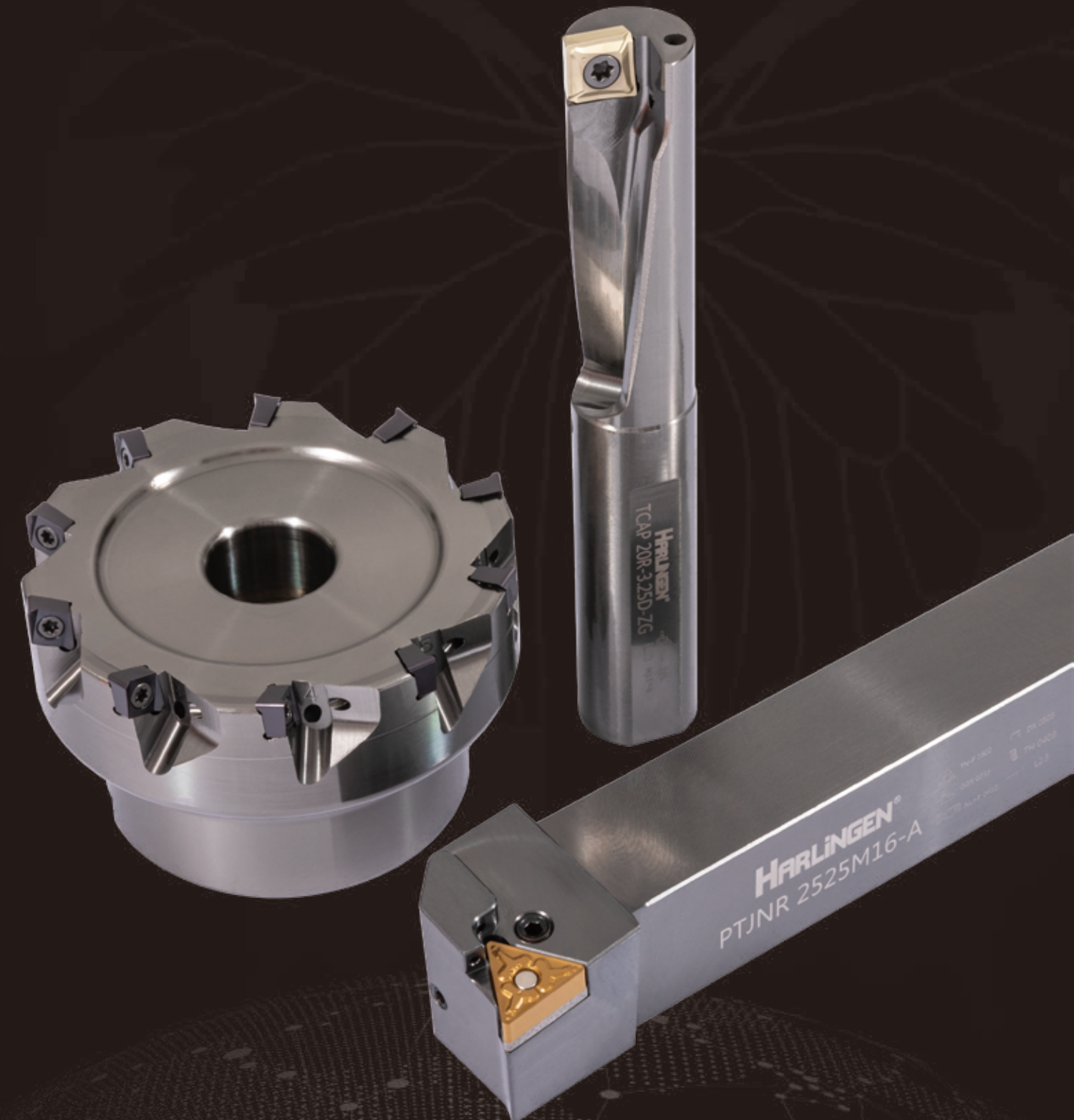


HARLINGEN®



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Add: Via Codognino No. 4, 26854 Cornegliano Laudense (LO), Italy

HARLINGEN®

INDEXABLE CUTTER



San Diego
USA.

Lodi, Milano
IT.

Chengdu
CHN.

Rayong
TH.

Penang
MYS.

ABOUT HARLINGEN

Decades ago, HARLINGEN aspired to supply various metal cutting tools and toolholding parts with reliable quality to the industrial fields when it was established in Lodi Italy in the early 1980s.

Up to now, HARLINGEN has been active in more than 40 countries and regions, supplying directly to major automotive and aircraft manufacturing industry as well as distributing through an array of industrial supply channels. Thanks to additional fulfillment facility strategically located in Los Angeles (for Pan America) and Shanghai (For Asia area), HARLINGEN is currently serving customers globally.

MANUFACTURING

Starting from a forged steel blanks up to the finished polygon shank holders with super high accuracy, HARLINGEN makes ALL procedures in its 35000m² workshops certified by ISO 9001:2008. Every single process is strictly processed and controlled in-house by ourselves, utilizing the most advanced facilities like MAZAK, HAAS, STUDER, HARDINGE. HAIMER, ZOLLER, ZEISS ... are applied to ensure warranty for each HARLINGEN product. Based on extremely strict quality control, HARLINGEN PSC, Hydraulic Expansions Chucks, Shrink Fit Chucks and HSK tooling systems etc. are among the leading level of the world. There are more than 60 professional technicians in HARLINGEN R&D team to make innovation and supply customized products and turnkey projects. No matter you are turning a rod in some places in Asia, or you are going to make profile milling in North America, THINK CUTTING, THINK HARLINGEN. We deliver you with confidence and trust ... when it comes to precision machining, HARLINGEN always hold and shape your dream.



New MFG. and R&D center located in Shuangliu (350,000sqf, under construction)

RELIABLE QUALITY ASSURANCE

Not only due to using the world class inspection device from Haimer, Zoller, Kelch..for Our quality control system. More important. As a stalwart in this industry for many year. It is our concept that we are committed to being the customer's preferred source of these tools by meeting and surpassing their expectations for reliable quality.



VISION

Our statement of core value as well as our long cultivated common culture at HARLINGEN is:

Quality
Responsibility
Customer focus
Commitment

Facing with the keen competition and continuing requirement of customers, we quite understand that even we have gained all these achievements, the decline is always in the offing. We must keep improving.

If you have any suggestions, or comments, please feel free to advise us. We value that as the most pivotal impulse for our pace forward. We, at HARLINGEN, look forward to working with you in this heady, fascinating industrial times!



Yours truly
The Harlingen Team

Indexable Milling Cutter

Indexable High Feed Milling Cutters 008-028



Indexable Square Shoulder Milling Cutters 030-054



Indexable Face Milling Cutters 056-070



Indexable Helical Milling Cutters 072-074



Indexable T-Slot Milling Cutters 075-078



Indexable Side Milling Cutters 079-082



Indexable Dovetail Milling Cutters 084-086



Indexable Chamfer Milling Cutters 087-088



Indexable Turning Cutter

Indexable Turning Toolholders 094-107



Indexable Boring Bars 109-124



Indexable Parting & Grooving Cutters 126-151



Indexable Threading Toolholders 154-157



Indexable Swiss-Type Automatic Lathe's Toolholders 160-174



Indexable Drilling Cutter

Indexable Multi-function Toolholders for Drilling and Turning 176-177



Indexable Drills 178-185



INDEXABLE HIGH FEED MILLING CUTTERS

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Page 023  BLMP	Page 027  BRP/SBRP	Page 028  EMR-R5	

HARLINGEN®

High Feed Milling Cutter

LNMU02 / LNMU03 SERIES

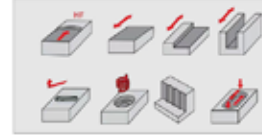
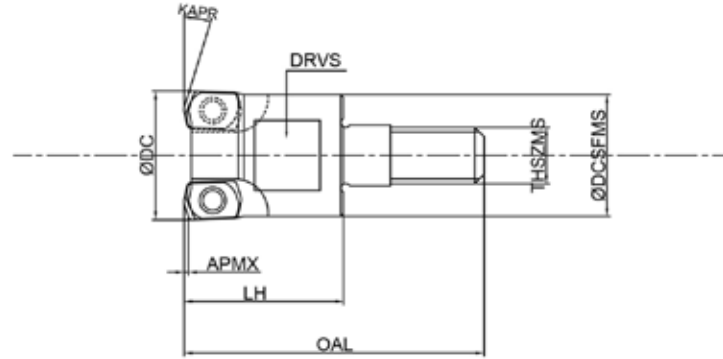


Think Cutting, Think HARLINGEN!

EXN02

High Feed Modular Heads

LNMU02 series

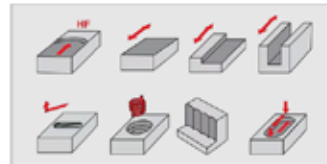
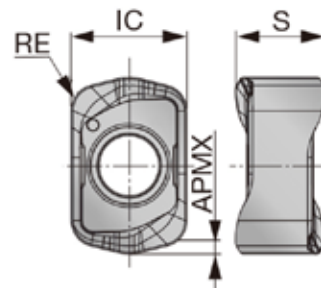


Order No	Designation	Teeth	Dimension (mm)						KAPR	THSZMS	INSERT	Spare Parts	
			APMX	φ DC	φ DCSFMS	OAL	LH	DRVS					
												SCREW	KEY
2E2-40-005	EXN02R08M04-01	1	0.5	8	7.8	28	17	7	17°	M4xP0.7	LNMU02...	M1.8-002	T6
2E2-40-010	EXN02R09M04-01	1	0.5	9	7.8	28	17	7	17°	M4xP0.7	LNMU02...		
2E2-40-015	EXN02R010M05-02	2	0.5	10	9	29	17	7	17°	M5xP0.8	LNMU02...		
2E2-40-020	EXN02R011M05-02	2	0.5	11	9	29	17	7	17°	M5xP0.8	LNMU02...		
2E2-40-025	EXN02R012M06-03	3	0.5	12	11	32	17	9	17°	M6xP1.0	LNMU02...		
000-00-000	EXN02R013M06-03	3	0.5	13	11	32	17	9	17°	M6xP1.0	LNMU02...		
2E2-40-035	EXN02R014M06-03	3	0.5	14	13	32	17	10	17°	M6xP1.0	LNMU02...		
2E2-40-040	EXN02R015M06-03	3	0.5	15	13	32	17	10	17°	M6xP1.0	LNMU02...		
2E2-40-045	EXN02R014M08-03	3	0.5	14	13	34.5	17	10	17°	M8xP1.25	LNMU02...		
2E2-40-050	EXN02R015M08-03	3	0.5	15	13	34.5	17	10	17°	M8xP1.25	LNMU02...		
2E2-40-055	EXN02R016M08-04	4	0.5	16	15	43	25.5	12	17°	M8xP1.25	LNMU02...		
2E2-40-060	EXN02R017M08-04	4	0.5	17	15	43	25.5	12	17°	M8xP1.25	LNMU02...		

LNMU0202

High Feed Milling Carbide Inserts

LNMU02 series



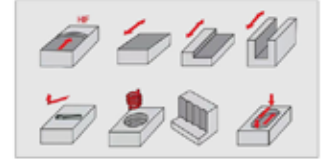
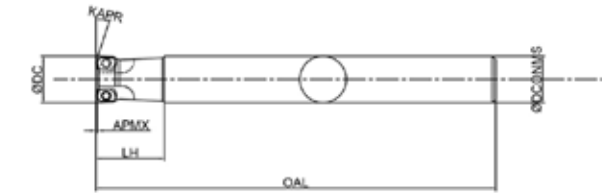
Order No	Designation	Dimension (mm)					
		IC	S	RE	APMX	Screw	Key
377-26-001	LNMU0202ER-MM	4	3.1	0.9	0.5	M1.8-002	T6

Vc 100-200, fz 0.2-1.0, ae 2mm

EXN02

High Feed End Mills

LNMU02 series

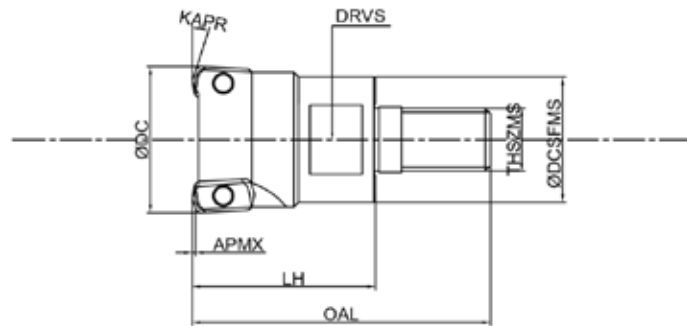


Order No	Designation	Teeth	Dimension (mm)					KAPR	INSERT	Spare Parts	
			APMX	φDC	φDCNMS	OAL	LH			SCREW	KEY
242-40-005	EXN02R08M10.0-100-01	1	0.5	8	10	100	17	17°	LNMU02...	M1.8-002	T6
242-40-010	EXN02R09M10.0-100-01	1	0.5	9	10	100	19	17°	LNMU02...		
242-40-015	EXN02R010M10.0-100-02	2	0.5	10	10	100	22	17°	LNMU02...		
242-40-020	EXN02R011M10.0-100-02	2	0.5	11	10	100	11	17°	LNMU02...		
242-40-025	EXN02R012M12.0-80-03	3	0.5	12	12	80	26	17°	LNMU02...		
242-40-030	EXN02R012M12.0-120-03	3	0.5	12	12	120	26	17°	LNMU02...		
242-40-035	EXN02R013M12.0-80-03	3	0.5	13	12	80	13	17°	LNMU02...		
242-40-040	EXN02R013M12.0-120-03	3	0.5	13	12	120	13	17°	LNMU02...		
242-40-045	EXN02R014M14.0-120-03	3	0.5	14	14	120	30	17°	LNMU02...		
242-40-050	EXN02R014M14.0-150-03	3	0.5	14	14	150	30	17°	LNMU02...		
242-40-055	EXN02R015M14.0-120-03	3	0.5	15	14	120	15	17°	LNMU02...		
242-40-060	EXN02R015M14.0-160-03	3	0.5	15	14	160	15	17°	LNMU02...		
242-40-065	EXN02R016M16.0-120-04	4	0.5	16	16	120	35	17°	LNMU02...		
242-40-070	EXN02R016M16.0-160-04	4	0.5	16	16	160	35	17°	LNMU02...		
242-40-075	EXN02R017M16.0-120-04	4	0.5	17	16	120	17	17°	LNMU02...		
242-40-080	EXN02R017M16.0-160-04	4	0.5	17	16	160	17	17°	LNMU02...		

EXN03

High Feed Modular Heads

LNMU03 Series

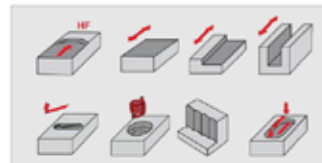
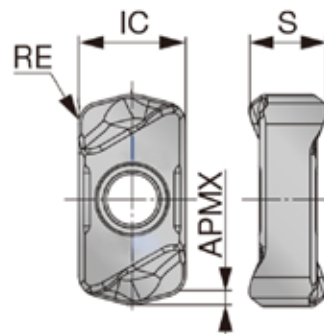


Order No	Designation	Teeth	Dimension (mm)							KAPR	THSZMS	INSERT	Spare Parts	
			APMX	φDC	φDCSFMS	OAL	LH	DRVS						
														SCREW
2E2-40-065	EXN03R016M08-02	2	1	16	15	43	25.5	12	17°	M8*P1.25	LNMU03...	M2.5-002	T8	
2E2-40-070	EXN03R017M08-02	2	1	17	15	43	25.5	12	17°	M8*P1.25	LNMU03...			
2E2-40-075	EXN03R018M08-03	3	1	18	15	43	25.5	12	17°	M8*P1.25	LNMU03...			
2E2-40-080	EXN03R020M10-03	3	1	20	19	49	29	15	17°	M10*P1.5	LNMU03...			
2E2-40-085	EXN03R021M10-03	3	1	21	19	49	29	15	17°	M10*P1.5	LNMU03...			
2E2-40-090	EXN03R022M10-03	3	1	22	19	49	29	15	17°	M10*P1.5	LNMU03...			
2E2-40-095	EXN03R025M12-04	4	1	25	24	57	35	19	17°	M12*P1.75	LNMU03...			
2E2-40-100	EXN03R026M12-04	4	1	26	24	57	35	19	17°	M12*P1.75	LNMU03...			
2E2-40-105	EXN03R028M12-05	5	1	28	24	57	35	19	17°	M12*P1.75	LNMU03...			
2E2-40-110	EXN03R032M16-05	5	1	32	31	63	38	24	17°	M16*P2.0	LNMU03...			
2E2-40-115	EXN03R035M16-06	6	1	35	31	63	38	24	17°	M16*P2.0	LNMU03...			

LNMU0303

High Feed Milling Carbide Inserts

LNMU03series



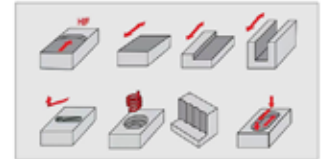
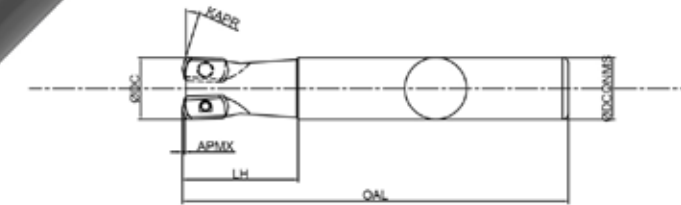
Order No	Designation	Dimension (mm)					
		IC	S	RE	APMX	Screw	Key
377-26-002	LNMU0303ER-MJ	6	4.3	1.2	1	M2.5-002	T8

Vc 100-200, fz 0.5-1.0, ae 3mm

EXN03

High Feed End Mills

LNMU03 series

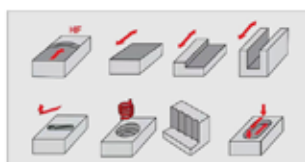
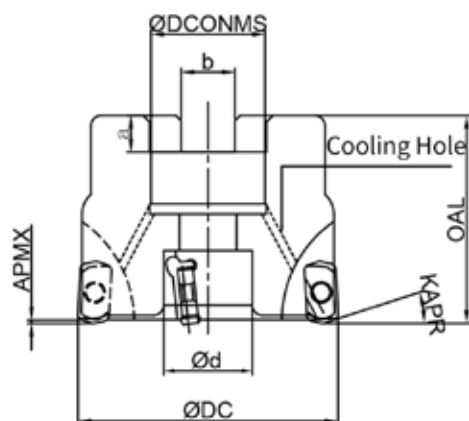


Order No	Designation	Teeth	Dimension (mm)					KAPR	INSERT	Spare Parts	
			APMX	φDC	φDCONMS	OAL	LH			SCREW	KEY
242-40-085	EXN03R016M16.0-100-02	2	1	16	16	100	30	17°	LNMU03...	M2.5-002	T8
242-40-090	EXN03R016M16.0-120-02	2	1	16	16	120	30	17°	LNMU03...		
242-40-095	EXN03R016M16.0-150-02	2	1	16	16	150	30	17°	LNMU03...		
242-40-100	EXN03R017M16.0-100-02	2	1	17	16	100	20	17°	LNMU03...		
242-40-105	EXN03R017M16.0-120-02	2	1	17	16	120	20	17°	LNMU03...		
242-40-110	EXN03R017M16.0-150-02	2	1	17	16	150	20	17°	LNMU03...		
242-40-115	EXN03R020M20.0-100-03	3	1	20	20	100	30	17°	LNMU03...		
242-40-120	EXN03R020M20.0-130-03	3	1	20	20	130	50	17°	LNMU03...		
242-40-125	EXN03R020M20.0-160-03	3	1	20	20	160	50	17°	LNMU03...		
242-40-130	EXN03R021M20.0-130-03	3	1	21	20	130	35	17°	LNMU03...		
242-40-135	EXN03R021M20.0-160-03	3	1	21	20	160	35	17°	LNMU03...		
242-40-140	EXN03R025M25.0-100-04	4	1	25	25	100	37	17°	LNMU03...	M2.5-002	T8
242-40-145	EXN03R025M25.0-140-04	4	1	25	25	140	60	17°	LNMU03...		
242-40-150	EXN03R025M25.0-200-04	4	1	25	25	200	60	17°	LNMU03...		
242-40-155	EXN03R026M25.0-140-04	4	1	26	25	140	30	17°	LNMU03...		
242-40-160	EXN03R026M25.0-200-04	4	1	26	25	200	30	17°	LNMU03...		
242-40-165	EXN03R030M25.0-150-04	4	1	30	25	150	30	17°	LNMU03...		
242-40-170	EXN03R032M32.0-150-05	5	1	32	32	150	70	17°	LNMU03...		
242-40-175	EXN03R032M32.0-200-05	5	1	32	32	200	70	17°	LNMU03...		
242-40-180	EXN03R033M32.0-150-05	5	1	33	32	150	30	17°	LNMU03...		
242-40-185	EXN03R033M32.0-200-05	5	1	33	32	200	30	17°	LNMU03...		
242-40-190	EXN03R035M32.0-160-06	6	1	35	32	160	40	17°	LNMU03...		
242-40-195	EXN03R035M32.0-200-06	6	1	35	32	200	40	17°	LNMU03...		

TXN03R

High Feed Face Mills

LNMU03 series



Order No	Designation	Teeth	Dimension (mm)								KAPR	INSERT	Spare Parts	
			APMX	φDC	φDCONMS	OAL	φd	b	a	C.H.			SCREW	KEY
232-40-005	TXN03R035M160E06	6	1	35	16	40	14	8.4	6	NO	17°	LNMU03...	M2.5-002	T8
232-40-010	TXN03R035M160E06-A	6	1	35	16	40	14	8.4	6	YES	17°	LNMU03...		
232-40-015	TXN03R040M160E06	6	1	40	16	40	14	8.4	6	NO	17°	LNMU03...		
232-40-020	TXN03R040M160E06-A	6	1	40	16	40	14	8.4	6	YES	17°	LNMU03...		
232-40-025	TXN03R045M160E06	6	1	45	16	40	14	8.4	6	NO	17°	LNMU03...		
232-40-030	TXN03R045M160E06-A	6	1	45	16	40	14	8.4	6	YES	17°	LNMU03...		
232-40-035	TXN03R050M220E08	8	1	50	22	40	17	10.4	7	NO	17°	LNMU03...		
232-40-040	TXN03R050M220E08-A	8	1	50	22	40	17	10.4	7	YES	17°	LNMU03...		
232-40-045	TXN03R055M220E08	8	1	55	22	40	17	10.4	7	NO	17°	LNMU03...		
232-40-050	TXN03R055M220E08-A	8	1	55	22	40	17	10.4	7	YES	17°	LNMU03...		
232-40-055	TXN03R063M220E08	8	1	63	22	40	17	10.4	7	NO	17°	LNMU03...		
232-40-060	TXN03R063M220E08-A	8	1	63	22	40	17	10.4	7	YES	17°	LNMU03...		
232-40-065	TXN03R070M220E10	10	1	70	22	40	17	10.4	7	NO	17°	LNMU03...		
232-40-070	TXN03R070M220E10-A	10	1	70	22	40	17	10.4	7	YES	17°	LNMU03...		
232-40-075	TXN03R080M270E10	10	1	80	27	50	34	12.4	9	NO	17°	LNMU03...		
232-40-080	TXN03R080M270E10-A	10	1	80	27	50	34	12.4	9	YES	17°	LNMU03...		

-A: With Internal Cooling

HARLINGEN®

High Feed Milling Cutter

LPGT01 / LOGU03
SOMT10 / SOMT14 SERIES

- The multi-edge design enables high-efficiency machining and shortens roughing time.
- Excellent chip evacuation, low resistance, and strong vibration resistance.
- Starting with a shank diameter of 8mm,
- Good Choice for replacing solid carbide milling cutters.

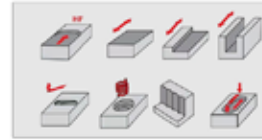
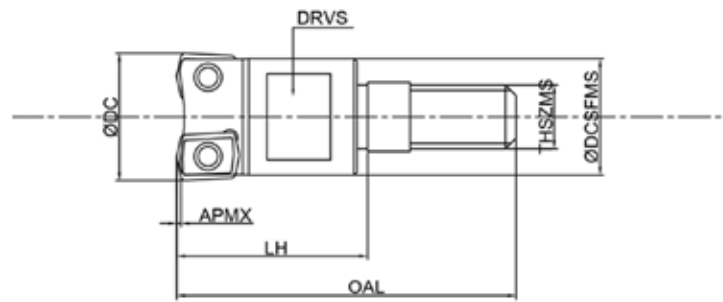


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MFH01

High Feed Modular Heads

LPGT01 Series

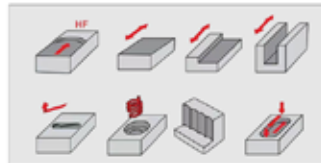
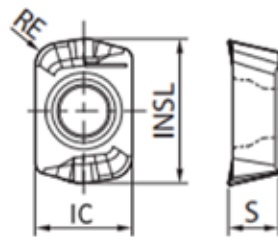


Order No	Designation	Teeth	Dimension (mm)						THSZMS	INSERT	Spare Parts	
			APMX	φDC	φDCSFMS	OAL	LH	DRVS			SCREW	KEY
2E2-41-005	MFH 10-M05-01-2T	2	0.5	10	9	29	17	7	M5xP0.8	LPGT01...	M1.8-002	T6
2E2-41-010	MFH 11-M05-01-2T	2	0.5	11	9	29	17	7	M5xP0.8	LPGT01...		
2E2-41-015	MFH 12-M06-01-3T	3	0.5	12	11	32	17	9	M6xP1.0	LPGT01...		
2E2-41-020	MFH 13-M06-01-3T	3	0.5	13	11	32	17	9	M6xP1.0	LPGT01...		
2E2-41-025	MFH 14-M06-01-3T	3	0.5	14	13	32	17	10	M6xP1.0	LPGT01...		
2E2-41-030	MFH 15-M06-01-4T	4	0.5	15	13	32	17	10	M6xP1.0	LPGT01...		
2E2-41-035	MFH 14-M08-01-3T	3	0.5	14	13	34.5	17	10	M8xP1.25	LPGT01...		
2E2-41-040	MFH 15-M08-01-4T	4	0.5	15	13	34.5	17	10	M8xP1.25	LPGT01...		
2E2-41-045	MFH 16-M08-01-4T	4	0.5	16	15	43	25.5	12	M8xP1.25	LPGT01...		
2E2-41-050	MFH 17-M08-01-4T	4	0.5	17	15	43	25.5	12	M8xP1.25	LPGT01...		

LPGT010210

High Feed Carbide Inserts

LPGT01 Series

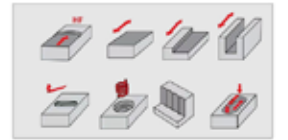
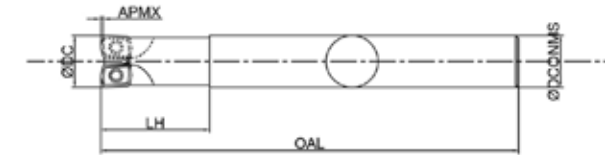


Order No	Designation	Dimension (mm)						
		IC	S	RE	APMX	INSL	Screw	Key
377-27-001	LPGT010210ER-GM	4.19	2.19	1.0	0.5	6.26	M1.8-002	T6

MFH01

High Feed End Mills

LPGT01 Series

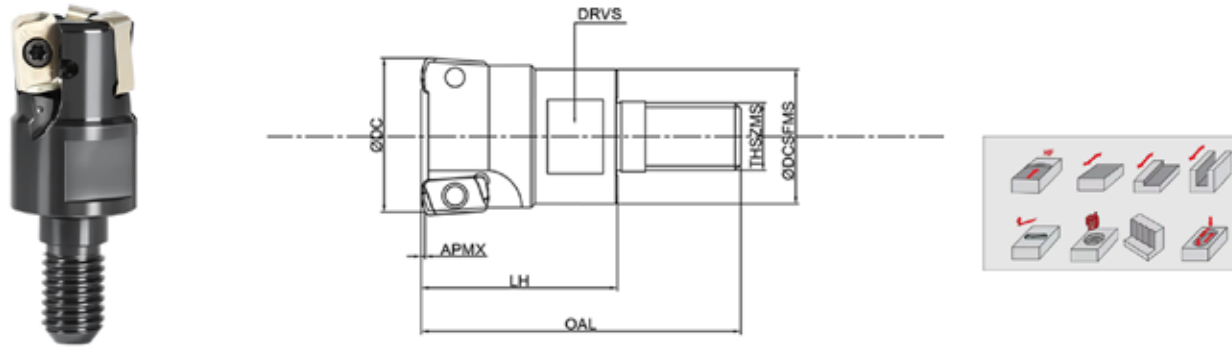


Order No	Designation	Teeth	Dimension (mm)					INSERT	Spare Parts	
			APMX	φDC	φDCONMS	OAL	LH		SCREW	KEY
242-41-005	MFH 08-S10-01-1T-75	1	0.5	8	10	75	17	LPGT01...	M1.8-002	T6
242-41-010	MFH 08-S10-01-1T-100	1	0.5	8	10	100	17	LPGT01...		
242-41-015	MFH 09-S10-01-1T-100	1	0.5	9	10	100	19	LPGT01...		
242-41-020	MFH 10-S10-01-2T-80	2	0.5	10	10	80	22	LPGT01...		
242-41-025	MFH 10-S10-01-2T-100	2	0.5	10	10	100	22	LPGT01...		
242-41-030	MFH 11-S10-01-2T-100	2	0.5	11	10	100	11	LPGT01...		
242-41-035	MFH 12-S12-01-3T-80	3	0.5	12	12	80	26	LPGT01...		
242-41-040	MFH 12-S12-01-3T-100	3	0.5	12	12	100	26	LPGT01...		
242-41-045	MFH 13-S12-01-3T-100	3	0.5	13	12	100	13	LPGT01...		
242-41-050	MFH 14-S16-01-3T-120	3	0.5	14	16	120	30	LPGT01...		
242-41-055	MFH 15-S16-01-4T-120	4	0.5	15	16	120	15	LPGT01...		
242-41-060	MFH 16-S16-01-4T-120	4	0.5	16	16	120	35	LPGT01...		

MFH03

High Feed Modular Heads

LOGU03 Series

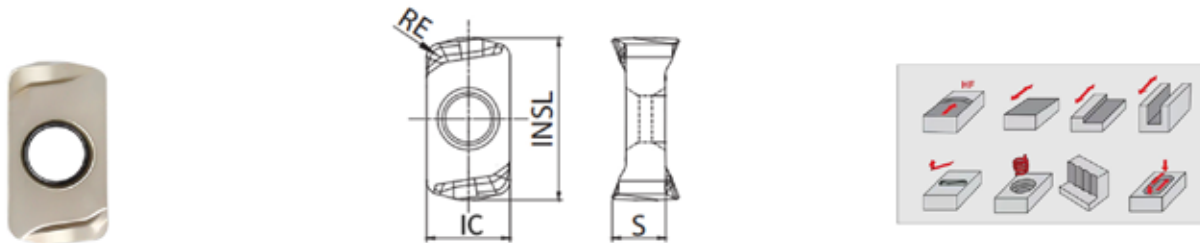


Order No	Designation	Teeth	Dimension (mm)						THSZMS	INSERT	Spare Parts	
			APMX	φDC	φDCSFMS	OAL	LH	DRVS			SCREW	KEY
2E2-42-005	MFH 16-M08-03-2T	2	1	16	15	43	25.5	12	M8*P1.25	LOGU03...	M3.0-004	T8
2E2-42-010	MFH 17-M08-03-2T	2	1	17	15	43	25.5	12	M8*P1.25	LOGU03...		
2E2-42-015	MFH 18-M08-03-2T	2	1	18	15	43	25.5	12	M8*P1.25	LOGU03...		
2E2-42-020	MFH 20-M10-03-3T	3	1	20	19	49	29	15	M10*P1.5	LOGU03...		
2E2-42-025	MFH 21-M10-03-3T	3	1	21	19	49	29	15	M10*P1.5	LOGU03...		
2E2-42-030	MFH 25-M12-03-4T	4	1	25	24	57	35	19	M12*P1.75	LOGU03...		
2E2-42-035	MFH 26-M12-03-4T	4	1	26	24	57	35	19	M12*P1.75	LOGU03...		
2E2-42-040	MFH 28-M12-03-4T	4	1	28	24	57	35	19	M12*P1.75	LOGU03...		
2E2-42-045	MFH 32-M16-03-5T	5	1	32	31	63	38	24	M16*P2.0	LOGU03...		
2E2-42-050	MFH 35-M16-03-5T	5	1	35	31	63	38	24	M16*P2.0	LOGU03...		

LOGU030310

High Feed Carbide Inserts

LOGU03 Series

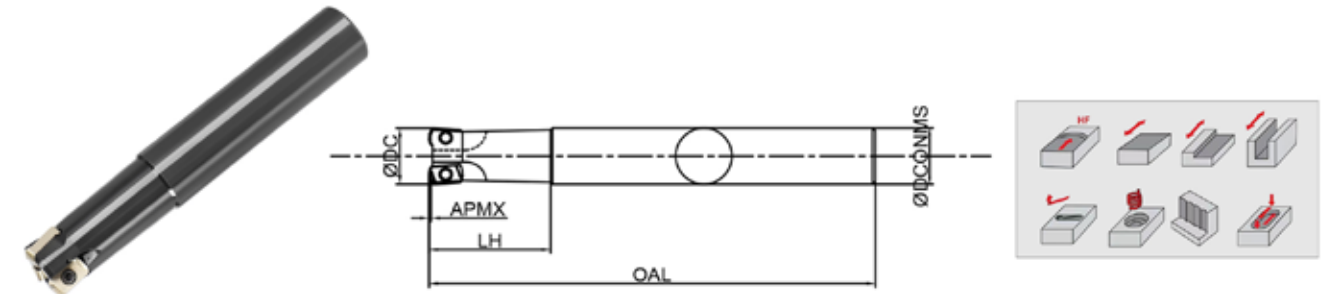


Order No	Designation	Dimension (mm)						
		IC	S	RE	APMX	INSL	Screw	Key
377-28-001	LOGU030310ER-GM	6.2	3.96	1.0	1	11.9	M3.0-004	T8

MFH03

High Feed End Mills

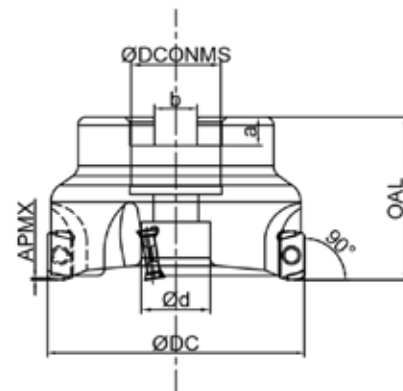
LOGU03 Series



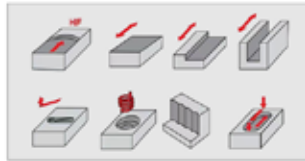
Order No	Designation	Teeth	Dimension (mm)					INSERT	Spare Parts	
			APMX	φDC	φDCONMS	OAL	LH		SCREW	KEY
242-42-005	MFH16-S16-03-2T-100	2	1	16	16	100	35	LOGU03...	M3.0-004	T8
242-42-010	MFH16-S16-03-2T-120	2	1	16	16	120	35	LOGU03...		
242-42-015	MFH16-S16-03-2T-160	2	1	16	16	160	35	LOGU03...		
242-42-020	MFH17-S16-03-2T-100	2	1	17	16	100	17	LOGU03...		
242-42-025	MFH17-S16-03-2T-120	2	1	17	16	120	17	LOGU03...		
242-42-030	MFH17-S16-03-2T-160	2	1	17	16	160	17	LOGU03...		
242-42-035	MFH20-S20-03-3T-120	3	1	20	20	120	44	LOGU03...		
242-42-040	MFH20-S20-03-3T-160	3	1	20	20	160	44	LOGU03...		
242-42-045	MFH20-S20-03-3T-200	3	1	20	20	200	44	LOGU03...		
242-42-050	MFH21-S20-03-3T-120	3	1	21	20	120	21	LOGU03...		
242-42-055	MFH21-S20-03-3T-160	3	1	21	20	160	21	LOGU03...		
242-42-060	MFH21-S20-03-3T-200	3	1	21	20	200	21	LOGU03...		
242-42-065	MFH25-S25-03-4T-120	4	1	25	25	120	55	LOGU03...		
242-42-070	MFH25-S25-03-4T-160	4	1	25	25	160	55	LOGU03...		
242-42-075	MFH25-S25-03-4T-200	4	1	25	25	200	55	LOGU03...		
242-42-080	MFH26-S25-03-4T-120	4	1	26	25	120	26	LOGU03...		
242-42-085	MFH26-S25-03-4T-160	4	1	26	25	160	26	LOGU03...		
242-42-090	MFH26-S25-03-4T-200	4	1	26	25	200	26	LOGU03...		
242-42-095	MFH28-S25-03-4T-160	4	1	28	25	160	28	LOGU03...		
242-42-100	MFH30-S25-03-5T-160	5	1	30	25	160	30	LOGU03...		
242-42-105	MFH32-S32-03-5T-120	5	1	32	32	120	64	LOGU03...		
242-42-110	MFH32-S32-03-5T-160	5	1	32	32	160	70	LOGU03...		
242-42-115	MFH32-S32-03-5T-200	5	1	32	32	200	70	LOGU03...		
242-42-120	MFH33-S32-03-5T-160	5	1	33	32	160	33	LOGU03...		
242-42-125	MFH33-S32-03-5T-200	5	1	33	32	200	33	LOGU03...		

MFH03

High Feed Face Mills



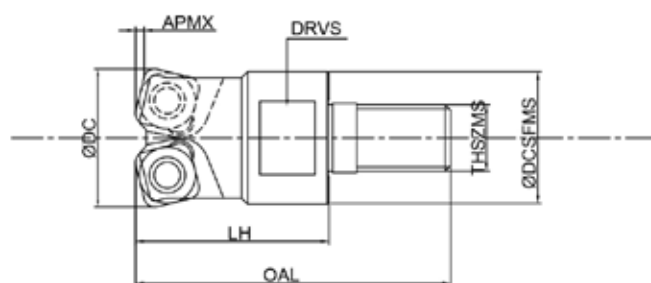
LOGU03 Series



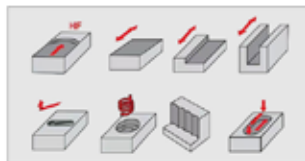
Order No	Designation	Teeth	Dimension (mm)							ANGLE	INSERT	Spare Parts	
			APMX	φDC	φDCONMS	OAL	φd	b	a			SCREW	KEY
232-42-005	MFH 035R-03-16-5T-M	5	1	35	16	40	9	8.4	7	90°	LOGU03...	M3.0-004	T8
232-42-010	MFH 040R-03-16-6T-M	6	1	40	16	40	9	8.4	7	90°	LOGU03...		
232-42-015	MFH 050R-03-22-8T-M	8	1	50	22	40	11	10.4	7	90°	LOGU03...		
232-42-020	MFH 063R-03-22-8T-M	8	1	63	22	40	11	10.4	7	90°	LOGU03...		
232-42-025	MFH 080R-03-27-10T-M	10	1	80	27	50	13	12.4	7	90°	LOGU03...		
232-42-030	MFH 100R-03-32-12T-M	12	1	100	32	50	17	14.4	9	90°	LOGU03...		

MFH10

High Feed Modular Heads



SOMT10 Series

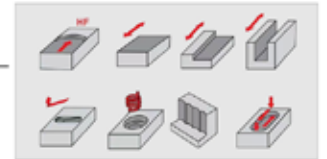
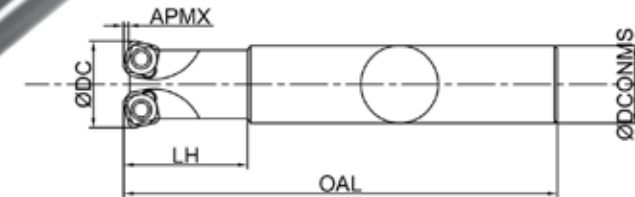


Order No	Designation	Teeth	Dimension (mm)						THSZMS	INSERT	Spare Parts	
			APMX	φDC	φDCONMS	OAL	LH	DRVS				
											SCREW	KEY
2E2-43-005	MFH 20-M10-10-1T	1	1.5	20	19	49	29	15	M10*P1.5	SOMT10..	M4.0-001	T15
2E2-43-010	MFH 21-M10-10-1T	1	1.5	21	19	49	29	15	M10*P1.5	SOMT10..		
2E2-43-015	MFH 25-M12-10-2T	2	1.5	25	24	57	35	19	M12*P1.75	SOMT10..		
2E2-43-020	MFH 26-M12-10-2T	2	1.5	26	24	57	35	19	M12*P1.75	SOMT10..		
2E2-43-025	MFH 32-M16-10-3T	3	1.5	32	31	63	38	24	M16*P2.0	SOMT10..		
2E2-43-030	MFH 33-M16-10-3T	3	1.5	33	31	63	38	24	M16*P2.0	SOMT10..		
2E2-43-035	MFH 35-M16-10-3T	3	1.5	35	31	63	38	24	M16*P2.0	SOMT10..		

MFH10

High Feed End Mills

SOMT10 Series

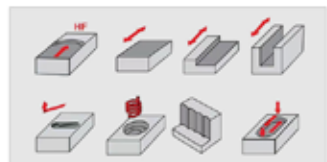
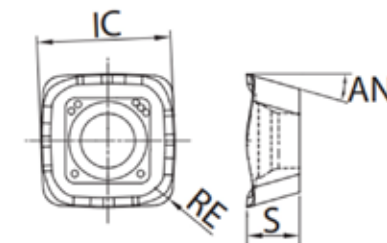


Order No	Designation	Teeth	Dimension (mm)					INSERT	Spare Parts	
			APMX	φDC	φDCONMS	OAL	LH		SCREW	KEY
242-43-005	MFH25-S25-10-2T-120	2	1.5	25	25	120	55	SOMT10..	M4.0-001	T15
242-43-010	MFH25-S25-10-2T-160	2	1.5	25	25	160	55	SOMT10..		
242-43-015	MFH25-S25-10-2T-200	2	1.5	25	25	200	55	SOMT10..		
242-43-020	MFH26-S25-10-2T-160	2	1.5	26	25	160	26	SOMT10..		
242-43-025	MFH26-S25-10-2T-200	2	1.5	26	25	200	26	SOMT10..		
242-43-030	MFH32-S32-10-3T-120	3	1.5	32	32	120	60	SOMT10..		
242-43-035	MFH32-S32-10-3T-160	3	1.5	32	32	160	70	SOMT10..		
242-43-040	MFH32-S32-10-3T-200	3	1.5	32	32	200	70	SOMT10..		
242-43-045	MFH33-S32-10-3T-160	3	1.5	33	32	160	33	SOMT10..		
242-43-050	MFH33-S32-10-3T-200	3	1.5	33	32	200	33	SOMT10..		

SOMT10

High Feed Carbide Inserts

SOMT10 Series

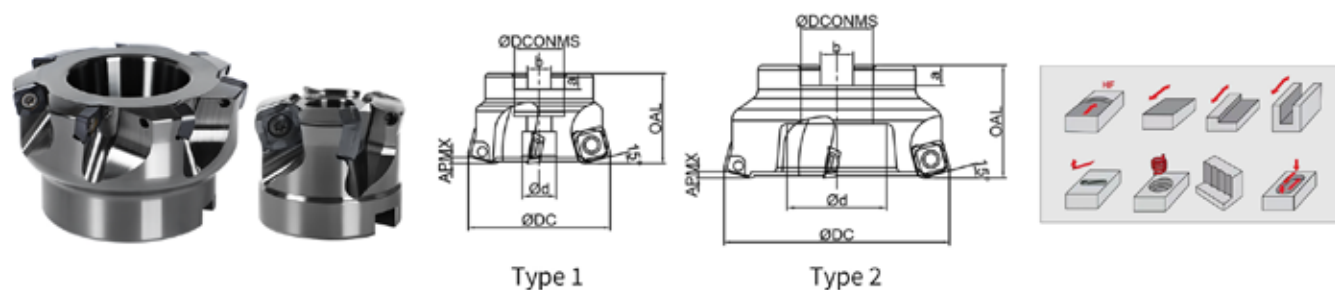


Order No	Designation	Dimension (mm)						
		IC	S	RE	APMX	AN	Screw	Key
377-29-001	SOMT100420ER-GM	10.30	4.58	2.0	1.5	16°	M4.0-001	T15

MFH10

High Feed Face Mills

SOMT10/14 Series

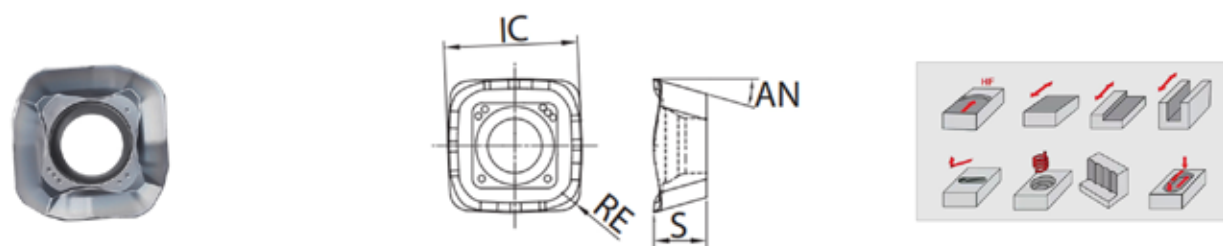


Order No	Designation	Teeth	Dimension (mm)							TYPE	ANGLE	INSERT	Spare Parts	
			APMX	φDC	φDCONMS	OAL	φd	b	a				SCREW	KEY
232-43-005	MFH 040R-10-5T	5	1.5	40	16	40	9	8.4	7	1	15°	SOMT10..	M4.0-001	T15
232-43-010	MFH 050R-10-5T	5	1.5	50	22	40	11	10.4	7	1	15°	SOMT10..		
232-43-015	MFH 063R-10-6T	6	1.5	63	22	40	11	10.4	7	1	15°	SOMT10..		
232-43-020	MFH 080R-10-7T	7	1.5	80	27	50	13	12.4	7	1	15°	SOMT10..		
232-43-025	MFH 050R-14-4T	4	2	50	22	40	11	10.4	7	1	15°	SOMT14..	M5.0-003	T20
232-43-030	MFH 063R-14-5T	5	2	63	22	40	11	10.4	7	1	15°	SOMT14..		
232-43-035	MFH 080R-14-6T	6	2	80	27	50	13	12.4	7	1	15°	SOMT14..		
232-43-040	MFH 100R-14-7T	7	2	100	32	50	17	14.4	9	1	15°	SOMT14..		
232-43-045	MFH 125R-14-8T	8	2	125	40	55	55	16.4	9	2	15°	SOMT14..		
232-43-050	MFH 160R-14-8T	8	2	160	40	55	90	16.4	9	2	15°	SOMT14..		

SOMT14

High Feed Carbide Inserts

SOMT14 Series



Order No	Designation	Dimension (mm)						
		IC	S	RE	APMX	AN	Screw	Key
377-29-002	SOMT140520ER-GM	14.14	5.56	2.0	2.0	16°	M5.0-003	T20

HARLINGEN®

High Feed Milling Cutter

BLMP04 / BLMP06 SERIES

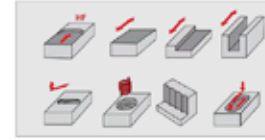
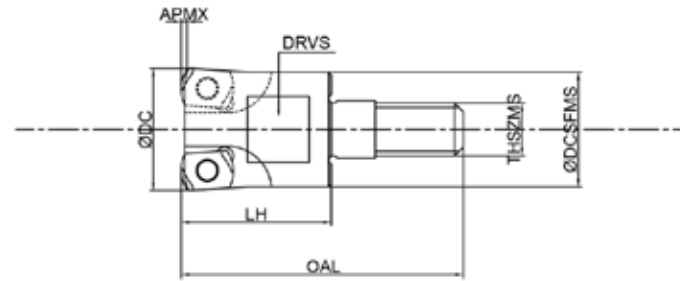


Think Cutting, Think HARLINGEN!

TEBL

High Feed Modular Heads

BLMP04 Series

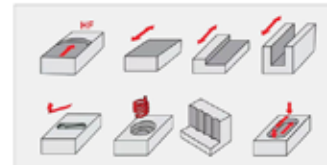
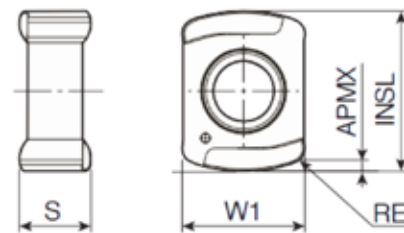


Order No	Designation	Teeth	Dimension (mm)						THSZMS	INSERT	Spare Parts	
			APMX	φDC	φDCSFS	OAL	LH	DRVS			SCREW	KEY
2E2-44-005	TEBL-108-M04-04	1	0.5	8	7.8	28	17	7	M4*P0.7	BLMP04...	M1.8-002	T6
2E2-44-010	TEBL-109-M04-04	1	0.5	9	7.8	28	17	7	M4*P0.7	BLMP04...		
2E2-44-015	TEBL-210-M05-04	2	0.5	10	9	29	17	7	M5*P0.8	BLMP04...		
2E2-44-020	TEBL-211-M05-04	2	0.5	11	9	29	17	7	M5*P0.8	BLMP04...		
2E2-44-025	TEBL-312-M06-04	3	0.5	12	11	32	17	9	M6*P1.0	BLMP04...		
2E2-44-030	TEBL-313-M06-04	3	0.5	13	11	32	17	9	M6*P1.0	BLMP04...		
2E2-44-035	TEBL-314-M06-04	3	0.5	14	13	32	17	10	M6*P1.0	BLMP04...		
2E2-44-040	TEBL-315-M06-04	3	0.5	15	13	32	17	10	M6*P1.0	BLMP04...		
2E2-44-045	TEBL-314-M08-04	3	0.5	14	13	32.5	17	10	M8*P1.25	BLMP04...		
2E2-44-050	TEBL-315-M08-04	3	0.5	15	13	32.5	17	10	M8*P1.25	BLMP04...		
2E2-44-055	TEBL-416-M08-04	4	0.5	16	15	43	25.5	12	M8*P1.25	BLMP04...		
2E2-44-060	TEBL-417-M08-04	4	0.5	17	15	43	25.5	12	M8*P1.25	BLMP04...		

BLMP0402

High Feed Milling Carbide Inserts

BLMP04 series

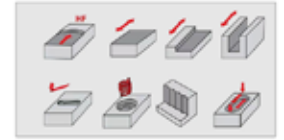
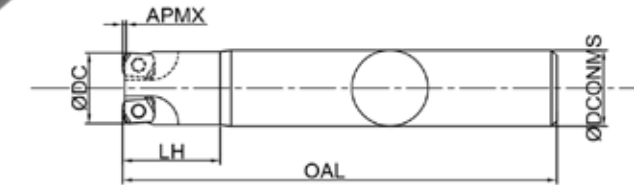


Order No	Designation	Dimension (mm)					
		IC	S	RE	APMX	Screw	Key
377-30-001	BLMP0402R-M	6	2.5	0.5	0.5	M1.8-002	T6

TEBL

High Feed End Mills

BLMP04 Series

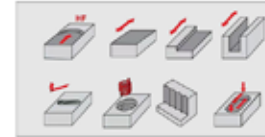
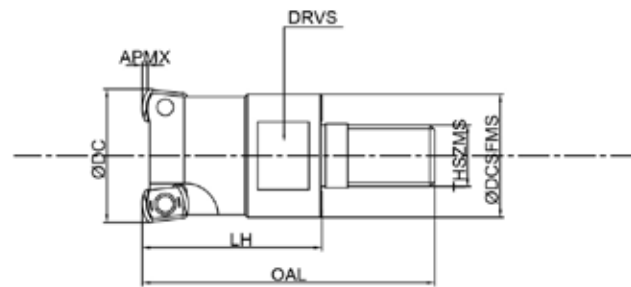


Order No	Designation	Teeth	Dimension (mm)					INSERT	Spare Parts	
			APMX	φDC	φDCONMS	OAL	LH		SCREW	KEY
242-44-005	TEBL-107-10-04-L80	1	0.5	7	10	80	15	BLMP04...	M1.8-002	T6
242-44-010	TEBL-108-10-04-L80	1	0.5	8	10	80	17	BLMP04...		
242-44-015	TEBL-109-10-04-L80	1	0.5	9	10	80	19	BLMP04...		
242-44-020	TEBL-210-10-04-L80	2	0.5	10	10	80	22	BLMP04...		
242-44-025	TEBL-211-10-04-L80	2	0.5	11	10	80	11	BLMP04...		
242-44-030	TEBL-312-12-04-L80	3	0.5	12	12	80	26	BLMP04...		
242-44-035	TEBL-313-12-04-L80	3	0.5	13	12	80	13	BLMP04...		
242-44-040	TEBL-314-14-04-L100	3	0.5	14	14	100	30	BLMP04...		
242-44-045	TEBL-315-14-04-L100	3	0.5	15	14	100	15	BLMP04...		
242-44-050	TEBL-416-16-04-L120	4	0.5	16	16	120	35	BLMP04...		
242-44-055	TEBL-417-16-04-L120	4	0.5	17	16	120	17	BLMP04...		

TEBL

High Feed Modular Heads

BLMP06 Series

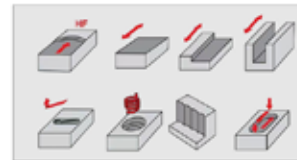
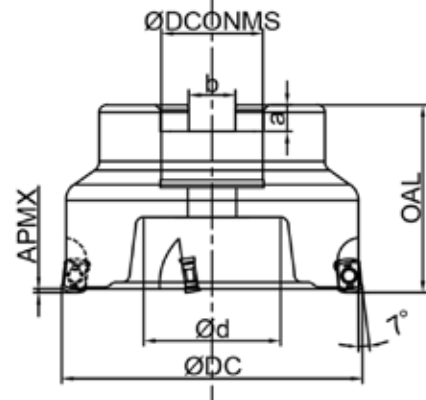


Order No	Designation	Teeth	Dimension (mm)						THSZMS	INSERT	Spare Parts	
			APMX	φDC	φDCSFMS	OAL	LH	DRVS			SCREW	KEY
2E2-44-065	TEBL-216-M08-06	2	1	16	15	43	25.5	12	M8*P1.25	BLMP06...	M2.5-002	T8
2E2-44-070	TEBL-217-M08-06	2	1	17	15	43	25.5	12	M8*P1.25	BLMP06...		
2E2-44-075	TEBL-218-M08-06	2	1	18	15	43	25.5	12	M8*P1.25	BLMP06...		
2E2-44-080	TEBL-320-M10-06	3	1	20	19	49	29	15	M10*P1.5	BLMP06...		
2E2-44-085	TEBL-321-M10-06	3	1	21	19	49	29	15	M10*P1.5	BLMP06...		
2E2-44-090	TEBL-425-M12-06	4	1	25	24	57	35	19	M12*P1.75	BLMP06...		
2E2-44-095	TEBL-426-M12-06	4	1	26	24	57	35	19	M12*P1.75	BLMP06...		
2E2-44-100	TEBL-430-M16-06	4	1	30	29	63	38	24	M16*P2.0	BLMP06...		
2E2-44-105	TEBL-532-M16-06	5	1	32	31	63	38	24	M16*P2.0	BLMP06...		
2E2-44-110	TEBL-533-M16-06	5	1	33	31	63	38	24	M16*P2.0	BLMP06...		

TEMBL06

High Feed Face Mills

BLMP06 Series

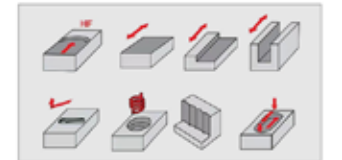
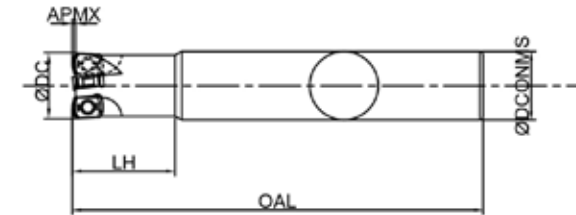


Order No	Designation	Teeth	Dimension (mm)								ANGLE	INSERT	Spare Parts	
			APMX	φ DC	φ DCONMS	OAL	φ d	b	a					
										SCREW			KEY	
232-44-005	TEMBL-435-16R-06	4	1	35	16	40	9	8.4	7	7°	BLMP06...	M2.5-002	T8	
232-44-010	TEMBL-540-16R-06	5	1	40	16	40	9	8.4	7	7°	BLMP06...			
232-44-015	TEMBL-650-22R-06	6	1	50	22	40	11	10.4	7	7°	BLMP06...			
232-44-020	TEMBL-863-22R-06	8	1	63	22	40	11	10.4	7	7°	BLMP06...			
232-44-025	TEMBL-1080-27R-06	10	1	80	27	50	13	12.4	7	7°	BLMP06...			

TEBL

High Feed End Mills

BLMP06 Series

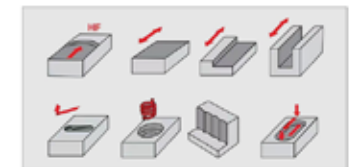
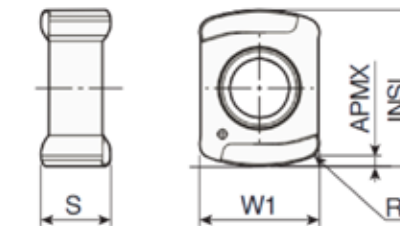


Order No	Designation	Teeth	Dimension (mm)					INSERT	Spare Parts	
			APMX	φDC	φDCONMS	OAL	LH			
									SCREW	KEY
242-44-060	TEBL-216-16-06-L120	2	1	16	16	120	35	BLMP06...	M2.5-002	T8
242-44-065	TEBL-217-16-06-L160	2	1	17	16	160	17	BLMP06...		
242-44-070	TEBL-320-20-06-L120	3	1	20	20	120	44	BLMP06...		
242-44-075	TEBL-320-20-06-L160	3	1	20	20	160	44	BLMP06...		
242-44-080	TEBL-321-20-06-L160	3	1	21	20	160	21	BLMP06...		
242-44-085	TEBL-321-20-06-L200	3	1	21	20	200	21	BLMP06...		
242-44-090	TEBL-425-25-06-L160	4	1	25	25	160	55	BLMP06...		
242-44-095	TEBL-425-25-06-L200	4	1	25	25	200	55	BLMP06...		
242-44-100	TEBL-426-25-06-L160	4	1	26	25	160	26	BLMP06...		
242-44-105	TEBL-426-25-06-L200	4	1	26	25	200	26	BLMP06...		
242-44-110	TEBL-532-32-06-L160	5	1	32	25	160	70	BLMP06...		
242-44-115	TEBL-532-32-06-L200	5	1	32	32	200	70	BLMP06...		
242-44-120	TEBL-533-32-06-L160	5	1	33	32	160	33	BLMP06...		
242-44-125	TEBL-533-32-06-L200	5	1	33	32	200	33	BLMP06...		

BLMP0603

High Feed Milling Carbide Inserts

BLMP06 Series

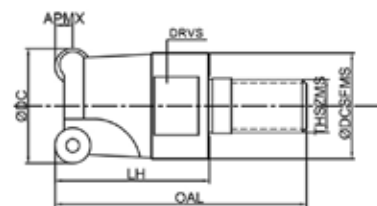


Order No	Designation	Dimension (mm)						
		IC	S	RE	APMX	Screw	Key	
377-30-002	BLMP0603R-M	9	3.73	0.9	1	M2.5-002	T8	

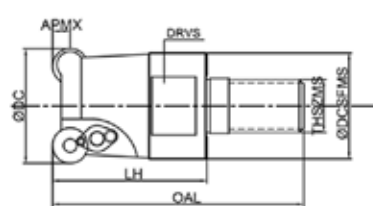
BRP/SBRP

High Feed Modular Heads

RP08/RP10/RP12 Series



Type 1



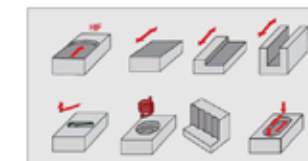
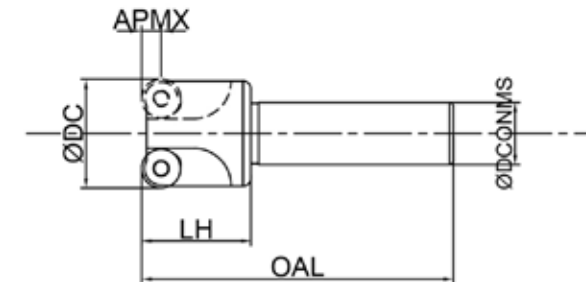
Type 2

Order No	Designation	Teeth	Dimension (mm)						TYPE	THSZMS	INSERT	Spare Parts		
			APMX	φDC	φDCONMS	OAL	LH	DRVS				CLAMP	SCREW	KEY
2E2-68-005	SBRP 4R 16 2T M8	2	4	16	15	43	25.5	12	1	M8*P1.25	RP08T2..	---	M3.0-004	T8
2E2-68-010	SBRP 4R 17 2T M8	2	4	17	15	43	25.5	12	1	M8*P1.25	RP08T2..			
2E2-68-015	SBRP 4R 20 2T M10	2	4	20	19	49	29	15	1	M10*P1.5	RP08T2..			
2E2-68-020	SBRP 4R 25 3T M12	3	4	25	24	57	35	19	1	M12*P1.75	RP08T2..			
2E2-68-025	SBRP 4R 26 3T M12	3	4	26	24	57	35	19	1	M12*P1.75	RP08T2..			
2E2-68-030	BRP 5R 21 2T M10	2	5	21	19	49	29	15	2	M16*P2.0	RP10T3..	R5YD	M3.5-003	T15
2E2-68-035	BRP 5R 25 2T M12	2	5	25	24	57	35	19	2	M12*P1.75	RP10T3..			
2E2-68-040	BRP 5R 26 2T M12	2	5	26	24	57	35	19	2	M12*P1.75	RP10T3..			
2E2-68-045	BRP 5R 32 3T M16	3	5	32	31	63	38	24	2	M16*P2.0	RP10T3..			
2E2-68-050	BRP 5R 33 3T M16	3	5	33	31	63	38	24	2	M16*P2.0	RP10T3..			
2E2-68-055	BRP 5R 35 3T M16	3	5	35	31	63	38	24	2	M16*P2.0	RP10T3..			
2E2-68-060	BRP 6R 25 2T M12	2	6	25	24	57	35	19	2	M12*P1.75	RP1204..	R6YD	M4.0-001	T15
2E2-68-065	BRP 6R 26 2T M12	2	6	26	24	57	35	19	2	M12*P1.75	RP1204..			
2E2-68-070	BRP 6R 32 2T M16	2	6	32	31	63	38	24	2	M16*P2.0	RP1204..			
2E2-68-075	BRP 6R 33 2T M16	2	6	33	31	63	38	24	2	M16*P2.0	RP1204..			
2E2-68-080	BRP 6R 35 3T M16	3	6	35	31	63	38	24	2	M16*P2.0	RP1204..			
2E2-68-085	BRP 6R 40 4T M16	4	6	40	31	63	38	24	2	M16*P2.0	RP1204..			

EMR-R5

Milling Cutter for Multi-Tasking Machine Tool

RP10 Series



Order No	Designation	Teeth	Dimension (mm)					INSERT	Spare Parts	
			APMX	φDC	φDCONMS	OAL	LH		SCREW	KEY
242-68-005	EMR-21-S16-80 R5 2T	2	2	21	16	80	30	RP..10T3	M3.5-003	T15
242-68-010	EMR-25-S16-80 R5 2T	2	2	25	16	80	30	RP..10T3		
242-68-015	EMR-28-S16-80 R5 3T	3	2	28	16	80	30	RP..10T3		
242-68-020	EMR-30-S16-80 R5 3T	3	2	30	16	80	30	RP..10T3		
242-68-025	EMR-32-S16-80 R5 3T	3	2	32	16	80	30	RP..10T3		
242-68-030	EMR-35-S16-80 R5 3T	3	2	35	16	80	30	RP..10T3		
242-68-035	EMR-40-S16-80 R5 4T	4	2	40	16	80	30	RP..10T3		

INDEXABLE SQUARE SHOULDER MILLING CUTTERS

Page 031  BAP300R/400R	Page 036  ASM07	Page 036  JDMT	Page 039  MFWN90
Page 044  TF90WN	Page 039  WNMU04/06	Page 042  WNMU05/08	Page 046  YH
Page 046  ZNMU	Page 050  4N TE90	Page 050  4NKT	

HARLINGEN®

Square Shoulder Mill

JDMT070204 SERIES



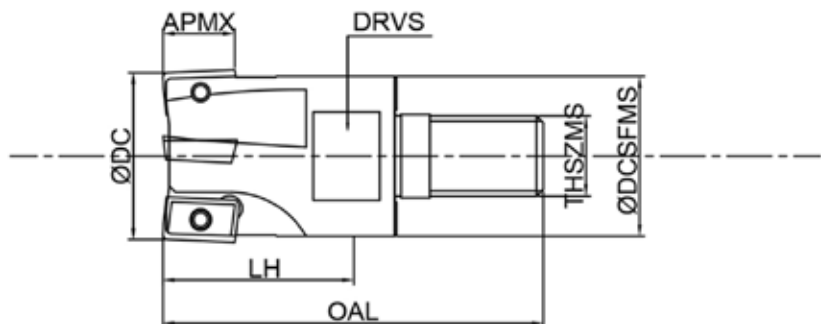
- A wide range of small diameter tool holders starting from 8mm.
- Large tilt angle design allows for easy machining.
- Excellent surface finish and smooth chip removal.

Think Cutting, Think HARLINGEN!

