

Complete Machining Solutions

Rotating Tool Lines

Milling • Hole Making • Tooling Systems

Metric Version Catalog 2017



INSERTS

TOOLS

GRADES

ENDMILLS &
SOLID MILLS

FACE
MILLS

PROFILING

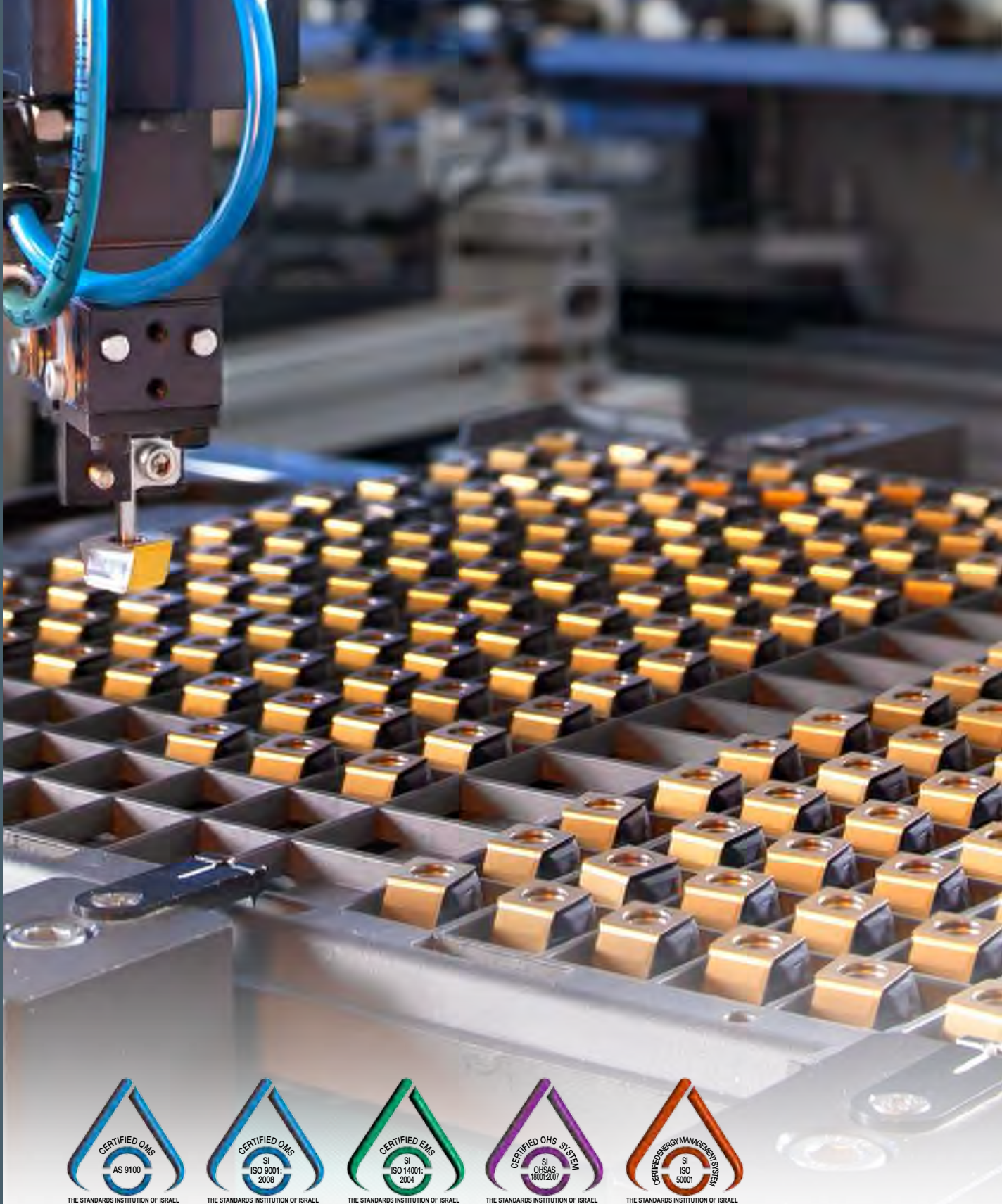
PLUNGING

SLOTING

THREAD
MILLING

HOLE
MAKING

TOOLING
SYSTEMS



Quality Standard

ISCAR has been certified by the prestigious Standards Institution, as being in full compliance to ensure delivery of the finest quality goods. Quality control facilities include the metallurgical laboratory, raw metal testing, an online testing procedure and a machining center for tool performance testing and final product inspection. Only the finest products are packaged for entry into ISCAR's inventory.

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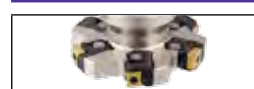
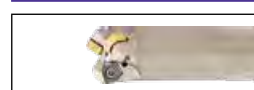
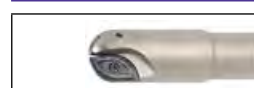
Complete Machining Solutions

MILLING TOOLS



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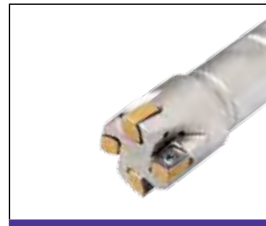
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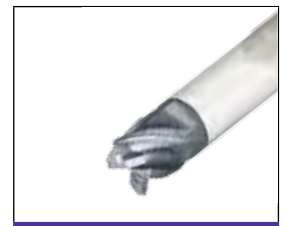
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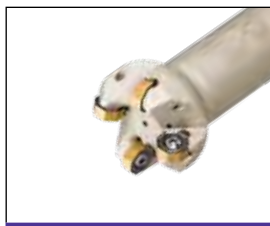
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REFERENCE



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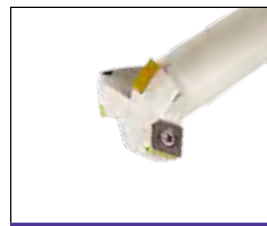
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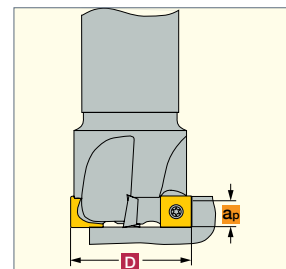
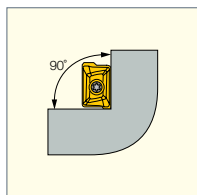
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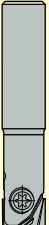
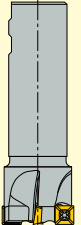
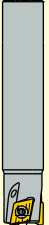
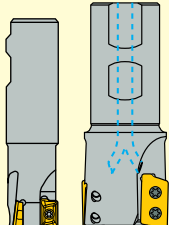
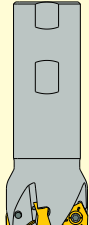
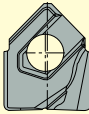
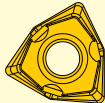


ISCARMILL

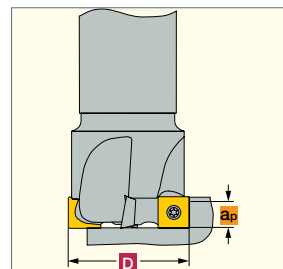
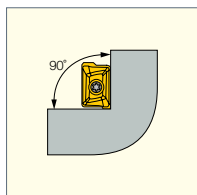
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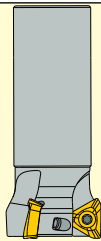
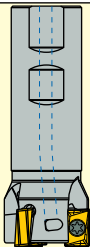
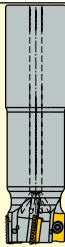
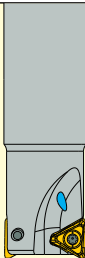
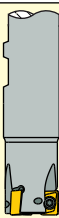
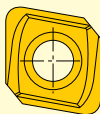
Endmills 90° Selection Guide



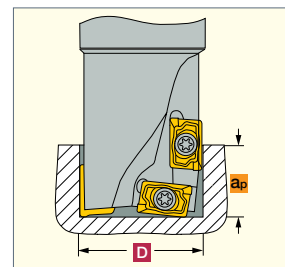
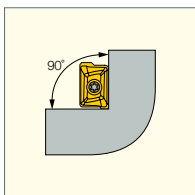
							
