

# MILLING

- Turning Tools
- Milling Tools
- Heavy Duty Processing
- Parting and Grooving
- Cermet Inserts
- Boring Tools





## Introduction

This Master Catalogue is your best source for a broad range of advanced indexable machining solutions. These "best in class" products include...

- A complete range of PVD and CVD first choice grades that includes the advantage of Mega range of Turning/Milling/Grooving/Threading/Drilling etc, with State of the Art Technology.
- Geometries that also offer a "first choice" range from finishing to roughing to meet the increasing demands of higher feed rates for greater chip control,
- Application and customer service support from our technical sales engineer is our main motto.

Rely on Duratec to achieve "Best in Class" machining solutions for your high end performance with satisfying results.



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DURATEC



➤ New Design High Technology

## Mould Milling Process Inserts Series

### DPM8125

High toughness substrate of ultra-fine particle coated with 2-4 $\mu$ m TiAlN PVD coating. Suitable for finishing and semi-finishing of various kinds of workpiece and stainless steel as well as hightemp. alloy.

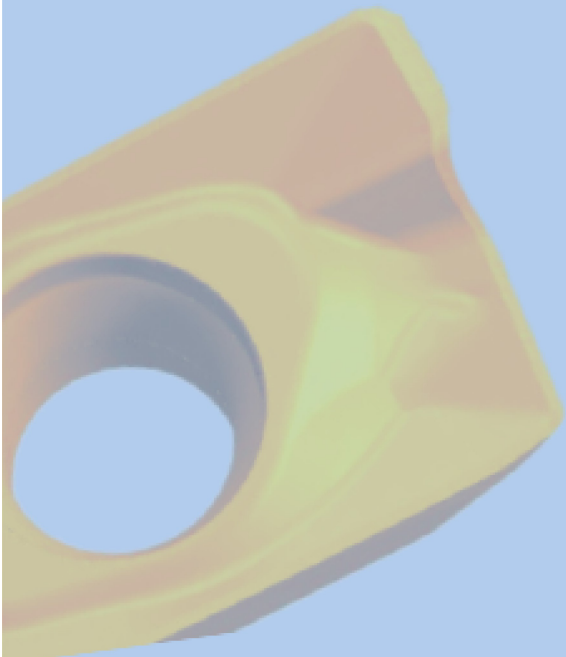


### DPM8225

High toughness substrate of ultra-fine particle coated with 2-4 $\mu$ m nano AlCrN+ AlCrSiN PVD coating. Suitable for various kinds of workpiece in light & medium load milling condition as well as the finishing and semi-finishing of the stainless steel and high-temp. and hardness alloy.

### DPM8135

High toughness substrate coated with PVD coating. Suitable for roughing and semifinishing of various kinds of workpiece.



## Grade Selection

Turning Grades		P Steel				M Stainless Steel				K Cast Iron				N Non Ferrous				S HRSA				
		P05	P15	P25	P35	M05	M15	M25	M35	K05	K15	K25	K35	N05	N15	N25	N35	N05	N15	N25	N35	
CVD	DCP9330			10-30				10-30														
	DCP9340				25-40				25-40													
	DCP9350			25-40					25-40													
	DCK5215											05-25										
	DCK5225												15-35									
	DCK5325													15-35								
	DCK5305											01-20										
	DCK5205											01-20										
PVD	DPM8115	01-10						10-20				10-30									10-20	
	DPM8125		10-20					10-30				05-25									15-30	
	DPM8225			30-40				20-30				10-30									20-30	
	DPM8115		15-30					30-40														



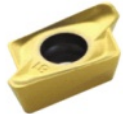
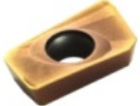




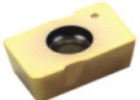
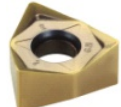
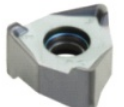
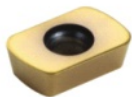






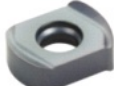


## Features of CVD coated grades

Grades	Coating	Applications
DCP9350 P35 (P25 - P40) M30 (M20 - M35)		<ul style="list-style-type: none"> <li>Toughness and hardness of matrix and the combination of TiCN, ultrafine nano Al2O3 coating.</li> </ul>
DCP9340 P35 (P25 - P40) M30 (M20 - M35)		<ul style="list-style-type: none"> <li>Toughness and hardness of matrix and the combination of TiCN, ultrafine nano Al2O3 coating.</li> </ul>
DCP9330 M20 (M10 - M30) M20 (M10 - M30)		<ul style="list-style-type: none"> <li>The substrate of high hardness. Suitable for medium and high speed and low alloy steel and unalloyed steel under light and heavy load milling condition. Also suitable for milling under poor condition.</li> </ul>
DCK5215 K15 (K05 - K25)		<ul style="list-style-type: none"> <li>High wear-resistant substrate coated with multiple TiCN and thick Al2O3 coating. The first choice for ductile cast iron and gray cast iron and high cutting speed allowed.</li> </ul>
DCK5225 K25 (K15 - K35)		<ul style="list-style-type: none"> <li>High wear-resistant substrate coated with multiple TiCN, ultra-fine Al2O3 and TiN coating. The first choice for ductile cast iron and gray cast iron and high cutting speed allowed.</li> </ul>
DCK5325 K25 (K15 - K35)		<ul style="list-style-type: none"> <li>High wear-resistant substrate of medium toughness coated with multiple TiCN, ultrafine Al2O3 and TiN coating. The first choice for roughing of ductile cast iron and gray cast iron with high metal removal rate.</li> </ul>
DCK5305 K10 (K01 - K20)		<ul style="list-style-type: none"> <li>The coating substrate of high hardness characterized with high temperature resistance and anti-plastic-deformation.</li> <li>Suitable for finishing and semi-finishing of ductile cast iron, forged cast iron of high strength and gray cast iron.</li> </ul>
DCK5205 K10 (K01 - K20)		<ul style="list-style-type: none"> <li>The coating substrate of high hardness characterized with high temperature resistance and anti-plastic-deformation.</li> <li>Suitable for finishing and semi-finishing of ductile cast iron, forged cast iron of high strength and gray cast iron.</li> </ul>

## Features of PVD coated grades

Grades	Coating	Features
DPM8115 P05 (P01 - P10) M15 (M10 - M20) K10 (K10 - K30) S15 (S10 - S20)		<ul style="list-style-type: none"> <li>• High speed and continuous machining for a variety of steel up to HRC70, stainless steel, cast iron &amp; HRSA</li> <li>• Strong cutting edge and excellent chipping resistance guarantees stable machining, longer tool life.</li> <li>• 3-5<math>\mu</math>m AlTiN PVD coating and ultra fine grain substrate adopted.</li> </ul>
DPM8125 P15 (P10 - P20) M25 (M10 - M30) K10 (K05 - K25) S20 (S15 - S30)		<ul style="list-style-type: none"> <li>• 2-4<math>\mu</math>m TiAlN PVD coated micro-grain carbide. Use for a variety of steel, stainless steel, cast iron &amp; high temperature alloy finishing at medium to low cutting speed.</li> <li>• High thermal shock resistance, suitable for light interrupted cuts.</li> </ul>
DPM8225 P30 (P30 - P40) M25 (M20 - M30) S25 (S20 - S30)		<ul style="list-style-type: none"> <li>• Universal grade for stainless, HRSA &amp; hightemperature high hardness alloy machining.</li> <li>• High chipping and welding resistance for longer tool life.</li> <li>• 2-4<math>\mu</math>m Nano AlCrN+AlCrSiN PVD coating is combined with high toughness of ultra fine grain substrate, suitable for finishing &amp; medium machining.</li> </ul>
DPM8135 P20 (P15 - P30) M30 (M30 - M40)		<ul style="list-style-type: none"> <li>• PVD coated carbide grade, an alternative of toughness processes.</li> <li>• Combining the peripheral-edge grinding blade, preferred for viscous material, such as stainless steel &amp; low carbon steel.</li> <li>• Combining the excellent toughness sbustrates, suitable for medium &amp; roughing machining.</li> </ul>

## Inserts

		SHAPES				
SQUARE SHOULDER MILLING						
	<b>AGNX</b> Page - 12	<b>LPNU</b> Page - 16	<b>RT-81</b> Page - 20	<b>APMT-H2</b> Page - 28	<b>APMT-M2</b> Page - 28	
						
	<b>APMT-XM</b> Page - 28	<b>R390-PL</b> Page - 32	<b>R390-PM</b> Page - 32	<b>MPHW</b> Page - 36	<b>WNMU</b> Page - 38	
						
	<b>XNEX-ME09</b> Page - 40					
HISPEED MILLING						
	<b>EPNW</b> Page - 44	<b>EPMT-TT</b> Page - 44	<b>EPMT-TM</b> Page - 44	<b>LPGT-GM</b> Page - 47	<b>LOGU-MM</b> Page - 51	
						
	<b>SMOT-GM</b> Page - 55	<b>SMOT-LD</b> Page - 55	<b>BLMP-M</b> Page - 60	<b>SDNW</b> Page - 63	<b>SDMT-GH</b> Page - 44	

SHAPES

PROFILE MILLING						
	<b>XDHW</b> Page - 65	<b>RPMW</b> Page - 71	<b>RPMT-JS</b> Page - 71	<b>RDMW</b> Page - 76	<b>RDMT</b> Page - 76	
						
	<b>RDHX</b> Page - 79	<b>RDMX</b> Page - 79	<b>RCKT</b> Page - 82			
	FACE MILLING					
		<b>SEHT-X45</b> Page - 89	<b>SEKT</b> Page - 89	<b>SNMX-MM</b> Page - 91	<b>PNMU-GM</b> Page - 93	<b>HNGX</b> Page - 95
						
<b>ONHU-GM</b> Page - 98		<b>XNHF-D67</b> Page - 100	<b>ODHT-GT</b> Page - 102			
SLOT & CHAMFER MILLING						
		<b>MPHT</b> Page - 106	<b>SPMG</b> Page - 111	<b>SPMG-MW</b> Page - 111	<b>TCEX-AR</b> Page - 116	



# S P K R 12



### 1 Insert shape

**S P K N 12 03 E D S R -MX**

### 2 Relief angle

**S P K N 12 03 E D S R -MX**

### 3 Tolerance

**S P K N 12 03 E D S R -MX**

d: Incribed circle  
t: Thickness  
m: Refer to figure

■ Tolerance on C, E, H, M, O, P, R, S, T, W Insert Shape (exceptional case)

Class	d	m	t	Tolerance on d			Tolerance on m	
				J, K, L, M, N	U	N, M	U	
A	±0.025	±0.005	±0.025	6.35	±0.05			±0.13
C	±0.025	±0.013	±0.025	9.525	±0.05			±0.13
H	±0.013	±0.013	±0.025	12.7		±0.13	±0.13	±0.20
E	±0.025	±0.025	±0.025	19.05	±0.10		±0.15	±0.27
G	±0.025	±0.025	±0.13	25.4	±0.13	±0.25		
J	±0.05~±0.15	±0.005	±0.025	Tolerance on D Insert Shape (exceptional case)				
K	±0.05~±0.15	±0.013	±0.025	d	Tolerance on d	Tolerance on m		
L	±0.05~±0.15	±0.025	±0.025	6.35	±0.05	±0.11		
M	±0.05~±0.15		±0.13	9.525	±0.05	±0.11		
U			±0.13	12.7		±0.15		
				19.05		±0.10		
						±0.10		

### 4 Cross section type

**S P K N 12 03 E D S R -MX**

### 5 Cutting-edge length, diameter of inscribed circle

**S P K N 12 03 E D S R -MX**

■ Metric system

■ Inch system

rhombic insert indicate cutting-edge length instead of inscribed circle.

■ Cross over chart for "Metric" and "Inch" system

	06	09	11	16	22	27	33	44
△								
○ □	03	05	06	09	12	15	19	25
55°	04	06	07	11	15	19	23	31
80°	03	05	06	09	12	16	19	25
Inscribed circle								
Inch system	5	7						

# 03 ED S R - MX

6

7

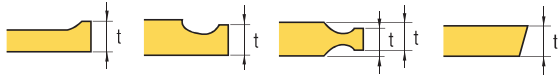
8

9

10

## 6 Height of cutting-edge

SPKN1203EDSR-MX

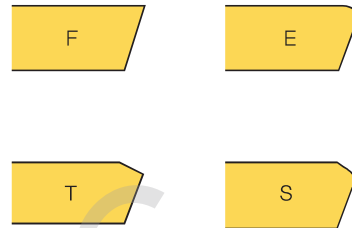


Symbol	Height of cutting-edge (t)	
	Metric	Inch
01	1 (2)	1.59 1/16
T0	1.125	1.79
T1	1.2	5/64
02	1.5 (3)	3/32
T2	1.75	7/64
03	2	
T3	2.5	3.97 5/32
04	3	4.76 3/16
05	3.5	5.56 7/32
06	4	6.35 1/4
07	5	7.94 5/16
09	6	9.52
11	7	11.11 7/16
12		12.70 1/2

( ) Symbol for small size insert

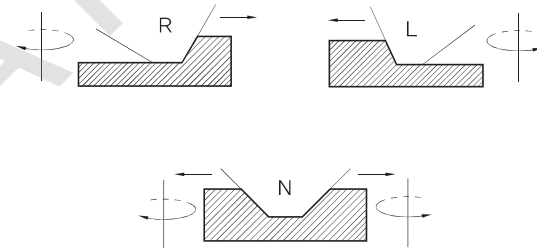
## 8 Edge preparation

SPKN1203EDSR-MX



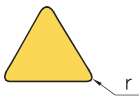
## 9 Hand

SPKN1203EDSR-MX

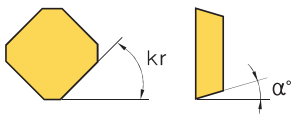


## 7 Nose radius (Nose R)

SPKN1203EDSR-MX



r		Symbol		r		Symbol	
mm	Inch	mm	Inch	mm	Inch	mm	Inch
00	0	0.0		12	3	1.2	3/64
02		0.2		15		1.5	
04	1	0.4	1/64	16	4	1.6	4/64
05		0.5		24	6	2.4	6/64
	2		2/64	32		3.2	
10		1.0		40		4.0	



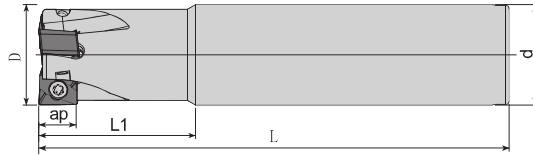
Parallel land kr	Relief angle *
A - 45°	A - 3° F - 25°
D - 60°	B - 5° G - 30°
E - 75°	C - 7° N - 0°
	D - 15° P - 11°
P - 90°	E - 20°
Z - Special	

## 10 Chip breaker for milling

SPKN1203EDSR-MX

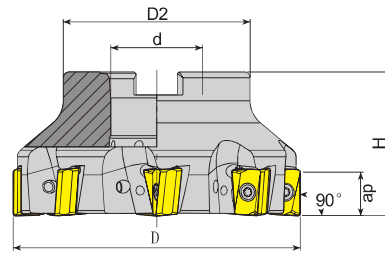
See catalogue for details

## ME A Type Shoulder Endmill



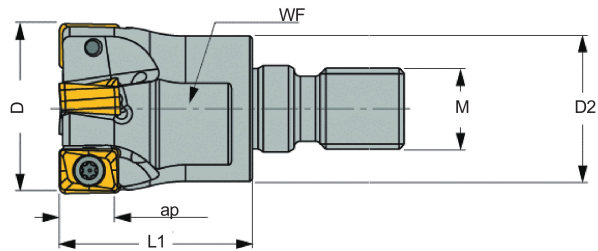
Designations		No. of Inserts	Dimension (mm)				
			D	d	L1	L	ap
MEA09N	1616-100L-2T	2	16	16	26	100	8.0
	1616-150L-2T	2	16	16	40	150	8.0
	1816-100L-2T	2	18	16	25	100	8.0
	1816-150L-2T	2	18	16	25	150	8.0
	2020-100L-3T	3	20	20	26	100	8.0
	2020-150L-3T	3	20	20	40	150	8.0
	2220-150L-3T	3	22	20	25	150	8.0
	2525-150L-4T	4	25	25	40	150	8.0
	2525-200L-4T	4	25	25	50	200	8.0
	3232-150L-5T	5	32	32	40	150	8.0
MEA12N	3232-200L-5T	5	32	32	50	200	8.0
	2525-150L-2T	2	25	25	40	150	12.0
	2525-200L-2T	2	25	25	40	200	12.0
	3232-150L-3T	3	32	32	40	150	12.0
	3232-200L-3T	3	32	32	40	200	12.0
	4032-150L-4T	4	40	32	40	150	12.0
MEA17N	4032-200L-4T	4	40	32	40	200	12.0
	3232-150L-2T	2	32	32	50	150	16.3
	3232-200L-2T	2	32	32	50	200	16.3
	4032-150L-3T	3	40	32	50	150	16.3
	4032-200L-3T	3	40	32	50	200	16.3

## ME A Type Shell Mill



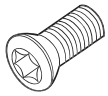

Designations		No. of Inserts	Dimension (mm)					Arbor
			D	D2	d	H	ap	
MEA09N	032-16-05T	5	32	30.4	16	35	8.0	A
	040-16-06T	6	40	38.4	16	40	8.0	A
	050-22-07T	7	50	48.0	22	40	8.0	A
	063-22-09T	9	63	59.2	22	40	8.0	A
MEA12N	040-16-04T	4	40	38.4	16	40	12.0	A
	050-22-05T	5	50	48.0	22	40	12.0	A
	063-22-06T	6	63	59.2	22	50	12.0	A
	080-27-07T	7	80	63.0	27	50	12.0	B
	100-32-09T	9	100	80.0	32	50	12.0	B
	125-40-10T	10	125	82.0	40	63	12.0	B
	160-40-12T	12	160	105.0	40	63	12.0	C
MEA17N	040-16-03T	3	40	38.4	16	40	16.3	A
	050-22-04T	4	50	48.0	22	40	16.3	A
	063-22-06T	6	63	59.2	22	50	16.3	A
	080-27-07T	7	80	63.0	27	50	16.3	B
	100-32-08T	8	100	80.0	32	50	16.3	B
	125-40-10T	10	125	82.0	40	63	16.3	B
	160-40-12T	12	160	105.0	40	63	16.3	C
	200-60-10T	10	200	135.0	60	63	16.3	C
	250-60-12T	12	250	144.0	60	63	16.3	C

## ME A Type Milling Modular

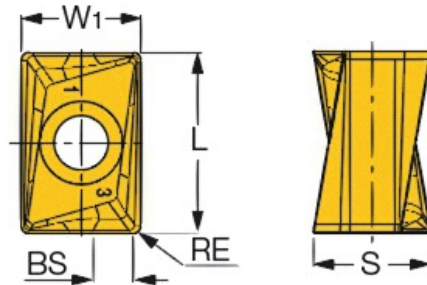


Designations		No. of Inserts	Dimension (mm)					
			D	M	D2	L1	ap	WF
MEA09N	020-M10-3T	3	20	M10	18.7	30	8.0	16.0
	025-M12-4T	4	25	M12	21.0	28	8.0	17.0
	032-M16-5T	5	32	M16	29.0	30	8.0	25.0

## Parts


TYPE		
	Insert screw	Wrench
MEA09N	TS25	T-8
MEA12N	TS35	T-15
MEA17N	TS45	T-20

## Available inserts ANGX

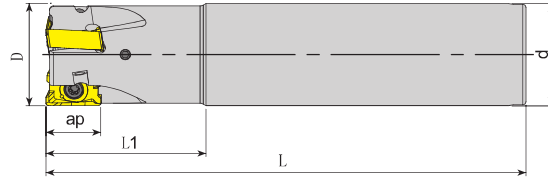


▲good △In general

Workpiece	Steel	△	▲	▲			▲	▲	▲	△	
	Stainless steel	▲		△				▲	△	▲	
	Castiron			△		▲	▲		△		
	Non-ferrous metal				△	△			△	△	
	Heat resistant alloy, Titanium alloy								▲	▲	▲
	Hardened steel	△						▲			△