BAP300R

Square Shoulder Modular Heads

AP□□1135 Series

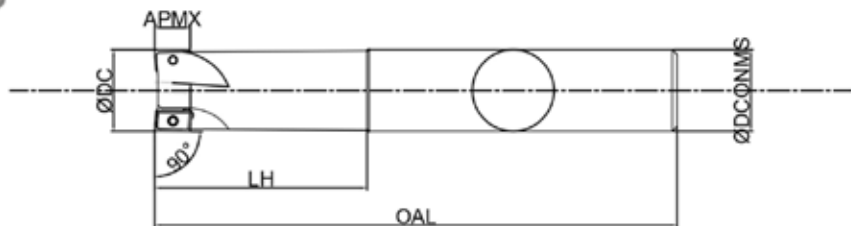


Order No	Designation	Teeth	Dimension (mm)						THSZMS	INSERT	Spare Parts	
			APMX	φ DC	φ DCSFMS	OAL	LH	DRVS				
2E2-59-005	BAP300R 16 2T M08	2	10	16	15	43	25.5	12	M8*P1.25	AP..1135	M2.5-002	T8
2E2-59-010	BAP300R 20 2T M10	2	10	20	19	49	29	15	M10*P1.5	AP..1135		
2E2-59-015	BAP300R 25 3T M12	3	10	25	24	57	35	19	M12*P1.75	AP..1135		
2E2-59-020	BAP300R 26 3T M12	3	10	26	24	57	35	19	M12*P1.75	AP..1135		
2E2-59-025	BAP300R 32 4T M16	3	10	32	31	63	38	24	M16*P2.0	AP..1135		
2E2-59-030	BAP300R 35 4T M16	4	10	35	34	63	38	24	M16*P2.0	AP..1135		

BAP300R

Square Shoulder End Mills

AP□□1135 Series

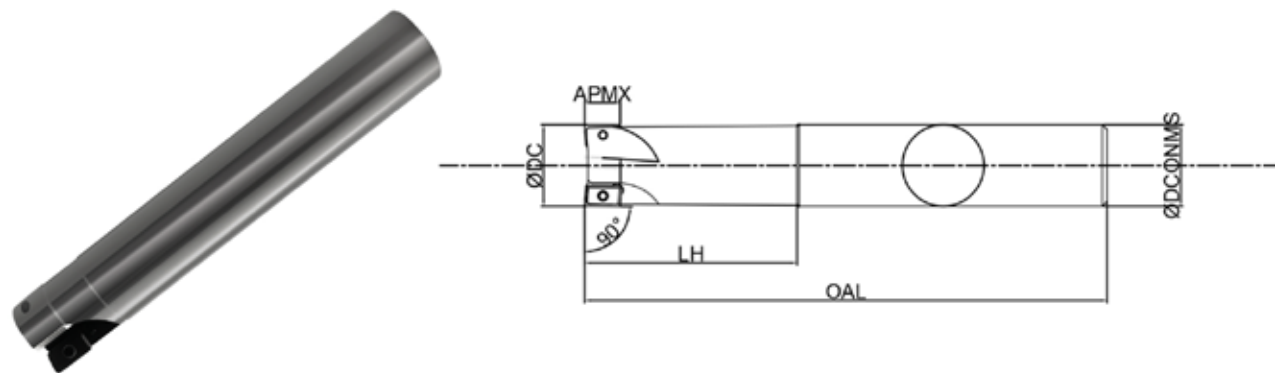


Order No	Designation	Teeth	Dimension (mm)					INSERT	Spare Parts	
			APMX	φ DC	φ DCONMS	OAL	LH			
									SCREW	KEY
242-59-105	BAP300R 10 1T 10-120	1	10	10	10	120	30	AP...1135	M2.5-005	T8
242-59-110	BAP300R 12 1T 12-120	1	10	12	12	120	40	AP...1135		
242-59-115	BAP300R 14 2T 14-120	2	10	14	14	120	46	AP...1135		
242-59-120	BAP300R 14 2T 14-160	2	10	14	14	160	46	AP...1135		
242-59-125	BAP300R 15 2T 15-120	2	10	15	15	120	20	AP...1135		
242-59-130	BAP300R 15 2T 15-150	2	10	15	15	150	20	AP...1135		
242-59-135	BAP300R 15 2T 15-160	2	10	15	15	160	20	AP...1135		
242-59-140	BAP300R 15 2T 15-200	2	10	15	15	200	20	AP...1135		
242-59-145	BAP300R 16 2T 16-120	2	10	16	16	120	35	AP...1135		
242-59-150	BAP300R 16 2T 16-150	2	10	16	16	150	35	AP...1135		
242-59-155	BAP300R 16 2T 16-160	2	10	16	16	160	35	AP...1135		
242-59-160	BAP300R 16 2T 16-200	2	10	16	16	200	35	AP...1135		
242-59-165	BAP300R 17 2T 16-120	2	10	17	16	120	20	AP...1135		
242-59-170	BAP300R 17 2T 16-150	2	10	17	16	150	20	AP...1135		
242-59-175	BAP300R 17 2T 16-160	2	10	17	16	160	20	AP...1135		
242-59-180	BAP300R 17 2T 16-200	2	10	17	16	200	20	AP...1135		
242-59-185	BAP300R 20 2T 20-120	2	10	20	20	120	50	AP...1135		
242-59-190	BAP300R 20 2T 20-150	2	10	20	20	150	50	AP...1135		
242-59-195	BAP300R 20 2T 20-160	2	10	20	20	160	50	AP...1135		
242-59-200	BAP300R 20 2T 20-200	2	10	20	20	200	50	AP...1135		
242-59-205	BAP300R 21 2T 20-120	2	10	21	20	120	21	AP...1135		
242-59-210	BAP300R 21 2T 20-150	2	10	21	20	150	21	AP...1135		
242-59-215	BAP300R 21 2T 20-160	2	10	21	20	160	21	AP...1135		
242-59-220	BAP300R 21 2T 21-200	2	10	21	20	200	21	AP...1135		
242-59-225	BAP300R 25 3T 25-120	3	10	25	25	120	50	AP...1135		
242-59-230	BAP300R 25 3T 25-150	3	10	25	25	150	50	AP...1135		

BAP300R

Square Shoulder End Mills

AP□□1135 Series

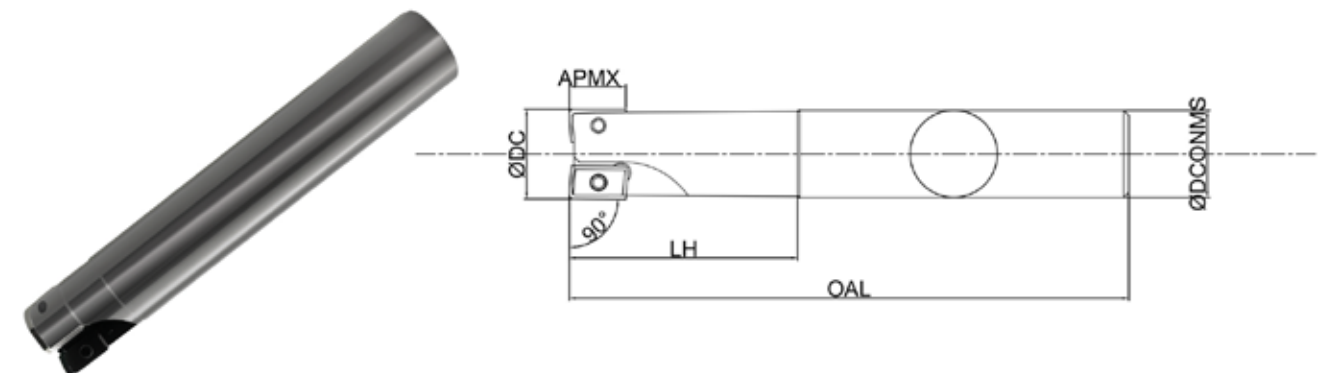


Order No	Designation	Teeth	Dimension (mm)					INSERT	Spare Parts	
			APMX	φDC	φDCONMS	OAL	LH		SCREW	KEY
242-59-235	BAP300R 25 3T 25-160	3	10	25	25	160	50	AP...1135	M2.5-005	T8
242-59-240	BAP300R 25 3T 25-200	3	10	25	25	200	50	AP...1135		
242-59-245	BAP300R 26 3T 25-120	3	10	26	25	120	26	AP...1135		
242-59-250	BAP300R 26 3T 25-150	3	10	26	25	150	26	AP...1135		
242-59-255	BAP300R 26 3T 25-160	3	10	26	25	160	26	AP...1135		
242-59-260	BAP300R 26 3T 25-200	3	10	26	25	200	26	AP...1135		
242-59-265	BAP300R 32 3T 32-160	3	10	32	32	160	50	AP...1135		
242-59-270	BAP300R 32 3T 32-200	3	10	32	32	200	50	AP...1135		
242-59-275	BAP300R 32 3T 32-250	3	10	32	32	250	50	AP...1135		
242-59-280	BAP300R 35 3T 32-160	3	10	35	32	160	44	AP...1135		
242-59-285	BAP300R 35 3T 32-200	3	10	35	32	200	44	AP...1135		
242-59-290	BAP300R 35 3T 32-250	3	10	35	32	250	44	AP...1135		
242-59-295	BAP300R 40 3T 32-160	3	10	40	32	160	30	AP...1135		
242-59-300	BAP300R 40 3T 32-200	3	10	40	32	200	30	AP...1135		
242-59-305	BAP300R 40 3T 32-250	3	10	40	32	250	30	AP...1135		

BAP400R

Square Shoulder End Mills

AP□□1604 Series

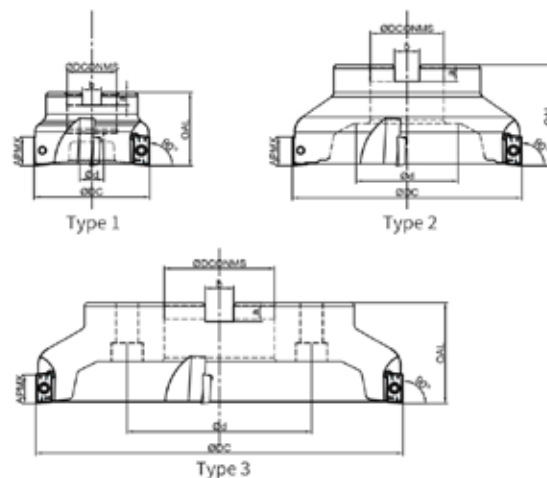
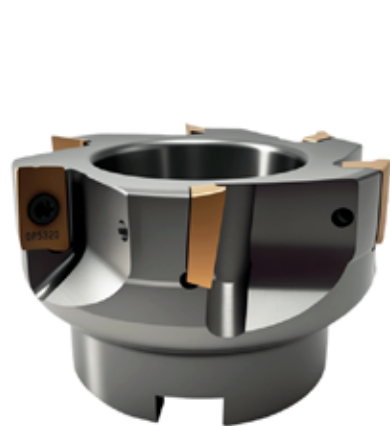


Order No	Designation	Teeth	Dimension (mm)					INSERT	Spare Parts	
			APMX	φDC	φDCONMS	OAL	LH		SCREW	KEY
242-59-310	BAP400R 25 2T 25-120	2	15	25	25	120	50	AP...1604	M4.0-001	T15
242-59-315	BAP400R 25 2T 25-150	2	15	25	25	150	50	AP...1604		
242-59-320	BAP400R 25 2T 25-160	2	15	25	25	160	50	AP...1604		
242-59-325	BAP400R 25 2T 25-200	2	15	25	25	200	50	AP...1604		
242-59-330	BAP400R 25 2T 25-250	2	15	25	25	250	50	AP...1604		
242-59-335	BAP400R 26 2T 25-120	2	15	26	25	120	26	AP...1604		
242-59-340	BAP400R 26 2T 25-150	2	15	26	25	150	26	AP...1604		
242-59-345	BAP400R 26 2T 25-160	2	15	26	25	160	26	AP...1604		
242-59-350	BAP400R 26 2T 25-200	2	15	26	25	200	26	AP...1604		
242-59-355	BAP400R 26 2T 25-250	2	15	26	25	250	26	AP...1604		
242-59-360	BAP400R 32 2T 32-160	2	15	32	32	160	56	AP...1604		
242-59-365	BAP400R 32 2T 32-200	2	15	32	32	200	56	AP...1604		
242-59-370	BAP400R 32 2T 32-250	2	15	32	32	250	56	AP...1604		
242-59-375	BAP400R 35 3T 32-160	3	15	35	32	160	33	AP...1604		
242-59-380	BAP400R 35 3T 32-200	3	15	35	32	200	33	AP...1604		
242-59-385	BAP400R 35 3T 32-250	3	15	35	32	250	33	AP...1604		
242-59-390	BAP400R 35 3T 32-300	3	15	35	32	300	33	AP...1604		
242-59-395	BAP400R 40 3T 32-160	3	15	40	32	160	33	AP...1604		
242-59-400	BAP400R 40 3T 32-200	3	15	40	32	200	33	AP...1604		
242-59-405	BAP400R 40 3T 32-250	3	15	40	32	250	33	AP...1604		
242-59-410	BAP400R 40 3T 32-300	3	15	40	32	300	33	AP...1604		

BAP400R

Square Shoulder Face Mills

AP□□1604 Series

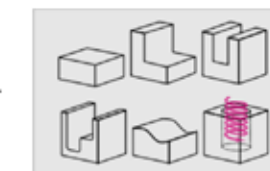
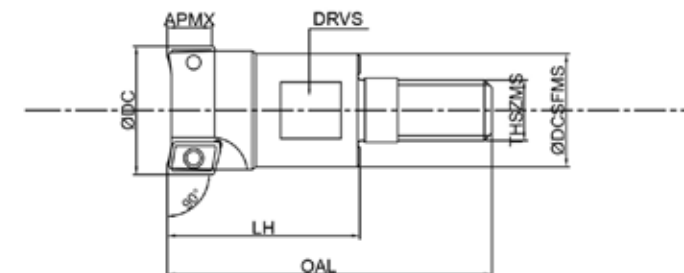


Order No	Designation	Teeth	Dimension (mm)								TYPE	ANGLE	INSERT	Spare Parts	
			APMX	φ DC	φ DCONMS	OAL	φ d	b	a						
															SCREW
232-59-105	BAP400R 050 4T 22	4	15	50	22	40	17	10.4	7	1	90°	AP...1604	M4.0-001	T15	
232-59-110	BAP400R 050 5T 22	5	15	50	22	40	17	10.4	7	1	90°	AP...1604			
232-59-115	BAP400R 063 4T 22	4	15	63	22	40	17	10.4	7	1	90°	AP...1604			
232-59-120	BAP400R 063 5T 22	5	15	63	22	40	17	10.4	7	1	90°	AP...1604			
232-59-125	BAP400R 080 5T 27	5	15	80	27	50	38	12.4	7	1	90°	AP...1604			
232-59-130	BAP400R 080 6T 27	6	15	80	27	50	38	12.4	7	1	90°	AP...1604			
232-59-135	BAP400R 100 6T 32	6	15	100	32	50	42	14.4	9	1	90°	AP...1604			
232-59-140	BAP400R 100 8T 32	8	15	100	32	50	42	14.4	9	1	90°	AP...1604			
232-59-145	BAP400R 125 8T 40	8	15	125	40	55	55	16.4	9	2	90°	AP...1604			
232-59-150	BAP400R 160 10T 40	10	15	160	40	55	90	16.4	9	2	90°	AP...1604			
232-59-155	BAP400R 200 12T 60	12	15	200	60	55	101.6	25.8	14	3	90°	AP...1604			
232-59-160	BAP400R 250 14T 60	14	15	250	60	55	101.6	25.8	14	3	90°	AP...1604			

ASM07

Square Shoulder Modular Heads

JDMT07 Series

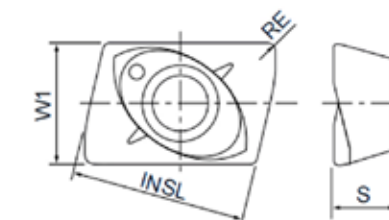


Order No	Designation	Teeth	Dimension (mm)							THSZMS	INSERT	Spare Parts	
			APMX	φDC	φDCSFMS	OAL	LH	DRVS					
													SCREW
2E2-45-005	ASM0708S04M-1	1	5	8	7.8	28	17	7	M4*P0.7	JDMT07	M1.8-002	T6	
2E2-45-010	ASM0709S04M-1	1	5	9	7.8	28	17	7	M4*P0.7	JDMT07			
2E2-45-015	ASM0710S05M-2	2	5	10	9	29	17	7	M5*P0.8	JDMT07			
2E2-45-020	ASM0711S05M-2	2	5	11	9	29	17	7	M5*P0.8	JDMT07			
2E2-45-025	ASM0712S06M-3	3	5	12	11	32	17	9	M6*P1.0	JDMT07			
2E2-45-030	ASM0713S06M-3	3	5	13	11	32	17	9	M6*P1.0	JDMT07			
2E2-45-035	ASM0714S06M-3	3	5	14	13	32	17	10	M6*P1.0	JDMT07			
2E2-45-040	ASM0716S08M-4	4	5	16	15	43	25.5	12	M8*P1.25	JDMT07			
2E2-45-045	ASM0717S08M-4	4	5	17	15	43	25.5	12	M8*P1.25	JDMT07			

JDMT070204

Square Shoulder Milling Carbide Inserts

JDMT07 Series

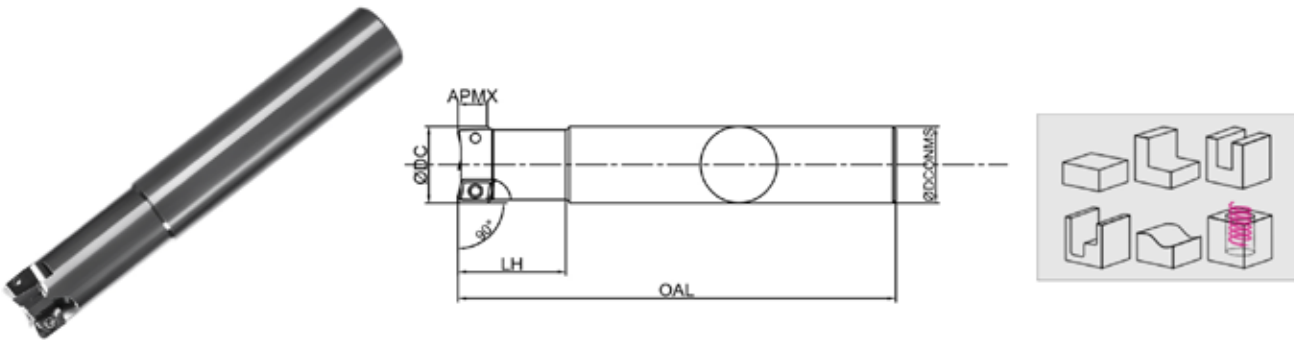


Order No	Designation	Dimension (mm)						
		IC	S	RE	APMX	W1	Screw	Key
377-31-001	JDMT070204R	6.4	2.45	0.4	5	4.3	M1.8-002	T6

ASM07

Square Shoulder End Mills

JDMT07 Series



Order No	Designation	Teeth	Dimension (mm)					INSERT	Spare Parts	
			APMX	φDC	φDCONMS	OAL	LH		SCREW	KEY
242-45-005	ASM0708 S10R-1-100	1	5	8	10	100	17	JDMT07	M1.8-002	T6
242-45-010	ASM0709 S10R-1-100	1	5	9	10	100	19	JDMT07		
242-45-015	ASM0710 S10R-2-100	2	5	10	10	100	22	JDMT07		
242-45-020	ASM0710 S10R-2-120	2	5	10	10	120	22	JDMT07		
242-45-025	ASM0711 S10R-2-100	2	5	11	10	100	11	JDMT07		
242-45-030	ASM0711 S10R-2-120	2	5	11	10	120	11	JDMT07		
242-45-035	ASM0712 S12R-3-80	3	5	12	12	80	26	JDMT07		
242-45-040	ASM0712 S12R-3-100	3	5	12	12	100	26	JDMT07		
242-45-045	ASM0712 S12R-3-120	3	5	12	12	120	26	JDMT07		
242-45-050	ASM0713 S12R-3-120	3	5	13	12	120	13	JDMT07		
242-45-055	ASM0714 S14R-3-100	3	5	14	14	100	30	JDMT07		
242-45-060	ASM0714 S14R-3-120	3	5	14	14	120	30	JDMT07		
242-45-065	ASM0714 S14R-3-160	3	5	14	14	160	30	JDMT07		
242-45-070	ASM0715 S14R-3-120	3	5	15	14	120	15	JDMT07		
242-45-075	ASM0715 S14R-3-160	3	5	15	14	160	15	JDMT07		
242-45-080	ASM0716 S16R-4-100	3	5	16	16	100	35	JDMT07		
242-45-085	ASM0716 S16R-4-120	4	5	16	16	120	35	JDMT07		
242-45-090	ASM0716 S16R-4-160	4	5	16	16	160	35	JDMT07		
242-45-095	ASM0717 S16R-4-120	4	5	17	16	120	17	JDMT07		
242-45-100	ASM0717 S16R-4-160	4	5	17	16	160	17	JDMT07		



Square Shoulder Mill

WNMU04 / WNMU05
WNMU06 / WNMU08
ZNMU08 SERIES



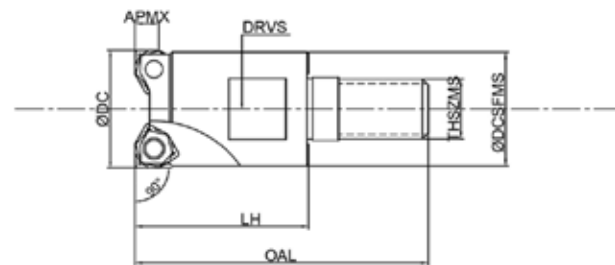
- Double-sided hexagonal Insert with negative clearance angle,
- High-performance cutting at low-cost
- Square Shoulder milling, face milling, plunge milling

Think Cutting, Think HARLINGEN!

MFWN90

Square Shoulder Modular Heads

WNMU04 Series

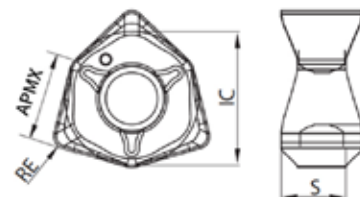


Order No	Designation	Teeth	Dimension (mm)						THSZMS	INSERT	Spare Parts	
			APMX	φDC	φDCSFMS	OAL	LH	DRVS			SCREW	KEY
2E2-46-005	MFWN90-16-M08-04-2T	2	4	16	15	43	25.5	12	M8*P1.25	WNMU04	M2.5-006	T8
2E2-46-010	MFWN90-17-M08-04-2T	2	4	17	15	43	25.5	12	M8*P1.25	WNMU04		
2E2-46-015	MFWN90-20-M10-04-3T	3	4	20	19	49	29	15	M10*P1.5	WNMU04		
2E2-46-020	MFWN90-21-M10-04-3T	3	4	21	19	49	29	15	M10*P1.5	WNMU04		
2E2-46-025	MFWN90-25-M12-04-3T	3	4	25	24	57	35	19	M12*P1.75	WNMU04		
2E2-46-030	MFWN90-26-M12-04-3T	3	4	26	24	57	35	19	M12*P1.75	WNMU04		
2E2-46-035	MFWN90-32-M16-04-4T	4	4	32	31	63	38	24	M16*P2.0	WNMU04		
2E2-46-040	MFWN90-33-M16-04-4T	4	4	33	31	63	38	24	M16*P2.0	WNMU04		
2E2-46-045	MFWN90-35-M16-04-5T	5	4	35	31	63	38	24	M16*P2.0	WNMU04		

WNMU04

Square Shoulder Milling Carbide Inserts

WNMU04 Series

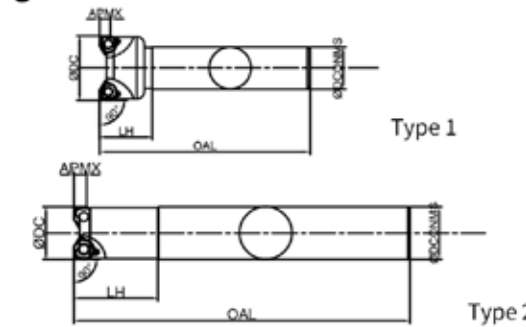


Order No	Designation	Dimension (mm)					
		IC	S	RE	APMX	Screw	Key
377-32-005	WNMU040304-GM	6.70	3.31	0.4	4	M2.5-006	T8

MFWN90

Milling Cutters for Multi-Tasking Machine Tool

WNMU04 Series

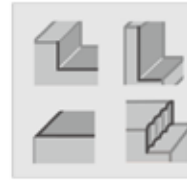
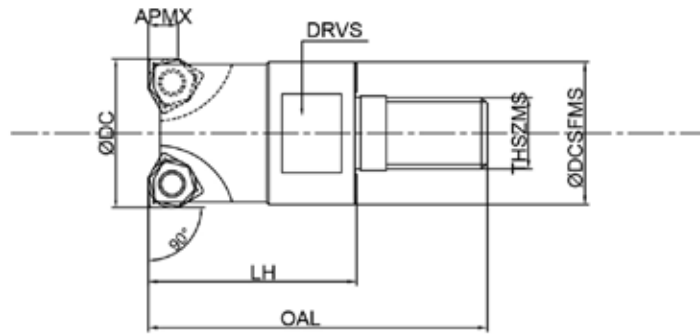


Order No	Designation	Teeth	Dimension (mm)					TYPE	INSERT	Spare Parts	
			APMX	φDC	φDCONMS	OAL	LH			SCREW	KEY
242-46-005	MFWN90 16-S16-80-04-2T	2	4	16	16	80	20	1	WNMU04...	M2.5-006	T8
242-46-010	MFWN90 17-S16-80-04-2T	2	4	17	16	80	20	1	WNMU04...		
242-46-015	MFWN90 18-S16-80-04-2T	2	4	18	16	80	20	1	WNMU04...		
242-46-020	MFWN90 19-S16-80-04-2T	2	4	19	16	80	20	1	WNMU04...		
242-46-025	MFWN90 20-S16-80-04-3T	3	4	20	16	80	20	1	WNMU04...		
242-46-030	MFWN90 21-S16-80-04-3T	3	4	21	16	80	20	1	WNMU04...		
242-46-035	MFWN90 22-S16-80-04-3T	3	4	22	16	80	20	1	WNMU04...		
242-46-040	MFWN90 23-S16-80-04-3T	3	4	23	16	80	20	1	WNMU04...		
242-46-045	MFWN90 24-S16-80-04-3T	3	4	24	16	80	20	1	WNMU04...		
242-46-050	MFWN90 25-S16-80-04-3T	3	4	25	16	80	20	1	WNMU04...		
242-46-055	MFWN90 26-S16-80-04-3T	3	4	26	16	80	20	1	WNMU04...		
242-46-060	MFWN90 28-S16-80-04-4T	4	4	28	16	80	20	1	WNMU04...		
242-46-065	MFWN90 30-S16-80-04-4T	4	4	30	16	80	20	1	WNMU04...		
242-46-070	MFWN90 32-S16-80-04-4T	4	4	32	16	80	20	1	WNMU04...		
242-46-075	MFWN90 35-S16-80-04-5T	5	4	35	16	80	20	1	WNMU04...		
242-46-080	MFWN90 40-S16-80-04-5T	5	4	40	16	80	20	1	WNMU04...		
242-46-085	MFWN90 16-S16-120-04-2T	2	4	16	16	120	35	2	WNMU04...		
242-46-090	MFWN90 16-S16-160-04-2T	2	4	16	16	160	35	2	WNMU04...		
242-46-095	MFWN90 16-S16-200-04-2T	2	4	16	16	200	35	2	WNMU04...		
242-46-100	MFWN90 17-S16-120-04-2T	2	4	17	16	120	17	2	WNMU04...		
242-46-105	MFWN90 17-S16-160-04-2T	2	4	17	16	160	17	2	WNMU04...		
242-46-110	MFWN90 17-S16-200-04-2T	2	4	17	16	200	22	2	WNMU04...		
242-46-115	MFWN90 20-S20-120-04-3T	3	4	20	20	120	44	2	WNMU04...		
242-46-120	MFWN90 20-S20-160-04-3T	3	4	20	20	160	44	2	WNMU04...		
242-46-125	MFWN90 20-S20-200-04-3T	3	4	20	20	200	44	2	WNMU04...		
242-46-130	MFWN90 21-S20-120-04-3T	3	4	21	20	120	21	2	WNMU04...		
242-46-135	MFWN90 21-S20-160-04-3T	3	4	21	20	160	21	2	WNMU04...		
242-46-140	MFWN90 21-S20-200-04-3T	3	4	21	20	200	22	2	WNMU04...		
242-46-145	MFWN90 25-S25-120-04-3T	3	4	25	25	120	55	2	WNMU04...		
242-46-150	MFWN90 25-S25-160-04-3T	3	4	25	25	160	55	2	WNMU04...		
242-46-155	MFWN90 25-S25-200-04-3T	3	4	25	25	200	55	2	WNMU04...		
242-46-160	MFWN90 26-S25-120-04-3T	3	4	26	25	120	26	2	WNMU04...		
242-46-165	MFWN90 26-S25-160-04-3T	3	4	26	25	160	26	2	WNMU04...		
242-46-170	MFWN90 26-S25-200-04-3T	3	4	26	25	200	26	2	WNMU04...		
242-46-175	MFWN90 32-S32-120-04-4T	4	4	32	32	120	64	2	WNMU04...		
242-46-180	MFWN90 32-S32-160-04-4T	4	4	32	32	160	70	2	WNMU04...		
242-46-185	MFWN90 32-S32-200-04-4T	4	4	32	32	200	70	2	WNMU04...		
242-46-190	MFWN90 33-S32-160-04-4T	4	4	33	32	160	33	2	WNMU04...		
242-46-195	MFWN90 33-S32-200-04-4T	4	4	33	32	200	33	2	WNMU04...		

MFWN90

Square Shoulder Modular Heads

WNMU05 Series

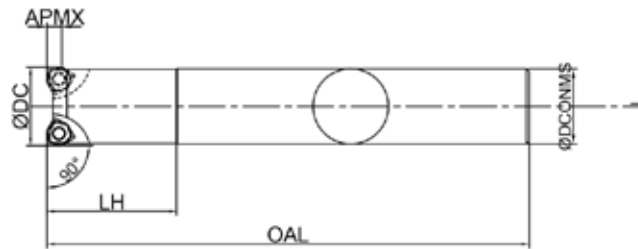


Order No	Designation	Teeth	Dimension (mm)						THSZMS	INSERT	Spare Parts	
			APMX	φDC	φDCSFMS	OAL	LH	DRVS			SCREW	KEY
2E2-46-050	MFWN90-25-M12-05-2T	2	5	25	24	57	35	19	M12*P1.75	WNMU05...	M3.0-004	T8
2E2-46-055	MFWN90-26-M12-05-2T	2	5	26	24	57	35	19	M12*P1.75	WNMU05...		
2E2-46-060	MFWN90-32-M16-05-3T	3	5	32	31	63	38	24	M16*P2.0	WNMU05...		
2E2-46-065	MFWN90-33-M16-05-3T	3	5	33	31	63	38	24	M16*P2.0	WNMU05...		
2E2-46-070	MFWN90-35-M16-05-4T	4	5	35	31	63	38	24	M16*P2.0	WNMU05...		

MFWN90

Square Shoulder End Mills

WNMU05 Series

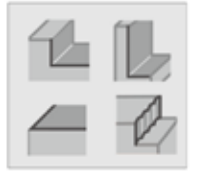
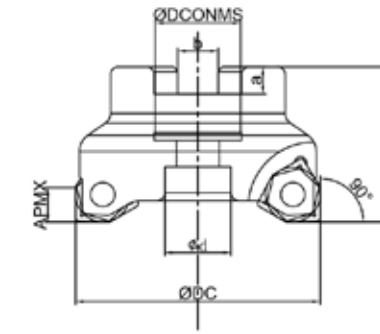
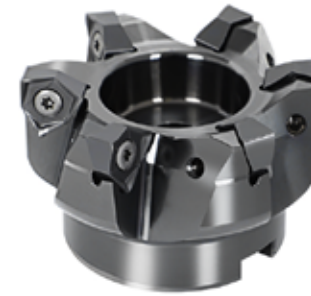


Order No	Designation	Teeth	Dimension (mm)					INSERT	Spare Parts	
			APMX	φDC	φDCONMS	OAL	LH		SCREW	KEY
242-46-200	MFWN90 25-S25-120-05-2T	2	5	25	25	120	55	WNMU05...	M3.0-004	T8
242-46-205	MFWN90 25-S25-160-05-2T	2	5	25	25	160	55	WNMU05...		
242-46-210	MFWN90 26-S25-120-05-2T	2	5	26	25	120	26	WNMU05...		
242-46-215	MFWN90 26-S25-160-05-2T	2	5	26	25	160	26	WNMU05...		
242-46-220	MFWN90 26-S25-200-05-2T	2	5	26	25	200	26	WNMU05...		
242-46-225	MFWN90 32-S32-160-05-3T	3	5	32	32	160	70	WNMU05...		
242-46-230	MFWN90 32-S32-200-05-3T	3	5	32	32	200	70	WNMU05...		
242-46-235	MFWN90 33-S32-160-05-3T	3	5	33	32	160	33	WNMU05...		
242-46-240	MFWN90 33-S32-200-05-3T	3	5	33	32	200	33	WNMU05...		

MFWN90

Square Shoulder Face Mills

WNMU04/05 Series

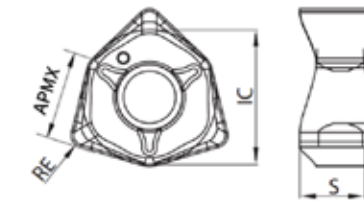
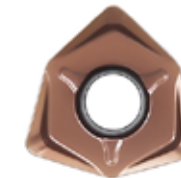


Order No	Designation	Teeth	Dimension (mm)							ANGLE	INSERT	Spare Parts		
			APMX	φDC	φDCONMS	OAL	φd	b	a					
												SCREW	KEY	
232-46-005	MFWN90040R-04-5T-M	5	4	40	16	40	9	8.4	7	90°	WNMU04...	M2.5-006	T8	
232-46-010	MFWN90050R-04-5T-M	5	4	50	22	40	11	10.4	7	90°	WNMU04...			
232-46-015	MFWN90063R-04-6T-M	6	4	63	22	40	11	10.4	7	90°	WNMU04...			
232-46-020	MFWN90080R-04-8T-M	8	4	80	27	50	13	12.4	7	90°	WNMU04...			
232-46-025	MFWN90040R-05-5T-M	5	5	40	16	40	9	8.4	7	90°	WNMU05...	M3.0-004		T8
232-46-030	MFWN90050R-05-5T-M	5	5	50	22	40	11	10.4	7	90°	WNMU05...			
232-46-035	MFWN90063R-05-6T-M	6	5	63	22	40	11	10.4	7	90°	WNMU05...			
232-46-040	MFWN90080R-05-10T-M	10	5	80	27	50	13	12.4	7	90°	WNMU05...			

WNMU050408

Square Shoulder Milling Carbide Inserts

WNMU05 Series

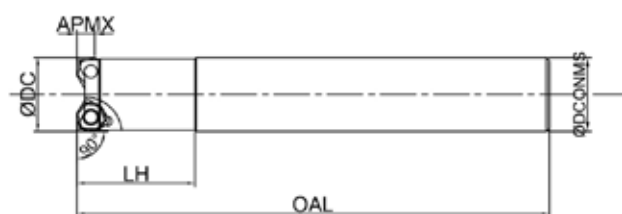


Order No	Designation	Dimension (mm)						Screw	Key
		IC	S	RE	APMX				
377-32-015	WNMU050408-GM	8.8	4.2	0.8	5			M3.0-00	T8

MFWN90

Square Shoulder End Mills

WNMU06 Series

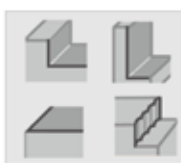
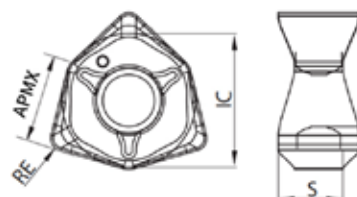


Order No	Designation	Teeth	Dimension (mm)					INSERT	Spare Parts	
			APMX	φDC	φDCONMS	OAL	LH		SCREW	KEY
242-46-245	MFWN90 25-S25-120-06-2T	2	6	25	25	120	55	WNMU06...	M3.5-003	T15
242-46-250	MFWN90 25-S25-160-06-2T	2	6	25	25	160	55	WNMU06...		
242-46-255	MFWN90 25-S25-200-06-2T	2	6	25	25	200	55	WNMU06...		
242-46-260	MFWN90 26-S25-160-06-2T	2	6	26	25	160	26	WNMU06...		
242-46-265	MFWN90 26-S25-200-06-2T	2	6	26	25	200	26	WNMU06...		
242-46-270	MFWN90 32-S32-160-06-3T	3	6	32	32	160	70	WNMU06...		
242-46-275	MFWN90 32-S32-200-06-3T	3	6	32	32	200	70	WNMU06...		
242-46-280	MFWN90 33-S32-160-06-3T	3	6	33	32	160	33	WNMU06...		
242-46-285	MFWN90 33-S32-200-06-3T	3	6	33	32	200	33	WNMU06...		

WNMU06

Square Shoulder Milling Carbide Inserts

WNMU06 Series

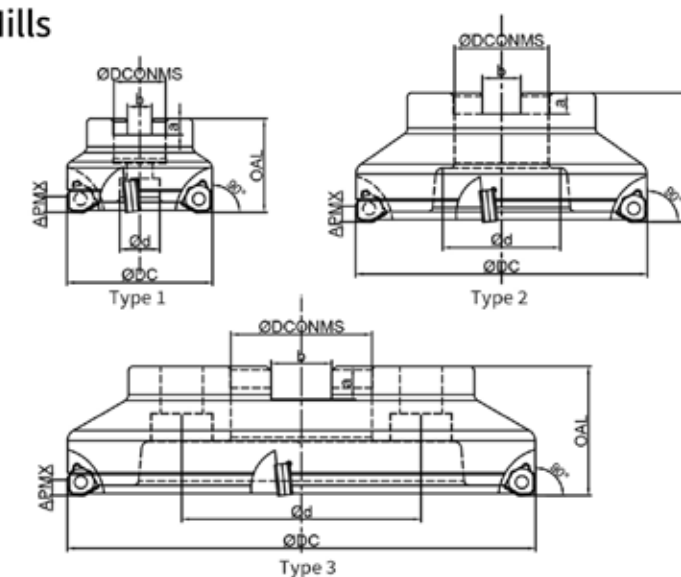
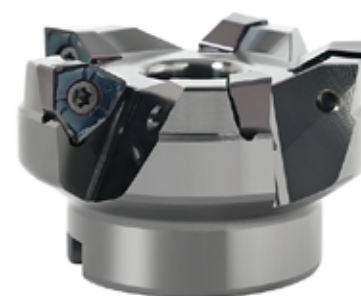


Order No	Designation	Dimension (mm)					Screw	Key
		IC	S	RE	APMX			
377-32-010	WNMU060408-GM	11.66	4	0.8	6		M3.5-003	T15

TF90WN0606

Square Shoulder Face Mills

WNMU06 Series

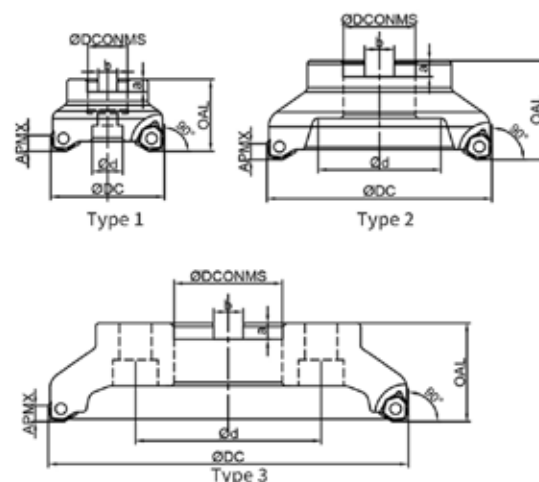
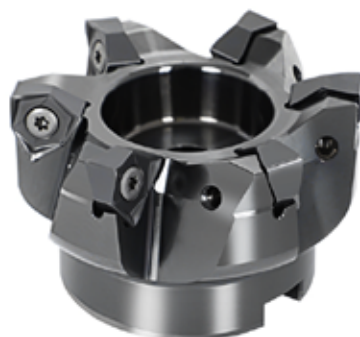


Order No	Designation	Teeth	Dimension (mm)								TYPE	ANGLE	INSERT	Spare Parts	
			APMX	φ DC	φ DCONIMS	OAL	φ d	b	a						
															SCREW
232-46-065	YH-XDP-06-90-40R-A16-3T-WNMU0606	3	6	40	16	40	M8	8.4	6	1	90°	WNMU06...	M4.0-005	T15	
232-46-070	YH-XDP-06-90-50R-A22-4T-WNMU0606	4	6	50	22	40	17	10.4	7	1	90°	WNMU06...			
232-46-075	YH-XDP-06-90-63R-A22-5T-WNMU0606	5	6	63	22	40	17	10.4	7	1	90°	WNMU06...			
232-46-080	YH-XDP-06-90-80R-A27-6T-WNMU0606	6	6	80	27	50	34	12.4	7	1	90°	WNMU06...			
232-46-085	YH-XDP-06-90-100R-A32-7T-WNMU0606	7	6	100	32	50	42	14.4	9	1	90°	WNMU06...			
232-46-090	YH-XDP-06-90-125R-A40-8T-WNMU0606	8	6	125	40	55	50	16.4	9	2	90°	WNMU06...			
232-46-095	YH-XDP-06-90-160R-A40-10T-WNMU0606	10	6	160	40	55	80	16.4	9	2	90°	WNMU06...			
232-46-100	YH-XDP-06-90-200R-A60-12T-WNMU0606	12	6	200	60	55	101.6	25.8	14	3	90°	WNMU06...			
232-46-105	YH-XDP-06-90-250R-A60-14T-WNMU0606	14	6	250	60	55	101.6	25.8	14	3	90°	WNMU06...			

MFWN90

Square Shoulder Face Mills

WNMU06/08 Series

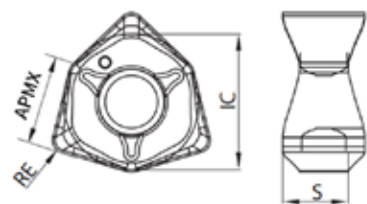


Order No	Designation	Teeth	Dimension (mm)								TYPE	ANGLE	INSERT	Spare Parts	
			APMX	φDC	φDCONMS	OAL	φd	b	a						
															SCREW
232-46-045	MFWN90040R-06-5T-M	5	6	40	16	40	14	8.4	7	1	90°	WNMU06...	M3.5-003	T15	
232-46-050	MFWN90050R-06-5T-M	5	6	50	22	40	17	10.4	7	1	90°	WNMU06...			
232-46-055	MFWN90063R-06-6T-M	6	6	63	22	40	17	10.4	7	1	90°	WNMU06...			
232-46-060	MFWN90080R-06-8T-M	8	6	80	27	50	34	12.4	7	1	90°	WNMU06...			
232-46-110	MFWN90050R-08-4T-M	4	8	50	22	40	17	10.4	7	1	90°	WNMU08...	M5.0-003	T20	
232-46-115	MFWN90063R-08-5T-M	5	8	63	22	40	17	10.4	7	1	90°	WNMU08...			
232-46-120	MFWN90080R-08-6T-M	6	8	80	27	50	34	12.4	7	1	90°	WNMU08...			
232-46-125	MFWN90100R-08-7T-M	7	8	100	32	50	42	14.4	9	1	90°	WNMU08...			
232-46-130	MFWN90125R-08-8T-M	8	8	125	40	55	68	16.4	9	2	90°	WNMU08...			
232-46-135	MFWN90160R-08-10T-M	10	8	160	40	55	103	16.4	9	2	90°	WNMU08...			
232-46-140	MFWN90200R-08-12T-M	12	8	200	60	55	101.6	25.8	14	3	90°	WNMU08...			
232-46-145	MFWN90250R-08-14T-M	14	8	250	60	55	101.6	25.8	14	3	90°	WNMU08...			

WNMU080608

Square Shoulder Milling Carbide Inserts

WNMU08 Series

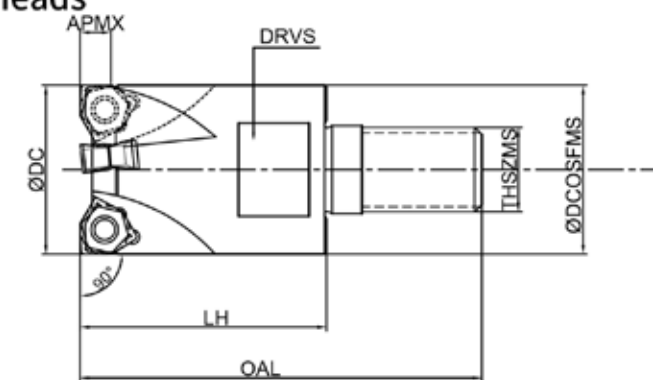


Order No	Designation	Dimension (mm)						Screw	Key
		IC	S	RE	APMX				
377-32-020	WNMU080608-GM	14.0	6.7	0.8	8			M5.0-003	T20

YH-SYT-06-09

Square Shoulder Modular Heads

ZNMU0403 Series

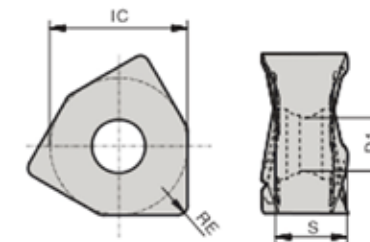
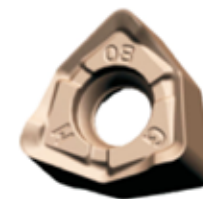


Order No	Designation	Teeth	Dimension (mm)						THSZMS	INSERT	Spare Parts	
			APMX	φDC	φDCS FMS	OAL	LH	DRVS			SCREW	KEY
2E2-47-005	YH-SYT-06-90-16-M8-2T-ZNMU0403-HR	2	4	16	15	43	25.5	12	M8*P1.25	ZNMU0403...	M2.5-002	T8
2E2-47-010	YH-SYT-06-90-17-M8-2T-ZNMU0403-HR	2	4	17	15	43	25.5	12	M8*P1.25	ZNMU0403...		
2E2-47-015	YH-SYT-06-90-18-M8-2T-ZNMU0403-HR	2	4	18	15	43	25.5	12	M8*P1.25	ZNMU0403...		
2E2-47-020	YH-SYT-06-90-19-M8-2T-ZNMU0403-HR	2	4	19	15	43	25.5	12	M8*P1.25	ZNMU0403...		
2E2-47-025	YH-SYT-06-90-20-M10-3T-ZNMU0403-HR	3	4	20	19	49	29	15	M10*P1.5	ZNMU0403...		
2E2-47-030	YH-SYT-06-90-21-M10-3T-ZNMU0403-HR	3	4	21	19	49	29	15	M10*P1.5	ZNMU0403...		
2E2-47-035	YH-SYT-06-90-23-M10-3T-ZNMU0403-HR	3	4	23	19	49	29	15	M10*P1.5	ZNMU0403...		
2E2-47-040	YH-SYT-06-90-25-M12-3T-ZNMU0403-HR	3	4	25	24	57	35	19	M12*P1.75	ZNMU0403...		
2E2-47-045	YH-SYT-06-90-26-M12-3T-ZNMU0403-HR	3	4	26	24	57	35	19	M12*P1.75	ZNMU0403...		
2E2-47-050	YH-SYT-06-90-28-M12-3T-ZNMU0403-HR	3	4	28	24	57	35	19	M12*P1.75	ZNMU0403...		
2E2-47-055	YH-SYT-06-90-30-M12-4T-ZNMU0403-HR	4	4	30	24	57	35	19	M12*P1.75	ZNMU0403...		
2E2-47-060	YH-SYT-06-90-32-M16-4T-ZNMU0403-HR	4	4	32	31	63	38	24	M16*P2.0	ZNMU0403...		
2E2-47-065	YH-SYT-06-90-35-M16-4T-ZNMU0403-HR	4	4	35	31	63	38	24	M16*P2.0	ZNMU0403...		
2E2-47-070	YH-SYT-06-90-40-M16-5T-ZNMU0403-HR	4	4	40	31	63	38	24	M16*P2.0	ZNMU0403...		

ZNMU0403

Square Shoulder Milling Carbide Inserts

ZNMU0403 Series

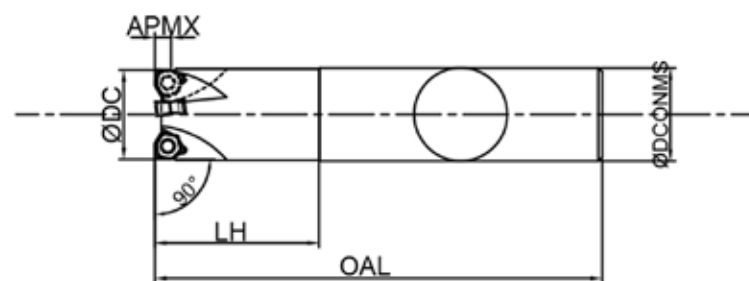
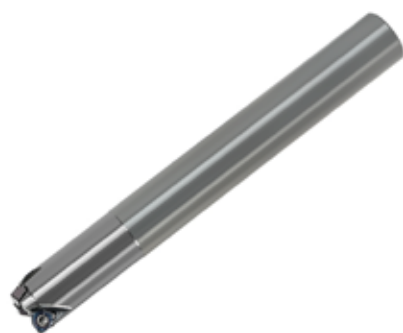


Order No	Designation	Dimension (mm)						Screw	Key
		IC	S	RE	APMX	D1			
377-33-001	ZNMU040308PNR-GM	7	3.65	0.8	4.2	2.8		M2.5-002	T8

YH-XDG-06-90

Square Shoulder End Mills

ZNMU0403 Series

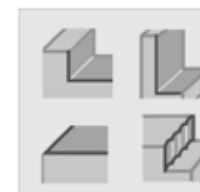
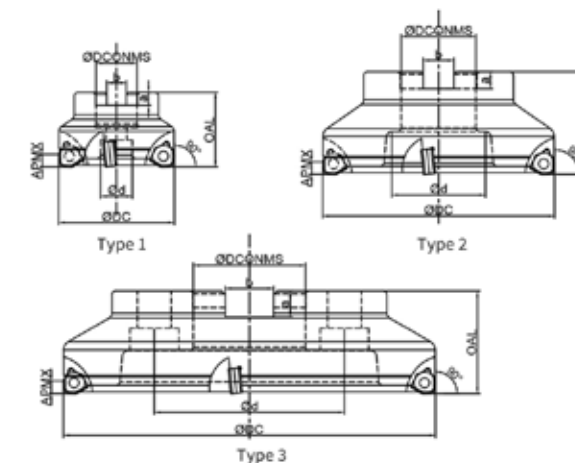


Order No	Designation	Teeth	Dimension (mm)					INSERT	Spare Parts	
			APMX	φDC	φDCONMS	OAL	LH			
									SCREW	KEY
242-47-005	YH-XDG-06-90-16S16-120-2T-ZNMU0403-HR	2	4	16	16	120	24	ZNMU0403...	M2.5-002	T8
242-47-010	YH-XDG-06-90-16S16-160-2T-ZNMU0403-HR	2	4	16	16	160	35	ZNMU0403...		
242-47-015	YH-XDG-06-90-17S16-120-2T-ZNMU0403-HR	2	4	17	16	120	17	ZNMU0403...		
242-47-020	YH-XDG-06-90-17S16-160-2T-ZNMU0403-HR	2	4	17	16	160	17	ZNMU0403...		
242-47-025	YH-XDG-06-90-20S20-120-3T-ZNMU0403-HR	3	4	20	20	120	30	ZNMU0403...		
242-47-030	YH-XDG-06-90-20S20-160-3T-ZNMU0403-HR	3	4	20	20	160	44	ZNMU0403...		
242-47-035	YH-XDG-06-90-20S20-200-3T-ZNMU0403-HR	3	4	20	20	200	44	ZNMU0403...		
242-47-040	YH-XDG-06-90-21S20-120-3T-ZNMU0403-HR	3	4	21	20	120	21	ZNMU0403...		
242-47-045	YH-XDG-06-90-21S20-160-3T-ZNMU0403-HR	3	4	21	20	160	21	ZNMU0403...		
242-47-050	YH-XDG-06-90-21S20-200-3T-ZNMU0403-HR	3	4	21	20	200	21	ZNMU0403...		
242-47-055	YH-XDG-06-90-25S25-120-3T-ZNMU0403-HR	3	4	25	25	120	37	ZNMU0403...		
242-47-060	YH-XDG-06-90-25S25-160-3T-ZNMU0403-HR	3	4	25	25	160	55	ZNMU0403...		
242-47-065	YH-XDG-06-90-25S25-200-3T-ZNMU0403-HR	3	4	25	25	200	55	ZNMU0403...		
242-47-070	YH-XDG-06-90-26S25-120-3T-ZNMU0403-HR	3	4	26	25	120	26	ZNMU0403...		
242-47-075	YH-XDG-06-90-26S25-160-3T-ZNMU0403-HR	3	4	26	25	160	26	ZNMU0403...		
242-47-080	YH-XDG-06-90-26S25-200-3T-ZNMU0403-HR	3	4	26	25	200	26	ZNMU0403...		
242-47-085	YH-XDG-06-90-32S32-120-4T-ZNMU0403-HR	4	4	32	32	120	48	ZNMU0403...		
242-47-090	YH-XDG-06-90-32S32-160-4T-ZNMU0403-HR	4	4	32	32	160	70	ZNMU0403...		
242-47-095	YH-XDG-06-90-32S32-200-4T-ZNMU0403-HR	4	4	32	32	200	70	ZNMU0403...		
242-47-100	YH-XDG-06-90-35S32-160-5T-ZNMU0403-HR	5	4	35	32	160	35	ZNMU0403...		
242-47-105	YH-XDG-06-90-35S32-200-5T-ZNMU0403-HR	5	4	35	32	200	35	ZNMU0403...		

YH-XDP-06-90

Square Shoulder Face Mills

ZNMU0806 Series

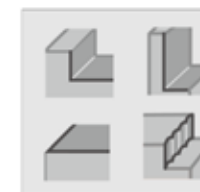
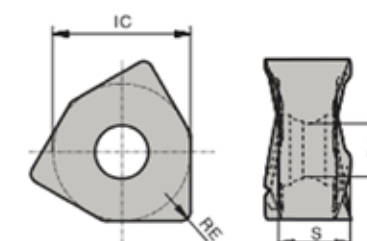


Order No	Designation	Teeth	Dimension (mm)							Type	ANGLE	INSERT
			APMX	φDC	φDCONMS	OAL	φd	b	a			
232-47-005	YH-XDP-06-90-50-A22-4T-ZNMU0806-HR	4	7	50	22	40	17	10.4	7	1	90°	ZNMU0806..
232-47-010	YH-XDP-06-90-63-A22-5T-ZNMU0806-HR	5	7	63	22	40	17	10.4	7	1	90°	ZNMU0806..
232-47-015	YH-XDP-06-90-80-A27-6T-ZNMU0806-HR	6	7	80	27	50	32	12.4	7	1	90°	ZNMU0806..
232-47-020	YH-XDP-06-90-100-A32-7T-ZNMU0806-HR	7	7	100	32	50	40	14.4	9	2	90°	ZNMU0806..
232-47-025	YH-XDP-06-90-125-A40-8T-ZNMU0806-HR	8	7	125	40	55	50	16.4	9	2	90°	ZNMU0806..
232-47-030	YH-XDP-06-90-160-A40-10T-ZNMU0806-HR	10	7	160	40	55	87	16.4	9	2	90°	ZNMU0806..
232-47-035	YH-XDP-06-90-200-A60-12T-ZNMU0806-HR	12	7	200	60	55	101.6	25.8	14	3	90°	ZNMU0806..
232-47-040	YH-XDP-06-90-250-A60-14T-ZNMU0806-HR	14	7	250	60	55	101.6	25.8	14	3	90°	ZNMU0806..

ZNMU0806

Square Shoulder Milling Carbide Inserts

ZNMU0806 Series



Order No	Designation	Dimension (mm)						
		IC	S	RE	APMX	D1	Screw	Key
377-33-002	ZNMU080608PNR-GM	12	6.35	0.8	7.3	4.6	M4.0-005	T15

4NKT04 / 4NKT06 SERIES

- Exact 90 degree square shoulder machining
- Large-angle cutting edge design reduces cutting resistance
- Enables large-angle machining when machining slopes

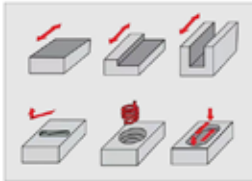
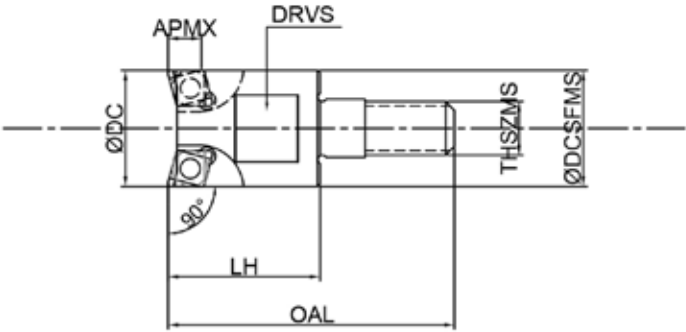


Think Cutting, Think HARLINGEN!

4N TE90

Square Shoulder Modular Heads

4NKT04 Series

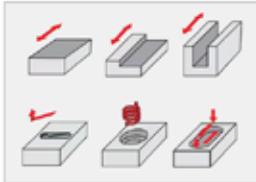
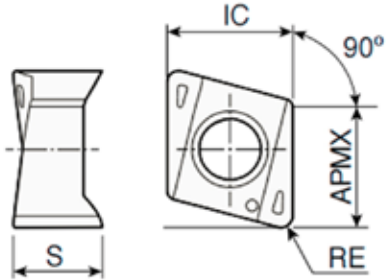


Order No	Designation	Teeth	Dimension (mm)						THSZMS	INSERT	Spare Parts	
				φ DC	φ DCSFMS	OAL	LH	DRVS				
2E2-48-005	4N TE90-108-M04-04	1	3.5	8	7.8	28	17	7	M4*P0.7	4NKT04...	M1.8-002	T6
2E2-48-010	4N TE90-109-M04-04	1	3.5	9	7.8	28	17	7	M4*P0.7	4NKT04...		
2E2-48-015	4N TE90-210-M05-04	2	3.5	10	9	29	17	7	M5*P0.8	4NKT04...		
2E2-48-020	4N TE90-211-M05-04	2	3.5	11	9	29	17	7	M5*P0.8	4NKT04...		
2E2-48-025	4N TE90-312-M06-04	3	3.5	12	11	32	17	9	M6*P1.0	4NKT04...		
2E2-48-030	4N TE90-313-M06-04	3	3.5	13	11	32	17	9	M6*P1.0	4NKT04...		
2E2-48-035	4N TE90-314-M06-04	3	3.5	14	13	32	17	10	M6*P1.0	4NKT04...		
2E2-48-040	4N TE90-315-M06-04	3	3.5	15	13	32	17	10	M6*P1.0	4NKT04...		
2E2-48-045	4N TE90-314-M08-04	3	3.5	14	13	34.5	17	10	M8*P1.25	4NKT04...		
2E2-48-050	4N TE90-315-M08-04	3	3.5	15	13	34.5	17	10	M8*P1.25	4NKT04...		
2E2-48-055	4N TE90-416-M08-04	4	3.5	16	15	43	25.5	12	M8*P1.25	4NKT04...		
2E2-48-060	4N TE90-417-M08-04	4	3.5	17	15	43	25.5	12	M8*P1.25	4NKT04...		

4NKT040204

Double Side Square Shoulder Milling Carbide Inserts

4NKT04 Series

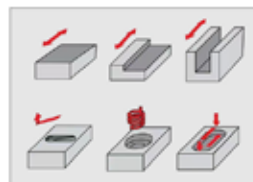
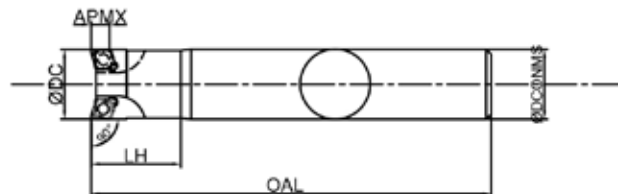


Order No	Designation	Dimension (mm)						
		IC	S	RE	APMX	Angle	Screw	Key
377-34-001	4NKT040204R-M	4.0	3.1	0.4	3.5	90°	M1.8-002	T6

4N TE90

Square Shoulder End Mills

4NKT04 Series

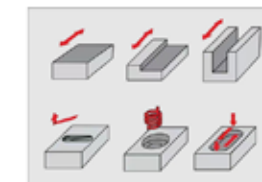
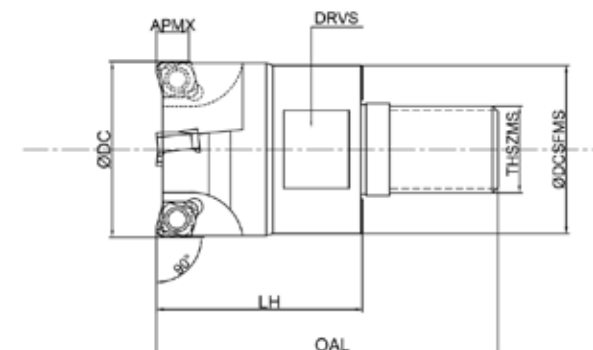


Order No	Designation	Teeth	Dimension (mm)					INSERT	Spare Parts	
			APMX	φDC	φDCONMS	OAL	LH		SCREW	KEY
242-48-005	4N TE90-107-10-04-L80	1	3.5	7	10	80	15	4NKT04...	M1.8-002	T6
242-48-010	4N TE90-107-10-04-L100	1	3.5	7	10	100	15	4NKT04...		
242-48-015	4N TE90-107-10-04-L120	1	3.5	7	10	120	15	4NKT04...		
242-48-020	4N TE90-108-10-04-L80	1	3.5	8	10	80	17	4NKT04...		
242-48-025	4N TE90-108-10-04-L100	1	3.5	8	10	100	17	4NKT04...		
242-48-030	4N TE90-108-10-04-L120	1	3.5	8	10	120	17	4NKT04...		
242-48-035	4N TE90-109-10-04-L80	1	3.5	9	10	80	19	4NKT04...		
242-48-040	4N TE90-109-10-04-L100	1	3.5	9	10	100	19	4NKT04...		
242-48-045	4N TE90-109-10-04-L120	1	3.5	9	10	120	19	4NKT04...		
242-48-050	4N TE90-210-10-04-L80	2	3.5	10	10	80	22	4NKT04...		
242-48-055	4N TE90-210-10-04-L100	2	3.5	10	10	100	22	4NKT04...		
242-48-060	4N TE90-210-10-04-L120	2	3.5	10	10	120	22	4NKT04...		
242-48-065	4N TE90-211-10-04-L80	2	3.5	11	10	80	11	4NKT04...		
242-48-070	4N TE90-211-10-04-L100	2	3.5	11	10	100	11	4NKT04...		
242-48-075	4N TE90-211-10-04-L120	2	3.5	11	10	120	11	4NKT04...		
242-48-080	4N TE90-312-12-04-L80	3	3.5	12	12	80	26	4NKT04...		
242-48-085	4N TE90-312-12-04-L100	3	3.5	12	12	100	26	4NKT04...		
242-48-090	4N TE90-312-12-04-L120	3	3.5	12	12	120	26	4NKT04...		
242-48-095	4N TE90-313-12-04-L80	3	3.5	13	12	80	13	4NKT04...		
242-48-100	4N TE90-313-12-04-L100	3	3.5	13	12	100	13	4NKT04...		
242-48-105	4N TE90-313-12-04-L120	3	3.5	13	12	120	13	4NKT04...		
242-48-110	4N TE90-314-14-04-L100	4	3.5	14	14	100	30	4NKT04...		
242-48-115	4N TE90-314-14-04-L120	4	3.5	14	14	120	30	4NKT04...		
242-48-120	4N TE90-314-14-04-L160	4	3.5	14	14	160	30	4NKT04...		
242-48-125	4N TE90-315-14-04-L100	4	3.5	15	14	100	15	4NKT04...		
242-48-130	4N TE90-315-14-04-L120	4	3.5	15	14	120	15	4NKT04...		
242-48-135	4N TE90-315-14-04-L160	4	3.5	15	14	160	15	4NKT04...		
242-48-140	4N TE90-416-16-04-L120	4	3.5	16	16	120	35	4NKT04...		
242-48-145	4N TE90-416-16-04-L160	4	3.5	16	16	160	35	4NKT04...		
242-48-150	4N TE90-416-16-04-L200	4	3.5	16	16	200	35	4NKT04...		
242-48-155	4N TE90-417-16-04-L120	4	3.5	17	16	120	17	4NKT04...		
242-48-160	4N TE90-417-16-04-L160	4	3.5	17	16	160	17	4NKT04...		
242-48-165	4N TE90-417-16-04-L200	4	3.5	17	16	200	17	4NKT04...		

4N TE90

Square Shoulder Modular Heads

4NKT06 Series

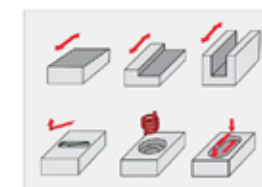
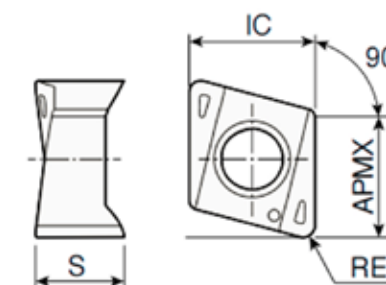


Order No	Designation	Teeth	Dimension (mm)					THSZMS	INSERT	Spare Parts	
			APMX	φDC	φDCSFMS	OAL	LH			SCREW	KEY
2E2-48-065	4N TE90-216-M08-06	2	6	16	15	43	25	12	M8*P1.25	M3.0-004	T8
2E2-48-070	4N TE90-217-M08-06	2	6	17	15	43	25	12	M8*P1.25		
2E2-48-075	4N TE90-320-M10-06	3	6	20	19	49	29	15	M10*P1.5		
2E2-48-080	4N TE90-321-M10-06	3	6	21	19	49	29	15	M10*P1.5		
2E2-48-085	4N TE90-425-M12-06	4	6	25	24	57	35	19	M12*P1.75		
2E2-48-090	4N TE90-426-M12-06	4	6	26	24	57	35	19	M12*P1.75		
2E2-48-095	4N TE90-532-M16-06	5	6	32	31	63	38	24	M16*P2.0		
2E2-48-100	4N TE90-533-M16-06	5	6	33	31	63	38	24	M16*P2.0		

4NKT060308

Double Side Square Shoulder Milling Carbide Inserts

4NKT06 Series

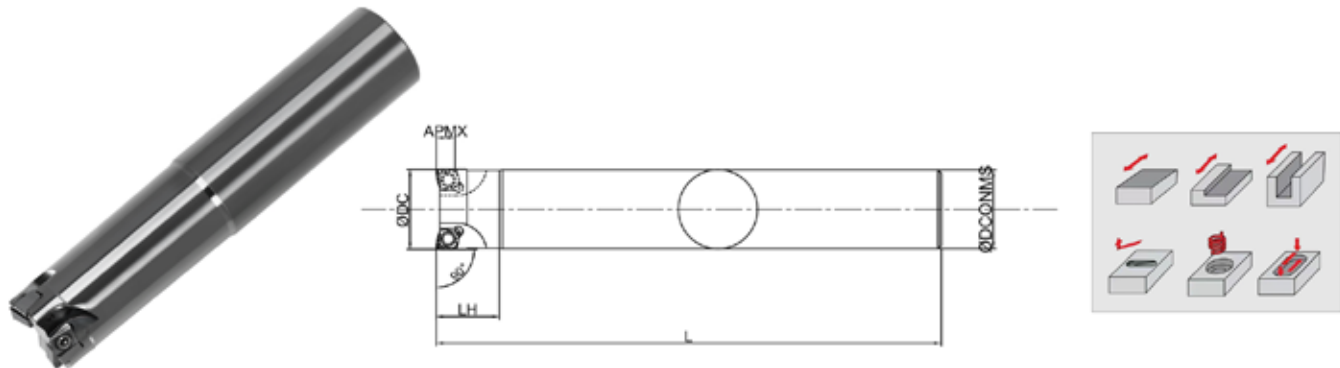


Order No	Designation	Dimension (mm)					Angle	Screw	Key
		IC	S	RE	APMX				
377-34-002	4NKT060308R-M	6.6	4.67	0.8	6		90°	M3.0-004	T8

4N TE90

Square Shoulder End Mills

4NKT06 Series

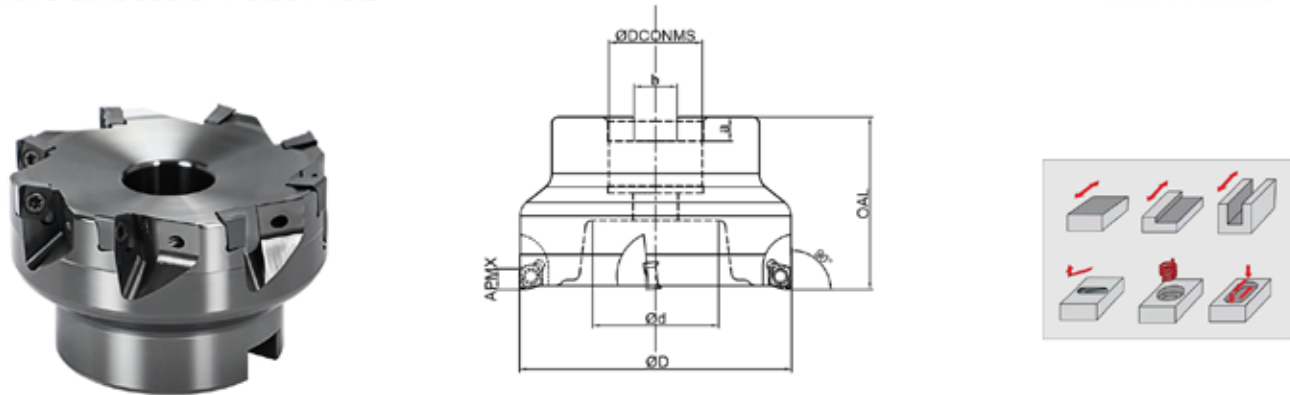


Order No	Designation	Teeth	Dimension (mm)					INSERT	Spare Parts	
			APMX	φDC	φDCONMS	OAL	LH		SCREW	KEY
242-48-170	4N TE90-216-16-06-L120	2	6	16	16	120	35	4NKT06...	M3.0-004	T8
242-48-175	4N TE90-216-16-06-L160	2	6	16	16	160	35	4NKT06...		
242-48-180	4N TE90-217-16-06-L160	2	6	17	16	160	17	4NKT06...		
242-48-185	4N TE90-217-16-06-L200	2	6	17	16	200	17	4NKT06...		
242-48-190	4N TE90-320-20-06-L120	3	6	20	20	120	44	4NKT06...		
242-48-195	4N TE90-320-20-06-L160	3	6	20	20	160	44	4NKT06...		
242-48-200	4N TE90-321-20-06-L160	3	6	21	20	160	21	4NKT06...		
242-48-205	4N TE90-321-20-06-L200	3	6	21	20	200	12	4NKT06...		
242-48-210	4N TE90-425-25-06-L120	4	6	25	25	120	55	4NKT06...		
242-48-215	4N TE90-425-25-06-L160	4	6	25	25	160	55	4NKT06...		
242-48-220	4N TE90-425-25-06-L200	4	6	25	25	200	55	4NKT06...		
242-48-225	4N TE90-426-25-06-L160	4	6	26	26	160	26	4NKT06...		
242-48-230	4N TE90-426-25-06-L200	4	6	26	26	200	26	4NKT06...		
242-48-235	4N TE90-532-32-06-L160	5	6	32	32	160	70	4NKT06...		
242-48-240	4N TE90-532-32-06-L200	5	6	32	32	200	70	4NKT06...		
242-48-245	4N TE90-533-32-06-L160	5	6	33	32	160	33	4NKT06...		
242-48-250	4N TE90-533-32-06-L200	5	6	33	32	200	33	4NKT06...		

4N TF90

Square Shoulder Face Mills

4NKT06 Series



Order No	Designation	Teeth	Dimension (mm)							ANGLE	INSERT	Spare Parts	
			APMX	φDC	φDCONMS	OAL	φd	b	a			SCREW	KEY
232-48-005	4N TF90-535-16R-06	5	6	35	16	40	14	8.4	7	90°	4NKT06...	M3.0-004	T8
232-48-010	4N TF90-640-16R-06	6	6	40	16	40	14	8.4	7	90°	4NKT06...		
232-48-015	4N TF90-650-22R-06	6	6	50	22	40	17	10.4	7	90°	4NKT06...		
232-48-020	4N TF90-863-22R-06	8	6	63	22	40	17	10.4	7	90°	4NKT06...		
232-48-025	4N TF90-1080-27R-06	10	6	80	27	50	34	12.4	7	90°	4NKT06...		
232-48-030	4N TF90-12100-32R-06	12	6	100	32	50	42	14.4	9	90°	4NKT06...		

INDEXABLE FACE MILLING CUTTERS

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Page 063  YH-XDP45SN	Page 064  YH-XDP75SN	Page 064  YH-XDP88SN	Page 063  SN□X1306
Page 065  XDP88SN1307	Page 067  TEN09R	Page 067  PNCU0905	Page 069  MFC145
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HARLINGEN®

Face Milling Cutter

SNMX12 / SNMU13 / PNMU09 SERIES

- Easily handles various machining operation.
- Excellent performance in square shoulder milling, achieving near 90 degree machining.
- Uses low-resistance, 10 edge, double-sided inserts for economical operation.