Tool	HCE HCE-MM	E90CN-M E90CN	E90SP E90X	T290 ELN-05 T290 ELN-MM-05 T290 ELN-10	HP E90AN-07 HP E90AN-M-07 HP E90AN-MM-07	HM90 E90A-10 HM90 E90A-CF-10 HM90 E90A-MM-10 HM90 E90A-M-10 HM90 E90AD-15 HM90 E90AD-CF-15 HM90 E90AD-M-15 3M E90AX HP E90AT-19 HP E90AT-22	H690 EWN
ap	8.1-14.7	5	5.8, 9.6	5, 10	7.7	10, 12.5, 18, 22	7
D							
8			•	•			
10			•	•	•	•	
12	•		•	•	•	•	
14			•	•	•	•	
16	•	•	•	•	•	•	
17						•	
18			•			•	
19						•	
20	•	•	•	•	•	•	
21						•	
22						•	
25	•	•	•	•	•	•	
28					•	•	
30						•	
32			•	•	•	•	•
38							
40			•	•		•	•
50						•	
63							
80							
Inserts			 SOMT 06... XOMT 06.. QOMT 06.. XPMT 10.. SPMT 10.. QPMT 10..	 T290 LNMT 05... T290 LNMT 1004	 HP ANKT 0702	 HM90 APKT 10 HM90 AD..15 3M AXKT 1304 HP AD..19 HP AD..22	 WNMU 0705
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Endmills 90° Selection Guide



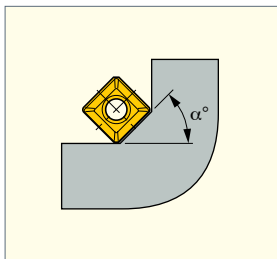
Tool					
	HM390 ETC-07 HM390 ETC-MM HM390 ETC-C#-07 HM390 E10-80-07 HM390 ETP-10 HM390 ETP-MM HM390 ETP-M HM390 ETP-C#-10 HM390 ETD-15 HM390 ETD-M HM390 ETD-19	H490 E90AX-09 H490 E90AX-M H490 E90AX-MM H490 E90AX-12 H490 E90AX-17 H490 E90AX-17-C#	P290 EPW P290 EPW-M	H690 E90AX-10	T490 ELN-08 T490 ELN-M T490 ELN-MM..-08 T490 ELN-11 T490 ELN-13 T490 ELN-13-C# T490 ELN-16
ap	5, 8, 13, 16	8, 12, 16.3	12, 18	8	8, 9, 12.5, 16
D					
8					
10					
12					
14	•				
16	•	•			•
17					
18	•	•			•
19					
20	•	•	•	•	•
21					
22	•	•			•
25	•	•	•	•	•
28	•				
30					
32	•	•	•	•	•
38					
40	•	•	•	•	•
50	•	•			•
63		•			
80		•			
Inserts	 HM390 TPKT 1003 HM390 TDKT 1505 HM390 TDKT 1907	 H490 ANKX 09 H490 ANKX 1205 H490 AN.. -17	 P290 ACKT 1204 P290 ACKT 1806	 H690 TNKX 1005	 T490 LN..0804 T490 LN..1106 T490 LN..1306 T490 LN..1607
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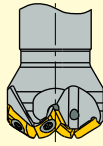
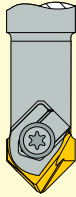
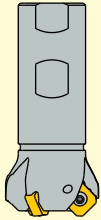
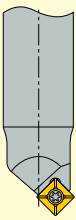
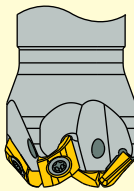
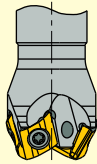
**Center Cutting
Endmills**



		
Tool	E90XC	E90AC
ap	5.8-38	10-38
D		
8		
10		
12	•	
14		
16	•	
17		
18		
19		
20	•	
21		
22		
25		•
28		
30		
32		•
38		•
40		
50		
63		
50		•
Inserts	 SOMT-HQ XOMT-HQ	 APKT 10.. ADKT 1505
Pages	29	29

Endmills 35°, 45°, 60° Selection Guide

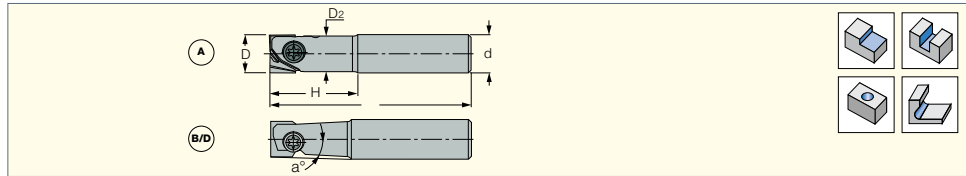


Tool						
	E30 / T230	HCM	SOE 45 8/16	E45X	E45 / T245	E60 / T260
ap	2.5; 7	5 - 12	3,5	4	3.6; 5.6; 7.8; 9.7	4.5; 12.3
D	$\alpha=30^\circ$	$\alpha=45^\circ$	$\alpha=45^\circ$	$\alpha=45^\circ$	$\alpha=45^\circ$	$\alpha=60^\circ$
Number of Teeth (Effective)						
6				1		
8				1		
12	4	2			1; 4	4
16	3	2			2	
20		2				
25		2	2			2
30					3	
32			3			
40			4			
Inserts						
	T290 LNMT 05...	HCD	S845 SNMU/SNHU	SOMT 06...	SCMT 12	T290 LNMT 05...
TPMT				XOMT 06...	SDMT 09	TPMT
	TPMT		1305 ONMU/ONHU 0505	QOMT 06...	T290 LNMT 05... TPMT	
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BALLPLUS

HCE

Multifunction Endmills Which Can Carry Several Insert Geometries

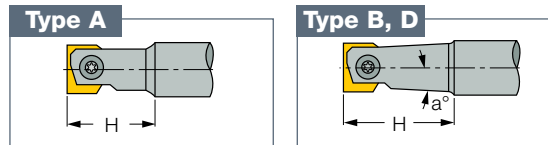


Designation	D	H	L	D ₂	d	Shank ⁽¹⁾	a°	Type	kg			
HCE D12-A-L120-C12	12.00	30.00	120.00	11.10	12.00	C	-	A	0.097	SR 34-540	BLD T15/S7	SW6-T
HCE D12-B-L160-C20	12.00	50.00	160.00	-	20.00	C	4.6	B	0.412	SR 34-540	BLD T15/S7	SW6-T
HCE D12-D-L160-C16	12.00	60.00	160.00	-	16.00	C	1.9	D	0.211	SR 34-540	BLD T15/S7	SW6-T
HCE D16-A-L130-C16	16.00	36.00	130.00	14.90	16.00	C	-	A	0.186	SR 105739	BLD T20/S7	SW6-T
HCE D16-B-L160-C25	16.00	60.00	160.00	-	25.00	C	4.3	B	0.605	SR 105739	BLD T20/S7	SW6-T
HCE D16-D-L160-C20	16.00	65.00	160.00	-	20.00	C	1.7	D	0.323	SR 105739	BLD T20/S7	SW6-T
HCE D20-A-L150-C20	20.00	60.00	150.00	18.80	20.00	C	-	A	0.327	SR 1052964	BLD T25/S7	SW6-T
HCE D20-D-L200-C25	20.00	90.00	200.00	-	25.00	C	1.6	D	0.745	SR 1052964	BLD T25/S7	SW6-T
HCE D25-A-L170-C25	25.00	70.00	170.00	23.00	25.00	C	-	A	0.568	SR 1051666	BLD T25/S7	SW6-T
HCE D25-D-L250-C32	25.00	125.00	250.00	-	32.00	C	1.6	D	1.200	SR 1051666	BLD T25/S7	SW6-T

• For undercutting, use HTR inserts only • The dimensions are for HCC inserts with r=0.5 mm • For user guide, see pages 461-468

⁽¹⁾ C-Cylindrical

For inserts, see pages: HCC-QF (454) • HTR-QF (454)

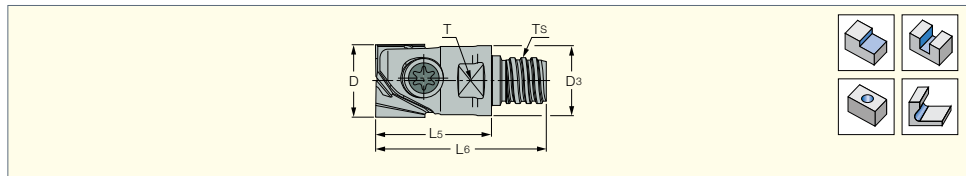


BALLPLUS

MULTI-MASTER

HCE-MM

Multifunction Endmills with a MULTI-MASTER Threaded Adaptation that Can Carry Several Insert Geometries



Designation	D	L ₆	L ₅	T _s	D ₃	T ⁽¹⁾	Nxcm	kg			
HCE D12/.50-MMT08	12.00	28.00	20.00	T08	11.50	10.0	1500	0.013	SR 34-540	BLD T15/S7	SW6-T
HCE D16/.62-MMT10	16.00	36.75	25.00	T10	15.20	13.0	2800	0.029	SR 105739	BLD T20/S7	SW6-T
HCE D20/.75-MMT12	20.00	48.80	35.00	T12	18.50	15.0	2800	0.059	SR 1052964	BLD T25/S7	SW6-T

• For undercutting, use HTR inserts only • The dimensions are for HCC inserts with r=0.5 mm • Do not apply lubricant to the MULTI-MASTER threaded connection • For adaptation options, see page 38 • For user guide, see pages 461-468

⁽¹⁾ Width across flats (wrench should be ordered separately).