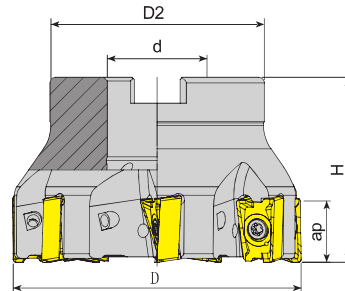
Designations	Dimensions (mm)					CVD Coated						PVD Coated								
	W1	L	S	RE	BS	DCP9330	DCP9340	DCP9350	DCK5205	DCK5305	DCK5215	DCK5315	DCK5225	DCK5325	DCM8115	DCM8125	DCM8225	DCM8328	DCM8335	
<b>ANGX</b>	090408PNTR	6.5	8.52	5.20	0.8	5.0	○	○	○			●		●		○	●	●	●	○
	120508PNTR	10.0	13.67	9.15	0.8	3.5	○	○	○			●		●		○	●	●	●	○
	170608PNTR	11.2	16.70	10.40	0.8	4.7	○	○	○			●		●		○	●	●	●	○

## EPN Type Endmill



Designation	No. of Inserts	Dimension (mm)					
		D1	d	L1	L	ap	
EPN03R	1616-100L-2T	2	16	16	25	100	11.0
	1616-150L-2T	2	16	16	25	150	11.0
	2020-100L-3T	3	20	20	28	100	11.0
	2020-150L-3T	3	20	20	28	150	11.0
	2525-150L-4T	4	25	25	43	150	11.0
	2525-200L-4T	4	25	25	43	200	11.0
	3232-150L-5T	5	32	32	49	150	11.0
	3232-200L-5T	5	32	32	49	200	11.0
	4032-200L-5T	5	40	32	49	200	11.0
EPN04R	2525-100L-2T	2	25	25	43	100	15.5
	2525-150L-2T	2	25	25	43	150	15.5
	2525-200L-2T	2	25	25	43	200	15.5
	3232-150L-3T	3	32	32	49	150	15.5
	3232-200L-3T	3	32	32	50	200	15.5
	4032-150L-4T	4	40	32	49	150	15.5
	4032-200L-4T	4	40	32	50	200	15.5

## EPN Type Shell Mill

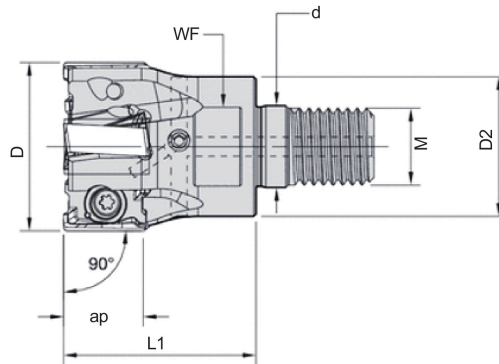


Designations	No. of Inserts	Dimension (mm)					Arbor	
		D	d	D2	H	ap		
EPN03R	040-16-06T	6	40	16	37	40	11.0	A
	040-16-07T	7	40	16	37	40	11.0	A
	050-22-07T	7	50	22	42	40	11.0	A
	050-22-09T	9	50	22	42	40	11.0	A
	063-22-07T	7	63	22	50	40	11.0	A
	063-22-09T	9	63	22	50	40	11.0	A
	080-27-08T	8	80	27	60	50	11.0	B
	080-27-10T	10	80	27	60	50	11.0	B
EPN04R	040-16-04T	4	40	16	37	40	15.5	A
	040-16-05T	5	40	16	37	40	15.5	A
	050-22-05T	5	50	22	42	40	15.5	A
	050-22-06T	6	50	22	42	40	15.5	A
	063-22-06T	6	63	22	50	40	15.5	A
	063-22-07T	7	63	22	50	40	15.5	A
	080-27-07T	7	80	27	60	50	15.5	B
	080-27-09T	9	80	27	60	50	15.5	B
	100-32-08T	8	100	32	80	50	15.5	B
	100-32-11T	11	100	32	80	50	15.5	B
	125-40-09T	9	125	40	90	63	15.5	B
	125-40-12T	12	125	40	90	63	15.5	B
	160-40-12T	12	160	40	110	63	15.5	C
	160-40-16T	16	160	40	110	63	15.5	C



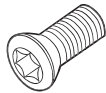



## EPN Type Milling Modular

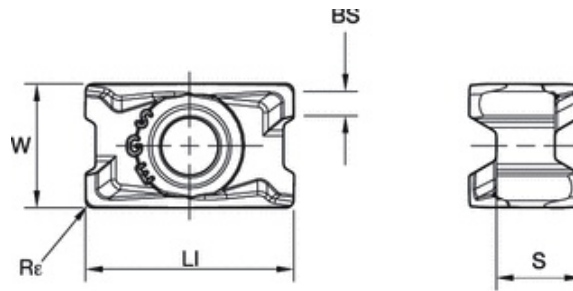


Designations		No. of Inserts	Dimension (mm)						
			D	D2	d	M	L1	WF	ap
EPN03R	016-M08-2T	2	16	13	8.5	M8	25	10	11.0
	020-M10-3T	3	20	18	10.5	M10	28	15	11.0
	025-M12-4T	4	25	21	12.5	M12	40	17	11.0
	032-M16-5T	5	32	29	17.0	M16	40	24	11.0
	040-M16-6T	6	40	29	17.0	M16	40	24	11.0
EPN04R	025-M12-2T	2	25	21	12.5	M12	32	17	15.5
	032-M16-3T	3	32	29	17.0	M16	40	24	15.5
	035-M16-4T	4	35	29	17.0	M16	40	24	15.5
	040-M16-5T	5	40	29	17.0	M16	40	24	15.5

## Parts


TYPE		
	Insert screw	Wrench
EPN03R	TS30	T-8
EPN04R	TS40	T-15

Available inserts  
**LNPU**

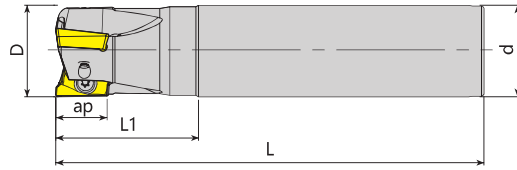


▲good △In general

<b>Workpiece</b>	Steel	△	▲	▲			▲	▲	▲	△
	Stainless steel	▲		△				▲	△	▲
	Castiron		△		▲	▲			△	
	Non-ferrous metal				△	△			△	△
	Heat resistant alloy, Titanium alloy							▲	▲	▲
	Hardened steel	△						▲		△

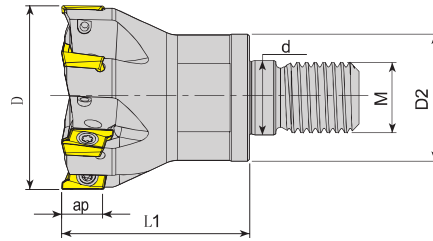
Designations	Dimensions (mm)					CVD Coated					PVD Coated								
	L1	W	S	BS	Re	DCP9330	DCP9340	DCP9350	DCK5205	DCK5305	DCK5215	DCK5315	DCK5225	DCK5325	DPM8115	DPM8125	DPM8225	DPM8328	DPM8335
<b>LNPU</b> 	110408SRGE	12.0	6.6	4.83	0.9	0.8	○	○			○		○		●	●	●	●	●
	15T608SRGE	16.9	10.0	6.96	1.8	0.8	○	○			○		○		●	●	●	●	●

## ➤ SRY Type Shoulder Endmill



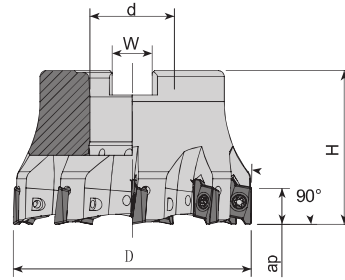
Designation		No. of Inserts	Dimension (mm)				
			D	d	L2	L	ap
SRT07	1010-120L-2T	2	10	10	30	120	6.0
	1212-120L-2T	2	12	12	30	120	6.0
	1616-150L-3T	3	16	16	30	150	6.0
	1716-150L-3T	3	17	16	30	150	6.0
	2020-150L-4T	4	20	20	30	150	6.0
SRT10	1616-150L-2T	2	16	16	50	150	9.0
	1716-150L-2T	2	17	16	40	150	9.0
	2020-150L-3T	3	20	20	50	150	9.0
	2020-200L-3T	3	20	20	50	200	9.0
	2525-150L-4T	4	25	25	50	150	9.0
	2525-200L-4T	4	25	25	50	200	9.0
	3232-150L-5T	5	32	32	50	150	9.0
	3232-200L-5T	5	32	32	50	200	9.0

## ➤ SRT Type Shoulder Milling Modular





Designation		No.of Inserts	Dimension (mm)				
			D	M	D2	L1	ap
SRT07	010-M05-2T	2	10	M5	9.8	20	6.0
	012-M06-2T	2	12	M6	10.0	20	6.0
	016-M08-3T	3	16	M8	12.8	25	6.0
	020-M10-4T	4	20	M10	17.8	30	6.0
SRT10	016-M08-2T	2	16	M8	12.8	25	9.0
	020-M10-3T	3	20	M10	17.8	30	9.0
	025-M12-4T	4	25	M12	20.8	35	9.0
	032-M16-5T	5	32	M16	28.8	43	9.0

## ➤ SRY Type Shoulder Shell Mill



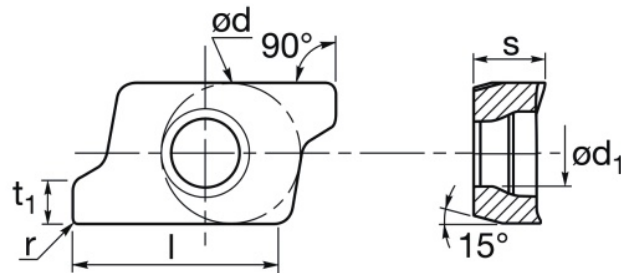
Designation		No.of Inserts	Dimension (mm)					Arbor
			D	d	W	H	ap	
SRT10	040-16-06T	6	40	16	8.4	40	9.0	A
	050-22-07T	7	50	22	10.4	40	9.0	A
	063-22-09T	9	63	22	10.4	40	9.0	A

## ➤ Parts

TYPE		
	Insert screw	Wrench
SRT07	TS20	T-6
SRT10	TS25	T-8


Available inserts

**RT**

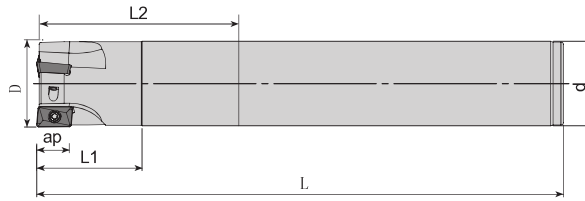


▲ good    △ In general

Workpiece	Steel	△	▲	▲			▲	▲	▲	△	
	Stainless steel	▲		△					▲	△	▲
	Castiron			△		▲	▲			△	
	Non-ferrous metal				△	△				△	△
	Heat resistant alloy, Titanium alloy								▲	▲	▲
	Hardened steel	△							▲		△

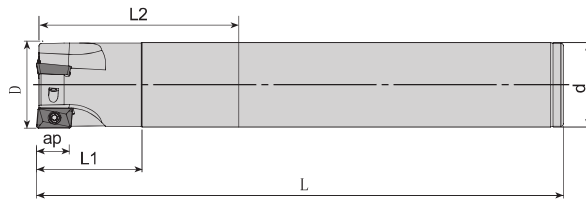
Designations	Dimensions (mm)						CVD Coated						PVD Coated							
	d	l	S	d1	t1	r	DCP9330	DCP9340	DCP9350	DCK5205	DCK5305	DCK5215	DCK5315	DCK5225	DCK5325	DPM8115	DPM8125	DPM8225	DPM8328	DPM8335
<b>RT-81</b> 	070204R-81	4.30	6.4	2.38	2.2	1.1	0.4										●			
	100308R-81	6.35	9.1	3.40	2.9	1.6	0.8										●			

## ➤ BAP Type Shoulder Endmill



Designation		No. of Inserts	D	d	ap	L1	L2	L
BAP300R	10-130-C10-1T	1	10	10		30	-	130
	11-130-C10-1T	1	11	10		30	-	130
	12-130-C12-1T	1	12	12		30	-	130
	13-130-C12-1T	1	13	12		30	-	130
	16-130-C16-2T	2	16	16		40	-	130
	16-160-C15-2T	2	16	15		40	-	160
	16-160-C16-2T	2	16	16		40	-	160
	16-200-C16-2T	2	16	16		40	100	200
	17-120-C16-2T	2	17	16		40	-	120
	17-160-C16-2T	2	17	16		40	-	160
	17-200-C16-2T	2	17	16		40	-	200
	20-130-C20-2T	2	20	20		40	-	130
	20-160-C19-2T	2	20	19	9	50	-	160
	20-160-C20-2T	2	20	20		50	-	160
	20-200-C20-2T	2	20	20		50	100	200
	20-200-C19-2T	2	20	20		50	-	200
	21-160-C20-2T	2	21	20		50	-	160
	21-200-C20-2T	2	21	20		50	-	200
	21-250-C20-2T	2	21	20		50	-	250
	25-120-C25-3T	3	25	25		50	-	120
	25-160-C25-3T	3	25	25		50	-	160
	25-200-C25-3T	3	25	25		50	-	200
	25-160-C24-2T	2	25	24		40	-	160
	25-160-C25-2T	2	25	25		50	-	160
25-200-C24-2T	2	25	24		50	-	200	

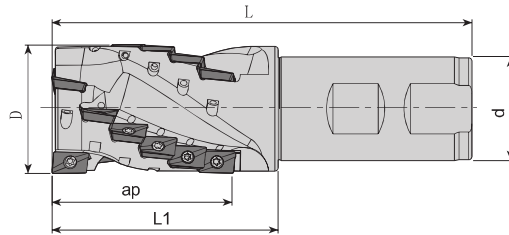
## ➤ BAP Type Shoulder Endmill



Designation		No. of Inserts	D	d	ap	L1	L2	L
BAP400R	25-200-C25-2T	2	25	25		75	--	200
	25-250-C25-2T	2	25	25		50	115	250
	26-160-C25-2T	2	26	25		40	-	160
	26-200-C25-2T	2	26	25		50	-	200
	26-250-C25-2T	2	26	25		50	-	250
	26-300-C25-2T	2	26	25		50	-	300
	30-160-C25-2T	2	30	25		50	-	160
	30-200-C25-2T	2	30	25		50	-	200
	32-160-C32-2T	2	32	32		50	-	160
	32-200-C32-2T	2	32	32		80	-	200
	32-250-C32-2T	2	32	32		60	115	250
	32-300-C32-2T	2	32	32		60	115	300
	32-350-C32-3T	3	32	32	14	80	-	350
	35-160-C32-2T	2	35	32		60	-	160
	35-200-C32-2T	2	35	32		60	-	200
	35-160-C32-3T	3	35	32		60	-	160
	35-200-C32-3T	3	35	32		60	-	200
	35-250-C32-3T	3	35	32		60	-	250
	35-300-C32-3T	3	35	32		60	-	300
	35-350-C32-3T	3	35	32		60	-	350
	35-400-C32-3T	3	35	32		60	-	400
	40-200-C32-3T	3	40	32		60	-	200
	40-250-C32-3T	3	40	32		60	-	250
	40-300-C32-3T	3	40	32		60	-	300
40-350-C32-3T	3	40	32		60	-	350	
40-400-C32-3T	3	40	32		60	-	400	

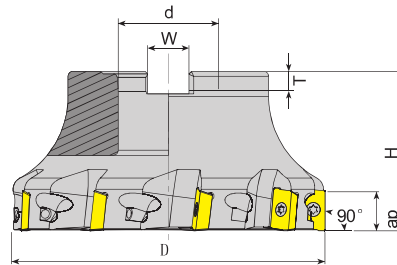


## ➤ BAP Type Shoulder Endmill



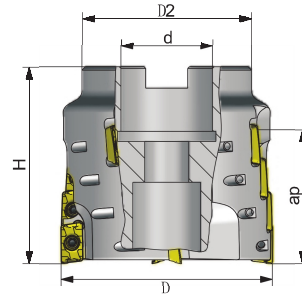
Designations	No. of flute	No. of Inserts	Dimension (mm)					Adapter	
			D	d	L1	L	ap		
BAP300	20-C20-025M-120L-2T	2	6	20	20	45	120	25	W
	20-C20-045M-130L-2T	2	10	20	20	65	130	45	W
	20-C20-065M-200L-2T	2	16	20	20	80	200	65	W
	25-C25-035M-130L-2T	2	8	25	25	55	130	35	W
	25-C25-045M-130L-2T	2	10	25	25	65	130	45	W
	25-C25-065M-200L-2T	2	16	25	25	80	200	65	W
BAP400R	32-C32-045M-150L-3T	3	15	32	32	65	150	45	W
	32-C32-040M-150L-2T	2	6	32	32	55	150	40	W
	32-C32-052M-150L-2T	2	8	32	32	65	150	52	W
	32-C32-066M-220L-2T	2	10	32	32	80	220	66	W
	32-C32-095M-220L-2T	2	14	32	32	110	220	95	W
	33-C32-052M-150L-2T	2	8	33	32	65	150	52	W
	33-C32-066M-220L-2T	2	10	33	32	80	220	66	W
	33-C32-095M-220L-2T	2	14	33	32	110	220	95	W
	35-C32-052M-150L-2T	2	8	35	32	65	150	52	W
	35-C32-066M-220L-2T	2	10	35	32	80	220	66	W
	35-C32-095M-220L-2T	2	14	35	32	110	220	95	W
	40-C32-066M-150L-3T	3	15	40	32	65	150	66	W
	40-C32-095M-220L-3T	3	21	40	32	80	220	95	W
	50-C32-066M-150L-3T	3	15	50	32	80	150	66	W
	50-C40-066M-150L-3T	3	15	50	40	80	150	66	W
	50-C32-095M-175L-3T	3	21	50	32	110	175	95	W
50-C40-095M-175L-3T	3	21	50	40	110	175	95	W	
50-C32-140M-220L-3T	3	33	50	32	160	220	140	W	

## ➤ BAP Type Shoulder Shell Mill



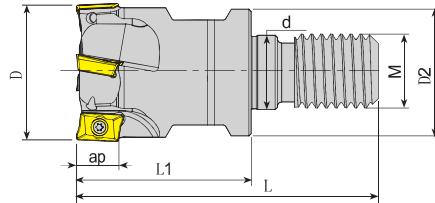
Designation		No. of Inserts	D	d	ap	W	T	H	Arbor
BAP300R	040-16-05T	5	40	16		8.4	5.6	40	A
	050-22-06T	6	50	22	9	10.4	6.3	50	A
	063-22-07T	7	63	22		10.4	6.3	50	A
BAP400R	050-22-04T	4	50	22		10.4	6.3	50	A
	063-22-04T	4	63	22		10.4	6.3	50	A
	080-27-06T	6	80	27		12.4	7.0	50	B
	100-32-06T	6	100	32	14	14.4	8.0	50	B
	125-40-07T	7	125	40		16.4	9.0	63	B
	160-40-08T	8	160	40		16.4	9.0	63	C
	200-60-09T	9	200	60		25.7	14.0	63	C
250-60-14T	14	250	60		25.7	14.0	63	C	