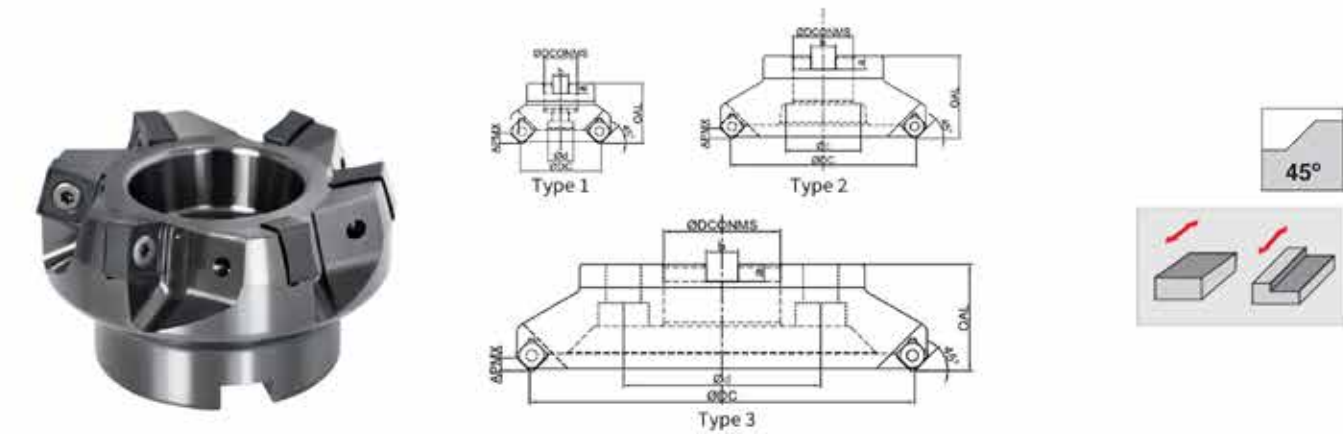


Think Cutting, Think HARLINGEN!

FMA45R

45° Face Mills

SN□□1206 Series

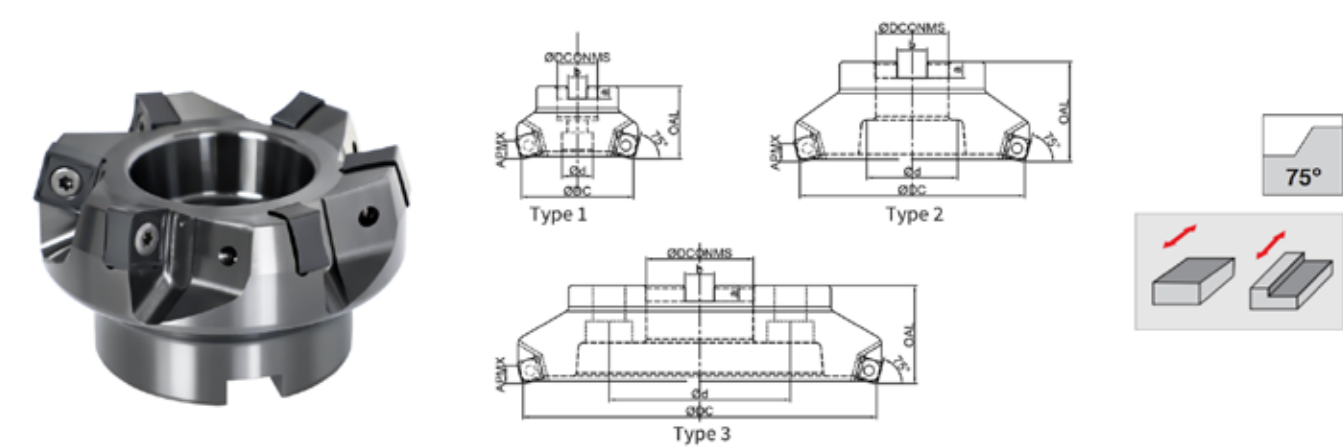


Order No	Designation	Teeth	Dimension (mm)								TYPE	ANGLE	INSERT	Spare Parts	
			APMX	φ DC	φ DCO NMS	OAL	φ d	b	a						
															SCREW
232-55-010	FMA45R-50-22-SN12-04T	4	5	50	22	40	17	10.4	7	1	45°	SN..1206	M5.0 -002	T20	
232-55-015	FMA45R-55-22-SN12-04T	4	5	55	22	40	17	10.4	7	1	45°	SN..1206			
232-55-020	FMA45R-63-22-SN12-05T	5	5	63	22	40	17	10.4	7	1	45°	SN..1206			
232-55-025	FMA45R-70-22-SN12-05T	5	5	70	22	40	17	10.4	7	1	45°	SN..1206			
232-55-030	FMA45R-80-27-SN12-06T	6	5	80	27	50	34	12.4	7	1	45°	SN..1206			
232-55-035	FMA45R-100-32-SN12-07T	7	5	100	32	50	42	14.4	9	1	45°	SN..1206			
232-55-040	FMA45R-125-40-SN12-08T	8	5	125	40	55	50	16.4	9	2	45°	SN..1206			
232-55-045	FMA45R-160-40-SN12-10T	10	5	160	40	55	80	16.4	9	2	45°	SN..1206			
232-55-050	FMA45R-200-60-SN12-12T	12	5	200	60	55	101.6	25.8	14	3	45°	SN..1206			
232-55-055	FMA45R-250-60-SN12-14T	14	5	250	60	55	101.6	25.8	14	3	45°	SN..1206			

FME75R

75° Face Mills

SN□□1206 Series

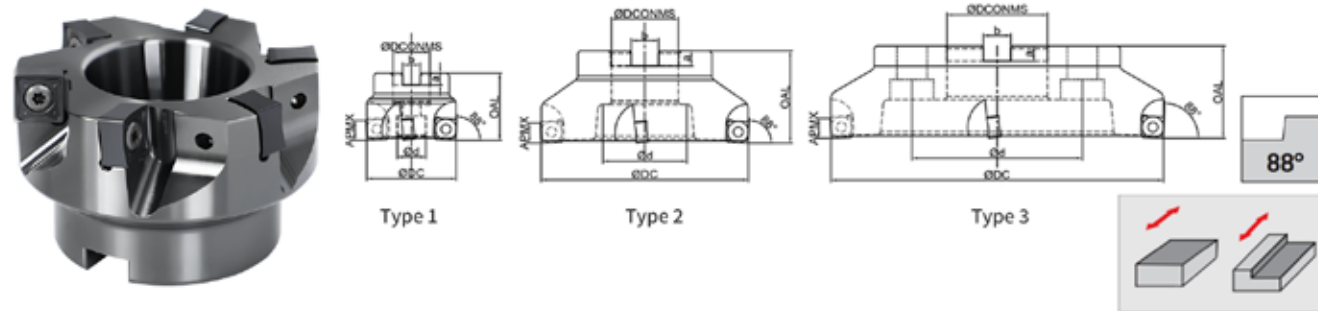


Order No	Designation	Teeth	Dimension (mm)							TYPE	ANGLE	INSERT	Spare Parts	
			APMX	φ DC	φ DCO NMS	OAL	φ d	b	a					
232-55-060	FME75R-50-22-SN12-04T	4	8	50	22	40	17	10.4	7	1	75°	SN..1206	M5.0 -002	T20
232-55-065	FME75R-55-22-SN12-04T	4	8	55	22	40	17	10.4	7	1	75°	SN..1206		
232-55-070	FME75R-63-22-SN12-05T	5	8	63	22	40	17	10.4	7	1	75°	SN..1206		
232-55-075	FME75R-70-22-SN12-05T	5	8	70	22	40	17	10.4	7	1	75°	SN..1206		
232-55-080	FME75R-80-27-SN12-06T	6	8	80	27	50	34	12.4	7	1	75°	SN..1206		
232-55-085	FME75R-100-32-SN12-07T	7	8	100	32	50	42	14.4	9	1	75°	SN..1206		
232-55-090	FME75R-125-40-SN12-08T	8	8	125	40	55	50	16.4	9	2	75°	SN..1206		
232-55-095	FME75R-160-40-SN12-10T	10	8	160	40	55	80	16.4	9	2	75°	SN..1206		
232-55-100	FME75R-200-60-SN12-12T	12	8	200	60	55	101.6	25.8	14	3	75°	SN..1206		
232-55-105	FME75R-250-60-SN12-14T	14	8	250	60	55	101.6	25.8	14	3	75°	SN..1206		

FMZ88R

88° Face Mills

SN□□1206 Series

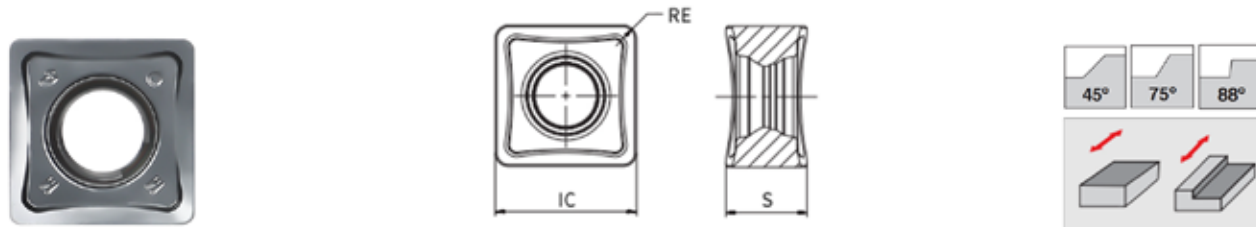


Order No	Designation	Teeth	Dimension (mm)							TYPE	ANGLE	INSERT	Spare Parts	
			APMX	φDC	φDCO NMS	OAL	φd	b	a					
232-55-110	FMZ88R-50-22-SN12-04T	4	10	50	22	40	17	10.4	7	1	88°	SN.1206	M5.0 -002	T20
232-55-115	FMZ88R-55-22-SN12-04T	4	10	55	22	40	17	10.4	7	1	88°	SN.1206		
232-55-120	FMZ88R-63-22-SN12-05T	5	10	63	22	40	17	10.4	7	1	88°	SN.1206		
232-55-125	FMZ88R-70-22-SN12-05T	5	10	70	22	40	17	10.4	7	1	88°	SN.1206		
232-55-130	FMZ88R-80-27-SN12-06T	6	10	80	27	50	34	12.4	7	1	88°	SN.1206		
232-55-135	FMZ88R-100-32-SN12-07T	7	10	100	32	50	42	14.4	9	1	88°	SN.1206		
232-55-140	FMZ88R-125-40-SN12-08T	8	10	125	40	55	50	16.4	9	2	88°	SN.1206		
232-55-145	FMZ88R-160-40-SN12-10T	10	10	160	40	55	80	16.4	9	2	88°	SN.1206		
232-55-150	FMZ88R-200-60-SN12-12T	12	10	200	60	55	101.6	25.8	14	3	88°	SN.1206		
232-55-155	FMZ88R-250-60-SN12-14T	14	10	250	60	55	101.6	25.8	14	3	88°	SN.1206		

SN□X1206

Face milling Carbide inserts

SN□X12 Series

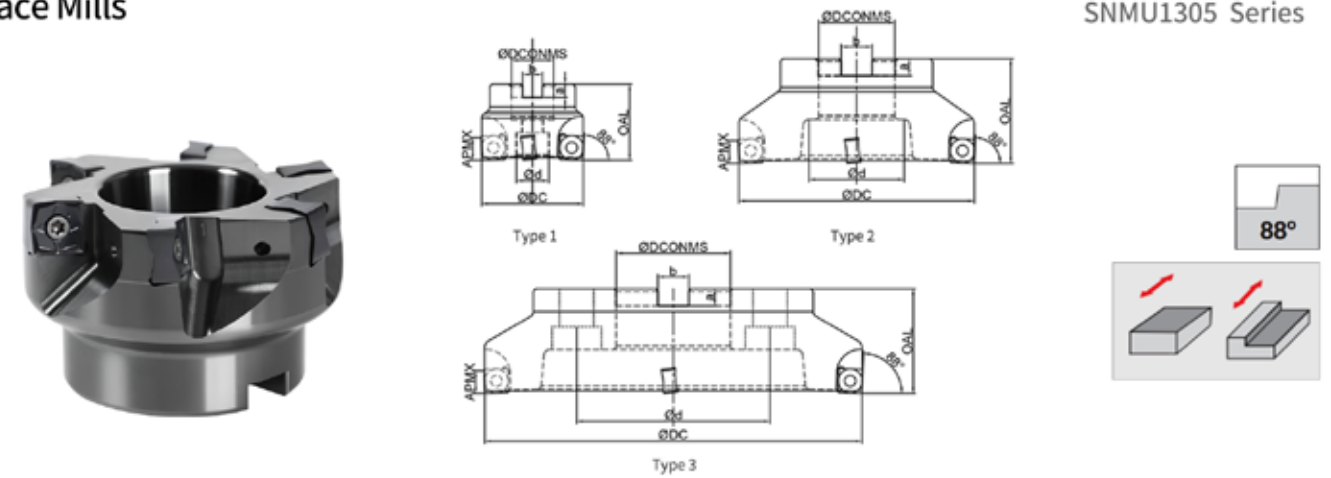


Order No	Designation	Dimension (mm)					
		IC	S	RE	APMX	Screw	Wrench
377-35-005	SNMX120608-MM	12.7	6.98	0.8	6.5-10	M5.0-002	T20
377-35-010	SNMX120612-MM	12.7	6.98	1.2	6.5-10	M5.0-002	T20
377-35-015	SNGX120608-MM	12.7	6.98	0.8	6.5-10	M5.0-002	T20
377-35-020	SNGX120612-MM	12.7	6.98	1.2	6.5-10	M5.0-002	T20

MFSN88

Face Mills

SNMU1305 Series

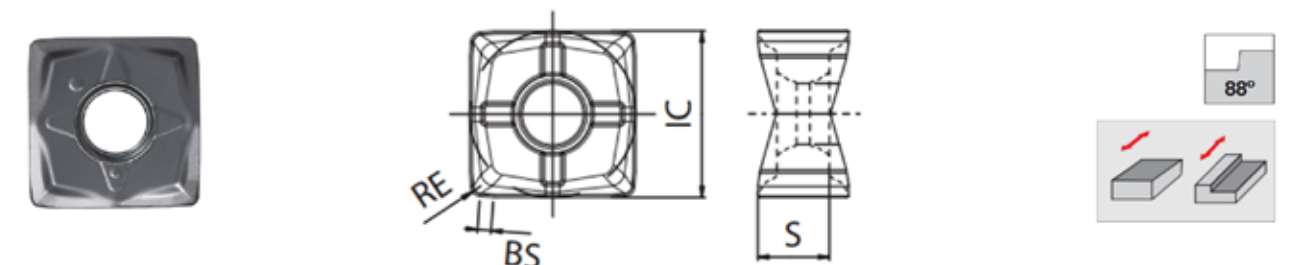


Order No	Designation	Teeth	Dimension (mm)							TYPE	ANGLE	INSERT	Spare Parts	
			APMX	φDC	φDCO NMS	OAL	φd	b	a					
													SCREW	KEY
232-55-205	MFSN88-050R-4T-M	4	5	50	22	40	17	10.4	7	1	88°	SNMU1305	M4.0-001	T15
232-55-210	MFSN88-063R-5T-M	5	5	63	22	40	17	10.4	7	1	88°	SNMU1305		
232-55-215	MFSN88-080R-6T-M	6	5	80	27	50	34	12.4	7	1	88°	SNMU1305		
232-55-220	MFSN88-100R-7T-M	7	5	100	32	50	42	14.4	9	1	88°	SNMU1305		
232-55-225	MFSN88-125R-8T-M	8	5	125	40	55	50	16.4	9	2	88°	SNMU1305		
232-55-230	MFSN88-160R-10T-M	10	5	160	40	55	80	16.4	9	2	88°	SNMU1305		
232-55-235	MFSN88-200R-12T-M	12	5	200	60	55	101.6	25.8	14	3	88°	SNMU1305		
232-55-240	MFSN88-250R-14T-M	14	5	250	60	55	101.6	25.8	14	3	88°	SNMU1305		

SNMU1305

Face milling Carbide inserts

SNMU13 Series

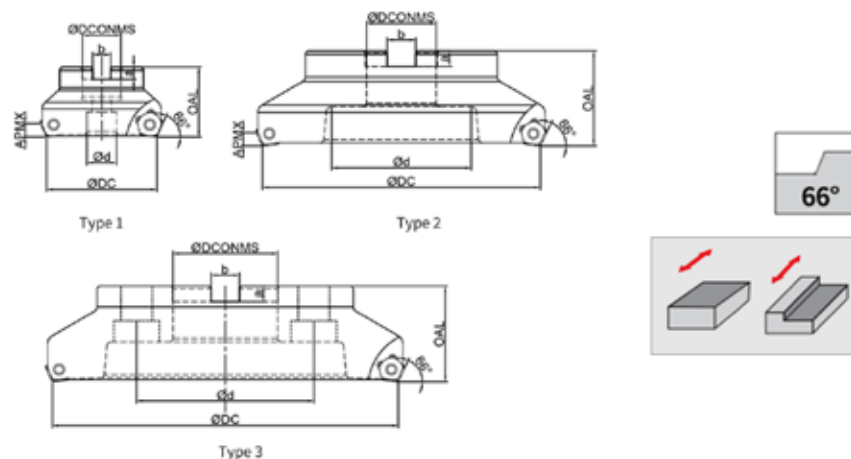


Order No	Designation	Dimension (mm)					
		IC	S	RE	APMX	BS	Key
377-36-005	SNMU130508EN-GM	13	5.51	0.8	5	1.0	M4.0-001 T15

MFPN66

Face Mills

PNMU0905 Series

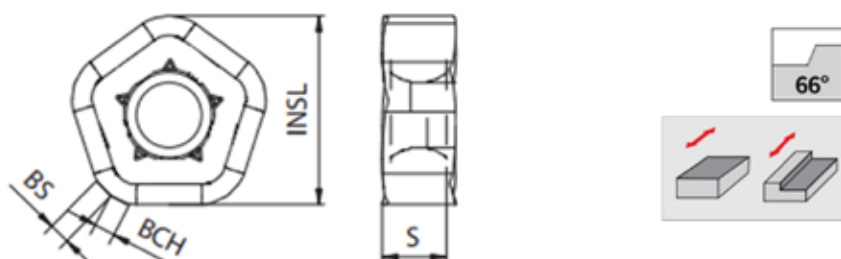
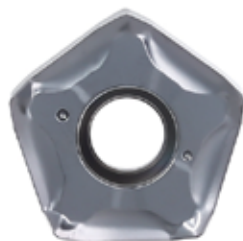


Order No	Designation	Teeth	Dimension (mm)							TYPE	ANGLE	INSERT	Spare Parts	
			APMX	ϕ DC	ϕ DCO NMS	OAL	ϕ d	b	a				SCREW	KEY
232-49-005	MFPN66-050R-4T-M	4	7	50	22	40	17	10.4	7	1	66°	PNMU0905	M4.0-001	T15
232-49-010	MFPN66-063R-5T-M	5	7	63	22	40	17	10.4	7	1	66°	PNMU0905		
232-49-015	MFPN66-080R-6T-M	6	7	80	27	50	34	12.4	7	1	66°	PNMU0905		
232-49-020	MFPN66-100R-7T-M	7	7	100	32	50	42	14.4	9	1	66°	PNMU0905		
232-49-025	MFPN66-125R-8T-M	8	7	125	40	55	50	16.4	9	2	66°	PNMU0905		
232-49-030	MFPN66-160R-10T-M	10	7	160	40	55	80	16.4	9	2	66°	PNMU0905		
232-49-035	MFPN66-200R-12T-M	12	7	200	60	55	101.6	25.8	14	3	66°	PNMU0905		
232-49-040	MFPN66-250R-14T-M	14	7	250	60	55	101.6	25.8	14	3	66°	PNMU0905		

PNMU0905

Face milling Carbide inserts

PNMU09 Series



Order No	Designation	Dimension (mm)						
		INSL	S	APMX	BCH	BS	Screw	Key
377-37-005	PNMU0905XNER-GM	17.98	6.17	5	2.0	2.0	M4.0-001	T15

HARLINGEN®

Face Milling Cutter

YH-XDP-45/75/88SN1306 SERIES

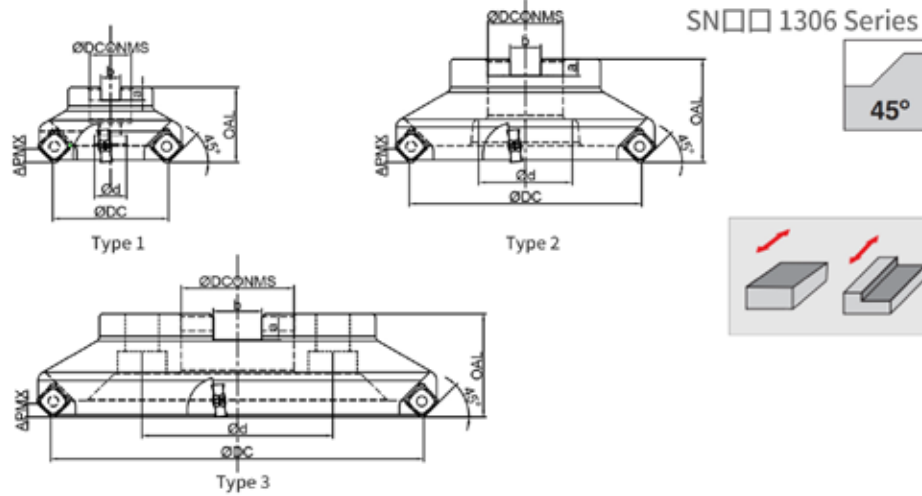
- Double-sided, eight-edge design ensures insert economy.
- Suitable for rough and semi-finish milling of a wide range of materials.
- Three lead angles: 45°, 75°, and 88°.
- Compatible with SN□□1306 series inserts.



Think Cutting, Think HARLINGEN!

YH-XDP 45SN1306

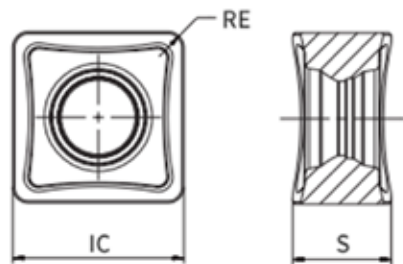
45° Face Mills



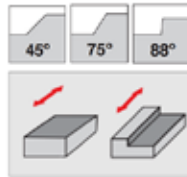
Order No	Designation	Teeth	Dimension (mm)							TYPE	ANG LE	INSERT	Spare Parts	
			AM PX	φDC	φ DCO NMS	OAL	φd	b	a				SCREW	KEY
232-55-305	YH-XDP-08-45-50-A22-4T-SNMX 1306-TGK	4	7	50	22	40	17	10.4	7	1	45°	SN..1306	M4.0-003	T15
232-55-310	YH-XDP-08-45-63-A22-5T-SNMX 1306-TGK	5	7	63	22	40	17	10.4	7	1	45°	SN..1306		
232-55-315	YH-XDP-08-45-80-A27-6T-SNMX 1306-TGK	6	7	80	27	50	34	12.4	7	1	45°	SN..1306		
232-55-320	YH-XDP-08-45-100-A32-7T-SNMX 1306-TGK	7	7	100	32	50	42	14.4	9	1	45°	SN..1306		
232-55-325	YH-XDP-08-45-125-A40-8T-SNMX 1306-TGK	8	7	125	40	55	50	16.4	9	2	45°	SN..1306		
232-55-330	YH-XDP-08-45-160-A40-10T-SNMX 1306-TGK	10	7	160	40	55	80	16.4	9	2	45°	SN..1306		
232-55-335	YH-XDP-08-45-200-A60-12T-SNMX 1306-TGK	12	7	200	60	55	101.6	25.8	14	3	45°	SN..1306		
232-55-340	YH-XDP-08-45-250-A60-14T-SNMX 1306-TGK	14	7	250	60	55	101.6	25.8	14	3	45°	SN..1306		

SN□X1306

Face milling Carbide inserts



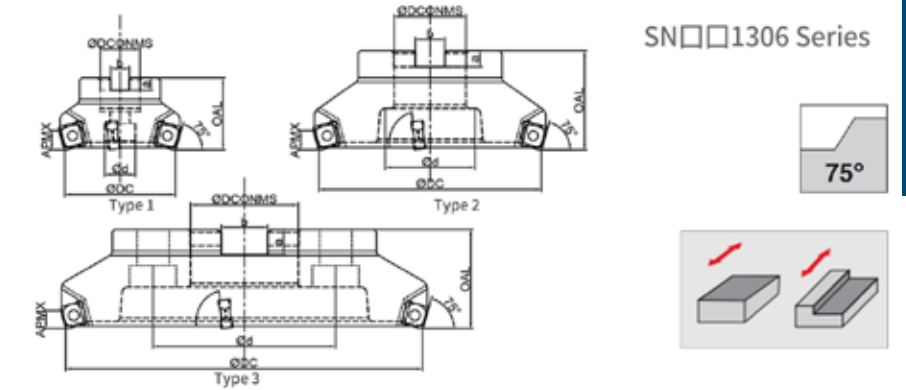
SN□X1306 Series



Order No	Designation	Dimension (mm)					
		IC	S	RE	APMX	Screw	Key
377-35-105	SNMX1306ZN-M	13.5	6.8	0.4	12	M4.0-003	T15
377-35-110	SNMX1306ANTN-M	13.5	6.8	0.4	7.0	M4.0-003	T15
377-35-115	SNMX1306ENTN-M	13.5	7.0	0.4	9.5	M4.0-003	T15
377-35-120	SNMX1306XTN	13.5	6.8	0.4	6.35-9.6	M4.0-003	T15
377-35-125	SNGX1306ZN-M	13.5	6.8	0.4	12	M4.0-003	T15
377-35-130	SNGX1306ANTN-M	13.5	6.8	0.4	7.0	M4.0-003	T15
377-35-135	SNGX1306ENTN-M	13.5	7.0	0.4	9.5	M4.0-003	T15

YH-XDP 75SN1306

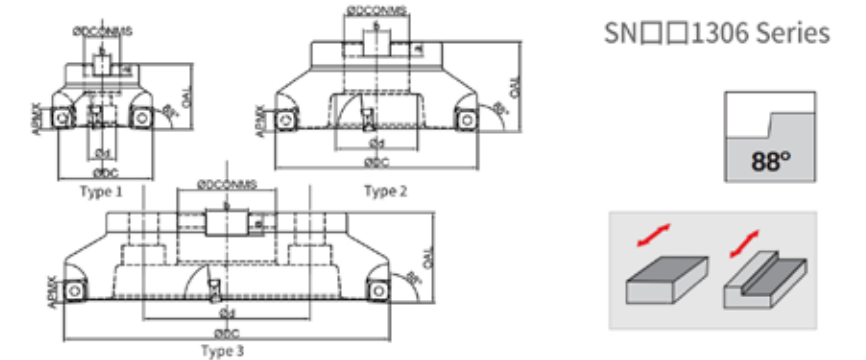
75° Face Mills



Order No	Designation	Teeth	Dimension (mm)							TYPE	ANG LE	INSERT	Spare Parts	
			AM PX	φDC	φ DCO NMS	OAL	φd	b	a				SCREW	KEY
232-55-345	YH-XDP-08-75-50-A22-4T-SNMX 1306-TGK	4	10	50	22	40	17	10.4	7	1	75°	SN..1306	M4.0-003	T15
232-55-350	YH-XDP-08-75-63-A22-5T-SNMX 1306-TGK	5	10	63	22	40	17	10.4	7	1	75°	SN..1306		
232-55-355	YH-XDP-08-75-80-A27-6T-SNMX 1306-TGK	6	10	80	27	50	34	12.4	7	1	75°	SN..1306		
232-55-360	YH-XDP-08-75-100-A32-7T-SNMX 1306-TGK	7	10	100	32	50	42	14.4	9	1	75°	SN..1306		
232-55-365	YH-XDP-08-75-125-A40-8T-SNMX 1306-TGK	8	10	125	40	55	50	16.4	9	2	75°	SN..1306		
232-55-370	YH-XDP-08-75-160-A40-10T-SNMX 1306-TGK	10	10	160	40	55	80	16.4	9	2	75°	SN..1306		
232-55-375	YH-XDP-08-75-200-A60-12T-SNMX 1306-TGK	12	10	200	60	55	101.6	25.8	14	3	75°	SN..1306		
232-55-380	YH-XDP-08-75-250-A60-14T-SNMX 1306-TGK	14	10	250	60	55	101.6	25.8	14	3	75°	SN..1306		

YH-XDP 88SN1306

88° Face Mills

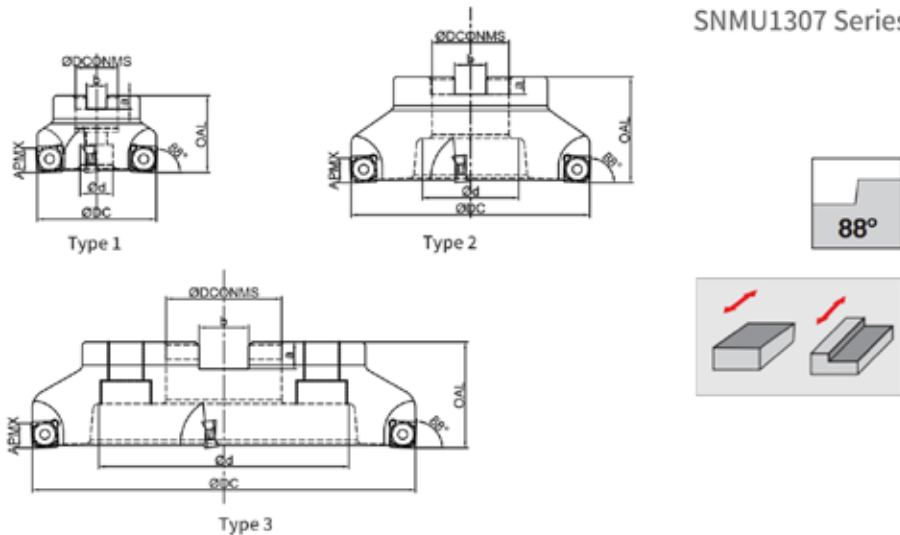


Order No	Designation	Teeth	Dimension (mm)							TYPE	ANG LE	INSERT	Spare Parts	
			AM PX	φDC	φ DCO NMS	OAL	φd	b	a				SCREW	KEY
232-55-385	YH-XDP-08-88-50-A22-4T-SNMX 1306-TCK	4	11	50	22	40	17	10.4	7	1	88°	SN..1306	M4.0-003	T15
232-55-390	YH-XDP-08-88-63-A22-5T-SNMX 1306-TCK	5	11	63	22	40	17	10.4	7	1	88°	SN..1306		
232-55-395	YH-XDP-08-88-80-A27-6T-SNMX 1306-TGK	6	11	80	27	50	34	12.4	7	1	88°	SN..1306		
232-55-400	YH-XDP-08-88-100-A32-7T-SNMX 1306-TGK	7	11	100	32	50	42	14.4	9	1	88°	SN..1306		
232-55-405	YH-XDP-08-88-125-A40-8T-SNMX 1306-TGK	8	11	125	40	55	50	16.4	9	2	88°	SN..1306		
232-55-410	YH-XDP-08-88-160-A40-10T-SNMX 1306-TGK	10	11	160	40	55	80	16.4	9	2	88°	SN..1306		
232-55-415	YH-XDP-08-88-200-A60-12T-SNMX 1306-TGK	12	11	200	60	55	101.6	25.8	14	3	88°	SN..1306		
232-55-420	YH-XDP-08-88-250-A60-14T-SNMX 1306-TGK	14	11	250	60	55	101.6	25.8	14	3	88°	SN..1306		

YH-XDP 88SN1307

88°Face Mills

SNMU1307 Series



Order No	Designation	Teeth	Dimension (mm)							TYPE	ANGLE	INSERT	Spare Parts	
			AM PX	φDC	φDCO NMS	OAL	φd	b	a				SCREW	KEY
232-55-505	YH-XDP-08-88-50-A22-4T-SNMU1307-ZY	4	11	50	22	40	17	10.4	7	1	88°	SNMU1307	M4.0 -001	T15
232-55-510	YH-XDP-08-88-63-A22-5T-SNMU1307-ZY	5	11	63	22	40	17	10.4	7	1	88°	SNMU1307		
232-55-515	YH-XDP-08-88-80-A27-6T-SNMU1307-ZY	6	11	80	27	50	34	12.4	7	1	88°	SNMU1307		
232-55-520	YH-XDP-08-88-100-A32-7T-SNMU1307-ZY	7	11	100	32	50	42	14.4	9	1	88°	SNMU1307		
232-55-525	YH-XDP-08-88-125-A40-8T-SNMU1307-ZY	8	11	125	40	55	50	16.4	9	2	88°	SNMU1307		
232-55-530	YH-XDP-08-88-160-A40-10T-SNMU1307-ZY	10	11	160	40	55	80	16.4	9	2	88°	SNMU1307		
232-55-535	YH-XDP-08-88-200-A60-12T-SNMU1307-ZY	12	11	200	60	55	101.6	25.8	14	3	88°	SNMU1307		
232-55-540	YH-XDP-08-88-250-A60-14T-SNMU1307-ZY	14	11	250	60	55	101.6	25.8	14	3	88°	SNMU1307		



Face Milling Cutter

PNCU0905 SERIES

- High-precision, high-speed 70°face milling cutters.
- Economical double-sided, 10-edge inserts.
- Unique insert angle design ensures low cutting resistance.

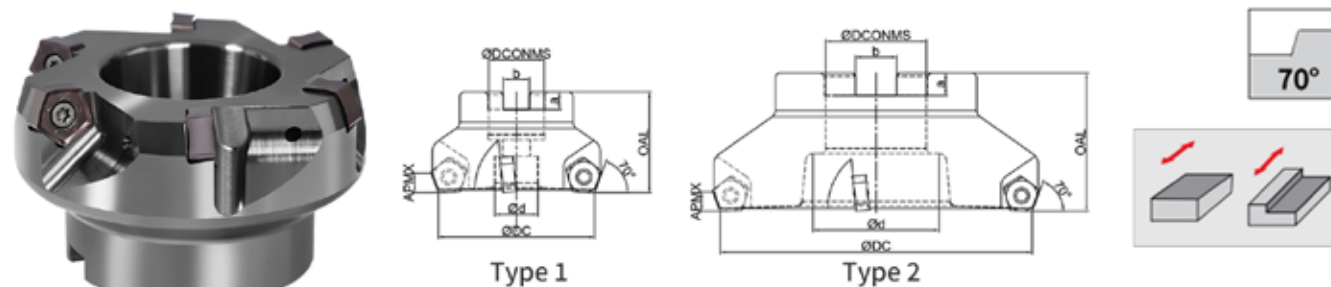


Think Cutting, Think HARLINGEN!

TEN09R

Face Mills

PNCU0905 Series

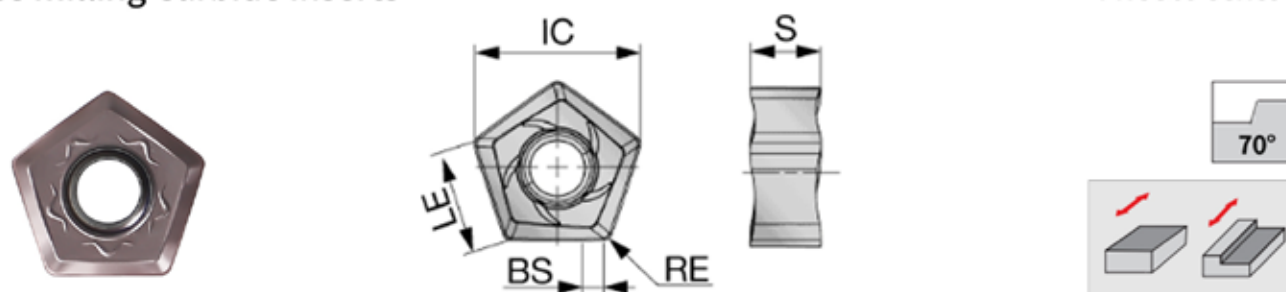


Order No	Designation	Teeth	Dimension (mm)							TYPE	ANGLE	INSERT	Spare Parts	
			APMX	φDC	φDCONMS	OAL	φd	b	a				SCREW	KEY
232-49-105	TEN09R 050M22.0-04	4	6	50	22	40	17	10.4	7	1	70°	PNCU0905..	M4.0-001	T15
232-49-110	TEN09R 063M22.0-05	5	6	63	22	40	17	10.4	7	1	70°	PNCU0905..		
232-49-115	TEN09R 080M27.0-06	6	6	80	27	50	34	12.4	7	1	70°	PNCU0905..		
232-49-120	TEN09R 100M32.0-07	7	6	100	32	50	42	14.4	9	1	70°	PNCU0905..		
232-49-125	TEN09R 125M40.0-08	8	6	125	40	55	50	16.4	9	2	70°	PNCU0905..		
232-49-130	TEN09R 160M40.0-10	10	6	160	40	55	80	16.4	9	2	70°	PNCU0905..		

PNCU0905

Face milling Carbide inserts

PNCU09 Series



Order No	Designation	Dimension (mm)						
		IC	S	LE	APMX	BS	Screw	Key
377-37-105	PNCU090508ER-MJ	12.20	5.93	8.90	6.40	1.40	M4.0-001	T15

HARLINGEN®

Face Milling Cutter

HNPJ07 / HNGU09 SERIES

- 45° entering angle reduces cutting resistance and enables high-speed machining.
- 12-edge, double-sided inserts handle face milling of a variety of materials.
- Two insert sizes available for roughing to semi-finishing.

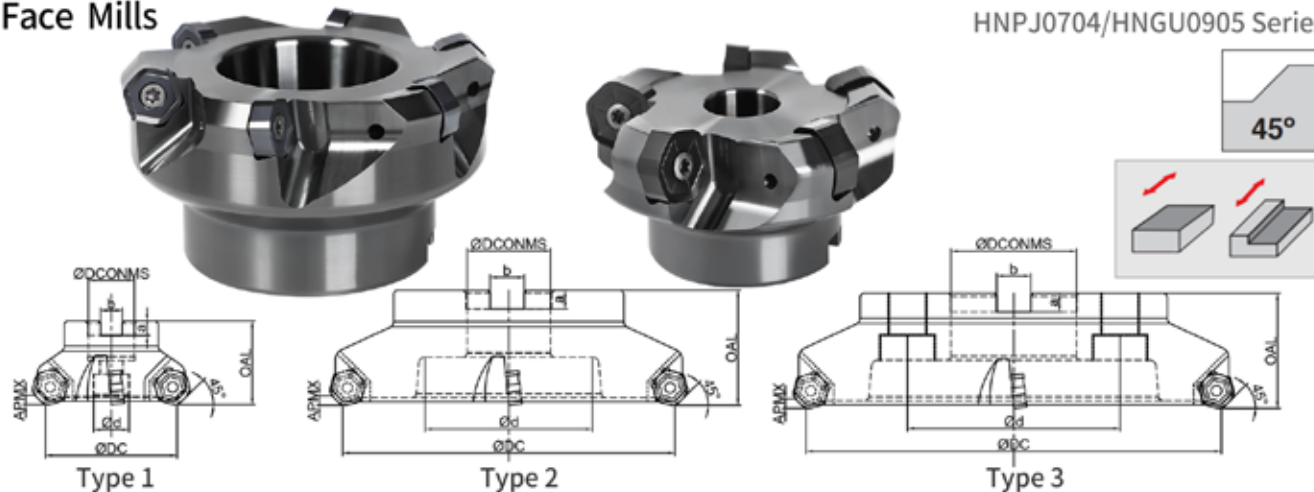


Think Cutting, Think HARLINGEN!

MFC145HN07/09

Face Mills

HNPJ0704/HNGU0905 Series

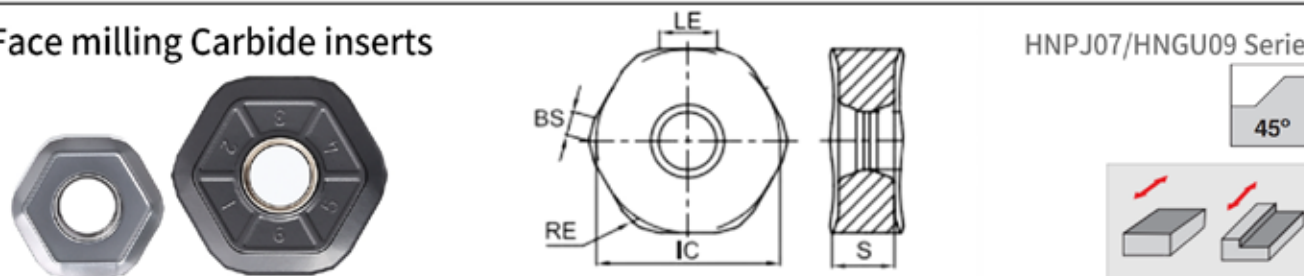


Order No	Designation	Teeth	Dimension (mm)							TYPE	ANG LE	INSERT	Spare Parts	
			AM PX	φDC	φ DCO NMS	OAL	φd	b	a				SCREW	KEY
232-81-005	MFC145 050R04A22 HN07	4	3.5	50	22	40	17	10.4	7	1	45°	HNPJ0704..	M4.0 -003	T15
232-81-010	MFC145 063R05A22 HN07	5	3.5	63	22	40	17	10.4	7	1	45°	HNPJ0704..		
232-81-015	MFC145 080R06A27 HN07	6	3.5	80	27	50	34	12.4	7	1	45°	HNPJ0704..		
232-81-020	MFC145 0100R07A32 HN07	7	3.5	100	32	50	42	14.4	9	1	45°	HNPJ0704..		
232-81-025	MFC145 0125R08A40 HN07	8	3.5	125	40	55	50	16.4	9	2	45°	HNPJ0704..		
232-81-030	MFC145 0160R10A40 HN07	10	3.5	160	40	55	80	16.4	9	2	45°	HNPJ0704..		
232-81-105	MFC145 050R04A22 HN09	4	3.5	50	22	40	17	10.4	7	1	45°	HNGU0905..		
232-81-110	MFC145 063R05A22 HN09	5	3.5	63	22	40	17	10.4	7	1	45°	HNGU0905..		
232-81-115	MFC145 080R06A27 HN09	6	3.5	80	27	50	34	12.4	7	1	45°	HNGU0905..		
232-81-120	MFC145 0100R07A32 HN09	7	3.5	100	32	50	42	14.4	9	1	45°	HNGU0905..		
232-81-125	MFC145 0125R08A40 HN09	8	3.5	125	40	55	50	16.4	9	2	45°	HNGU0905..		
232-81-130	MFC145 0160R10A40 HN09	10	3.5	160	40	55	80	16.4	9	2	45°	HNGU0905..		
232-81-135	MFC145 0200R12A60 HN09	12	3.5	200	60	55	101.6	25.8	14	3	45°	HNGU0905..		
232-81-140	MFC145 0250R14A60 HN09	14	3.5	250	60	55	101.6	25.8	14	3	45°	HNGU0905..		

HNPJ07/HNGU09

Face milling Carbide inserts

HNPJ07/HNGU09 Series

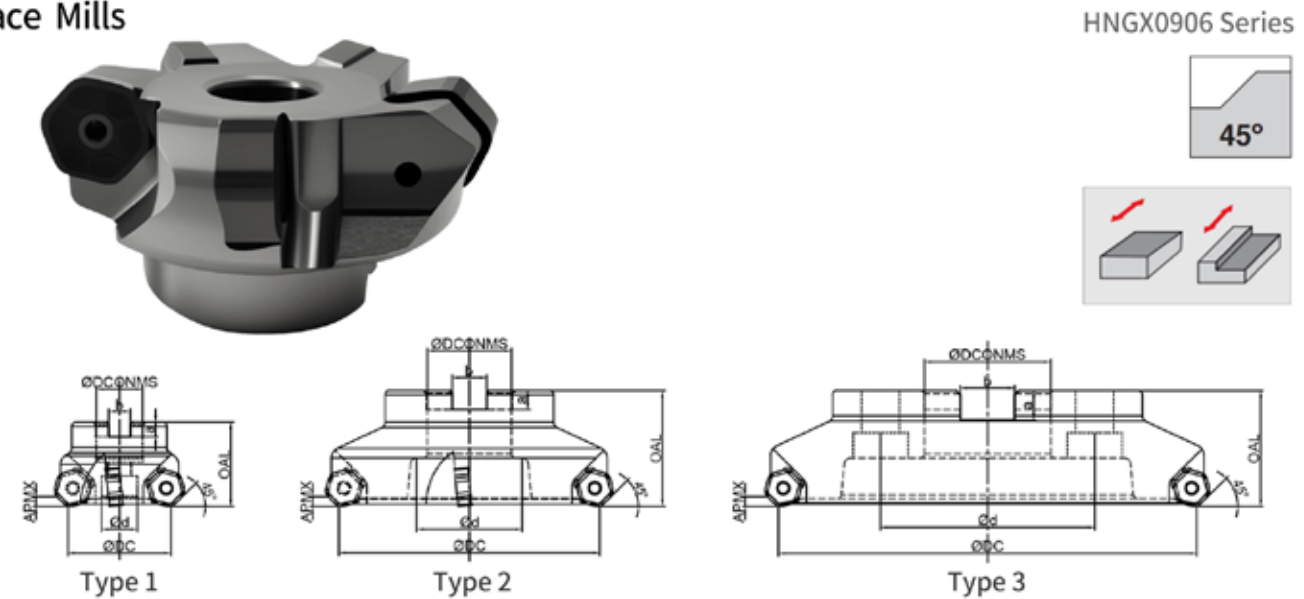


Order No	Designation	Dimension (mm)					Screw	Key
		IC	S	RE	LE	BS		
377-38-005	HNPJ0704AN-GD	12.7	4.45	1.2	1.5	1.45	M4.0-003	T15
377-39-005	HNGU0905AN-GM	15.88	5.56	1.2	1.2	1.35	M4.0-003	T15

NC45HX

Face Mills

HNGX0906 Series

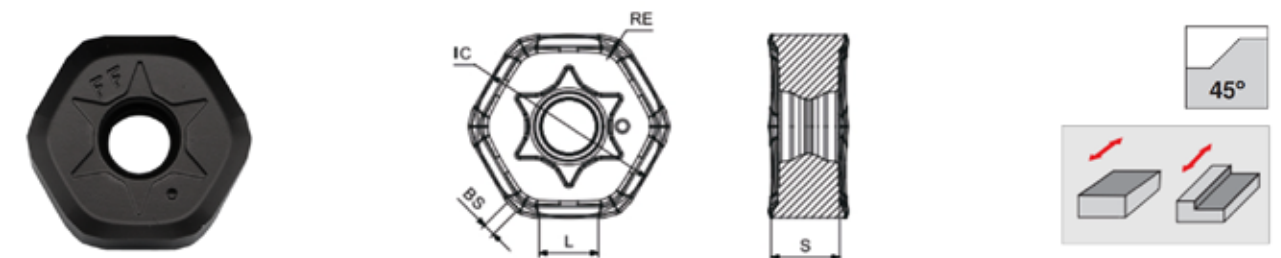


Order No	Designation	Teeth	Dimension (mm)							TYPE	ANG LE	INSERT	Spare Parts	
			AM PX	φDC	φ DCO NMS	OAL	φd	b	a				SCREW	KEY
232-81-205	NC45HX 0906-50-22-4T	4	6	50	22	40	17	10.4	7	1	45°	HNGX 0906..	M4.0 -003	T15
232-81-210	NC45HX 0906-63-22-5T	5	6	63	22	40	17	10.4	7	1	45°	HNGX 0906..		
232-81-215	NC45HX 0906-80-27-6T	6	6	80	27	50	34	12.4	7	1	45°	HNGX 0906..		
232-81-220	NC45HX 0906-100-32-7T	7	6	100	32	50	42	14.4	9	1	45°	HNGX 0906..		
232-81-225	NC45HX 0906-125-32-7T	8	6	125	40	55	50	16.4	9	2	45°	HNGX 0906..		
232-81-230	NC45HX 0906-160-40-10T	10	6	160	40	55	80	16.4	9	2	45°	HNGX 0906..		
232-81-235	NC45HX 0906-200-60-12T	12	6	200	60	55	101.6	25.8	14	3	45°	HNGX 0906..		
232-81-240	NC45HX 0906-250-60-14T	14	6	250	60	55	101.6	25.8	14	3	45°	HNGX 0906..		

HNGX09

Face milling Carbide inserts

HNGX09 Series



Order No	Designation	Dimension (mm)					Screw	Key
		IC	S	RE	L	BS		
377-40-005	HNGX0906ANN-MR6	16.5	6.35	1.0	5.3	1.13	M4.0-003	T15

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BAP400R

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TMR

INDEXABLE SIDE MILLING CUTTERS

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SMC

HARLINGEN®

Helical Milling Cutter

BAP300R/400R SERIES



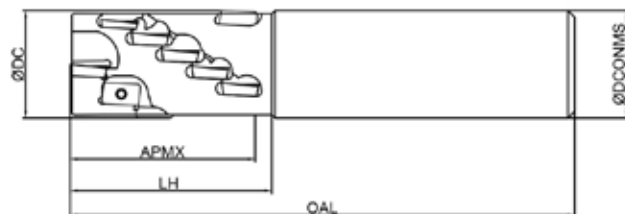
- The spiral flute, multi-edge design achieves high efficiency in roughing milling.
- The use of the most popular milling inserts ensures cost-effective machining.
- Inserts in a variety of materials allows for a wide range of machining materials.

Think Cutting, Think HARLINGEN!

BAP300R/400R

Helical End Mills

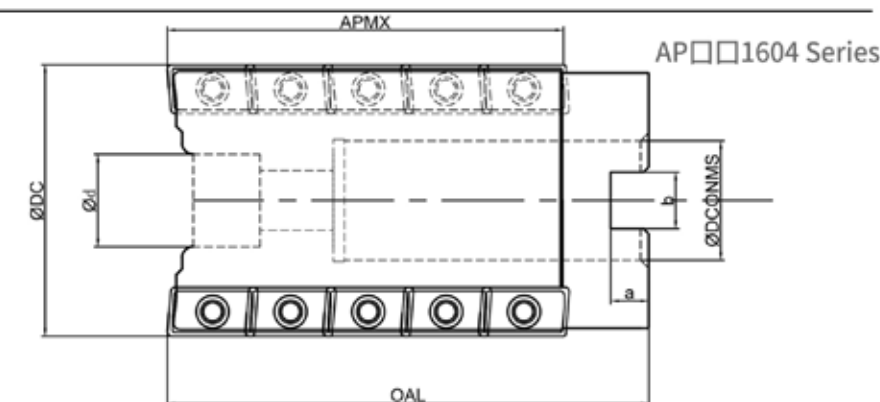
AP□□1135/AP□□1604 Series



Order No	Designation	Teeth	Dimension (mm)					INSERT	Spare Parts	
			AMPX	φDC	DCONMS	OAL	LH			
									SCREW	KEY
2F2-59-005	BAP300R-C20-19-26M-120-2T-6P	6	26	19	20	120	40	AP..1135	 M2.5-002	 T8
2F2-59-010	BAP300R-C20-20-26M-120-2T-6P	6	26	20	20	120	40	AP..1135		
2F2-59-015	BAP300R-C20-19-44M-130-2T-10P	10	44	19	20	130	59	AP..1135		
2F2-59-020	BAP300R-C20-20-44M-130-2T-10P	10	44	20	20	130	59	AP..1135		
2F2-59-025	BAP300R-C20-19-70M-150-2T-16P	16	70	19	20	150	83	AP..1135		
2F2-59-030	BAP300R-C20-20-70M-150-2T-16P	16	70	20	20	150	83	AP..1135		
2F2-59-035	BAP300R-C25-24-35M-130-2T-8P	8	35	24	25	130	50	AP..1135		
2F2-59-040	BAP300R-C25-25-35M-130-2T-8P	8	35	25	25	130	50	AP..1135		
2F2-59-045	BAP300R-C25-24-44M-130-2T-10P	10	44	24	25	130	59	AP..1135		
2F2-59-050	BAP300R-C25-25-44M-130-2T-10P	10	44	25	25	130	59	AP..1135		
2F2-59-055	BAP300R-C25-24-70M-150-2T-16P	16	70	24	25	150	83	AP..1135		
2F2-59-060	BAP300R-C25-25-70M-150-2T-16P	16	70	25	25	150	83	AP..1135		
2F2-59-065	BAP300R-C32-31-44M-150-3T-15P	15	44	31	32	150	59	AP..1135		
2F2-59-070	BAP300R-C32-32-44M-150-3T-15P	15	44	32	32	150	59	AP..1135		
2F2-59-105	BAP400R-C32-31-41M-150-2T-6P	6	41	31	32	150	53	AP..1604	 M4.0-001	 T15
2F2-59-110	BAP400R-C32-32-41M-150-2T-6P	6	41	32	32	150	53	AP..1604		
2F2-59-115	BAP400R-C32-31-69M-150-2T-10P	10	69	31	32	150	83	AP..1604		
2F2-59-120	BAP400R-C32-32-69M-150-2T-10P	10	69	32	32	150	83	AP..1604		
2F2-59-125	BAP400R-C32-34-55M-150-2T-8P	8	55	34	32	150	70	AP..1604		
2F2-59-130	BAP400R-C32-35-55M-150-2T-8P	8	55	35	32	150	70	AP..1604		
2F2-59-135	BAP400R-C32-34-69M-150-2T-10P	10	69	34	32	150	83	AP..1604		
2F2-59-140	BAP400R-C32-35-69M-150-2T-10P	10	69	35	32	150	83	AP..1604		
2F2-59-145	BAP400R-C32-39-69M-150-3T-15P	15	69	39	32	150	83	AP..1604		
2F2-59-150	BAP400R-C32-40-69M-150-3T-15P	15	69	40	32	150	83	AP..1604		
2F2-59-155	BAP400R-C32-39-97M-200-3T-21P	21	97	39	32	200	119	AP..1604		
2F2-59-160	BAP400R-C32-40-97M-200-3T-21P	21	97	40	32	200	119	AP..1604		

BAP400R

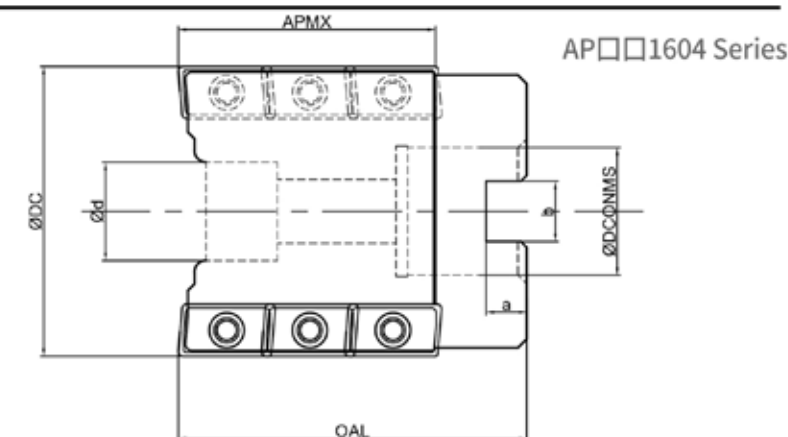
Long Helical Shell Mills



Order No	Designation	Teeth	Dimension (mm)							ANG LE	INSERT	Spare Parts			
			AM PX	φDC	φ DCO NMS	OAL	φd	b	a			For Insert		For Cutter	
												SCREW	KEY	SCREW	KEY
2F2-59-235	BAP400R-50-22-69M-4T-20P	20	69	50	22	90	17	10.4	7	90°	AP..1604	M4.0-001	T15	M10*80-85	L8
2F2-59-240	BAP400R-50-22-97M-4T-28P	28	97	50	22	120	17	10.4	7	90°	AP..1604	M4.0-001	T15	M10*110-115	L8
2F2-59-245	BAP400R-63-27-69M-4T-20P	20	69	63	27	90	20	12.4	7	90°	AP..1604	M4.0-001	T15	M12*83-85	L10
2F2-59-250	BAP400R-63-27-97M-4T-28P	28	97	63	27	120	20	12.4	7	90°	AP..1604	M4.0-001	T15	M12*113-115	L10
2F2-59-255	BAP400R-80-32-80M-5T-30P	32	80	80	32	110	27	14.4	9	90°	AP..1604	M4.0-001	T15	M16*105-110	L14
2F2-59-260	BAP400R-80-32-120M-5T-45P	45	120	80	32	150	27	14.4	9	90°	AP..1604	M4.0-001	T15	M16*145-150	L14
2F2-59-265	BAP400R-100-40-80M-6T-36P	36	80	100	40	110	32	16.4	9	90°	AP..1604	M4.0-001	T15	M20*105-110	L17
2F2-59-270	BAP400R-100-40-120M-6T-54P	54	120	100	40	150	32	16.4	9	90°	AP..1604	M4.0-001	T15	M20*145-150	L17

BAP400R

Helical Shell Mills



Order No	Designation	Teeth	Dimension (mm)								ANG LE	INSERT	Spare Parts			
			AM PX	φDC	φ DCO NMS	OAL	φd	b	a	For Insert			For Cutter			
										SCREW			KEY	SCREW	KEY	
2F2-59-205	BAP400R-50-22-41M-4T-12P	12	41	50	22	60	17	10.4	7	90°	AP..1604	M4.0-001	T15	M10*50-55	L8	
2F2-59-210	BAP400R-50-22-55M-4T-16P	16	55	50	22	75	17	10.4	7	90°	AP..1604	M4.0-001	T15	M10*65-70	L8	
2F2-59-215	BAP400R-63-27-41M-4T-12P	12	41	63	27	60	20	12.4	7	90°	AP..1604	M4.0-001	T15	M12*53-55	L10	
2F2-59-220	BAP400R-63-27-55M-4T-16P	16	55	63	27	75	20	12.4	7	90°	AP..1604	M4.0-001	T15	M12*68-70	L10	
2F2-59-225	BAP400R-80-32-69M-5T-25P	25	69	80	32	95	27	14.4	9	90°	AP..1604	M4.0-001	T15	M16*90-95	L14	
2F2-59-230	BAP400R-100-40-72M-6T-36P	36	72	100	40	110	32	16.4	9	90°	AP..1604	M4.0-001	T15	M20*80-85	L17	

TMC/TMR SERIES

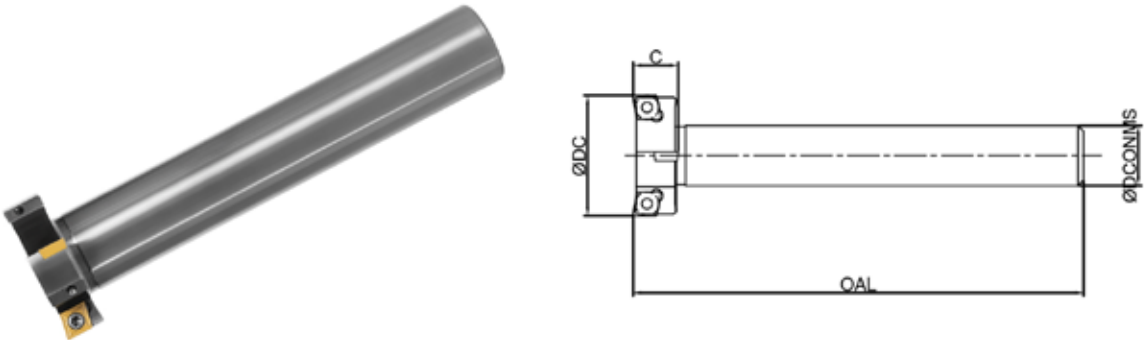


Think Cutting, Think HARLINGEN!

TMC

T-Slot Milling Cutters

CCMT0602 Series



Order No	Designation	Teeth	Dimension (mm)				INSERT	Spare Parts	
			C	φDC	φDCONMS	OAL		 SCREW	 KEY
2G2-CC-005	TMC-20-H08-C14-T2-80-CC06	2	8	20	14	80	CCMT060204	M2.5-002	T8
2G2-CC-010	TMC-20-H08-C14-T2-120-CC06	2	8	20	14	120	CCMT060204		
2G2-CC-015	TMC-20-H08-C14-T2-150-CC06	2	8	20	14	150	CCMT060204		
2G2-CC-020	TMC-20-H10-C14-T2-80-CC06	2	10	20	14	80	CCMT060204		
2G2-CC-025	TMC-20-H10-C14-T2-120-CC06	2	10	20	14	120	CCMT060204		
2G2-CC-030	TMC-20-H10-C14-T2-150-CC06	2	10	20	16	150	CCMT060204		
2G2-CC-035	TMC-25-H08-C16-T4-80-CC06	4	8	25	16	80	CCMT060204		
2G2-CC-040	TMC-25-H08-C16-T4-120-CC06	4	8	25	16	120	CCMT060204		
2G2-CC-045	TMC-25-H08-C16-T4-150-CC06	4	8	25	16	150	CCMT060204		
2G2-CC-050	TMC-25-H10-C16-T4-80-CC06	4	10	25	16	80	CCMT060204		
2G2-CC-055	TMC-25-H10-C16-T4-120-CC06	4	10	25	16	120	CCMT060204		
2G2-CC-060	TMC-25-H10-C16-T4-150-CC06	4	10	25	16	150	CCMT060204		
2G2-CC-065	TMC-30-H08-C16-T4-80-CC06	4	8	30	16	80	CCMT060204		
2G2-CC-070	TMC-30-H08-C16-T4-120-CC06	4	8	30	16	120	CCMT060204		
2G2-CC-075	TMC-30-H08-C16-T4-150-CC06	4	8	30	16	150	CCMT060204		
2G2-CC-080	TMC-30-H10-C16-T4-80-CC06	4	10	30	16	80	CCMT060204		
2G2-CC-085	TMC-30-H10-C16-T4-120-CC06	4	10	30	16	120	CCMT060204		
2G2-CC-090	TMC-30-H10-C16-T4-150-CC06	4	10	30	16	150	CCMT060204		
2G2-CC-095	TMC-35-H08-C20-T4-80-CC06	4	8	35	20	80	CCMT060204		
2G2-CC-100	TMC-35-H08-C20-T4-120-CC06	4	8	35	20	120	CCMT060204		
2G2-CC-105	TMC-35-H08-C20-T4-150-CC06	4	8	35	20	150	CCMT060204		
2G2-CC-110	TMC-35-H10-C20-T4-80-CC06	4	10	35	20	80	CCMT060204		
2G2-CC-115	TMC-35-H10-C20-T4-120-CC06	4	10	35	20	120	CCMT060204		
2G2-CC-120	TMC-35-H10-C20-T4-150-CC06	4	10	35	20	150	CCMT060204		
2G2-CC-125	TMC-40-H08-C20-T6-80-CC06	6	8	40	20	80	CCMT060204		
2G2-CC-130	TMC-40-H08-C20-T6-120-CC06	6	8	40	20	120	CCMT060204		

TMC

T-Slot Milling Cutters

CCMT0602 Series



Order No	Designation	Teeth	Dimension (mm)				INSERT	Spare Parts	
			C	φDC	φDCONMS	OAL		SCREW	KEY
2G2-CC-135	TMC-40-H08-C20-T6-150-CC06	6	8	40	20	150	CCMT060204	M2.5-002	T8
2G2-CC-140	TMC-40-H10-C20-T6-80-CC06	6	10	40	20	80	CCMT060204		
2G2-CC-145	TMC-40-H10-C20-T6-120-CC06	6	10	40	20	120	CCMT060204		
2G2-CC-150	TMC-40-H10-C20-T6-150-CC06	6	10	40	20	150	CCMT060204		
2G2-CC-155	TMC-50-H08-C25-T6-80-CC06	6	8	50	25	80	CCMT060204		
2G2-CC-160	TMC-50-H08-C25-T6-120-CC06	6	8	50	25	120	CCMT060204		
2G2-CC-165	TMC-50-H08-C25-T6-150-CC06	6	8	50	25	150	CCMT060204		
2G2-CC-170	TMC-50-H10-C25-T6-80-CC06	6	10	50	25	80	CCMT060204		
2G2-CC-175	TMC-50-H10-C25-T6-120-CC06	6	10	50	25	120	CCMT060204		
2G2-CC-180	TMC-50-H10-C25-T6-150-CC06	6	10	50	32	150	CCMT060204		
2G2-CC-185	TMC-63-H10-C32-T8-80-CC06	8	10	63	32	80	CCMT060204		
2G2-CC-190	TMC-63-H10-C32-T8-120-CC06	8	10	63	32	120	CCMT060204		
2G2-CC-195	TMC-63-H10-C32-T8-150-CC06	8	10	63	32	150	CCMT060204		
2G2-CC-200	TMC-80-H10-C32-T8-80-CC06	8	10	80	32	80	CCMT060204		
2G2-CC-205	TMC-80-H10-C32-T8-120-CC06	8	10	80	32	120	CCMT060204		
2G2-CC-210	TMC-80-H10-C32-T8-150-CC06	8	10	80	32	150	CCMT060204		

TMR

T-Slot Milling Cutters

RC06/RP08/RC10/RC12 Series



Order No	Designation	Teeth	Dimension (mm)				INSERT	Spare Parts	
			C	φDC	φDCONMS	OAL		SCREW	KEY
2G2-RC-005	TMR-20-R3-C14-T3-120	3	6	20	14	120	RCMT0602..	M2.5-002	T8
2G2-RC-010	TMR-20-R4-C14-T2-120	2	8	20	14	120	RPMT08T2..	M2.5-002	T8
2G2-RC-015	TMR-25-R3-C14-T4-120	4	6	25	14	120	RCMT0602..	M2.5-002	T8
2G2-RC-020	TMR-25-R4-C14-T3-120	3	8	25	14	120	RPMT08T2..	M2.5-002	T8
2G2-RC-025	TMR-25-R5-C14-T2-120	2	10	25	14	120	RCMT10T3..	M3.5-003	T15
2G2-RC-030	TMR-30-R3-C16-T5-120	5	6	30	16	120	RCMT0602..	M2.5-002	T8
2G2-RC-035	TMR-30-R4-C16-T4-120	4	8	30	16	120	RPMT08T2..	M2.5-002	T8
2G2-RC-040	TMR-30-R5-C16-T3-120	3	10	30	16	120	RCMT10T3..	M3.5-003	T15
2G2-RC-045	TMR-30-R6-C16-T2-120	2	12	30	16	120	RCMT1204..	M4.0-001	T15
2G2-RC-050	TMR-35-R3-C16-T5-120	5	6	35	16	120	RCMT0602..	M2.5-002	T8
2G2-RC-055	TMR-35-R4-C16-T5-120	5	8	35	16	120	RPMT08T2..	M2.5-002	T8
2G2-RC-060	TMR-35-R5-C16-T3-120	3	10	35	16	120	RCMT10T3..	M3.5-003	T15
2G2-RC-065	TMR-35-R6-C16-T2-120	2	12	35	16	120	RCMT1204..	M4.0-001	T15
2G2-RC-070	TMR-40-R3-C20-T6-120	6	6	40	20	120	RCMT0602..	M2.5-002	T8
2G2-RC-075	TMR-40-R4-C20-T5-120	5	8	40	20	120	RPMT08T2..	M2.5-002	T8
2G2-RC-080	TMR-40-R5-C20-T4-120	4	10	40	20	120	RCMT10T3..	M3.5-003	T15
2G2-RC-085	TMR-40-R6-C20-T3-120	3	12	40	20	120	RCMT1204..	M4.0-001	T15
2G2-RC-090	TMR-45-R3-C20-T6-120	6	6	45	20	120	RCMT0602..	M2.5-002	T8
2G2-RC-095	TMR-45-R4-C20-T5-120	5	8	45	20	120	RPMT08T2..	M2.5-002	T8
2G2-RC-100	TMR-45-R5-C20-T4-120	4	10	45	20	120	RCMT10T3..	M3.5-003	T15
2G2-RC-105	TMR-45-R6-C20-T4-120	4	12	45	20	120	RCMT1204..	M4.0-001	T15
2G2-RC-110	TMR-50-R3-C25-T6-120	6	6	50	25	120	RCMT0602..	M2.5-002	T8
2G2-RC-115	TMR-50-R4-C25-T6-120	6	8	50	25	120	RPMT08T2..	M2.5-002	T8
2G2-RC-120	TMR-50-R5-C25-T4-120	4	10	50	25	120	RCMT10T3..	M3.5-003	T15
2G2-RC-125	TMR-50-R6-C25-T4-120	4	12	50	25	120	RCMT1204..	M4.0-001	T15

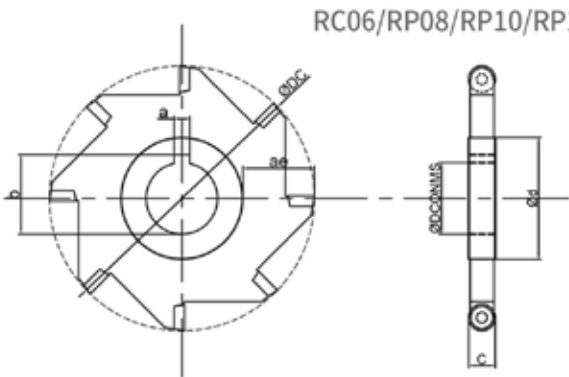
SMC/TMR SERIES



Think Cutting, Think HARLINGEN!