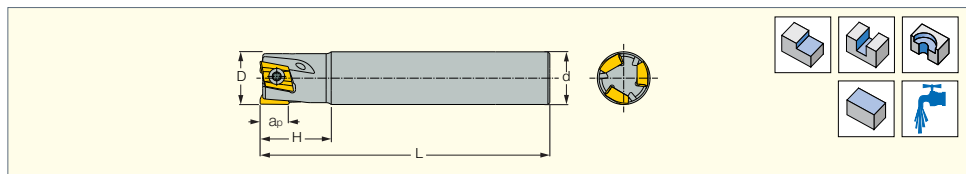
For inserts, see pages: HCC-QF (454) • HTR-QF (454)

For holders, see pages: MM CAB (69) • MM GRT (shanks) (65) • MM S-A (stepped shanks) (63) • MM S-A (straight shanks) (65) • MM S-A-C# (68) • MM S-A-HSK (68) • MM S-A-N (64) • MM S-A-SK (68) • MM S-B (85° conical shanks) (65) • MM S-D (89° conical shanks) (66) • MM S-ER (67) • MM S-ER-H (67) • MM TS-A (64)

SUMOMILL

T290 ELN-05

Endmills Carrying Tangentially Clamped Inserts



Designation	D	Z	L	H	a _p	d	Shank ⁽¹⁾	kg		
T290 ELN D08-01-C08-05	8.00	1	60.00	20.00	5.00	8.00	C	0.019	SR 10503833	T-7/51
T290 ELN D10-02-C10-05	10.00	2	80.00	20.00	5.00	10.00	C	0.038	SR 10503833-S	T-7/51
T290 ELN D12-02-C12-05	12.00	2	80.00	20.00	5.00	12.00	C	0.058	SR 10503833	T-7/51
T290 ELN D12-03-C12-05	12.00	3	80.00	20.00	5.00	12.00	C	0.058	SR 10503833	T-7/51
T290 ELN D14-03-C14-05	14.00	3	80.00	20.00	5.00	14.00	C	0.081	SR 10503833	T-7/51
T290 ELN D16-04-C16-05	16.00	4	80.00	22.00	5.00	16.00	C	0.103	SR 10503833	T-7/51
T290 ELN D16-05-C16-05	16.00	5	80.00	22.00	5.00	16.00	C	0.103	SR 10503833	T-7/51

• For user guide, see pages 461-468

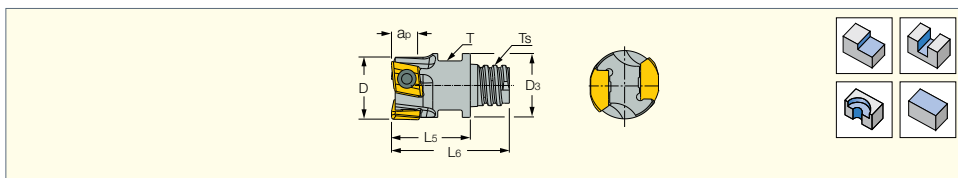
⁽¹⁾ C-Cylindrical

For inserts, see pages: T290 LNMT/LNHT 0502 (407)

SUMOMILL 290 LINE **MULTI-MASTER**

T290 ELN-MM-05

Endmills with a MULTI-MASTER
Adaptation Carrying Tangentially
Clamped Inserts



Designation	D	Z	ap	D3	Ts	L5	L6	T ⁽¹⁾	kg		
T290 ELN D10-02-MMT06-05	10.00	2	5.00	9.20	T06	13.40	20.00	8.0	0.006	SR 10503833-S	T-7/51
T290 ELN D12-03-MMT08-05	12.00	3	5.00	11.00	T08	16.00	24.00	10.0	0.011	SR 10503833	T-7/51
T290 ELN D14-03-MMT08-05	14.00	3	5.00	13.00	T08	16.06	24.00	10.0	0.015	SR 10503833	T-7/51
T290 ELN D16-04-MMT10-05	16.00	4	5.00	14.95	T10	19.25	31.00	13.0	0.027	SR 10503833	T-7/51

• Do not apply lubricant to the MULTI-MASTER threaded connection • For adaptation see page 38 • For user guide see pages 461-468

⁽¹⁾ Clamping wrench size

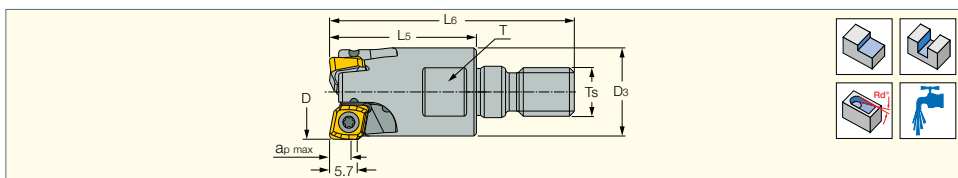
For inserts, see pages: T290 LNMT/LNHT 0502 (407)

For holders, see pages: MM CAB (69) • MM S-A (straight shanks) (65) • MM S-B (85° conical shanks) (65) • MM S-D (89° conical shanks) (66) • MM S-ER (67) • MM S-ER-H (67)

ISCARMILL FLEXFIT

E90CN-M

90° Endmills with a FLEXFIT
Threaded Connection Carrying
CNMT/HT 0703 Inserts



Designation	D	Z	ap max ⁽¹⁾	L5	L6	Ts	Rd°	D3	T ⁽²⁾	kg		
E90CN D16-2-M08-07-C	16.00	2	4.00	30.00	47.50	M08	5.0	13.00	13.0	0.028	SR 34-505/LHG	T-8/53
E90CN D20-3-M10-07-C	20.00	3	4.00	30.00	50.00	M10	3.5	18.00	16.0	0.051	SR 34-505/LHG	T-8/53
E90CN D25-4-M12-07-C	25.00	4	4.00	35.00	57.00	M12	2.5	21.00	17.0	0.088	SR 34-505/LHG	T-8/53

• For adaptation see page 38 • For user guide see pages 461-468

⁽¹⁾ Maximum recommended depth of cut for CNMT 070308-MM insert, apmax=2 mm for CNHT 070305 insert

⁽²⁾ Clamping wrench size

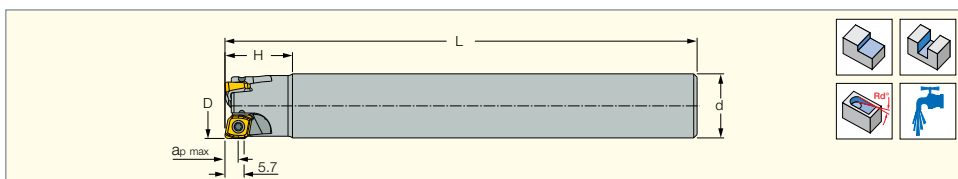
For inserts, see pages: CNHT/MT 07 (459)

For holders, see pages: BT-ODP (FLEXFIT) (248) • C#-ODP (FLEXFIT) (248) • CAB M-M (FLEXFIT) (245) • DIN69871-ODP (249) • ER-ODP (249) • HSK A-ODP (FLEXFIT) (250) • HSK E-ODP (FLEXFIT) (251) • RE MB-ODP (246) • S M (245) • S M-C-H (245) • S M-CF (246)