## ➤ BAP Type Shoulder Face Mill



Designations	No. of flute	No. of Inserts	Dimension (mm)					Arbor	
			D	d	D2	H	ap		
BAP400R	045-22-28M-03T	3	6	45	22	37	40	28	A
	050-22-42M-03T	3	9	50	22	40	55	42	A
	050-22-42M-04T	4	12	50	22	40	55	42	A
	050-22-60M-04T	4	16	50	22	40	80	60	A
	063-27-42M-04T	4	12	63	27	48	55	42	A
	063-27-60M-04T	4	16	63	27	48	80	60	A
	063-27-95M-04T	4	28	63	27	48	120	95	A
	080-32-72M-05T	5	25	80	32	60	90	72	B
	100-40-72M-06T	5	30	100	40	70	90	72	B

## ➤ BAP Type Shoulder Milling Modular

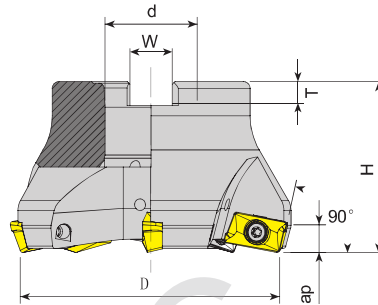


Designation <sup>29</sup> .		No. of Inserts	Dimension (mm)						
			D	d	D2	L1	L	M	ap
BAP300R	013-M06-1T	1	13	6.5	10.0	28	42	M6	9
	016-M08-2T	2	16	8.5	13.0	27	44	M8	9
	017-M08-2T	2	17	8.5	13.0	27	44	M8	9
	020-M10-2T	2	20	10.5	18.0	29	48	M10	9
	021-M10-2T	2	21	10.5	18.0	29	48	M10	9
	025-M12-3T	3	25	12.5	21.0	34	56	M12	9
	026-M12-3T	3	26	12.5	21.0	34	56	M12	9
BAP400R	025-M12-2T	2	25	12.5	21.0	40	61	M12	14
	026-M12-2T	2	26	12.5	21.0	40	61	M12	14
	030-M16-2T	2	30	17.0	29.0	40	61	M16	14
	035-M16-3T	3	35	17.0	29.0	40	61	M16	14

## ➤ Parts

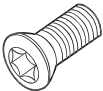
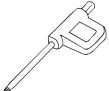
TYPE		
	Insert screw	Wrench
BAP300R	TS25	T-8
BAP400R	TS40	T-15

## ➤ BAP Type Shoulder Shell Mill

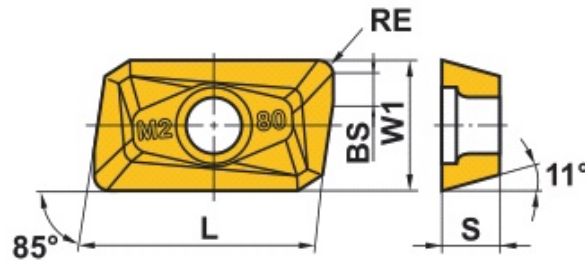


Designation		No. of Inserts	D	d	ap	W	T	H	Arbor
RAP300R	050-22-04T	4	50	22	6	10.4	6.3	50	A
	063-22-05T	5	63	22	6	10.4	6.3	50	A
	080-27-06T	6	80	27	6	12.4	7.0	50	B
RAP400R	063-22-04T	4	63	22	8	10.4	6.3	50	A
	080-27-05T	5	80	27	8	12.4	7.0	50	B
	100-32-06T	6	100	32	8	14.4	8.0	50	B
	125-40-07T	7	125	40	8	16.4	9.0	63	B
	160-40-08T	8	160	40	8	16.4	9.0	63	C
	200-60-09T	9	200	60	8	25.7	14.0	63	C
	250-60-10T	10	250	60	8	25.7	14.0	63	C

## ➤ Parts

TYPE		
	Insert screw	Wrench
RAP300R	TS25	T-8
RAP400R	TS40	T-15

## Available inserts APMT

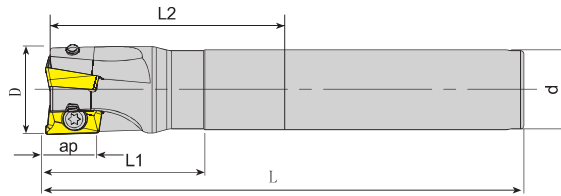


▲good △In general

Workpiece	Steel	△	▲	▲			▲	▲	▲	△		
	Stainless steel	▲		△					▲	△	▲	
	Castiron				△		▲	▲			△	
	Non-ferrous metal						△	△			△	△
	Heat resistant alloy, Titanium alloy									▲	▲	▲
	Hardened steel	△								▲		△

Designations	Dimensions (mm)						CVD Coated					PVD Coated							
	L	W1	S	BS	RE	DCP9330	DCP9340	DCP9380	DCK5205	DCK5305	DCK5215	DCK5315	DCK5225	DCK5325	DFM8115	DFM8125	DFM8225	DFM8328	DFM8335
<b>APMT-H2</b> 	1135PDER-H2	11.0	6.35	3.5	1.2	0.8	○	○	○						●	●	●	●	●
	1604PDER-H2	16.5	9.525	4.76	1.7	0.8	○	○	○						●	●	●	●	●
<b>APMT-M2</b> 	1135PDER-M2	11.0	6.35	3.5	1.2	0.8	○	○	○						●	●	●	●	●
	1604PDER-M2	16.5	9.525	4.76	1.7	0.8	○	○	○						●	●	●	●	●
<b>APMT-XM</b> 	1135PDER-XM	11.0	6.35	3.5	1.2	0.8	○	○	○						●	●			
	1605PDER-XM	16.4	9.33	5.26	1.6	0.8	○	○	○						●	●			

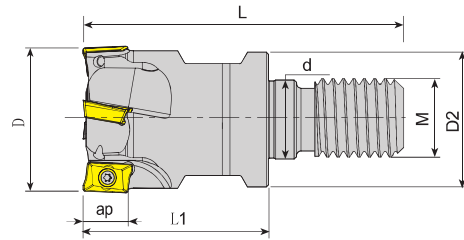
## RA390 Type Shoulder Shell Mill



mm

Designation		No. of Inserts	D	d	ap	L1	L
RA390-11	16-160-C16-2T	2	16	16		40	160
	16-200-C16-2T	2	16	16		50	200
	17-160-C16-2T	2	17	16		40	160
	17-200-C16-2T	2	17	16		45	200
	20-160-C20-2T	2	20	20		40	160
	20-200-C19-2T	2	20	19		45	200
	20-200-C20-2T	2	20	20		50	200
	21-160-C20-2T	2	21	20	11	45	160
	21-200-C20-2T	2	21	20		45	200
	25-160-C25-2T	2	25	25		40	160
	25-200-C25-2T	2	25	25		50	200
	25-220-C24-2T	2	25	24		50	220
	26-160-C25-2T	2	26	25		50	160
	26-200-C25-2T	2	26	25		50	200
26-250-C25-2T	2	26	25		50	250	
RA390-17	25-160-C25-2T	2	25	25		40	160
	25-200-C25-2T	2	25	25	17	50	200
	26-200-C25-2T	2	26	25		50	200
	32-200-C25-2T	2	32	25		50	200

## RA390 Type Shoulder Milling Moduler

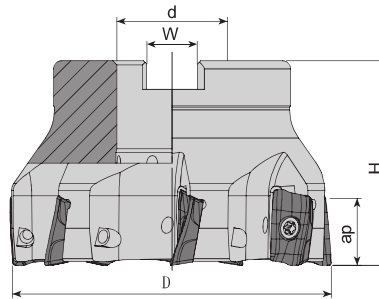


mm

Designation	No. of Inserts	Dimension (mm)							
		D	d	D2	L1	L	M	ap	
RA390-11	012-M06-1T	1	12	6.5	11	24	40	M6	11
	016-M08-2T	2	16	8.5	15	26	43	M8	11
	017-M08-2T	2	17	8.5	15	26	43	M8	11
	020-M10-2T	2	20	10.5	18	32	50	M10	11
	021-M10-2T	2	21	10.5	18	32	50	M10	11
	025-M12-3T	3	25	12.5	23	38	60	M12	11
RA390-17	025-M12-2T	2	25	12.5	23	38	60	M12	17
	026-M12-2T	2	26	12.5	23	38	60	M12	17
	030-M12-2T	2	30	12.5	25	38	60	M12	17
	032-M16-3T	3	32	17.0	29	41	63	M16	17
	035-M16-3T	3	35	17.0	32	41	63	M16	17
	040-M16-4T	4	40	17.0	32	41	63	M16	17



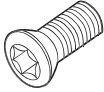

## RA390 Type Shoulder Shell Mill



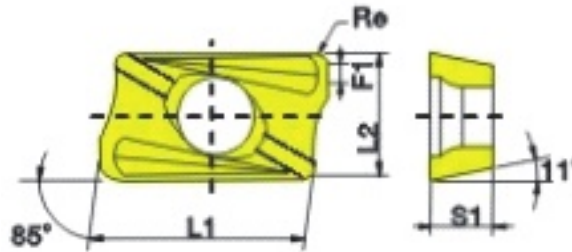
mm

Designation		No. of Inserts	D	d	ap	W	T	H	Arbor
RA390-11	050-22-04T	4	50	22	11	10.4	6.3	50	A
	063-22-04T	4	63	22	11	10.4	6.3	50	A
RA390-17	063-22-04T	4	63	22	17	10.4	6.3	50	A
	080-27-06T	6	80	27	17	12.4	7.0	50	B
	100-32-06T	6	100	32	17	14.4	8.0	50	B
	125-40-06T	6	125	40	17	16.4	9.0	63	B
	160-40-08T	8	160	40	17	16.4	9.0	63	C

## Parts

TYPE		
	Insert screw	Wrench
RA390-11	TS25	T-8
RA390-17	TS35	T-15

## Available inserts R390

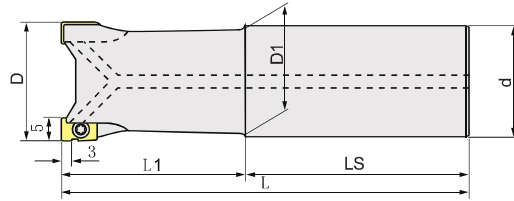


▲good △In general

Workpiece	Steel	△	▲	▲			▲	▲	▲	△		
	Stainless steel	▲		△					▲	△	▲	
	Cast iron			△			▲	▲		△		
	Non-ferrous metal						△	△			△	△
	Heat resistant alloy, Titanium alloy									▲	▲	▲
	Hardened steel	△								▲		△

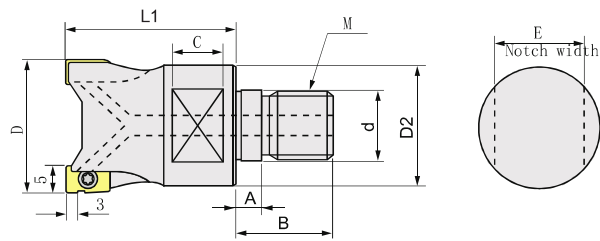
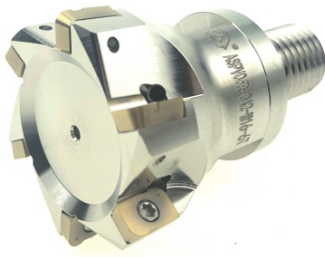
Designations	Dimensions (mm)						CVD Coated						PVD Coated						
	L	L2	S1	Re	F	DCP9330	DCP9340	DCP9350	DCK5205	DCK5305	DCK5215	DCK5315	DCK5225	DCK5325	DPM8115	DPM8125	DPM8225	DPM8328	DPM8335
<b>R390-PL</b> 	11T308-PL	10.0	6.8	3.59	0.8	1.2	○	○	○						●	●			
	170408-PL	15.7	9.6	4.76	0.8	1.5	○	○	○						●	●			
<b>R390-PM</b> 	11T308-PM	10.0	6.8	3.59	0.8	1.2	○	○	○						●	●			
	170408-PM	15.7	9.6	4.76	0.8	1.5	○	○	○						●	●			

## ASPV Type Endmill



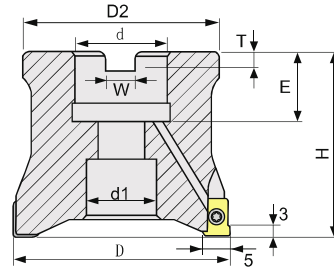
Designations		No. of Inserts	Dimension (mm)					
			D	L1	L	ls	d	D1
ASPV06R	1616-100L-2T	2	16	30	100	70	16	14.5
	2020-100L-3T	3	20	30	100	70	20	18.0
	2020-150L-3T	3	20	30	150	120	20	18.0
	2525-150L-4T	4	25	40	150	110	25	23.0
	2525-200L-4T	4	25	40	200	160	25	23.0
	3025-150L-4T	4	30	50	150	100	25	28.0
	3025-200L-4T	4	30	50	200	150	25	28.0
	3232-150L-5T	5	32	50	150	100	32	30.0
	3232-200L-5T	5	32	50	200	150	32	30.0
	3532-150L-5T	5	35	50	150	100	32	31.0
	3532-200L-5T	5	35	50	200	150	32	31.0
	4032-150L-6T	6	40	50	150	100	32	31.0
	4032-200L-6T	6	40	50	200	150	32	31.0

## ASPV Type Milling Modular



Designations		No. of Inserts	Dimension (mm)								
			D	L1	d	M	D2	A	B	C	E
ASPV06R	016-M08-2T	2	16	25	8.5	M8	12.8	5.5	17	8	10
	020-M10-3T	3	20	30	10.5	M10	17.8	5.5	19	10	15
	025-M12-4T	4	25	35	12.5	M12	20.8	5.5	22	10	17
	032-M16-5T	5	32	40	17.0	M16	28.8	6.0	23	12	22
	035-M16-5T	5	35	40	17.0	M16	28.8	6.0	23	12	22
	042-M16-6T	6	42	40	17.0	M16	28.8	6.0	23	12	22

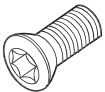

## ASPV Type Shell Mill



mm

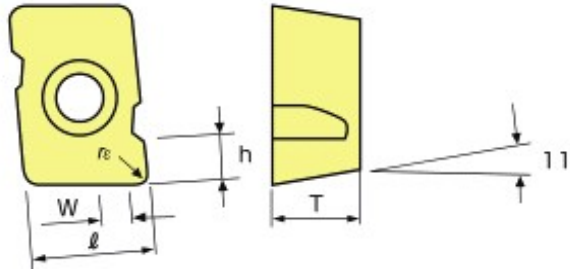
Designation	No. of Inserts	Dimension (mm)									Arbor
		D	H	d	d1	D2	W	T	E		
ASPV06R	040-16-06T	6	40	40	16	13.5	38	8.4	5.6	18	A
	050-22-07T	7	50	50	22	17.0	47	8.4	6.3	20	A
	063-22-08T	8	63	50	22	17.0	60	10.4	6.3	20	A

## Parts

TYPE		
	Insert screw	Wrench
ASPV06R	TS25	T-8


Available inserts

# MPHW

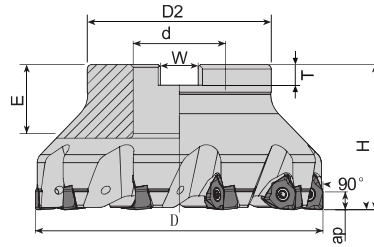


▲ good △ In general

Workpiece	Steel	△	▲	▲				▲	▲	▲	△	
	Stainless steel	▲		△					▲	△	▲	
	Castiron			△		▲	▲			△		
	Non-ferrous metal					△	△			△	△	
	Heat resistant alloy, Titanium alloy									▲	▲	▲
	Hardened steel	△							▲			△

Designations	Dimensions (mm)					CVD Coated						PVD Coated							
	l	h	T	w	re	DCP9330	DCP9340	DCP9350	DCK5205	DCK5305	DCK5215	DCK5315	DCK5225	DCK5325	DPM8115	DPM8125	DPM8225	DPM8328	DPM8335
<b>MPHW</b>	060304EL	6.35	3.0	3.18	-	0.4									○	●	●		
	060308EL	6.35	3.0	3.18	-	0.8									○	●	●		
	060320EL	6.35	3.0	3.18	-	2.0									○	●	●		
	060304EL-0.5	6.35	3.0	3.18	0.5	0.4									○	○	○		
	060308EL-1.5	6.35	3.0	3.18	1.5	0.8									○	○	○		

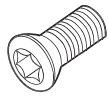

## TFWN Type Shell Mill



Rake Angle	A.R.	R.R.	
	(MAX.) +13°	D=63 -10° D=80 -9° D=100 -8°	D=125 -7.5° D=160-250 -7°

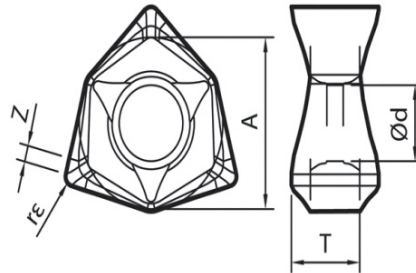
Designation	No. of Inserts	Dimension (mm)								Arbor
		D	d	D2	H	E	T	W		
TFWND90	050R-22-03T	3	50	22	40	40	21	6.3	10.4	A
	063R-22-04T	4	63	22	47	40	21	6.3	10.4	A
	080R-27-05T	5	80	27	60	50	24	7.0	12.4	B
	100R-32-07T	7	100	32	70	50	30	8.0	14.4	B
	125R-40-08T	8	125	40	87	63	33	9.0	16.4	B
	160R-40-10T	10	160	40	102	63	32	9.0	16.4	C
	200R-60-12T	12	200	60	142	63	40	14.0	25.7	C
	250R-60-14T	14	250	60	142	63	40	14.0	25.7	C

## Parts

TYPE		
	Insert screw	Wrench
TFWNP90	PS50	T-15


➤ Available inserts

# WNMU



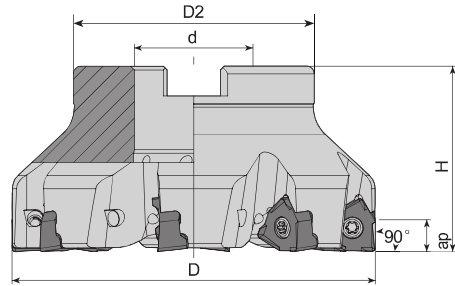
▲ good    △ In general

Workpiece	Steel	△	▲	▲			▲	▲	▲	△
	Stainless stell	▲		△				▲	△	▲
	Castiron		△		▲	▲			△	
	Non-ferrous metal				△	△			△	△
	Heat resistant alloy, Titanium alloy							▲	▲	▲
	Hardened steel	△						▲		△

Designations	Dimensions (mm)					CVD Coated						PVD Coated								
	A	T	d	Z	rε	DCP9330	DCP9340	DCP9350	DCK5205	DCK5305	DCK5215	DCK5315	DCK5225	DCK5325	DPM8115	DPM8125	DPM8225	DPM8328	DPM8335	
<b>WNMU-GM</b> 	080604-GM	14.02	6.65	6.2	1.7	0.4														
	080608-GM	14.02	6.65	6.2	1.5	0.8	○	○	○			○	○		●	●	●			