TMR

Side Milling Cutters



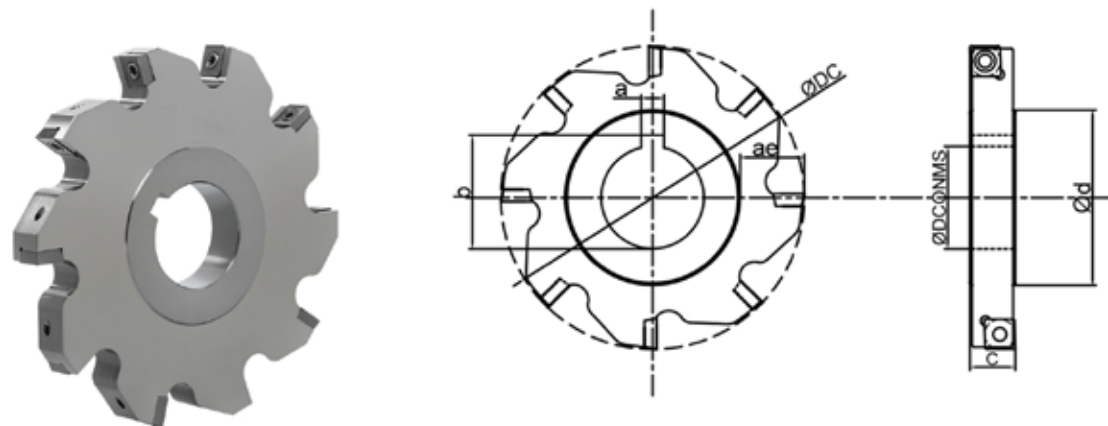
RC06/RP08/RP10/RP12/RD16/RD20 Series

Order No	Designation	Teeth	Dimension (mm)							INSERT	Spare Parts	
			C	φDC	φDCONMS	ae	φ d	b	a			
											SCREW	KEY
252-RC-005	TMR-63-R3-8-M22	8	6	63	22	14.3	34.4	25	7	RC..0602	M2.5-002	T8
252-RC-010	TMR-63-R4-6-M22	6	8	63	22	14.3	34.4	25	7	RP..08T2	M2.5-002	T8
252-RC-015	TMR-63-R5-6-M22	6	10	63	22	14.3	34.4	25	7	RP..10T3	M3.5-003	T10
252-RC-020	TMR-63-R6-5-M22	5	12	63	22	14.3	34.4	25	7	RP..1204	M4.0-001	T15
252-RC-025	TMR-80-R3-8-M27	8	6	80	27	17	46	31	7	RC..0602	M2.5-002	T8
252-RC-030	TMR-80-R4-7-M27	7	8	80	27	17	46	31	7	RP..08T2	M2.5-002	T8
252-RC-035	TMR-80-R5-6-M27	6	10	80	27	17	46	31	7	RP..10T3	M3.5-003	T10
252-RC-040	TMR-80-R6-6-M27	6	12	80	27	17	46	31	7	RP..1204	M4.0-001	T15
252-RC-045	TMR-100-R3-10-M27	10	6	100	27	27	46	31	7	RC..0602	M2.5-002	T8
252-RC-050	TMR-100-R4-9-M27	9	8	100	27	27	46	31	7	RP..08T2	M2.5-002	T8
252-RC-055	TMR-100-R5-8-M27	8	10	100	27	27	46	31	7	RP..10T3	M3.5-003	T10
252-RC-060	TMR-100-R6-6-M27	6	12	100	27	27	46	31	7	RP..1204	M4.0-001	T15
252-RC-065	TMR-125-R4-10-M32	10	8	125	32	37.5	49.3	36	8	RP..08T2	M2.5-002	T8
252-RC-070	TMR-125-R5-8-M32	8	10	125	32	37.5	49.3	36	8	RP..10T3	M3.5-003	T10
252-RC-075	TMR-125-R6-8-M32	8	12	125	32	37.5	49.3	36	8	RP..1204	M4.0-001	T15
252-RC-080	TMR-125-R8-6-M32	6	16	125	32	37.5	49.3	36	8	RD..1604	M5.0-001	T20
252-RC-085	TMR-160-R4-12-M40	12	8	160	40	50.5	58.3	45	10	RP..08T2	M2.5-002	T8
252-RC-090	TMR-160-R5-10-M40	10	10	160	40	50.5	58.3	45	10	RP..10T3	M3.5-003	T10
252-RC-095	TMR-160-R6-8-M40	8	12	160	40	50.5	58.3	45	10	RP..1204	M4.0-001	T15
252-RC-100	TMR-160-R8-8-M40	8	16	160	40	50.5	58.3	45	10	RD..1604	M5.0-001	T20
252-RC-105	TMR-200-R5-12-M50	12	10	200	50	64.5	70.3	55.2	14	RP..10T3	M3.5-003	T10
252-RC-110	TMR-200-R6-10-M50	10	12	200	50	64.5	70.3	55.2	14	RP..1204	M4.0-001	T15
252-RC-115	TMR-200-R8-8-M50	8	16	200	50	64.5	70.3	55.2	14	RD..1604	M5.0-001	T20
252-RC-120	TMR-200-R10-8-M50	8	20	200	50	64.5	70.3	55.2	14	RD..2006	M6.0-001	T25
252-RC-125	TMR-250-R5-12-M50	12	10	250	50	89.5	70.3	55.2	14	RP..10T3	M3.5-003	T10
252-RC-130	TMR-250-R6-12-M50	12	12	250	50	89.5	70.3	55.2	14	RP..1204	M4.0-001	T15
252-RC-135	TMR-250-R8-10-M50	10	16	250	50	89.5	70.3	55.2	14	RD..1604	M5.0-001	T20
252-RC-140	TMR-250-R10-8-M50	8	20	250	50	89.5	70.3	55.2	14	RD..2006	M6.0-001	T25

SMC

Side Milling Cutters

MPHT06/MPHT12 Series

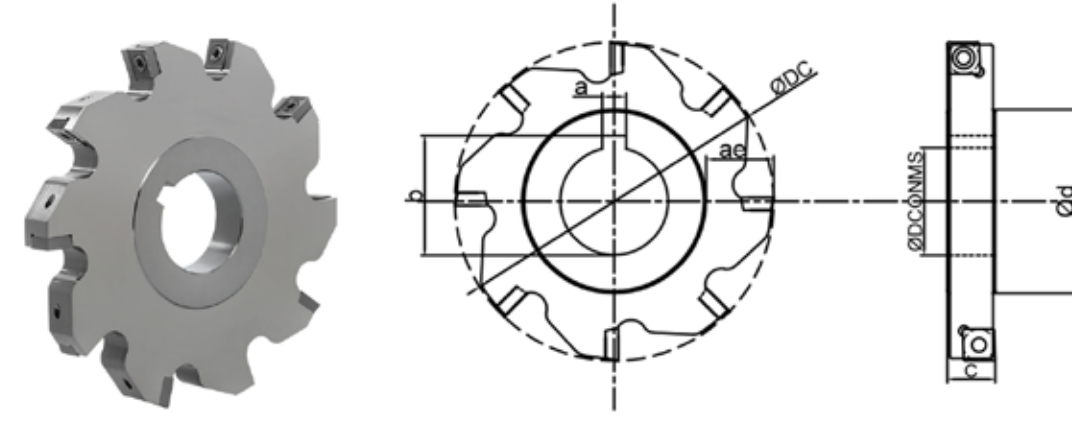


Order No	Designation	Teeth	Dimension (mm)							INSERT	Spare Parts	
			C	φDC	φDCONMS	ae	φd	b	a			
											SCREW	KEY
252-82-115	SMC-160-10-40-16T	16	10	160	40	49	59.2	45	10	MPHT06..	M2.5-002	T8
252-82-120	SMC-160-12-40-14T	14	12	160	40	49	59.2	45	10	MPHT08..	M3.0-002	T8
252-82-125	SMC-160-16-40-10T	10	16	160	40	49	59.8	45	10	MPHT12..	M5.0-002	T20
252-82-130	SMC-160-20-40-10T	10	20	160	40	49	59.8	45	10	MPHT12..	M5.0-002	T20
252-82-135	SMC-200-10-50-16T	16	10	200	50	63	71.2	55.2	14	MPHT06..	M2.5-002	T8
252-82-140	SMC-200-12-50-16T	16	12	200	50	63	71.2	55.2	14	MPHT08..	M3.0-002	T8
252-82-145	SMC-200-16-50-16T	16	16	200	50	63	71.8	55.2	14	MPHT12..	M5.0-002	T20
252-82-150	SMC-200-20-50-16T	16	20	200	50	63	71.8	55.2	14	MPHT12..	M5.0-002	T20
252-82-155	SMC-250-10-50-16T	16	10	250	50	88	71.2	55.2	14	MPHT06..	M2.5-002	T8
252-82-160	SMC-250-12-50-16T	16	12	250	50	88	71.2	55.2	14	MPHT08..	M3.0-002	T8
252-82-165	SMC-250-16-50-16T	16	16	250	50	88	71.8	55.2	14	MPHT12..	M5.0-002	T20
252-82-170	SMC-250-20-50-16T	16	20	250	50	88	71.8	55.2	14	MPHT12..	M5.0-002	T20

SMC

Side Milling Cutters

MPHT06/MPHT12 Series



Order No	Designation	Teeth	Dimension (mm)							INSERT	Spare Parts	
			C	φDC	φDCONMS	ae	φ d	b	a			
252-82-005	SMC-63-8-22-8T	8	8	63	22	13	35.2	25	7	MPHT06..	M2.5-002	T8
252-82-010	SMC-63-10-22-8T	8	10	63	22	13	35.2	25	7	MPHT06..	M2.5-002	T8
252-82-015	SMC-63-12-22-8T	8	12	63	22	13	35.2	25	7	MPHT08..	M3.0-002	T8
252-82-020	SMC-63-16-22-6T	6	16	63	22	13	35.8	25	7	MPHT12..	M5.0-002	T20
252-82-025	SMC-80-8-27-10T	10	8	80	27	16	46.2	31	7	MPHT06..	M2.5-002	T8
252-82-030	SMC-80-10-27-10T	10	10	80	27	16	46.2	31	7	MPHT06..	M2.5-002	T8
252-82-035	SMC-80-12-27-10T	10	12	80	27	16	46.2	31	7	MPHT08..	M3.0-002	T8
252-82-040	SMC-80-16-27-6T	6	16	80	27	16	46.8	31	7	MPHT12..	M5.0-002	T20
252-82-045	SMC-100-8-27-12T	12	8	100	27	26	46.2	31	7	MPHT06..	M2.5-002	T8
252-82-050	SMC-100-10-27-12T	12	10	100	27	26	46.2	31	7	MPHT06..	M2.5-002	T8
252-82-055	SMC-100-12-27-10T	10	12	100	27	26	46.2	31	7	MPHT08..	M3.0-002	T8
252-82-060	SMC-100-16-27-8T	8	16	100	27	26	46.8	31	7	MPHT12..	M5.0-002	T20
252-82-065	SMC-100-8-32-12T	12	8	100	32	24	50.2	36	8	MPHT06..	M2.5-002	T8
252-82-070	SMC-100-10-32-12T	12	10	100	32	24	50.2	36	8	MPHT06..	M2.5-002	T8
252-82-075	SMC-100-12-32-10T	10	12	100	32	24	50.2	36	8	MPHT08..	M3.0-002	T8
252-82-080	SMC-100-16-32-8T	8	16	100	32	24	50.8	36	8	MPHT12..	M5.0-002	T20
252-82-085	SMC-100-20-32-8T	8	20	100	32	24	50.8	36	8	MPHT12..	M5.0-002	T20
252-82-090	SMC-125-8-40-14T	14	8	125	40	32	59.2	45	10	MPHT06..	M2.5-002	T8
252-82-095	SMC-125-10-40-14T	14	10	125	40	32	59.2	45	10	MPHT06..	M2.5-002	T8
252-82-100	SMC-125-12-40-12T	12	12	125	40	32	59.2	45	10	MPHT08..	M3.0-002	T8
252-82-105	SMC-125-16-40-8T	8	16	125	40	32	59.8	45	10	MPHT12..	M5.0-002	T20
252-82-110	SMC-125-20-40-8T	8	20	125	40	32	59.8	45	10	MPHT12..	M5.0-002	T20

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SP

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AP

HARLINGEN®

Dovetail Milling Cutter

YW Series



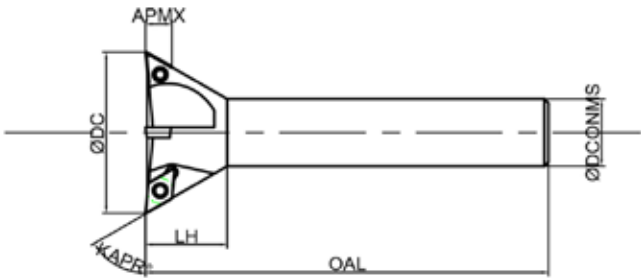
- Improve slotting efficiency and convenience.
- Popular inserts ensures cost-effective machining.
- Suitable for slotting at various angles, including 45°, 55°, and 60°

Think Cutting, Think HARLINGEN!

YW

Dovetail Milling Cutters

VC08/VC11/VC16/DC07/DC11 Series

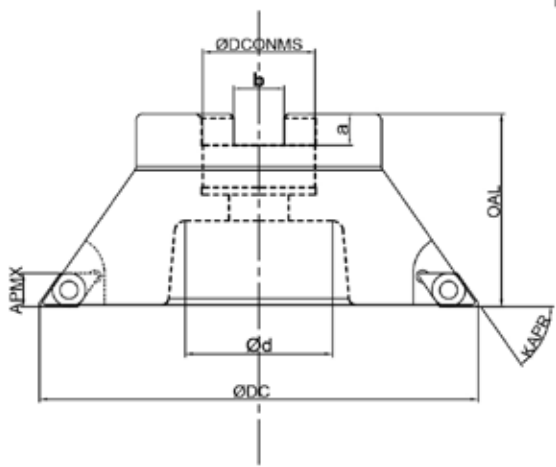
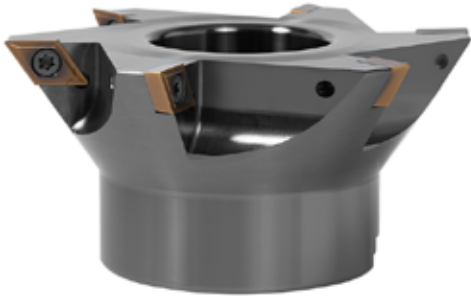


Order No	Designation	Teeth	Dimension (mm)					KAPR	INSERT	Spare Parts	
			AP MX	φ DC	φ DCONMS	OAL	L H				
2H2-VC-005	YW45-30-C20-120-2T VC08	2	5	30	20	120	25	45°	VCMT08..	M2.0-002	T6
2H2-VC-010	YW45-40-C20-160-2T VC11	2	5	40	20	160	25	45°	VCMT11..	M2.5-002	T8
2H2-VC-015	YW45-50-C25-160-3T VC11	3	5	50	25	160	30	45°	VCMT11..	M2.5-002	T8
2H2-VC-020	YW45-60-C32-160-3T VC16	3	5	60	32	160	40	45°	VCMT16..	M4.0-001	T15
2H2-VC-025	YW45-80-C32-160-4T VC16	4	5	80	32	160	40	45°	VCMT16..	M4.0-001	T15
2H2-DC-030	YW55-25-C20-120-2T DC07	2	6	25	20	120	25	55°	DCMT07..	M2.5-002	T8
2H2-DC-035	YW55-30-C20-120-3T DC07	3	6	30	20	120	25	55°	DCMT07..	M2.5-002	T8
2H2-DC-040	YW55-40-C25-160-3T DC11	3	6	40	25	160	30	55°	DCMT11..	M4.0-001	T15
2H2-DC-045	YW55-50-C32-160-3T DC11	3	6	50	32	120	40	55°	DCMT11..	M4.0-001	T15
2H2-DC-050	YW55-60-C32-160-4T DC11	4	6	60	32	160	40	55°	DCMT11..	M4.0-001	T15
2H2-DC-055	YW55-80-C32-160-5T DC11	5	6	80	32	160	40	55°	DCMT11..	M4.0-001	T15
2H2-DC-060	YW60-25-C20-120-2T DC07	2	6	25	20	120	25	60°	DCMT07..	M2.5-002	T8
2H2-DC-065	YW60-30-C20-120-3T DC07	3	6	30	20	120	25	60°	DCMT07..	M2.5-002	T8
2H2-DC-070	YW60-40-C25-160-3T DC11	3	6	40	25	160	30	60°	DCMT11..	M4.0-001	T15
2H2-DC-075	YW60-50-C32-160-3T DC11	3	6	50	32	160	40	60°	DCMT11..	M4.0-001	T15
2H2-DC-080	YW60-60-C32-160-4T DC11	4	6	60	32	160	40	60°	DCMT11..	M4.0-001	T15
2H2-DC-085	YW60-80-C32-160-4T DC11	4	6	80	32	120	45	60°	DCMT11..	M4.0-001	T15

YW

Dovetail Milling Cutters

DC11 Series



Order No	Designation	Teeth	Dimension (mm)							KAPR	INSERT	Spare Parts	
			APMX	φ DC	φ DCONMS	OAL	φ d	b	a				
2H2-DC-205	YW55-100-M27-6T DC11	6	8	100	27	50	34	12.4	7	55°	DCMT11..	M4.0-001	T15
2H2-DC-210	YW55-125-M32-7T DC11	7	8	125	32	55	42	14.4	9	55°	DCMT11..		
2H2-DC-215	YW60-100-M27-6T DC11	6	8	100	27	50	34	12.4	7	60°	DCMT11..		
2H2-DC-220	YW60-125-M32-7T DC11	7	8	125	32	55	42	14.4	9	60°	DCMT11..		

- Easily handles top and bottom chamfer, side V-groove, and multi-angle chamfer.
- Popular inserts for ease of use and cost-effective.
- High-precision durable tool-holders available in a variety of sizes, angle.

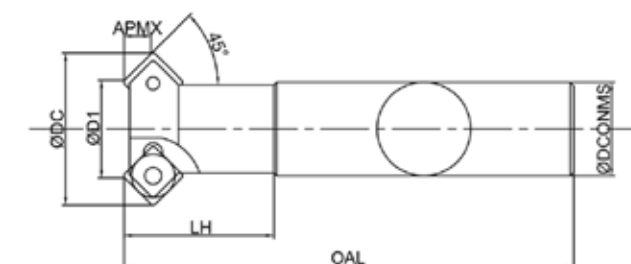


Think Cutting, Think HARLINGEN!

SP

Chamfer Milling Cutters

SP05/SP06/SP07/SP09/SP11 Series

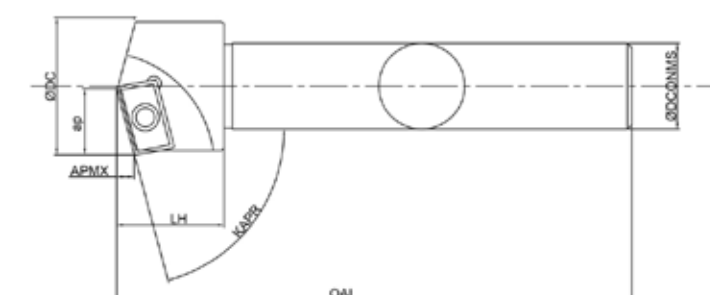


Order No	Designation	Teeth	Dimension (mm)						KAPR	INSERT	Spare Parts	
			AP MX	φ DC	φ DCO NMS	OAL	L H	φ D1			SCREW	KEY
2B2-83-005	B45-SP05-4-1T10-100	1	3	10	10	100	20	3.9	45°	SPMG050204	M2.2-003	T6
2B2-83-010	B45-SP06-5-1T12-100	1	4	12	12	100	20	4.4	45°	SPMG060204	M2.5-003	T8
2B2-83-015	B45-SP05-8-1T14-120	1	3	14	14	120	28	7.9	45°	SPMG050204	M2.2-003	T6
2B2-83-020	B45-SP05-10-2T16-120	2	3	16	16	120	32	9.9	45°	SPMG050204	M2.2-003	T6
2B2-83-025	B45-SP06-11-2T16-120	2	4	18	16	120	36	10.4	45°	SPMG060204	M2.5-003	T8
2B2-83-030	B45-SP06-13-2T16-120	2	4	20	16	120	40	12.2	45°	SPMG060204	M2.5-003	T8
2B2-83-035	B45-SP07-16-2T16-120	2	5	25	16	120	50	15.6	45°	SPMG07T308	M3.0-003	T8
2B2-83-040	B45-SP09-19-2T20-120	2	6	31	20	120	40	18.9	45°	SPMG090408	M3.5-003	T15
2B2-83-045	B45-SP11-26-2T25-120	2	8	40	25	120	50	25.6	45°	SPMG110408	M4.0-003	T15

AP16

Chamfer Milling Cutters

AP□□1604 Series



Order No	Designation	Teeth	Dimension (mm)						KAPR	INSERT	Spare Parts	
			AP MX	φ DC	φ DCO NMS	OAL	L H	a p			SCREW	KEY
2B2-59-005	B75AP16-1T-S20-120	1	4	32	20	120	25	15.4	75°	AP..1604	M4.0-006	T15
2B2-59-010	B60AP16-1T-S20-120	1	7	32	20	120	25	13.8	60°	AP..1604		
2B2-59-015	B45AP16-1T-S20-120	1	11	32	20	120	25	11.2	45°	AP..1604		
2B2-59-020	B30AP16-1T-S20-120	1	13	32	20	120	25	7.9	30°	AP..1604		
2B2-59-025	B15AP16-1T-S20-120	1	15	32	20	120	25	4.0	15°	AP..1604		

INDEXABLE TURNING TOOLHOLDERS

Page 092  DWLNR/L	Page 092  DWLNR/L-A	Page 094  DCLNR/L	Page 094  DCLNR/L-A
Page 097  DTJNR/L	Page 097  DTJNR/L-A	Page 099  DDJNR/L	Page 099  DDJNR/L-A
Page 100  DVJNR/L	Page 100  DVJNR/L-A	Page 101  DVQNR/L	Page 101  DVQNR/L-A
Page 102  DVVNN	Page 102  DVVNN-A		
Page 096  PCBNR/L	Page 096  PSBNR/L-A	Page 095  PCLNR/L	Page 095  PCLNR/L-A

Page 093  PWLNR/L	Page 093  PWLNR/L-A	Page 098  PTJNR/L	Page 098  PTJNR/L-A
Page 104  SDNCN	Page 104  SDQCR/L	Page 105  SDJCR/L	Page 105  SCLCR/L
Page 106  SVVC(B)R/L	Page 106  SVJC(B)R/L	Page 107  SVUC(B)R/L	Page 107  SVQC(B)R/L

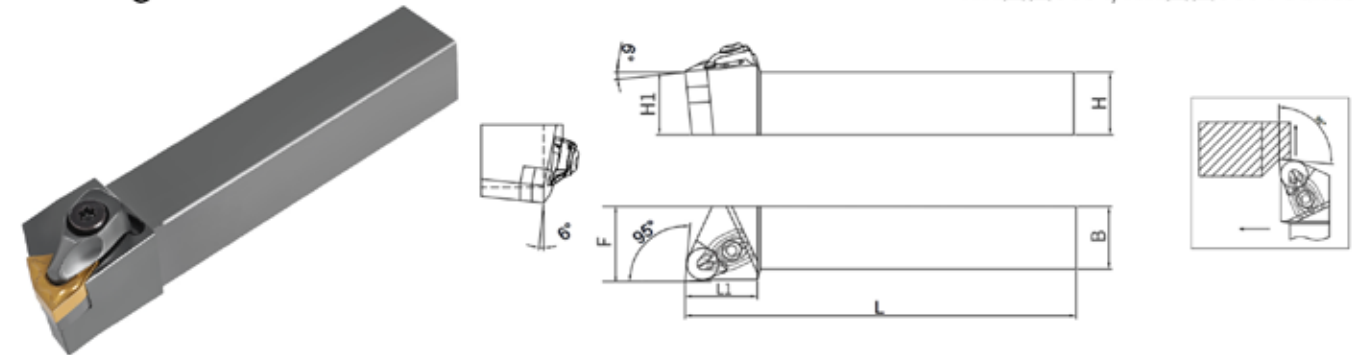
DWLNR/L DCLNR/L DTJNR/L
DDJNR/L DVJNR/L DVQNR/L DVVNN
PWLNR/L PCLNR/L PTJNR/L SERIES



DWLNR/L

Turning Toolholders

WN□□0604/WN□□0804 Series

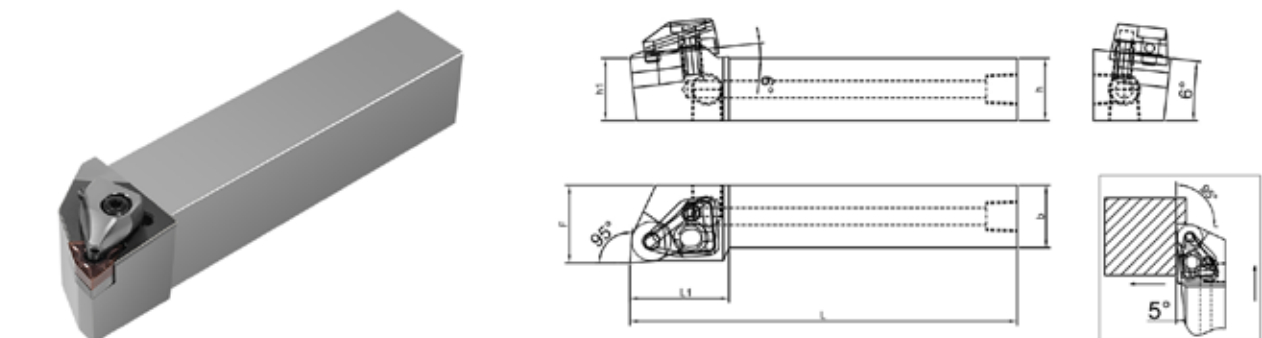


Order No		Designation	Inserts	Dimension (mm)						Spare Parts					
Right	Left			H	B	L	L1	H1	F	WN	DXD	DYB	MHGD	TH	TSA
212-25-101	212-25-102	DWLNR/L1616H06	WN□□0604□□	16	16	100	28	16	20	0603	0512	2412-A	0520	0814	T20
212-25-103	212-25-104	DWLNR/L2020K06		20	20	125	28	20	25						
212-25-105	212-25-106	DWLNR/L2525M06		25	25	150	30	25	32						
212-25-107	212-25-108	DWLNR/L1616H08	WN□□0804□□	16	16	100	32	16	20	0804	0614	2412-B	0520	0814	T20
212-25-109	212-25-110	DWLNR/L2020K08		20	20	125	32	20	25						
212-25-111	212-25-112	DWLNR/L2525M08		25	25	150	32	25	32						
212-25-113	212-25-114	DWLNR/L3232P08		32	32	170	35	32	40						

DWLNR/L-A

Turning Toolholders with Internal Cooling

WN□□0804 Series



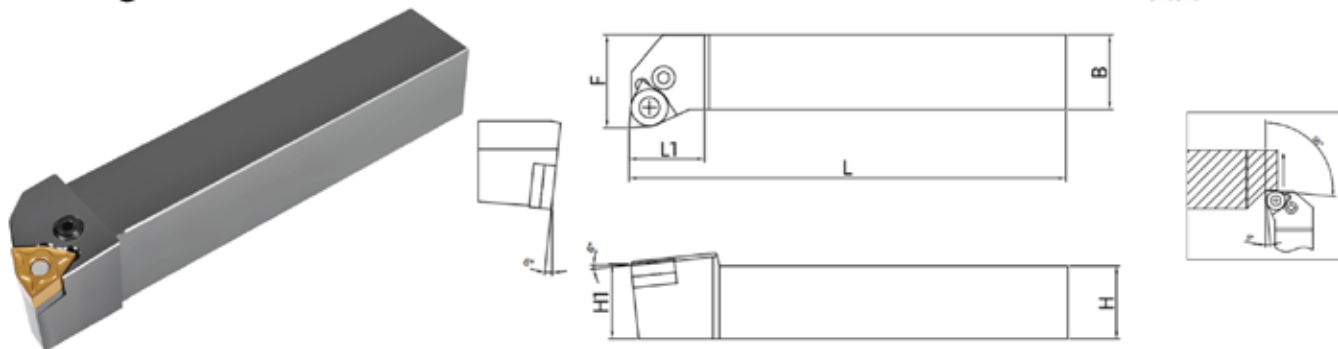
Order No	Designation	Inserts	Dimension (mm)						Spare Parts								
			h	b	L	L1	h1	f									
									WN	DXD	DW(C)L-R/L	YSX	O	MHGD	TH	TSA	
216-25-109	DWLNR2020K08-A	WN□□ 0804□□	20	20	125	32	20	25	0804	0614	DW08(C12)L-R		0610	O06	0520	0814	T20
216-25-110	DWLNL2020K08-A		DW08(C12)L-L														
216-25-111	DWLNR2525M08-A		DW08(C12)L-R														
216-25-112	DWLNL2525M08-A		DW08(C12)L-L														
216-25-113	DWLNR3232P08-A		DW08(C12)L-R														
216-25-114	DWLNL3232P08-A		DW08(C12)L-L														

Think Cutting, Think HARLINGEN!

PWLNR/L

Turning Toolholders

WN□□0804 Series

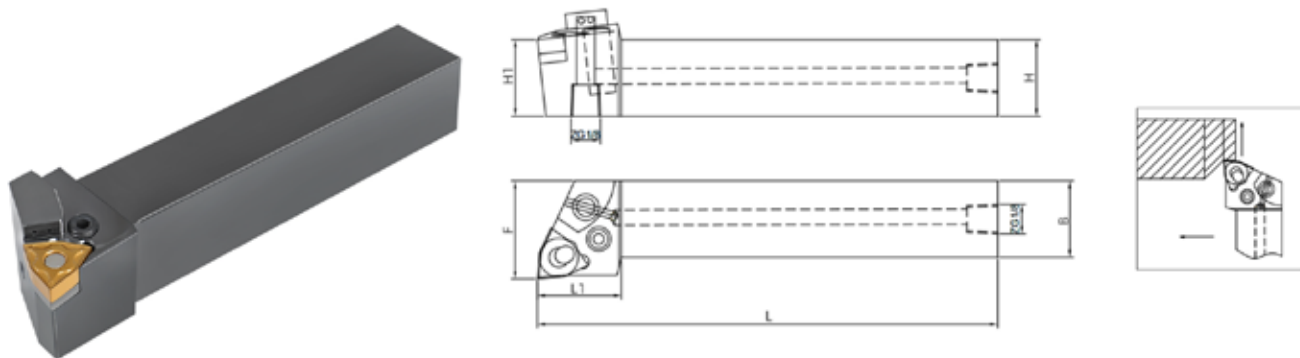


Order No		Designation	Inserts	Dimension (mm)						Spare Parts					
Right	Left			H	B	L	L1	H1	F	GGX	NLJ-P	WN-P	SCREW	TH	TSA
212-26-001	212-26-002	PWLNR/L1616H08	WN□□0804□□	16	16	100	26	16	20	0516	0812	0803-K	M2.5*6	0607	L3
212-26-003	212-26-004	PWLNR/L2020K08		20	20	125	26	20	25						
212-26-005	212-26-006	PWLNR/L2525M08		25	25	150	26	25	32					0608	
212-26-007	212-26-008	PWLNR/L3232P08		32	32	170	30	32	40						

PWLNR/L-A

Turning Toolholders with Internal Cooling

WN□□0804 Series

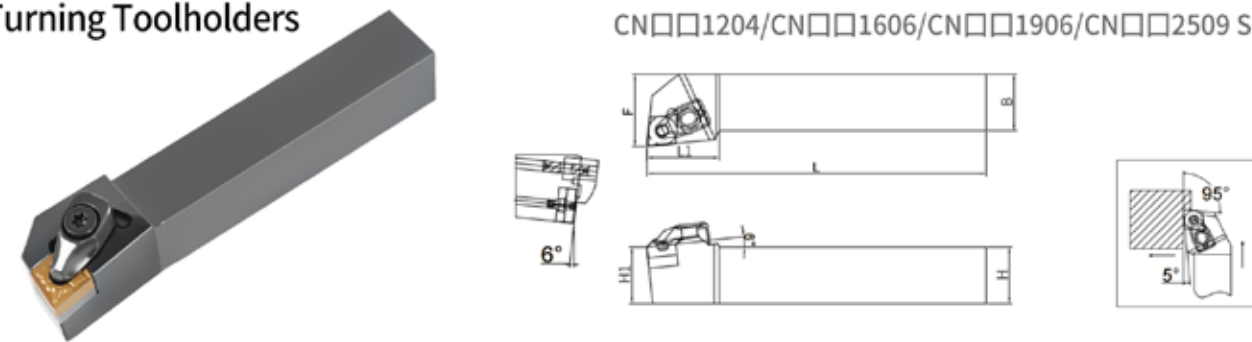


Order No		Designation	Inserts	Dimension (mm)						Spare Parts						内冷螺纹型号
Right	Left			H	B	L	L1	H1	F	GGX	NLJ-P	WN-P	SCREW	TH	TSA	
216-26-003	216-26-004	PWLNR/L2020K08-A	WN□□0804□□	20	20	125	28	20	25	0516	0812	0803-K	M2.5*6	0607	L3	ZG1/8
216-26-005	216-26-006	PWLNR/L2525M08-A		25	25	150	30	25	32							
216-26-007	216-26-008	PWLNR/L3232P08-A		32	32	170	30	32	40							

DCLNR/L

Turning Toolholders

CN□□1204/CN□□1606/CN□□1906/CN□□2509 Series

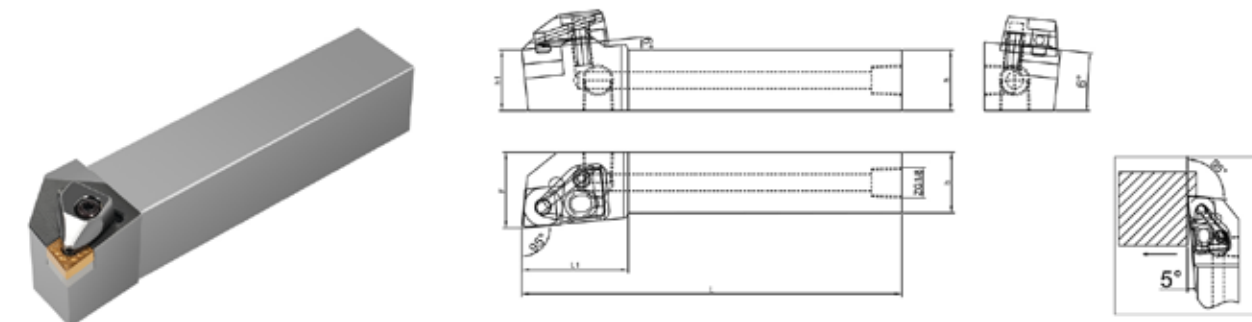


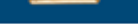
Order No		Designation	Inserts	Dimension (mm)						Spare Parts					
Right	Left			H	B	L	L1	H1	F	CN	DXD	DYB	MHGD	TH	TSA
212-22-101	212-22-102	DCLNR/L1616H12	CN□□1204□□	16	16	100	35	16	20	1204	0614	2412-B	0525	0814	T20
212-22-103	212-22-104	DCLNR/L2020K12		20	20	125	35	20	25						
212-22-105	212-22-106	DCLNR/L2525M12		25	25	150	32	25	32						
212-22-107	212-22-108	DCLNR/L3232P12		32	32	170	32	32	40						
212-22-109	212-22-110	DCLNR/L3232P16	CN□□1606□□	32	32	170	40	32	40	1604-D	0614	3014	0625	0913	T20
212-22-111	212-22-112	DCLNR/L3232P19	CN□□1906□□	32	32	170	48	32	40	1906-D	0614	3515	0625	0913	T20
212-22-113	212-22-114	DCLNR/L4040S19	CN□□2509□□	40	40	250	48	40	50	2506-D	0614	4319	0830	1118	T25
212-22-115	212-22-116	DCLNR/L4040S25		40	40	250	56	40	50						
212-22-117	212-22-118	DCLNR/L5050T25		50	50	300	56	50	60						

DCLNR/L-A

Turning Toolholders with Internal Cooling

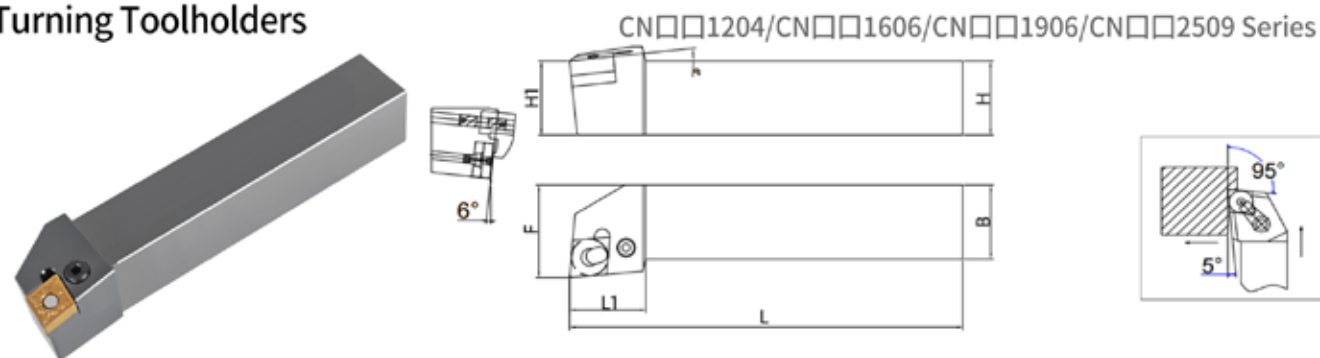
CN□□1204/CN□□1906 Series



Order No	Designation	Inserts	Dimension (mm)						Spare Parts							
			h	b	L	L1	h1	f								
216-22-103	DCLNR2020K12-A		20	20	125	35	20	25	1204		DW08(C12)L-R	0610	O06	0525	0814	T20
216-22-104	DCLNL2020K12-A		20	20	125	35	20	25			DW08(C12)L-L					
216-22-105	DCLNR2525M12-A		25	25	150	32	25	32			DW08(C12)L-R					
216-22-106	DCLNL2525M12-A		25	25	150	32	25	32			DW08(C12)L-L					
216-22-107	DCLNR3232P12-A		32	32	170	32	32	40	1906		DW08(C12)L-R			0625	0913	
216-22-108	DCLNL3232P12-A		32	32	170	32	32	40			DW08(C12)L-L					
216-22-109	DCLNR4040S19-A		40	40	250	50	40	50			DCL19-R					
216-22-110	DCLNL4040S19-A		40	40	250	50	40	50			DCL19-L					

PCLNR/L

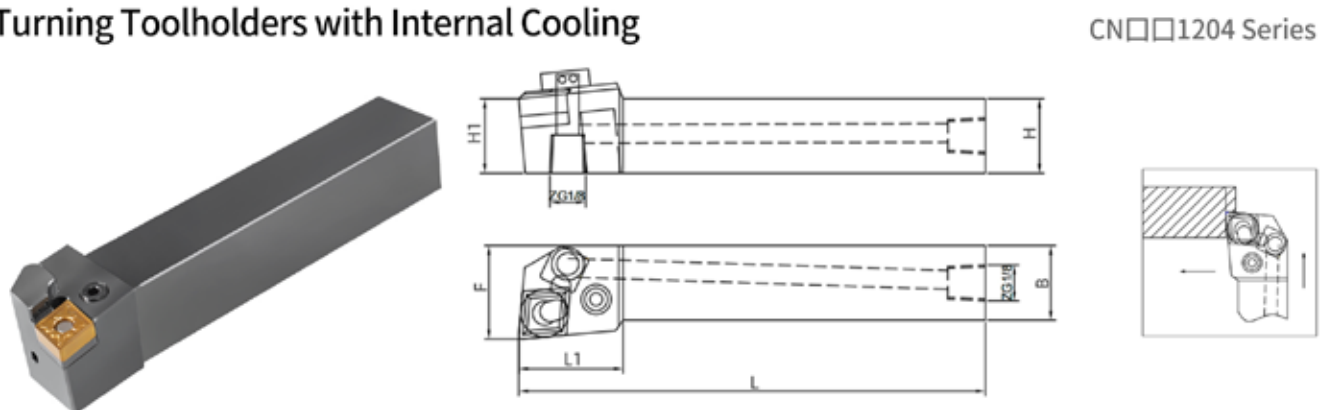
Turning Toolholders



Order No		Designation	Inserts	Dimension (mm)						Spare Parts					
Right	Left			H	B	L	L1	H1	F	GGX	NLJ-P	CN-P	DX	TH	TSA
212-07-037	212-07-038	PCLNR/L1616H12	CN□□1204□□	16	16	100	28	16	20					0607	L3
212-07-039	212-07-040	PCLNR/L2020K12		20	20	125	28	20	25	0516	0812	1203-K-R	⊗		
212-07-041	212-07-042	PCLNR/L2525M12		25	25	150	28	25	32			1209-K-L		0608	
212-07-043	212-07-044	PCLNR/L3232P12		32	32	170	28	32	40						
212-07-045	212-07-046	PCLNR/L2525M16	CN□□1606□□	25	25	150	33	25	32	0619	0815	1604	0808	0608	L3
212-07-025	212-07-026	PCLNR/L3232P16		32	32	170	33	32	40						
212-07-047	212-07-048	PCLNR/L3232P19	CN□□1906□□	32	32	170	40	32	40	0823	1018	1904	0909	0911	L5
212-07-049	212-07-050	PCLNR/L4040S19		40	40	250	40	40	50						
212-07-051	212-07-052	PCLNR/L4040S25	CN□□2509□□	40	40	250	47	40	50	0927	1220	2506	1312	1012	L6
212-07-053	212-07-054	PCLNR/L5050T25		50	50	300	47	50	60						

PCLNR/L-A

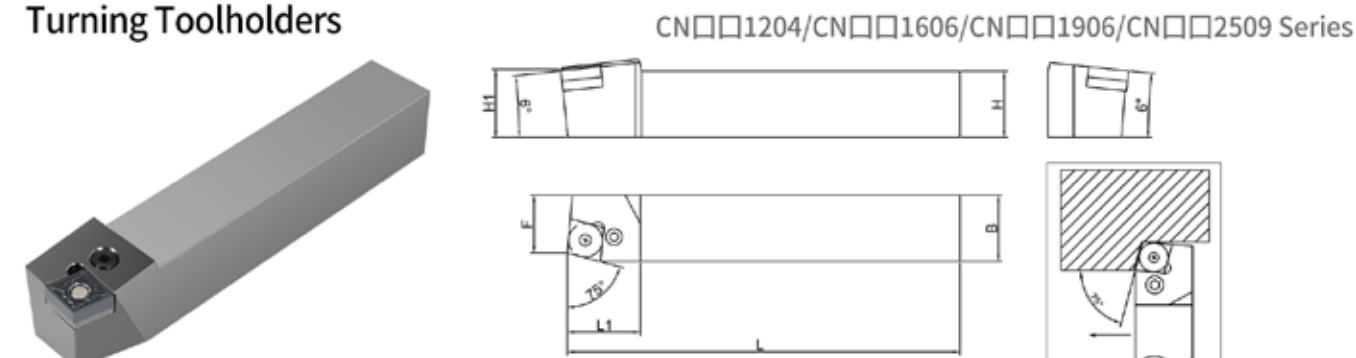
Turning Toolholders with Internal Cooling



Order No		Designation	Inserts	Dimension (mm)						Spare Parts						内冷螺旋型号
Right	Left			H	B	L	L1	H1	F	GGX	NLJ-P	CN-P	SCREW	TH	TSA	
216-07-001	216-07-002	PCLNR/L2020K12-A	CN□□1204□□	20	20	125	22	20	25					0607	L3	ZG1/8
216-07-003	216-07-004	PCLNR/L2525M12-A		25	25	150	28	25	32	0516	0812	1203-K-R	M2.5*6			
216-07-005	216-07-006	PCLNR/L3232P12-A		32	32	170	28	32	40			1203-K-L		0608		

PCBNR/L

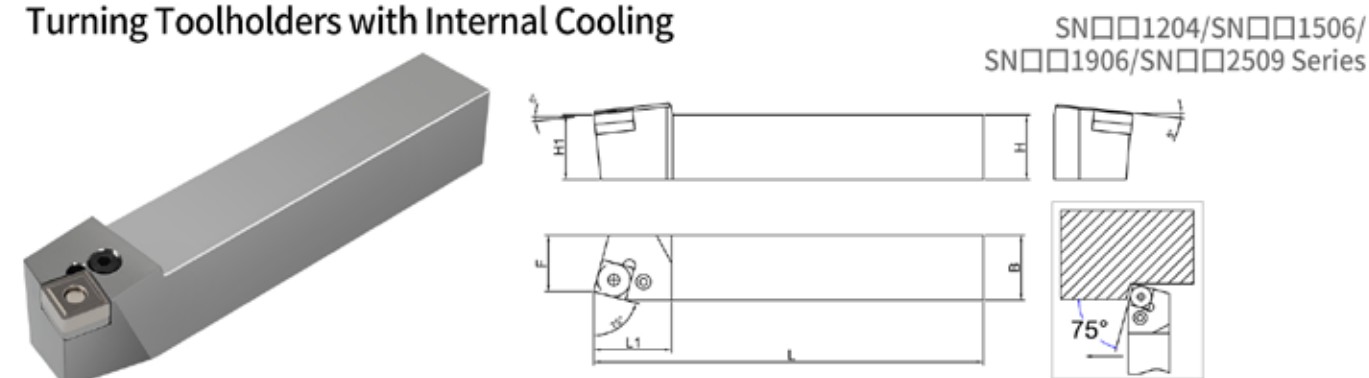
Turning Toolholders



Order No		Designation	Inserts	Dimension (mm)						Spare Parts					
Right	Left			H	B	L	L1	H1	F	GGX	NLJ-P	CN-P	DPX	TH	TSA
212-07-055	212-07-056	PCBNR/L2525M12	CN□□1204	25	25	150	30	25	25	0516	0812	1203-K-R 75°	⊗	0607	L3
212-07-001	212-07-002	PCBNR/L3232P16	CN□□1606	32	32	170	33	32	32	0619	0815	1604	0808	0608	
212-07-057	212-07-058	PCBNR/L3232P19	CN□□1906	32	32	170	40	32	32	0823	1018	1904	0909	0911	L4
212-07-059	212-07-060	PCBNR/L4040S19		40	40	250	40	40	40						
212-07-061	212-07-062	PCBNR/L4040S25	CN□□2509	40	40	250	50	40	40	0927	1220	2506	1312	1012	L5
212-07-063	212-07-064	PCBNR/L5050T25		50	50	300	50	50	50						

PSBNR/L-A

Turning Toolholders with Internal Cooling

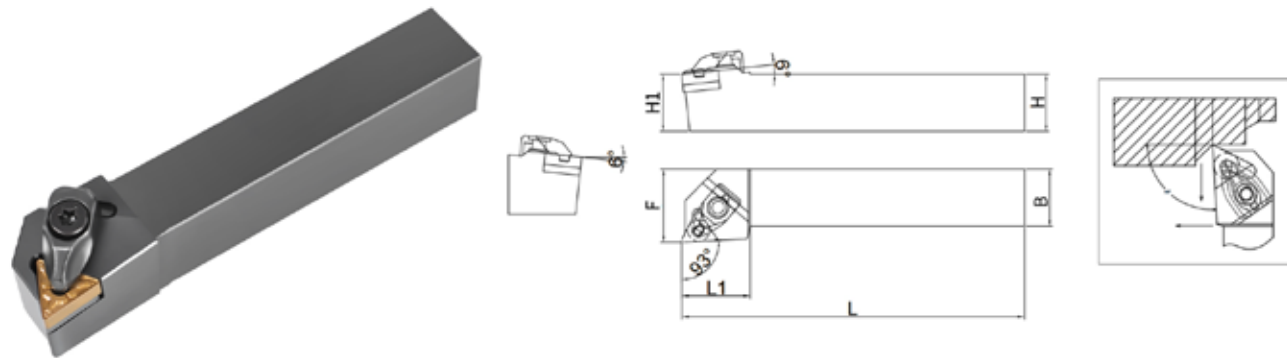


Order No		Designation	Inserts	Dimension (mm)						Spare Parts					
Right	Left			H	B	L	L1	H1	F	GGX	NLJ-P	SN-P	DPX	TH	TSA
216-09-025	216-09-026	PSBNR/L2020K12	SN□□1204	20	20	125	28	20	17	0516	0812	1203-K	⊗	0607	L3
216-09-027	216-09-028	PSBNR/L2525M12		25	25	150	28	25	22					0608	
216-09-029	216-09-030	PSBNR/L3232P12		32	32	170	28	32	27						
216-09-031	216-09-032	PSBNR/L2525M15	SN□□1506	25	25	150	35	25	22	0619	0815	1604	0808	0608	L4
216-09-001	216-09-002	PSBNR/L3232P15		32	32	170	35	32	27						
216-09-033	216-09-034	PSBNR/L3232P19	SN□□1906	32	32	170	42	32	27	0823	1018	1904	0909	0911	L5
216-09-035	216-09-036	PSBNR/L4040S19		40	40	250	42	40	35						
216-09-037	216-09-038	PSBNR/L4040S25	SN□□2509	40	40	250	50	40	35	0927	1220	2506	1312	1012	L5
216-09-039	216-09-040	PSBNR/L5050T25		50	50	300	50	50	43						

DTJNR/L

Turning Toolholders

TN□□1604 Series

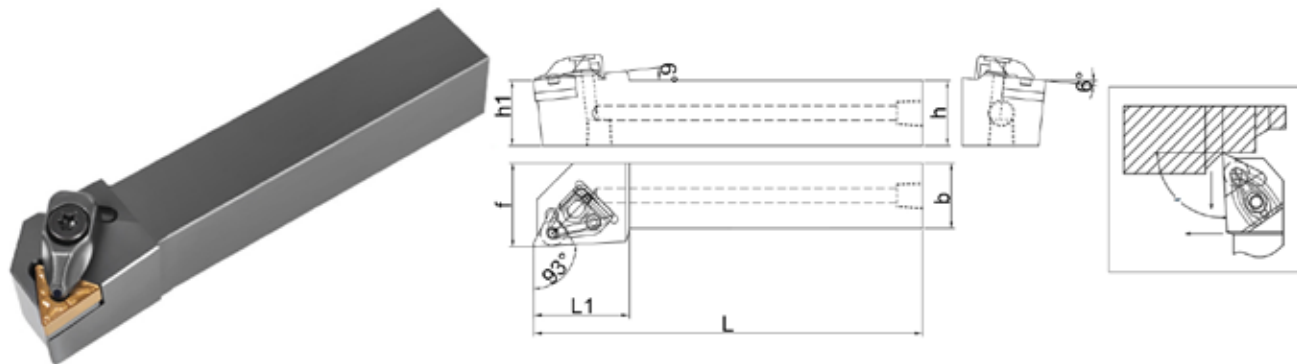


Order No		Designation	Inserts	Dimension (mm)						Spare Parts					
Right	Left			H	B	L	L1	H1	F	TN	DXD	DYB	MHGD	TH	TSA
212-30-101	212-30-102	DTJNR/L1616H16	TN□□1604□□	16	16	100	30	16	20	1603	0512	2412-A	0520	0814	T20
212-30-103	212-30-104	DTJNR/L2020K16		20	20	125	30	20	25						
212-30-105	212-30-106	DTJNR/L2525M16		25	25	150	30	25	32						
212-30-107	212-30-108	DTJNR/L3232P16		32	32	170	32	32	40						

DTJNR/L-A

Turning Toolholders with Internal Cooling

TN□□1604 Series

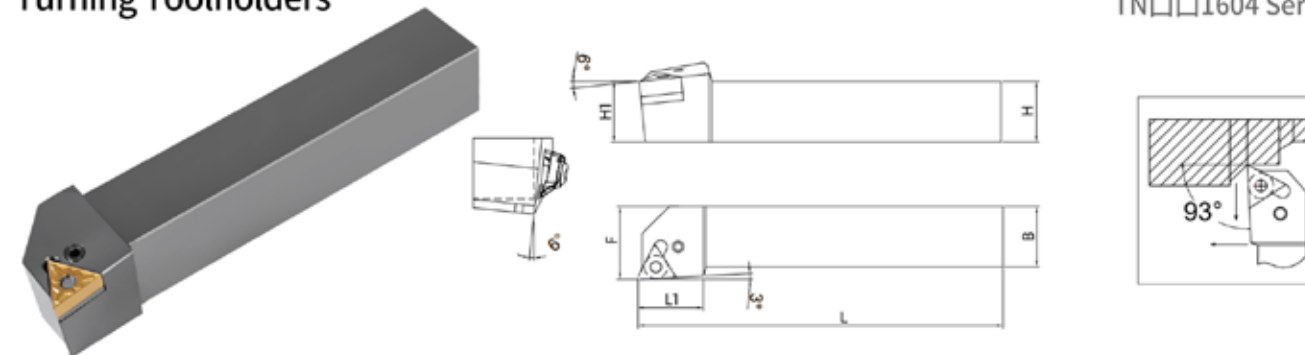


Order No		Designation	Inserts	Dimension (mm)						Spare Parts					
Right	Left			H	B	L	L1	H1	F	TN	DXD	DVJ-R/L	YSX	MHGD	TSA
216-30-103	216-30-104	DTJNR/L2020K16-A	TN□□1604□□	20	20	125	35	20	25	1603	0512	DVJ16-R/L	0610	0525	0814
216-30-105	216-30-106	DTJNR/L2525M16-A		25	25	150	35	25	32						
216-30-107	216-30-108	DTJNR/L3232P16-A		32	32	170	37	32	40						

PTJNR/L

Turning Toolholders

TN□□1604 Series

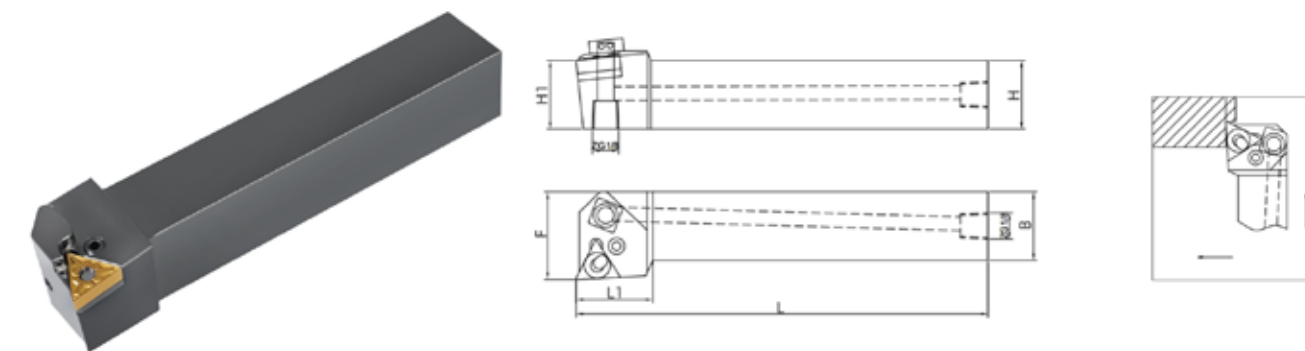


Order No		Designation	Inserts	Dimension (mm)						Spare Parts					
Right	Left			H	B	L	L1	H1	F	GGX	NLJ-P	TN-P	MHGD	TH	TSA
212-27-001	212-27-002	PTJNR/L1616H16	TN□□1604□□	16	16	100	22	16	20	0313	0610	1602-K	M2.5*6	0409	L2.5
212-27-003	212-27-004	PTJNR/L2020K16		20	20	125	22	20	25						
212-27-005	212-27-006	PTJNR/L2525M16		25	25	150	28	25	32						
212-27-007	212-27-008	PTJNR/L3232P16		32	32	170	28	32	40						

PTJNR/L-A

Turning Toolholders with Internal Cooling

TN□□1604 Series

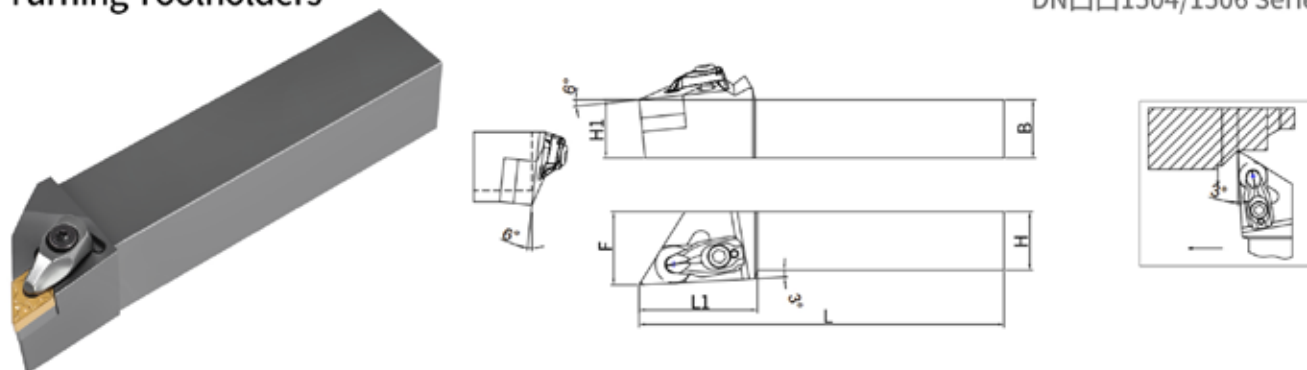


Order No		Designation	Inserts	Dimension (mm)						Spare Parts						内冷螺纹型号
Right	Left			H	B	L	L1	H1	F	GGX	NLJ-P	TN-P	SCREW	TH	TSA	
216-27-003	216-27-004	PTJNR/L2020K16-A	TN□□1604□□	20	20	125	22	20	25	0313	0610	1602-K	M2.5*6	0409	L2.5	ZG1/8
216-27-005	216-27-006	PTJNR/L2525M16-A		25	25	150	28	25	32							
216-27-007	216-27-008	PTJNR/L3232P16-A		32	32	170	28	32	40							

DDJNR/L

Turning Toolholders

DN□□1504/1506 Series

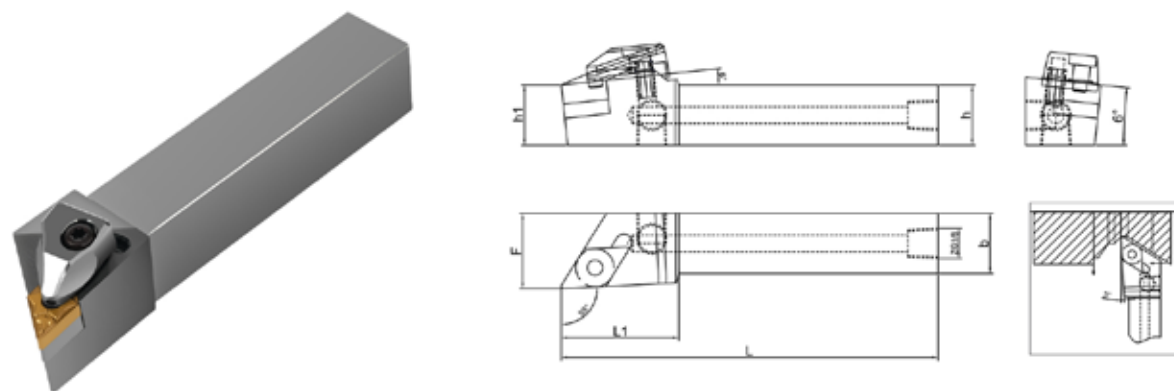


Order No		Designation	Inserts	Dimension (mm)						Spare Parts					
Right	Left			H	B	L	L1	H1	F	DN	DXD	DYB	MHGD	TH	TSA
212-23-101	212-23-102	DDJNR/L2020K15	DN □□1504□□ DN □□1506□□	20	20	125	39	20	25	1504 1506	0614	2712	0520	0814	T20
212-23-103	212-23-104	DDJNR/L2525M15		25	25	150	39	25	32						
212-23-105	212-23-106	DDJNR/L3232P15		32	32	170	39	32	40						

DDJNR/L-A

Turning Toolholders with Internal Cooling

DN□□1504/1506 Series

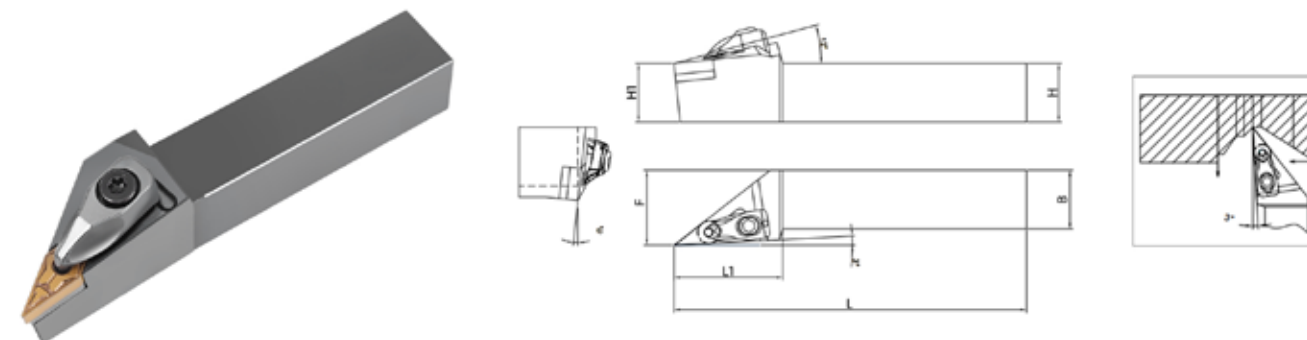


Order No	Designation	Inserts	Dimension (mm)							Spare Parts							
			h	b	L	L1	h1	f									
									DN	DXD	DDJ-R/L	YSX	O	MHGD	TH	TSA	
216-23-101	DDJNR2020K15-A	DN□□1504□□ DN□□1506□□	20	20	125	39	20	25	1506	0614	DDJ15-R	0610	O06	0520	0814	T20	
216-23-102	DDJNL2020K15-A		20	20	125	39	20	25			DDJ15-L						
216-23-103	DDJNR2525M15-A		25	25	150	39	25	32			DDJ15-R						
216-23-104	DDJNL2525M15-A		25	25	150	39	25	32			DDJ15-L						
216-23-105	DDJNR3232P15-A		32	32	170	39	32	40			DDJ15-R						
216-23-106	DDJNL3232P15-A		32	32	170	39	32	40			DDJ15-L						

DVJNR/L

Turning Toolholders

VN□□1604 Series

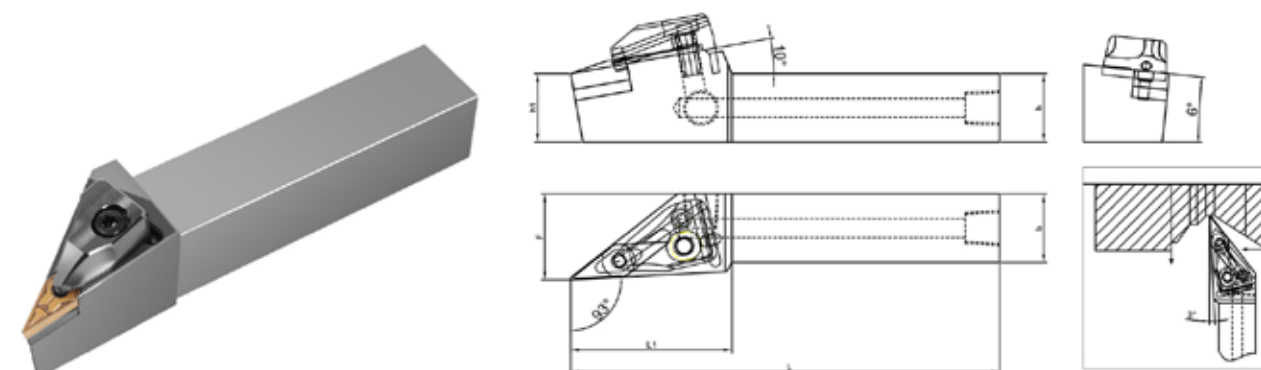


Order No		Designation	Inserts	Dimension (mm)						Spare Parts					
Right	Left			H	B	L	L1	H1	F	VN	DXD	DYB	MHGD	TH	TSA
212-24-101	212-24-102	DVJNR/L1616H16	VN □□1604□□	16	16	100	47	16	20	1603	0512	3012	0525	0814	T20
212-24-103	212-24-104	DVJNR/L2020K16		20	20	125	47	20	25						
212-24-105	212-24-106	DVJNR/L2525M16		25	25	150	47	25	32						
212-24-107	212-24-108	DVJNR/L3232P16		32	32	170	50	32	40						

DVJNR/L-A

Turning Toolholders with Internal Cooling

VN□□1604 Series

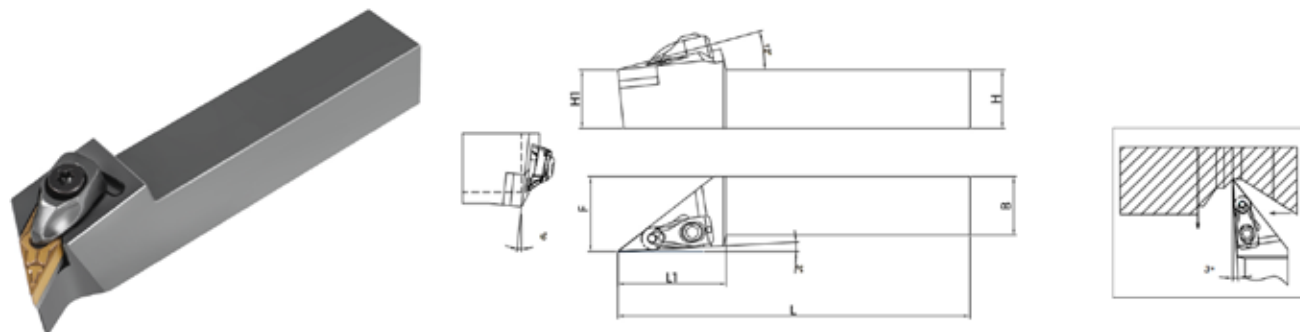


Order No	Designation	Inserts	Dimension (mm)						Spare Parts							
			h	b	L	L1	h1	f								
									VN	DXD	DVJ-R/L	YSX	O	MHGD	TH	TSA
216-24-103	DVJNR2020K16-A	VN□□1604□□	20	20	125	47	20	25	1603	0512	DVJ16-R	0610	O06	0525	0814	T20
216-24-104	DVJNL2020K16-A		20	20	125	47	20	25			DVJ16-L					
216-24-105	DVJNR2525M16-A		25	25	150	47	25	32			DVJ16-R					
216-24-106	DVJNL2525M16-A		25	25	150	47	25	32			DVJ16-L					
216-24-107	DVJNR3232P16-A		32	32	170	50	32	40			DVJ16-R					
216-24-108	DVJNL3232P16-A		32	32	170	50	32	40			DVJ16-L					

DVQNR/L

Turning Toolholders

VN□□1604 Series

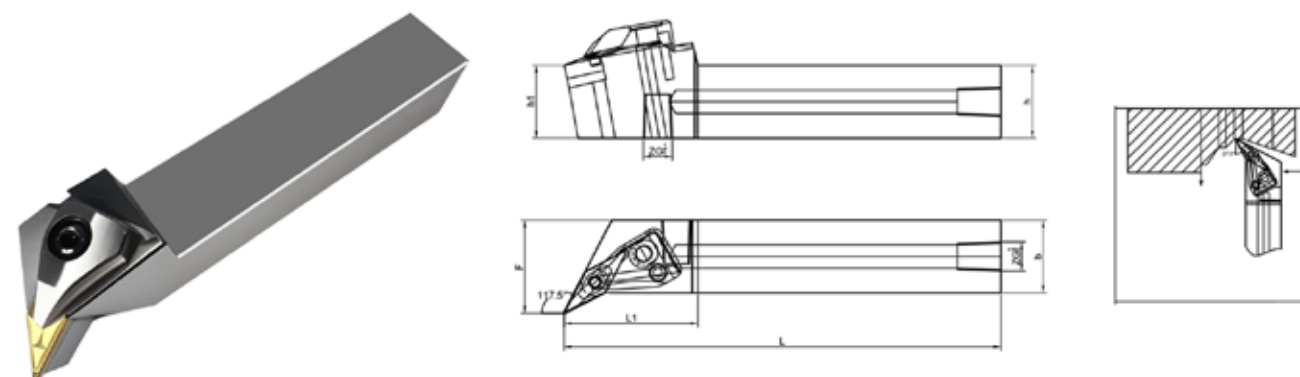


Order No		Designation	Inserts	Dimension (mm)						Spare Parts					
Right	Left			H	B	L	L1	H1	F	VN	DXD	DYB	MHGD	TH	TSA
212-24-109	212-24-110	DVQNR/L2020K16	VN□□1604□□	20	20	125	44	20	25	1603	0512	2412-A	0525	0814	T20
212-24-111	212-24-112	DVQNR/L2525M16		25	25	150	44	25	32						
212-24-113	212-24-114	DVQNR/L3232P16		32	32	170	44	32	40						

DVQNR/L-A

Turning Toolholders with Internal Cooling

VN□□1604 Series

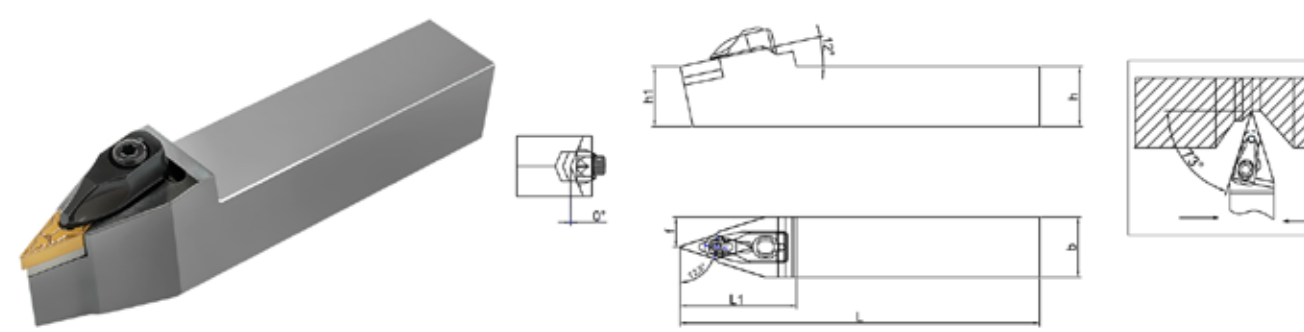


Order No		Designation	Inserts	Dimension (mm)						Spare Parts					
Right	Left			H	B	L	L1	h1	f	VN	DXD	DYB	YSX	O	TSA
216-24-111	216-24-112	DVQNR/L2525M16-A	VN□□1604□□	25	25	150	47	25	32	1603	0512	DVQ16-R	0610	O06	T20
216-24-113	216-24-114	DVQNR/L3232P16-A		32	32	170	50	32	40						

DVVNN

Turning Toolholders

VN□□1604 Series

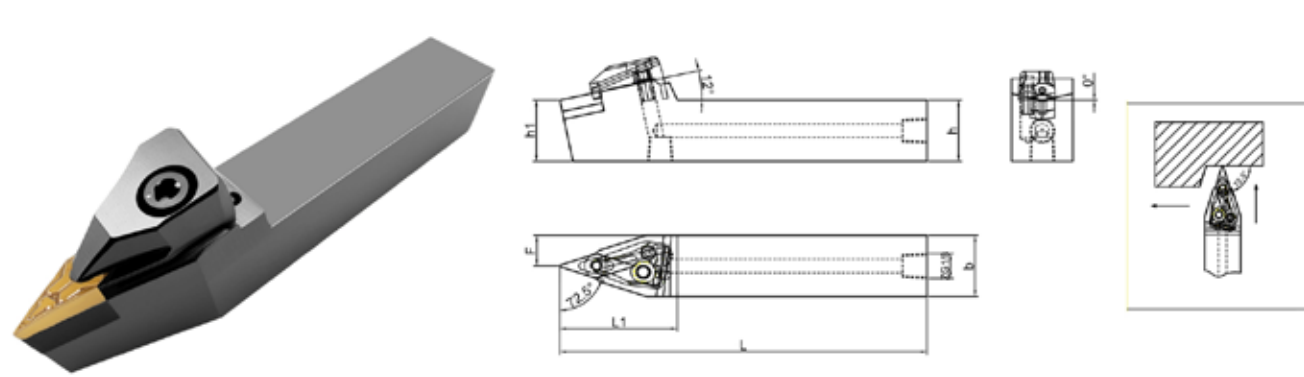


Order No		Designation	Inserts	Dimension (mm)						Spare Parts					
Order No	Designation			H	B	L	L1	H1	F	VN	DXD	DYB	MHGD	TH	TSA
212-24-115	DVVNN2020K16	VN□□1604□□		20	20	125	52	20	10	1603	0512	2914	0626	0814	LT20
212-24-117	DVVNN2525M16			25	25	150	52	25	12.5						
212-24-119	DVVNN3225P16			32	25	170	52	32	16						

DVVNN-A

Turning Toolholders with Internal Cooling

VN□□1604 Series



Order No		Designation	Inserts	Dimension (mm)						Spare Parts					
Order No	Designation			h	b	L	L1	h1	f	VN	MXD	DVJ-R/L	YSX	O	TSA
216-24-115	DVVNN2020K16-A	VN□□1604□□		20	20	125	48	20	10	1603	0512	DVJ16-R	0610	O06	T20
216-24-117	DVVNN2525M16-A			25	25	150	48	25	12.5						
216-24-119	DVVNN3232P16-A			32	32	170	52	25	16						

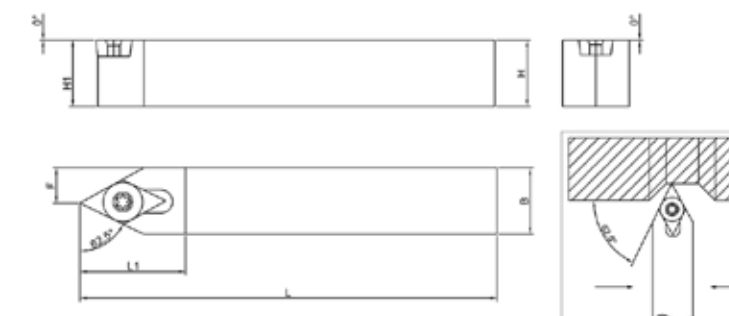
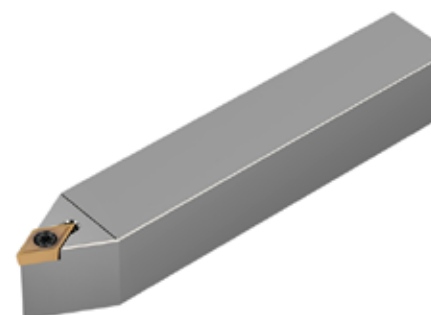
SDNCN SDQCR/L SDJCR/L SCLCR/L SVVC(B)N SVJC(B)R/L SVUC(B)R/L SVQC(B)R/L SERIES



SDNCN

Turning Toolholders

DC□□0702/DC□□11T3 Series

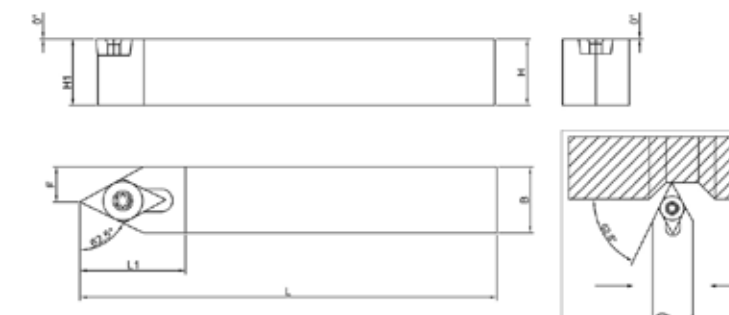
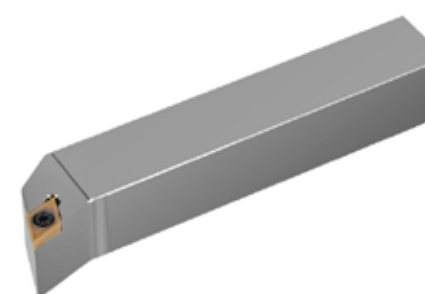


Order No	Designation	Inserts 	Dimension (mm)						Spare Parts	
			H	B	L	L1	H1	F	 Screw	 Key
212-11-046	SDNCN1010K07	DC□□0702	10	10	125	20	10	5	M2.5-003	T-8
212-11-047	SDNCN1212K07		12	12	125	20	12	6		
212-11-048	SDNCN1212H11	DC□□11T3	12	12	100	24	12	6	M3.5-004	T-15
212-11-039	SDNCN1616H11		16	16	100	27	16	8		
212-11-049	SDNCN2020K11		20	20	125	27	20	10		
212-11-050	SDNCN2525M11		25	25	150	27	25	12.5		

SDQCR/L

Turning Toolholders

DC□□0702/DC□□11T3 Series



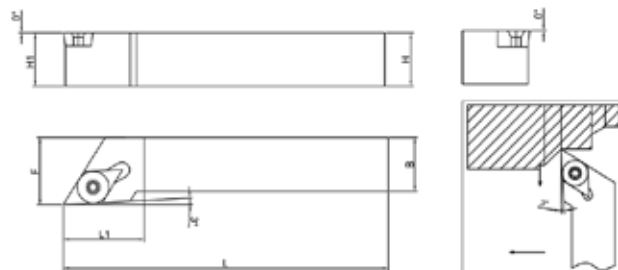
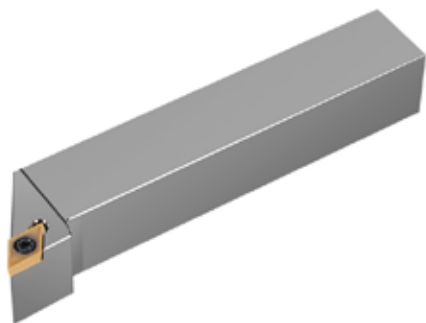
Order No		Designation	Inserts 	Dimension (mm)						Spare Parts	
Right	Left			H	B	L	L1	H1	F	 Screw	 Key
212-11-051	212-11-052	SDQCR/L1010H07	DC□□0702	10	10	100	15	10	12	M2.5-003	T8
212-11-053	212-11-054	SDQCR/L1212H07		12	12	100	18	12	16		
212-11-055	212-11-056	SDQCR/L1212H11	DC□□11T3	12	12	100	18	12	16	M3.5-004	T15
212-11-057	212-11-058	SDQCR/L1616H11		16	16	100	22	16	20		
212-11-059	212-11-060	SDQCR/L2020K11		20	20	125	25	20	25		
212-11-061	212-11-062	SDQCR/L2525M11		25	25	150	25	25	32		

Think Cutting, Think HARLINGEN!

