBE HSK63*
HSK A63 ODP10X109	2.480	M10	.709	1.102	4.291	3.268	2.953	1	1.92	COOLING TUBE HSK A63*	WRENCH COOL TUBE HSK63*
HSK A63 ODP10X59	2.480	M10	.709	.787	2.323	1.299	.984	1	1.54	COOLING TUBE HSK A63*	WRENCH COOL TUBE HSK63*
HSK A63 ODP12X109	2.480	M12	.827	1.220	4.291	3.268	2.953	1	2.04	COOLING TUBE HSK A63*	WRENCH COOL TUBE HSK63*
HSK A63 ODP12X59	2.480	M12	.827	.925	2.323	1.299	.984	1	1.56	COOLING TUBE HSK A63*	WRENCH COOL TUBE HSK63*
HSK A63 ODP16X109	2.480	M16	1.142	1.339	4.291	3.268	2.953	1	2.32	COOLING TUBE HSK A63*	WRENCH COOL TUBE HSK63*
HSK A63 ODP16X59	2.480	M16	1.142	1.362	2.323	1.299	.984	1	1.74	COOLING TUBE HSK A63*	WRENCH COOL TUBE HSK63*
HSK A100 ODP12X137	3.937	M12	.906	1.181	5.394	4.252	3.937	1	5.69	COOLING TUBE HSK A100	WRENCH COOL TUBE HSK100
HSK A100 ODP12X187	3.937	M12	.906	1.575	7.362	6.220	5.906	1	6.31	COOLING TUBE HSK A100*	WRENCH COOL TUBE HSK100*
HSK A100 ODP12X237	3.937	M12	.906	1.811	9.331	8.189	7.874	1	7.50	COOLING TUBE HSK A100*	WRENCH COOL TUBE HSK100*
HSK A100 ODP12X87	3.937	M12	.906	1.181	3.425	2.283	1.968	1	4.91	COOLING TUBE HSK A100*	WRENCH COOL TUBE HSK100*
HSK A100 ODP16X137	3.937	M16	1.142	1.634	5.394	4.252	3.937	1	5.92	COOLING TUBE HSK A100*	WRENCH COOL TUBE HSK100*
HSK A100 ODP16X187	3.937	M16	1.142	2.165	7.362	6.220	5.906	1	7.89	COOLING TUBE HSK A100*	WRENCH COOL TUBE HSK100*
HSK A100 ODP16X237	3.937	M16	1.142	2.165	9.331	8.189	7.874	1	8.97	COOLING TUBE HSK A100*	WRENCH COOL TUBE HSK100*
HSK A100 ODP16X87	3.937	M16	1.142	1.240	3.425	2.283	1.968	1	4.85	COOLING TUBE HSK A100*	WRENCH COOL TUBE HSK100*

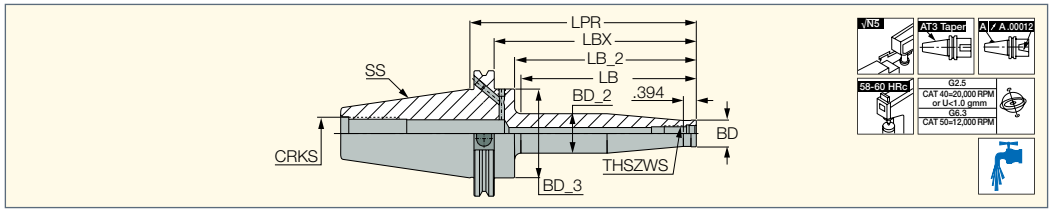
- A cooling tube must be used with all coolant through HSK spindles (to be ordered separately).

(1) 1 - Slot for data chip, 0 - Without slot for data chip

* Optional, to be ordered separately

CAT FLEXFIT

CAT-ODP (FLEXFIT)
FLEXFIT Threaded Adaptations with Integral Caterpillar Form ADB Tapered Shanks



Designation	SS	THSZWS	BD	BD_2	BD_3	LPR	LBX	LB	LB_2	CRKS	CDI[1]	Lbs
CAT40 ODP M 8X2.000	40	M08	.516	.580	-	2.000	.944	.944	-	5/8-11	0	1.83
CAT40 ODP M 8X4.000	40	M08	.516	.790	-	4.000	2.913	2.913	-	5/8-11	0	2.07
CAT40 ODP M10X2.000	40	M10	.709	.780	-	2.000	1.062	1.062	-	5/8-11	0	1.87
CAT40 ODP M10X4.000	40	M10	.709	.990	-	4.000	3.149	3.149	-	5/8-11	0	2.21
CAT40 ODP M12X4.000	40	M12	.827	1.110	-	4.000	3.149	3.149	-	5/8-11	0	2.30
CAT40 ODP M12X6.000	40	M12	.827	1.310	-	6.000	5.118	5.118	-	5/8-11	0	3.14
CAT40 ODP M16X4.000	40	M16	1.142	1.420	-	4.000	3.149	3.149	-	5/8-11	0	2.74
CAT40 ODP M16X6.000	40	M16	1.142	1.620	-	6.000	5.118	5.118	-	5/8-11	0	3.70
CAT50 ODP M10X3.000	50	M10	.709	.693	2.752	3.000	2.232	1.405	1.602	1-8	0	6.62
CAT50 ODP M10X7.000	50	M10	.709	1.102	2.752	7.000	6.232	5.405	5.602	1-8	0	7.65
CAT50 ODP M12X3.000	50	M12	.827	.811	2.752	3.000	2.232	1.405	1.602	1-8	0	6.66
CAT50 ODP M12X7.000	50	M12	.827	1.220	2.752	7.000	6.232	5.405	5.602	1-8	0	7.85
CAT50 ODP M16X3.000	50	M16	1.142	1.126	2.752	3.000	2.232	1.405	1.602	1-8	0	6.79
CAT50 ODP M16X7.000	50	M16	1.142	1.339	2.752	7.000	6.232	5.405	5.602	1-8	0	8.20

[1] 1 - Slot for data chip, 0 - Without slot for data chip

Spare Parts

Designation	
CAT-ODP (FLEXFIT)	SR M4X4 DIN913