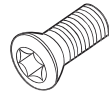



## TFWN Type Shell Mill

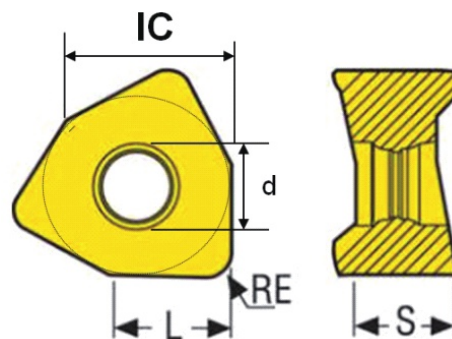


Designation	No. of Inserts	Dimension (mm)					Arbor	
		D	d	H	ap	D2		
TFXND	90050-22-04T	4	50	50	45	7.5	40	A
	90063-22-06T	6	63	22	45	7.5	47	A
	90080-27-07T	7	80	27	50	7.5	60	B
	90100-32-08T	8	100	32	52	7.5	70	B
	90125-40-10T	10	125	40	60	7.5	87	B
	90160-40-12T	12	160	40	63	7.5	102	C
	90200-60-14T	14	200	60	63	7.5	142	C
	90250-60-16T	16	250	60	63	7.5	142	C

## Parts


TYPE		
	Insert screw	Wrench
TFXND	PS40	T-15

## Available inserts XNEX

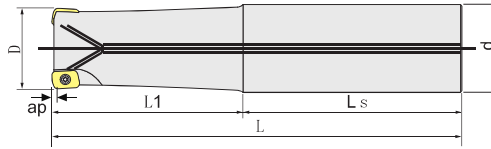


▲good △In general

Workpiece	Steel	△	▲	▲			▲	▲	▲	△
	Stainless stell	▲		△				▲	△	▲
	Castiron		△		▲	▲			△	
	Non-ferrous metal				△	△			△	△
	Heat resistant alloy, Titanium alloy							▲	▲	▲
	Hardened steel	△						▲		△

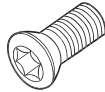

Designations	Dimensions (mm)					CVD Coated						PVD Coated							
	IC	L	S	d	RE	DCP9330	DCP9340	DCP9350	DCK5205	DCK5305	DCK5215	DCK5315	DCK5225	DCK5325	DPM8115	DPM8125	DPM8225	DPM8328	DPM8335
<b>XNEX-ME09</b>	080604TR-ME09	12.49	7.5	6.45	4.5	0.4													
	080608TR-ME09	12.49	7.5	6.45	4.5	0.8	●	●	○		●	●	●	○	●	●	●	●	●
	080612TR-ME09	12.49	7.5	6.45	4.5	1.2	●	●	○		●	●	●	○	●	●	●	●	●
	080616TR-ME09	12.49	7.5	6.45	4.5	1.6													

## ASR High Feedrate Endmill

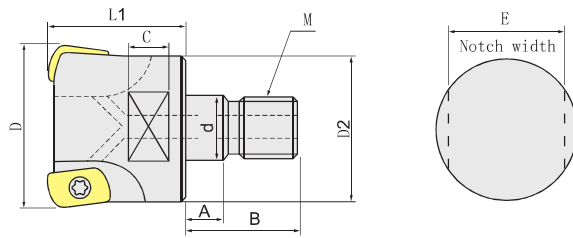


Designation		No. of Inserts	D	d	ap	L1	L	LS
ASR20	16-160-C16-2T	2	16	16	2	50	160	110
	17-160-C16-2T	2	17	16	2	30	160	130
	20-160-C20-2T	2	20	20	2	50	160	110
	21-160-C20-2T	2	21	20	2	30	160	130
	25-160-C25-3T	3	25	25	2	50	160	110
	25-200-C25-3T	3	25	25	2	50	200	150
	26-200-C25-3T	3	26	25	2	40	200	160
	32-160-C32-4T	4	32	32	2	75	160	85
	33-160-C32-4T	4	33	32	2	45	160	115
	33-200-C32-4T	4	33	32	2	45	200	155

## Parts

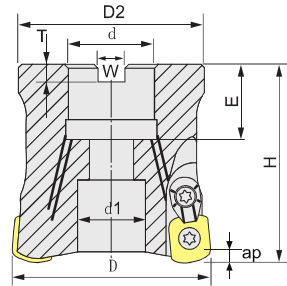
TYPE		
	Insert screw	Wrench
ASR20	TS25	T-8

## ASR Type Milling Modular



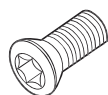

Designation		No. of Inserts	Dimension (mm)								
			D	L1	d	D2	M	A	B	C	E
ASR20	016-M08-2T	2	16	25	8.5	13	M8	5.5	17	10	10
	017-M08-2T	2	17	25	8.5	13	M8	5.5	17	10	10
	020-M10-3T	3	20	30	10.5	18	M10	6.0	19	10	15
	021-M10-3T	3	21	30	10.5	18	M10	6.0	19	10	15
	025-M12-4T	4	25	35	12.5	21	M12	7.0	22	10	17
	026-M12-4T	4	26	35	12.5	21	M12	7.0	22	10	17
	032-M16-5T	5	32	40	17.0	29	M16	7.0	23	12	22
	040-M16-6T	6	40	40	17.0	29	M16	7.0	23	12	22

## ASR High Feedrate Face Mill

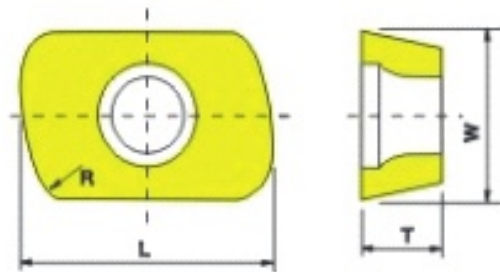


Designation		No. of Inserts	D	d	W	T	H	D2	E	d1	ap
ASR20	040-16-04T	4	40	16	8.4	5.6	42	38	18	13.5	2.0
	050-22-05T	5	50	22	10.4	6.3	50	47	20	17.0	2.0
	063-22-06T	6	63	22	10.4	6.3	50	60	20	17.0	2.0

## Parts

TYPE		
	Insert screw	Wrench
ASR20	TS35	T-8

## Available Inserts EP

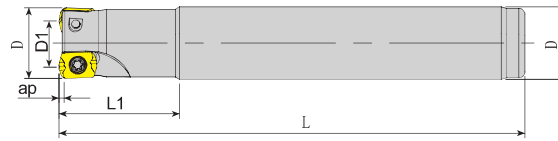


▲good △In general

Workpiece	Steel	△	▲	▲			▲	▲	▲	△
	Stainless steel	▲		△				▲	△	▲
	Castiron		△		▲	▲			△	
	Non-ferrous metal				△	△			△	△
	Heat resistant alloy, Titanium alloy							▲	▲	▲
	Hardened steel	△						▲		△

Designations	Dimensions (mm)				CVD Coated							PVD Coated						
	L	T	R	W	DCP9330	DCP9340	DCP9350	DCK5205	DCK5305	DCK5215	DCK5315	DCK5225	DCK5325	DPM8115	DPM8125	DPM8225	DPM8328	DPM8335
<b>EPNW</b> 	0603TN-8	10	3.18	8	6.35									○	●	●		
<b>EPMT-TT</b> 	0603TN-TT	10	3.18	8	6.35									●	●	○		
<b>EPMT-TM</b> 	0603TT-TM	10	3.18	8	6.35									●	●	○		

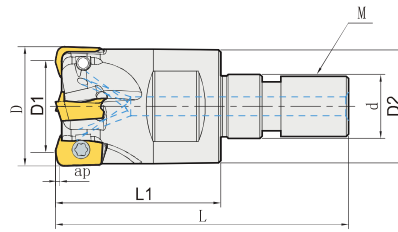
## MFH Micro Type Endmill



Designations		No. of Inserts	Dimension (mm)							
			D	D1	d	L1	L	ap	Maximum ramping angle a	A.R
MFHM01R	0810-075L-1T	1	8	4.2	10	16	75		4°	
	1010-080L-2T	2	10	6.2	10	20	80		3°	
	1212-080L-3T	3	12	8.2	12	20	80	0.5	2°	+5°
	1412-080L-3T	3	14	10.2	12	20	80		1.5°	
	1616-100L-4T	4	16	12.2	16	25	100		1.2°	

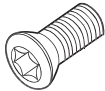

DURATEC

## MFH Micro Type Milling Modular



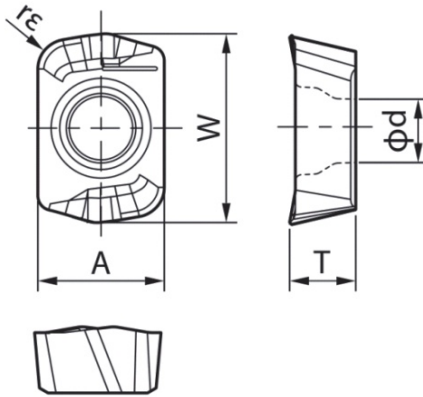
Designations		No. of Inserts	Dimension (mm)								Maximum ramping angle $\alpha$	A.R
			D	D1	D2	d	L1	L	M1	ap		
MFHM01R	008-M06-1T	1	8	4.2	9.2	6.5	17	31.5	M6		4°	
	010-M06-2T	2	10	6.2	9.2	6.5	17	31.5	M6		3°	
	012-M06-3T	3	12	8.2	11.2	6.5	17	31.5	M6	0.5	2°	+5°
	014-M06-3T	3	14	10.2	11.2	6.5	17	31.5	M6		1.5°	
	016-M08-4T	4	16	12.2	14.7	8.5	22	40.0	M8		1.2°	

## Parts

TYPE		
	Insert screw	Wrench
MFHM01R	T18	T-6




## Available inserts LPGT

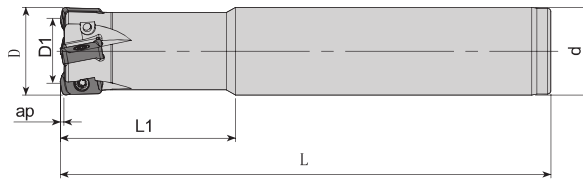


▲good △In general

Workpiece	Steel	△	▲	▲			▲	▲	▲	△
	Stainless stell	▲		△				▲	△	▲
	Castiron		△		▲	▲			△	
	Non-ferrous metal				△	△			△	△
	Heat resistant alloy, Titanium alloy							▲	▲	▲
	Hardened steel	△						▲		△

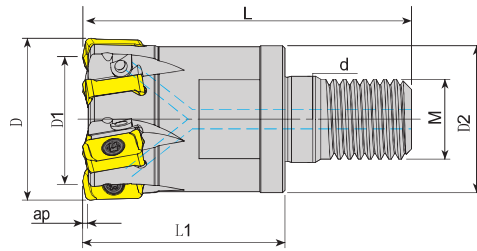
Designations	Dimensions (mm)					CVD Coated						PVD Coated							
	A	T	d	W	re	DCP9330	DCP9340	DCP9350	DCK5205	DCK5305	DCK5215	DCK5315	DCK5225	DCK5325	DPM8115	DPM8125	DPM8225	DPM8328	DPM8335
LPGT-GM 	010210ER-GM	4.19	2.19	2.1	6.26	1.0									○	●	●	●	○

## MFH Type Endmill



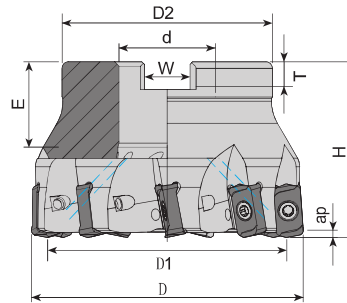
Designation	No. of Inserts	Dimension (mm)							ap	A.R.
		D	D1	d	L	L1				
MFH03R	1616-100L-2T	2	16	8	16	100	30	1	-10°	
	1616-150L-2T	2	16	8	16	150	50			
	1716-100L-2T	2	17	9	16	100	20			
	1716-150L-2T	2	17	9	16	150	50			
	2020-150L-3T	3	20	12	20	150	70			
	2020-200L-3T	3	20	12	20	200	80			
	2220-150L-3T	3	22	14	20	150	50			
	2220-200L-3T	3	22	14	20	200	50			
	2220-150L-4T	4	22	14	20	150	50			
	2220-200L-4T	4	22	14	20	200	50			
	2525-150L-4T	4	25	17	25	150	70			
	2525-200L-4T	4	25	17	25	200	120			
	2825-150L-4T	4	28	20	25	150	50			
	2825-200L-4T	4	28	20	25	200	50			
	2825-150L-5T	5	28	20	25	150	50			
	2825-200L-5T	5	28	20	25	200	50			
	3232-150L-5T	5	32	24	32	150	70			
	3232-200L-5T	5	32	24	32	200	120			
	3232-150L-6T	6	32	24	32	150	70			
	3232-200L-6T	6	32	24	32	200	120			
	3332-150L-6T	6	33	25	32	150	50			
	3332-200L-6T	6	33	25	32	200	50			
	3532-150L-6T	6	35	27	32	150	50			
	3532-200L-6T	6	35	27	32	200	50			
4032-150L-6T	6	40	30	32	150	50				
4032-200L-6T	6	40	30	32	200	50				

## MFH Type Milling Modular



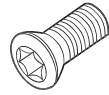

Designation	No. of Inserts	Dimension (mm)									
		D	D1	D2	d	L	L1	M	ap	A.R.	
MFH03R	016-M08-2T	2	16	8	14.7	8.5	43	25	M8		
	017-M08-2T	2	17	9	14.7	8.5	43	25	M8		
	018-M08-2T	2	18	10	14.7	8.5	43	25	M8		
	020-M10-3T	3	20	12	18.7	10.5	49	30	M10		
	020-M10-4T	4	20	12	18.7	10.5	49	30	M10		
	022-M10-3T	3	22	14	18.7	10.5	49	30	M10		
	022-M10-4T	4	22	14	18.7	10.5	49	30	M10	1	-10°
	025-M12-4T	4	25	17	23.0	12.5	57	35	M12		
	025-M12-5T	5	25	17	23.0	12.5	57	35	M12		
	028-M12-4T	4	28	20	23.0	12.5	57	35	M12		
	028-M12-5T	5	28	20	23.0	12.5	57	35	M12		
	032-M16-5T	5	32	24	30.0	17.0	63	40	M16		
	032-M16-6T	6	32	24	30.0	17.0	63	40	M16		

## MFH Type Shell Mill

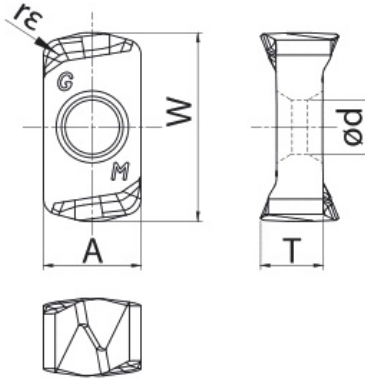


Designation	No. of Inserts	Dimension (mm)										Arbor	
		D	D1	D2	d	H	E	T	W	ap	A.R.		
MFH03R	040-16-05T	5	40	32	38	16	40	19	5.6	8.4			A
	040-16-06T	6	40	32	38	16	40	19	5.6	8.4			A
	050-22-07T	7	50	42	47	22	50	21	6.3	10.4	1	-10°	A
	050-22-08T	8	50	42	47	22	50	21	6.3	10.4			A
	063-22-08T	8	63	55	60	22	50	21	6.3	10.4			A
	063-22-09T	9	63	55	60	22	50	21	6.3	10.4			A

## Spare Parts


TYPE		
	Insert screw	Wrench
MFH03R	TS30	T-8

## Available inserts LOGU

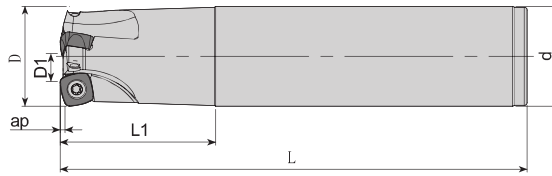


▲ good △ In general

Workpiece	Steel	△	▲	▲			▲	▲	▲	△		
	Stainless steel	▲		△					▲	△	▲	
	Castiron			△			▲	▲		△		
	Non-ferrous metal						△	△		△	△	
	Heat resistant alloy, Titanium alloy									▲	▲	▲
	Hardened steel	△								▲		△

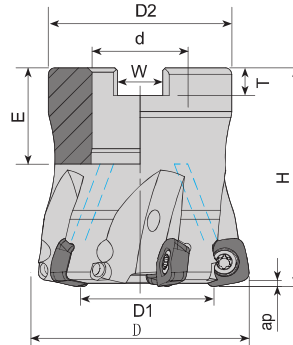
Designations	Dimensions (mm)						CVD Coated						PVD Coated							
	re	A	T	d	W		DCP9330	DCP9340	DCP9350	DCK5205	DCK5305	DCK5215	DCK5315	DCK5225	DCK5325	DPM8115	DPM8125	DPM8225	DPM8328	DPM8335
<b>LOGU-MM</b> 	030310ER-MM	1.0	6.2	3.96	3.45	11.9	○	○	○			○		○		●	●	●	●	●

## ➤ MFS Type Endmill



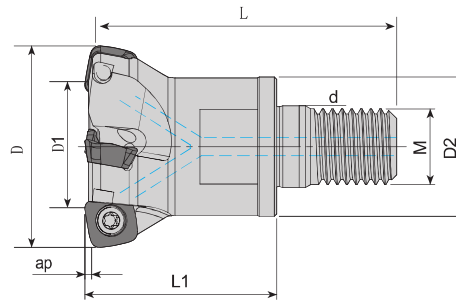
Designations		No. of Inserts	Dimension (mm)							ap	A.R
			D	D1			d	L1	L		
				GM	LD	FL					
MFS10R	2525-150L-2T	2	25	8	12.5	11.5	25	60	150	1.5	+10°
	2525-200L-2T	2	25	8	12.5	11.5	25	120	200		
	2825-150L-2T	2	28	11	15.5	14.5	25	40	150		
	2825-200L-2T	2	28	11	15.5	14.5	25	40	200		
	3232-150L-3T	3	32	15	19.5	18.5	32	70	150		
	3232-200L-3T	3	32	15	19.5	18.5	32	120	200		
	3532-150L-3T	3	35	18	22.5	21.5	32	50	150		
	3532-200L-3T	3	35	18	22.5	21.5	32	50	200		
	4032-150L-4T	4	40	23	27.5	26.5	32	50	150		
	4032-200L-4T	4	40	23	27.5	26.5	32	50	200		
	4032-250L-4T	4	40	23	27.5	26.5	32	50	250		
MFS14R	5042-150L-3T	3	50	27	33.0	32.0	42	50	150	2.0	
	6342-150L-4T	4	63	40	46.0	45.0	42	50	150		
	8042-150L-5T	5	80	57	63.0	62.0	42	50	150		

## ➤ MFS Type Shell Mill



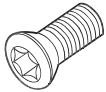

Designations		No. of Inserts	Dimension (mm)											Arbor	
			D	D1			D2	d	H	E	T	W	ap		A.R
				GM	LD	FL									
MFS10R	050-22-04T	4	50	33	37.5	36.5	47	22	50	21	6.3	10.4	1.5	+10°	A
	050-22-05T	5	50	33	37.5	36.5	47	22	50	21	6.3	10.4			A
	063-22-05T	5	63	46	50.5	49.5	60	22	50	21	6.3	10.4			A
	063-22-06T	6	63	46	50.5	49.5	60	22	50	21	6.3	10.4			A
	080-27-07T	7	80	63	67.5	66.5	76	27	63	24	7.0	12.4			B
MFS14R	050-22-04T	4	50	27	33	32	47	22	50	21	6.3	10.4	2.0	+10°	A
	063-22-05T	5	63	40	46	45	60	22	50	24	6.3	10.4			A
	080-27-06T	6	80	57	63	62	76	27	63	24	7.0	12.4			B
	100-32-07T	7	100	77	83	82	96	32	63	28	8.0	14.4			B
	125-40-07T	7	125	102	108	107	100	40	63	33	9.0	16.4			B
	160-40-08T	8	160	137	143	142	100	40	63	32	9.0	16.4	C		