SDJCR/L

Turning Toolholders

DC□□0702/DC□□11T3 Series

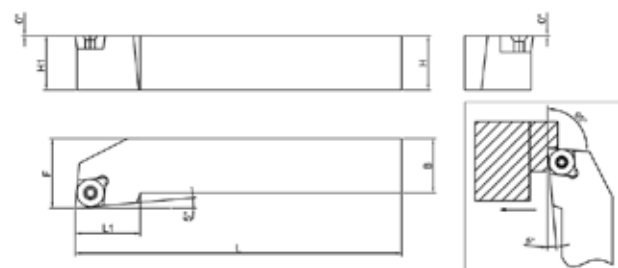
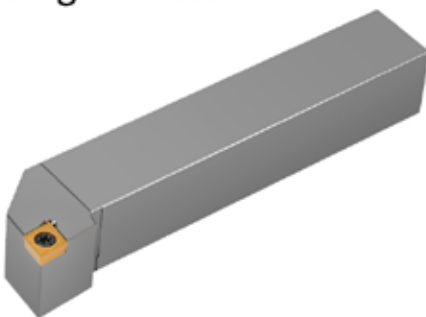


Order No		Designation	Inserts	Dimension (mm)						Spare Parts	
Right	Left			H	B	L	L1	H1	F	Screw	Key
212-11-063	212-11-064	SDJCR/L1010H07	DC□□0702	10	10	100	18	10	12	M2.5-003	T-8
212-11-065	212-11-066	SDJCR/L1212H07		12	12	100	20	12	16		
212-11-067	212-11-068	SDJCR/L1616H07		16	16	100	20	16	20		
212-11-069	212-11-070	SDJCR/L1212H11	DC□□11T3	12	12	100	22	12	16	M3.5-004	T-15
212-11-025	212-11-026	SDJCR/L1616H11		16	16	100	22	16	20		
212-11-027	212-11-028	SDJCR/L2020K11		20	20	125	25	20	25		
212-11-029	212-11-030	SDJCR/L2525M11		25	25	150	32	25	32		
212-11-071	212-11-072	SDJCR/L3232P11		32	32	170	36	32	40		

SCLCR/L

Turning Toolholders

CC□□0602/CC□□09T3/CC□□1204 Series

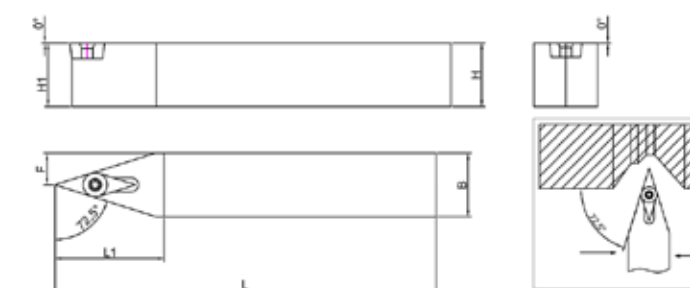
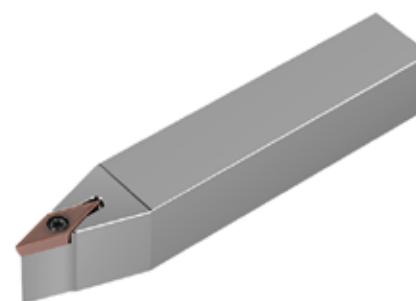


Order No		Designation	Inserts	Dimension (mm)						Spare Parts	
Right	Left			H	B	L	L1	H1	F	Screw	Key
212-10-039	212-10-040	SCLCR/L1010H06	CC□□0602	10	10	100	15	10	12	M2.5-003	T-8
212-10-041	212-10-042	SCLCR/L1212H06		12	12	100	15	12	16		
212-10-043	212-10-044	SCLCR/L1212H09	CC□□09T3	12	12	100	20	12	16	M3.5-004	T-15
212-10-023	212-10-024	SCLCR/L1616H09		16	16	100	20	16	20		
212-10-025	212-10-026	SCLCR/L2020K09		20	20	125	22	20	25		
212-10-045	212-10-046	SCLCR/L2525M09		25	25	150	22	25	32		
212-10-027	212-10-028	SCLCR/L2020K12	CC□□1204	20	20	125	22	20	25	M5.0-002	T-20
212-10-029	212-10-030	SCLCR/L2525M12		25	25	150	28	25	32		
212-10-048	212-10-049	SCLCR/L3232P12		32	32	170	30	32	40		

SVVC(B)N

Turning Toolholders

VC(B)□□1103/VC(B)□□1604 Series

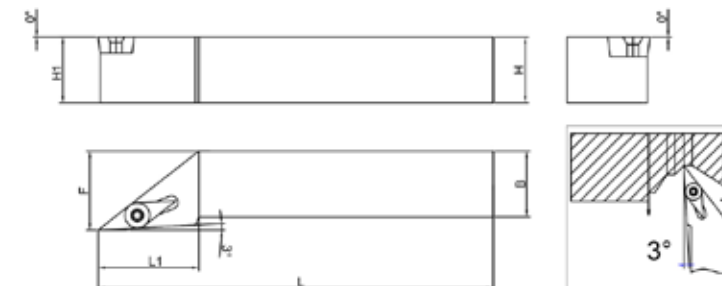
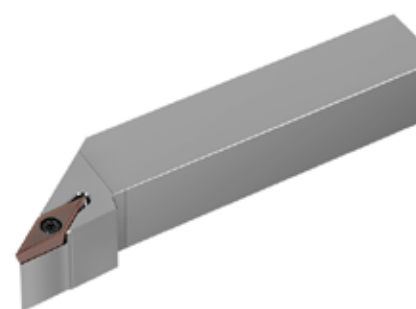


Order No		Designation	Inserts	Dimension (mm)						Spare Parts	
Right	Left			H	B	L	L1	H1	F	Screw	Key
212-14-029	212-14-031	SVVC(B)N1616H11	VC(B)□□1103	16	16	100	28	16	8	M2.5-003	T-8
212-14-033	212-14-035	SVVC(B)N2020K11		20	20	125	35	20	10		
212-14-039	212-14-041	SVVC(B)N2525M11		25	25	150	35	25	12.5		
212-14-035	212-14-037	SVVC(B)N1616H16	VC(B)□□1604	16	16	100	32	16	8	M3.5-004	T-15
212-14-037	212-14-041	SVVC(B)N2020K16		20	20	125	35	20	10		
212-14-041	212-14-043	SVVC(B)N2525M16		25	25	150	38	25	12.5		
212-14-043	212-14-045	SVVC(B)N3232P16		32	32	170	45	32	16		

SVJC(B)R/L

Turning Toolholders

VC(B)□□1103/VC(B)□□1604 Series

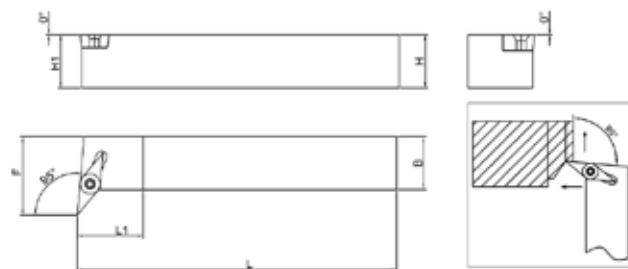


Order No		Designation	Inserts	Dimension (mm)						Spare Parts	
Right	Left			H	B	L	L1	H1	F	Screw	Key
212-14-043	212-14-044	SVJC(B)R/L1212H11	VC(B)□□1103	10	12	100	25	12	16	M2.5-003	T-8
212-14-015	212-14-016	SVJC(B)R/L1616H11		16	16	100	28	16	20		
212-14-017	212-14-018	SVJC(B)R/L2020K11		20	20	125	35	20	25		
212-14-019	212-14-020	SVJC(B)R/L2525M11		25	25	150	45	25	32		
212-14-045	212-14-046	SVJC(B)R/L1616H16	VC(B)□□1604	16	16	100	32	16	20	M3.5-004	T-15
212-14-021	212-14-022	SVJC(B)R/L2020K16		20	20	125	35	20	25		
212-14-023	212-14-024	SVJC(B)R/L2525M16		25	25	150	38	25	32		
212-14-047	212-14-048	SVJC(B)R/L3232P16		32	32	170	45	32	40		

SVUC(B)R/L

Turning Toolholders

VC(B)□□1103/VC(B)□□1604 Series

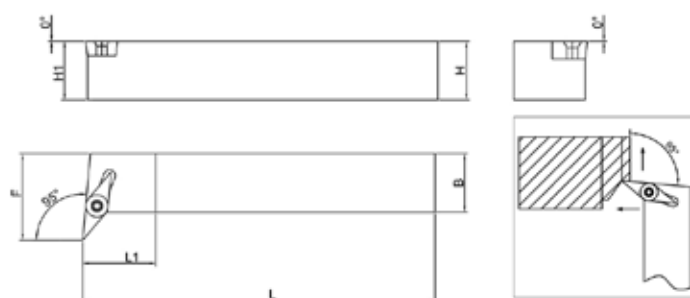
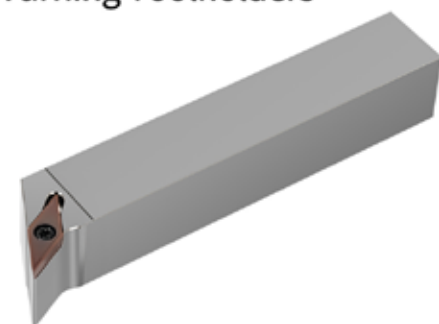


Order No		Designation	Inserts	Dimension (mm)						Spare Parts	
Right	Left			H	B	L	L1	H1	F	Screw	Key
212-14-049	212-14-050	SVUC(B)R/L1616H11	VC(B)□□1103	16	16	100	16	16	20	M2.5-003	T-8
212-14-051	212-14-052	SVUC(B)R/L2020K11		20	20	125	16	20	30		
212-14-053	212-14-054	SVUC(B)R/L2020K16	VC(B)□□1604	20	20	125	25	20	30	M3.5-004	T-15
212-14-055	212-14-056	SVUC(B)R/L2525M16		25	25	150	25	25	35		

SVQC(B)R/L

Turning Toolholders

VC(B)□□1103/VC(B)□□1604 Series



Order No		Designation	Inserts	Dimension (mm)						Spare Parts	
Right	Left			H	B	L	L1	H1	F	Screw	Key
212-14-057	212-14-058	SVQC(B)R/L1616H11	VC(B)□□1103	16	16	100	25	16	20	M2.5-003	T8
212-14-059	212-14-060	SVQC(B)R/L2020K11		20	20	125	25	20	25		
212-14-061	212-14-062	SVQC(B)R/L1616H16	VC(B)□□1604	16	16	100	30	16	20	M3.5-004	T15
212-14-063	212-14-064	SVQC(B)R/L2020K16		20	20	125	35	20	25		
212-14-065	212-14-066	SVQC(B)R/L2525M16		25	25	150	35	25	32		
212-14-067	212-14-068	SVQC(B)R/L3232P16		32	32	170	35	32	40		

INDEXABLE BORING BARS

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PTUNR/L

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PCLNR/L

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STFCR/L

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STWCR/L

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STUPR/L

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SCLCR/L

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SCLCR/L

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SDQCR/L

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SDUCR/L

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A-SDUCR/L

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SVNRL

PTUNR/L A-PTUNR/L PWLNR/L A-PWLNR/L PCLNR/L A-PCLNR/L SERIES

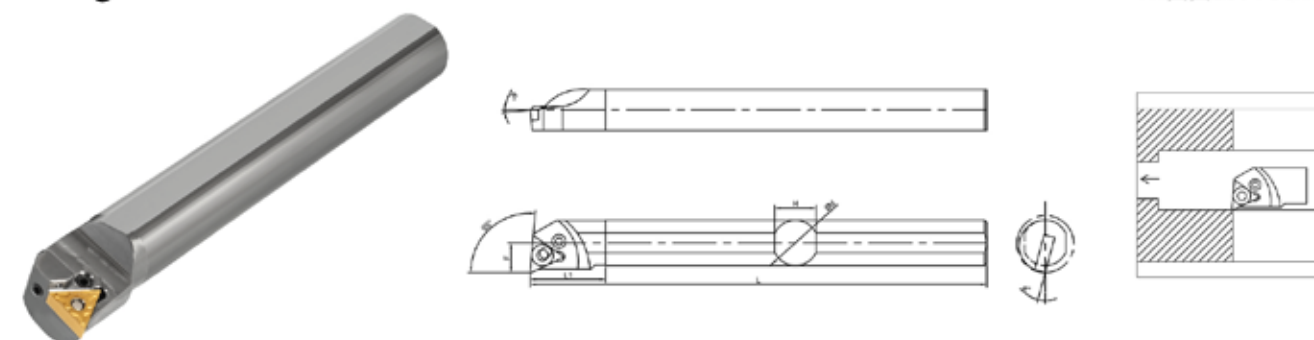


Think Cutting, Think HARLINGEN!

PTUNR/L

Boring Bars

TN□□1604 Series

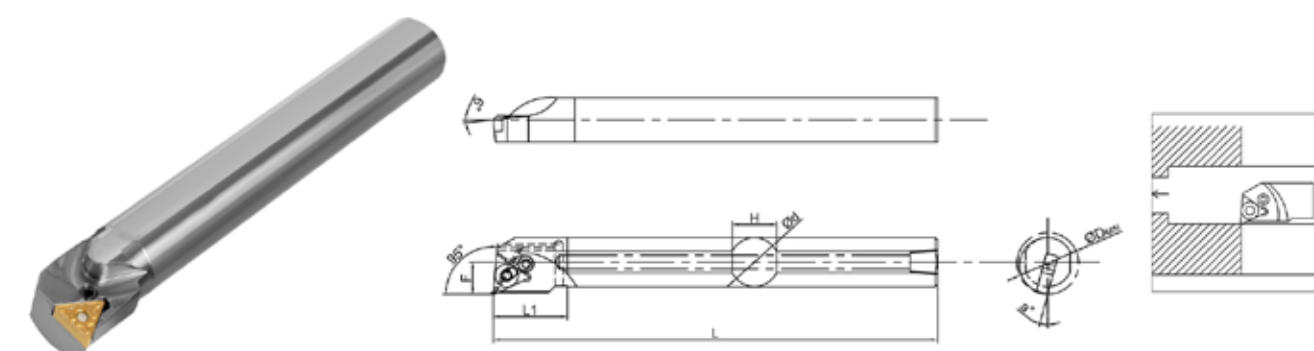


Order No		Designation	Inserts	Dimension (mm)							Spare Parts					
Right	Left			ΦD	Φd	H	L	L1	F	a°	GGX	NLJ-P	TN-P	SCREW	TH	TSA
222-27-001	222-27-002	S20R-PTUNR/L16	TN□□1604□□	25	20	18	200	30	13	15	0313A	0615-P	⊗	⊗	0405	L2.5 T8
222-27-003	222-27-004	S25S-PTUNR/L16		32	25	23	250	35	17	12						
222-27-005	222-27-006	S32T-PTUNR/L16		44	32	29	300	40	22	17	0310	0618-P	1602-K	M2.5*6	0411	
222-27-007	222-27-008	S40U-PTUNR/L16		50	40	37	350	45	27	15						

A-PTUNR/L

Boring Bars with Internal Cooling

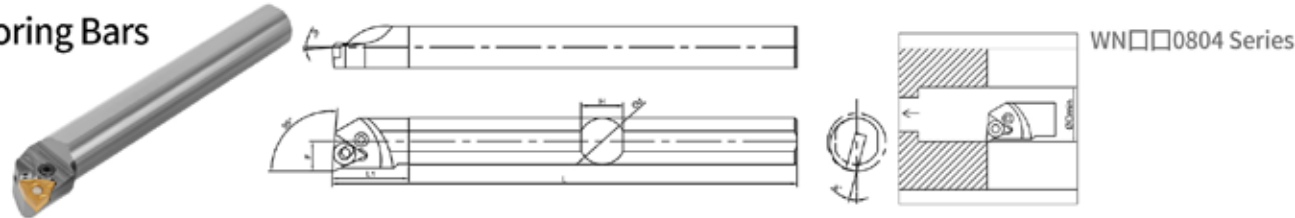
TN□□1604 Series



Order No		Designation	Inserts	Dimension (mm)							Spare Parts					
Right	Left			ΦD	Φd	H	L	L1	F	a°	GGX	NLJ-P	TN-P	SCREW	TH	TSA
226-27-001	226-27-002	A20Q-PTUNR/L16	TN□□1604□□	25	20	18	180	30	13	15	0313A	0615-P	⊗	⊗	0405	L2.5 T8
226-27-003	226-27-004	A25R-PTUNR/L16		32	25	23	200	35	17	12						
226-27-005	226-27-006	A32S-PTUNR/L16		44	32	29	250	40	22	17	0310	0618-P	1602-K	M2.5*6	0411	
226-27-007	226-27-008	A40T-PTUNR/L16		50	40	37	300	45	27	15						

PWLNR/L

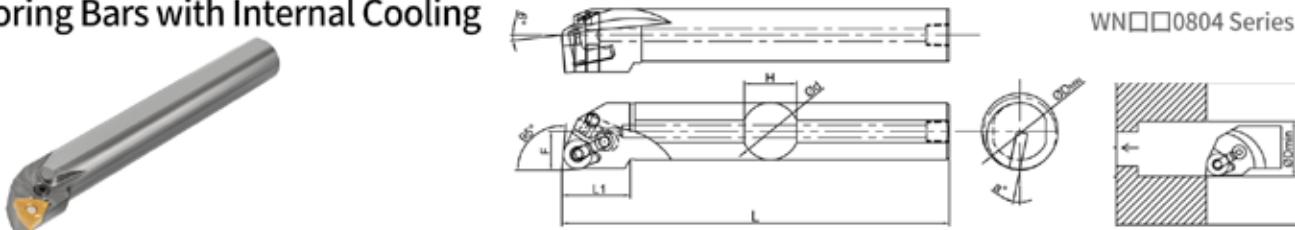
Boring Bars



Order No		Designation	Inserts	Dimension (mm)							Spare Parts					
Right	Left			ΦD	Φd	H	L	L1	F	a°						
											GGX	NLJ-P	WN-P-K	SCREW	TH	Key
222-26-021	222-26-022	S20R-PWLNR/L 08		25	20	18	200	23	13	15	0516A	0809-P			0607	L3.0 T8
222-26-001	222-26-002	S25P-PWLNR/L 08		32	25	23	170	32	17	12						
222-26-003	222-26-004	S25R-PWLNR/L 08		32	25	23	200	32	17	12						
222-26-005	222-26-006	S25S-PWLNR/L 08		32	25	23	250	32	17	12	0516	0812-P	0803-K	M2.5*6	0608	
222-26-007	222-26-008	S32R-PWLNR/L 08		44	32	29	200	32	22	17						
222-26-009	222-26-010	S32S-PWLNR/L 08		44	32	29	250	32	22	17						
222-26-011	222-26-012	S32T-PWLNR/L 08		44	32	29	300	32	22	17						
222-26-013	222-26-014	S40R-PWLNR/L 08		54	40	37	200	40	27	15						
222-26-015	222-26-016	S40S-PWLNR/L 08		54	40	37	250	40	27	15						
222-26-017	222-26-018	S40T-PWLNR/L 08		54	40	37	300	40	27	15						
222-26-019	222-26-020	S40U-PWLNR/L 08		54	40	37	350	40	27	15						

A-PWLNR/L

Boring Bars with Internal Cooling



Order No		Designation	Inserts	Dimension (mm)							Spare Parts					
Right	Left			ΦD	Φd	H	L	L1	F	a°						
											GGX	NLJ-P	WN-P	SCREW	TH	TSA
226-26-021	226-26-022	A20R-PWLNRL08		25	20	18	200	32	13	15	0516A	0809-P			0607	L3.0 T8
226-26-001	226-26-002	A25P-PWLNRL08		32	25	23	170	32	17	12						
226-26-003	226-26-004	A25R-PWLNRL08		32	25	23	200	32	17	12						
226-26-005	226-26-006	A25S-PWLNRL08		32	25	23	250	32	17	12						
226-26-007	226-26-008	A32R-PWLNRL08		44	32	29	200	32	22	17	0516	0812-P	0803-K	M2.5*6	0608	
226-26-009	226-26-010	A32S-PWLNRL08		44	32	29	250	32	22	17						
226-26-011	226-26-012	A32T-PWLNRL08		44	32	29	300	32	22	17						
226-26-013	226-26-014	A40R-PWLNRL08		54	40	37	200	40	27	15						
226-26-015	226-26-016	A40S-PWLNRL08		54	40	37	250	40	27	15						
226-26-017	226-26-018	A40T-PWLNRL08		54	40	37	300	40	27	15						
226-26-019	226-26-020	A40U-PWLNRL08		54	40	37	350	40	27	15						

PCLNR/L

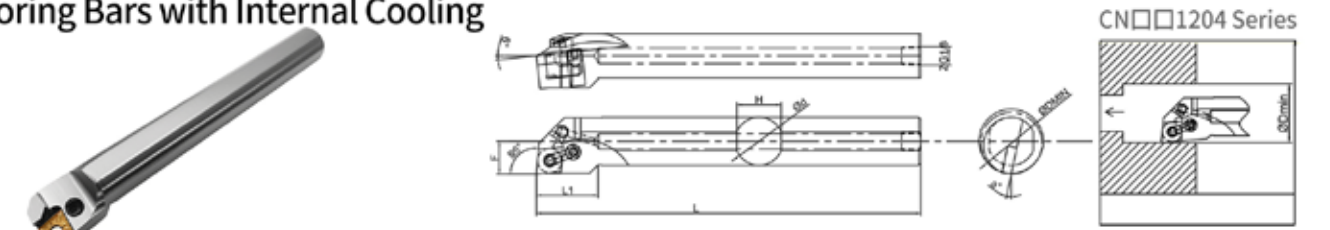
Boring Bars



Order No		Designation	Inserts	Dimension (mm)							Spare Parts					
Right	Left			ΦD	Φd	H	L	L1	F	a°						
											GGX	NLJ-P	CN-P	SCREW	TH	TSA
222-07-011	222-07-012	S20R-PCLNR/L 12		25	20	18	200	32	13	15	0516A	0809-P	⊗	⊗	0607	L3.0 T8
222-07-013	222-07-014	S25P-PCLNR/L 12		32	25	23	170	32	17	12						
222-07-015	222-07-016	S25R-PCLNR/L 12		32	25	23	200	32	17	12						
222-07-017	222-07-018	S25S-PCLNR/L 12		32	25	23	250	32	17	12						
222-07-019	222-07-020	S32R-PCLNR/L 12		40	32	29	200	32	22	17	0516	0812-P	1203 -K-R/L	M2.5*6	0608	
222-07-021	222-07-022	S32S-PCLNR/L 12		40	32	29	250	32	22	17						
222-07-023	222-07-024	S32T-PCLNR/L 12		40	32	29	300	32	22	17						
222-07-025	222-07-026	S40R-PCLNR/L 12		50	40	37	200	40	27	15						
222-07-027	222-07-028	S40S-PCLNR/L 12		50	40	37	250	40	27	15						
222-07-029	222-07-030	S40T-PCLNR/L 12		50	40	37	300	40	27	15						
222-07-031	222-07-032	S40U-PCLNR/L 12		50	40	37	350	40	27	15						

A-PCLNR/L

Boring Bars with Internal Cooling



Order No		Designation	Inserts	Dimension (mm)							Spare Parts					
Right	Left			ΦD	Φd	H	L	L1	F	a°						
226-07-011	226-07-012	A20R-PCLNR/L 12		25	20	18	200	32	13	15	0516A	0809-P			0607	L3.0 T8
226-07-013	226-07-014	A25P-PCLNR/L 12		32	25	23	170	32	17	12						
226-07-015	226-07-016	A25R-PCLNR/L 12		32	25	23	200	32	17	12						
226-07-017	226-07-018	A25S-PCLNR/L 12		32	25	23	250	32	17	12	0516	0812-P	CN-P1203-K-R/L	M2.5*6	0608	
226-07-019	226-07-020	A32R-PCLNR/L 12		40	32	29	200	32	22	17						
226-07-021	226-07-022	A32S-PCLNR/L 12		40	32	29	250	32	22	17						
226-07-023	226-07-024	A32T-PCLNR/L 12		40	32	29	300	32	22	17						
226-07-025	226-07-026	A40R-PCLNR/L 12		50	40	37	200	40	27	15						
226-07-027	226-07-028	A40S-PCLNR/L 12		50	40	37	250	40	27	15						
226-07-029	226-07-030	A40T-PCLNR/L 12		50	40	37	300	40	27	15						
226-07-031	226-07-032	A40U-PCLNR/L 12		50	40	37	350	40	27	15						

STFCR/L STUCR/L STUPR/L STWCR/L
SDQCR/L SDUCR/L SDWCR/L
SCLCR/L SVNR SERIES

- High rigidity and precision ensure high-quality boring
- Tool-holders of various sizes, angles, and styles make boring easier.

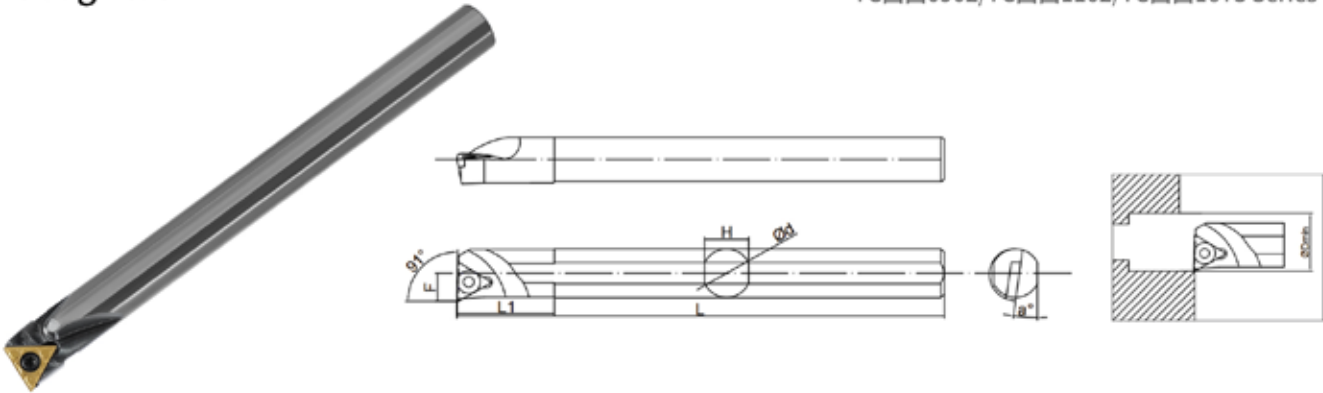


Think Cutting, Think HARLINGEN!

STFCR/L

Boring Bars

TC□□0902/TC□□1102/TC□□16T3 Series

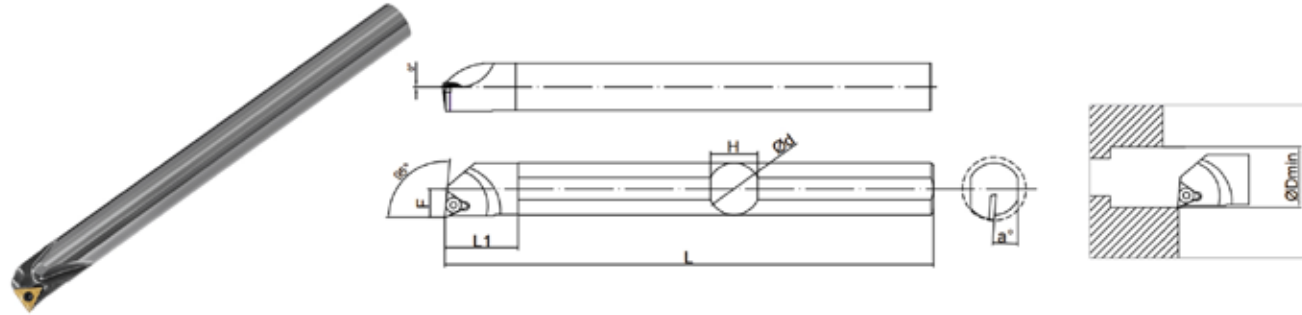


Order No		Designation	Inserts	Dimension (mm)							Spare Parts	
Right	Left			D	d	L	L1	F	H	a°	Screw	Key
222-13-025	222-13-026	S08K-STFCR/L09	TC□□0902	11	8	125	16	5	7	15	M2.2-003	T6
222-13-027	222-13-028	S10K-STFCR/L09		13	10	125	16	6	9	13		
222-13-029	222-13-030	S12M-STFCR/L09		16	12	150	16	7	11	10		
222-01-001	222-01-002	S10K-STFCR/L11	TC□□1102	13	10	125	16	6	9	12	M2.5-003	T8
222-01-003	222-01-004	S12M-STFCR/L11		16	12	150	16	7	11	10		
222-13-031	222-13-032	S14N-STFCR/L11		18	14	160	16	8	13	10		
222-13-033	222-13-034	S14Q-STFCR/L11		18	14	180	16	8	13	10		
222-13-035	222-13-036	S16N-STFCR/L11		20	16	160	16	9	15	8		
222-13-037	222-13-038	S16Q-STFCR/L11		20	16	180	16	9	15	8		
222-13-039	222-13-040	S20Q-STFCR/L11		25	20	180	25	11	18	6		
222-01-013	222-01-014	S20R-STFCR/L11	TC□□16T3	25	20	200	25	11	18	6	M3.5-003	T15
222-13-041	222-13-042	S16Q-STFCR/L16		20	16	180	16	9	15	8		
222-13-043	222-13-044	S20Q-STFCR/L16		25	20	180	25	11.5	18	8		
222-13-045	222-13-046	S20R-STFCR/L16		25	20	200	25	11.5	18	8		
222-13-047	222-13-048	S25R-STFCR/L16		31	25	200	25	14	23	6		
222-13-049	222-13-050	S25S-STFCR/L16		31	25	250	25	14	23	6		
222-13-051	222-13-052	S32S-STFCR/L16		39	32	250	32	17.5	29	4		
222-13-053	222-13-054	S32T-STFCR/L16		39	32	250	32	17.5	29	4		

STUCR/L

Boring Bars

TC□□0602/TC□□0902/TC□□1102/TC□□16T3 Series

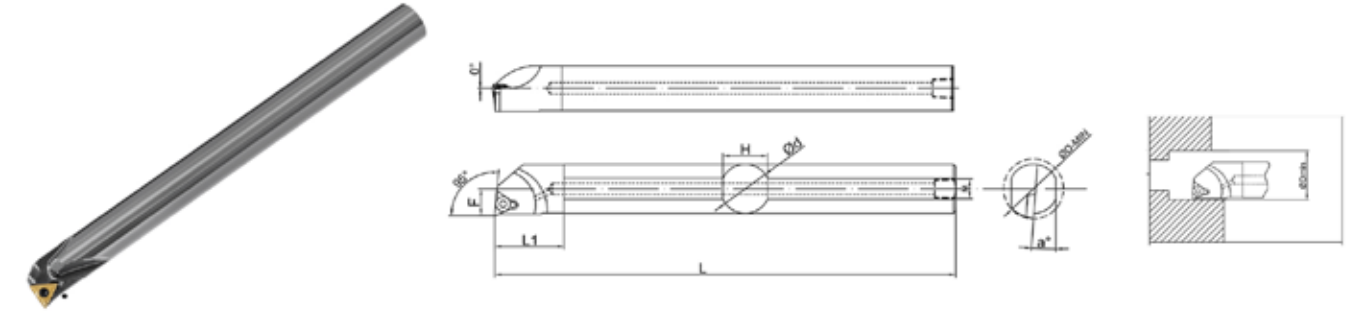


Order No		Designation	Inserts	Dimension (mm)							Spare Parts	
Right	Left			D	d	L	L1	F	H	a°	Screw	Key
222-13-055	222-13-056	S06H-STUBR/L06	TB□□0602	7	6	100	15	3.5	5.4	15	M2.0-003	T6
222-13-057	222-13-058	S08K-STUCR/L09	TC□□0902	10	8	125	16	5	7	15	M2.2-003	T6
222-13-059	222-13-060	S10K-STUCR/L09		13	10	125	16	6	9	13		
222-13-061	222-13-062	S12K-STUCR/L09		16	12	125	16	7	11	13		
222-13-063	222-13-064	S10K-STUCR/L11	TC□□1102	13	10	125	16	6	9	12	M2.5-003	T8
222-13-065	222-13-066	S12M-STUCR/L11		16	12	150	16	7	11	10		
222-13-067	222-13-068	S14N-STUCR/L11		18	14	160	16	8	13	10		
222-13-069	222-13-070	S16N-STUCR/L11		20	16	160	16	9	15	8		
222-13-071	222-13-072	S16Q-STWCR/L11		20	16	180	16	9	15	8		
222-13-073	222-13-074	S20Q-STUCR/L11		25	20	180	25	11	19	6		
222-13-075	222-13-076	S20R-STUCR/L11	TC□□16T3	25	20	200	25	11	19	6	M3.5-003	T15
222-13-077	222-13-078	S16N-STUCR/L16		20	16	160	16	9.5	15	8		
222-13-079	222-13-080	S16Q-STUCR/L16		20	16	180	16	9.5	15	8		
222-13-081	222-13-082	S20Q-STUCR/L16		25	20	180	25	11.5	18	8		
222-13-083	222-13-084	S20R-STUCRL16		25	20	200	25	11.5	18	8		
222-13-085	222-13-086	S25R-STUCRL16		31	25	200	25	14	23	6		
222-13-087	222-13-088	S25S-STUCR/L16		31	25	250	25	14	23	6		
222-13-089	222-13-090	S32S-STUCR/L16		39	32	250	32	17.5	29	4		
222-13-091	222-13-092	S32T-STUCR/L16		39	32	300	32	17.5	29	4		

A-STUCR/L

Boring Bars with Internal Cooling

TC□□0902 Series

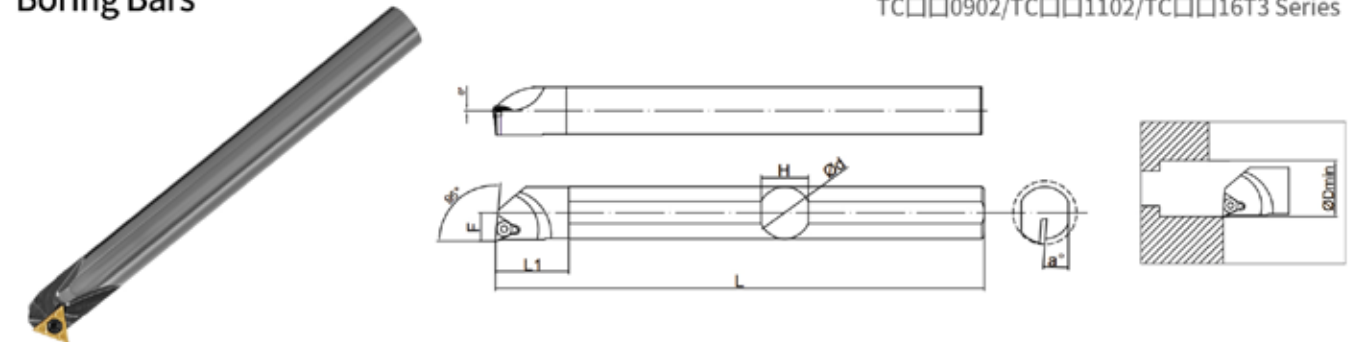


Order No		Designation	Inserts	Dimension (mm)							Spare Parts		
Right	Left			ΦD	Φd	L	L1	F	H	a°	M		
												Screw	Key
226-13-079	226-13-080	A16Q-STUCR/L16		20	16	160	16	9	15	8	ZG1/8	M3.5-001	T15
226-13-083	226-13-084	A20R-STUCR/L16		25	20	200	20	11.5	18	8	ZG1/8		
226-13-087	226-13-088	A25S-STUCR/L16		31	25	250	25	14	23	6	ZG1/8		
226-13-091	226-13-092	A32T-STUCR/L16		39	32	300	32	17.5	29	4	ZG1/8		

STWCR/L

Boring Bars

TC□□0902/TC□□1102/TC□□16T3 Series

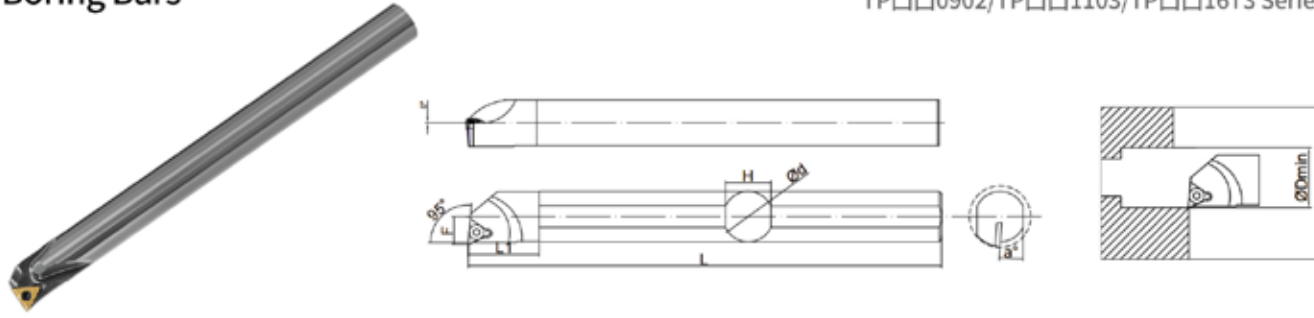


Order No		Designation	Inserts	Dimension (mm)							Spare Parts	
Right	Left			D	d	L	L1	F	H	a°	Screw	Key
222-13-115	222-13-116	S08K-STWCR/L09	TC□□0902	11	8	125	16	5.5	7	12	M2.0-003	T6
222-13-117	222-13-118	S10K-STWCR/L09		13	10	125	16	6.5	9	10		
222-13-119	222-13-120	S10K-STWCR/L11	TC□□1102	14	10	125	16	8	9	10	M2.2-003	T6
222-13-121	222-13-122	S12M-STWCR/L11		16	12	150	16	9	11	8		
222-13-123	222-13-124	S14N-STWCR/L11		18	14	160	16	10	13	8		
222-13-125	222-13-126	S16Q-STWCR/L11		20	16	180	16	11	15	6		
222-13-127	222-13-128	S16Q-STWCR/L16	TC□□16T3	21	16	180	16	12	15	6	M2.5-003	T8
222-13-129	222-13-130	S20R-STWCR/L16		25	20	200	25	14.5	18	6		
222-13-131	222-13-132	S25S-STWCR/L16		32	25	250	25	17	23	4		

STUPR/L

Boring Bars

TP□□0902/TP□□1103/TP□□16T3 Series

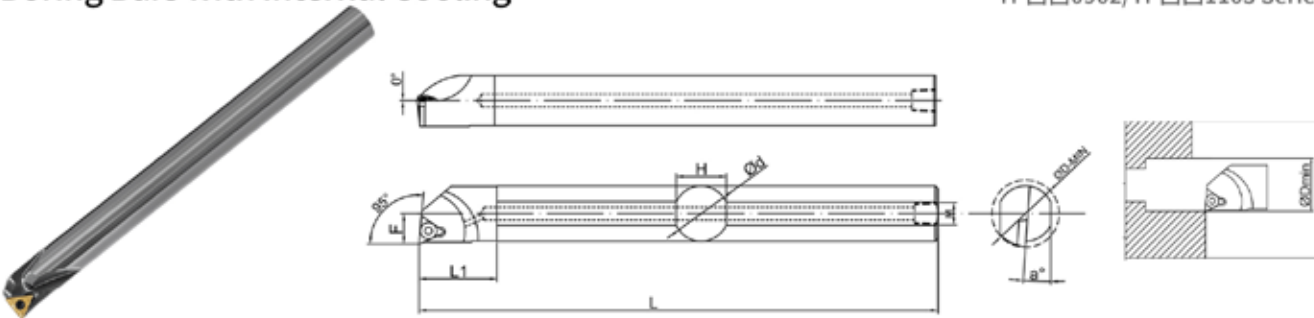


Order No		Designation	Inserts	Dimension (mm)							Spare Parts	
Right	Left			D	d	L	L1	F	H	a°	Screw	Key
222-13-093	222-13-094	S08K-STUPR/L09	TP□□0902	10	8	125	16	5	7	15	M2.5-003	T8
222-13-095	222-13-096	S10K-STUPR/L09		13	10	125	16	6	9	13		
222-13-097	222-13-098	S12M-STUPR/L09		16	12	150	16	7	11	13		
222-13-099	222-13-100	S10K-STUPR/L11	TP□□1103	13	10	125	16	6	9	12	M2.2-003	T6
222-13-101	222-13-102	S12M-STUPR/L11		16	12	150	16	7	11	10		
222-13-103	222-13-104	S16Q-STUPR/L11		20	16	180	16	9	15	8		
222-13-105	222-13-106	S20R-STUPR/L11	TP□□16T3	25	20	200	25	11	18	6	M2.5-003	T8
222-13-107	222-13-108	S16Q-STUPR/L16		20	16	180	16	9.5	15	8		
222-13-109	222-13-110	S20R-STUPR/L16		25	20	200	25	11.5	18	8		
222-13-111	222-13-112	S25S-STUPR/L16		31	25	250	25	14	23	6		
222-13-113	222-13-114	S32T-STUPR/L16		39	32	300	32	17.5	29	4		

A-STUPR/L

Boring Bars with Internal Cooling

TP□□0902/TP□□1103 Series

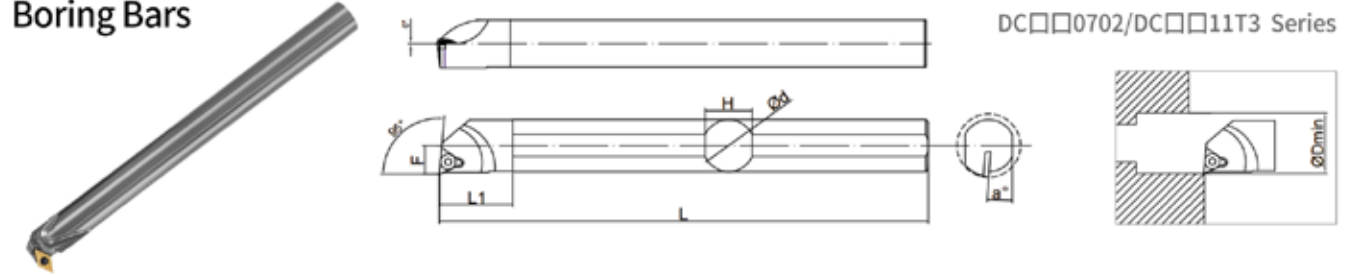


Order No		Designation	Inserts	Dimension (mm)								Spare Parts	
Right	Left			ΦD	Φd	L	L1	F	H	a°	M		
												Screw	Key
226-13-093	226-13-094	A08K-STUPR/L09	TP□□0902	10	8	125	16	5	7	15	M5	M2.5-001	T8
226-13-095	226-13-096	A10K-STUPR/L09		13	10	125	16	6	9	13	M5		
226-13-133	226-13-134	A12K-STUPR/L09		16	12	125	16	7	11	13	M5		
226-13-099	226-13-100	A10K-STUPR/L11		13	10	125	16	6	9	12	M5		
226-13-101	226-13-102	A12M-STUPR/L11	TP□□1103	16	12	150	16	7	11	10	M5	M3.0-001	T8
226-13-135	226-13-136	A14N-STUPR/L11		18	14	160	16	8	13	10	M5		
226-13-103	226-13-104	A16Q-STUPR/L11		20	16	180	16	9	15	8	ZG1/8		
226-13-105	226-13-106	A20R-STUPR/L11		25	20	200	25	11	18	6	ZG1/8		

SDWCR/L

Boring Bars

DC□□0702/DC□□11T3 Series

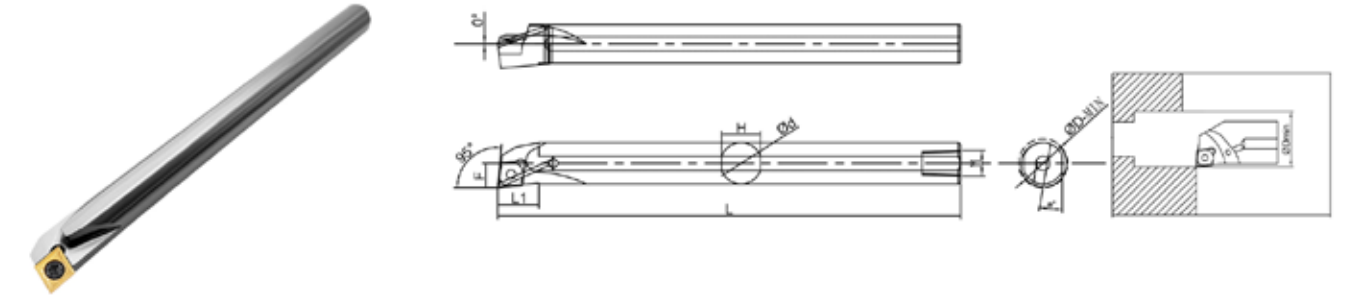


Order No		Designation	Inserts	Dimension (mm)							Spare Parts	
Right	Left			D	d	F	L	L1	H	a°	Screw	Key
222-11-039	222-11-040	S10K-SDWCR/L07	DC□□0702	16	10	9.5	125	16	9	12	M2.5-003	T-8
222-11-041	222-11-042	S12M-SDWCR/L07		19	12	10.5	150	16	11	10		
222-11-043	222-11-044	S16Q-SDWCR/L07		23	16	12.5	180	16	15	8		
222-11-045	222-11-046	S16N-SDWCR/L11	DC□□11T3	23	16	14	160	16	15	8	M3.5-003	T-15
222-11-047	222-11-048	S16Q-SDWCR/L11		23	16	14	180	16	15	6		
222-11-049	222-11-050	S20R-SDWCR/L11		25.5	20	14.5	200	25	19	6		
222-11-051	222-11-052	S25S-SDWCR/L11		32	25	17	250	25	23	4		
222-11-053	222-11-054	S32T-SDWCR/L11		40	32	20.5	300	32	29	4		

A-SCLCR/L

Boring Bars with Internal Cooling

CC□□0602/CC□□09T3 Series

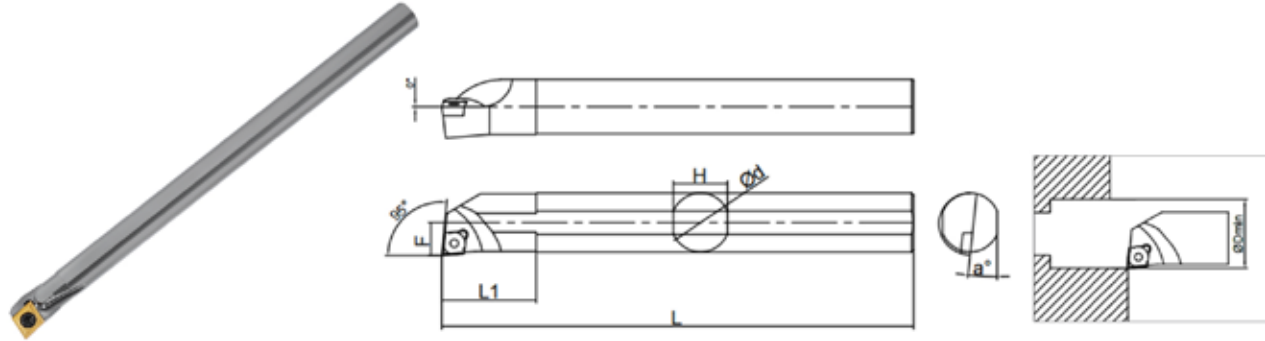


Order No		Designation	Inserts	Dimension (mm)								Spare Parts	
Right	Left			D	d	L	L1	F	H	a°	M		
												Screw	Key
226-10-035	226-10-036	A07K-SCLCR/L06	CC□□0602	9	7	125	14	4.5	6	15	M4*0.7	M2.5-003	T8
226-10-029	226-10-030	A08K-SCLCR/L06		10	8	125	16	5	7	13	M5*0.8		
226-10-003	226-10-004	A10K-SCLCR/L06		13	10	125	16	6	9	12	M5*0.8		
226-10-005	226-10-006	A12M-SCLCR/L06		16	12	150	16	7	11	10	M5*0.8		
226-10-039	226-10-040	A14N-SCLCR/L09	CC□□09T3	18	14	160	16	8.5	13	12	M5*0.8	M3.5-003	T15
226-10-045	226-10-046	A16Q-SCLCR/L09		20	16	180	16	9.5	15	10	ZG1/8		
226-10-051	226-10-052	A20R-SCLCR/L09		25	20	200	25	11.5	18	8	ZG1/8		

SCLCR/L

Boring Bars

CC□□0402/CC□□0602/CC□□09T3/CC□□1204 Series

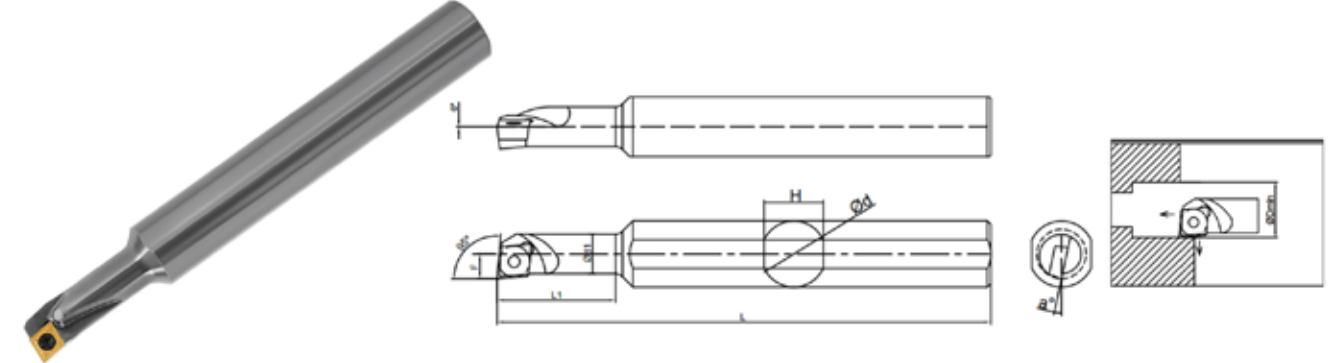


Order No		Designation	Inserts	Dimension (mm)							Spare Parts	
Right	Left			D	d	L	L1	F	H	a°	Screw	Key
222-10-033	222-10-034	S06H-SCLCR/L04	CC□□0402	7	6	100	12	3.5	5.4	15	M2.0-003	T6
222-10-035	222-10-036	S07K-SCLCR/L06	CC□□0602	9	7	125	14	4.5	6	15	M2.5-003	T8
222-10-029	222-10-030	S08K-SCLCR/L06		10	8	125	16	5	7	13		
222-10-003	222-10-004	S10K-SCLCR/L06		13	10	125	16	6	9	12		
222-10-005	222-10-006	S12M-SCLCR/L06	CC□□09T3	16	12	150	16	7	11	10	M3.5-003	T15
222-10-037	222-10-038	S12M-SCLCR/L09		16	12	150	16	7.5	11	12		
222-10-039	222-10-040	S14N-SCLCR/L09		18	14	160	16	8.5	13	12		
222-10-041	222-10-042	S14Q-SCLCR/L09		18	14	180	16	8.5	13	12		
222-10-043	222-10-044	S16N-SCLCR/L09		20	16	160	16	9.5	15	10		
222-10-045	222-10-046	S16Q-SCLCR/L09		20	16	180	16	9.5	15	10		
222-10-047	222-10-048	S18Q-SCLCR/L09		22	18	180	20	10.5	17	10		
222-10-049	222-10-050	S20Q-SCLCR/L09		25	20	180	20	11.5	18	8		
222-10-051	222-10-052	S20R-SCLCR/L09		25	20	200	25	11.5	18	8		
222-10-053	222-10-054	S25R-SCLCR/L09		31	25	200	20	14	23	6		
222-10-055	222-10-056	S25S-SCLCR/L09	CC□□1204	31	25	250	20	14	23	6	M5.0-003	T20
222-10-057	222-10-058	S20Q-SCLCR/L12		25	20	180	25	12	18	8		
222-10-059	222-10-060	S20R-SCLCR/L12		25	20	200	25	12	18	8		
222-10-061	222-10-062	S25R-SCLCR/L12		31	25	200	25	14.5	23	6		
222-10-063	222-10-064	S25S-SCLCR/L12		31	25	250	25	14.5	23	6		
222-10-065	222-10-066	S32S-SCLCR/L12		39	32	250	32	16	29	4		
222-10-067	222-10-068	S32T-SCLCR/L12		39	32	300	32	16	29	4		

SCLCR/L

Boring Bars with Strong Shank

CC□□0402/CC□□0602/CC□□09T3 Series

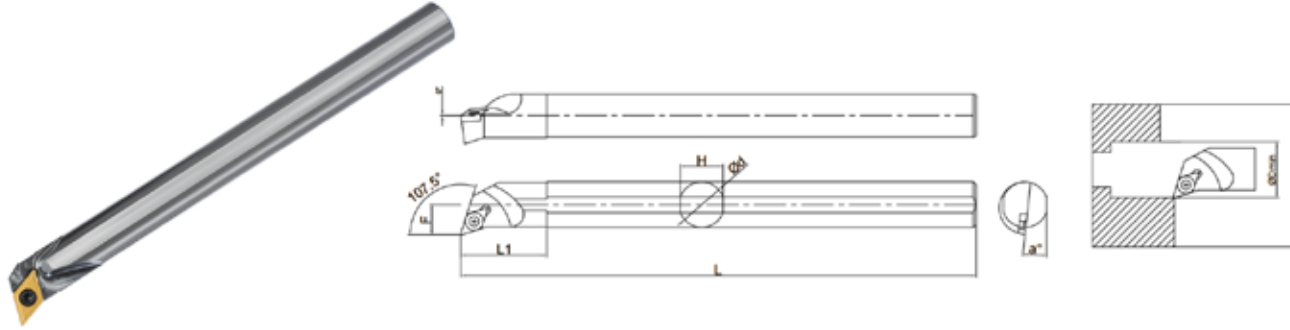


Order No		Designation	Inserts 	Dimension (mm)								Spare Parts	
Right	Left			D	d	d1	L	L1	H	F	a°		
												Screw	Key
222-10-069	222-10-070	S0610K-SCLCR/L04	CC□□0402	7	10	6	125	18	9	3.5	15	M2.0-003	T6
222-10-071	222-10-072	S0710K-SCLCR/L06	CC□□0602	9	10	7	125	24	9	4.5	15	M2.5-003	T8
222-10-073	222-10-074	S0810K-SCLCR/L06		10	10	8	125	24	9	5	13		
222-10-075	222-10-076	S0910K-SCLCR/L06		11	10	9	125	30	9	5.5	12		
222-10-077	222-10-078	S0612K-SCLCR/L04	CC□□0402	7	12	6	125	18	11	3.5	15	M2.0-003	T6
222-10-079	222-10-080	S0712K-SCLCR/L06	CC□□0602	9	12	7	125	24	11	4.5	15	M2.5-003	T8
222-10-081	222-10-082	S0812K-SCLCR/L06		10	12	8	125	24	11	5	13		
222-10-083	222-10-084	S0912K-SCLCR/L06		11	12	9	125	30	11	5.5	12		
222-10-085	222-10-086	S1012K-SCLCR/L06		12	12	10	125	30	11	6	12		
222-10-087	222-10-088	S0616K-SCLCR/L04	CC□□0402	7	16	6	125	18	15	3.5	15	M2.0-003	T6
222-10-089	222-10-090	S0716K-SCLCR/L06	CC□□0602	9	16	7	125	24	15	4.5	15	M2.5-003	T8
222-10-091	222-10-092	S0816K-SCLCR/L06		10	16	8	125	24	15	5	13		
222-10-093	222-10-094	S0916K-SCLCR/L06		11	16	9	125	30	15	5.5	12		
222-10-095	222-10-096	S1016K-SCLCR/L06		12	16	10	125	30	15	6	12		
222-10-097	222-10-098	S1216K-SCLCR/L06		14	16	12	125	36	15	7	12		
222-10-099	222-10-100	S1216K-SCLCR/L09	CC□□09T3	15	16	12	125	36	15	7.5	12	M3.5-003	T15
222-10-101	222-10-102	S1416K-SCLCR/L09		17	16	14	125	36	15	8.5	12		
222-10-103	222-10-104	S0820M-SCLCR/L06	CC□□0602	10	20	8	150	24	18	5	13	M2.5-003	T8
222-10-105	222-10-106	S1020M-SCLCR/L06		12	20	10	150	30	18	6	12		
222-10-107	222-10-108	S1220M-SCLCR/L06		14	20	12	150	36	18	7	12		
222-10-109	222-10-110	S1220M-SCLCR/L09	CC□□09T3	15	20	12	150	36	18	7.5	12	M3.5-003	T15
222-10-111	222-10-112	S1420M-SCLCR/L09		17	20	14	150	36	18	8.5	12		
222-10-113	222-10-114	S1620M-SCLCR/L09		19	20	16	150	36	18	9.5	10		
222-10-115	222-10-116	S1820M-SCLCR/L09		21	20	18	150	36	18	10.5	10		

SDQCR/L

Boring Bars

DC□□07/02DC□□11T3 Series

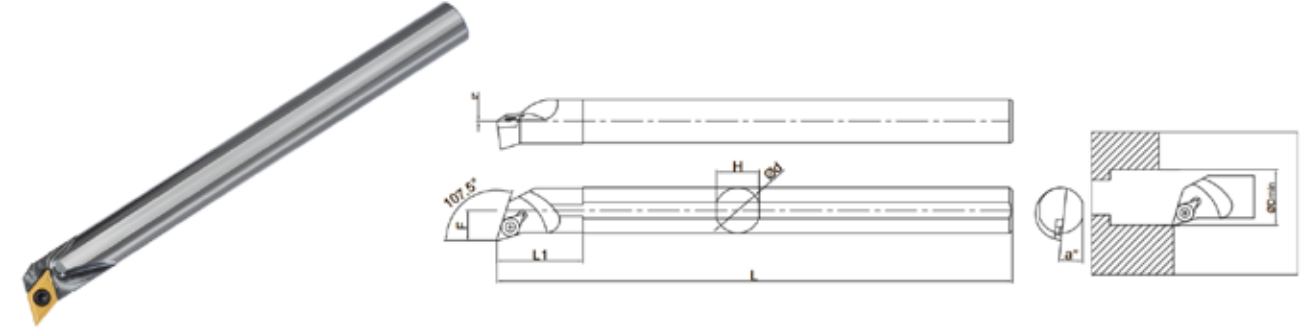


Order No		Designation	Inserts	Dimension (mm)							Spare Parts	
Right	Left			D	d	F	L	L1	H	a°	Screw	Key
222-11-055	222-11-056	S08K-SDQCR/L07	DC□□0702	13	8	6	125	16	7	12	M2.5-003	T8
222-11-007	222-11-008	S10K-SDQCR/L07		16	10	7	125	16	9	10		
222-11-009	222-11-010	S12M-SDQCR/L07		20	12	9	150	16	11	8		
222-11-057	222-11-058	S16N-SDQCR/L07		25	16	11	160	16	15	6		
222-11-059	222-11-060	S16Q-SDQCR/L07		25	16	11	180	16	15	6		
222-11-061	222-11-062	S16N-SDQCR/L11	DC□□11T3	25	16	11	160	16	15	6	M3.5-003	T15
222-11-063	222-11-064	S16Q-SDQCR/L11		25	16	11	180	16	15	6		
222-11-065	222-11-066	S20Q-SDQCR/L11		28	20	13	180	20	18	6		
222-11-067	222-11-068	S20R-SDQCR/L11		28	20	13	200	25	18	6		
222-11-069	222-11-070	S25R-SDQCR/L11		33	25	16	200	25	23	4		
222-11-071	222-11-072	S25S-SDQCR/L11		33	25	16	250	25	23	4		
222-11-073	222-11-074	S32S-SDQCR/L11		41	32	20	250	32	29	4		
222-11-075	222-11-076	S32T-SDQCR/L11		41	32	20	300	32	29	4		

SDUCR/L

Boring Bars

DC□□0702/DC□□11T3 Series

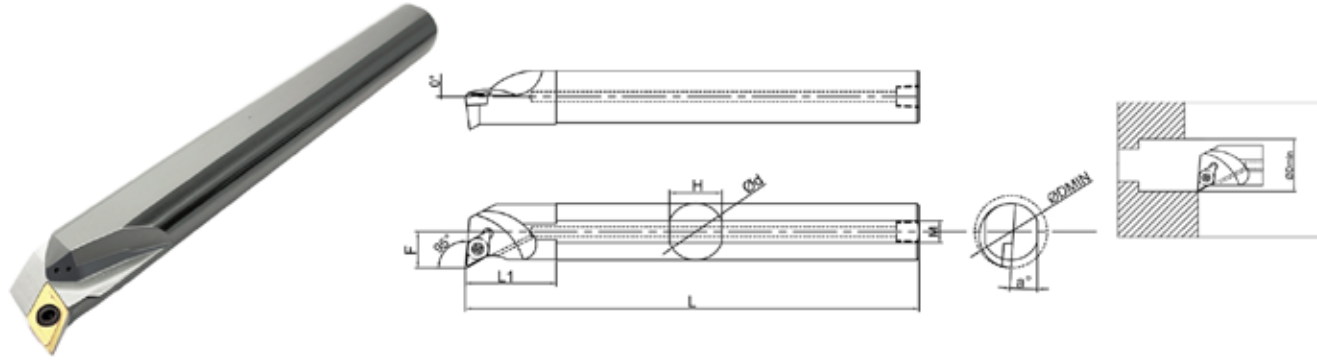


Order No		Designation	Inserts	Dimension (mm)							Spare Parts	
Right	Left			D	d	F	L	L1	H	a°	Screw	Key
222-11-077	222-11-078	S08K-SDUCR/L07	DC□□0702	13	8	7	125	16	7	12	M2.5-003	T8
222-11-019	222-11-020	S10K-SDUCR/L07		15	10	8	125	16	9	10		
222-11-021	222-11-022	S12M-SDUCR/L07		17	12	9	150	16	11	8		
222-11-079	222-11-080	S14N-SDUCR/L07		20	14	10	160	16	13	8		
222-11-081	222-11-082	S16N-SDUCR/L07		22	16	11	160	16	15	6		
222-11-083	222-11-084	S16Q-SDUCR/L07	DC□□11T3	22	16	11	180	16	15	6	M3.5-003	T15
222-11-085	222-11-086	S16N-SDUCR/L11		23	16	12	160	16	15	8		
222-11-087	222-11-088	S16Q-SDUCR/L11		23	16	12	180	16	15	8		
222-11-089	222-11-090	S20Q-SDUCR/L11		25	20	13	180	20	18	6		
222-11-091	222-11-092	S20R-SDUCR/L11		25	20	13	200	25	18	6		
222-11-093	222-11-094	S25R-SDUCR/L11		32	25	16	200	25	23	4		
222-11-095	222-11-096	S25S-SDUCR/L11		32	25	16	250	25	23	4		
222-11-097	222-11-098	S32S-SDUCR/L11		39	32	20	250	32	29	4		
222-11-099	222-11-100	S32T-SDUCR/L11		39	32	20	300	32	29	4		

A-SDUCR/L

Boring Bars with Internal Cooling

DC□□0702/DC□□11T3 Series

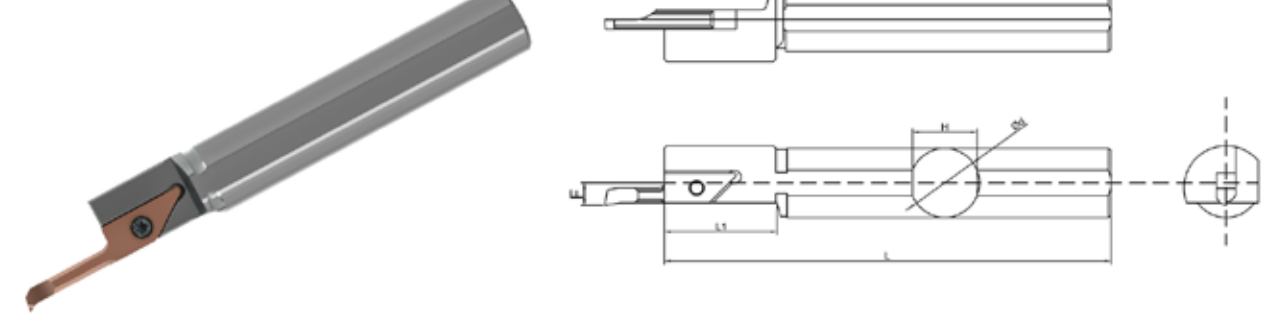


Order No		Designation	Inserts	Dimension (mm)								Spare Parts	
Right	Left			ΦD	Φd	F	L	L1	H	a°	M	Screw	Key
226-11-019	226-11-020	A10K-SDUCR/L07	DC□□0702	15	10	8	125	16	9	10	M5	M2.5-001	T8
226-11-021	226-11-022	A12M-SDUCR/L07		17	12	9	150	16	11	8	M5		
226-11-079	226-11-080	A14N-SDUCR/L07		20	14	10	160	16	13	8	M5		
226-11-083	226-11-084	A16Q-SDUCR/L07		22	16	11	180	16	15	6	ZG1/8		
226-11-087	226-11-088	A16Q-SDUCR/L11		23	16	11.5	180	16	15	8	ZG1/8		
226-11-089	226-11-090	A20Q-SDUCR/L11	DC□□11T3	25	20	13	180	20	18	6	ZG1/8	M3.5-001	T15
226-11-091	226-11-092	A20R-SDUCR/L11		25	20	13	200	25	18	6	ZG1/8		
226-11-093	226-11-094	A25R-SDUCR/L11		32	25	16	200	25	23	4	ZG1/8		
226-11-095	226-11-096	A25S-SDUCR/L11		32	25	16	250	25	23	4	ZG1/8		
226-11-097	226-11-098	A32S-SDUCR/L11		39	32	20	250	32	29	4	ZG1/8		
226-11-099	226-11-100	A32T-SDUCR/L11		39	32	20	300	32	29	4	ZG1/8		

S-SVNR

Mini Boring Bars with Cylinder Shank

VNBR05 Series

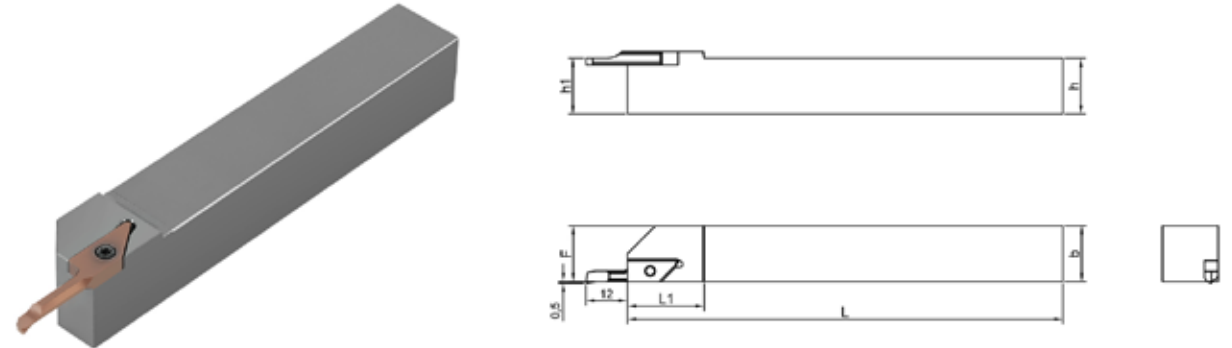


Order No	Designation	Inserts	Dimension (mm)				Spare Parts	
			φd	L	L1	H	Screw	Key
222-36-002	S10F-SVNR12N	VNBR 05	10	80	23	9	M3.0-003	T8
222-36-004	S12F-SVNR12N		12	80	23	11		
222-36-006	S14G-SVNR12N		14	90	23	13		
222-36-008	S16H-SVNR12N		16	100	23	15		
222-36-010	S18H-SVNR12N		18	100	24	18		
222-36-012	S20H-SVNR12N		20	100	24	18		

SVNR

Mini Boring Bars with Square Shank

VNBR05 Series



Order No	Designation	Inserts	Dimension (mm)					Spare Parts	
			h	b	L	L1	h1	F	Key
222-36-014	SVNR-1010H-12N	VNBR 05	10	10	100	22	10	10	M3.0-003
222-36-016	SVNR-1212K-12N		12	12	125	22	12	12	
222-36-018	SVNR-1616K-12N		16	16	125	22	16	16	
222-36-020	SVNR-2020K-12N		20	20	125	22	20	20	
222-36-022	SVNR-2525M-12N		25	25	150	22	25	25	

INDEXABLE PARTING & GROOVING CUTTERS

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Page 144  KGMR/L	Page 145  NSR/L	Page 145  KGBAR	Page 146  SGEL
Page 146  B-SGEL	Page 147  SPDR	Page 148  MFHR/L	Page 149  MGNVR/L
Page 151  MGNVR/L-A			

HARLINGEN®

PARTING & GROOVING CUTTER

MGNVR/L / MGEHR/L / STEHR/L SERIES



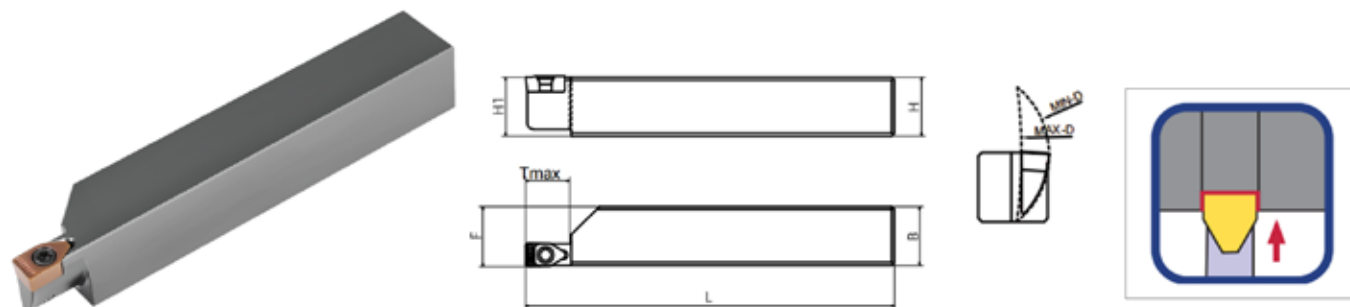
- High-precision, high-rigidity, and perfect surface tool-holders.
- Groove width 1.5mm-5.0mm, tool-holder diameter 16mm-32mm

Think Cutting, Think HARLINGEN!