ISCARMILL

E90CN

90° Endmills Carrying
CNMT/HT 0703 Inserts



Designation	D	Z	ap max ⁽¹⁾	H	L	Rd°	d	kg		
E90CN D16-2-L100-C15-07-C	16.00	2	4.00	20.00	100.00	5.0	15.00	0.108	SR 34-505/LHG	T-8/53
E90CN D20-3-L140-C19-07-C	20.00	3	4.00	20.00	140.00	3.5	19.00	0.265	SR 34-505/LHG	T-8/53
E90CN D25-4-L160-C24-07-C	25.00	4	4.00	20.00	160.00	2.5	24.00	0.481	SR 34-505/LHG	T-8/53

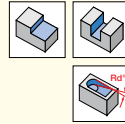
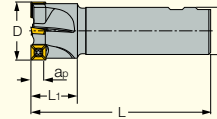
• For user guide see pages 461-468

⁽¹⁾ Maximum recommended depth of cut for CNMT 070308-MM insert, for CNHT 070305 insert apmax=2 mm

For inserts, see pages: CNHT/MT 07 (459)

E90X

Endmills Carrying Square
Q/S/XOMT Inserts



Designation	D	Z	ap	L ₁	L	d	Shank ⁽¹⁾	R _d °	kg		
E90X D08-C10-06	8.00	1	5.80	16.0	70.00	10.00	C	0.5	0.037	SR 34-508	T-7/51
E90X D08-W12-06	8.00	1	5.80	16.0	70.00	12.00	W	0.5	0.051	SR 34-508	T-7/51
E90X D10-C10-06	10.00	1	5.80	20.0	80.00	10.00	C	1.0	0.044	SR 34-508	T-7/51
E90X D10-W12-06	10.00	1	5.80	20.0	70.00	12.00	W	1.0	0.051	SR 34-508	T-7/51
E90X D12-C16-06	12.00	1	5.80	22.0	80.00	16.00	C	90.0	0.104	SR 34-508	T-7/51
E90X D12-W16-06	12.00	1	5.80	22.0	70.00	16.00	W	90.0	0.086	SR 34-508	T-7/51
E90X D14-C16-06	14.00	2	5.80	20.0	80.00	16.00	C	-	0.107	SR 34-508/L	T-7/51
E90X D14-W16-06	14.00	2	5.80	22.0	70.00	16.00	W	-	0.087	SR 34-508/L	T-7/51
E90X D16-C16-06	16.00	2	5.80	20.0	90.00	16.00	C	3.5	0.129	SR 34-508/L	T-7/51
E90X D16-W16-06	16.00	2	5.80	20.0	70.00	16.00	W	3.5	0.096	SR 34-508/L	T-7/51
E90X D18-W20-06	18.00	2	5.80	20.0	80.00	20.00	W	3.0	0.170	SR 34-508/L	T-7/51
E90X D20-C20-06	20.00	3	5.80	22.0	110.00	20.00	C	3.0	0.250	SR 34-508/L	T-7/51
E90X D20-W20-06	20.00	3	5.80	22.0	80.00	20.00	W	3.0	0.174	SR 34-508/L	T-7/51
E90X D25-C20-06	25.00	4	5.80	25.0	120.00	20.00	C	2.5	0.293	SR 34-508/L	T-7/51
E90X D25-W20-06	25.00	4	5.80	25.0	80.00	20.00	W	2.5	0.195	SR 34-508	T-7/51
E90X D32-W25-06	32.00	5	5.80	25.0	90.00	25.00	W	3.8	0.345	SR 34-508/L	T-7/51

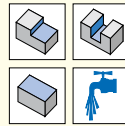
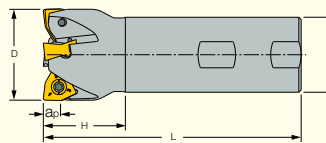
• For user guide see pages 461-468

⁽¹⁾ C-Cylindrical, W-Weldon

For inserts, see pages: QOMT-HQ (424) • SOMT-HQ (424) • XOMT-HQ (425)

H690 EWN

90° Endmills Carrying H690 WNMU
0705 Double-Sided Trigon Inserts
with 6 Helical Cutting Edges



Designation	D	Z	ap	L	H	d	Shank ⁽¹⁾	R _d °	kg		
H690 EWN D032-03-W32-R07	32.00	3	7.00	110.00	48.00	32.00	W	2.0	0.560	SR M4X0.7IP15	BLD IP15/S7 SW6-T-SH
H690 EWN D040-04-W32-R07	40.00	4	7.00	110.00	35.00	32.00	W	1.5	0.637	SR M4X0.7IP15	BLD IP15/S7 SW6-T-SH

• For user guide see pages 461-468

⁽¹⁾ W-Weldon

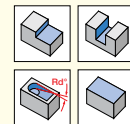
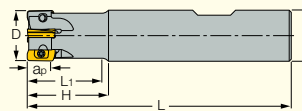
For inserts, see pages: H690 WNMU 0705 (402)

For holders, see pages: BT-EM (DIN 1835 Form B) (901) • BT-FC-EM (902) • C#-EM (886) • DIN2080-EM (915) • DIN69871-EM (DIN 6359-HB) (852) • EMH MB (756) • HSK A-EM (DIN 1835 Form B) (869)

HELIPLUS

HP E90AN-07

Endmills with HELIPLUS HP
ANKT 0702... Inserts



Designation	D	Z	H	L ₁	L	a _p	d	Shank ⁽²⁾	R _d °	R _d ° ₁ ⁽³⁾				
HP E90AN-D10-1-C10-07-C	10.00	1	20.00	18.0	80.00	7.70	10.00	C	2.5	-	Y	0.038	SR 34-533/L/HG	T-6/51
HP E90AN-D12-2-C12-07-C	12.00	2	18.00	16.5	80.00	7.70	12.00	C	2.7	3.5	Y	0.057	SR 34-533/L/HG	T-6/51
HP E90AN-D14-2-C14-07-C	14.00	2	18.00	16.5	80.00	7.70	14.00	C	3.2	4.2	Y	0.078	SR 34-533/L/HG	T-6/51
HP E90AN-D16-3-C15-07-C-B ⁽¹⁾	16.00	3	26.00	24.5	150.00	7.70	15.00	C	3.2	6.0	Y	0.168	SR 34-533/L/HG	T-6/51
HP E90AN-D16-3-C16-07-C	16.00	3	26.00	24.5	90.00	7.70	16.00	C	3.2	6.0	Y	0.110	SR 34-533/L/HG	T-6/51
HP E90AN-D16-3-W16-07	16.00	3	21.00	18.5	85.00	7.70	16.00	W	3.2	6.0	N	0.119	SR 34-533/L/HG	T-6/51
HP E90AN-D16-4-C16-07-C	16.00	4	26.00	24.5	90.00	7.70	16.00	C	3.2	6.0	Y	0.111	SR 34-533/L/HG	T-6/51
HP E90AN-D16-4-W16-07	16.00	4	20.00	18.5	85.00	7.70	16.00	W	3.2	6.0	N	0.119	SR 34-533/L/HG	T-6/51
HP E90AN-D20-4-C19-07-C-B ⁽¹⁾	20.00	4	22.00	20.5	160.00	7.70	19.00	C	2.4	4.5	Y	0.308	SR 34-533/L/HG	T-6/51
HP E90AN-D20-4-C20-07-C	20.00	4	22.00	20.5	110.00	7.70	20.00	C	2.4	4.5	Y	0.230	SR 34-533/L/HG	T-6/51
HP E90AN-D20-4-W20-07	20.00	4	22.00	20.5	90.00	7.70	20.00	W	2.4	4.5	N	0.199	SR 34-533/L/HG	T-6/51
HP E90AN-D20-5-C20-07-C	20.00	5	22.00	20.5	110.00	7.70	20.00	C	2.4	4.5	Y	0.230	SR 34-533/L/HG	T-6/51
HP E90AN-D20-5-W20-07	20.00	5	22.00	20.5	90.00	7.70	20.00	W	2.4	4.5	N	0.200	SR 34-533/L/HG	T-6/51
HP E90AN-D25-5-C20-07-C	25.00	5	24.00	-	120.00	7.70	20.00	C	2.0	3.0	Y	0.276	SR 34-533/L/HG	T-6/51
HP E90AN-D25-5-C24-07-C-B ⁽¹⁾	25.00	5	24.00	-	200.00	7.70	24.00	C	2.0	3.0	Y	0.610	SR 34-533/L/HG	T-6/51
HP E90AN-D25-5-W25-07	25.00	5	24.00	22.5	95.00	7.70	25.00	W	2.0	3.0	N	0.329	SR 34-533/L/HG	T-6/51
HP E90AN-D25-7-C20-07-C	25.00	7	24.00	-	120.00	7.70	20.00	C	2.0	3.0	Y	0.274	SR 34-533/L/HG	T-6/51
HP E90AN-D25-7-W25-07	25.00	7	24.00	22.5	95.00	7.70	25.00	W	2.0	3.0	N	0.332	SR 34-533/L/HG	T-6/51
HP E90AN-D32-6-C25-07-C	32.00	6	30.00	-	130.00	7.70	25.00	C	1.4	2.5	Y	0.474	SR 34-533/L/HG	T-6/51
HP E90AN-D32-6-W25-07	32.00	6	30.00	-	95.00	7.70	25.00	W	1.4	2.5	N	0.379	SR 34-533/L/HG	T-6/51
HP E90AN-D32-8-C25-07-C	32.00	8	30.00	-	130.00	7.70	25.00	C	1.4	2.5	Y	0.481	SR 34-533/L/HG	T-6/51
HP E90AN-D32-8-W25-07	32.00	8	30.00	-	95.00	7.70	25.00	W	1.4	2.5	N	0.389	SR 34-533/L/HG	T-6/51