## ➤ MFS Type Milling Modular



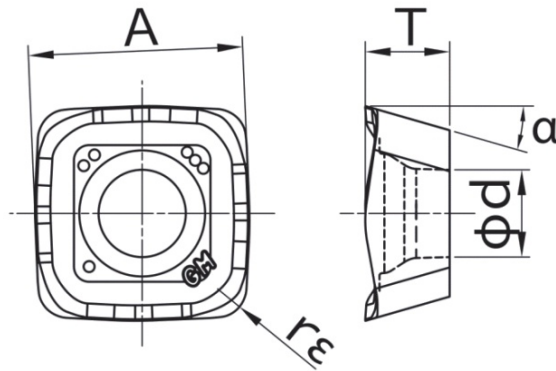
Designations		No. of Inserts	Dimension (mm)										
			D	D1			D2	d	L1	L	M	ap	A.R
				GM	LD	FL							
MFS10R	025-M12-2T	2	25	8	12.5	11.5	23	12.5	35	57	M12		
	028-M12-2T	2	28	11	15.5	14.5	23	12.5	35	57	M12		
	032-M16-3T	3	32	15	19.5	18.5	30	17.0	40	63	M16	1.5	+10°
	035-M16-3T	3	35	18	22.5	21.5	30	17.0	40	63	M16		
	040-M16-4T	4	40	23	27.5	26.5	30	17.0	40	63	M16		

## ➤ Parts

TYPE		
	Insert screw	Wrench
MFS10R	TS40	T-15
MFS14R	TS40	T-15





## Available inserts SOMT

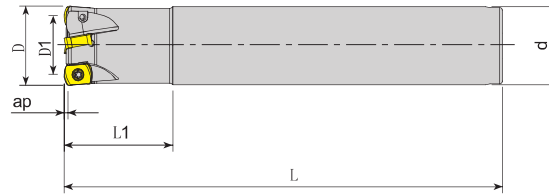


▲good △In general

Workpiece	Steel	△	▲	▲			▲	▲	▲	△
	Stainless steel	▲		△				▲	△	▲
	Castiron			△		▲	▲		△	
	Non-ferrous metal					△	△		△	△
	Heat resistant alloy, Titanium alloy							▲	▲	▲
	Hardened steel	△						▲		△

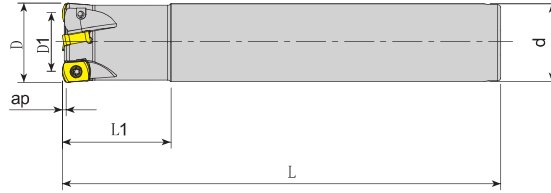
Designations	Dimensions (mm)							CVD Coated						PVD Coated						
	A	T	d	Z	re	a	DCP9330	DCP9340	DCP9350	DCK5205	DCK5305	DCK5215	DCK5315	DCK5225	DCK5325	DPM8115	DPM8125	DPM8225	DPM8328	DPM8335
<b>SOMT-GM</b> 	100420ER-GM	10.30	4.58	4.6	-	2.0	16	○	○	○						○	●	●	●	○
	140520ER-GM	14.14	5.56	5.8	-	2.0	16									○	●	●	●	○
<b>SOMT-LD</b> 	140520ER-LD	14.76	5.56	5.8	1.6	2.0	16	○	○	○			○	○		○	●	●	●	○

## TEBL Type Endmill



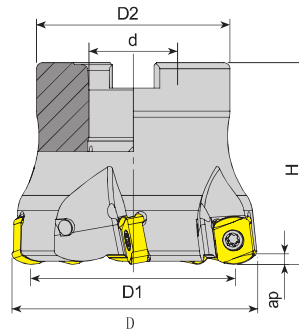
Designations		No. of Inserts	Dimension (mm)					
			D	D1	d	L1	L	ap
TEBL06R	1616-100L-2T	2	16	9.4	16	30	100	0.7
	1616-150L-2T	2	16	9.4	16	40	150	0.7
	1716-100L-2T	2	17	10.1	16	30	100	0.7
	1716-150L-2T	2	17	10.1	16	40	150	0.7
	1716-200L-2T	2	17	10.1	16	20	200	0.7
	2020-100L-3T	3	20	12.4	20	30	100	1.0
	2020-150L-3T	3	20	12.4	20	50	150	1.0
	2020-200L-3T	3	20	12.4	20	80	200	1.0
	2525-150L-4T	4	25	17.3	25	60	150	1.0
	2525-200L-4T	4	25	17.3	25	60	200	1.0
	2525-250L-4T	4	25	17.3	25	40	250	1.0
	2625-150L-4T	4	26	18.3	25	30	150	1.0
	2625-200L-4T	4	26	18.3	25	30	200	1.0
	2625-250L-4T	4	26	18.3	25	40	250	1.0
	3232-150L-5T	5	32	24.3	32	70	150	1.0
	3232-200L-5T	5	32	24.3	32	120	200	1.0
	3232-250L-5T	5	32	24.3	32	40	250	1.0
	3532-150L-6T	6	35	27.3	32	40	150	1.0
	3532-200L-6T	6	35	27.3	32	50	200	1.0
	3532-250L-6T	6	35	27.3	32	50	250	1.0

## TEBL Type Endmill



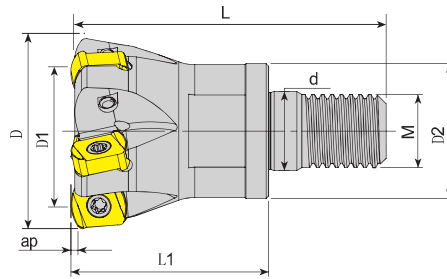
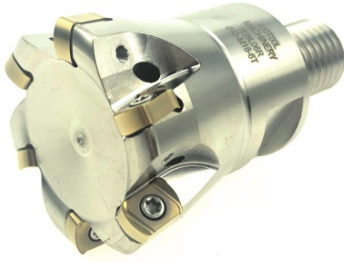
Designations		No. of Inserts	Dimension (mm)					ap
			D	D1	d	L1	L	
TEBL06R	3532-250L-6T	6	35	27.3	32	50	250	1.0
	3532-300L-6T	6	35	27.3	32	50	300	1.0
	4032-150L-6T	6	40	32.2	32	40	150	1.0
	4032-200L-6T	6	40	32.2	32	40	200	1.0
	4032-250L-6T	6	40	32.2	32	40	250	1.0
TEBL09R	2525-150L-3T	3	25	14.7	25	70	150	1.5
	2525-200L-3T	3	25	14.7	25	110	200	1.5
	2625-150L-3T	3	26	15.7	25	30	150	1.5
	2625-200L-3T	3	26	15.7	25	30	200	1.5
	3232-150L-4T	4	32	21.6	32	70	150	1.5
	3232-200L-4T	4	32	21.6	32	110	200	1.5
	3232-250L-4T	4	32	21.6	32	120	250	1.5
	4032-150L-5T	5	40	29.6	32	40	150	1.5
	4032-200L-5T	5	40	29.6	32	40	200	1.5
4032-250L-5T	5	40	29.6	32	40	250	1.5	

## TEBL Type Shell Mill



Designations		No. of Inserts	Dimension (mm)						Arbor
			D	D1	d	D2	H	ap	
TFBL06R	032-16-05T	5	32	24.3	16	30	40	1.0	A
	040-16-06T	6	40	32.2	16	38	40	1.0	A
	050-22-07T	7	50	42.2	22	45	50	1.0	A
	050-22-08T	8	50	42.2	22	45	50	1.0	A
	063-22-08T	8	63	55.5	22	47	50	1.0	A
	063-22-09T	9	63	55.5	22	47	50	1.0	A
TFBL09R	040-16-05T	5	40	29.6	16	38	40	1.5	A
	050-22-06T	6	50	39.6	22	45	50	1.5	A
	050-22-07T	7	50	39.6	22	45	50	1.5	A
	063-22-07T	7	63	52.6	22	47	50	1.5	A
	063-22-08T	8	63	52.6	22	47	50	1.5	A
	080-27-08T	8	80	69.6	27	70	50	1.5	B
	080-27-10T	10	80	69.6	27	70	50	1.5	B
	100-32-10T	10	100	89.6	32	85	60	1.5	B
	100-32-12T	12	100	89.6	32	85	60	1.5	B
	125-40-12T	12	125	114.6	40	85	60	1.5	B
125-40-14T	14	125	114.6	40	85	60	1.5	B	

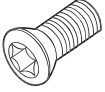

## TEBL Type Milling Modular



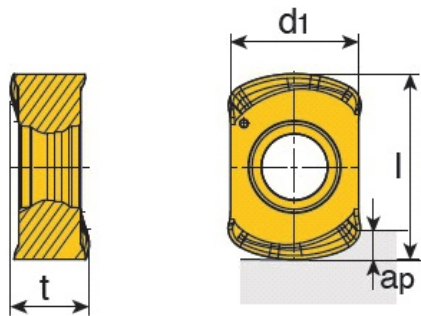
mm

Designations		No. of Inserts	Dimension (mm)						
			D	D1	D2	M	L1	L	ap
TEBL06R	016-M08-2T	2	16	9.4	13	M8	25	42.5	0.7
	018-M08-2T	2	18	11.1	13	M8	25	42.5	0.7
	020-M10-3T	3	20	12.4	18	M10	30	50.0	1.0
	025-M12-4T	4	25	17.3	21	M12	35	57.0	1.0
	032-M16-5T	5	32	24.3	29	M16	40	65.0	1.0
	035-M16-5T	5	35	27.3	29	M16	43	68.0	1.0
	040-M16-6T	6	40	32.2	29	M16	43	68.0	1.0
	042-M16-6T	6	42	34.2	29	M16	43	68.0	1.0
TEBL09R	025-M12-3T	3	25	14.7	21	M12	35	57.0	1.5
	030-M16-3T	3	30	19.6	29	M16	43	68.0	1.5
	032-M16-4T	4	32	21.6	29	M16	43	68.0	1.5
	040-M16-5T	5	40	29.6	29	M16	43	68.0	1.5
	042-M16-5T	5	42	31.6	29	M16	43	68.0	1.5

## Parts


TYPE		
	Insert screw	Wrench
TEBL06R TFBL06R	TS30	T-8
TEBL09R TFBL09R	TS40	T-15

Available inserts  
**BLMP**

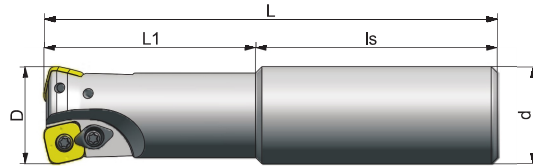


▲good △In general

Workpiece	Steel	△	▲	▲				▲	▲	▲	△
	Stainless steel	▲		△					▲	△	▲
	Castiron			△		▲	▲			△	
	Non-ferrous metal					△	△			△	△
	Heat resistant alloy, Titanium alloy								▲	▲	▲
	Hardened steel	△							▲		

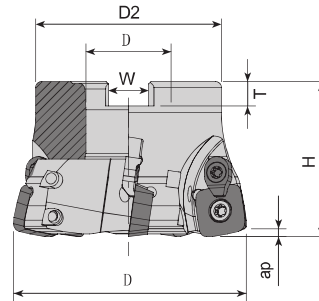
Designations	Dimensions (mm)				CVD Coated						PVD Coated						
	d1	l	t	ap	DCP9330	DCP9340	DCP9350	DCP9305	DCP9215	DCP9315	DCP9225	DCP9325	DPM8115	DPM8125	DPM8225	DPM8328	DPM8335
<b>BLMP-M</b> 	0603R-M	6.39	9.0	3.73	1.0	○	○	○			○	○	●	●	●	●	●
	0904R-M	9.18	11.9	4.80	1.5	○	○	○			○	○	●	●	●	●	●

## ASRF High Feedrate Endmill







Designation		No. of Inserts	D	d	L1	Ls	L
ASRF12	33-150-C32-2T	2	33	32	70	80	150
	33-200-C32-2T	2	33	32	120	80	200
	33-250-C32-2T	2	33	32	70	180	250
ASRF15	35-150-C32-2T	2	35	32	70	80	150
	35-200-C32-2T	2	35	32	120	80	200
	35-250-C32-2T	2	35	32	70	180	250

## ASRF Type Shell Mill



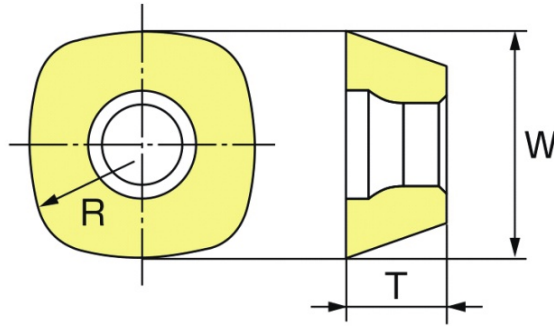
Designation		No. of Inserts	D	D2	d	W	T	H	ap	Arbor
ASRF12	050-22-04T	4	50	47	22	10.4	6.3	50	2.0	A
	063-22-04T	4	63	60	22	10.4	6.3	50	2.0	A
ASRF15	050-22-03T	3	50	47	22	10.4	6.3	50	3.0	A
	063-22-04T	4	63	60	22	10.4	6.3	50	3.0	A
	080-27-05T	5	80	70	27	12.4	7.0	50	3.0	B
	100-32-05T	5	100	90	32	14.4	8.0	50	3.0	B
	125-40-06T	6	125	90	40	16.4	9.0	63	3.0	B
	160-40-08T	8	160	120	40	16.4	9.0	63	3.0	C
	200-60-08T	8	200	120	60	25.7	14.0	63	3.0	C
200-60-10T	10	250	120	60	25.7	14.0	63	3.0	C	

## Parts

TYPE				
	Clamp	Clamp screw	Insert screw	Wrench
ASRF12	ASRT-12	TS40	TS40	T-15
ASRF15	ASRT-15	TS50	TS50	T-20





## Available inserts SD

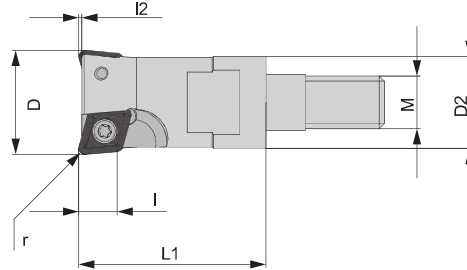


▲good △In general

Workpiece	Steel	△	▲	▲			▲	▲	▲	△	
	Stainless steel	▲		△				▲	△	▲	
	Castiron			△		▲	▲			△	
	Non-ferrous metal					△	△			△	△
	Heat resistant alloy, Titanium alloy								▲	▲	▲
	Hardened steel		△						▲		△

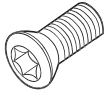

Designations	Dimensions (mm)			CVD Coated						PVD Coated							
	R	T	W	DCP9330	DCP9340	DCP9350	DCK5205	DCK5305	DCK5215	DCK5315	DCK5225	DCK5325	DPM8115	DPM8125	DPM8225	DPM8328	DPM8335
<b>SDNW</b> 	120512	15	5.56	12.7													
	150512	15	5.56	18.875													
<b>SDMT-GH</b> 	120512-GH	15	5.56	12.7	○	○	○		○		○		●	●	●	●	○
	150512-GH	15	5.56	18.875	○	○	○		○		○		●	●	●	●	○

## ➤ XDH Type Milling Modular

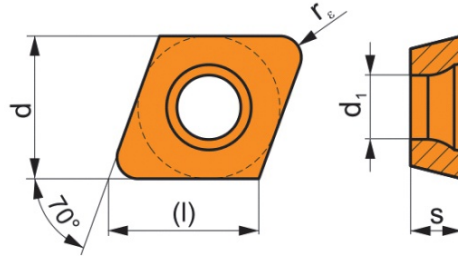


Designation <sup>29</sup> .		No. of Inserts	Dimension (mm)						
			D	D2	L1	M	l <sub>2</sub>	l	r
XDH06	016-M08-2T	2	16	13.8	28.5	M8	1.3	6.5	1.0
	020-M10-3T	3	20	18.0	28.5	M10	1.3	6.5	1.0
	025-M12-4T	4	25	21.0	32.5	M12	1.3	6.5	1.0
	030-M12-5T	5	30	21.0	32.5	M12	1.3	6.5	1.0
	035-M16-6T	6	35	29.0	42.5	M16	1.3	6.5	1.0
	042-M16-6T	6	42	29.0	42.5	M16	1.3	6.5	1.0
XDH10	025-M12-2T	2	25	21.0	32.0	M12	-	10.0	1.0
	030-M12-3T	3	30	21.0	32.0	M12	-	10.0	1.0
	035-M16-3T	3	35	29.0	42.0	M16	-	10.0	1.0
	042-M16-4T	4	42	29.0	42.0	M16	-	10.0	1.0

## ➤ XDH Type Milling Modular


TYPE		
	Insert screw	Wrench
XDH06	TS25	T-8
XDH10	TS35	T-15

## Available inserts XDHW

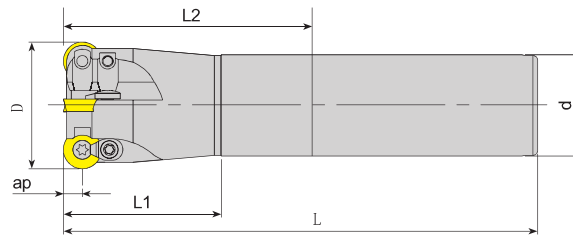


▲good △In general

Workpiece	Steel	△	▲	▲				▲	▲	▲	△
	Stainless steel	▲		△					▲	△	▲
	Castiron			△		▲	▲			△	
	Non-ferrous metal					△	△			△	△
	Heat resistant alloy, Titanium alloy								▲	▲	▲
	Hardened steel	△							▲		△

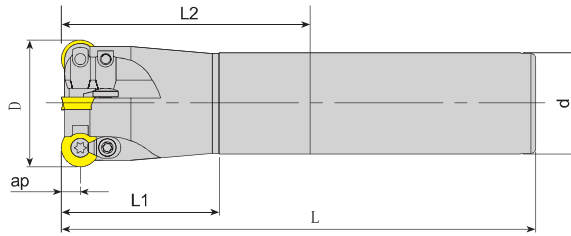
Designations	Dimensions (mm)				CVD Coated							PVD Coated							
	d	S	r	d1	DCP9330	DCP9340	DCP9350	DCK5205	DCK5305	DCK5215	DCK5315	DCK5225	DCK5325	DPM8115	DPM8125	DPM8225	DPM8328	DPM8335	
<b>XDHW</b>	060210SN	6.5	2.38	1.0	2.95										●	●			
	10T310SN	10.0	3.97	1.0	3.95										●	●			

## EMR Corner Radius Endmill



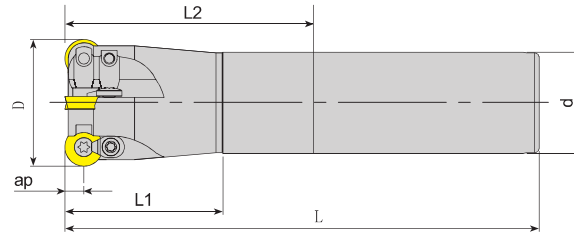
Designation		No. of Inserts	D	d	ap	L1	L2	L
EMR-4R	12-130-C12-1T	1	12	12		40	-	130
	13-130-C12-1T	1	13	12		40	-	130
	16-130-C16-2T	2	16	16		40	-	130
	16-160-C16-2T	2	16	16		40	-	160
	16-160-C15-2T	2	16	15		40	-	160
	16-200-C16-2T	2	16	16		40	100	200
	16-200-C15-2T	2	16	16		40	-	200
	17-160-C16-2T	2	17	16	4	40	-	160
	17-200-C16-2T	2	17	16		50	-	200
	20-160-C20-2T	2	20	20		50	-	160
	20-200-C20-2T	2	20	20		50	100	200
	20-160-C19-2T	2	20	19		50	-	160
	20-200-C19-2T	2	20	19		50	-	200
	21-160-C20-2T	2	21	20		50	-	160
	21-200-C20-2T	2	21	20		50	-	200
EMR-5R	20-160-C20-2T	2	20	20		50	-	160
	20-200-C20-2T	2	20	20		50	100	200
	21-160-C20-2T	2	21	20		50	-	160
	21-200-C20-2T	2	21	20	5	50	-	200
	25-160-C20-2T	2	25	20		50	-	160
	25-160-C25-2T	2	25	25		50	-	160
	25-160-C24-2T	2	25	24		50	-	160