STEHR/L

Large width Grooving Toolholders

TIGER08/10/12 Series

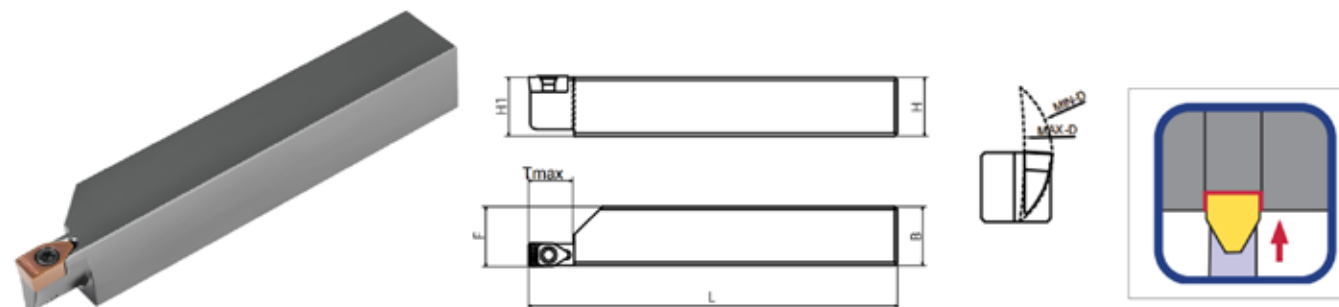


Order No		Designation	Inserts	Dimension (mm)								Spare Parts	
Right	Left			H	B	L	F	H1	TMAX	DMIN	DMAX	Screw	Key
212-29-001	212-29-002	STEHR/L2020K08-50-∞-T15	TIGER 080508	20	20	125	20.4	20	15	50	∞	M3.5-001	T15
212-29-003	212-29-004	STEHR/L2020K08-50-∞-T30		20	20	125	20.4	20	30	50	∞		
212-29-005	212-29-006	STEHR/L2020K10-50-∞-T15	TIGER 100508	20	20	125	20.4	20	15	50	∞	M4.0-002	T15
212-29-007	212-29-008	STEHR/L2020K10-50-∞-T30		20	20	125	20.4	20	30	50	∞		
212-29-009	212-29-010	STEHR/L2020K12-50-∞-T15	TIGER 120508	20	20	125	20.4	20	15	50	∞	M5.0-001	T20
212-29-011	212-29-012	STEHR/L2020K12-50-∞-T30		20	20	125	20.4	20	30	50	∞		
212-29-013	212-29-014	STEHR/L2525M08-50-∞-T15	TIGER 080508	25	25	150	25.4	25	15	50	∞	M3.5-001	T15
212-29-015	212-29-016	STEHR/L2525M08-50-∞-T30		25	25	150	25.4	25	30	50	∞		
212-29-017	212-29-018	STEHR/L2525M08-50-∞-T45		25	25	150	25.4	25	45	50	∞		
212-29-019	212-29-020	STEHR/L2525M08-80-200-T15		25	25	150	25.4	25	15	80	200		
212-29-021	212-29-022	STEHR/L2525M08-80-200-T30		25	25	150	25.4	25	30	80	200		
212-29-023	212-29-024	STEHR/L2525M08-80-200-T45		25	25	150	25.4	25	45	80	200		
212-29-025	212-29-026	STEHR/L2525M08-200-800-T15		25	25	150	25.4	25	15	200	800		
212-29-027	212-29-028	STEHR/L2525M08-200-800-T30		25	25	150	25.4	25	30	200	800		
212-29-029	212-29-030	STEHR/L2525M08-200-800-T45		25	25	150	25.4	25	45	200	800		
212-29-031	212-29-032	STEHR/L2525M08-200-800-T60		25	25	150	25.4	25	60	200	800		
212-29-033	212-29-034	STEHR/L2525M10-50-∞-T15	TIGER 100508	25	25	150	25.4	25	15	50	∞	M4.0-002	T15
212-29-035	212-29-036	STEHR/L2525M10-50-∞-T30		25	25	150	25.4	25	30	50	∞		
212-29-037	212-29-038	STEHR/L2525M10-50-∞-T45		25	25	150	25.4	25	45	50	∞		
212-29-039	212-29-040	STEHR/L2525M10-80-200-T15		25	25	150	25.4	25	15	80	200		
212-29-041	212-29-042	STEHR/L2525M10-80-200-T30		25	25	150	25.4	25	30	80	200		
212-29-043	212-29-044	STEHR/L2525M10-80-200-T45		25	25	150	25.4	25	45	80	200		
212-29-045	212-29-046	STEHR/L2525M10-200-800-T15		25	25	150	25.4	25	15	200	800		
212-29-047	212-29-048	STEHR/L2525M10-200-800-T30		25	25	150	25.4	25	30	200	800		
212-29-049	212-29-050	STEHR/L2525M10-200-800-T45		25	25	150	25.4	25	45	200	800		
212-29-051	212-29-052	STEHR/L2525M10-200-800-T60		25	25	150	25.4	25	60	200	800		

STEHR/L

Large width Grooving Toolholders

TIGER08/10/12 Series

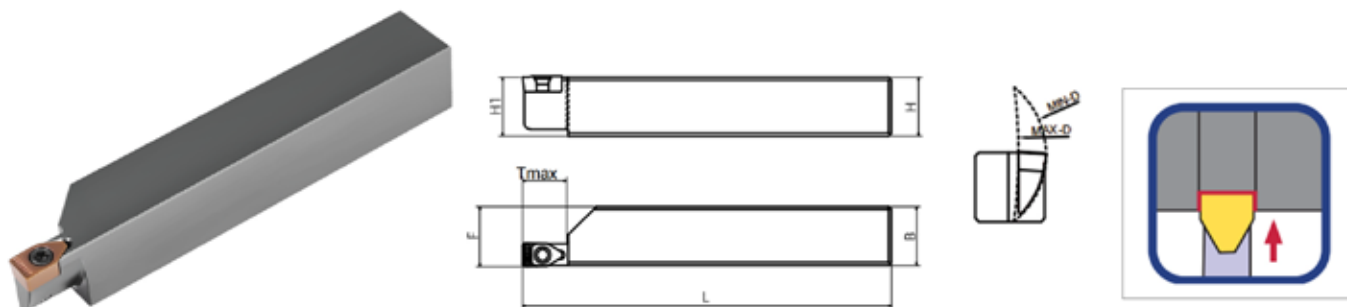


Order No		Designation	Inserts	Dimension (mm)								Spare Parts	
Right	Left			H	B	L	F	H1	TMAX	DMIN	DMAX	Screw	Key
212-29-053	212-29-054	STEHR/L2525M12-50-∞-T15	TIGER 120508	25	25	150	25.4	25	15	50	∞	M5.0-001	T20
212-29-055	212-29-056	STEHR/L2525M12-50-∞-T30		25	25	150	25.4	25	30	50	∞		
212-29-057	212-29-058	STEHR/L2525M12-50-∞-T45		25	25	150	25.4	25	45	50	∞		
212-29-059	212-29-060	STEHR/L2525M12-80-200-T15		25	25	150	25.4	25	15	80	200		
212-29-061	212-29-062	STEHR/L2525M12-80-200-T30		25	25	150	25.4	25	30	80	200		
212-29-063	212-29-064	STEHR/L2525M12-80-200-T45		25	25	150	25.4	25	45	80	200		
212-29-065	212-29-066	STEHR/L2525M12-200-800-T15		25	25	150	25.4	25	15	200	800		
212-29-067	212-29-068	STEHR/L2525M12-200-800-T30		25	25	150	25.4	25	30	200	800		
212-29-069	212-29-070	STEHR/L2525M12-200-800-T45		25	25	150	25.4	25	45	200	800		
212-29-071	212-29-072	STEHR/L2525M12-200-800-T60		25	25	150	25.4	25	60	200	800		
212-29-073	212-29-074	STEHR/L3232P08-80-200-T15	TIGER 080508	32	32	170	32.4	32	15	80	200	M3.5-001	T15
212-29-075	212-29-076	STEHR/L3232P08-80-200-T30		32	32	170	32.4	32	30	80	200		
212-29-077	212-29-078	STEHR/L3232P08-80-200-T45		32	32	170	32.4	32	45	80	200		
212-29-079	212-29-080	STEHR/L3232P08-200-1000-T20		32	32	170	32.4	32	20	200	1000		
212-29-081	212-29-082	STEHR/L3232P08-200-1000-T40		32	32	170	32.4	32	40	200	1000		
212-29-083	212-29-084	STEHR/L3232P08-200-1000-T60		32	32	170	32.4	32	60	200	1000		
212-29-085	212-29-086	STEHR/L3232P10-80-200-T15	TIGER 100508	32	32	170	32.4	32	15	80	200	M4.0-002	T15
212-29-087	212-29-088	STEHR/L3232P10-80-200-T30		32	32	170	32.4	32	30	80	200		
212-29-089	212-29-090	STEHR/L3232P10-80-200-T45		32	32	170	32.4	32	45	80	200		
212-29-091	212-29-092	STEHR/L3232P10-200-1000-T20		32	32	170	32.4	32	20	200	1000		
212-29-093	212-29-094	STEHR/L3232P10-200-1000-T40		32	32	170	32.4	32	40	200	1000		
212-29-095	212-29-096	STEHR/L3232P10-200-1000-T60		32	32	170	32.4	32	60	200	1000		
212-29-097	212-29-098	STEHR/L3232P12-80-200-T15	TIGER 120508	32	32	170	32.4	32	15	80	200	M5.0-001	T20
212-29-099	212-29-100	STEHR/L3232P12-80-200-T30		32	32	170	32.4	32	30	80	200		
212-29-101	212-29-102	STEHR/L3232P12-80-200-T45		32	32	170	32.4	32	45	80	200		
212-29-103	212-29-104	STEHR/L3232P12-200-1000-T20		32	32	170	32.4	32	20	200	1000		

STEHR/L

Large width Grooving Toolholders

TIGER08/10/12 Series

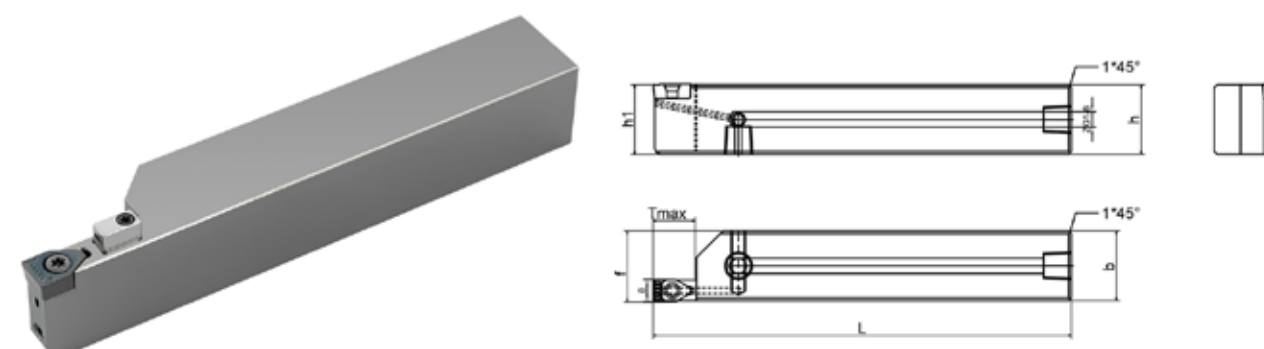


Order No		Designation	Inserts	Dimension (mm)								Spare Parts	
Right	Left			H	B	L	F	H1	TMAX	DMIN	DMAX	Screw	Key
212-29-105	212-29-106	STEHR/L3232P12-200-1000-T40	TIGER 120508	32	32	170	32.4	32	40	200	1000	M5.0-001	T20
212-29-107	212-29-108	STEHR/L3232P12-200-1000-T60		32	32	170	32.4	32	60	200	1000		
212-29-109	212-29-110	STEHR/L4040R08-200-1000-T30	TIGER 080508	40	40	200	40.4	40	30	200	1000	M3.5-001	T15
212-29-111	212-29-112	STEHR/L4040R08-200-1000-T50		40	40	200	40.4	40	50	200	1000		
212-29-113	212-29-114	STEHR/L4040R08-200-1000-T70	TIGER 100508	40	40	200	40.4	40	70	200	1000	M4.0-002	T15
212-29-115	212-29-116	STEHR/L4040R10-200-1000-T30		40	40	200	40.4	40	30	200	1000		
212-29-117	212-29-118	STEHR/L4040R10-200-1000-T50	TIGER 120508	40	40	200	40.4	40	50	200	1000	M5.0-001	T20
212-29-119	212-29-120	STEHR/L4040R10-200-1000-T70		40	40	200	40.4	40	70	200	1000		
212-29-121	212-29-122	STEHR/L4040R12-200-1000-T30	TIGER 120508	40	40	200	40.4	40	30	200	1000	M5.0-001	T20
212-29-123	212-29-124	STEHR/L4040R12-200-1000-T50		40	40	200	40.4	40	50	200	1000		
212-29-125	212-29-126	STEHR/L4040R12-200-1000-T70		40	40	200	40.4	40	70	200	1000		

STEHR-A

Large width Grooving Toolholders with Internal Cooling

TIGER08/10/12 Series

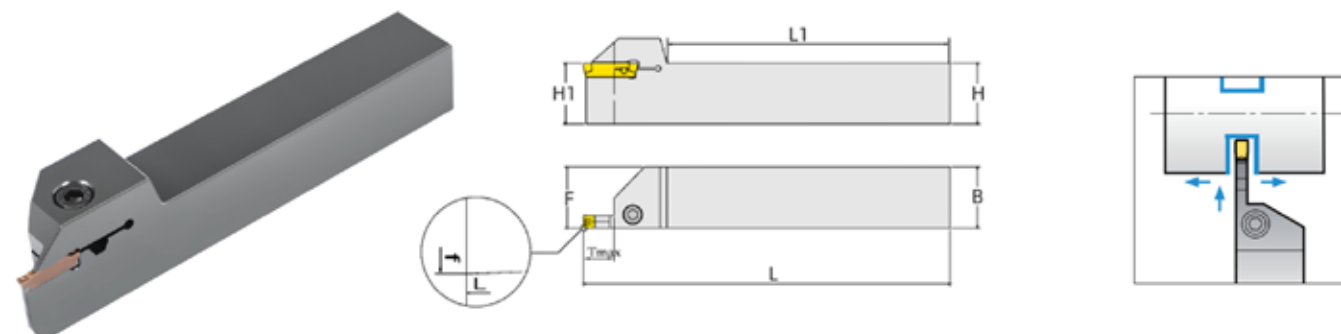


Order No		Designation	Inserts	Dimension (mm)						Spare Parts	
Right	Left			h	b	L	F	h1	TMAX	Screw	Key
216-29-001	216-29-002	STEHR/L2525M08-T15-A	TIGER 080508	25	25	150	25.4	25	15	M3.5-001	T15
216-29-003	216-29-004	STEHR/L2525M08-T30-A		25	25	150	25.4	25	30		
216-29-005	216-29-006	STEHR/L2525M08-T45-A		25	25	150	25.4	25	45		
216-29-007	216-29-008	STEHR/L2525M08-T60-A		25	25	150	25.4	25	60		
216-29-009	216-29-010	STEHR/L2525M10-T15-A	TIGER 100508	25	25	150	25.4	25	15	M4.0-002	T15
216-29-011	216-29-012	STEHR/L2525M10-T30-A		25	25	150	25.4	25	30		
216-29-013	216-29-014	STEHR/L2525M10-T45-A		25	25	150	25.4	25	45		
216-29-015	216-29-016	STEHR/L2525M10-T60-A		25	25	150	25.4	25	60		
216-29-017	216-29-018	STEHR/L2525M12-T15-A	TIGER 120508	25	25	150	25.4	25	15	M5.0-001	T20
216-29-019	216-29-020	STEHR/L2525M12-T30-A		25	25	150	25.4	25	30		
216-29-021	216-29-022	STEHR/L2525M12-T45-A		25	25	150	25.4	25	45		
216-29-023	216-29-024	STEHR/L2525M12-T60-A		25	25	150	25.4	25	60		
216-29-025	216-29-026	STEHR/L3232P08-T15-A	TIGER 080508	32	32	170	32.4	32	15	M3.5-001	T15
216-29-027	216-29-028	STEHR/L3232P08-T30-A		32	32	170	32.4	32	30		
216-29-029	216-29-030	STEHR/L3232P08-T45-A		32	32	170	32.4	32	45		
216-29-031	216-29-032	STEHR/L3232P08-T60-A		32	32	170	32.4	32	60		
216-29-033	216-29-034	STEHR/L3232P10-T15-A	TIGER 100508	32	32	170	32.4	32	15	M4.0-002	T15
216-29-035	216-29-036	STEHR/L3232P10-T30-A		32	32	170	32.4	32	30		
216-29-037	216-29-038	STEHR/L3232P10-T45-A		32	32	170	32.4	32	45		
216-29-039	216-29-040	STEHR/L3232P10-T60-A		32	32	170	32.4	32	60		
216-29-041	216-29-042	STEHR/L3232P12-T15-A	TIGER 120508	32	32	170	32.4	32	12	M5.0-001	T20
216-29-043	216-29-044	STEHR/L3232P12-T30-A		32	32	170	32.4	32	30		
216-29-045	216-29-046	STEHR/L3232P12-T45-A		32	32	170	32.4	32	45		
216-29-047	216-29-048	STEHR/L3232P12-T60-A		32	32	170	32.4	32	60		

MGEHR/L

External Grooving Toolholders

MGMN150/200/250/300/400 Series

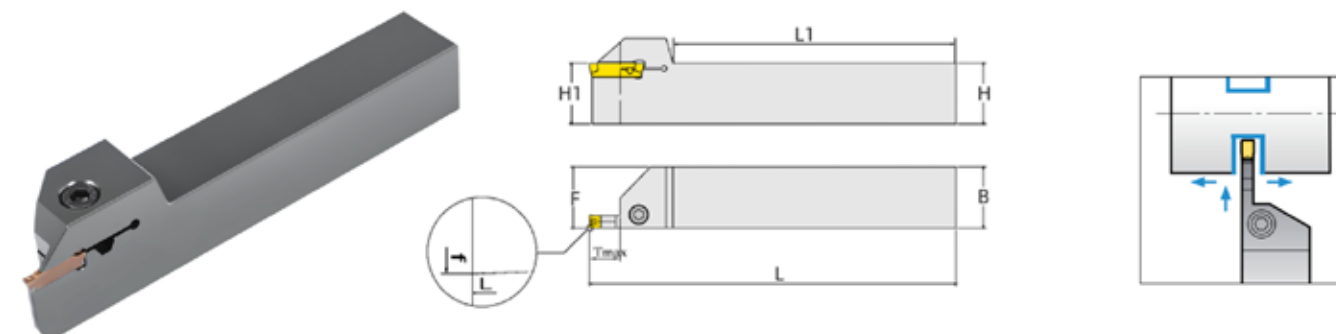


Order No		Designation	Inserts	Dimension (mm)							Spare Parts	
Right	Left			H	B	L	L1	H1	F	T _{MAX}	NLJ	TSA
212-28-001	212-28-002	MGEHR/L1616H-1.5T8	MGMN150	16	16	100	68	16	16.2	8	0520	T20
212-28-003	212-28-004	MGEHR/L1616H-1.5T12		16	16	100	68	16	16.2	12		
212-28-005	212-28-006	MGEHR/L1616H-2T8	MGMN200	16	16	100	68	16	16.2	8		
212-28-007	212-28-008	MGEHR/L1616H-2T12		16	16	100	68	16	16.2	12		
212-28-009	212-28-010	MGEHR/L1616H-2T16	MGMN250	16	16	100	65	16	16.2	16		
212-28-011	212-28-012	MGEHR/L1616H-2.5T8		16	16	100	68	16	16.25	8		
212-28-013	212-28-014	MGEHR/L1616H-2.5T12	MGMN300	16	16	100	68	16	16.25	12		
212-28-015	212-28-016	MGEHR/L1616H-2.5T16		16	16	100	65	16	16.25	16		
212-28-017	212-28-018	MGEHR/L1616H-3T10	MGMN400	16	16	100	68	16	16.32	10		
212-28-019	212-28-020	MGEHR/L1616H-3T14		16	16	100	68	16	16.32	14		
212-28-021	212-28-022	MGEHR/L1616H-3T18	MGMN500	16	16	100	65	16	16.32	18		
212-28-023	212-28-024	MGEHR/L1616H-4T10		16	16	100	68	16	16.32	10		
212-28-025	212-28-026	MGEHR/L1616H-4T14	MGMN150	16	16	100	68	16	16.32	14		
212-28-027	212-28-028	MGEHR/L1616H-4T18		16	16	100	65	16	16.32	18		
212-28-029	212-28-030	MGEHR/L2020K-1.5T8	MGMN200	20	20	125	92	20	20.2	8	0520	T20
212-28-031	212-28-032	MGEHR/L2020K-1.5T12		20	20	125	90	20	20.2	12		
212-28-033	212-28-034	MGEHR/L2020K-2T8	MGMN250	20	20	125	92	20	20.2	8		
212-28-035	212-28-036	MGEHR/L2020K-2T12		20	20	125	90	20	20.2	12		
212-28-037	212-28-038	MGEHR/L2020K-2T16	MGMN300	20	20	125	90	20	20.2	16		
212-28-039	212-28-040	MGEHR/L2020K-2.5T8		20	20	125	90	20	20.25	8		
212-28-041	212-28-042	MGEHR/L2020K-2.5T12	MGMN400	20	20	125	90	20	20.25	12		
212-28-043	212-28-044	MGEHR/L2020K-2.5T16		20	20	125	90	20	20.25	16		
212-28-045	212-28-046	MGEHR/L2020K-3T10	MGMN500	20	20	125	90	20	20.32	10		
212-28-047	212-28-048	MGEHR/L2020K-3T14		20	20	125	90	20	20.32	14		
212-28-049	212-28-050	MGEHR/L2020K-3T18	MGMN150	20	20	125	86	20	20.32	18		
212-28-051	212-28-052	MGEHR/L2020K-3T25		20	20	125	79	20	20.32	25		

MGEHR/L

External Grooving Toolholders

MGMN200/250/300/400/500 Series

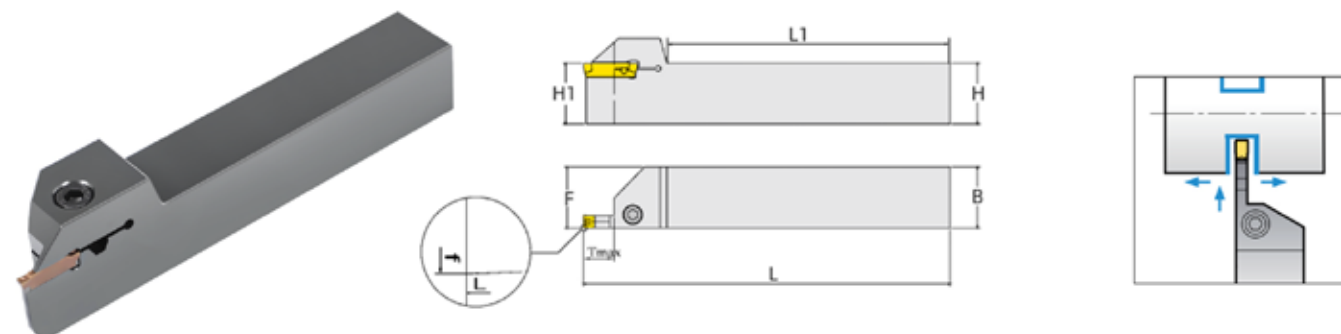


Order No		Designation	Inserts	Dimension (mm)							Spare Parts	
Right	Left			H	B	L	L1	H1	F	T _{MAX}	NLJ	TSA
212-28-053	212-28-054	MGEHR/L2020K-3T30	MGMN300	20	20	125	70	20	20.32	30	0520	T20
212-28-055	212-28-056	MGEHR/L2020K-3T35		20	20	125	65	20	20.32	35		
212-28-057	212-28-058	MGEHR/L2020K-3T40	MGMN400	20	20	125	60	20	20.32	40		
212-28-059	212-28-060	MGEHR/L2020K-4T10		20	20	125	88	20	20.32	10		
212-28-061	212-28-062	MGEHR/L2020K-4T14	MGMN500	20	20	125	88	20	20.32	14		
212-28-063	212-28-064	MGEHR/L2020K-4T18		20	20	125	88	20	20.32	18		
212-28-065	212-28-066	MGEHR/L2020K-4T25	MGMN200	20	20	125	79	20	20.32	25		
212-28-067	212-28-068	MGEHR/L2020K-4T30		20	20	125	70	20	20.32	30		
212-28-069	212-28-070	MGEHR/L2020K-4T35	MGMN250	20	20	125	65	20	20.32	35		
212-28-071	212-28-072	MGEHR/L2020K-4T40		20	20	125	60	20	20.32	40		
212-28-073	212-28-074	MGEHR/L2020K-5T10	MGMN300	20	20	125	88	20	20.5	10		
212-28-075	212-28-076	MGEHR/L2020K-5T14		20	20	125	88	20	20.5	14		
212-28-077	212-28-078	MGEHR/L2020K-5T18	MGMN400	20	20	125	83	20	20.5	18		
212-28-079	212-28-080	MGEHR/L2020K-5T23		20	20	125	80	20	20.5	23		
212-28-081	212-28-082	MGEHR/L2020K-5T25	MGMN500	20	20	125	80	20	20.5	25		
212-28-083	212-28-084	MGEHR/L2020K-5T30		20	20	125	75	20	20.5	30		
212-28-085	212-28-086	MGEHR/L2525M-2T6	MGMN200	25	25	150	115	25	25.2	6	0625	T20
212-28-087	212-28-088	MGEHR/L2525M-2T8		25	25	150	115	25	25.2	8		
212-28-089	212-28-090	MGEHR/L2525M-2T12	MGMN250	25	25	150	115	25	25.2	12		
212-28-091	212-28-092	MGEHR/L2525M-2T16		25	25	150	115	25	25.2	16		
212-28-093	212-28-094	MGEHR/L2525M-2.5T8	MGMN300	25	25	150	115	25	25.25	8		
212-28-095	212-28-096	MGEHR/L2525M-2.5T12		25	25	150	115	25	25.25	12		
212-28-097	212-28-098	MGEHR/L2525M-2.5T16	MGMN400	25	25	150	115	25	25.25	16		
212-28-099	212-28-100	MGEHR/L2525M-3T10		25	25	150	110	25	25.25	10		
212-28-101	212-28-102	MGEHR/L2525M-3T14	MGMN500	25	25	150	110	25	25.25	14		
212-28-103	212-28-104	MGEHR/L2525M-3T18		25	25	150	110	25	25.25	18		

MGEHR/L

External Grooving Toolholders

MGMN300/400/500 Series

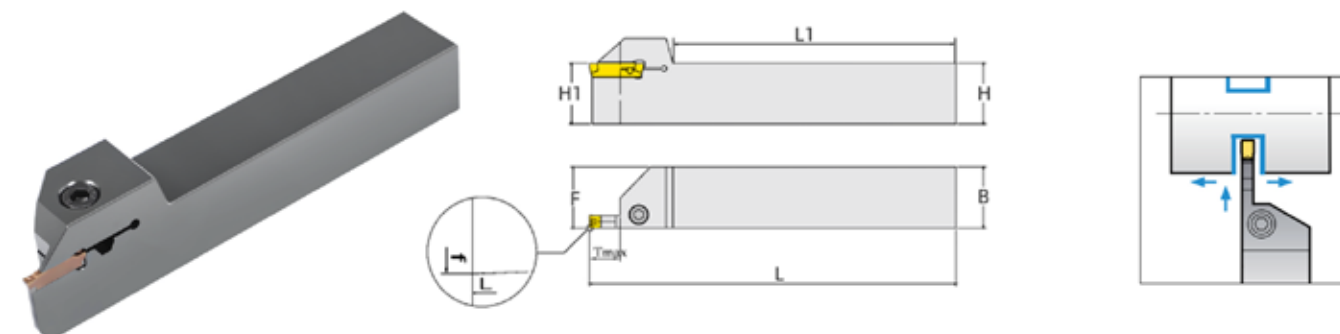


Order No		Designation	Inserts	Dimension (mm)							Spare Parts	
Right	Left			H	B	L	L1	H1	F	T _{MAX}	NLJ	TSA
212-28-105	212-28-106	MGEHR/L2525M-3T25	MGMN300	25	25	150	100	25	25.32	25	0625	T20
212-28-107	212-28-108	MGEHR/L2525M-3T30		25	25	150	95	25	25.32	30		
212-28-109	212-28-110	MGEHR/L2525M-3T35		25	25	150	90	25	25.32	35		
212-28-111	212-28-112	MGEHR/L2525M-3T40		25	25	150	85	25	25.32	40		
212-28-113	212-28-114	MGEHR/L2525M-3T50		25	25	150	75	25	25.32	50		
212-28-115	212-28-116	MGEHR/L2525M-4T10	MGMN400	25	25	150	110	25	25.32	10		
212-28-117	212-28-118	MGEHR/L2525M-4T14		25	25	150	110	25	25.32	14		
212-28-119	212-28-120	MGEHR/L2525M-4T18		25	25	150	110	25	25.32	18		
212-28-121	212-28-122	MGEHR/L2525M-4T23		25	25	150	105	25	25.32	23		
212-28-123	212-28-124	MGEHR/L2525M-4T25		25	25	150	103	25	25.32	25		
212-28-125	212-28-126	MGEHR/L2525M-4T30		25	25	150	98	25	25.32	30		
212-28-127	212-28-128	MGEHR/L2525M-4T35		25	25	150	93	25	25.32	35		
212-28-129	212-28-130	MGEHR/L2525M-4T40		25	25	150	88	25	25.32	40		
212-28-131	212-28-132	MGEHR/L2525M-4T50		25	25	150	78	25	25.32	50		
212-28-133	212-28-134	MGEHR/L2525M-5T10	MGMN500	25	25	150	110	25	25.5	10		
212-28-135	212-28-136	MGEHR/L2525M-5T14		25	25	150	110	25	25.5	14		
212-28-137	212-28-138	MGEHR/L2525M-5T18		25	25	150	105	25	25.5	18		
212-28-139	212-28-140	MGEHR/L2525M-5T23		25	25	150	105	25	25.5	23		
212-28-141	212-28-142	MGEHR/L2525M-5T25		25	25	150	103	25	25.5	25		
212-28-143	212-28-144	MGEHR/L2525M-5T30		25	25	150	98	25	25.5	30		
212-28-145	212-28-146	MGEHR/L2525M-5T35		25	25	150	93	25	25.5	35		
212-28-147	212-28-148	MGEHR/L2525M-5T40		25	25	150	88	25	25.5	40		
212-28-149	212-28-150	MGEHR/L2525M-5T50		25	25	150	78	25	25.5	50		
212-28-151	212-28-152	MGEHR/L3232P-3T10	MGMN300	32	32	170	128	32	32.25	10	0605	T20
212-28-153	212-28-154	MGEHR/L3232P-3T14		32	32	170	128	32	32.25	14		
212-28-155	212-28-156	MGEHR/L3232P-3T18		32	32	170	128	32	32.25	18		

MGEHR/L

External Grooving Toolholders

MGMN300/400/500/600 Series

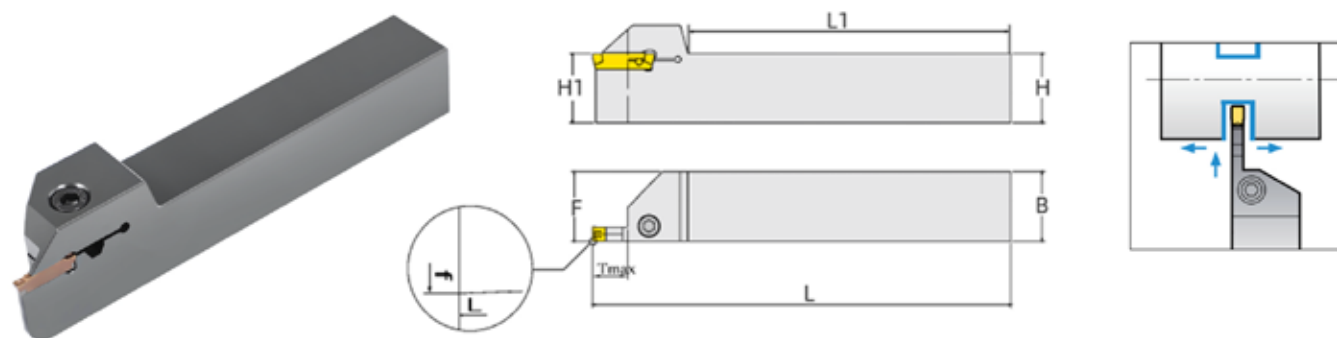


Order No		Designation	Inserts	Dimension (mm)							Spare Parts	
Right	Left			H	B	L	L1	H1	F	T _{MAX}	NLJ	TSA
212-28-157	212-28-158	MGEHR/L3232P-3T25	MGMN300	32	32	170	120	32	32.25	25	0605	T20
212-28-159	212-28-160	MGEHR/L3232P-3T30		32	32	170	115	32	32.25	30		
212-28-161	212-28-162	MGEHR/L3232P-4T10	MGMN400	32	32	170	128	32	32.45	10		
212-28-163	212-28-164	MGEHR/L3232P-4T14		32	32	170	128	32	32.45	14		
212-28-165	212-28-166	MGEHR/L3232P-4T18		32	32	170	128	32	32.45	18		
212-28-167	212-28-168	MGEHR/L3232P-4T25		32	32	170	120	32	32.45	25		
212-28-169	212-28-170	MGEHR/L3232P-4T30		32	32	170	115	32	32.45	30		
212-28-171	212-28-172	MGEHR/L3232P-4T35	MGMN500	32	32	170	110	32	32.45	35		
212-28-173	212-28-174	MGEHR/L3232P-4T40		32	32	170	105	32	32.45	40		
212-28-175	212-28-176	MGEHR/L3232P-5T10		32	32	170	128	32	32.5	10		
212-28-177	212-28-178	MGEHR/L3232P-5T14		32	32	170	128	32	32.5	14		
212-28-179	212-28-180	MGEHR/L3232P-5T18		32	32	170	128	32	32.5	18		
212-28-181	212-28-182	MGEHR/L3232P-5T25		32	32	170	120	32	32.5	25		
212-28-183	212-28-184	MGEHR/L3232P-5T30		32	32	170	115	32	32.5	30		
212-28-185	212-28-186	MGEHR/L3232P-5T35		32	32	170	110	32	32.5	35		
212-28-187	212-28-188	MGEHR/L3232P-5T40		32	32	170	105	32	32.5	40		
212-28-189	212-28-190	MGEHR/L3232P-5T50		32	32	170	95	32	32.5	50		
212-28-191	212-28-192	MGEHR/L3232P-6T20	MGMN600	32	32	170	125	32	32.5	20		
212-28-193	212-28-194	MGEHR/L3232P-6T30		32	32	170	115	32	32.5	30		
212-28-195	212-28-196	MGEHR/L3232P-6T40		32	32	170	105	32	32.5	40		
212-28-197	212-28-198	MGEHR/L3232P-6T50	MGMN300	32	32	170	95	32	32.5	50		
212-28-199	212-28-200	MGEHR/L2020K-3R25		20	20	125	80	20	20.32	25	0520	T20
212-28-201	212-28-202	MGEHR/L2020K-3R30		20	20	125	75	20	20.32	30		
212-28-203	212-28-204	MGEHR/L2020K-4R25	MGMN400	20	20	125	80	20	20.32	25		
212-28-205	212-28-206	MGEHR/L2020K-4R30		20	20	125	75	20	20.32	30		
212-28-207	212-28-208	MGEHR/L2020K-4R35		20	20	125	70	20	20.32	35		

MGEHR/L

External Grooving Toolholders

MGMN300/400/500 Series

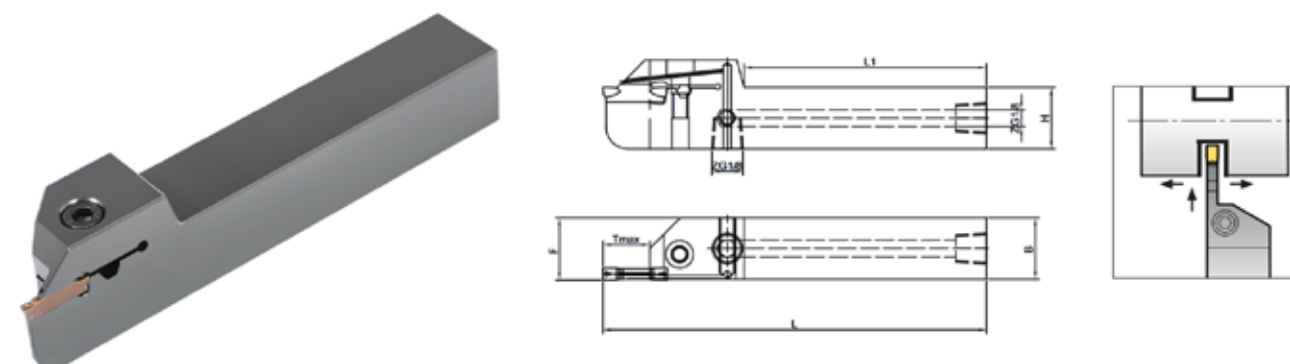


Order No		Designation	Inserts	Dimension (mm)							Spare Parts	
Right	Left			H	B	L	L1	H1	F	T _{MAX}	NLJ	TSA
212-28-209	212-28-210	MGEHR/L2020K-5R25	MGMN500	20	20	125	80	20	20.5	25	0520	T20
212-28-211	212-28-212	MGEHR/L2020K-5R30		20	20	125	75	20	20.5	30		
212-28-213	212-28-214	MGEHR/L2525M-3R25	MGMN300	25	25	150	105	25	25.32	25	0605	T20
212-28-215	212-28-216	MGEHR/L2525M-3R30		25	25	150	100	25	25.32	30		
212-28-217	212-28-218	MGEHR/L2525M-4R25	MGMN400	25	25	150	105	25	25.32	25		
212-28-219	212-28-220	MGEHR/L2525M-4R30		25	25	150	100	25	25.32	30		
212-28-221	212-28-222	MGEHR/L2525M-4R35	MGMN500	25	25	150	95	25	25.32	35		
212-28-223	212-28-224	MGEHR/L2525M-5R25		25	25	150	105	25	25.5	25		
212-28-225	212-28-226	MGEHR/L2525M-5R30	MGMN500	25	25	150	100	25	25.5	30		
212-28-227	212-28-228	MGEHR/L2525M-5R35		25	25	150	95	25	25.5	35		

MGEHR/L-A

Grooving Toolholders with Internal Cooling

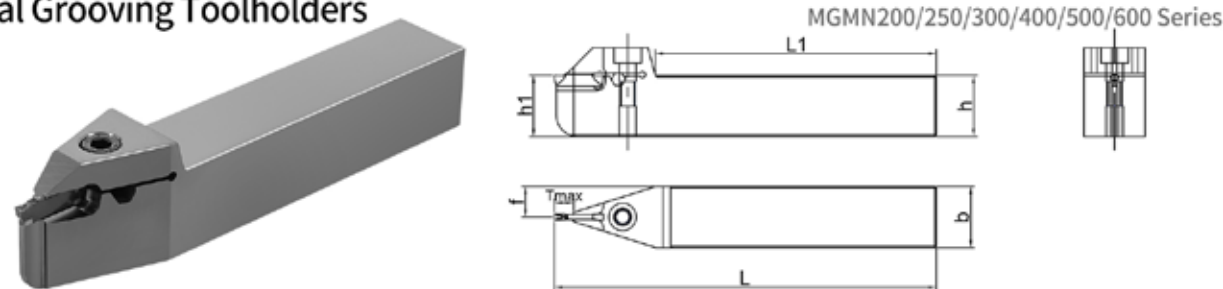
MGMN200/300/400/500 Series



Order No		Designation	Inserts	Dimension (mm)						Spare Parts		内冷螺旋纹型号
Order No	Order No			H	B	L	L1	F	T _{MAX}			
										NLJ	TSA	
216-28-001	216-28-002	MGEHR/L2020K-2T8-A	MGMN200	20	20	125	84	20.20	8	0520	L4	ZG1/8
216-28-003	216-28-004	MGEHR/L2020K-2T13-A		20	20	125	84	20.20	13			
216-28-005	216-28-006	MGEHR/L2020K-3T10-A	MGMN300	20	20	125	84	20.32	10			
216-28-007	216-28-008	MGEHR/L2020K-3T15-A		20	20	125	79	20.32	15			
216-28-009	216-28-010	MGEHR/L2020K-3T20-A	MGMN400	20	20	125	74	20.32	20			
216-28-011	216-28-012	MGEHR/L2020K-4T10-A		20	20	125	84	20.30	10			
216-28-013	216-28-014	MGEHR/L2020K-4T15-A	MGMN500	20	20	125	79	20.30	15			
216-28-015	216-28-016	MGEHR/L2020K-4T20-A		20	20	125	74	20.30	20			
216-28-017	216-28-018	MGEHR/L2020K-5T10-A	MGMN500	20	20	125	84	20.50	10	0625	L5	
216-28-019	216-28-020	MGEHR/L2020K-5T15-A		20	20	125	79	20.50	15			
216-28-021	216-28-022	MGEHR/L2020K-5T20-A	MGMN200	20	20	125	74	20.50	20			
216-28-023	216-28-024	MGEHR/L2525M-2T8-A		25	25	150	110	25.20	8			
216-28-025	216-28-026	MGEHR/L2525M-2T13-A	MGMN300	25	25	150	110	25.20	13			
216-28-027	216-28-028	MGEHR/L2525M-3T10-A		25	25	150	110	25.33	10			
216-28-029	216-28-030	MGEHR/L2525M-3T15-A	MGMN400	25	25	150	110	25.33	15			
216-28-031	216-28-032	MGEHR/L2525M-3T20-A		25	25	150	105	25.33	20			
216-28-033	216-28-034	MGEHR/L2525M-4T10-A	MGMN500	25	25	150	110	25.33	10	0625	L5	
216-28-035	216-28-036	MGEHR/L2525M-4T15-A		25	25	150	110	25.33	15			
216-28-037	216-28-038	MGEHR/L2525M-4T20-A	MGMN300	25	25	150	105	25.33	20			
216-28-039	216-28-040	MGEHR/L2525M-5T10-A		25	25	150	110	25.50	10			
216-28-041	216-28-042	MGEHR/L2525M-5T15-A	MGMN400	25	25	150	110	25.50	15			
216-28-043	216-28-044	MGEHR/L2525M-5T20-A		25	25	150	105	25.50	20			

MGENN

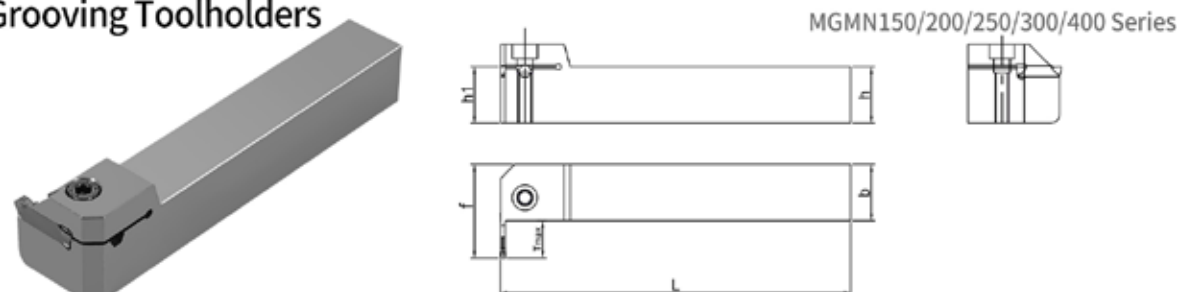
External Grooving Toolholders



Order No	Designation	Inserts	Dimension (mm)						Spare Parts	
			h	b	L	L1	f	T _{MAX}	NLJ	Key
212-28-229	MGENN2020K-2T6	MGMN200	20	20	125	92	10	6	NLJ0520	L4.0
212-28-231	MGENN2020K-2.5T7	MGMN250	20	20	125	92	10	7		
212-28-233	MGENN2020K-3T7	MGMN300	20	20	125	87	10	7		
212-28-235	MGENN2020K-4T7	MGMN400	20	20	125	87	10	7		
212-28-237	MGENN2020K-5T8	MGMN500	20	20	125	82	10	8		
212-28-239	MGENN2525M-3T7	MGMN300	25	25	150	112	12.5	7	NLJ0625	L5.0
212-28-241	MGENN2525M-4T7	MGMN400	25	25	150	112	12.5	7		
212-28-243	MGENN2525M-5T8	MGMN500	25	25	150	107	12.5	8		
212-28-245	MGENN2525M-6T10	MGMN600	25	25	150	107	12.5	10		

MGEVR/L-T

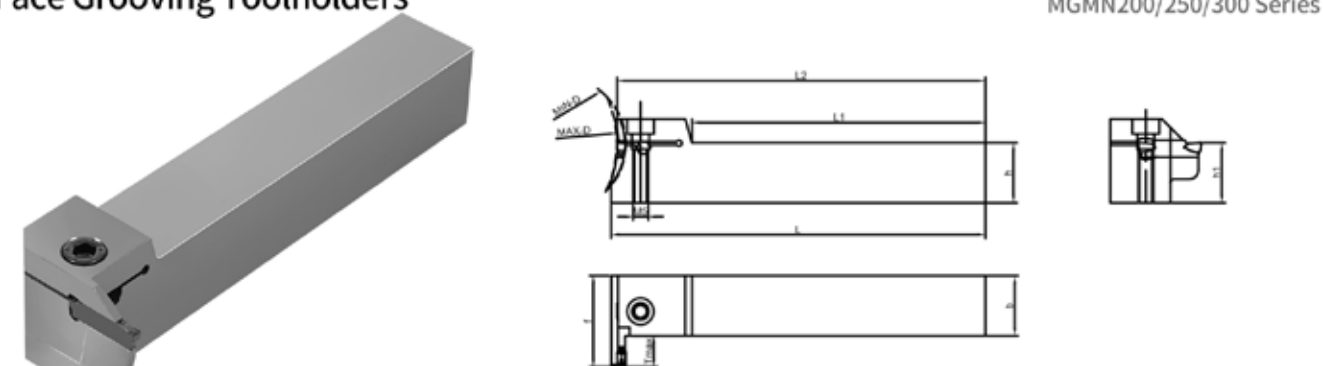
External Grooving Toolholders



Order No		Designation	Inserts	Dimension (mm)						Spare Parts	
Right	Left			h	b	L	L1	f	T _{MAX}	NLJ	Key
212-28-247	212-28-248	MGEVR/L2020K-1.5T7	MGMN150	20	20	125	100	27.3	7	NLJ0520	L4.0
212-28-248	212-28-249	MGEVR/L2020K-2T7	MGMN200	20	20	125	100	27.3	7		
212-28-249	212-28-250	MGEVR/L2020K-2T13	MGMN200	20	20	125	100	33.3	13		
212-28-250	212-28-251	MGEVR/L2020K-2.5T7	MGMN250	20	20	125	100	27.3	7		
212-28-251	212-28-252	MGEVR/L2020K-2.5T13	MGMN250	20	20	125	100	33.3	13		
212-28-252	212-28-253	MGEVR/L2020K-3T8	MGMN300	20	20	125	100	28.3	8		
212-28-253	212-28-254	MGEVR/L2020K-3T15	MGMN300	20	20	125	100	35.3	15		
212-28-254	212-28-255	MGEVR/L2020K-4T8	MGMN400	20	20	125	100	28.3	8		
212-28-255	212-28-256	MGEVR/L2020K-4T15	MGMN400	20	20	125	100	35.5	15		

MGFVR

Face Grooving Toolholders

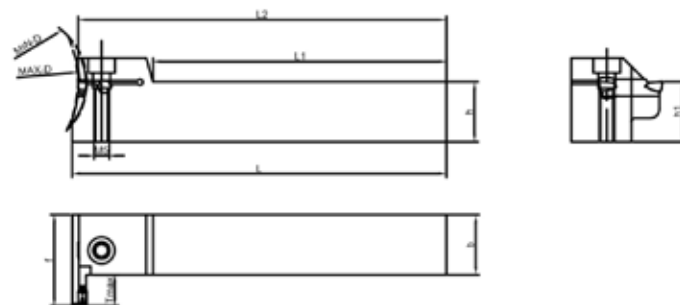
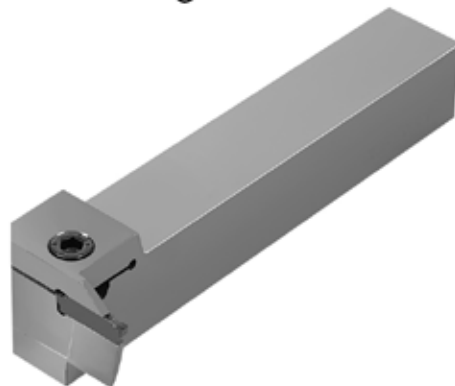


Order No	Designation	Inserts	Dimension (mm)									Spare Parts	
			h	b	L	L1	L2	f	T _{MAX}	D _{min}	D _{max}		
												NLJ	Key
212-28-257	MGFVR 220R8 20-36	MGMN200	20	20	125	98	123	28.3	8	20	36	NLJ0520	L4.0
212-28-259	MGFVR 220R12 20-36		20	20	125	98	123	32.3	12	20	36		
212-28-261	MGFVR 220R8 30-50		20	20	125	98	123	28.3	8	30	50		
212-28-263	MGFVR 220R15 30-50		20	20	125	98	123	35.3	15	30	50		
212-28-265	MGFVR 220R8 40-80		20	20	125	99	124	28.3	8	40	80		
212-28-267	MGFVR 220R15 40-80		20	20	125	99	124	35.3	15	40	80		
212-28-269	MGFVR 220R8 70-120		20	20	125	99	124	28.3	8	70	120		
212-28-271	MGFVR 220R15 70-120		20	20	125	99	124	35.3	15	70	120		
212-28-273	MGFVR 220R8 100-200		20	20	125	99	124	28.3	8	100	200		
212-28-275	MGFVR 220R15 100-200		20	20	125	99	124	35.3	15	100	200		
212-28-277	MGFVR 2.520R8 20-36	MGMN250	20	20	125	98	123	28.3	8	20	63	NLJ0520	L4.0
212-28-279	MGFVR 2.520R12 20-36		20	20	125	98	123	32.3	12	20	36		
212-28-281	MGFVR 2.520R8 30-50		20	20	125	98	123	28.3	8	30	50		
212-28-283	MGFVR 2.520R15 30-50		20	20	125	98	123	35.3	15	30	50		
212-28-285	MGFVR 2.520R8 40-80		20	20	125	99	124	28.3	8	40	80		
212-28-287	MGFVR 2.520R15 40-80		20	20	125	99	124	35.3	15	40	80		
212-28-289	MGFVR 2.520R8 70-120		20	20	125	99	124	28.3	8	70	120		
212-28-291	MGFVR 2.520R15 70-120		20	20	125	99	124	35.3	15	70	120		
212-28-293	MGFVR 2.520R8 100-200		20	20	125	99	124	28.3	8	100	200		
212-28-295	MGFVR 2.520R15 100-200		20	20	125	99	124	35.3	15	100	200		
212-28-297	MGFVR 320R10 20-36	MGMN300	20	20	125	98	123	28.3	10	20	36	NLJ0520	L4.0
212-28-299	MGFVR 320R15 20-36		20	20	125	98	123	32.3	15	20	36		
212-28-301	MGFVR 320R10 30-50		20	20	125	98	123	28.3	10	30	50		
212-28-303	MGFVR 320R15 30-50		20	20	125	98	123	35.3	15	30	50		
212-28-305	MGFVR 320R10 40-80		20	20	125	98	123	28.3	10	40	80		
212-28-307	MGFVR 320R15 40-80		20	20	125	98	123	35.3	15	40	80		

MGFVR

Face Grooving Toolholders

MGMN200/250/300/400 Series

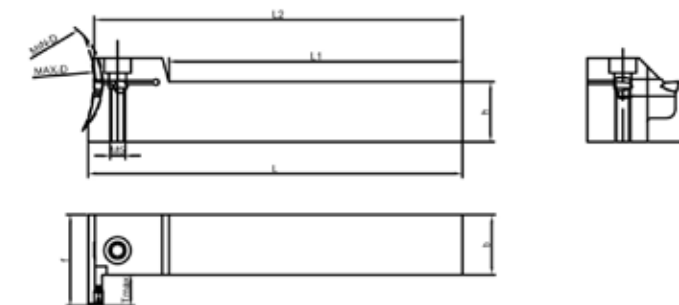
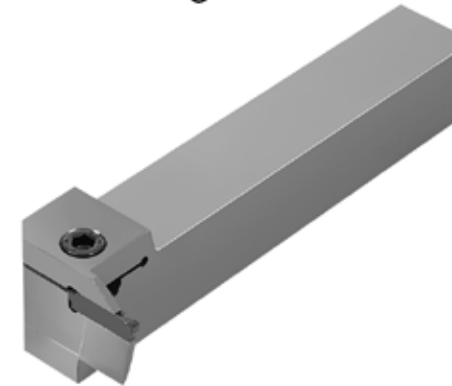


Order No	Designation	Inserts	Dimension (mm)									Spare Parts	
			h	b	L	L1	L2	f	T _{MAX}	D _{min}	D _{max}	NLJ	Key
212-28-309	MGFVR 320R10 70-120	MGMN300	20	20	125	98	123	30.3	10	70	120	NLJ0520	L4.0
212-28-311	MGFVR 320R15 70-120		20	20	125	98	123	35.3	15	70	120		
212-28-313	MGFVR 320R10 100-300		20	20	125	98	124	30.3	10	100	300		
212-28-315	MGFVR 320R15 100-300		20	20	125	98	124	35.3	15	100	300		
212-28-317	MGFVR 420R10 20-36	MGMN400	20	20	125	99	123	30.3	10	20	36	NLJ0520	L4.0
212-28-319	MGFVR 420R15 20-36		20	20	125	99	123	35.3	15	20	36		
212-28-321	MGFVR 420R10 30-50		20	20	125	99	123	30.3	10	30	50		
212-28-323	MGFVR 420R15 30-50		20	20	125	99	123	35.3	15	30	50		
212-28-325	MGFVR 420R10 40-80	MGMN200	20	20	125	99	123	30.3	10	40	80	NLJ0625	L5.0
212-28-327	MGFVR 420R15 40-80		20	20	125	99	123	35.3	15	40	80		
212-28-329	MGFVR 420R10 70-120		20	20	125	98	123	30.3	10	70	120		
212-28-331	MGFVR 420R15 70-120		20	20	125	98	123	35.3	15	70	120		
212-28-333	MGFVR 420R10 100-300	MGMN250	20	20	125	98	123	30.3	10	100	300	NLJ0625	L5.0
212-28-335	MGFVR 420R15 100-300		20	20	125	98	123	35.3	15	100	300		
212-28-337	MGFVR 225R8 20-36		25	25	150	123	123	33.3	8	20	36		
212-28-339	MGFVR 225R12 20-36		25	25	150	123	123	37.3	12	20	36		
212-28-341	MGFVR 225R8 30-50	MGMN400	25	25	150	123	123	33.3	8	30	50	NLJ0625	L5.0
212-28-343	MGFVR 225R15 30-50		25	25	150	123	123	40.3	15	30	50		
212-28-345	MGFVR 225R8 40-80		25	25	150	124	124	33.3	8	40	80		
212-28-347	MGFVR 225R15 40-80		25	25	150	124	124	40.3	15	40	80		
212-28-349	MGFVR 225R8 70-120	MGMN300	25	25	150	124	124	33.3	8	70	120	NLJ0625	L5.0
212-28-351	MGFVR 225R15 70-120		25	25	150	124	124	40.3	15	70	120		
212-28-353	MGFVR 225R8 100-200		25	25	150	124	124	33.3	8	100	200		
212-28-355	MGFVR 225R15 100-200		25	25	150	124	124	40.3	15	100	200		
212-28-357	MGFVR 225R15 200-400	MGMN250	25	25	150	124	124	40.3	15	200	400	NLJ0625	L5.0
212-28-359	MGFVR 2.525R8 20-36		25	25	150	123	123	33.3	8	20	36		

MGFVR

Face Grooving Toolholders

MGMN250/300/400 Series

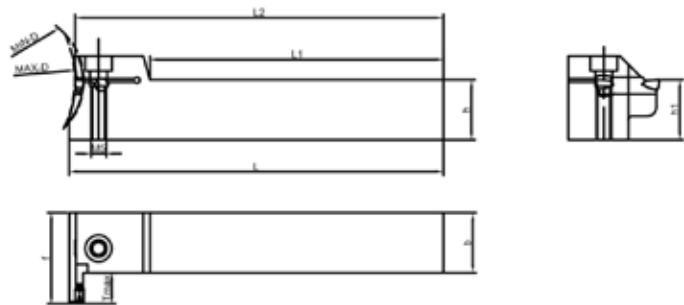
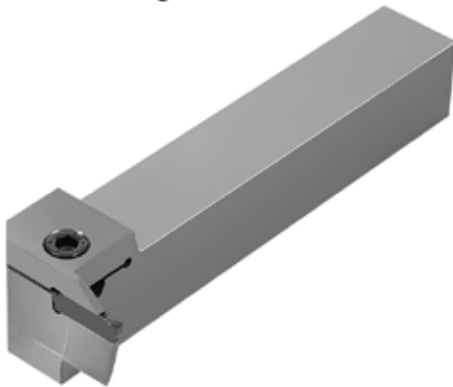


Order No	Designation	Inserts	Dimension (mm)									Spare Parts	
			h	b	L	L1	L2	f	T _{MAX}	D _{min}	D _{max}	NLJ	Key
212-28-361	MGFVR 2.525R12 20-36	MGMN250	25	25	150	123	148	37.3	12	20	36	NLJ0625	L5.0
212-28-363	MGFVR 2.525R8 30-50		25	25	150	123	148	33.3	8	30	50		
212-28-365	MGFVR 2.525R15 30-50		25	25	150	123	148	40.3	15	30	50		
212-28-367	MGFVR 2.525R8 40-80		25	25	150	124	149	33.3	8	40	80		
212-28-369	MGFVR 2.525R15 40-80	MGMN300	25	25	150	124	149	40.3	15	40	80	NLJ0625	L5.0
212-28-371	MGFVR 2.525R8 70-120		25	25	150	124	149	33.3	8	70	120		
212-28-373	MGFVR 2.525R15 70-120		25	25	150	124	149	40.3	15	70	120		
212-28-375	MGFVR 2.525R8 100-200		25	25	150	124	149	33.3	8	100	200		
212-28-377	MGFVR 2.525R15 100-200	MGMN400	25	25	150	124	149	40.3	15	100	200	NLJ0625	L5.0
212-28-379	MGFVR 2.525R15 200-400		25	25	150	124	149	40.3	15	200	400		
212-28-381	MGFVR 325R10 20-36		25	25	150	123	148	35.3	10	20	36		
212-28-383	MGFVR 325R15 20-36		25	25	150	123	148	40.3	15	20	36		
212-28-385	MGFVR 325R10 30-50	MGMN250	25	25	150	123	148	35.3	10	30	50	NLJ0625	L5.0
212-28-387	MGFVR 325R15 30-50		25	25	150	123	148	40.3	15	30	50		
212-28-389	MGFVR 325R10 40-80		25	25	150	123	148	35.3	10	40	80		
212-28-391	MGFVR 325R15 40-80		25	25	150	123	148	40.3	15	40	80		
212-28-393	MGFVR 325R10 70-120	MGMN300	25	25	150	123	148	35.3	10	70	120	NLJ0625	L5.0
212-28-395	MGFVR 325R15 70-120		25	25	150	123	148	40.3	15	70	120		
212-28-397	MGFVR 325R10 100-200		25	25	150	124	149	35.3	10	100	200		
212-28-399	MGFVR 325R15 100-200		25	25	150	124	149	40.3	15	100	200		
212-28-401	MGFVR 325R10 200-400	MGMN400	25	25	150	124	149	35.3	10	200	400	NLJ0625	L5.0
212-28-403	MGFVR 325R15 200-400		25	25	150	124	149	40.3	15	200	400		
212-28-405	MGFVR 425R10 20-36		25	25	150	123	148	35.3	10	20	36		
212-28-407	MGFVR 425R15 20-36		25	25	150	123	148	40.3	15	20	36		
212-28-409	MGFVR 425R10 30-50	MGMN250	25	25	150	123	148	35.3	10	30	50	NLJ0625	L5.0
212-28-411	MGFVR 425R15 30-50		25	25	150	123	148	40.3	15	30	50		

MGFVR

Face Grooving Toolholders

MGMN400/500 Series

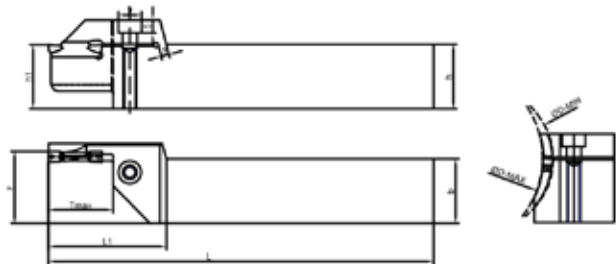


Order No	Designation	Inserts	Dimension (mm)									Spare Parts	
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212-28-413	MGFVR 425R10 40-80	MGMN400	25	25	150	123	148	35.3	10	40	80	NLJ0625	L5.0
212-28-415	MGFVR 425R15 40-80		25	25	150	123	148	40.3	15	40	80		
212-28-417	MGFVR 425R10 70-120		25	25	150	123	148	35.3	10	70	120		
212-28-419	MGFVR 425R15 70-120		25	25	150	123	148	40.3	15	70	120		
212-28-421	MGFVR 425R10 100-200		25	25	150	124	149	35.3	10	100	200		
212-28-423	MGFVR 425R15 100-200		25	25	150	124	149	40.3	15	100	200		
212-28-425	MGFVR 425R10 200-400		25	25	150	124	149	35.3	10	200	400		
212-28-427	MGFVR 425R15 200-400		25	25	150	124	149	40.3	15	200	400		
212-28-429	MGFVR 525R10 30-50	MGMN500	25	25	150	123	149	35.3	10	30	50	NLJ0625	L5.0
212-28-431	MGFVR 525R15 30-50		25	25	150	123	149	40.3	15	30	50		
212-28-433	MGFVR 525R10 40-80		25	25	150	123	148	35.3	10	40	80		
212-28-435	MGFVR 525R15 40-80		25	25	150	123	148	40.3	15	40	80		
212-28-437	MGFVR 525R10 70-120		25	25	150	123	148	35.3	10	70	120		
212-28-439	MGFVR 525R15 70-120		25	25	150	123	148	40.3	15	70	120		
212-28-441	MGFVR 525R10 100-200		25	25	150	123	148	35.3	10	100	200		
212-28-443	MGFVR 525R15 100-200		25	25	150	123	148	40.3	15	100	200		
212-28-445	MGFVR 525R10 200-400		25	25	150	124	149	35.3	10	200	400		
212-28-447	MGFVR 525R15 200-400		25	25	150	124	149	40.3	15	200	400		