• Insert tightening torque: 62 Nxcm • For user guide see pages 461-468

⁽¹⁾ "B" suffix - cylindrical shank which may be shortened.

⁽²⁾ C-Cylindrical, W-Weldon

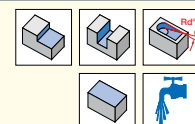
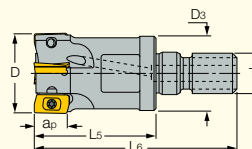
⁽³⁾ Values only for HP ANKT 0702R12T-FF insert

For inserts, see pages: HP ANCR 0702PNFR (380) • HP ANKT 0702...-FF (381) • HP ANKT/ANCT 0702..PN-R/PNTR (380) • HP ANKW 070204PNTR (380)

HELIPLUS FLEXFIT

HP E90AN-M-07

90° Endmills with a FLEXFIT
Threaded Adaptation Carrying
HELIPLUS HP ANKT 0702... Inserts



Designation	D	Z	Ts	L ₆	L ₅	a _p	D ₃	R _d °	R _d ° ₁ ⁽¹⁾			
HP E90AN-D12-2-M08	12.00	2	M08	35.50	18.00	7.70	13.00	2.7	3.5	0.013	SR 34-533/L/HG	T-6/51
HP E90AN-D16-3-M10	16.00	3	M10	48.00	28.00	7.70	18.00	3.2	6.0	0.038	SR 34-533/L/HG	T-6/51
HP E90AN-D20-4-M10	20.00	4	M10	50.00	30.00	7.70	18.00	2.4	4.5	0.055	SR 34-533/L/HG	T-6/51
HP E90AN-D25-5-M12	25.00	5	M12	57.00	35.00	7.70	21.00	2.0	3.0	0.090	SR 34-533/L/HG	T-6/51
HP E90AN-D32-6-M16	32.00	6	M16	60.00	35.00	7.70	29.00	1.4	2.5	0.169	SR 34-533/L/HG	T-6/51

• Insert tightening torque: 62 Nxcm • For adaptation see page 38 • For user guide see pages 461-468

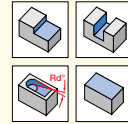
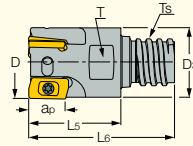
⁽¹⁾ Values only for HP ANKT 0702R12T-FF insert

For inserts, see pages: HP ANCR 0702PNFR (380) • HP ANKT 0702...-FF (381) • HP ANKT/ANCT 0702..PN-R/PNTR (380) • HP ANKW 070204PNTR (380)

For holders, see pages: BT-ODP (FLEXFIT) (248) • C#-ODP (FLEXFIT) (248) • CAB M-M (FLEXFIT) (245) • DIN69871-ODP (249) • ER-ODP (249) • HSK A-ODP (FLEXFIT) (250) • HSK E-ODP (FLEXFIT) (251) • RE MB-ODP (246) • S M (245) • S M-C-H (245) • S M-CF (246)

HP E90AN-MM-07

90° Endmills with a MULTI-MASTER
Threaded Adaptation Carrying
HELIPLUS HP ANKT 0702... Inserts



Designation	D	Z	L ₆	L ₅	a _p	T _s	D ₃	T ⁽¹⁾	R _d °	R _d ° ₁ (²)	kg		
HP E90AN-D10-1-MMT06	10.00	1	20.00	13.40	7.70	T06	8.93	8.0	2.5	-	0.006	SR 34-533/L/HG	T-6/51
HP E90AN-D12-2-MMT08	12.00	2	24.45	16.50	7.70	T08	10.60	10.0	2.7	3.5	0.011	SR 34-533/L/HG	T-6/51
HP E90AN-D16-3-MMT10	16.00	3	31.75	20.00	7.70	T10	14.95	13.0	3.2	6.0	0.027	SR 34-533/L/HG	T-6/51
HP E90AN-D16-4-MMT10	16.00	4	31.75	20.00	7.70	T10	14.95	13.0	3.2	6.0	0.026	SR 34-533/L/HG	T-6/51
HP E90AN-D20-4-MMT12	20.00	4	35.30	21.50	7.70	T12	18.40	16.0	2.4	4.5	0.046	SR 34-533/L/HG	T-6/51
HP E90AN-D20-5-MMT12	20.00	5	35.30	21.50	7.70	T12	18.40	16.0	2.4	4.5	0.046	SR 34-533/L/HG	T-6/51

• Do not apply lubricant to the MULTI-MASTER threaded connection • For adaptation see page 38 • For user guide see pages 461-468

(¹) Clamping wrench size

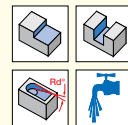
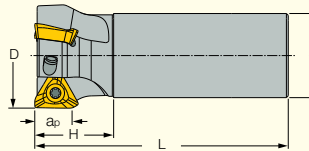
(²) Values only for HP ANKT 0702R12T-FF insert

For inserts, see pages: HP ANCR 0702PNFR (380) • HP ANKT 0702...-FF (381) • HP ANKT/ANCT 0702..PN-R/PNTR (380) • HP ANKW 070204PNTR (380)

For holders, see pages: MM CAB (69) • MM GRT (shanks) (65) • MM S-A (stepped shanks) (63) • MM S-A (straight shanks) (65) • MM S-A-C# (68) • MM S-A-HSK (68) • MM S-A-N (64) • MM S-A-SK (68) • MM S-B (85° conical shanks) (65) • MM S-D (89° conical shanks) (66) • MM S-ER (67) • MM S-ER-H (67) • MM TS-A (64)