## EMR Corner Radius Endmill







Designation		No. of Inserts	D	d	ap	L1	L2	L
EMR-5R	25-200-C20-2T	2	25	20	5	50	-	200
	25-200-C25-2T	2	25	25		75	-	200
	25-200-C24-2T	2	25	24		50	-	200
	25-250-C25-2T	2	25	25		60	115	250
	25-250-C24-2T	2	25	24		50	-	250
	26-160-C25-2T	2	26	25		50	-	160
	26-200-C25-2T	2	26	25		50	-	200
	26-250-C25-2T	2	26	25		50	-	250
	30-110-C20-2T	2	30	20		40	-	110
	30-110-C3/4-2T	2	30	19.05		40	-	110
	30-160-C25-2T	2	30	25		50	-	160
	30-200-C25-2T	2	30	25		50	-	200
	30-250-C25-2T	2	30	25		60	-	250
	30-300-C25-2T	2	30	25		60	-	300
	30-300-C32-2T	2	30	32		60	-	300
	35-160-C32-2T	2	35	32		50	-	160
	35-160-C32-3T	3	35	32		50	-	160
	35-200-C32-2T	2	35	32		50	-	200
	35-200-C32-3T	3	35	32		50	-	200
	35-250-C32-3T	3	35	32		60	-	250
35-300-C32-3T	3	35	32	60	-	300		
35-350-C32-3T	3	35	32	60	-	350		

## EMR Corner Radius Endmill

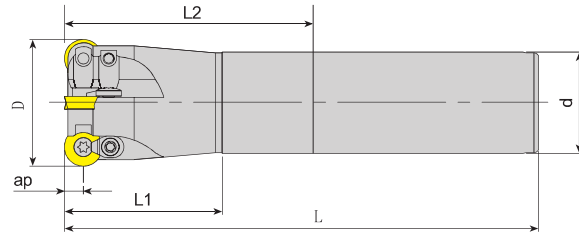


Designation		No. of Inserts	D	d	ap	L1	L2	L
EMR-5R	35-400-C32-3T	3	35	32	5	60	-	400
	40-160-C32-4T	4	40	32		50	-	160
	40-200-C32-4T	4	40	32		50	-	200
	40-250-C32-4T	4	40	32		60	-	250
	40-300-C32-4T	4	40	32		60	-	300
	40-350-C32-4T	4	40	32		60	-	350

## Parts

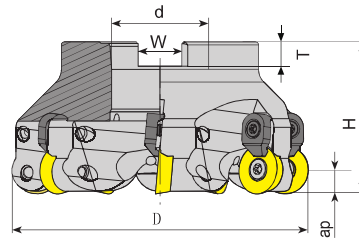
TYPE				
	Clamp	Clamp screw	Insert screw	Wrench
EMR-4R	Y-4R	TS30	TS25	T-8
EMR-5R	Y-5R	TS40	TS35	T-15

## EMR Corner Radius Endmill



Designation		No. of Inserts	D	d	ap	L1	L2	L
EMRW-6R	25-200-C25-2T	2	25	25	6	50	-	200
	25-250-C25-2T	2	25	25		60	-	250
	32-160-C32-2T	2	32	32		50	-	160
	32-200-C25-2T	2	32	25		50	-	200
	32-200-C32-2T	2	32	32		80	-	200
	32-250-C25-2T	2	32	25		60	-	250
	32-250-C32-2T	2	32	32		100	-	250
	35-160-C32-3T	3	35	32		50	-	160
	35-200-C32-3T	3	35	32		50	-	200
	35-250-C32-3T	3	35	32		60	-	250
	35-300-C32-3T	3	35	32		60	-	300
	35-350-C32-3T	3	35	32		60	-	350
	35-400-C32-3T	3	35	32		60	-	400
	40-160-C32-3T	3	40	32		50	-	160
	40-200-C32-3T	3	40	32		50	-	200
	40-250-C32-3T	3	40	32		60	-	250
	40-300-C32-3T	3	40	32		60	-	300
	40-350-C32-3T	3	40	32		60	-	350
	50-200-C32-4T	4	50	32		60	-	200
	50-250-C32-4T	4	50	32		60	-	250

## EMR/EMRW Corner Radius Face Mill



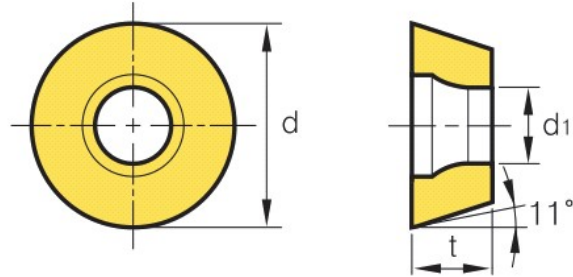
Designation		No. of Inserts	D	d	ap	W	T	H	Arbor
EMR-5R	050-22-04T	4	50	22	5	10.4	6.3	50	A
	063-22-04T	4	63	22		10.4	6.3	50	A
	080-27-06T	6	80	27		12.4	7.0	50	A
	100-32-06T	6	100	32		14.4	7.0	50	A
	125-40-07T	7	125	40		16.4	9.0	63	A
	160-40-08T	8	160	40		16.4	9.0	63	B
EMRW-6R	050-22-04T	4	50	22	6	10.4	6.3	50	B
	063-22-04T	4	63	22		10.4	6.3	50	B
	080-27-06T	6	80	27		12.4	7.0	50	C
	100-32-06T	6	100	32		14.4	7.0	50	C
	125-40-07T	7	125	40		16.4	9.0	63	C
	160-40-08T	8	160	40		16.4	9.0	63	
	200-60-09T	9	200	60		25.7	14.0	63	

## Parts

TYPE				
	Clamp	Clamp screw	Insert screw	Wrench
EMR-5R	Y-5R	TS40	TS35	T-15
EMRW-6R	Y-6R	TS40	TS40	T-15





## Available inserts RP

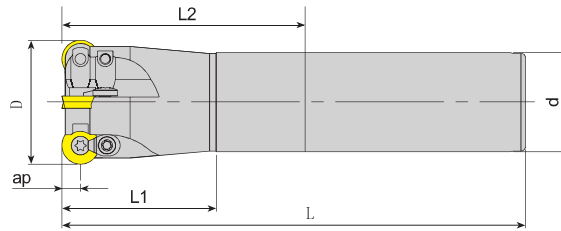


▲good △In general

Workpiece	Steel	△	▲	▲				▲	▲	▲	△
	Stainless steel	▲		△					▲	△	▲
	Castiron			△		▲	▲			△	
	Non-ferrous metal						△	△		△	△
	Heat resistant alloy, Titanium alloy								▲	▲	▲
	Hardened steel	△							▲		△

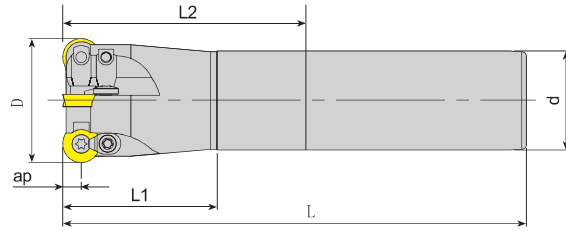
Designations		Dimensions (mm)			CVD Coated						PVD Coated							
		d	t	d1	DGP9330	DGP9340	DGP9350	DCK5205	DCK5305	DCK5215	DCK5315	DCK5225	DCK5325	DPM8115	DPM8125	DPM8225	DPM8328	DPM8335
<b>RPMW</b> 	08T2MO	8.0	2.78	2.94	○	○				○	○			●	●	●		
	10T3MO	10.0	3.97	4.00	○	○				○	○			●	●	●		
	1204MO	12.0	4.76	4.50	○	○				○	○			●	●	●		
	1606MO	16.0	6.35	5.50	○	○				○	○			●	●	●		
	2006MO	20.0	6.35	5.50	○	○				○	○			●	●	●		
<b>RPMT-JS</b> 	08T2MOE-JS	8.0	2.78	2.94	○	○				○	○			●	●	●		
	10T3MOE-JS	10.0	3.97	4.00	○	○				○	○			●	●	●		
	1204MOE-JS	12.0	4.76	4.50	○	○				○	○			●	●	●		
	1606MOE-JS	16.0	6.35	5.50	○	○				○	○			●	●	●		

## TRS Corner Radius Endmill



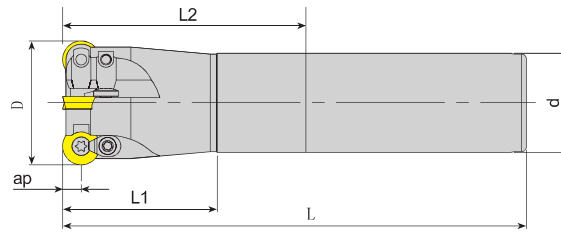
Designation		No. of Inserts	D	d	ap	L1	L2	L
TRS-2.5R	8-80-C8-1T	1	8	8	2.5	30	-	80
	10-120-C10-2T	2	10	10		40	-	120
	12-120-C12-2T	2	12	12		40	-	120
TRS-3.5R	10-120-C10-1T	1	10	10	3.5	40	-	120
	12-120-C12-1T	1	12	12		40	-	120
	16-120-C16-2T	2	16	16		40	-	120
	16-160-C16-2T	2	16	16		40	-	160
TRS-4R	12-130-C12-1T	1	12	12	4	40	-	130
	13-130-C12-1T	1	13	12		40	-	130
	16-160-C16-2T	2	16	16		40	-	160
	16-160-C15-2T	2	16	15		40	-	160
	16-200-C16-2T	2	16	16		40	100	200
	16-200-C15-2T	2	16	15		50	-	200
	17-160-C16-2T	2	17	16		40	-	160
	17-200-C16-2T	2	17	16		50	-	200
	20-160-C20-2T	2	20	20		50	-	160
	20-160-C19-2T	2	20	19		50	-	160
	20-200-C20-2T	2	20	20		50	100	200
	20-200-C19-2T	2	20	19		50	--	200
	21-160-C20-2T	2	21	20		50	-	160
	21-200-C20-2T	2	21	20		50	-	200
20-160-C20-2T	2	20	20	5	50	-	160	

## TRS Corner Radius Endmill



Designation		No. of Inserts	D	d	ap	L1	L2	L
TRS-5R	20-200-C20-2T	2	20	20	5	50	100	200
	25-160-C25-2T	2	25	25		50	-	160
	25-160-C20-2T	2	25	20		50	-	160
	25-160-C24-2T	2	25	24		50	-	160
	25-200-C25-2T	2	25	25		60	-	200
	25-250-C25-2T	2	25	25		60	115	250
	26-160-C25-2T	2	26	25		50	-	160
	26-200-C25-2T	2	26	25		60	-	200
	30-160-C25-2T	2	30	25		50	-	160
	30-200-C25-2T	2	30	25		50	-	200
	30-250-C25-2T	2	30	25		60	-	250
	35-160-C32-2T	2	35	32		50	-	160
	35-200-C32-2T	2	35	32		50	-	200
	35-160-C32-3T	3	35	32		50	-	160
	35-200-C32-3T	3	35	32		50	-	200
35-250-C32-3T	3	35	32	60	-	250		
TRS-6R	32-160-C25-2T	2	32	25	6	50	-	160
	32-200-C25-2T	2	32	25		50	-	200
	32-250-C25-2T	2	32	25		60	-	250
	35-160-C25-3T	3	35	25		50	-	160
	35-200-C25-3T	3	35	25		50	-	200
	40-160-C32-3T	3	40	32		50	-	160

## TRS Corner Radius Endmill

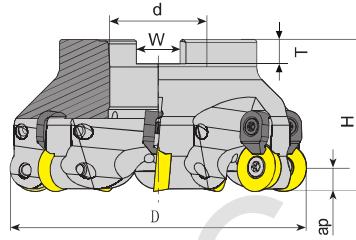


Designation		No. of Inserts	D	d	ap	L1	L2	L
TRS-6R	40-200-C32-3T	3	40	32	6	50	-	200
	40-250-C32-3T	3	40	32		60	-	250
	40-300-C32-3T	3	40	32		60	-	300

## Parts

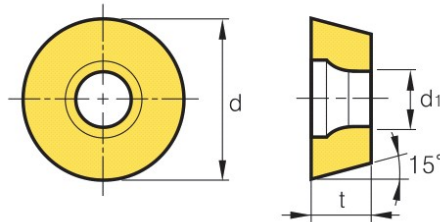
TYPE				
	Clamp	Clamp screw	Insert screw	Wrench
TRS-2.5R	-	-	TS18	T-6
TRS-3.5R	-	-	TS25	T-8
TRS-4R	Y-4R	TS30	TS25	T-8
TRS-5R	Y-5R	TS40	TS35	T-15
TRS-6R	Y-6R	TS40	TS40	T-15
TRS-8R	Y-8R	TS50	TS50	T-20

## TRS Corner Radius Face Mill



Designation		No. of Inserts	D	d	ap	W	T	H	Arbor
TRS-5R	050-22-04T	4	50	22	5	10.4	6.3	50	A
	063-22-04T	4	63	22		10.4	6.3	50	A
	080-27-06T	6	80	27		12.4	7.0	50	B
	100-32-06T	6	100	32		14.4	8.0	50	B
	125-40-07T	7	125	40		16.4	9.0	63	B
TRS-6R	050-22-04T	4	50	22	6	10.4	6.3	50	A
	063-22-04T	4	63	22		10.4	6.3	50	A
	080-27-06T	6	80	27		12.4	7.0	50	B
	100-32-06T	6	100	32		14.4	8.0	50	B
	125-40-07T	7	125	40		16.4	9.0	63	B
	160-40-08T	8	160	40		16.4	9.0	63	C
TRS-8R	063-22-04T	4	63	22	8	10.4	6.3	50	A
	080-27-05T	5	80	27		12.4	7.0	50	B
	100-32-06T	6	100	32		14.4	8.0	50	B
	125-40-06T	6	125	40		16.4	9.0	63	B
	160-40-08T	8	160	40		16.4	9.0	63	C
	200-60-09T	9	200	60		25.7	14.0	63	C

## Available inserts RDMW/RDMT

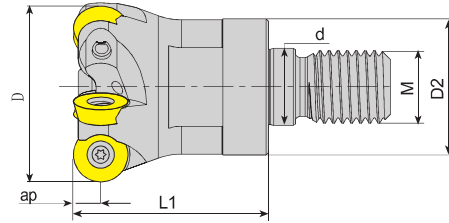


▲good △In general

Workpiece	Steel	△	▲	▲			▲	▲	▲	△
	Stainless steel	▲		△				▲	△	▲
	Castiron		△		▲	▲			△	
	Non-ferrous metal				△	△			△	△
	Heat resistant alloy, Titanium alloy							▲	▲	▲
	Hardened steel	△						▲		△

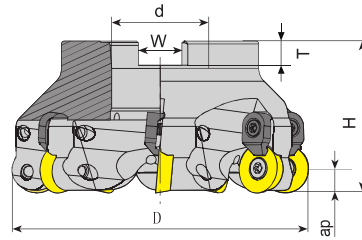
Designations	Dimensions (mm)			CVD Coated							PVD Coated						
	d	t	d1	DCP9330	DCP9340	DCP9350	DCK5205	DCK5305	DCK5215	DCK5315	DCK5225	DCK5325	DPM8115	DPM8125	DPM8225	DPM8328	DPM8335
<b>RDMW</b> 	0501MOEN	5.0	1.59	2.0									●				
	0702MOEN	7.0	2.38	2.8									●				
<b>RDMT</b> 	12T3MOT	8.0	2.38	2.8									●	●			
	1604MOT	10.0	3.97	3.9									●	●			
	1003MOTN	12.0	4.76	4.5									●	●			
	12T3MOTN	16.0	4.76	5.0									●	●			

## TRD Type Milling Modular







Designation <sup>29</sup> .	No. of Inserts	Dimension (mm)						
		D	L1	D2	M	d	Ap max	
TRD2.5R	010-M06-2T	2	10	20	9.8	M6	6.5	1.5
	012-M06-3T	3	12	20	10.0	M6	6.5	1.5
	015-M08-4T	4	15	20	13.5	M8	8.5	1.5
TRD3.5R	015-M08-2T	2	15	28	13.5	M8	8.5	2.0
	015-M08-3T	3	15	28	13.5	M8	10.5	2.0
	020-M10-4T	4	20	28	18.0	M10	12.5	2.0
	025-M12-5T	5	25	28	21.0	M12	12.5	2.0
TRD05R	020-M10-2T	2	20	32	18.0	M10	10.5	2.5
	025-M12-2T	2	25	32	21.0	M12	12.5	2.5
	025-M12-3T	3	25	32	21.0	M12	12.5	2.5
	030-M16-4T	4	30	42	29.0	M16	17.0	2.5
	035-M16-5T	5	35	42	29.0	M16	17.0	2.5
TRD06R	024-M12-2T	2	24	32	21.0	M12	12.5	3.0
	035-M16-3T	3	35	42	29.0	M16	17.0	3.0
	035-M16-4T	4	35	42	29.0	M16	17.0	3.0
	042-M16-4T	4	42	42	29.0	M16	17.0	3.0
	042-M16-5T	5	42	42	29.0	M16	17.0	3.0
TRD08R	032-M16-2T	2	32	42	29.0	M16	17.0	4.0

## TRD Corner Radius Face Mill



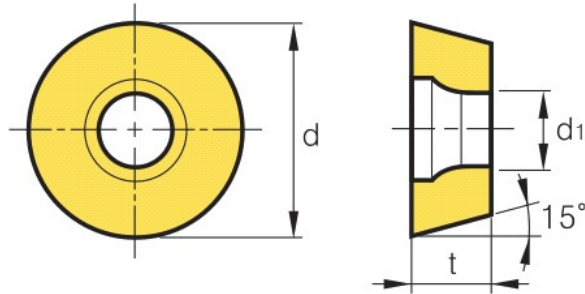
Designation		No. of Inserts	D	d	a	W	T	H	Arbor
TRD05R	050-22-04T	4	50	22	5	10.4	6.3	50	A
	063-22-04T	4	63	22		10.4	6.3	50	A
	080-27-06T	6	80	27		12.4	7.0	50	B
	100-32-06T	6	100	32		14.4	8.0	50	B
	125-40-07T	7	125	40		16.4	9.0	63	B
TRD06R	050-22-04T	4	50	22	6	10.4	6.3	50	A
	063-22-04T	4	63	22		10.4	6.3	50	A
	080-27-06T	6	80	27		12.4	7.0	50	B
	100-32-06T	6	100	32		14.4	8.0	50	B
	125-40-07T	7	125	40		16.4	9.0	63	B
	160-40-08T	8	160	40		16.4	9.0	63	C

## Parts

TYPE				
	Clamp	Clamp screw	Insert screw	Wrench
TRS-2.5R	-	-	TS20	T-6
TRS-3.5R	-	-	TS25	T-8
TRS05R	Y-5R	TS40	TS35	T-15
TRS06R	Y-6R	TS40	TS35	T-15
TRS08R	-	-	TS45	T-20