MGHH

Face Grooving Toolholders

MGMN300/400 Series

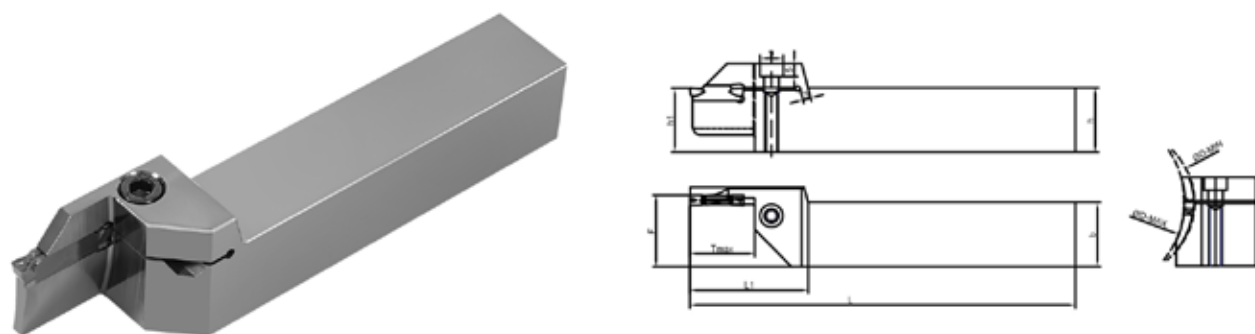


Order No	Designation	Inserts	Dimension (mm)								Spare Parts	
			h	b	L	L1	F	T _{MAX}	D _{min}	D _{max}	NLJ	Key
212-28-449	MGHH320R18-25-50	MGMN300	20	20	125	40	21.8	18	25	50	NLJ0520	L4.0
212-28-451	MGHH320R20-50-80		20	20	125	40	21.8	20	50	80		
212-28-453	MGHH320R25-80-160		20	20	125	45	21.8	25	80	160		
212-28-455	MGHH320R25-160-400		20	20	125	45	21.8	25	130	400		
212-28-457	MGHH325R18-25-50		25	25	150	40	27.8	18	25	50	NLJ0625	L5.0
212-28-459	MGHH325R20-50-80		25	25	150	40	27.8	20	50	80		
212-28-461	MGHH325R25-80-160		25	25	150	45	27.8	15	80	160		
212-28-463	MGHH325R25-160-400		25	25	150	45	27.8	15	160	400		
212-28-465	MGHH420R20-25-50	MGMN400	20	20	125	40	21.8	20	25	50	NLJ0520	L4.0
212-28-467	MGHH420R20-50-80		20	20	125	40	21.8	20	50	80		
212-28-469	MGHH420R25-80-160		20	20	125	45	21.8	15	80	160		
212-28-471	MGHH420R25-160-400		20	20	125	45	21.8	15	160	400		
212-28-473	MGHH425R20-25-50		25	25	150	40	27.8	20	25	50	NLJ0625	L5.0
212-28-475	MGHH425R25-50-80		25	25	150	45	27.8	15	50	80		
212-28-477	MGHH425R25-80-160		25	25	150	45	27.8	15	80	160		
212-28-479	MGHH425R25-160-400		25	25	150	45	27.8	15	160	400		
212-28-481	MGHH425R30-80-160		25	25	150	50	27.8	30	80	160		
212-28-483	MGHH425R30-160-400		25	25	150	50	27.8	30	160	400		
212-28-485	MGHH425R40-80-160		25	25	150	60	27.8	40	80	160		
212-28-487	MGHH425R40-160-400		25	25	150	60	27.8	40	160	400		
212-28-489	MGHH432R25-50-100		32	32	170	46	34.8	25	50	100		
212-28-491	MGHH432R25-80-200		32	32	170	46	34.8	25	80	200		
212-28-493	MGHH432R25-200-600		32	32	170	46	34.8	25	200	600		
212-28-495	MGHH432R30-80-200		32	32	170	51	34.8	30	80	200		
212-28-497	MGHH432R30-200-600		32	32	170	51	34.8	30	200	600		
212-28-499	MGHH432R40-80-200		32	32	170	61	34.8	40	80	200		
212-28-501	MGHH432R40-80-600		32	32	170	61	34.8	40	200	600		

MGHH

Face Grooving Toolholders

MGMN500 Series

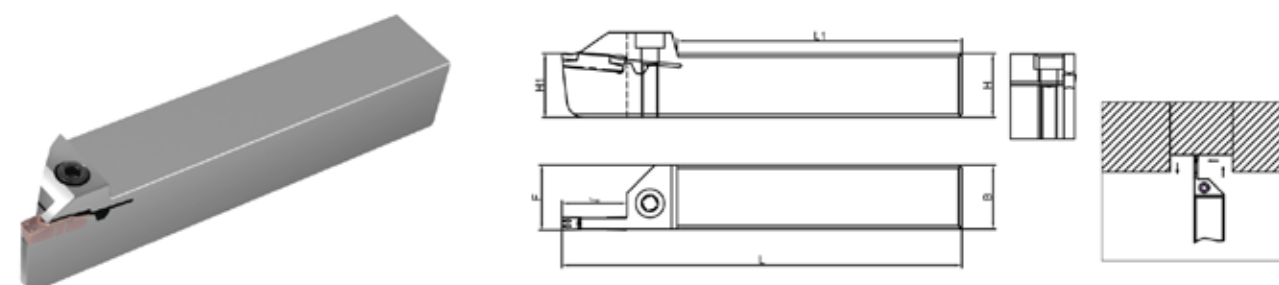


Order No	Designation	Inserts	Dimension (mm)								Spare Parts	
			h	b	L	L1	F	T _{MAX}	D _{min}	D _{max}	NLJ	Key
212-28-503	MGHH520R20-25-50	MGMN500	20	20	125	40	21.8	20	25	50	NLJ0520	L4.0
212-28-505	MGHH520R25-50-80		20	20	125	40	21.8	25	50	80		
212-28-507	MGHH520R25-80-160		20	20	125	40	21.8	25	80	160		
212-28-509	MGHH520R25-160-400		20	20	125	45	21.8	25	160	400		
212-28-511	MGHH525R20-25-50		25	25	150	40	27.8	20	25	50		
212-28-513	MGHH525R25-50-80		25	25	150	45	27.8	25	50	80	NLJ0625	L5.0
212-28-515	MGHH525R25-80-160		25	25	150	45	27.8	25	80	160		
212-28-517	MGHH525R25-160-400		25	25	150	45	27.8	25	160	400		
212-28-519	MGHH525R30-80-160		25	25	150	50	27.8	30	80	160		
212-28-521	MGHH525R30-160-400		25	25	150	50	27.8	30	160	400		
212-28-523	MGHH525R40-80-160		25	25	150	50	27.8	40	80	160		
212-28-525	MGHH525R40-160-400		25	25	150	50	27.8	40	160	400		
212-28-527	MGHH532R25-50-100		32	32	170	46	34.8	25	50	100		
212-28-529	MGHH532R25-80-200		32	32	170	46	34.8	25	80	200		
212-28-531	MGHH532R25-200-600		32	32	170	46	34.8	25	200	600		
212-28-533	MGHH532R30-80-200		32	32	170	51	34.8	30	80	200		
212-28-535	MGHH532R30-200-600		32	32	170	51	34.8	30	200	600		
212-28-537	MGHH532R40-80-200		32	32	170	61	34.8	40	80	200		
212-28-539	MGHH532R40-200-600		32	32	170	61	34.8	40	200	600		
212-28-541	MGHH532R50-80-200		32	32	170	71	34.8	50	80	200		
212-28-543	MGHH532R50-200-600		32	32	170	71	34.8	50	200	600		

KGMR/L

External Grooving Toolholders

GMG20/30/40/50 Series

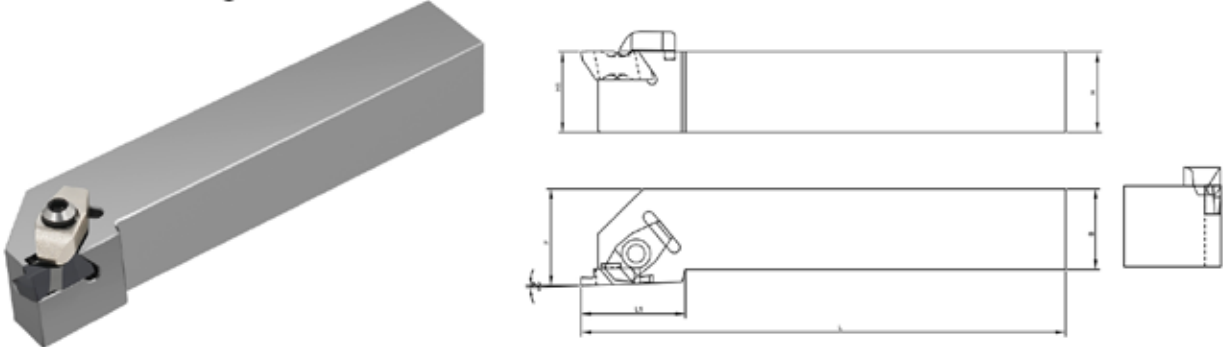


Order No	Designation	Inserts	Dimension (mm)								Spare Parts	
			H	B	L	L1	H1	F	T _{MAX}		NLJ	Key
212-31-001	KGMR 2020K-2-T6	GMG2020	20	20	125	98	20.25	20	6		NLJ0520	L4.0
212-31-003	KGMR 2020K-2-T10		20	20	125	98	20.25	20	10			
212-31-005	KGMR 2020K-2-T13		20	20	125	96	20.25	20	13			
212-31-007	KGMR 2020K-2-T17		20	20	125	92	20.25	20	17			
212-31-009	KGMR 2525M-2-T10		25	25	150	123	25.25	25	10		NLJ0625	L5.0
212-31-011	KGMR 2525M-2-T13	GMG3020	25	25	150	121	25.25	25	13			
212-31-013	KGMR 2525M-2-T17		25	25	150	117	25.25	25	17		NLJ0520	L4.0
212-31-015	KGMR 2020K-3-T10		20	20	125	98	20.35	20	10			
212-31-017	KGMR 2020K-3-T15		20	20	125	94	20.35	20	15			
212-31-019	KGMR 2020K-3-T20		20	20	125	89	20.35	20	20			
212-31-021	KGMR 2525M-3-T10	GMG4020	25	25	150	123	25.35	25	10		NLJ0625	L5.0
212-31-023	KGMR 2525M-3-T15		25	25	150	119	25.35	25	15			
212-31-025	KGMR 2525M-3-T20		25	25	150	114	25.35	25	20			
212-31-027	KGMR 2020K-4-T10		20	20	125	98	20.35	20	10		NLJ0520	L4.0
212-31-029	KGMR 2020K-4-T15		20	20	125	94	20.35	20	15			
212-31-031	KGMR 2020K-4-T20	GMG5020	20	20	125	89	20.35	20	20			
212-31-033	KGMR 2525M-4-T10		25	25	150	123	25.35	25	10		NLJ0625	L5.0
212-31-035	KGMR 2525M-4-T15		25	25	150	119	25.35	25	15			
212-31-037	KGMR 2525M-4-T20		25	25	150	114	25.35	25	20			
212-31-039	KGMR 2020K-5-T10		20	20	125	98	20.4	20	10		NLJ0520	L4.0
212-31-041	KGMR 2020K-5-T15	GMG5020	20	20	125	94	20.4	20	15			
212-31-043	KGMR 2020K-5-T20		20	20	125	89	20.4	20	20			
212-31-045	KGMR 2020K-5-T25		20	20	125	84	20.4	20	25		NLJ0625	L5.0
212-31-047	KGMR 2525M-5-T10		25	25	150	123	25.4	25	10			
212-31-049	KGMR 2525M-5-T15		25	25	150	119	25.4	25	15			
212-31-051	KGMR 2525M-5-T20		25	25	150	114	25.4	25	20			
212-31-053	KGMR 2525M-5-T25		25	25	150	109	25.4	25	25			

NSR/L

External Grooving Toolholders

NG3M Series

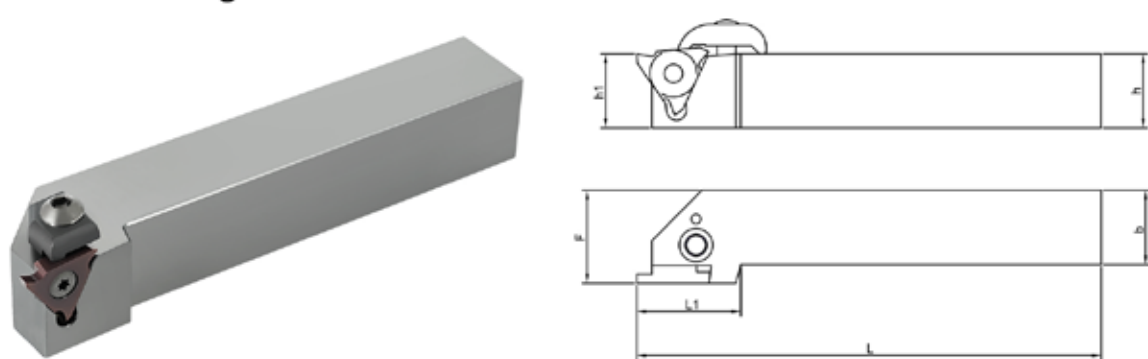


Order No		Designation	Inserts	Dimension (mm)						Spare Parts	
Right	Left			H	B	L	L1	F	TMAX	NLJ	Key
212-32-001	212-32-002	NSR/L2020K3	NG3M...RK	20	20	125	32.3	25	5	NLJ0520	L4.0
212-32-003	212-32-004	NSR/L2525M3	NG3M...LK	25	25	150	32.3	30	5		

KGBAR

External Grooving Toolholders

GBA43 Series

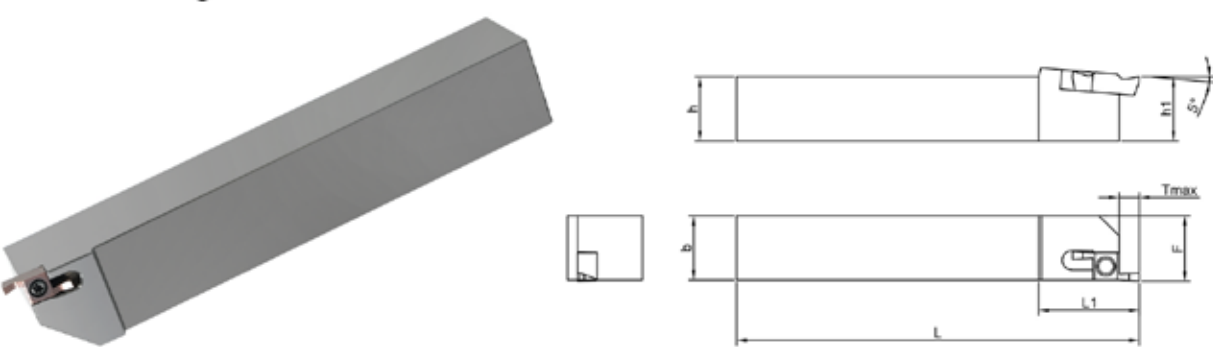


Order No		Designation	Inserts	Dimension (mm)						Spare Parts				
Right	Left			H	B	L	L1	H1	F	MYB	TH	MGT	SCREW	KEY
212-33-001	212-33-002	KGBAR/L 2020K22	GBA43	20	20	125	28	20	25	1318	0814	0620-P	M5.0-004	L4.0/T15
212-33-003	212-33-004	KGBAR/L 2525M22		16	16	150	30	25	32					

SGEL

Face Grooving Toolholders

6GR Series

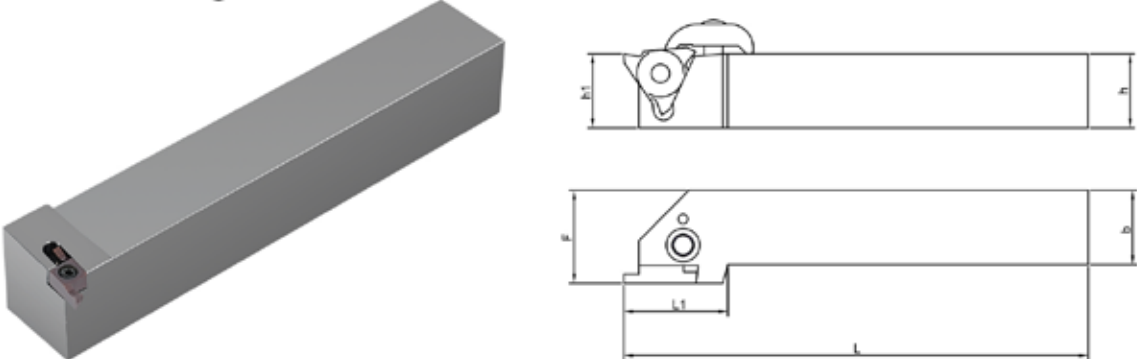


Order No	Designation	Inserts	Dimension (mm)						TMAX	Spare Parts	
			h	b	L	L1	F			Screw	Key
212-34-001	SGEL 1616H-06	06	16	16	100	25	16.3	5		M3.0-003	T8
212-34-003	SGEL 2020K-06	06	20	20	125	25	20.3	5			
212-34-005	SGEL 2525M-06	06	25	25	150	25	25.3	5			

B-SGEL

External Grooving Toolholders

6GR Series

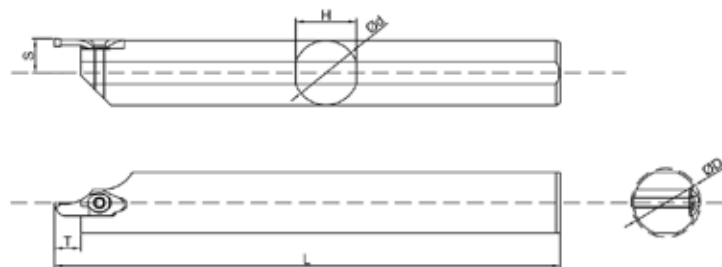


Order No	Designation	Inserts	Dimension (mm)						TMAX	Spare Parts	
			h	b	L	L1	F			Screw	Key
212-34-008	B-SGER 1616H-06	06	16	16	100	15	20.86	5		M3.0-003	T8
212-34-010	B-SGER 2020K-06	06	20	20	125	15	24.86	5			
212-34-012	B-SGER 2525M-06	06	25	25	150	15	29.86	5			

SPDR

Face Grooving Toolholders

MIFR08/10 Series

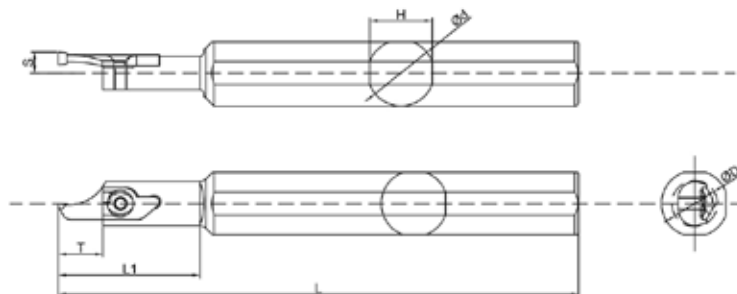
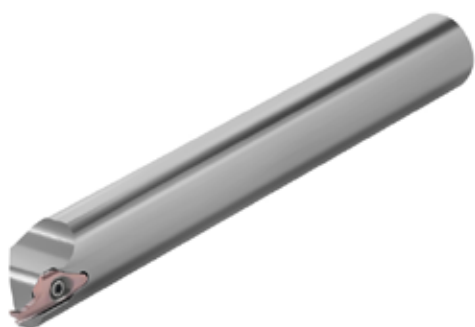


Order No	Designation	Inserts 	Dimension (mm)						Spare Parts	
			Dmin	d	L	H	T	S	 Screw	 Key
212-35-002	SPDR12H13-08	MIFR08...	13	12	100	11	6	6.5	M2.5-003	T6
212-35-004	SPDR16K17-08		17	16	125	15	6	8.5		
212-35-006	SPDR20M21-08		21	20	150	18	6	10.5		
212-35-008	SPDR12H13-10	MIFR10...	13	12	100	11	10	7	M3.0-003	T8
212-35-010	SPDR16K17-10		17	16	125	15	10	9		
212-35-012	SPDR20M21-10		21	20	150	18	10	11		

SPDR

External Grooving Toolholders

MIFR08/10 Series

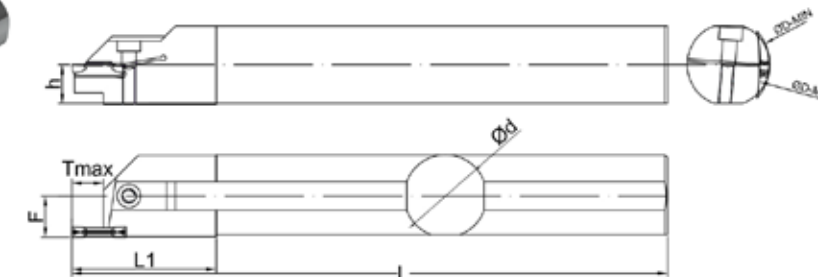


Order No	Designation	Inserts	Dimension (mm)							Spare Parts	
			Dmin	d	L	L1	H	T	S		
										Screw	Key
212-35-014	SPDR12H09-08-30	MIFR08...	9	12	100	30	11	6	4	M2.5-003	T6
212-35-016	SPDR16K09-08-34		9	16	125	34	15	6	4		
212-35-018	SPDR20M09-08-40		9	20	150	40	18	6	4		
212-35-020	SPDR12H11-10-30	MIFR10...	11	12	100	30	11	10	5	M3.0-003	T8
212-35-022	SPDR16K11-10-34		11	16	125	34	15	10	5		
212-35-024	SPDR20M11-10-40		11	20	150	40	18	10	5		

MFHR/L

Internal Face Grooving Toolholders

MGMN200/250/300/400/500 Series

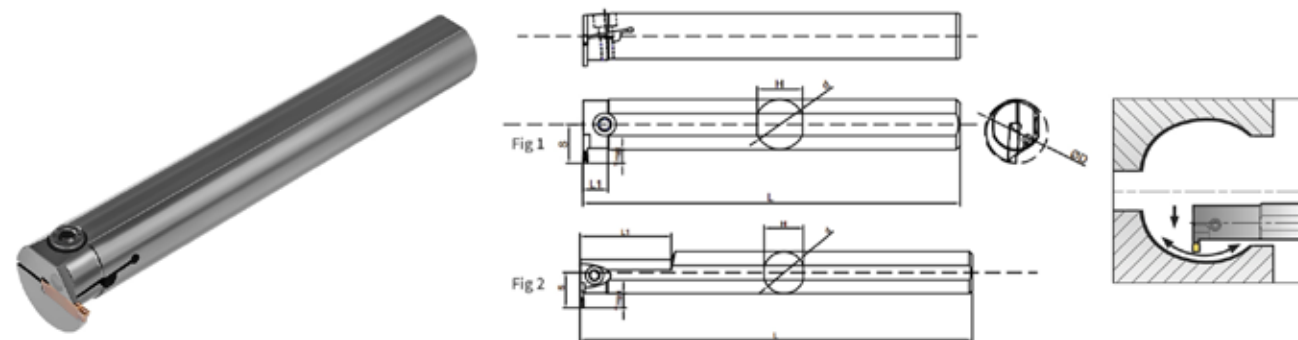


Order No	Designation	Inserts 	Dimension (mm)								Spare Parts	
			h	φd	L	L1	F	TMAX	Dmin	Dmax	 NLJ	 Key
212-28-545	MFH216Q06-25-140	MGMN200	7.5	16	180	48	6	6	25	140	NLJ0516	L4.0
212-28-547	MFH216Q08-25-140		7.5	16	180	48	6	8	25	140		
212-28-549	MFH220R06-25-140		8	20	200	60	9	6	25	140		
212-28-551	MFH220R08-25-140		8	20	200	60	9	8	25	140		
212-28-553	MFH225S06-25-140		11.5	25	250	56	11.5	6	25	140		
212-28-555	MFH225S08-25-140	MGMN250	11.5	25	250	56	11.5	8	25	140	NLJ0520	L4.0
212-28-557	MFH2.516Q06-25-140		7.5	16	180	48	6	6	25	140		
212-28-559	MFH2.516Q08-25-140		7.5	16	180	48	6	8	25	140		
212-28-561	MFH2.520R06-25-140		8	20	200	60	9	6	25	140		
212-28-563	MFH2.520R08-25-140		8	20	200	60	9	8	25	140		
212-28-565	MFH2.525S06-25-140	MGMN300	11.5	25	250	56	11.5	6	25	140	NLJ0520	L4.0
212-28-567	MFH2.525S08-25-140		11.5	25	250	56	11.5	8	25	140		
212-28-569	MFH316Q06-25-140		7.5	16	180	48	6	6	25	140		
212-28-571	MFH316Q08-25-140		7.5	16	180	48	6	8	25	140		
212-28-573	MFH320R08-25-140		8	20	200	60	9	8	25	140		
212-28-575	MFH320R10-25-140	MGMN400	8	20	200	60	9	10	25	140	NLJ0520	L4.0
212-28-577	MFH325S08-25-140		11.5	25	250	56	11.5	8	25	140		
212-28-579	MFH325S10-25-140		11.5	25	250	56	11.5	10	25	140		
212-28-581	MFH332S10-32-200		15	32	250	56	16	10	32	200		
212-28-583	MFH332S12-32-200		15	32	250	56	16	12	32	200		
212-28-585	MFH340T12-40-500	MGMN500	18	40	300	56	20	12	40	500	NLJ0625	L5.0
212-28-587	MFH420R08-25-140		8	20	200	60	9	8	25	140		
212-28-589	MFH420R12-25-140		8	20	200	60	9	8	25	140		
212-28-591	MFH425S08-25-140		11.5	25	250	56	11.5	8	25	140		
212-28-593	MFH425S10-25-140		11.5	25	250	56	11.5	10	25	140		
212-28-595	MFH425S12-25-140	MGMN500	11.5	25	250	56	11.5	12	25	140	NLJ0520	L4.0
212-28-597	MFH432S12-32-200		15	32	250	56	16	12	32	200		
212-28-599	MFH440T15-40-500		18	40	300	56	20	15	40	500		
212-28-601	MFH525S08-25-140		11.5	25	250	56	11.5	8	25	140		
212-28-603	MFH525S12-25-140		11.5	25	250	56	11.5	12	25	140		
212-28-605	MFH525S18-25-140	MGMN500	11.5	25	250	56	11.5	18	25	140	NLJ0625	L5.0
212-28-607	MFH540T15-40-500		18	40	300	56	20	15	40	500		

MGNVR/L

Internal Grooving Toolholders

MGMN150/200/300/400 Series

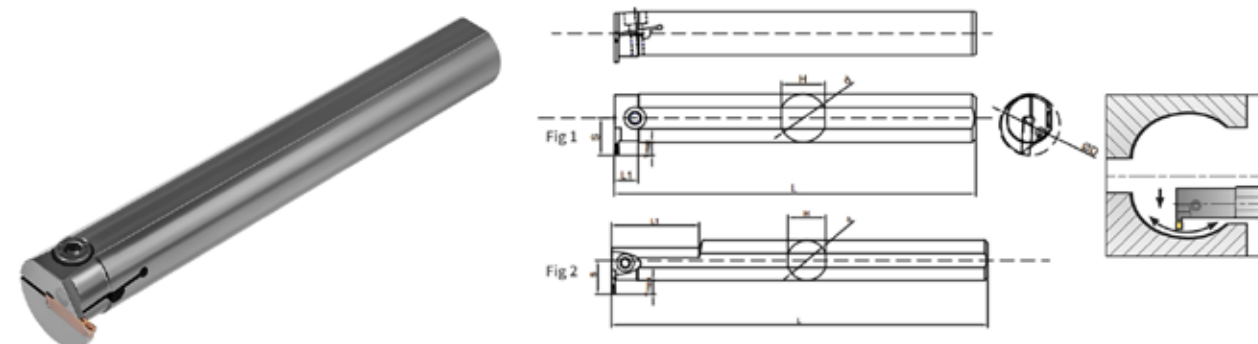


Order No		Designation	Inserts	Dimension (mm)								Spare Parts	
Right	Left			Dmin	D	L	L1	H	TMAX	S	Fig	NLJ	TSA
222-28-001	222-28-002	MGNVR/L1617M-1.5-T3-B	MGMN150	17	16	150	35	15	3	11.4	Fig2	0416	L3
222-28-003	222-28-004	MGNVR/L1618M-1.5-T4-B		18	16	150	35	15	4	12.4	Fig2		
222-28-005	222-28-006	MGNVR/L1619M-1.5-T5-B		19	16	150	35	15	5	13.4	Fig2		
222-28-007	222-28-008	MGNVR/L1620M-1.5-T6-B		20	16	150	35	15	6	14.4	Fig2		
222-28-009	222-28-010	MGNVR/L1615M-2-T3-B	MGMN200	15	16	150	30	15	3	11.4	Fig2		
222-28-011	222-28-012	MGNVR/L1616M-2-T4-B		16	16	150	30	15	4	12.4	Fig2		
222-28-013	222-28-014	MGNVR/L1617M-2-T5-B		17	16	150	30	15	5	13.4	Fig2		
222-28-015	222-28-016	MGNVR/L1618M-2-T4-B		18	16	150	35	15	4	12.4	Fig2		
222-28-017	222-28-018	MGNVR/L1619M-2-T5-B	MGMN300	19	16	150	35	15	5	13.4	Fig2		
222-28-019	222-28-020	MGNVR/L1620M-2-T6-B		20	16	150	35	15	6	14.4	Fig2		
222-28-021	222-28-022	MGNVR/L1617M-3-T3-B		17	16	150	35	15	3	11.4	Fig2		
222-28-023	222-28-024	MGNVR/L1618M-3-T4-B		18	16	150	35	15	4	12.4	Fig2		
222-28-025	222-28-026	MGNVR/L1619M-3-T5-B	MGMN400	19	16	150	35	15	5	13.4	Fig2		
222-28-027	222-28-028	MGNVR/L1620M-3-T6-B		20	16	150	35	15	6	14.4	Fig2		
222-28-029	222-28-030	MGNVR/L2025M-2-T7-B	MGMN200	25	20	150	45	18	7	17.4	Fig2	0520	L4
222-28-031	222-28-032	MGNVR/L2025M-2-T9-B		25	20	150	40	18	7	19.4	Fig2		
222-28-033	222-28-034	MGNVR/L1620M-2-T3		20	16	150	10	15	3	11.4	Fig1		
222-28-035	222-28-036	MGNVR/L1622M-2-T5		21	16	150	10	15	5	13.4	Fig1		
222-28-037	222-28-038	MGNVR/L1624M-2-T7	MGMN300	24	16	150	10	15	7	15.4	Fig1	0416	L3
222-28-039	222-28-040	MGNVR/L1624M-3-T7		24	16	150	10	15	7	15.4	Fig1		
222-28-041	222-28-042	MGNVR/L1626M-3-T9		26	16	150	10	15	9	17.4	Fig1		
222-28-043	222-28-044	MGNVR/L2026M-2-T5		26	20	150	10	18	5	15.4	Fig1		
222-28-045	222-28-046	MGNVR/L2027M-3-T6	MGMN300	27	20	150	10	18	6	16.4	Fig1	0520	L4
222-28-047	222-28-048	MGNVR/L2029M-3-T8		29	20	150	10	18	8	18.4	Fig1		
222-28-049	222-28-050	MGNVR/L2031M-3-T10		31	20	150	10	18	10	20.4	Fig1		
222-28-051	222-28-052	MGNVR/L2027M-4-T6		27	20	150	10	18	6	16.4	Fig1		

MGNVR/L

Internal Grooving Toolholders

MGMN300/400/500 Series

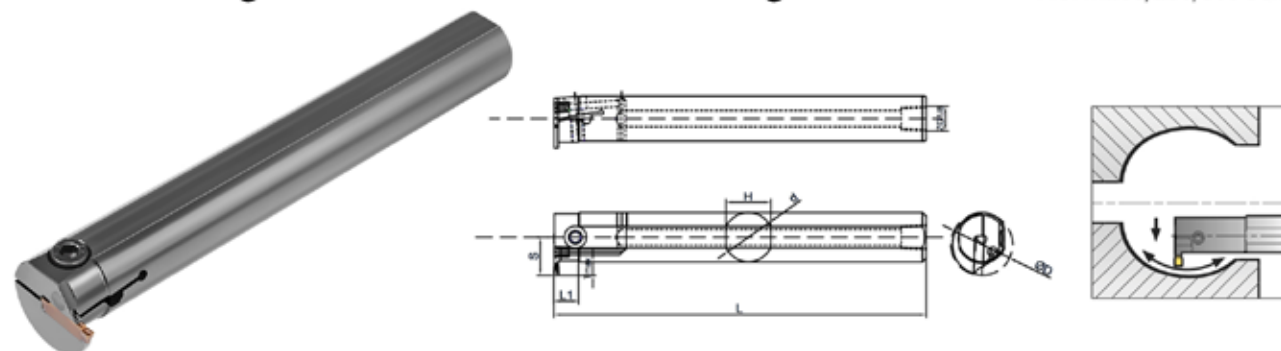


Order No		Designation	Inserts	Dimension (mm)								Spare Parts	
Right	Left			Dmin	D	L	L1	H	TMAX	S	Type	NLJ	Key
222-28-053	222-28-054	MGNVR/L2029M-4-T8	MGMN400	29	20	150	10	18	8	18.4	Fig1	0520	L4
222-28-055	222-28-056	MGNVR/L2031M-4-T10		31	20	150	10	18	10	20.4	Fig1		
222-28-057	222-28-058	MGNVR/L2532R-3-T6	MGMN300	32	20	200	10	23	5	18.9	Fig1		
222-28-059	222-28-060	MGNVR/L2534R-3-T8		34	25	200	10	23	8	20.9	Fig1		
222-28-061	222-28-062	MGNVR/L2536R-3-T10		35	25	200	10	23	10	22.9	Fig1		
222-28-063	222-28-064	MGNVR/L2538R-3-T12		38	25	200	10	23	12	24.9	Fig1		
222-28-065	222-28-066	MGNVR/L2532R-4-T6	MGMN400	32	25	200	10	23	6	18.9	Fig1		
222-28-067	222-28-068	MGNVR/L2534R-4-T8		34	25	200	10	23	8	20.9	Fig1		
222-28-069	222-28-070	MGNVR/L2536R-4-T10		36	25	200	10	23	10	22.9	Fig1		
222-28-071	222-28-072	MGNVR/L2538R-4-T12		38	25	200	10	23	12	24.9	Fig1		
222-28-073	222-28-074	MGNVR/L2532R-5-T6	MGMN500	32	25	200	10	23	6	18.9	Fig1		
222-28-075	222-28-076	MGNVR/L2534R-5-T8		34	25	200	10	23	8	20.9	Fig1		
222-28-077	222-28-078	MGNVR/L2536R-5-T10		36	25	200	10	23	10	22.9	Fig1		
222-28-079	222-28-080	MGNVR/L2538R-5-T12		38	25	200	10	23	12	24.9	Fig1		
222-28-081	222-28-082	MGNVR/L3239S-3-T6	MGMN300	39	25	250	10	29	6	22.4	Fig1		
222-28-083	222-28-084	MGNVR/L3241S-3-T8		41	25	250	10	29	8	24.4	Fig1		
222-28-085	222-28-086	MGNVR/L3243S-3-T10		43	25	250	10	29	10	26.4	Fig1		
222-28-087	222-28-088	MGNVR/L3245S-3-T12		45	32	250	10	29	12	28.4	Fig1		
222-28-089	222-28-090	MGNVR/L3239S-4-T6	MGMN400	39	32	250	10	29	6	22.4	Fig1		
222-28-091	222-28-092	MGNVR/L3241S-4-T8		41	32	250	10	29	8	24.4	Fig1		
222-28-093	222-28-094	MGNVR/L3243S-4-T10		43	32	250	10	29	10	26.4	Fig1		
222-28-095	222-28-096	MGNVR/L3245S-4-T12		45	32	250	10	29	12	28.4	Fig1		
222-28-097	222-28-098	MGNVR/L3241S-5-T8	MGMN400	41	32	250	10	29	8	24.4	Fig1		
222-28-099	222-28-100	MGNVR/L3243S-5-T10		43	32	250	10	29	10	26.4	Fig1		
222-28-101	222-28-102	MGNVR/L3245S-5-T12		45	32	250	10	29	12	28.4	Fig1		

MGNVR/L-A

Internal Grooving Toolholders with Internal Cooling

MGMN200/250/300 Series

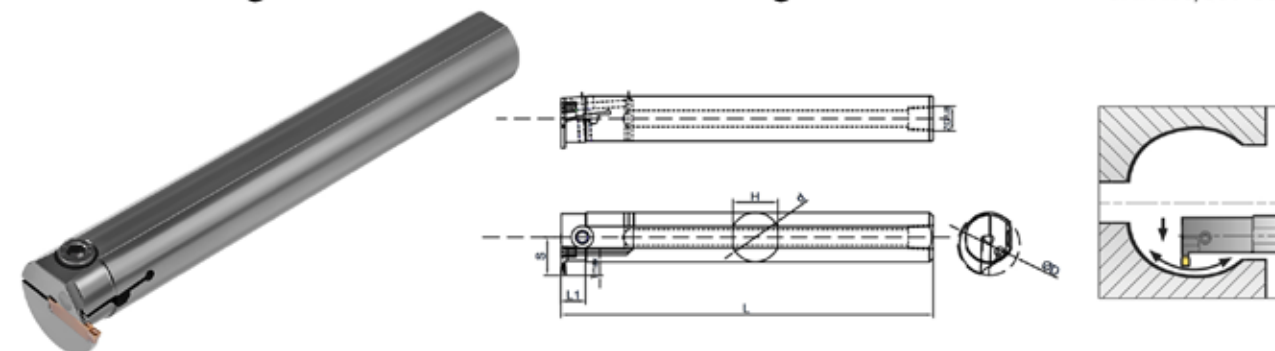


Order No		Designation	Inserts	Dimension (mm)							Spare Parts		Cooling Hole
Right	Left			Dmin	D	L	L1	H	TMAX	S			
											NLJ	Key	
226-28-001	226-28-002	MGNVR/L1620M-2-T3-A	MGMN200	20	16	150	10	15	3	11.4	0416	L3	ZG1/8
226-28-003	226-28-004	MGNVR/L1622M-2-T5-A		22	16	150	10	15	5	13.4			
226-28-005	226-28-006	MGNVR/L1624M-2-T7-A		24	16	150	10	15	7	15.4			
226-28-007	226-28-008	MGNVR/L2026M-2-T5-A		26	20	150	10	18	5	15.4	0520	L4	
226-28-009	226-28-010	MGNVR/L2028M-2-T7-A		28	20	150	10	18	7	17.4			
226-28-011	226-28-012	MGNVR/L2030M-2-T9-A		30	20	150	10	18	9	19.4			
226-28-013	226-28-014	MGNVR/L1622M-2.5-T5-A	MGMN250	22	16	150	10	15	5	13.4	0416	L3	
226-28-015	226-28-016	MGNVR/L1624M-2.5-T7-A		24	16	150	10	15	7	15.4			
226-28-017	226-28-018	MGNVR/L1626M-2.5-T9-A		26	16	150	10	15	9	17.4			
226-28-019	226-28-020	MGNVR/L2027M-2.5-T6-A		27	20	150	10	18	6	16.4	0520	L4	
226-28-021	226-28-022	MGNVR/L2029M-2.5-T8-A		29	20	150	10	18	8	18.4			
226-28-023	226-28-024	MGNVR/L2031M-2.5-T10-A		31	20	150	10	18	10	20.4			
226-28-025	226-28-026	MGNVR/L1622M-3-T5-A	MGMN300	22	16	150	10	15	5	13.4	0416	L3	
226-28-027	226-28-028	MGNVR/L1624M-3-T7-A		24	16	150	10	15	7	15.4			
226-28-029	226-28-030	MGNVR/L1626M-3-T9-A		26	16	150	10	15	9	17.4			
226-28-031	226-28-032	MGNVR/L2027M-3-T6-A		27	20	150	10	18	6	16.4	0520	L4	
226-28-033	226-28-034	MGNVR/L2029M-3-T8-A		29	20	150	10	18	8	18.4			
226-28-035	226-28-036	MGNVR/L2031M-3-T10-A		31	20	150	10	18	10	20.4			
226-28-037	226-28-038	MGNVR/L2532R-3-T6-A		32	25	200	10	23	6	18.9			
226-28-039	226-28-040	MGNVR/L2534R-3-T8-A		34	25	200	10	23	8	20.9			
226-28-041	226-28-042	MGNVR/L2536R-3-T10-A		36	25	200	10	23	10	22.9			
226-28-043	226-28-044	MGNVR/L2538R-3-T12-A		38	25	200	10	23	12	24.9			
226-28-045	226-28-046	MGNVR/L3239S-3-T6-A		39	32	250	10	29	6	22.4			
226-28-047	226-28-048	MGNVR/L3241S-3-T8-A		41	32	250	10	20	8	24.4			
226-28-049	226-28-050	MGNVR/L3243S-3-T10-A	43	32	250	10	29	10	26.4				
226-28-051	226-28-052	MGNVR/L3245S-3-T12-A	45	32	250	10	29	12	28.4				

MGNVR/L-A

Internal Grooving Toolholders with Internal Cooling

GMN400/500 Series



Order No		Designation	Inserts	Dimension (mm)							Spare Parts		Cooling Hole
Right	Left			Dmin	D	L	L1	H	TMAX	S			
226-28-053	226-28-054	MGNVR/L2532R-4-T6-A	MGMN400	32	25	200	10	23	6	18.9	0520	L4	ZG1/8
226-28-055	226-28-056	MGNVR/L2534R-4-T8-A		34	25	200	10	23	8	20.9			
226-28-057	226-28-058	MGNVR/L2536R-4-T10-A		36	25	200	10	23	10	22.9			
226-28-059	226-28-060	MGNVR/L2538R-4-T12-A		38	25	200	10	23	12	24.9			
226-28-061	226-28-062	MGNVR/L3239S-4-T6-A		39	32	250	10	29	6	22.4			
226-28-063	226-28-064	MGNVR/L3241S-4-T8-A		41	32	250	10	29	8	24.4			
226-28-065	226-28-066	MGNVR/L3243S-4-T10-A		43	32	250	10	29	10	26.4			
226-28-067	226-28-068	MGNVR/L3245S-4-T12-A		45	32	250	10	29	12	28.4			
226-28-069	226-28-070	MGNVR/L2532R-5-T6-A	MGMN500	32	25	200	10	23	6	18.9			
226-28-071	226-28-072	MGNVR/L2534R-5-T8-A		34	25	200	10	23	8	20.9			
226-28-073	226-28-074	MGNVR/L2536R-5-T10-A		36	25	200	10	23	10	22.9			
226-28-075	226-28-076	MGNVR/L2538R-5-T12-A		38	25	200	10	23	12	24.9			
226-28-077	226-28-078	MGNVR/L3241S-5-T8-A		41	32	250	10	29	8	24.4			
226-28-079	226-28-080	MGNVR/L3243S-5-T10-A		43	32	250	10	29	10	26.4			
226-28-081	226-28-082	MGNVR/L3245S-5-T12-A		45	32	250	10	29	12	28.4			
226-28-083	226-28-084	MGNVR/L3249S-5-T16-A		49	32	250	10	29	16	32.4			

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HARLINGEN®

THREADING TOOLHOLDER

SNR SNR-A
SER/L SER/L-A
DER/L-A SERIES

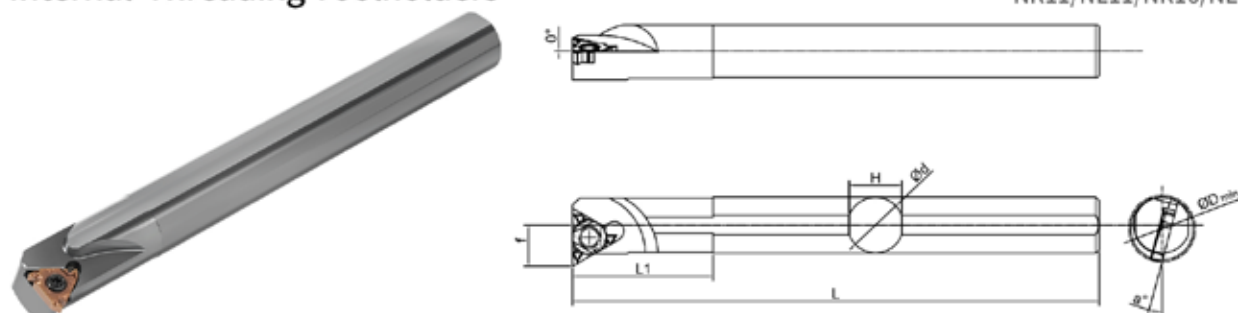


Think Cutting, Think HARLINGEN!

SNR

Internal Threading Toolholders

NR11/NL11/NR16/NL16 Series

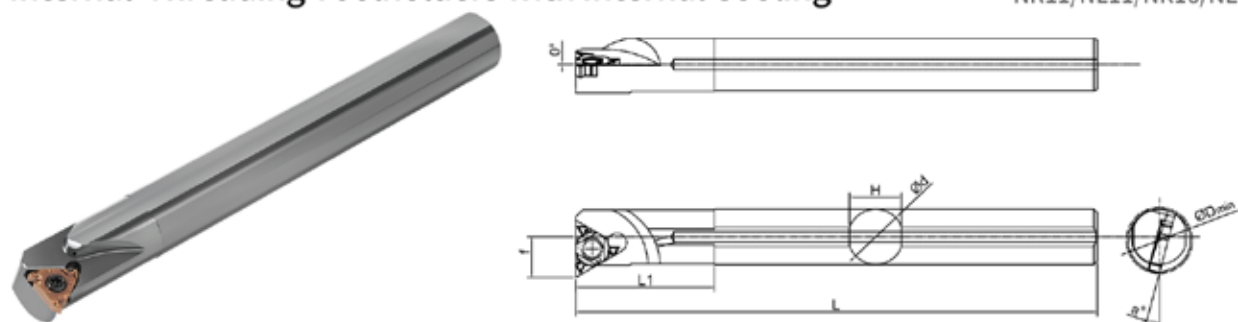


Order No	Designation	Inserts	Dimension (mm)							Spare Parts		
			ΦD _{min}	Φd	H	L	L1	F	a°			
222-17-025	SNR0010K11	NR/L11	13	10	9	125	22	7.2	15		M2.5-003	T8
222-17-027	SNR0012M11		15	12	11	150	22	8.0	15			
222-17-005	SNR0016M16	NR/L16	19	16	15	150	40	11.7	15		M3.5-003	T15
222-17-029	SNR0016Q16		19	16	15	180	40	11.7	15			
222-17-007	SNR0020Q16		24	20	18	180	40	13.7	21			
222-17-009	SNR0025R16		29	25	23	200	45	16.2	21			
222-17-011	SNR0032S16		36	32	29	250	60	19.7	15			
222-17-013	SNR0040T16		44	40	37	300	60	23.7	21			

SNR-A

Internal Threading Toolholders with Internal Cooling

NR11/NL11/NR16/NL16 Series

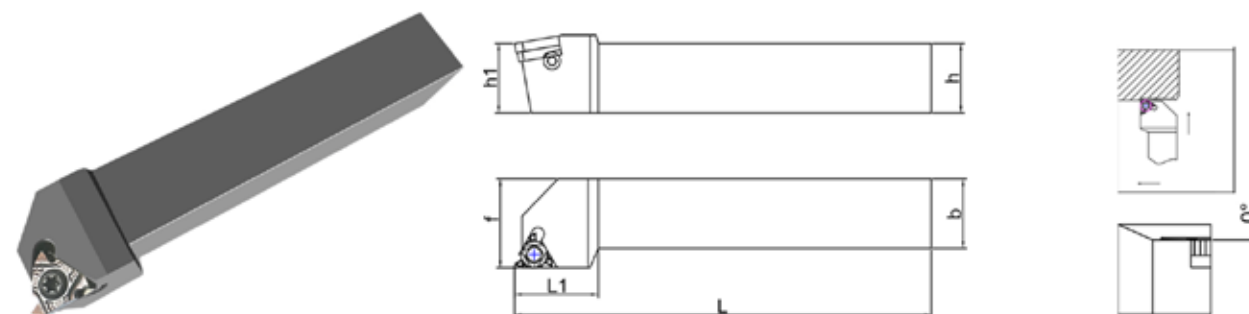


Order No	Designation	Inserts	Dimension (mm)							Spare Parts	
			ΦD _{min}	Φd	H	L	L1	f	a°		
226-17-025	SNR0010K11-A	NR/L11	13	10	9	125	22	7.2	15	M2.5-003	T8
226-17-027	SNR0012M11-A		15	12	11	150	22	8.0	15		
226-17-005	SNR0016M16-A	NR/L16	19	16	15	150	40	11.7	15	M3.5-003	T15
226-17-029	SNR0016Q16-A		19	16	15	180	40	11.7	15		
226-17-007	SNR0020Q16-A		24	20	18	180	40	13.7	21		
226-17-031	SNR0025Q16-A		29	25	23	200	45	16.2	21		

SER/L

External Threading Toolholders

ER16/EL16 Series

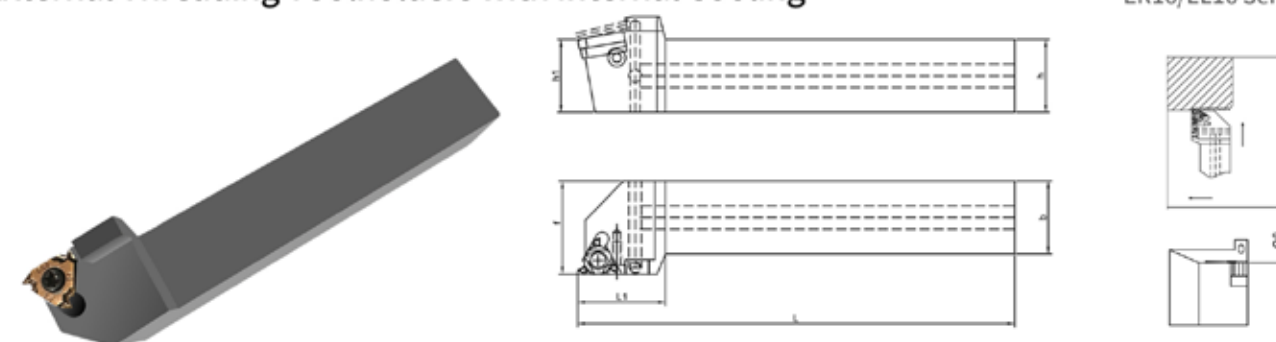


Order No		Designation	Inserts	Dimension (mm)						Spare Parts			
Right	Left			h	b	L	f	h1	L1				
212-17-017	212-17-018	SER/L-1012H16	16ER/L	10	12	100	16	10	20	N/WLW 016	M3.5*12	NLJ0308	T15 L2.0
212-17-019	212-17-020	SER/L-1212H16		12	12	100	16	12	20				
212-17-001	212-17-002	SER/L-1616H16		16	16	100	20	16	22				
212-17-003	212-17-004	SER/L-2020K16		20	20	125	25	20	25				
212-17-005	212-17-006	SER/L-2525M16		25	25	150	32	25	30				
212-17-007	212-17-008	SER/L-3232P16		32	32	170	40	32	35				

SER/L-A

External Threading Toolholders with Internal Cooling

ER16/EL16 Series

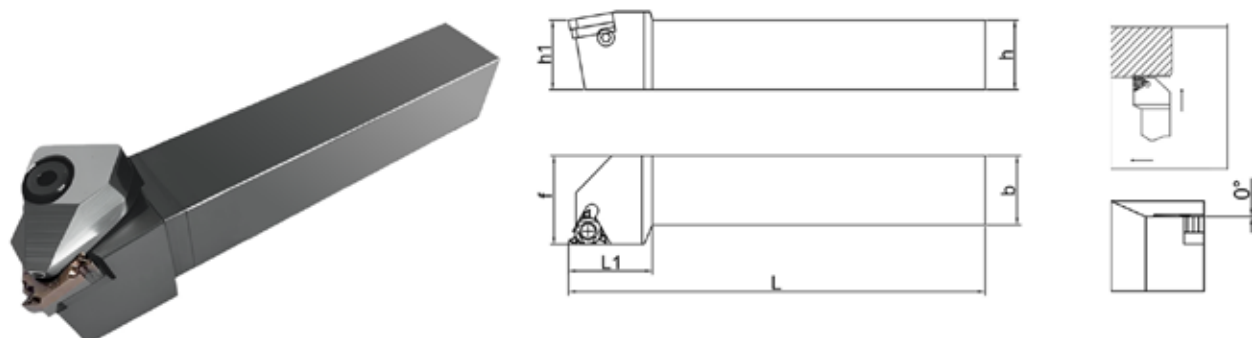


Order No		Designation	Inserts	Dimension (mm)						Spare Parts			
Right	Left			h	b	L	L1	h1	f				
216-17-003	216-17-004	SER/L-2020K16-A	16ER/L	20	20	125	28	20	25	N/WLW 016	M3.5*12	NLJ0308	T15 L2.5
216-17-005	216-17-006	SER/L-2525M16-A		25	25	150	30	25	32				
216-17-007	216-17-008	SER/L-3232P16-A		32	32	170	35	32	40				

DER/L-A

External Threading Toolholders with Internal Cooling

ER16/EL16/ER22/EL22 Series



Order No		Designation	Inserts	Dimension (mm)						Spare Parts						
Right	Left			H	b	L	L1	h1	f	N/WLW Screw	DER/L	YSX	O	MHGD	TH	TSA
212-17-021	212-17-022	DER/L-2020K16-A	16ER/L	20	20	125	30	20	25	016	DE16-R/L					
212-17-023	212-17-024	DER/L-2525M16-A		25	25	150	30	25	32		DE16-R/L					
212-17-025	212-17-026	DER/L-3232P16-A		32	32	170	35	32	40		DE16-R/L	0610	006	0520	0814	T20
212-17-027	212-17-028	DER/L-2525M22-A	22ER/L	25	25	150	35	25	32	022	DE22-R/L					
212-17-029	212-17-030	DER/L-3232P22-A		32	32	170	35	32	40		DE22-R/L					

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HARLINGEN®

TOOLHOLDER

SDNCN SVJBR/L DS-SDUCR/L DS-SVUBR/L
STXNR/L PTXNR/L LTXNR/L KTKFR/L GTDR/L
KGDR/L KGDR/L-R MGHER/L-D MGHER/L-R
SABSR/L SABWR/L TTER/L SERIES

**For processing precision small parts on
Swiss-type automatic lathe.**

- Tool-holder machined after quenching for high rigidity and precision.

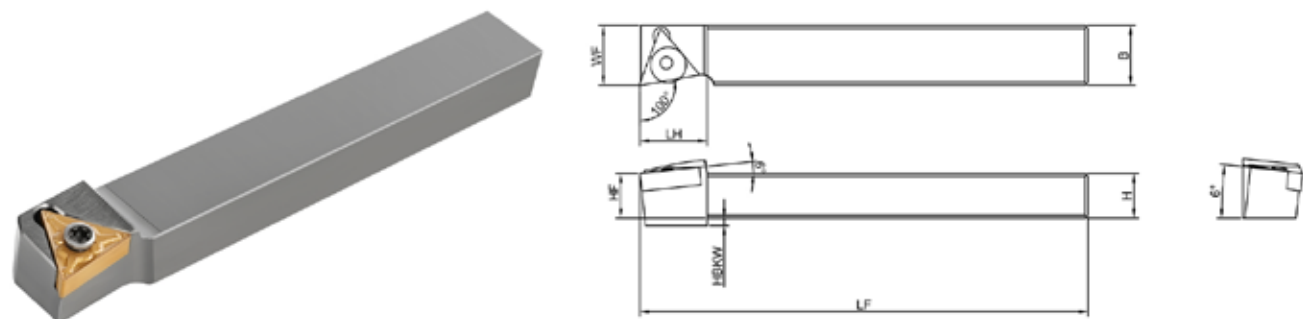


Think Cutting, Think HARLINGEN!

STXNR/L

Automatic Lathes Turning Toolholders

TN□□1604 Series

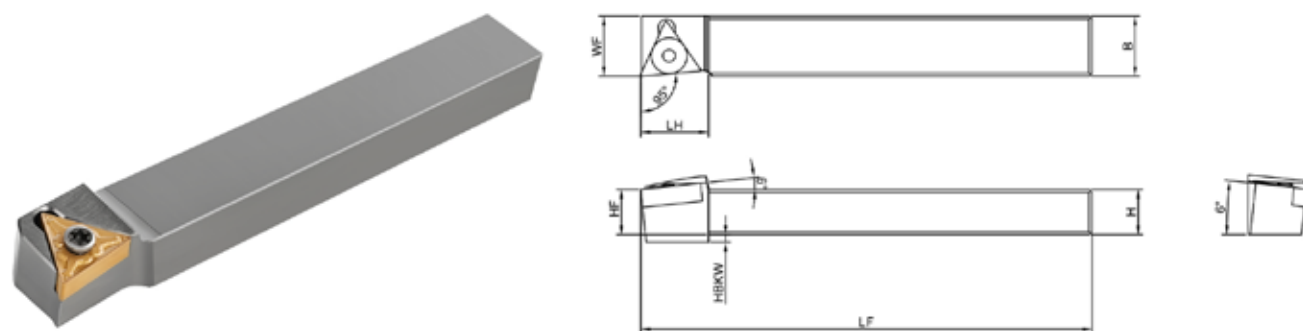


Order No		Designation	Inserts	Dimension (mm)							Spare Parts	
Right	Left			H	HF	B	LF	LH	WF	HBKW	Screw	Key
212-TN-001	212-TN-002	STXNR/L 1016X33N	TN..1604	10	10	16	120	18	16	2	M3.5-005	T15
212-TN-003	212-TN-004	STXNR/L 1216X33N		12	12	16	120	18	16	2		
212-TN-005	212-TN-006	STXNR/L 1616X33N		16	16	16	120	18	16	0		

STLNR/L

Automatic Lathes Turning Toolholders

TN□□1604 Series

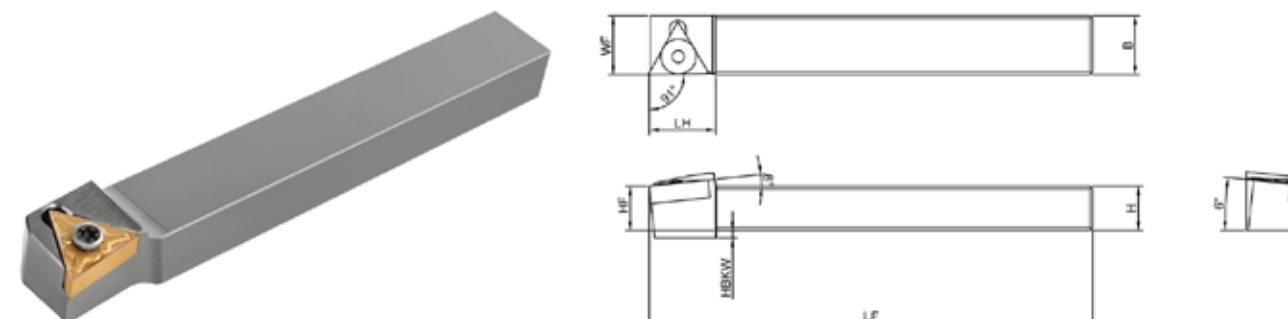


Order No		Designation	Inserts	Dimension (mm)							Spare Parts	
Right	Left			H	HF	B	LF	LH	WF	HBKW	Screw	Key
212-TN-021	212-TN-022	STLNR/L 1016X33N	TN..1604	10	10	16	120	18	16	2	M3.5-005	T15
212-TN-023	212-TN-024	STLNR/L 1216X33N		12	12	16	120	18	16	2		
212-TN-025	212-TN-026	STLNR/L 1616X33N		16	16	16	120	18	16	0		

STANR/L

Automatic Lathes Turning Toolholders

TN□□1604 Series

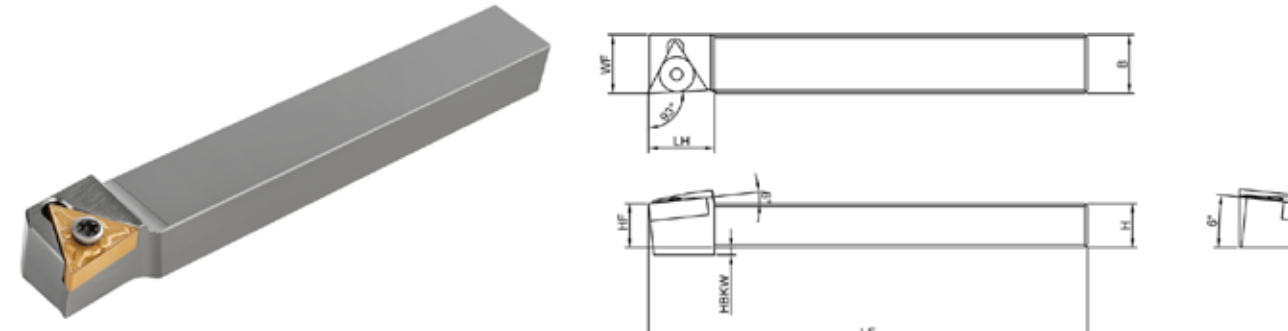


Order No		Designation	Inserts	Dimension (mm)							Spare Parts	
Right	Left			H	HF	B	LF	LH	WF	HBKW	Screw	Key
212-TN-027	212-TN-028	STANR/L 1016X33N	TN..1604	10	10	16	120	18	16	2	M3.5-005	T15
212-TN-029	212-TN-030	STANR/L 1216X33N		12	12	16	120	18	16	2		
212-TN-031	212-TN-032	STANR/L 1616X33N		16	16	16	120	18	16	0		

STJNR/L

Automatic Lathes Turning Toolholders

TN□□1604 Series

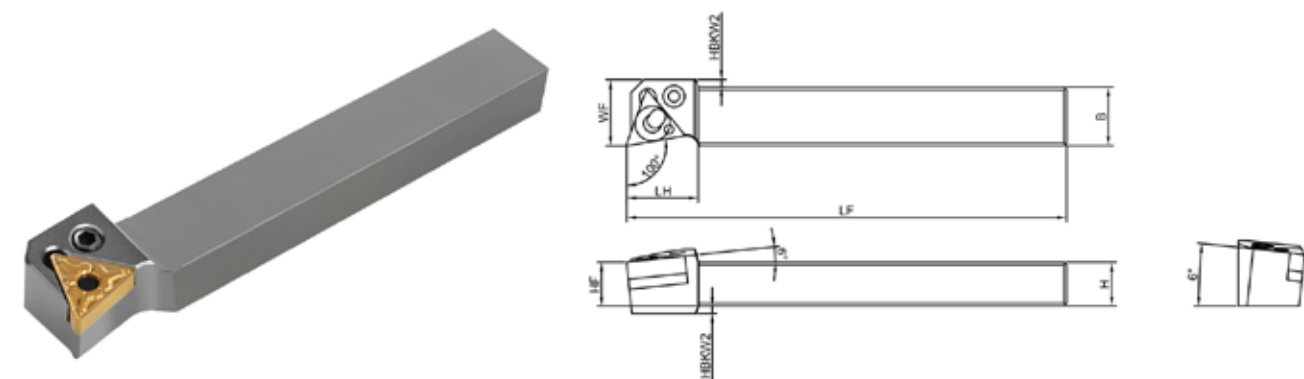


Order No		Designation	Inserts	Dimension (mm)							Spare Parts	
Right	Left			H	HF	B	LF	LH	WF	HBKW	Screw	Key
212-TN-033	212-TN-034	STJNR/L 1016X33N	TN..1604	10	10	16	120	18	16	2	M3.5-005	T15
212-TN-035	212-TN-036	STJNR/L 1216X33N		12	12	16	120	18	16	2		
212-TN-037	212-TN-038	STJNR/L 1616X33N		16	16	16	120	18	16	0		

PTXNR/L

Automatic Lathes Turning Toolholders

TN□□1604 Series

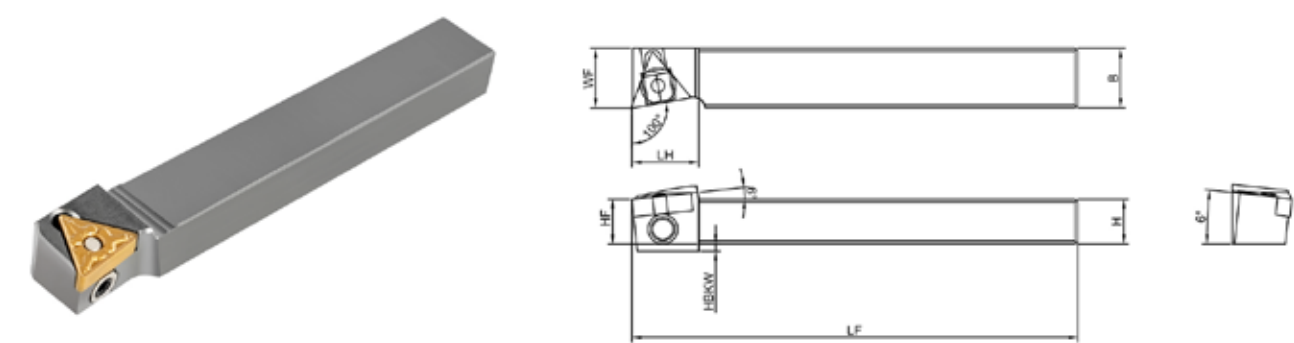


Order No		Designation	Inserts	Dimension (mm)								Spare Parts				
Right	Left			H	HF	B	LF	LH	WF	HBK W1	HBK W2	GGX	TH	NLJ-P	DX	Key
212-TN-007	212-TN-008	PTXNR/L 1016X33N	TNG(M)G1604	10	10	16	120	19.5	16	2	4	GGX 0313A	TH0505	NLJ-0610-P	DX0505	L3.0
212-TN-009	212-TN-010	PTXNR/L 1216X33N		12	12	16	120	19.5	16	2	2					
212-TN-011	212-TN-012	PTXNR/L 1616X33N		16	16	16	120	19.5	16	2	0					

LTXNR/L

Automatic Lathes Turning Toolholders

TN□□1604 Series

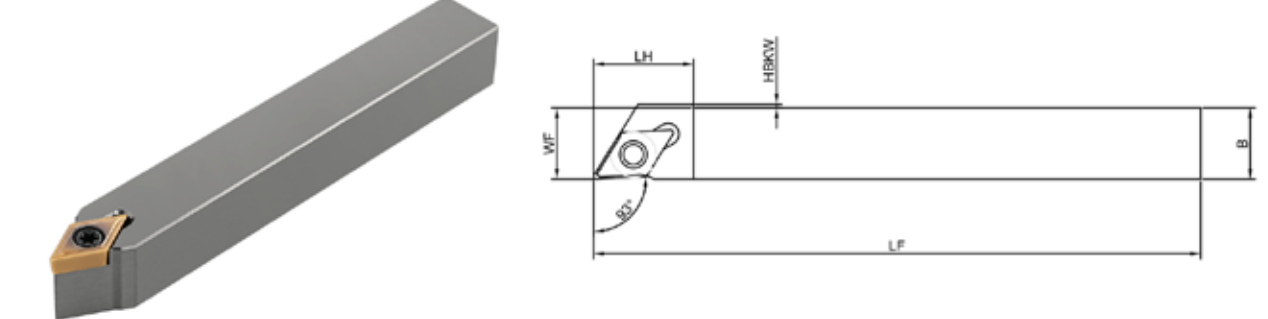


Order No		Designation	Inserts	Dimension (mm)								Spare Parts		
Right	Left			H	HF	B	LF	LH	WF	HBKW		Lever	SCREW	Key
212-TN-013	212-TN-014	LTXNR/L 1016X33N	TNG(M)G1604	10	10	16	120	18	16	2		LTX-GGX0712	ST-0514	L2.5
212-TN-015	212-TN-016	LTXNR/L 1216X33N		12	12	16	120	18	16	0				
212-TN-017	212-TN-018	LTXNR/L 1616X33N		16	16	16	120	18	16	0				

SDNCN

Automatic Lathes Turning Toolholders

DC□□0702/DC□□11T3 Series

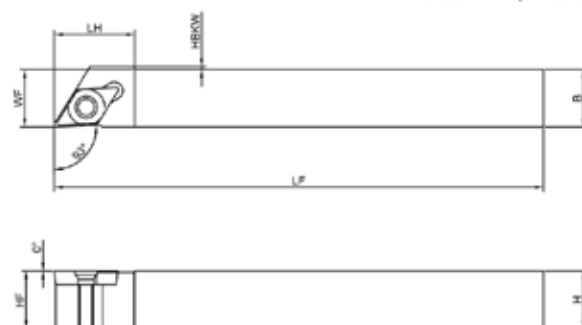
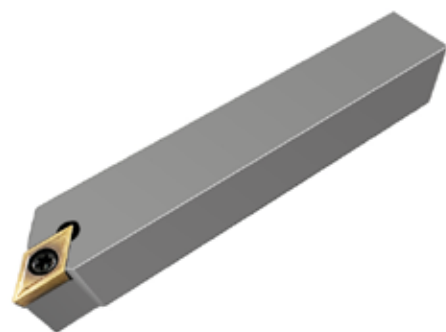


Order No	Designation	Inserts	Dimension (mm)					Spare Parts	
			H	HF	B	LF	a°	Screw	Key
212-DC-001	SDNCN 1010F-07	DCG(M)T0702	10	10	10	85	5	M2.5-001	T8
212-DC-003	SDNCN 1010F-11	DCG(M)T11T3	10	10	10	85	5	M3.5-004	T15
212-DC-005	SDNCN 1212F-11	DCG(M)T11T3	12	12	12	85	6		
212-DC-007	SDNCN 1616H-11	DCG(M)T11T3	16	16	16	100	8		
212-DC-009	SDNCN 2020K-11	DCG(M)T11T3	20	20	20	125	10	M2.5-001	T8
212-DC-011	SDNCN 2525M-11	DCG(M)T11T3	25	25	25	150	12.5		
212-DC-013	SDNCN 1010JX-07	DCG(M)T0702	10	10	10	120	5	M3.5-004	T15
212-DC-015	SDNCN 1010JX-11	DCG(M)T11T3	10	10	10	120	5		
212-DC-017	SDNCN 1212JX-11	DCG(M)T11T3	12	12	12	120	6		
212-DC-019	SDNCN 1616JX-11	DCG(M)T11T3	16	16	16	120	8		

SDJCR/L-FF

Automatic Lathes Turning Toolholders

DC□□0702/DC□□1103 Series

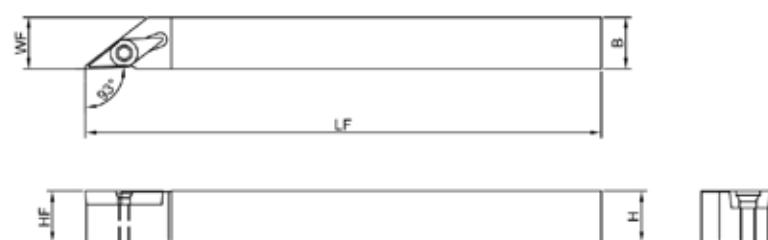
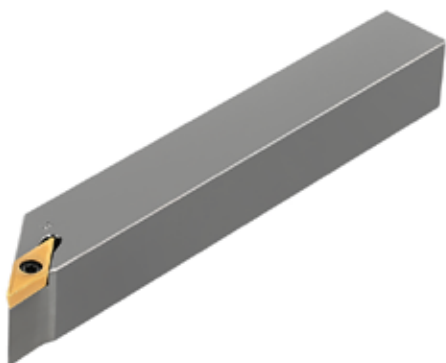