HM390 ETC-07

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



Designation	D	a _p	Z	L	H	d	Shank ⁽¹⁾	R _d °	kg		
HM390 ETC D14-1-C16-07	14.00	5.00	1	80.00	21.00	16.00	C	1.9	0.100	SR M2.5X5-T7-60	T-7/51
HM390 ETC D14-1-W16-07	14.00	5.00	1	70.00	21.00	16.00	W	1.9	0.081	SR M2.5X5-T7-60	T-7/51
HM390 ETC D16-2-C15-07-B	16.00	5.00	2	150.00	26.00	15.00	C	1.9	0.170	SR M2.5X5-T7-60	T-7/51
HM390 ETC D16-2-C16-07	16.00	5.00	2	100.00	26.00	16.00	C	1.9	0.123	SR M2.5X5-T7-60	T-7/51
HM390 ETC D16-2-C16-07-B	16.00	5.00	2	150.00	40.00	16.00	C	1.9	0.190	SR M2.5X5-T7-60	T-7/51
HM390 ETC D16-2-W16-07	16.00	5.00	2	80.00	26.00	16.00	W	1.9	0.095	SR M2.5X5-T7-60	T-7/51
HM390 ETC D18-2-C16-07	18.00	5.00	2	100.00	30.00	16.00	C	1.4	0.125	SR M2.5X5-T7-60	T-7/51
HM390 ETC D18-2-C16-07-B	18.00	5.00	2	160.00	30.00	16.00	C	1.4	0.210	SR M2.5X5-T7-60	T-7/51
HM390 ETC D18-2-W20-07	20.00	5.00	2	85.00	30.00	20.00	W	1.4	0.160	SR M2.5X5-T7-60	T-7/51
HM390 ETC D20-3-C19-07-B	20.00	5.00	3	160.00	30.00	19.00	C	1.4	0.280	SR M2.5X5-T7-60	T-7/51
HM390 ETC D20-3-C20-07	20.00	5.00	3	110.00	30.00	20.00	C	1.4	0.210	SR M2.5X5-T7-60	T-7/51
HM390 ETC D20-3-C20-07-B	20.00	5.00	3	160.00	40.00	20.00	C	1.4	0.310	SR M2.5X5-T7-60	T-7/51
HM390 ETC D20-3-W20-07	20.00	5.00	3	85.00	30.00	20.00	W	1.4	0.157	SR M2.5X5-T7-60	T-7/51
HM390 ETC D22-3-C20-07	22.00	5.00	3	110.00	30.00	20.00	C	1.0	0.213	SR M2.5X5-T7-60	T-7/51
HM390 ETC D22-3-C20-07-B	22.00	5.00	3	180.00	30.00	20.00	C	1.0	0.370	SR M2.5X5-T7-60	T-7/51
HM390 ETC D22-3-W25-07	22.00	5.00	3	90.00	30.00	25.00	W	1.0	0.257	SR M2.5X5-T7-60	T-7/51
HM390 ETC D25-4-C25-07	25.00	5.00	4	120.00	35.00	25.00	C	1.0	0.363	SR M2.5X6-T7-60	T-7/51
HM390 ETC D25-4-W25-07	25.00	5.00	4	95.00	35.00	25.00	W	1.0	0.278	SR M2.5X6-T7-60	T-7/51
HM390 ETC D28-4-C25-07-B	28.00	5.00	4	200.00	35.00	25.00	C	2.5	0.640	SR M2.5X6-T7-60	T-7/51
HM390 ETC D28-5-C25-07	28.00	5.00	5	120.00	30.00	25.00	C	1.0	0.380	SR M2.5X6-T7-60	T-7/51
HM390 ETC D32-5-C32-07	32.00	5.00	5	130.00	45.00	32.00	C	0.8	0.675	SR M2.5X6-T7-60	T-7/51
HM390 ETC D32-5-W32-07	32.00	5.00	5	110.00	45.00	32.00	W	0.8	0.560	SR M2.5X6-T7-60	T-7/51

• Insert clamping screw must be lubricated every indexing. • Tightening torque 0.9 Nxm. • For user guide see pages 461-468

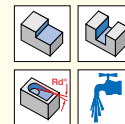
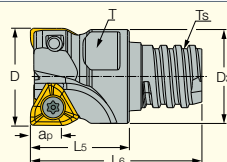
(¹) C-Cylindrical, W-Weldon

For inserts, see pages: HM390 TCKT 0703 (381)

HELI IQ MILL 390 LINE **MULTI-MASTER**

HM390 ETC-MM

90° Endmills with a MULTI-MASTER
Threaded Adaptation Carrying HM390
TCKT 0703 Triangular Inserts



Designation	D	ap	Z	L5	D3	Ts	L6	T ⁽¹⁾	Rd°	kg		
HM390 ETC D16-2-MMT10-07	16.00	5.00	2	16.00	15.20	T10	27.30	13.0	1.9	0.020	SR M2.5X5-T7-60	T-7/51
HM390 ETC D20-3-MMT12-07	20.00	5.00	3	20.00	18.30	T12	33.30	16.0	1.4	0.036	SR M2.5X5-T7-60	T-7/51
HM390 ETC D25-4-MMT15-07	25.00	5.00	4	25.00	23.90	T15	42.00	20.0	1.0	0.080	SR M2.5X6-T7-60	T-7/51

• Insert clamping screw must be lubricated every indexing. • Tightening torque 0.9 Nxm. • For adaptation see page 38 • For user guide see pages 461-468

⁽¹⁾ Clamping wrench size

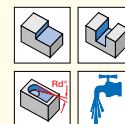
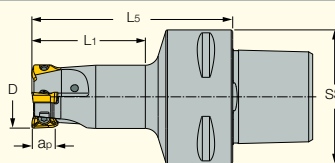
For inserts, see pages: HM390 TCKT 0703 (381)

For holders, see pages: MM S-A (stepped shanks) (63) • MM S-A (straight shanks) (65) • MM S-A-C# (68) • MM S-A-HSK (68) • MM S-A-N (64) • MM S-A-SK (68) • MM S-B (85° conical shanks) (65) • MM S-D (89° conical shanks) (66) • MM S-ER (67) • MM S-ER-H (67) • MM TS-A (64)

HELI IQ MILL CAMFIX 390 LINE

HM390 ETC-C#-07

90° Endmills with CAMFIX
Shanks Carrying HM390 TCKT
0703 Triangular Inserts



Designation	D	ap	L1	L5	SS	Z	Rd°	kg		
HM390 ETC D16-2-L24-C3-07	16.00	5.00	24.3	45.00	32	2	1.9	0.16	SR M2.5X5-T7-60	T-7/51
HM390 ETC D20-3-L34-C4-07	20.00	5.00	33.9	60.00	40	3	1.4	0.25	SR M2.5X5-T7-60	T-7/51

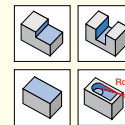
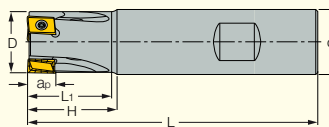
• Insert clamping screw must be lubricated every indexing. • Tightening torque 0.9 Nxm. • For user guide see pages 461-468

For inserts, see pages: HM390 TCKT 0703 (381)

HELI TANG T490 LINE

T490 ELN-08

90° Endmills Carrying Tangentially
Clamped Inserts with 4 Helical,
8 mm Long Cutting Edges



Designation	D	Z	H	L1	ap	L	d	Shank ⁽¹⁾	Rd° ⁽²⁾	kg		
T490 ELN D16-2-C15-08B	16.00	2	41.00	40.0	8.00	150.00	15.00	C	Y	2.0	0.178	SR 10502813-HGSM IP-7/51
T490 ELN D16-2-C16-08	16.00	2	28.00	26.0	8.00	90.00	16.00	C	N	2.0	0.129	SR 10502813-HGSM IP-7/51
T490 ELN D16-2-C16-08C	16.00	2	28.00	26.0	8.00	90.00	16.00	C	Y	2.0	0.117	SR 10502813-HGSM IP-7/51
T490 ELN D16-2-W16-08	16.00	2	28.00	26.0	8.00	85.00	16.00	W	N	2.0	0.120	SR 10502813-HGSM IP-7/51
T490 ELN D16-2-W16-08C	16.00	2	28.00	26.0	8.00	85.00	16.00	W	Y	2.0	0.109	SR 10502813-HGSM IP-7/51
T490 ELN D18-2-C20-08C	18.00	2	28.00	26.0	8.00	90.00	20.00	C	Y	1.8	0.183	SR 10502813-HGSM IP-7/51
T490 ELN D20-2-C19-08B	20.00	2	41.00	40.0	8.00	160.00	19.00	C	Y	1.7	0.310	SR 10502813-HG-M IP-7/51
T490 ELN D20-2-C20-08C	20.00	2	28.00	26.0	8.00	110.00	20.00	C	Y	1.7	0.232	SR 10502813-HG-M IP-7/51
T490 ELN D20-2-W20-08C	20.00	2	28.00	26.0	8.00	90.00	20.00	W	Y	1.7	0.184	SR 10502813-HG-M IP-7/51
T490 ELN D20-3-C20-08	20.00	3	28.00	26.0	8.00	110.00	20.00	C	N	1.7	0.250	SR 10502813-HG-M IP-7/51
T490 ELN D20-3-C20-08C	20.00	3	28.00	26.0	8.00	110.00	20.00	C	Y	1.7	0.230	SR 10502813-HG-M IP-7/51
T490 ELN D20-3-W20-08	20.00	3	28.00	26.0	8.00	90.00	20.00	W	N	1.7	0.200	SR 10502813-HG-M IP-7/51
T490 ELN D20-3-W20-08C	20.00	3	28.00	26.0	8.00	90.00	20.00	W	Y	1.7	0.183	SR 10502813-HG-M IP-7/51
T490 ELN D22-3-C20-08C	22.00	3	28.00	30.0	8.00	110.00	20.00	C	Y	-	0.240	SR 10502813-HG-M IP-7/51
T490 ELN D25-3-C24-08B	25.00	3	41.00	40.0	8.00	200.00	24.00	C	Y	-	0.613	SR 10502813-HG-M IP-7/51
T490 ELN D25-3-C25-08C	25.00	3	28.00	26.0	8.00	120.00	25.00	C	Y	-	0.391	SR 10502813-HG-M IP-7/51
T490 ELN D25-3-W25-08C	25.00	3	28.00	26.0	8.00	95.00	25.00	W	Y	-	0.296	SR 10502813-HG-M IP-7/51
T490 ELN D25-4-C25-08	25.00	4	28.00	26.0	8.00	120.00	25.00	C	N	-	0.431	SR 10502813-HG-M IP-7/51
T490 ELN D25-4-C25-08C	25.00	4	28.00	26.0	8.00	120.00	25.00	C	Y	-	0.392	SR 10502813-HG-M IP-7/51
T490 ELN D25-4-W25-08	25.00	4	28.00	26.0	8.00	95.00	25.00	W	N	-	0.332	SR 10502813-HG-M IP-7/51
T490 ELN D25-4-W25-08C	25.00	4	28.00	26.0	8.00	95.00	25.00	W	Y	-	0.301	SR 10502813-HG-M IP-7/51
T490 ELN D32-3-C32-08C	32.00	3	32.00	30.0	8.00	130.00	32.00	C	Y	-	0.724	SR 10502813-HG-M IP-7/51
T490 ELN D32-3-W32-08C	32.00	3	32.00	30.0	8.00	110.00	32.00	W	Y	-	0.601	SR 10502813-HG-M IP-7/51
T490 ELN D32-4-C32-08B	32.00	4	32.00	30.0	8.00	200.00	32.00	C	Y	-	1.136	SR 10502813-HG-M IP-7/51
T490 ELN D32-5-C32-08C	32.00	5	32.00	30.0	8.00	130.00	32.00	C	Y	-	0.728	SR 10502813-HG-M IP-7/51
T490 ELN D32-5-W32-08C	32.00	5	32.00	30.0	8.00	110.00	32.00	W	Y	-	0.601	SR 10502813-HG-M IP-7/51
T490 ELN D40-4-C32-08C	40.00	4	-	30.0	8.00	130.00	32.00	C	Y	-	0.809	SR 10502813-HG-M IP-7/51
T490 ELN D40-6-C32-08C	40.00	6	-	30.0	8.00	130.00	32.00	C	Y	-	0.819	SR 10502813-HG-M IP-7/51
T490 ELN D40-6-W32-08C	40.00	6	-	30.0	8.00	110.00	32.00	W	Y	-	0.694	SR 10502813-HG-M IP-7/51