## Available inserts RD\*X

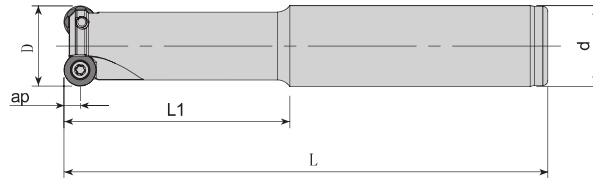


▲good △In general

Workpiece	Steel	△	▲	▲				▲	▲	▲	△
	Stainless stell	▲		△					▲	△	▲
	Castiron		△		▲	▲				△	
	Non-ferrous metal				△	△				△	△
	Heat resistant alloy, Titanium alloy								▲	▲	▲
	Hardened steel	△							▲		△

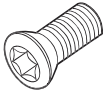

Designations	Dimensions (mm)			CVD Coated						PVD Coated							
	d	t	d1	DCP9330	DCP9340	DCP9350	DCK5205	DCK5305	DCK5215	DCK5315	DCK5225	DCK5325	DPM8115	DPM8125	DPM8225	DPM8328	DPM8335
<b>RDHX</b> 	0501MOE	5.0	1.51	2.2													
	07T1MOT	7.0	1.98	2.8													
	0702MOT	7.0	2.38	2.8													
	1003MOT	10.0	3.18	3.9										●	●		
	12T3MOT	12.0	3.97	3.9										●	●		
1604MOT	16.0	4.76	5.2														
<b>RDMX</b> 	1003MOTN	10.0	3.18	3.9									●	●			
	12T3MOTN	12.0	3.97	3.9									●	●			
	1604MOTN	16.0	4.76	5.2									●	●			

## R200 Corner Radius Endmill

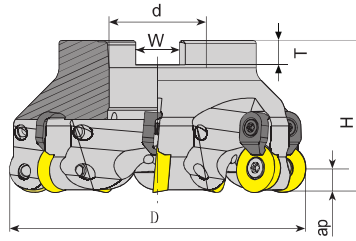


Designation		No. of Inserts	D	d	a	L1	L
R200-5R	25-160-C20-2T	2	25	20	5	-	160
	25-160-C25-2T	2	25	25	5	-	160
	25-160-C24-2T	2	25	24	5	-	160
	25-200-C24-2T	2	25	24	5	-	200
	25-200-C25-2T	2	25	25	5	75	200
R200-6R	32-160-C25-2T	2	32	25	6	-	160
	32-200-C25-2T	2	32	25	6	-	200
	32-250-C25-2T	2	32	25	6	-	250
	33-160-C32-2T	2	33	32	6	-	160
	33-200-C32-2T	2	33	32	6	-	200
	33-250-C32-2T	2	33	32	6	-	250

## Parts





TYPE		
	Insert screw	Wrench
R200-5R	TS35	T-15
R200-6R	TS35	T-15

## ➤ R200 Corner Radius Face M

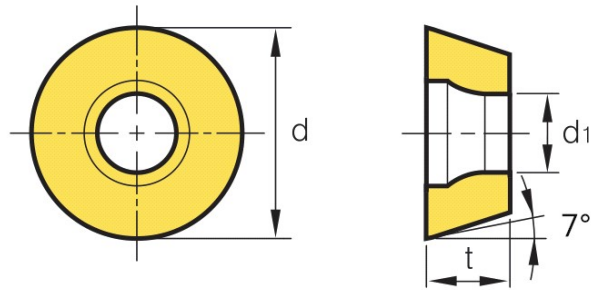


Designation		No. of Inserts	D	d	a	W	T	H	Arbor
R200-5R	050-22-4T	4	50	22	5	10.4	6.3	50	A
	063-22-4T	4	63	22		10.4	6.3	50	A
	080-27-6T	6	80	27		12.4	7.0	50	B
	100-32-6T	6	100	32		12.4	8.0	50	B
R200-6R	050-22-4T	4	50	22	6	10.4	6.3	50	A
	063-22-4T	4	63	22		10.4	6.3	50	A
	080-27-6T	6	80	27		12.4	7.0	50	B
	100-32-6T	6	100	32		14.4	8.0	50	B
R200-8R	063-22-4T	4	63	22	8	10.4	6.3	50	A
	080-27-5T	5	80	27		12.4	7.0	50	B
	100-32-6T	6	100	32		14.4	8.0	50	B
	125-40-6T	6	125	40		16.4	9.0	63	B
	160-40-8T	8	160	40		16.4	9.0	63	C
	200-60-9T	9	200	60		25.7	14.0	63	C
R200-10R	100-32-5T	5	100	32	10	14.4	8.0	63	B
	125-40-6T	6	125	40		16.4	9.0	63	B

## ➤ Parts


TYPE				
	Clamp	Clamp screw	Insert screw	Wrench
R200-5R	Y-5R	M4.0×9	M3.5×10	T-15
R200-6R	Y-6R	M4.0×10	M4.0×10	T-15
R200-8R	Y-8R	M5.0×12	M5.0×12	T-20
R200-10R	Y-8R	M5.0×12	M6.0×18	T-30

Available inserts  
**RC**

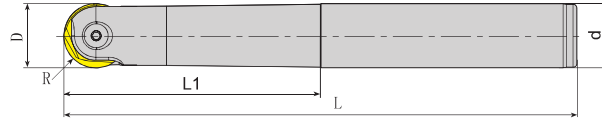


▲good △In general

Workpiece	Steel	△	▲	▲				▲	▲	▲	△
	Stainless stell	▲		△					▲	△	▲
	Castiron		△		▲	▲				△	
	Non-ferrous metal				△	△				△	△
	Heat resistant alloy, Titanium alloy								▲	▲	▲
	Hardened steel	△							▲		△

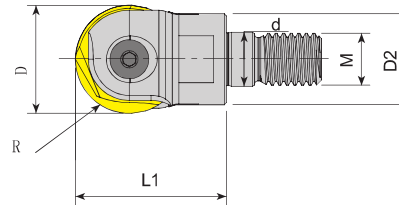
Designations	Dimensions (mm)			CVD Coated						PVD Coated							
	d	t	d1	DCP9330	DCP9340	DCP9350	DCK5205	DCK5305	DCK5215	DCK5315	DCK5225	DCK5325	DPM8115	DPM8125	DPM8225	DPM8328	DPM8335
<b>RCKT</b>	10T3MO	10.0	3.97	4.0									●	●			
	1204MO	12.0	4.76	4.0									●	●			
	1606MO	16.0	6.35	5.5									●	●			
	2006MO	20.0	6.35	5.5									●	●			

## WGR Type Ball Precision Endmill



Designations		No. of Inserts	Dimension (mm)					Spare Parts	
			D	d	L1	L	R	Screw	Wrench
WGR	04R-C08-110L	1	8	8	25	110	4	WGR-4R	T-8
	04R-C10-110L	1	8	10	25	110	4	WGR-4R	T-8
	04R-C12-140L	1	8	12	55	140	4	WGR-4R	T-8
	05R-C10-130L	1	10	10	30	130	5	WGR-5R	T-15
	05R-C12-160L	1	10	12	30	160	5	WGR-5R	T-15
	06R-C12-130L	1	12	12	32	130	6	WGR-6R	T-20
	06R-C16-160L	1	12	16	58.5	160	6	WGR-6R	T-20
	08R-C16-160L	1	16	16	65	160	8	WGR-8R	T-20
	08R-C20-200L	1	16	20	65	200	8	WGR-8R	T-20
	10R-C20-160L	1	20	20	45	160	10	WGR-10R	T-20
	10R-C20-200L	1	20	20	76	200	10	WGR-10R	T-20
	10R-C25-250L	1	20	25	120	250	10	WGR-10R	T-20
	12.5R-C25-160L	1	25	25	45	160	12.5	WGR-12.5R	T-30
	12.5R-C25-200L	1	25	25	76	200	12.5	WGR-12.5R	T-30
	12.5R-C32-200L	1	25	32	98	200	12.5	WGR-12.5R	T-30
	12.5R-C32-250L	1	25	32	120	250	12.5	WGR-12.5R	T-30
	15R-C32-200L	1	30	32	80	200	15	WGR-15R	T-30
	15R-C40-250L	1	30	40	121	250	15	WGR-15R	T-30
	16R-C32-200L	1	32	32	80	200	16	WGR-16R	T-30
	16R-C40-250L	1	32	40	121	250	16	WGR-16R	T-30

## WGR Type Ball Precision Modular

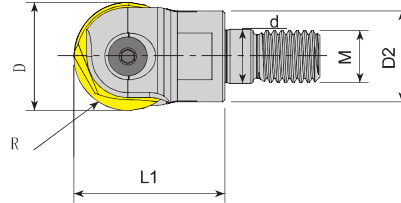


Designation		No. of Inserts	Dimension (mm)					Spare Parts		
			D	L1	d	M	D2	Screw	Wrench	R
WGR	008-M04	1	8	16	4.5	M4	9.2	WGR-4R	T15	4
	010-M05	1	10	20	5.5	M5	9.2	WGR-5R	T15	5
	012-M06	1	12	20	6.5	M6	10.0	WGR-6R	T20	6
	016-M08	1	16	28	8.5	M8	13.0	WGR-8R	T20	8
	020-M10	1	20	30	10.5	M10	18.0	WGR-10R	T20	10
	025-M12	1	25	35	12.5	M12	21.0	WGR-12.5R	T20	12.5
	030-M16	1	30	40	17.0	M16	29.0	WGR-15R	T25	15

## Available inserts

	CVD Coated				PVD Coated				Dimensions (mm)				Inserts	
	DCP9330	DCP9340	DCP9350	DCK5215	DCK5225	DPM8115	DPM8125	DPM8135	DPM8225	Dc	s	l1		d1
P3200-D08						●	●			8	2.0	4	3.0	
P3200-D10						●	●			10	2.5	5	4.0	
P3200-D12						●	●			12	2.5	6	5.0	
P3200-D16						●	●			16	3.0	6	5.0	
P3200-D20						●	●			20	3.0	6	5.0	
P3200-D25						●	●			25	4.0	9	6.0	
P3200-D30						●	●			30	5.0	10	8.0	

## PPH Type Ball Precision Modular

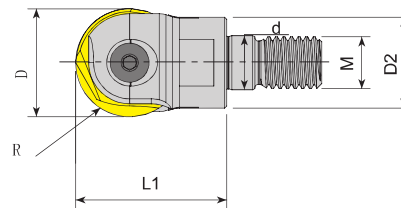


Designation <sup>29</sup>		No. of Inserts	Dimension (mm)					Spare Parts		
			D	L1	d	M	D2	Screw	Wrench	R
PPH	008-M04	1	8	16	4.5	M4	9.2	BNM-4R	T8	4
	010-M05	1	10	20	5.5	M5	9.2	BNM-5R	T8	5
	012-M06	1	12	20	6.5	M6	10.0	BNM-6R	T10	6
	016-M08	1	16	28	8.5	M8	13.0	BNM-8R	T15	8
	020-M10	1	20	30	10.5	M10	18.0	BNM-10R	T20	10
	025-M12	1	25	35	12.5	M12	21.0	BNM-12.5R	T25	12.5
	030-M16	1	30	40	17.0	M16	29.0	BNM-15R	T30	15

## Available inserts

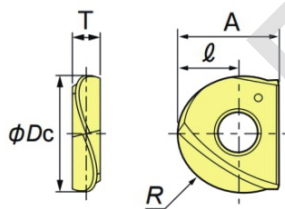
	CVD Coated					PVD Coated				Dimensions (mm)				Inserts
	DCP9330	DCP9340	DCP9350	DCK6215	DCK5225	DPM8115	DPM8125	DPM8135	DPM8225	R	A	B	T	
BNM 080						●	●			4.0	8	7.0	2.4	
BNM 100						●	●			5.0	10	8.5	2.6	
BNM 120						●	●			6.0	12	10.0	3.0	
BNM 160						●	●			8.0	16	12.0	4.0	
BNM 200						●	●			10.0	20	15.0	5.0	
BNM 250						●	●			12.5	25	18.5	6.0	
BNM 300						●	●			15.0	30	22.5	7.0	

## ABPF Type Ball Precision Modular



Designation		29. No. of Inserts	Dimension (mm)					Spare Parts		
			D	L1	d	M	D2	Screw	Wrench	R
ABPF	008-M04	1	8	16	4.5	M4	9.2	ABPF-4R	T15	4
	010-M05	1	10	20	5.5	M5	9.2	ABPF-5R	T15	5
	012-M06	1	12	20	6.5	M6	10.0	ABPF-6R	T20	6
	016-M08	1	16	28	8.5	M8	13.0	ABPF-8R	T20	8
	020-M10	1	20	30	10.5	M10	18.0	ABPF-10R	T20	10
	025-M12	1	25	35	12.5	M12	21.0	ABPF-12.5R	T20	12.5
	030-M16	1	30	40	17.0	M16	29.0	ABPF-15R	T30	15

## Available inserts

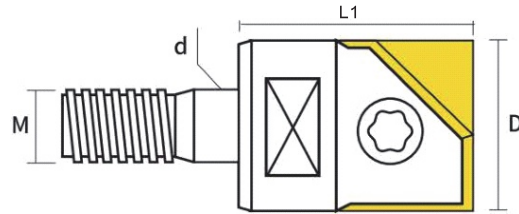


	CVD Coated		PVD Coated		Dimensions (mm)					Inserts				
	DCP9330	DCP9340	DCP9350	DKK5215	DKK5225	DPM8115	DPM8125	DPM8135	DPM8225		R	Dc	T	A
ZPFG 080						●	●			4.0	8	7.0	2.4	2.4
ZPFG 100						●	●			5.0	10	8.5	2.6	2.6
ZPFG 120						●	●			6.0	12	10.0	3.0	3.0
ZPFG 160						●	●			8.0	16	12.0	4.0	4.0
ZPFG 200						●	●			10.0	20	15.0	5.0	5.0
ZPFG 250						●	●			12.5	25	18.5	6.0	6.0
ZPFG 300						●	●			15.0	30	22.5	7.0	7.0



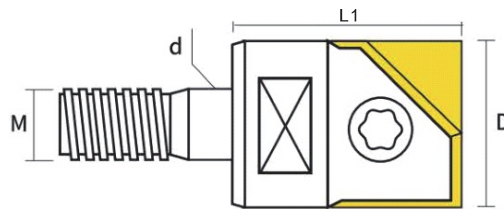


## ➤ ARPF Type Ball Precision Modular



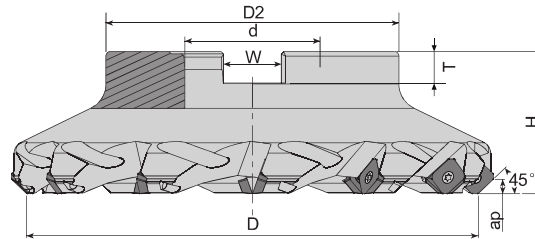
Designation29.		No. of Inserts	Dimension (mm)				Spare Parts	
			D	L1	d	M	Screw	Wrench
ARPF	012-M06	1	12	20	6.5	M6	ARPF-6R	T20
	016-M08	1	16	28	8.5	M8	ARPF-8R	T20
	020-M10	1	20	30	10.5	M10	ARPF-10R	T20
	025-M12	1	25	35	12.5	M12	ARPF-12.5R	T25
	030-M16	1	30	40	17.0	M16	ARPF-15R	T30

## ➤ RNM Type Ball Precision Modular



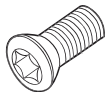

Designation29.		No. of Inserts	Dimension (mm)				Spare Parts	
			D	L	d	M	Screw	Wrench
RNM	012-M06	1	12	20	6.5	M6	RNM-6R	T10
	016-M08	1	16	28	8.5	M8	RNM-8R	T15
	020-M10	1	20	30	10.5	M10	RNM-10R	T20
	025-M12	1	25	35	12.5	M12	RNM-12.5R	T25
	030-M16	1	30	40	17.0	M16	RNM-15R	T30

## ➤ KM Type shell mill

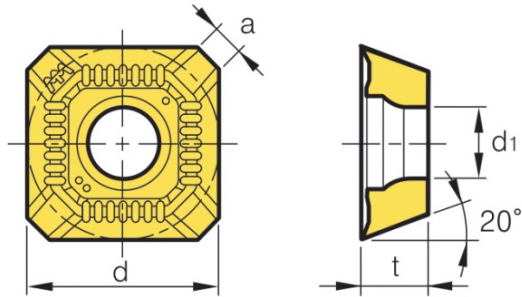


Designation		No. of Inserts	D	D2	d	W	T	H	ap	Arbor
KM12	050-22-04T	4	50	64	22	10.4	6.3	50	6.0	A
	063-22-04T	4	63	77	22	10.4	6.3	50	6.0	A
	080-27-05T	5	80	94	27	12.4	7.0	50	6.0	B
	100-32-05T	5	100	114	32	14.4	8.0	50	6.0	B
	125-40-06T	6	125	139	40	16.4	9.0	63	6.0	B
	160-40-06T	6	160	174	40	16.4	9.0	63	6.0	C
	200-60-08T	8	200	210	60	25.7	14.0	63	6.0	C
	250-60-10T	10	250	260	60	25.7	14.0	63	6.0	C

## ➤ Parts



TYPE		
	Insert screw	Wrench
KM12	TS50	T-20

## Available Inserts SE

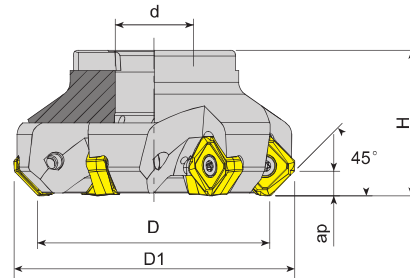


▲good △In general

Workpiece	Steel	△	▲	▲				▲	▲	▲	△
	Stainless steel	▲		△					▲	△	▲
	Castiron			△		▲	▲			△	
	Non-ferrous metal				△	△				△	△
	Heat resistant alloy, Titanium alloy								▲	▲	▲
	Hardened steel	△							▲		△

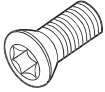

Designations		Dimensions (mm)				CVD Coated						PVD Coated							
		d	t	d1	a	DGP9330	DGP9340	DGP9350	DCK5205	DCK5305	DCK5215	DCK5315	DCK5225	DCK5325	DPM8115	DPM8125	DFM8225	DFM8328	DFM8335
<b>SEHT-X45</b> 	1204AFSN-X45	12.7	4.76	5.5	2.64										●	●			
<b>SEKT</b> 	1204AFSN	12.7	4.76	5.5	2.64										●	●			

## ➤ TWSX Type Shell Mill

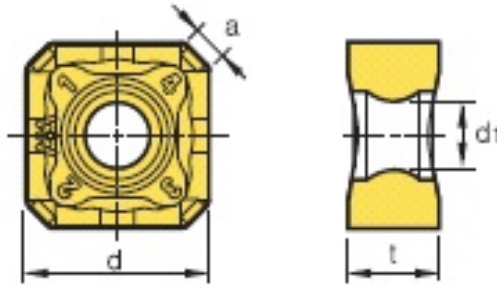


Designations		No. of Inserts	Dimension (mm)					Arbor
			D	D1	d	H	ap	
TWSX45	050R-22-04T	4	50	64.8	22	40	6.5	A
	063R-22-06T	6	63	77.8	22	40	6.5	A
	080R-27-07T	7	80	94.8	27	50	6.5	B
	100R-32-08T	8	100	114.8	32	50	6.5	B
	100R-32-12T	12	100	114.8	32	50	6.5	B
	125R-40-10T	10	125	139.8	40	63	6.5	B
	125R-40-16T	16	125	139.8	40	63	6.5	B
	160R-40-12T	12	160	174.8	40	63	6.5	C
	160R-40-20T	20	160	174.8	40	63	6.5	C
	200R-60-16T	16	200	214.8	60	63	6.5	C
	200R-60-24T	24	200	214.8	60	63	6.5	C
	250R-60-20T	20	250	264.8	60	63	6.5	C
	250R-60-30T	30	250	264.8	60	63	6.5	C
	315R-60-24T	24	315	329.8	60	63	6.5	C
	315R-60-36T	36	315	329.8	60	63	6.5	C