Order No		Designation	Inserts	Dimension (mm)							Spare Parts	
Right	Left			H	HF	B	LF	LH	WF	HBKW	Screw	Key
212-DC-021	212-DC-022	SDJCR/L 0808F-07FF	DCGT 0702	8	8	8	85	14	8	0.5	M2.5-001	T8
212-DC-023	212-DC-024	SDJCR/L 1010F-07FF	DCGT 0702	10	10	10	85	--	10	0		
212-DC-025	212-DC-026	SDJCR/L 1010JX-07FF	DCGT 0702	10	10	10	120	--	10	0		
212-DC-027	212-DC-028	SDJCR/L 1010F-11FF	DCGT 1103	10	10	10	85	20	10	3		
212-DC-029	212-DC-030	SDJCR/L 1212F-11FF	DCGT 1103	12	12	12	85	20	12	1	M3.5-001	T15
212-DC-031	212-DC-032	SDJCR/L 1212JX-11FF	DCGT 1103	12	12	12	120	20	12	1		
212-DC-033	212-DC-034	SDJCR/L 1616JX-11FF	DCGT 1103	16	16	16	120	--	8	0		
212-DC-035	212-DC-036	SDJCR/L 2020JX-11FF	DCGT 1103	20	20	20	120	--	10	0		

SVJBR/L-FF

Automatic Lathes Turning Holders

VB□□1103 Series

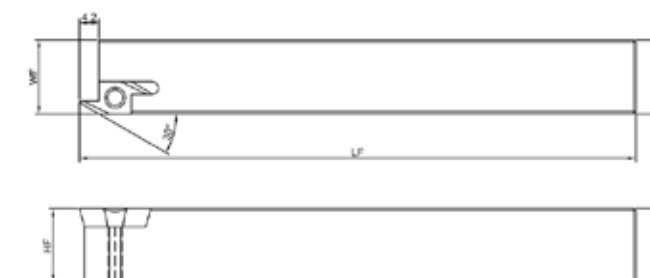


Order No		Designation	Inserts	Dimension (mm)					Spare Parts	
Right	Left			H	B	LF	WF	HF	Screw	Key
212-VB-001	212-VB-002	SVJBR/L 1010JX-11FF	VBG(M)T1103	10	10	120	10	10	M2.5-001	T8
212-VB-003	212-VB-004	SVJBR/L 1212JX-11FF		12	12	120	12	12		
212-VB-005	212-VB-006	SVJBR/L 1616JX-11FF		16	16	120	16	16		

SABSR/L

Automatic Lathes Back Turning Toolholders

ABS15R40 Series

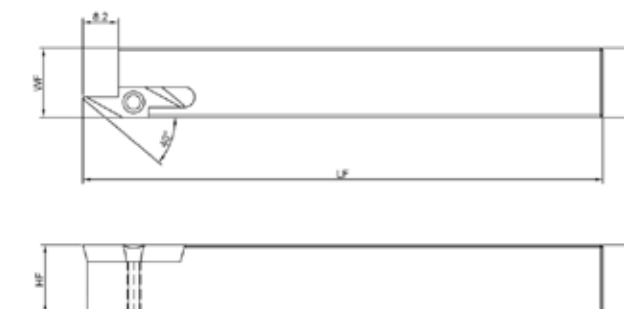


Order No		Designation	Inserts	Dimension (mm)					Spare Parts	
				H	B	LF	WF	HF	Screw	Key
212-AB-001		SABSR 1010JX-40F	ABS15R40	10	10	10	120	10	M3.0-00.3	T8
212-AB-003		SABSR 1212JX-40F		10	10	10	120	10		
212-AB-005		SABSR 1616JX-40F		12	12	12	120	12		
212-AB-007		SABSR 2020K-40F		16	16	16	120	16		

SABWR/L

Automatic Lathes Back Turning Toolholders

ABW15R40/ABW23R50 Series

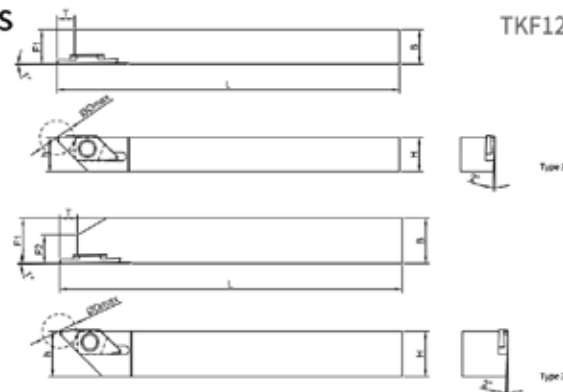
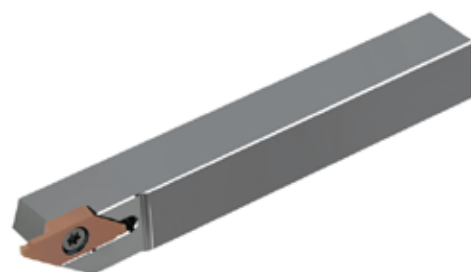


Order No		Designation	Inserts	Dimension (mm)					Spare Parts	
				H	B	LF	WF	HF	Screw	Key
212-AB-009		SABWR 1010JX-40F	ABW15R40	10	10	10	120	10	M3.0-003	T8
212-AB-011		SABWR 1212JX-40F		10	10	10	120	10		
212-AB-013		SABWR 1616JX-40F		12	12	12	120	12		
212-AB-015		SABWR 2020K-40F		16	16	16	125	16		
212-AB-017		SABWR 1010JX-50F	ABW23R50	10	10	10	120	10		
212-AB-019		SABWR 1212JX-50F		10	10	10	120	10		
212-AB-021		SABWR 1616JX-50F		12	12	12	120	12		
212-AB-023		SABWR 2020K-50F		16	16	16	125	16		

KTKFR/L

Automatic Lathes Grooving Toolholders

TKF12/TKF16 Series

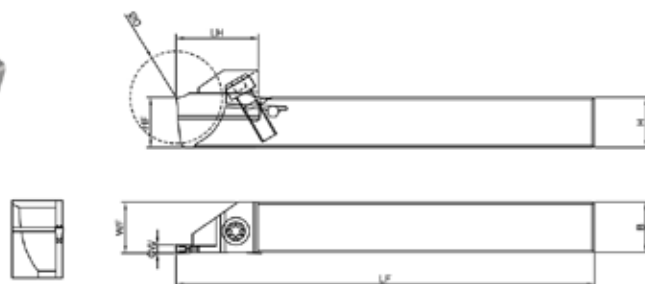
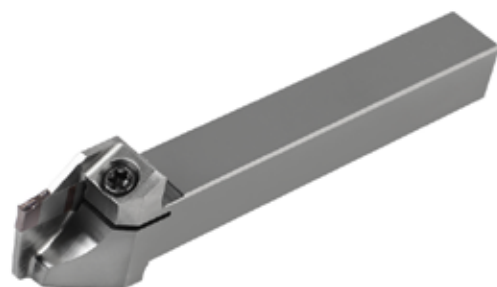


Order No		Designation	Inserts	Dimension (mm)									Spare Parts	
Right	Left			H	h	B	L	F1	F2	T	φD	Type		
													Screw	Key
212-TK-001	212-TK-002	KTKFR/L 1212JX-12	TKF12R/L	12	12	12	120	12	--	6	12	1	M4.0-004	T15
212-TK-003	212-TK-004	KTKFR/L 1616JX-12		16	16	16	120	16	10	6	12	2		
212-TK-005	212-TK-006	KTKFR/L 1212JX-16	TKF16R/L	12	12	12	120	12	--	8	16	1		
212-TK-007	212-TK-008	KTKFR/L 1616JX-16		16	16	16	120	16	10	8	16	2		
212-TK-009	212-TK-010	KTKFR/L 2020K-16		20	20	20	125	20	12	8	16	2		
212-TK-011	212-TK-012	KTKFR/L 2525M-16		25	25	25	150	25	15	8	16	2		

GTDR/L

Automatic Lathes Grooving Toolholders

GDT200/250/300 Series

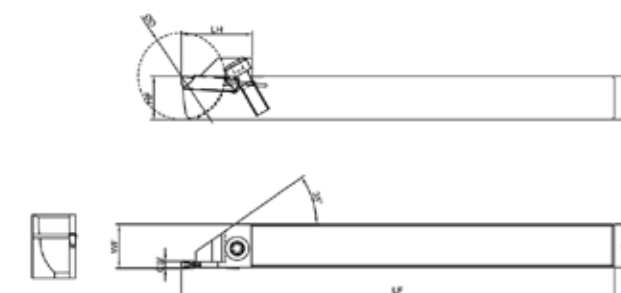
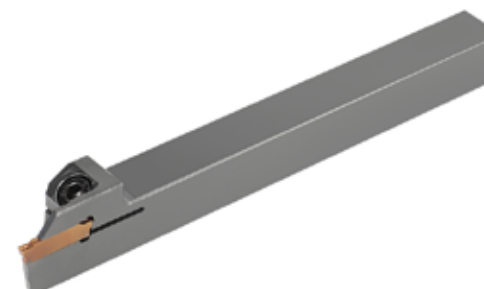


Order No		Designation	Inserts	Dimension (mm)								Spare Parts	
Right	Left			H	B	HF	LF	LH	CW	B	WF	Screw	Key
212-GD-201	212-GD-202	GTDR/L 1212JX-2D24	GDT200	24	12	12	120	19.7	2	12	12.2	MHCT0416	T15
212-GD-203	212-GD-204	GTDR/L 1212JX-2.5D24	GDT250	24	12	12	120	19.7	2.5	12	12.3		
212-GD-205	212-GD-206	GTDR/L 1212JX-3D24	GDT300	24	12	12	120	19.7	3	12	12.35		
212-GD-207	212-GD-208	GTDR/L 1616JX-2D24	GDT200	24	16	16	120	19.7	2	16	16.2		
212-GD-209	212-GD-210	GTDR/L 1616JX-2D34	GDT200	34	16	16	120	25	2	16	16.2		
212-GD-211	212-GD-212	GTDR/L 1616JX-2.5D24	GDT250	24	16	16	120	19.7	2.5	16	16.3		
212-GD-213	212-GD-214	GTDR/L 1616JX-2.5D34	GDT250	34	16	16	120	25	2.5	16	16.3		
212-GD-215	212-GD-216	GTDR/L 1616JX-3D24	GDT300	24	16	16	120	19.7	3	16	16.35		
212-GD-217	212-GD-218	GTDR/L 1616JX-3D34	GDT300	34	16	16	120	25	3	16	16.35		

MGHER/L-D

Automatic Lathes Grooving Toolholders

MGMN150/200/250/300 Series

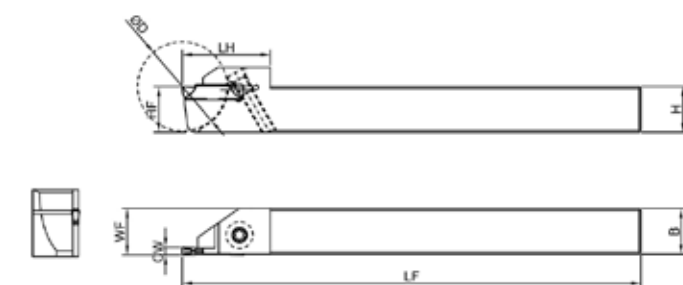
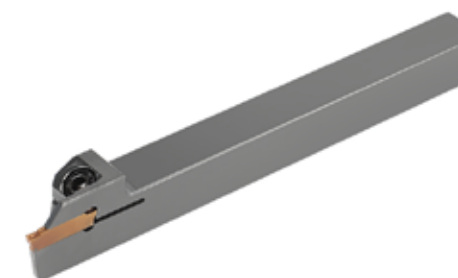


Order No		Designation	Inserts	Dimension (mm)								Spare Parts	
Right	Left			φD	H	HF	LF	LH	CW	B	WF	Screw	Key
212-MG-001	212-MG-002	MGHER/L 1212JX-1.5D16	MGMN150	16	12	12	120	19.7	1.5	12	12.2	MHCT0416	T15
212-MG-003	212-MG-004	MGHER/L 1212JX-1.5D24	MGMN150	24	12	12	120	19.7	1.5	12	12.2		
212-MG-005	212-MG-006	MGHER/L 1212JX-2D16	MGMN200	16	12	12	120	19.7	2	12	12.2		
212-MG-007	212-MG-008	MGHER/L 1212JX-2D24	MGMN200	24	12	12	120	19.7	2	12	12.2		
212-MG-009	212-MG-010	MGHER/L 1212JX-2.5D24	MGMN250	24	12	12	120	19.7	2.5	12	12.2		
212-MG-011	212-MG-012	MGHER/L 1212JX-3D24	MGMN300	24	12	12	120	19.7	3	12	13.33		
212-MG-013	212-MG-014	MGHER/L 1616JX-2D24	MGMN200	24	16	16	120	19.7	2	16	16.2		
212-MG-015	212-MG-016	MGHER/L 1616JX-2D34	MGMN200	34	16	16	120	25	2	16	16.2		
212-MG-017	212-MG-018	MGHER/L 1616JX-2.5D24	MGMN250	24	16	16	120	19.7	2.5	16	16.2		
212-MG-019	212-MG-020	MGHER/L 1616JX-2.5D34	MGMN250	34	16	16	120	25	2.5	16	16.2		
212-MG-021	212-MG-022	MGHER/L 1616JX-3D24	MGMN300	24	16	16	120	19.7	3	16	16.33		
212-MG-023	212-MG-024	MGHER/L 1616JX-3D34	MGMN300	34	16	16	120	25	3	16	16.33		

MGHER/L-R

Automatic Lathes Grooving Toolholders

MGMN200/250/300 Series

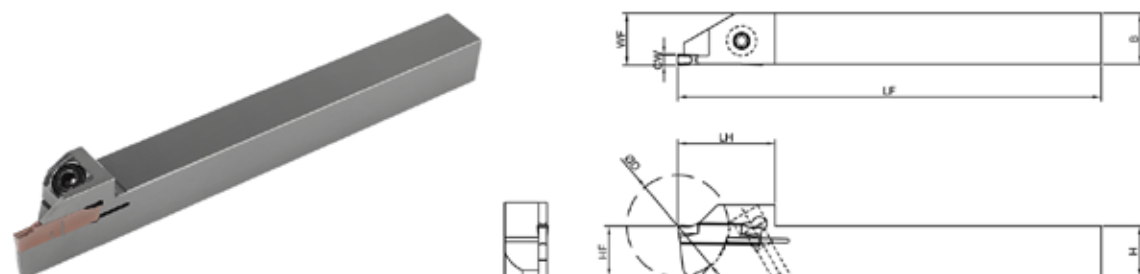


Order No		Designation	Inserts	Dimension (mm)								Spare Parts	
Right	Left			φD	H	HF	LF	LH	CW	B	WF	Screw	Key
212-MG-025	212-MG-026	MGHER/L 1212JX-2R12	MGMN200	24	12	12	120	23	2	12	12.2	DGD0416	L3.0
212-MG-027	212-MG-028	MGHER/L 1212JX-2.5R12	MGMN250	24	12	12	120	23	2.5	12	12.25		
212-MG-029	212-MG-030	MGHER/L 1212JX-3R12	MGMN300	24	12	12	120	25	3	12	12.3		

KGDR/L-D

Automatic Lathes Grooving Toolholders

GMG20/25/30 Series

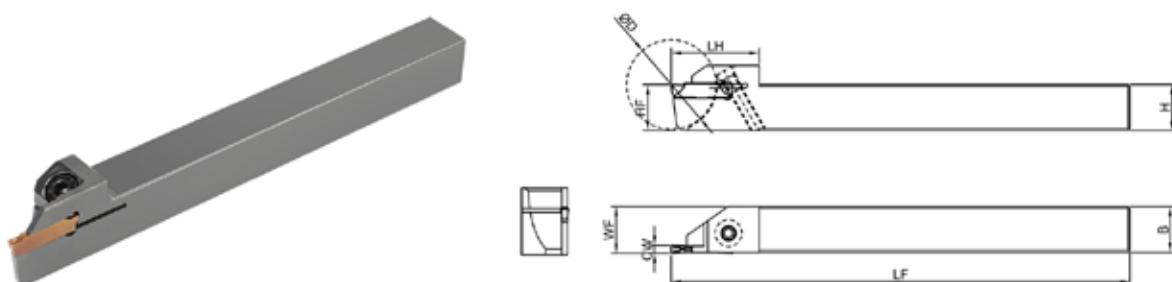


Order No		Designation	Inserts	Dimension (mm)								Spare Parts	
Right	Left			φD	H	HF	LF	LH	CW	B	WF	Screw	Key
212-GM-001	212-GM-002	KGDR/L 1212JX-2D24	GMG2020-MS	24	12	12	120	19.7	2	12	12.2	MHCT0416	T15
212-GM-003	212-GM-004	KGMR/L 1212JX-2.5D24	GMG2520-MS	24	12	12	120	19.7	2.5	12	12.25		
212-GM-005	212-GM-006	KGMR/L 1212JX-3D24	GMG3020-MS	24	12	12	120	19.7	3	12	12.35		
212-GM-007	212-GM-008	KGDR/L 1616JX-2D24	GMG2020-MS	24	16	16	120	19.7	2	16	16.2		
212-GM-009	212-GM-010	KGMR/L 1616JX-2D34	GMG2020-MS	34	16	16	120	25	2	16	16.2		
212-GM-011	212-GM-012	KGMR/L 1616JX-2.5D24	GMG2520-MS	24	16	16	120	19.7	2.5	16	16.25		
212-GM-013	212-GM-014	KGDR/L 1616JX-2.5D34	GMG2520-MS	34	16	16	120	25	2.5	16	16.25		
212-GM-015	212-GM-016	KGMR/L 1616JX-3D24	GMG3020-MS	24	16	16	120	19.7	3	16	16.35		
212-GM-017	212-GM-018	KGMR/L 1616JX-3D34	GMG3020-MS	34	16	16	120	25	3	16	16.35		

KGDR/L-R

Automatic Lathes Grooving Toolholders

GTD200/250 Series

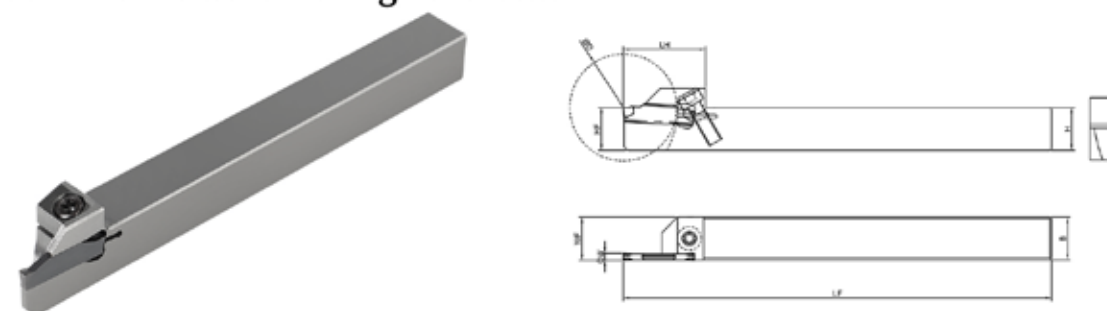


Order No		Designation	Inserts	Dimension (mm)								Spare Parts	
Right	Left			φD	H	HF	LF	LH	CW	B	WF	Screw	Key
212-GT-001	212-GT-002	KGDR/L 1212JX-2R12	GTD200	24	12	12	120	23	2	12	12.2	DGD0416	L3.0
212-GT-003	212-GT-004	KGDR/L 1212JX-2.5R12	GTD250	24	12	12	120	23	2.5	12	12.25		
212-GT-005	212-GT-006	KGDR/L 1616JX-3R12	GTD200	24	16	16	120	25	3	16	16.2		

TTER/L-D

Automatic Lathes Grooving Toolholders

TD2/TD3 Series

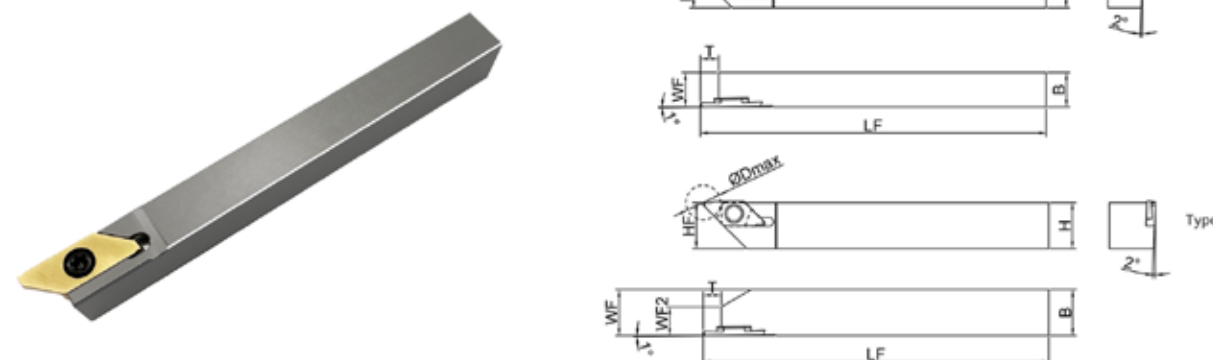


Order No		Designation	Inserts	Dimension (mm)								Spare Parts	
Right	Left			φD	H	HF	LF	LH	CW	B	WF	Screw	Key
212-TD-001	212-TD-002	TTER/L 1212JX-2D16	TD□□2□□	16	12	12	120	19.7	2	12	12.15	MHCT0416	T15
212-TD-003	212-TD-004	TTER/L 1212JX-2D24	TD□□2□□	24	12	12	120	19.7	2	12	12.15		
212-TD-005	212-TD-006	TTER/L 1212JX-3D24	TD□□3□□	24	12	12	120	19.7	3	12	12.3		
212-TD-007	212-TD-008	TTER/L 1616JX-2D24	TD□□2□□	24	16	16	120	19.7	2	16	16.15		
212-TD-009	212-TD-010	TTER/L 1616JX-2D34	TD□□2□□	34	16	16	120	25	2	16	16.15		
212-TD-011	212-TD-012	TTER/L 1616JX-3D24	TD□□3□□	24	16	16	120	19.7	3	16	16.3		
212-TD-013	212-TD-014	TTER/L 1616JX-3D34	TD□□3□□	34	16	16	120	25	3	16	16.3		

CTP

Automatic Lathes Grooving Toolholders

CTP12/CTP16 Series

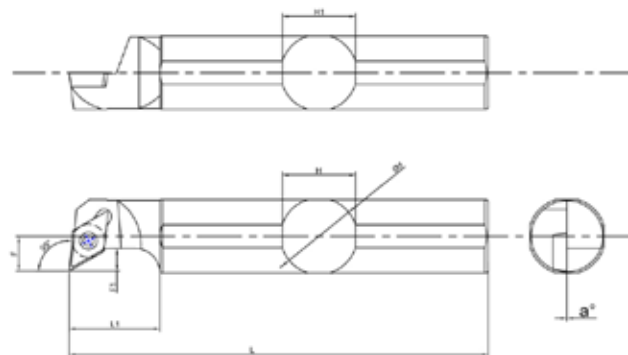
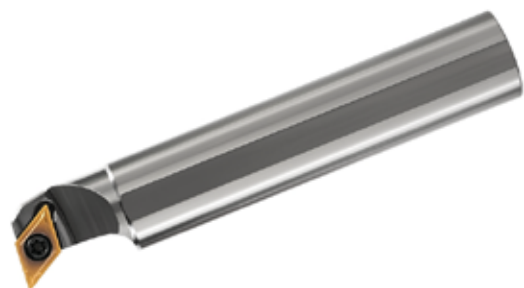


Order No		Designation	Inserts	Dimension (mm)								Spare Parts	
Right	Left			φD	H	HF	LF	B	WF	WF2	TYPE	Screw	Key
212-CT-001	212-CT-002	CTPR/L 12	CTP 12R/L	12	12	12	120	12	12.2	---	1	M4.0-001	T15
212-CT-003	212-CT-004	CTPR/L 16	CTP 12R/L	12	12	12	120	12	12.2	10	1		
212-CT-005	212-CT-006	CTPAR/L 12	CTP 16R/L	16	12	12	120	12	12.2	---	2		
212-CT-007	212-CT-008	CTPAR/L 16	CTP 16R/L	16	12	12	120	12	12.2	10	2		

DS-SDUCR/L

Automatic Lathes Back Turning Toolholders

DC□□11T3 Series

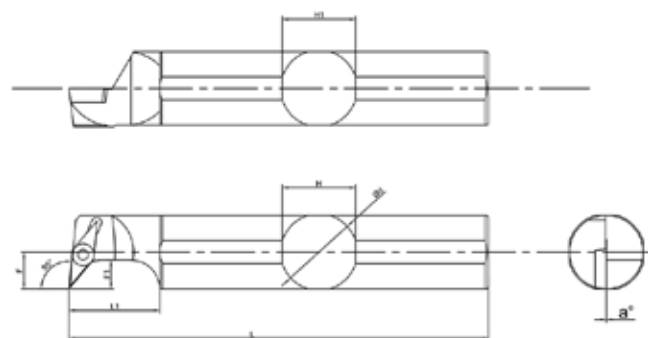


Order No		Designation	Inserts	Dimension (mm)								Spare Parts	
Right	Left			$\varnothing d$	F	F1	L	L1	H	H1	α°	Screw	Key
212-DC-037	212-DC-038	DS-SDUCR/L20-11	DCG(M)T 11T3	20	9.5	6.0	120	26	19	19	0	M3.5-004	T15
212-DC-039	212-DC-040	DS-SDUCR/L22-11		22	10	6.5	120	26	21	21	0		

DS-SVUBR/L

Automatic Lathes Back Turning Toolholders

VB□□1103 Series

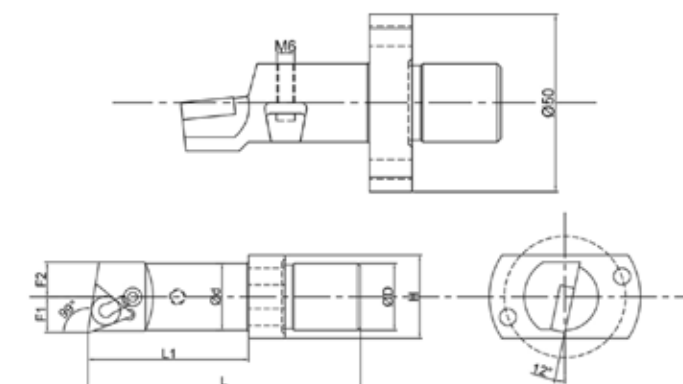


Order No		Designation	Inserts	Dimension (mm)								Spare Parts	
Right	Left			$\varnothing d$	F	F1	L	L1	H	H1	α°	Screw	Key
212-VB-007	212-VB-008	DS-SVUBR/L20-11	VBG(M)T 1103	20	10.5	8.5	120	26	19	19	0	M2.5-001	T8
212-VB-009	212-VB-010	DS-SVUBR/L22-11		22	10.5	8.0	120	26	21	21	0		

S22F-PTXNR/L

Swiss-type Lathes Turing Toolholders

TN□□1604 Series

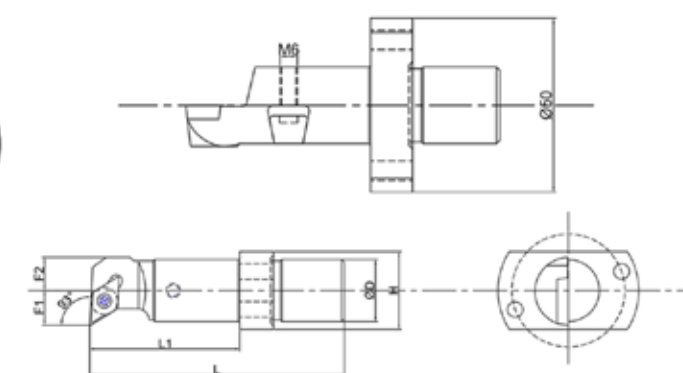


Order No		Designation	Inserts	Dimension (mm)							Spare Parts					
Right	Left			φD	φd	F1	F2	L	L1	H						
212-TN-019	212-TN-020	S22F-PTXNR/L16-50	TN..1604	22	22	11.75	11.45	90	53	27.5	0313A	0607-P	L3.0	22210613-DT	L3.0	

S22F-SDUCR/L

Swiss-type Lathes Turing Toolholders

DC□□11T3 Series

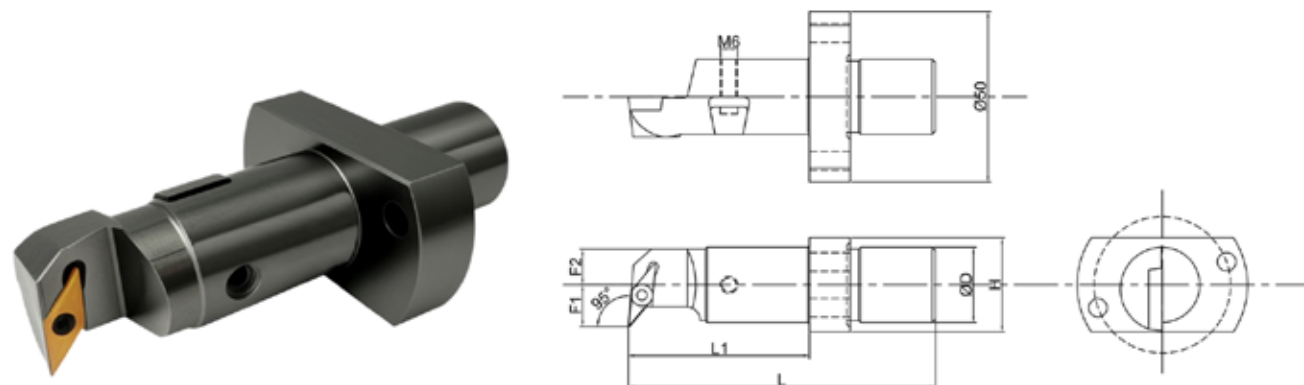


Order No		Designation	Inserts	Dimension (mm)								Spare Parts				
Right	Left			$\varnothing D$	$\varnothing d$	F1	F2	L	L1	H		SCREW	TSA	WT	NLJ	TSA
212-DC-041	212-DC-042	S22F-SDUCR/L11-50	DC..11T3	22	22	12.25	11.75	90	53	27.5		M3.5-004	T15	22210613-DT	L3.0	

S22F-SVUNR

Swiss-type Lathes Turing Toolholders

VC□□11T3 Series

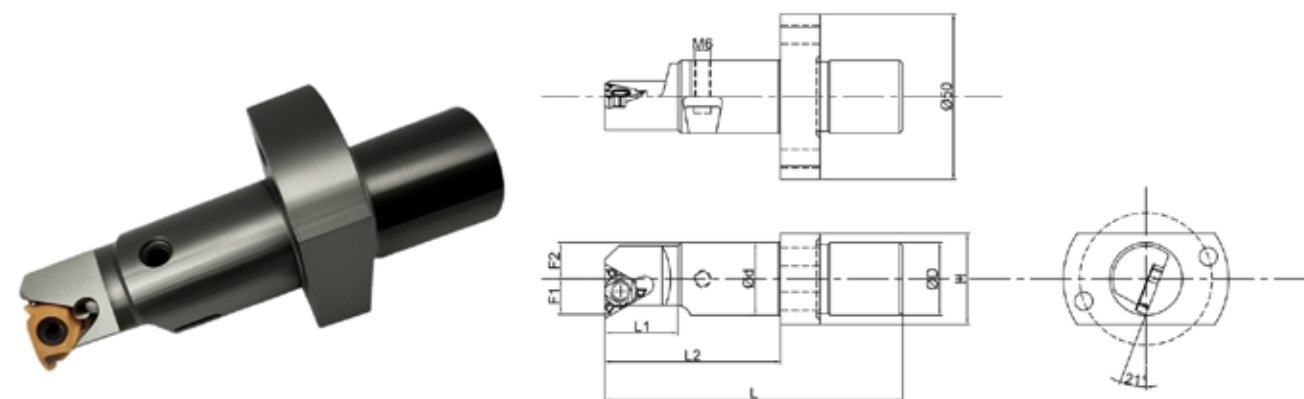


Order No		Designation	Inserts	Dimension (mm)							Spare Parts				
Right	Left			φD	φd	F1	F2	L	L1	H					
212-VC-001		S22F-SVUCR11-50	VC..11T3	22	22	12.25	11.75	90	53	27.5	M2.5-001	T15	2221	0613-DT	L3.0

S22F-SER/L

Swiss-type Lathes Turing Toolholders

ER16/EL16 Series

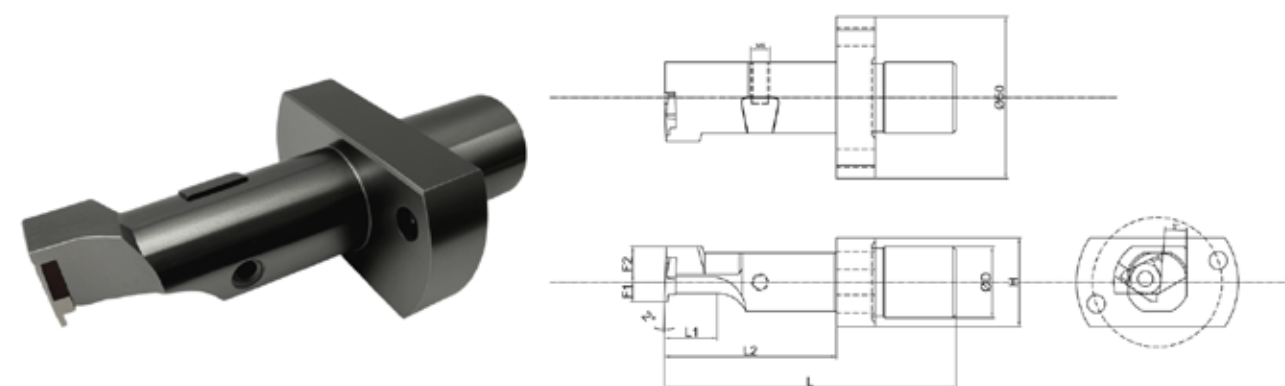


Order No		Designation	Inserts	Dimension (mm)								Spare Parts				
Right	Left			$\varnothing D$	$\varnothing d$	F1	F2	L	L1	L2	H					
												SCREW	Key	WT	NLJ-DT	TSA
212-ER-001	212-ER-002	S22F-SER/L16-50	ER/EL16	22	22	10.75	11	90	22	53	27.5	M3.5-003	T15	2221	0613-DT	L3.0

S22F-KTGFR/L

Swiss-type Lathes Turing Toolholders

TGF32 Series

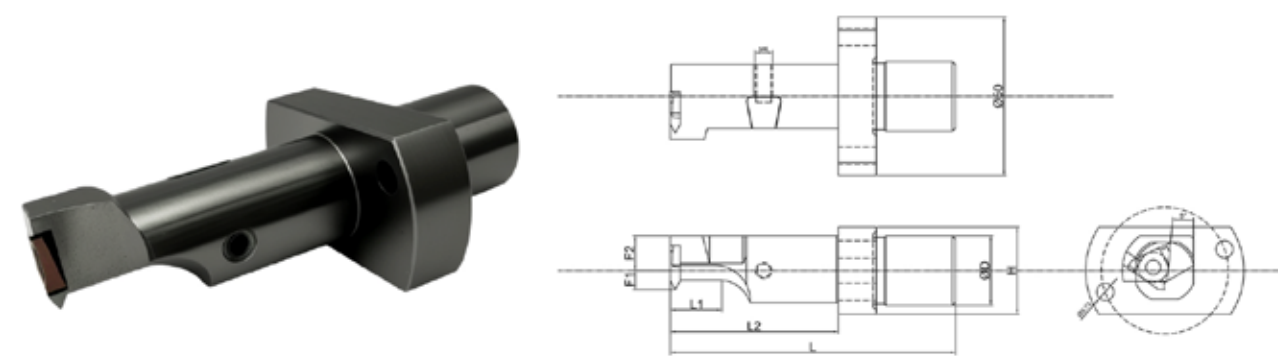


Order No		Designation	Inserts	Dimension (mm)							Spare Parts				
Right	Left			φD	F1	F2	L	L1	L2	H					
212-TG-001	212-TG-002	S22F-KTGFR/L32-50	TGF32R/L	22	6	11	90	16	53	27.5	M4.0-001	T15	2020	0613-DT	L3.0

S22F-KTTXR/L

Swiss-type Lathes Turing Toolholders

TTX32 Series



Order No		Designation	Inserts	Dimension (mm)							Spare Parts				
Right	Left			φD	F1	F2	L	L1	L2	H					
212-TX-001	212-TX-002	S22F-KTTXR/L32-50	TTX32R	22	6	11	90	16	53	27.5	M4.0-001	T15	2020	0613-DT	L3.0

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XCMT

INDEXABLE DRILLS

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GHZG

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ACB/AABE

HARLINGEN®

DRILLING TOOL

XCMT SERIES

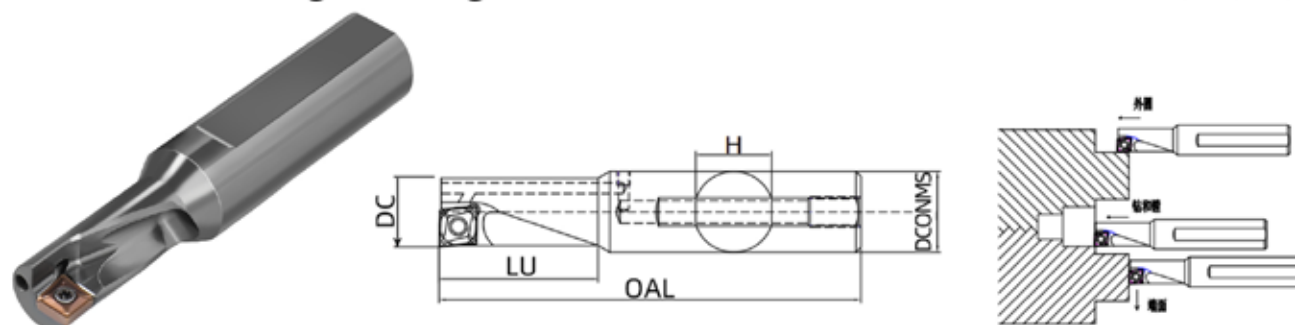


Think Cutting, Think HARLINGEN!

TCAP2.25D/3.25D

Toolholders for Drilling & Turning

XCMT Series

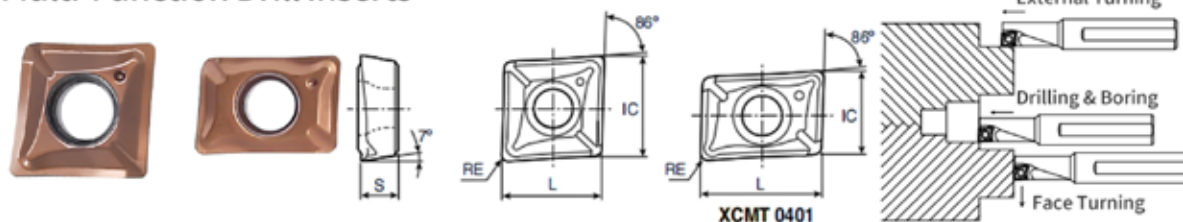


Order No		Designation	Inserts	Dimension (mm)					Spare Parts	
Right	Left			DC	LU	OAL	H	DCONMS	Screw	Key
266-84-001	266-84-002	TCAP 08R/L-2.25D-ST	XCMT040104-TC	8	18.0	60.0	9	10	M1.8-001	T6
266-84-003	266-84-004	TCAP 10R/L-2.25D-ST	XCMT050204-TC	10	22.5	69.5	11	12	M2.0-001	T6
266-84-005	266-84-006	TCAP 12R/L-2.25D-ST	XCMT060204-TC	12	27.0	78.0	15	16	M2.2-001	T6
266-84-007	266-84-008	TCAP 14R/L-2.25D-ST	XCMT070304-TC	14	31.5	83.5	15	16	M2.5-001	T8
266-84-009	266-84-010	TCAP 16R/L-2.25D-ST	XCMT080304-TC	16	36.0	94.0	15	16	M3.0-001	T10
266-84-011	266-84-012	TCAP 20R/L-2.25D-ST	XCMT10T304-TC	20	45.0	111.0	18	20	M3.5-002	T15
266-84-013	266-84-014	TCAP 08R/L-3.25D-ST	XCMT040104-TC	8	26.0	68.0	9	10	M1.8-001	T6
266-84-015	266-84-016	TCAP 10R/L-3.25D-ST	XCMT050204-TC	10	32.5	79.5	11	12	M2.0-001	T6
266-84-017	266-84-018	TCAP 12R/L-3.25D-ST	XCMT060204-TC	12	39.0	90.0	15	16	M2.2-001	T6
266-84-019	266-84-020	TCAP 14R/L-3.25D-ST	XCMT070304-TC	14	45.5	97.5	15	16	M2.5-001	T8
266-84-021	266-84-022	TCAP 16R/L-3.25D-ST	XCMT080304-TC	16	52.0	110.0	15	16	M3.0-001	T10
266-84-023	266-84-024	TCAP 20R/L-3.25D-ST	XCMT10T304-TC	20	65.0	131.0	18	20	M3.5-002	T15

XCMT04-10

Multi-Function Drill Inserts

XCMT Series



Order No	Designation	Dimension (mm)				Screw	Key
		IC	S	L	RE		
377-41-001	XCMT040104-TC	4.4	1.70	6.4	0.4	M1.8-001	T6
377-41-002	XCMT050204-TC	5.6	2.10	5.6	0.4	M2.0-001	T6
377-41-003	XCMT060204-TC	6.4	2.38	6.4	0.4	M2.2-001	T6
377-41-004	XCMT070304-TC	7.5	3.18	7.5	0.4	M2.5-001	T8
377-41-005	XCMT080104-TC	8.4	3.18	8.4	0.4	M3.0-001	T10
377-41-006	XCMT10T304-TC	10.5	3.97	10.5	0.4	M3.5-001	T15

HARLINGEN®

DRILLING TOOL

ACB/AABZ SERIES

High-Speed Tip Interchangeable Drill.

• A new one in hole-making.

- Meets the demands of high-efficiency and high-precision hole-making.
- The teeth structure on the insert and tool-holder provides enhanced stability.
- Top screw locking system for more convenience and ease of use.

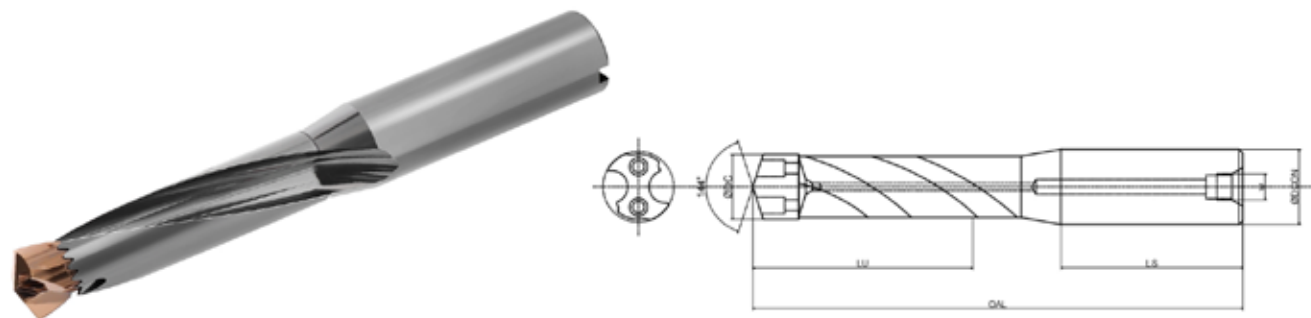


Think Cutting, Think HARLINGEN!

GHZG

Drilling Toolholders

ACB/AABZ Series

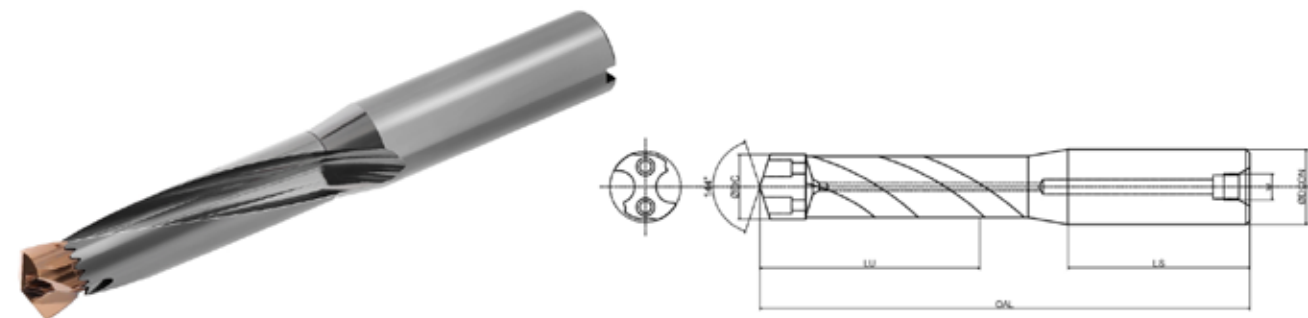


Order No	Dia	D	Specifications	LU	LS	OAL	DCON	W	Screw	Key
266-85-001	10.0-10.5	1.5D	GHZG01-10.0-10.5-1.5D-S12	21	48	81	12	M6	M2.0*8.0	T6
266-85-002		3.0D	GHZG01-10.0-10.5-3.0D-S12	37	48	97	12	M6		
266-85-003		4.0D	GHZG01-10.0-10.5-4.0D-S12	47	48	107	12	M6		
266-85-004		5.0D	GHZG01-10.0-10.5-5.0D-S12	58	48	118	12	M6		
266-85-005		6.0D	GHZG01-10.0-10.5-6.0D-S12	68	48	128	12	M6		
266-85-006		8.0D	GHZG01-10.0-10.5-8.0D-S12	89	48	149	12	M6		
266-85-007	10.6-11.2	1.5D	GHZG01-10.6-11.2-1.5D-S12	22	48	83	12	M6		
266-85-008		3.0D	GHZG01-10.6-11.2-3.0D-S12	39	48	100	12	M6		
266-85-009		4.0D	GHZG01-10.6-11.2-4.0D-S12	50	48	111	12	M6		
266-85-010		5.0D	GHZG01-10.6-11.2-5.0D-S12	62	48	122	12	M6		
266-85-011		6.0D	GHZG01-10.6-11.2-6.0D-S12	73	48	135	12	M6		
266-85-012		8.0D	GHZG01-10.6-11.2-8.0D-S12	95	48	156	12	M6		
266-85-013	11.3-11.9	1.5D	GHZG01-11.3-11.9-1.5D-S12	24	48	85	12	M6	M2.2*8.5	T8
266-85-014		3.0D	GHZG01-11.3-11.9-3.0D-S12	42	48	103	12	M6		
266-85-015		4.0D	GHZG01-11.3-11.9-4.0D-S12	53	48	114	12	M6		
266-85-016		5.0D	GHZG01-11.3-11.9-5.0D-S12	65	48	127	12	M6		
266-85-017		6.0D	GHZG01-11.3-11.9-6.0D-S12	77	48	138	12	M6		
266-85-018		8.0D	GHZG01-11.3-11.9-8.0D-S12	101	48	162	12	M6		
266-85-019	12.0-12.4	1.5D	GHZG01-12.0-12.4-1.5D-S16	25	48	87	16	ZG1/8		
266-85-020		3.0D	GHZG01-12.0-12.4-3.0D-S16	43	48	105	16	ZG1/8		
266-85-021		4.0D	GHZG01-12.0-12.4-4.0D-S16	56	48	118	16	ZG1/8		
266-85-022		5.0D	GHZG01-12.0-12.4-5.0D-S16	68	48	130	16	ZG1/8		
266-85-023		6.0D	GHZG01-12.0-12.4-6.0D-S16	81	48	143	16	ZG1/8		
266-85-024		8.0D	GHZG01-12.0-12.4-8.0D-S16	105	48	167	16	ZG1/8		
266-85-025	12.5-12.9	1.5D	GHZG01-12.5-12.9-1.5D-S16	26	48	88	16	ZG1/8	M2.2*8.5	T10
266-85-026		3.0D	GHZG01-12.5-12.9-3.0D-S16	45	48	107	16	ZG1/8		
266-85-027		4.0D	GHZG01-12.5-12.9-4.0D-S16	58	48	120	16	ZG1/8		

GHZG

Drilling Toolholders

ACB/AABZ Series

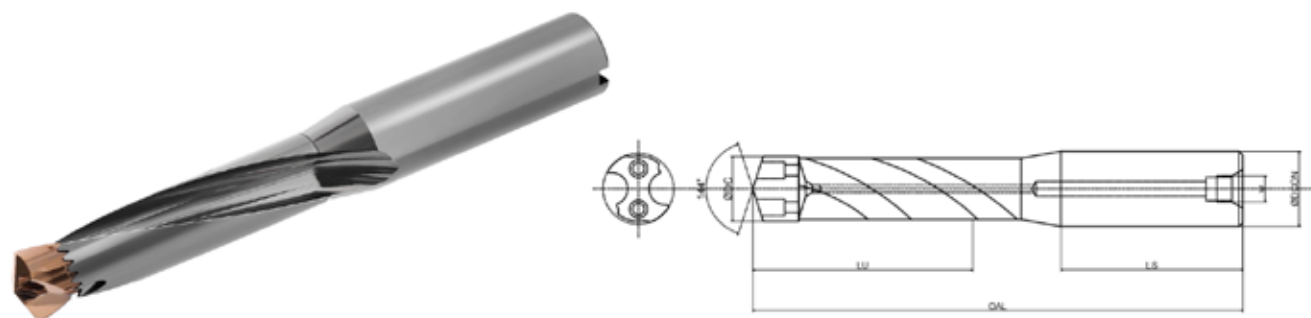


Order No	Dia	D	Specifications	LU	LS	OAL	DCON	W	Screw	Key
266-85-028	12.5-12.9	5.0D	GHZG01-12.5-12.9-5.0D-S16	71	48	133	16	ZG1/8	M2.2*8.5	T8
266-85-029		6.0D	GHZG01-12.5-12.9-6.0D-S16	84	48	146	16	ZG1/8		
266-85-030		8.0D	GHZG01-12.5-12.9-8.0D-S16	110	48	172	16	ZG1/8		
266-85-031	13.0-13.4	1.5D	GHZG01-13.0-13.4-1.5D-S16	27	48	90	16	ZG1/8		
266-85-032		3.0D	GHZG01-13.0-13.4-3.0D-S16	47	48	110	16	ZG1/8		
266-85-033		4.0D	GHZG01-13.0-13.4-4.0D-S16	60	48	123	16	ZG1/8		
266-85-034		5.0D	GHZG01-13.0-13.4-5.0D-S16	74	48	137	16	ZG1/8		
266-85-035		6.0D	GHZG01-13.0-13.4-6.0D-S16	87	48	150	16	ZG1/8		
266-85-036		8.0D	GHZG01-13.0-13.4-8.0D-S16	114	48	177	16	ZG1/8		
266-85-037	13.5-14.5	1.5D	GHZG01-13.5-14.5-1.5D-S16	29	48	93	16	ZG1/8	M2.2*9.0	T10
266-85-038		3.0D	GHZG01-13.5-14.5-3.0D-S16	51	48	114	16	ZG1/8		
266-85-039		4.0D	GHZG01-13.5-14.5-4.0D-S16	65	48	128	16	ZG1/8		
266-85-040		5.0D	GHZG01-13.5-14.5-5.0D-S16	80	48	143	16	ZG1/8		
266-85-041		6.0D	GHZG01-13.5-14.5-6.0D-S16	94	48	157	16	ZG1/8		
266-85-042		8.0D	GHZG01-13.5-14.5-8.0D-S16	123	48	186	16	ZG1/8		
266-85-043	14.6-15.5	1.5D	GHZG01-14.6-15.5-1.5D-S16	31	48	98	16	ZG1/8		
266-85-044		3.0D	GHZG01-14.6-15.5-3.0D-S16	54	48	121	16	ZG1/8		
266-85-045		4.0D	GHZG01-14.6-15.5-4.0D-S16	70	48	137	16	ZG1/8		
266-85-046		5.0D	GHZG01-14.6-15.5-5.0D-S16	85	48	152	16	ZG1/8		
266-85-047		6.0D	GHZG01-14.6-15.5-6.0D-S16	101	48	168	16	ZG1/8		
266-85-048		8.0D	GHZG01-14.6-15.5-8.0D-S16	132	48	199	16	ZG1/8		
266-85-049	15.6-16.5	1.5D	GHZG01-15.6-16.5-1.5D-S16	33	48	101	16	ZG1/8	M2.5*9.5	T10
266-85-050		3.0D	GHZG01-15.6-16.5-3.0D-S16	58	48	126	16	ZG1/8		
266-85-051		4.0D	GHZG01-15.6-16.5-4.0D-S16	74	48	142	16	ZG1/8		
266-85-052		5.0D	GHZG01-15.6-16.5-5.0D-S16	91	48	159	16	ZG1/8		
266-85-053		6.0D	GHZG01-15.6-16.5-6.0D-S16	107	48	175	16	ZG1/8		
266-85-054		8.0D	GHZG01-15.6-16.5-8.0D-S16	140	48	208	16	ZG1/8		

GHZG

Drilling Toolholders

ACB/AABZ Series

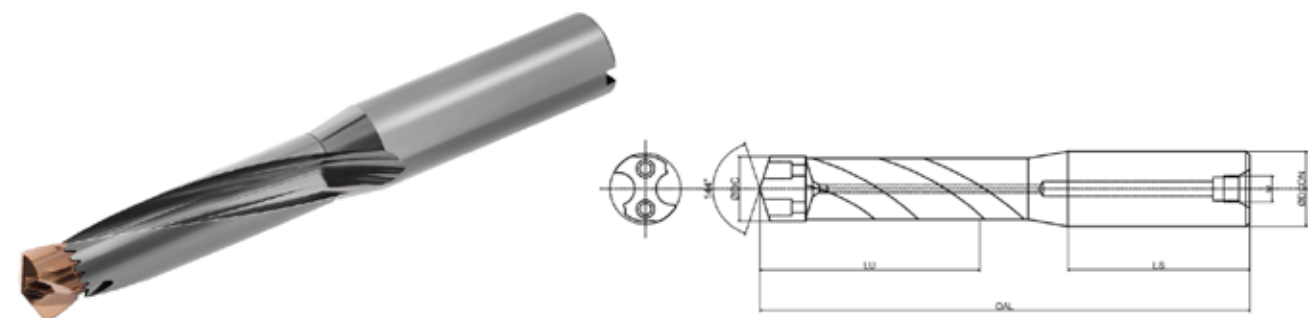


Order No	Dia	D	Specifications	LU	LS	OAL	DCON	W	Screw	Key
266-85-055	16.6-17.5	1.5D	GHZG01-16.6-17.5-1.5D-S20	35	50	106	20	ZG1/8	M2.5*9.5	T10
266-85-056		3.0D	GHZG01-16.6-17.5-3.0D-S20	61	50	132	20	ZG1/8		
266-85-057		4.0D	GHZG01-16.6-17.5-4.0D-S20	79	50	150	20	ZG1/8		
266-85-058		5.0D	GHZG01-16.6-17.5-5.0D-S20	96	50	167	20	ZG1/8		
266-85-059		6.0D	GHZG01-16.6-17.5-6.0D-S20	114	50	185	20	ZG1/8		
266-85-060		8.0D	GHZG01-16.6-17.5-8.0D-S20	149	50	220	20	ZG1/8		
266-85-061	17.6-18.5	1.5D	GHZG01-17.6-18.5-1.5D-S20	37	50	109	20	ZG1/8	M2.5*9.5	T10
266-85-062		3.0D	GHZG01-17.6-18.5-3.0D-S20	65	50	137	20	ZG1/8		
266-85-063		4.0D	GHZG01-17.6-18.5-4.0D-S20	83	50	155	20	ZG1/8		
266-85-064		5.0D	GHZG01-17.6-18.5-5.0D-S20	102	50	174	20	ZG1/8		
266-85-065		6.0D	GHZG01-17.6-18.5-6.0D-S20	120	50	192	20	ZG1/8		
266-85-066		8.0D	GHZG01-17.6-18.5-8.0D-S20	157	50	229	20	ZG1/8		
266-85-067	18.6-19.5	1.5D	GHZG01-18.6-19.5-1.5D-S20	39	50	112	20	ZG1/8	M3.0*11	T15
266-85-068		3.0D	GHZG01-18.6-19.5-3.0D-S20	68	50	142	20	ZG1/8		
266-85-069		4.0D	GHZG01-18.6-19.5-4.0D-S20	88	50	162	20	ZG1/8		
266-85-070		5.0D	GHZG01-18.6-19.5-5.0D-S20	107	50	181	20	ZG1/8		
266-85-071		6.0D	GHZG01-18.6-19.5-6.0D-S20	127	50	201	20	ZG1/8		
266-85-072		8.0D	GHZG01-18.6-19.5-8.0D-S20	166	50	240	20	ZG1/8		
266-85-073	19.6-20.5	1.5D	GHZG01-19.6-20.5-1.5D-S20	41	50	115	20	ZG1/8	M3.0*11	T15
266-85-074		3.0D	GHZG01-19.6-20.5-3.0D-S20	72	50	146	20	ZG1/8		
266-85-075		4.0D	GHZG01-19.6-20.5-4.0D-S20	92	50	162	20	ZG1/8		
266-85-076		5.0D	GHZG01-19.6-20.5-5.0D-S20	113	50	187	20	ZG1/8		
266-85-077		6.0D	GHZG01-19.6-20.5-6.0D-S20	127	50	201	20	ZG1/8		
266-85-078		8.0D	GHZG01-19.6-20.5-8.0D-S20	166	50	240	20	ZG1/8		
266-85-079	20.6-21.5	1.5D	GHZG01-20.6-21.5-1.5D-S25	43	60	129	25	ZG1/8	M3.0*11	T15
266-85-080		3.0D	GHZG01-20.6-21.5-3.0D-S25	75	60	161	25	ZG1/8		
266-85-081		4.0D	GHZG01-20.6-21.5-4.0D-S25	97	60	166	25	ZG1/8		

GHZG

Drilling Toolholders

ACB/AABZ Series

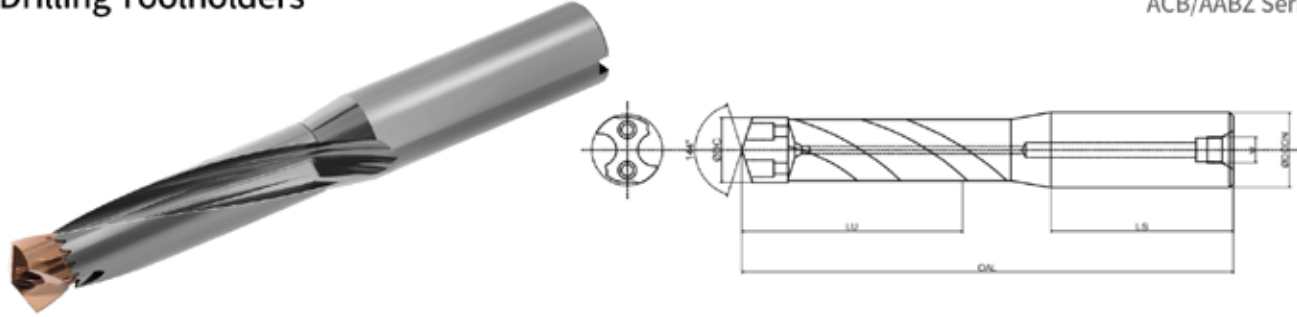


Order No	Dia	D	Specifications	LU	LS	OAL	DCON	W	Screw	Key
266-85-082	20.6-21.5	5.0D	GHZG01-20.6-21.5-1.5D-S25	118	60	204	25	ZG1/8	M3.0*11	T15
266-85-083		6.0D	GHZG01-20.6-21.5-3.0D-S25	140	60	226	25	ZG1/8		
266-85-084		8.0D	GHZG01-20.6-21.5-5.0D-S25	183	60	269	25	ZG1/8		
266-85-085	21.6-22.8	1.5D	GHZG01-21.6-22.8-1.5D-S25	46	60	132	25	ZG1/8	M3.5*12	T15
266-85-086		3.0D	GHZG01-21.6-22.8-3.0D-S25	80	60	166	25	ZG1/8		
266-85-087		4.0D	GHZG01-21.6-22.8-5.0D-S25	103	60	189	25	ZG1/8		
266-85-088		5.0D	GHZG01-21.6-22.8-1.5D-S25	125	60	212	25	ZG1/8		
266-85-089		6.0D	GHZG01-21.6-22.8-3.0D-S25	148	60	234	25	ZG1/8		
266-85-090		8.0D	GHZG01-21.6-22.8-5.0D-S25	194	60	280	25	ZG1/8		
266-85-091	22.9-23.8	1.5D	GHZG01-22.9-23.8-1.5D-S25	48	60	135	25	ZG1/8	M3.5*12	T15
266-85-092		3.0D	GHZG01-22.9-23.8-3.0D-S25	83	60	171	25	ZG1/8		
266-85-093		4.0D	GHZG01-22.9-23.8-4.0D-S25	107	60	194	25	ZG1/8		
266-85-094		5.0D	GHZG01-22.9-23.8-5.0D-S25	131	60	218	25	ZG1/8		
266-85-095		6.0D	GHZG01-22.9-23.8-6.0D-S25	155	60	242	25	ZG1/8		
266-85-096		8.0D	GHZG01-22.9-23.8-8.0D-S25	202	60	289	25	ZG1/8		
266-85-097	23.9-24.8	1.5D	GHZG01-23.9-24.8-1.5D-S25	50	60	138	25	ZG1/8	M4.0*14	T20
266-85-098		3.0D	GHZG01-23.9-24.8-3.0D-S25	87	60	175	25	ZG1/8		
266-85-099		4.0D	GHZG01-23.9-24.8-4.0D-S25	112	60	200	25	ZG1/8		
266-85-100		5.0D	GHZG01-23.9-24.8-5.0D-S25	136	60	224	25	ZG1/8		
266-85-101		6.0D	GHZG01-23.9-24.8-6.0D-S25	161	60	249	25	ZG1/8		
266-85-102		8.0D	GHZG01-23.9-24.8-8.0D-S25	211	60	299	25	ZG1/8		
266-85-103	24.9-25.8	1.5D	GHZG01-24.9-25.8-1.5D-S25	52	60	141	25	ZG1/8	M4.0*14	T20
266-85-104		3.0D	GHZG01-24.9-25.8-3.0D-S25	90	60	179	25	ZG1/8		
266-85-105		4.0D	GHZG01-24.9-25.8-4.0D-S25	116	60	205	25	ZG1/8		
266-85-106		5.0D	GHZG01-24.9-25.8-5.0D-S25	142	60	231	25	ZG1/8		
266-85-107		6.0D	GHZG01-24.9-25.8-6.0D-S25	168	60	257	25	ZG1/8		
266-85-108		8.0D	GHZG01-24.9-25.8-8.0D-S25	219	60	308	25	ZG1/8		

GHZG

Drilling Toolholders

ACB/AABZ Series



Order No	Dia	D	Specifications	LU	LS	OAL	DCON	W	Screw	Key
266-85-109	25.9-26.8	1.5D	GHZG01-25.9-26.8-1.5D-S32	54	60	143	32	ZG1/8	M4.0*14	T20
266-85-110		3.0D	GHZG01-25.9-26.8-3.0D-S32	94	60	183	32	ZG1/8		
266-85-111		4.0D	GHZG01-25.9-26.8-4.0D-S32	121	60	210	32	ZG1/8		
266-85-112		5.0D	GHZG01-25.9-26.8-5.0D-S32	147	60	237	32	ZG1/8		
266-85-113		6.0D	GHZG01-25.9-26.8-6.0D-S32	174	60	263	32	ZG1/8		
266-85-114		8.0D	GHZG01-25.9-26.8-8.0D-S32	228	60	317	32	ZG1/8		
266-85-115	26.9-27.8	1.5D	GHZG01-26.9-27.8-1.5D-S32	56	60	146	32	ZG1/8		
266-85-116		3.0D	GHZG01-26.9-27.8-3.0D-S32	97	60	188	32	ZG1/8		
266-85-117		4.0D	GHZG01-26.9-27.8-4.0D-S32	125	60	244	32	ZG1/8		
266-85-118		5.0D	GHZG01-26.9-27.8-5.0D-S32	153	60	149	32	ZG1/8		
266-85-119		6.0D	GHZG01-26.9-27.8-6.0D-S32	181	60	193	32	ZG1/8		
266-85-120		8.0D	GHZG01-26.9-27.8-8.0D-S32	236	60	250	32	ZG1/8		
266-85-121	27.9-28.8	1.5D	GHZG01-27.9-28.8-1.5D-S32	58	60	153	32	ZG1/8	M4.5*15	T25
266-85-122		3.0D	GHZG01-27.9-28.8-3.0D-S32	101	60	197	32	ZG1/8		
266-85-123		4.0D	GHZG01-27.9-28.8-4.0D-S32	130	60	257	32	ZG1/8		
266-85-124		5.0D	GHZG01-27.9-28.8-5.0D-S32	158	60	156	32	ZG1/8		
266-85-125		6.0D	GHZG01-27.9-28.8-6.0D-S32	187	60	202	32	ZG1/8		
266-85-126		8.0D	GHZG01-27.9-28.8-8.0D-S32	245	60	263	32	ZG1/8		
266-85-127	28.9-29.8	1.5D	GHZG01-28.9-29.8-1.5D-S32	60	60	161	32	ZG1/8		
266-85-128		3.0D	GHZG01-28.9-29.8-3.0D-S32	104	60	209	32	ZG1/8		
266-85-129		4.0D	GHZG01-28.9-29.8-4.0D-S32	134	60	273	32	ZG1/8		
266-85-130		5.0D	GHZG01-28.9-29.8-5.0D-S32	164	60	164	32	ZG1/8		
266-85-131		6.0D	GHZG01-28.9-29.8-6.0D-S32	194	60	215	32	ZG1/8		
266-85-132		8.0D	GHZG01-28.9-29.8-8.0D-S32	253	60	282	32	ZG1/8		
266-85-133	29.9-30.8	1.5D	GHZG01-29.9-30.8-1.5D-S32	62	60	156	32	ZG1/8		
266-85-134		3.0D	GHZG01-29.9-30.8-3.0D-S32	108	60	202	32	ZG1/8		
266-85-135		4.0D	GHZG01-29.9-30.8-4.0D-S32	139	60	233	32	ZG1/8		
266-85-136		5.0D	GHZG01-29.9-30.8-5.0D-S32	169	60	282	32	ZG1/8		
266-85-137		6.0D	GHZG01-29.9-30.8-6.0D-S32	200	60	294	32	ZG1/8		
266-85-138		8.0D	GHZG01-29.9-30.8-8.0D-S32	262	60	356	32	ZG1/8		

ACB

Solid Carbide Cutting Head

ACB Series

- Solid Carbide Insert for Quick-Change drilling toolholder.
- For Cutting Steel and Stainless Steel hardness no more than HRC25.
- Suit for drilling toolholder 1.5D-5D and used on CNC.



Size(mm)	Feed(mm/r)	Vc(m/min)
10.0-12.4	0.14-0.2	70~100
12.5-14.5	0.16-0.22	
14.6-16.5	0.18-0.24	
16.6-30.8	0.2-0.26	

Order No	DIA	Order No	DIA	Order No	DIA
377-42-005	10	377-42-075	17	377-42-145	24
377-42-010	10.5	377-42-080	17.5	377-42-150	24.5
377-42-015	11	377-42-085	18	377-42-155	25
377-42-020	11.5	377-42-090	18.5	377-42-160	25.5
377-42-025	12	377-42-095	19	377-42-165	26
377-42-030	12.5	377-42-100	19.5	377-42-170	26.5
377-42-035	13	377-42-105	20	377-42-175	27
377-42-040	13.5	377-42-110	20.5	377-42-180	27.5
377-42-045	14	377-42-115	21	377-42-185	28
377-42-050	14.5	377-42-120	21.5	377-42-190	28.5
377-42-055	15	377-42-125	22	377-42-195	29
377-42-060	15.5	377-42-130	22.5	377-42-200	29.5
377-42-065	16	377-42-135	23	377-42-205	30
377-42-070	16.5	377-42-140	23.5	377-42-210	30.5

AABZ

Solid Carbide Cutting Head

AABZ Series

- Solid Carbide Insert for Quick-Change drilling toolholder.
- For Cutting Steel and Stainless Steel hardness HRC25-HRC50.
- Suit for drilling toolholder 5D-12D and can be used on CNC and Turning Machine.



Size(mm)	Feed(mm/r)	Vc(m/min)
10.0-12.4	0.12-0.18	50~80
12.5-14.5	0.14-0.2	
14.6-25.8	0.16-0.22	
25.9-30.8	0.16-0.25	

Order No	DIA	Order No	DIA	Order No	DIA
377-43-005	10	377-43-075	17	377-43-145	24
377-43-010	10.5	377-43-080	17.5	377-43-150	24.5
377-43-015	11	377-43-085	18	377-43-155	25
377-43-020	11.5	377-43-090	18.5	377-43-160	25.5
377-43-025	12	377-43-095	19	377-43-165	26
377-43-030	12.5	377-43-100	19.5	377-43-170	26.5
377-43-035	13	377-43-105	20	377-43-175	27
377-43-040	13.5	377-43-110	20.5	377-43-180	27.5
377-43-045	14	377-43-115	21	377-43-185	28
377-43-050	14.5	377-43-120	21.5	377-43-190	28.5
377-43-055	15	377-43-125	22	377-43-195	29
377-43-060	15.5	377-43-130	22.5	377-43-200	29.5
377-43-065	16	377-43-135	23	377-43-205	30
377-43-070	16.5	377-43-140	23.5	377-43-210	30.5