• "B" suffix with long cylindrical shank which may be shortened. • For user guide, see pages 461-468

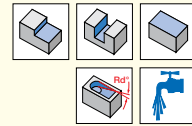
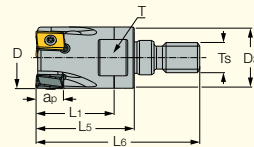
⁽¹⁾ C-Cylindrical, W-Weldon

⁽²⁾ Only with T490 LNMT 0804PNR-RD inserts

For inserts, see pages: T490 LNAR (410) • T490 LNMT/LNHT 0804 (408)

T490 ELN-M

90° Endmills with a FLEXFIT
Threaded Adaptation Carrying
Tangentially Clamped Inserts



Designation	D	Z	ap	D3	L1	L5	L6	Ts	T ⁽¹⁾	Rd° ⁽²⁾	Insert	kg			
T490 ELN D16-2-M10	16.00	2	8.00	18.00	22.0	30.00	50.00	M10	12.7	2.0	T490 LN.. 08 0.04 SR 10502813-HGSM	IP-7/51			
T490 ELN D20-3-M10	20.00	3	8.00	18.70	-	30.00	50.00	M10	15.0	1.7	T490 LN.. 08 0.06 SR 10502813-HG-M	IP-7/51			
T490 ELN D25-3-M12	25.00	3	8.00	21.00	-	28.00	50.00	M12	17.0	-	T490 LN.. 08 0.08 SR 10502813-HG-M	IP-7/51			
T490 ELN D25-4-M12	25.00	4	8.00	21.00	-	28.00	50.00	M12	17.0	-	T490 LN.. 08 0.08 SR 10502813-HG-M	IP-7/51			
T490 ELN D32-3-M16-13	32.00	3	12.50	29.00	-	45.00	70.00	M16	25.0	-	T490 LN.. 13 0.22 SR 34-535-X-HG	BLD T15/S7 SW6-T-SH			
T490 ELN D32-5-M16	32.00	5	8.00	29.00	-	30.00	55.00	M16	25.0	-	T490 LN.. 08 0.16 SR 10502813-HG-M	IP-7/51			

• For adaptation see page 38 • For user guide see pages 461-468

⁽¹⁾ Clamping wrench size

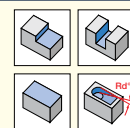
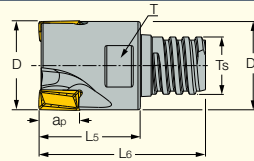
⁽²⁾ Only with T490 LNMT 0804PNR-RD inserts

For inserts, see pages: T490 LNAR (410) • T490 LNMT 1306PNTR-FW (410) • T490 LNMT/LNHT 0804 (408) • T490 LNMT/LNHT 1306 (409)

For holders, see pages: BT-ODP (FLEXFIT) (248) • C#-ODP (FLEXFIT) (248) • CAB M-M (FLEXFIT) (245) • DIN69871-ODP (249) • ER-ODP (249) • HSK A-ODP (FLEXFIT) (250) • HSK E-ODP (FLEXFIT) (251) • RE MB-ODP (246) • S M (245) • S M-C-H (245) • S M-CF (246)

MULTI-MASTER
T490 ELN-MM...08

90° Endmills with a MULTI-MASTER
Threaded Adaptation Carrying
Tangentially Clamped Inserts



Designation	D	Z	ap	D3	L5	L6	Ts	T ⁽¹⁾	Rd°	kg			
T490 ELN D16-2-MMT10	16.00	2	8.00	14.70	20.00	32.00	T10	13.0	2.0	0.027	SR 10502813-HGSM	IP-7/51	
T490 ELN D20-2-MMT12	20.00	2	8.00	18.70	21.50	35.00	T12	16.0	1.7	0.048	SR 10502813-HG-M	IP-7/51	
T490 ELN D20-3-MMT12	20.00	3	8.00	18.70	21.50	35.00	T12	16.0	1.7	0.048	SR 10502813-HG-M	IP-7/51	

• Do not apply lubricant to the MULTI-MASTER threaded connection • For adaptation see page 38 • For user guide see pages 461-468

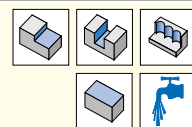
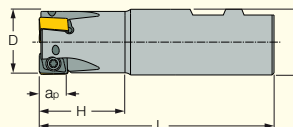
⁽¹⁾ Clamping wrench size

For inserts, see pages: T490 LNAR (410) • T490 LNMT/LNHT 0804 (408)

For holders, see pages: MM S-A (stepped shanks) (63) • MM S-A (straight shanks) (65) • MM S-A-C# (68) • MM S-A-HSK (68) • MM S-A-N (64) • MM S-A-SK (68) • MM S-B (85° conical shanks) (65) • MM S-D (89° conical shanks) (66) • MM S-ER (67) • MM S-ER-H (67) • MM TS-A (64)

H490 E90AX-09

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



Designation	D	Z	ap	L	H	d	Shank ⁽¹⁾	kg				
H490 E90AX D16-2-C15-09-B	16.00	2	8.00	150.00	40.00	15.00	C	0.178	SR 10508082-HG	SW4-SD	BLD T08/M7	
H490 E90AX D16-2-C16-09	16.00	2	8.00	90.00	26.00	16.00	C	0.116	SR 10508082-HG	SW4-SD	BLD T08/M7	
H490 E90AX D16-2-W16-09	16.00	2	8.00	85.00	26.00	16.00	W	0.108	SR 10508082-HG	SW4-SD	BLD T08/M7	
H490 E90AX D18-2-C16-09	18.00	2	8.00	90.00	25.00	16.00	C	0.123	SR 10508082-HG	SW4-SD	BLD T08/M7	
H490 E90AX D20-2-C19-09-B	20.00	2	8.00	160.00	40.00	19.00	C	0.309	SR 10508082-HG	SW4-SD	BLD T08/M7	
H490 E90AX D20-2-C20-09	20.00	2	8.00	110.00	26.00	20.00	C	0.229	SR 10508082-HG	SW4-SD	BLD T08/M7	
H490 E90AX D20-2-W20-09	20.00	2	8.00	90.00	26.00	20.00	W	0.184	SR 10508082-HG	SW4-SD	BLD T08/M7	
H490 E90AX D20-3-C20-09	20.00	3	8.00	110.00	26.00	20.00	C	0.230	SR 10508082-HG	SW4-SD	BLD T08/M7	
H490 E90AX D20-3-W20-09	20.00	3	8.00	90.00	26.00	20.00	W	0.183	SR 10508082-HG	SW4-SD	BLD T08/M7	
H490 E90AX D22-3-C20-09	22.00	3	8.00	115.00	25.00	20.00	C	0.247	SR 10508082-HG	SW4-SD	BLD T08/M7	
H490 E90AX D25-3-C24-09-B	25.00	3	8.00	200.00	40.00	24.00	C	0.610	SR 10508082-HG	SW4-SD	BLD T08/M7	
H490 E90AX D25-3-C25-09	25.00	3	8.00	120.00	26.00	25.00	C	0.387	SR 10508082-HG	SW4-SD	BLD T08/M7	
H490 E90AX D25-3-W25-09	25.00	3	8.00	95.00	26.00	25.00	W	0.296	SR 10508082-HG	SW4-SD	BLD T08/M7	
H490 E90AX D25-4-C25-09	25.00	4	8.00	120.00	26.00	25.00	C	0.383	SR 10508082-HG	SW4-SD	BLD T08/M7	
H490 E90AX D25-4-W25-09	25.00	4	8.00	95.00	26.00	25.00	W	0.297	SR 10508082-HG	SW4-SD	BLD T08/M7	
H490 E90AX D32-4-C31-09-B	32.00	4	8.00	200.00	40.00	31.00	C	1.067	SR 10508082-HG	SW4-SD	BLD T08/M7	
H490 E90AX D32-4-C32-09	32.00	4	8.00	130.00	30.00	32.00	C	0.720	SR 10508082-HG	SW4-SD	BLD T08/M7	
H490 E90AX D32-4-W32-09	32.00	4	8.00	110.00	30.00	32.00	W	0.598	SR 10508082-HG	SW4-SD	BLD T08/M7	
H490 E90AX D32-5-C32-09	32.00	5	8.00	130.00	30.00	32.00	C	0.723	SR 10508082-HG	SW4-SD	BLD T08/M7	
H490 E90AX D32-5-W32-09	32.00	5	8.00	110.00	30.00	32.00	W	0.599	SR 10508082-HG	SW4-SD	BLD T08/M7	
H490 E90AX D40-5-C32-09	40.00	5	8.00	130.00	38.00	32.00	C	0.766	SR 10508082-HG	SW4-SD	BLD T08/M7	
H490 E90AX D40-5-W32-09	40.00	5	8.00	110.00	38.00	32.00	W	0.638	SR 10508082-HG	SW4-SD	BLD T08/M7	
H490 E90AX D40-6-C32-09	40.00	6	8.00	130.00	38.00	32.00	C	0.773	SR 10508082-HG	SW4-SD	BLD T08/M7	
H490 E90AX D40-6-W32-09	40.00	6	8.00	110.00	38.00	32.00	W	0.646	SR 10508082-HG	SW4-SD	BLD T08/M7	

• For user guide, see pages 461-468 • "B" Suffix cylindrical shank which may be shortened

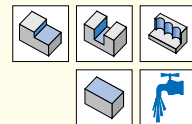
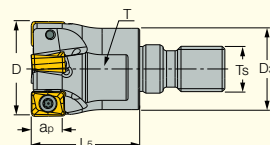
⁽¹⁾ C-Cylindrical, W-Weldon

For inserts, see pages: H490 ANKX 0904-FF (403) • H490 ANKX/ANKX-09 (402)

HELIDO FLEXFIT
490 LINE

H490 E90AX-M

90° Endmills with a FLEXFIT
Threaded Connection Carrying
H490 ANKX/ANCX 09..
Double-Sided Rectangular Inserts



Designation	D	Z	ap	L5	D3	Ts	T ⁽¹⁾	kg			
H490 E90AX D20-3-M10-09	20.00	3	8.00	30.00	18.70	M10	16.0	0.059	SR 10508082-HG	BLD T08/M7	SW4-SD
H490 E90AX D25-4-M12-09	25.00	4	8.00	28.00	21.00	M12	17.0	0.075	SR 10508082-HG	BLD T08/M7	SW4-SD
H490 E90AX D32-5-M16-09	32.00	5	8.00	30.00	29.00	M16	25.0	0.153	SR 10508082-HG	BLD T08/M7	SW4-SD

• For adaptation, see pages 38 • For user guide, see pages 461-468

⁽¹⁾ Clamping wrench size

For inserts, see pages: H490 ANKX 0904-FF (403) • H490 ANKX/ANCX-09 (402)

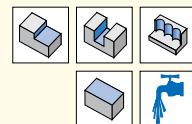
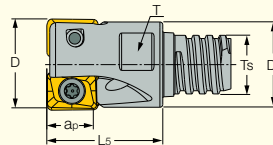
For holders, see pages: BT-ODP (FLEXFIT) (248) • C#-ODP (FLEXFIT) (248) • CAB M-M (FLEXFIT) (245) • DIN69871-ODP (249) • ER-ODP (249)

• HSK A-ODP (FLEXFIT) (250) • HSK E-ODP (FLEXFIT) (251) • RE MB-ODP (246) • S M (245) • S M-C-H (245) • S M-CF (246)

HELIDO
490 LINE

H490 E90AX-MM

90° Endmills with a MULTI-MASTER
Threaded Connection Carrying
H490 ANKX/ANCX 090..
Double-Sided Rectangular Inserts



Designation	D	Z	ap	L5	D3	Ts	T ⁽¹⁾	AE			
H490 E90AX D16-2-MMT10-09	16.00	2	8.00	23.00	15.30	T10	13.0	0.0	SR 10508082-HG	BLD T08/M7	SW4-SD
H490 E90AX D20-3-MMT12-09	20.00	3	8.00	24.00	18.70	T12	16.0	0.0	SR 10508082-HG	BLD T08/M7	SW4-SD

• Do not apply lubricant to the MULTI-MASTER threaded connection • For adaptation, see page 38 • For user guide, see pages 461-468

⁽¹⁾ Clamping wrench size

For inserts, see pages: H490 ANKX 0904-FF (403) • H490 ANKX/ANCX-09 (402)

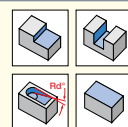
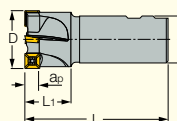
For holders, see pages: MM S-A (stepped shanks) (63) • MM S-A (straight shanks) (65) • MM S-A-C# (68) • MM S-A-HSK (68) • MM S-A-N (64)

• MM S-A-SK (68) • MM S-B (85° conical shanks) (65) • MM S-D (89° conical shanks) (66) • MM S-ER (67) • MM S-ER-H (67) • MM TS-A (64)

HELQUAD

E90SP

Endmills Carrying Square
S/XPMT Inserts



Designation	D	Z	ap	L1	L	d	Shank ⁽¹⁾	Rd°	kg		
E90SP D25-C25-10	25.00	2	9.60	32.0	110.00	25.00	C	3.0	0.366	SR 14-544/S	T-15/51
E90SP D25-W25-10	25.00	2	9.60	32.0	95.00	25.00	W	3.0	0.300	SR 14-544/S	T-15/51
E90SP D32-C32-10	32.00	3	9.60	32.0	130.00	32.00	C	2.0	0.728	SR 14-544/S	T-15/51
E90SP D32-W25-10	32.00	3	9.60	32.0	95.00	25.00	W	2.0	0.348	SR 14-544/S	T-15/51
E90SP D40-C32-10	40.00	4	9.60	32.0	130.00	32.00	C	1.5	0.799	SR 14-544/S	T-15/51
E90SP D40-W32-10	40.00	4	9.60	32.0	100.00	32.00	W	1.5	0.602	SR 14-544/S	T-15/51

• For user guide, see pages 461-468

⁽¹⁾ C-Cylindrical, W-Weldon

For inserts, see pages: QPMR 1004...-HQ-M (425) • QPMT 100408PDTN (425) • SPMT-HQ (426) • XPMT-HQ (426)

如需了解更多，
请从网盘下载完整版...