## ➤ Parts


TYPE		
	Insert screw	Wrench
TROD80	TS50	T-20

## Available Inserts SNMX

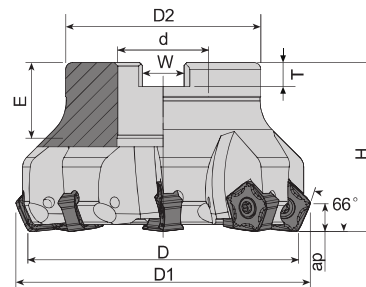


▲good △In general

Workpiece	Steel	△	▲	▲				▲	▲	▲	△
	Stainless steel	▲		△					▲	△	▲
	Castiron		△		▲	▲				△	
	Non-ferrous metal				△	△				△	△
	Heat resistant alloy, Titanium alloy								▲	▲	▲
	Hardened steel	△							▲		△

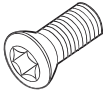

Designations	Dimensions (mm)					CVD Coated						PVD Coated							
	d	t	a	d1	r	DCP9330	DCP9340	DCP9350	DCK5205	DCK5305	DCK5215	DCK5315	DCK5225	DCK5325	DPM8115	DPM8125	DPM8225	DPM8328	DPM8335
<b>SNMX-MM</b> 	1205ANN-MM	12.7	6.23	2.15	5.9	-	●	●			●		●		○	●	●		
	120512-MM	12.7	6.23	-	5.9	1.2													

## ➤ MFPN Type Shell Mill

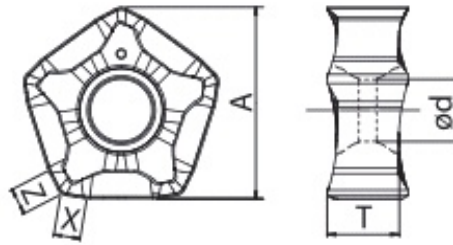


Designations		No. of Inserts	Dimension (mm)									Arbor
			D	D1	D2	d	H	E	T	W	ap	
MFPN66	050-22-04T	4	50	58	48	22	40	21	6.3	10.4	8	A
	050-22-05T	5	50	58	48	22	40	21	6.3	10.4	8	A
	063-22-05T	5	63	71	48	22	40	21	6.3	10.4	8	A
	063-22-07T	7	63	71	48	22	40	21	6.3	10.4	8	A
	080-27-06T	6	80	88	70	27	50	24	7.0	12.4	8	B
	080-27-09T	9	80	88	70	27	50	24	7.0	12.4	8	B
	100-32-07T	7	100	108	78	32	50	30	8.0	14.4	8	B
	100-32-11T	11	100	108	78	32	50	30	8.0	14.4	8	B
	125-40-09T	9	125	133	89	40	63	33	9.0	16.4	8	B
	125-40-13T	13	125	133	89	40	63	33	9.0	16.4	8	B
	160-40-11T	11	160	168	89	40	63	33	9.0	16.4	8	C
	160-40-15T	15	160	168	89	40	63	33	9.0	16.4	8	C
	200-60-13T	13	200	208	140	60	63	35	14.0	25.7	8	C
	200-60-17T	17	200	208	140	60	63	35	14.0	25.7	8	C
	250-60-15T	15	250	258	140	60	63	35	14.0	25.7	8	C
	250-60-19T	15	250	258	140	60	63	35	14.0	25.7	8	C

## ➤ Parts


TYPE		
	Insert screw	Wrench
MFPN66	TS40	T-15

## Available Inserts PNMU

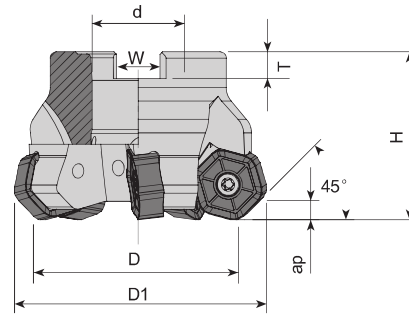


▲good △In general

Workpiece	Steel	△	▲	▲			▲	▲	▲	△
	Stainless steel	▲		△				▲	△	▲
	Castiron		△		▲	▲			△	
	Non-ferrous metal				△	△			△	△
	Heat resistant alloy, Titanium alloy							▲	▲	▲
	Hardened steel	△						▲		△

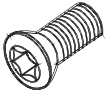

Designations	Dimensions (mm)					CVD Coated					PVD Coated								
	A	T	Z	X	d	DCP9330	DCP9340	DCP9350	DCK5205	DCK5305	DCK5215	DCK5315	DCK5225	DCK5325	DFM8115	DFM8125	DFM8225	DFM8328	DFM8335
<b>PNMU-GM</b> 	0905XNER-GM	14.6	5.56	2.0	2.0	4.7	○	○	○				○		●	●	●	●	●

## MFHN45 Type Shell Mill



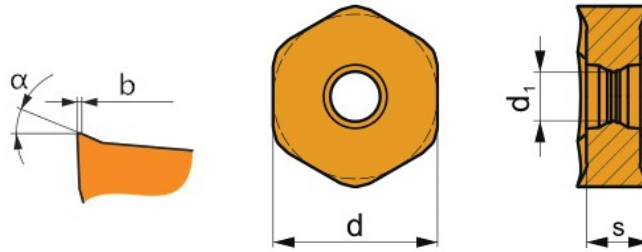
Designations		No. of Inserts	Dimension (mm)							Arbor
			D	D1	H	d	W	T	ap	
MFHN45	050-22-04T	4	50	61.7	40	22	10.4	6.3	5.0	A
	063-22-06T	6	63	74.7	40	22	10.4	6.3	5.0	A
	080-27-06T	6	80	91.7	50	27	12.4	7.0	5.0	B
	080-27-08T	8	80	91.7	50	27	12.4	7.0	5.0	B
	100-32-08T	8	100	111.7	50	32	14.4	8.0	5.0	B
	100-32-10T	10	100	111.7	50	32	14.4	8.0	5.0	B
	125-40-10T	10	125	136.7	63	40	16.4	9.0	5.0	B
	125-40-12T	12	125	136.7	63	40	16.4	9.0	5.0	C
	160-40-12T	12	160	171.7	63	40	16.4	9.0	5.0	C
	160-40-14T	14	160	171.7	63	40	16.4	9.0	5.0	C
	200-60-12T	12	200	211.7	63	60	25.7	14.0	5.0	C
	250-60-14T	14	250	261.7	63	60	25.7	14.0	5.0	C
	315-60-16T	16	315	326.7	80	60	25.7	14.0	5.0	C

## Parts

TYPE		
	Insert screw	Wrench
MFHN45	TS45	T-15




## Available Inserts HNGX

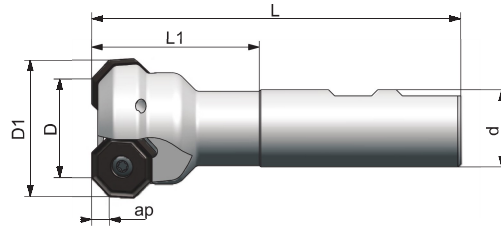


▲good △In general

Workpiece	Steel	△	▲	▲			▲	▲	▲	△
	Stainless stell	▲		△				▲	△	▲
	Castiron			△		▲	▲		△	
	Non-ferrous metal					△	△		△	△
	Heat resistant alloy, Titanium alloy							▲	▲	▲
	Hardened steel	△						▲		△

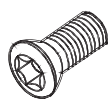

Designations	Dimensions (mm)					CVD Coated						PVD Coated							
	d	d1	s	b	a	DGP9330	DGP9340	DGP9350	DCK5205	DCK5305	DCK5215	DCK5315	DCK5225	DCK5325	DPM8115	DPM8125	DPM8225	DPM8328	DPM8335
<b>HNGX</b>	0906ANSN-F	16.5	4.9	6.35	0.07	22°													
	0906ANSN-M	16.5	4.9	6.35	0.12	22°	○	○	○		●		●		○	●	●		
	0906ANSN-R	16.5	4.9	6.35	0.20	17°	○	○	○		●		●		○	●	●		

## TROD Type End Mill

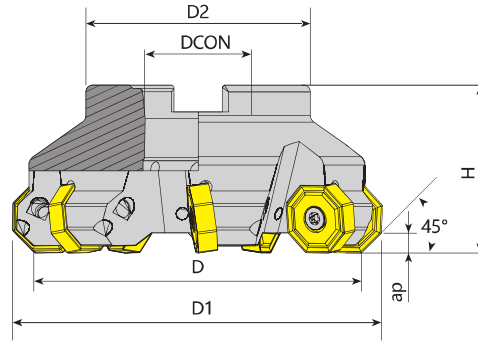


Designations		No. of Inserts	Dimension (mm)						Adapter
			D	D1	d	L1	L	ap	
TROD50	2520-100L-2T	2	25	37	20	45	100	4.0	W
	3225-110L-3T	3	32	44	25	50	110	4.0	W
	4032-120L-4T	4	40	52	32	55	120	4.0	W
TROD80	3225-120L-2T	2	32	47	25	55	120	5.0	W
	4032-120L-3T	3	40	55	32	55	120	5.0	W
	5032-120L-4T	4	50	65	32	55	120	5.0	W

## Parts

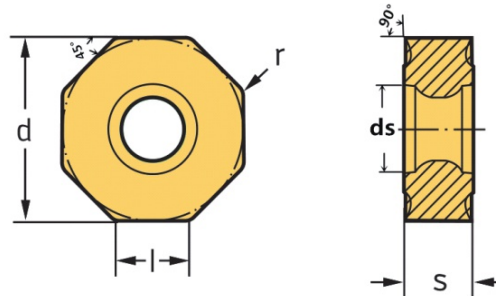
TYPE		
	Insert screw	Wrench
TROD50	TS40	T-15
TROD80	TS50	T-20

## TROD Type End Mill




Designations	No. of Inserts	Dimension (mm)						Arbor	
		$\Phi D$	$\Phi D1$	$\Phi d$	$\Phi D2$	H	ap		
TROD50	050R-22-05T	5	50	62	22	40	45	4.0	A
	063R-22-06T	6	63	75	22	48	45	4.0	A
	080R-27-07T	7	80	92	27	60	50	4.0	B
	100R-32-08T	8	100	112	32	70	63	4.0	B
	125R-40-09T	9	125	137	40	80	63	4.0	B
	160R-40-11T	11	160	172	40	100	63	4.0	C
	200R-60-13T	13	200	212	60	160	63	4.0	C
	250R-60-15T	15	250	262	60	200	63	4.0	C
	315R-60-17T	17	315	327	60	250	70	4.0	C
TROD80	063R-22-05T	5	63	75	22	48	40	5.0	A
	080R-27-06T	6	80	92	27	60	50	5.0	B
	080R-27-08T	8	80	92	27	60	50	5.0	B
	100R-32-07T	7	100	112	32	70	50	5.0	B
	100R-32-10T	10	100	112	32	70	50	5.0	B
	125R-40-08T	8	125	137	40	82	63	5.0	B
	125R-40-12T	12	125	137	40	82	63	5.0	B
	160R-40-10T	10	160	172	40	100	63	5.0	C
	160R-40-15T	15	160	172	40	100	63	5.0	C
	200R-40-12T	12	200	212	60	160	63	5.0	C
	250R-60-14T	14	250	262	60	200	63	5.0	C
	315R-60-16T	16	315	327	60	250	80	5.0	C

Available Inserts  
**ONHU**

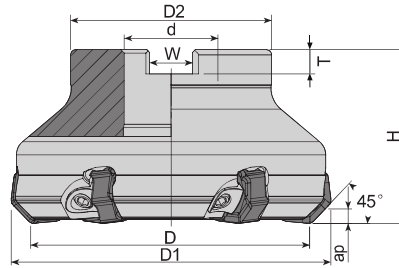


▲ good △ In general

Workpiece	Steel	△	▲	▲				▲	▲	▲	△
	Stainless stell	▲		△					▲	△	▲
	Castiron			△		▲	▲			△	
	Non-ferrous metal					△	△			△	△
	Heat resistant alloy, Titanium alloy								▲	▲	▲
	Hardened steel	△							▲		


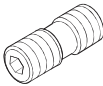

Designations	Dimensions (mm)					CVD Coated						PVD Coated							
	d	l	ds	S	r	DCP9330	DCP9340	DCP9350	DCK5205	DCK5305	DCK5215	DCK5315	DCK5225	DCK5325	DFM8115	DFM8125	DFM8225	DFM8328	DFM8335
ONHU-GM 	050408-GM	12.7	5.26	4.3	4.86	0.8	○	○	○			●	●		○	●	●		
	08T508-GM	20.2	8.37	5.3	5.79	0.8	○	○	○			●	●		○	●	●		

## TFXN45 Type Shell Mill

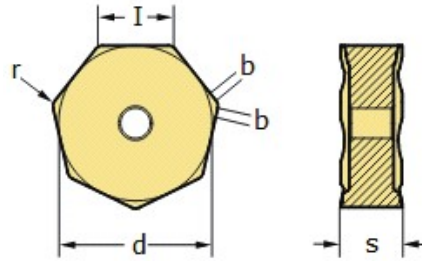


Designations	No. of Inserts	Dimension (mm)									Arbor
		D	D1	D2	d	H	ap	T	W		
TFXN4507	063-22-09T	9	63	71	53	22	50	4.0	6.3	10.4	A
	080-27-11T	11	80	88	65	27	50	4.0	7.0	12.4	B
	100-32-14T	14	100	108	80	32	50	4.0	8.0	14.4	B
	125-40-18T	18	125	133	80	40	63	4.0	9.0	16.4	B
	160-40-22T	22	160	168	115	40	63	4.0	9.0	16.4	C
	200-60-28T	28	200	208	160	60	63	4.0	14.0	25.7	C

## Parts


TYPE			
	Clamping Wedge	Wedge Screw	Wrench
TFXN4507	TK4507	TL2134	L2.0

## Available Inserts XNHF

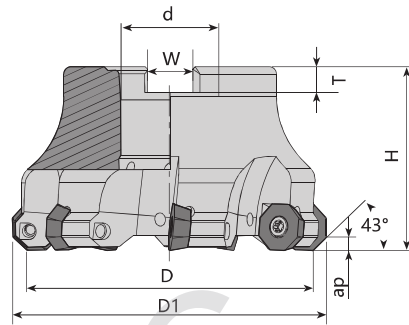


▲good △In general

Workpiece	Steel	△	▲	▲			▲	▲	▲	△
	Stainless steel	▲		△				▲	△	▲
	Castiron			△		▲	▲		△	
	Non-ferrous metal					△	△		△	△
	Heat resistant alloy, Titanium alloy							▲	▲	▲
	Hardened steel	△						▲		△

Designations		Dimensions (mm)					CVD Coated						PVD Coated								
		d	l	s	b	r	DCP9330	DCP9340	DCP9350	DCS5205	DCS5305	DCS5215	DCS5315	DCS5225	DCS5325	DPM8115	DPM8125	DPM8225	DPM8328	DPM8335	
<b>XNHF-D67</b>	070508-D67	14.5	7.0	5.8	-	0.8	●	●	○			●	●			○	●	●			
																					

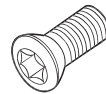
## ➤ SOD45 Type Shell Mill



Designations		No. of Inserts	Dimension (mm)							Arbor
			D	D1	d	H	W	T	ap	
SOD4506	040-16-03T	3	40	50	16	40	8.4	5.6	4.0	A
	050-22-04T	4	50	60	22	40	10.4	6.3	4.0	A
	063-22-05T	5	63	72	22	40	10.4	6.3	4.0	A
	080-27-06T	6	80	90	27	50	12.4	7.0	4.0	A
	100-32-07T	7	100	110	32	50	14.4	8.0	4.0	B
	125-40-08T	8	125	135	40	63	16.4	9.0	4.0	B
	160-40-10T	10	160	170	40	63	16.4	9.0	4.0	C
	200-60-12T	12	200	210	60	63	25.7	14.0	4.0	C

## ➤ Parts

### TYPE



Insert screw

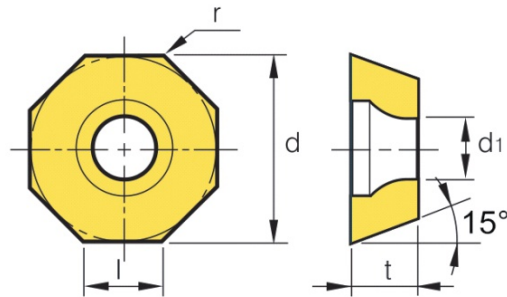
Wrench

MEA09N

TS25


T-8

Available Inserts  
**ODHT**



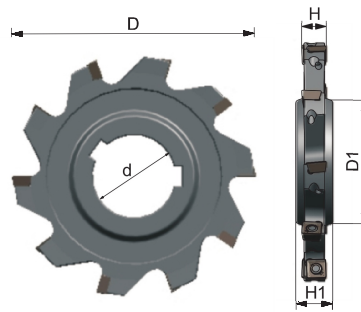
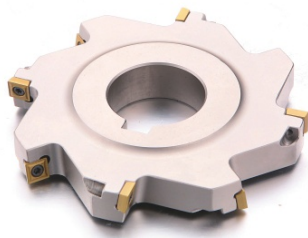
▲good △In general

Workpiece	Material Compatibility											
	Steel	Stainless steel	Castiron	Non-ferrous metal	Heat resistant alloy, Titanium alloy	Hardened steel	Steel	Stainless steel	Castiron	Non-ferrous metal	Heat resistant alloy, Titanium alloy	Hardened steel
Steel	△	▲	▲				▲	▲	▲	△		
Stainless steel	▲		△						▲	△	▲	
Castiron			△		▲	▲				△		
Non-ferrous metal				△	△					△	△	
Heat resistant alloy, Titanium alloy									▲	▲	▲	
Hardened steel	△						▲				△	

Designations	d	t	Dimensions (mm)			CVD Coated						PVD Coated									
			l	d1	r	DCP9330	DCP9340	DCP9350	DCK5205	DCK5305	DCK5215	DCK5315	DCK5225	DCK5325	DPM8115	DPM8125	DPM8225	DPM8328	DPM8335		
<b>ODHT-GT</b> 	060508-GH	15.875	5.56	6.58	5.56	0.8	○	○	○							●	●	●	●	●	

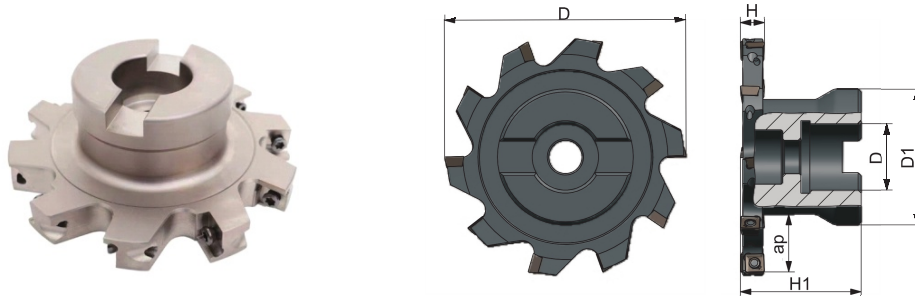


## PT01 Type Full Side Milling Cutter



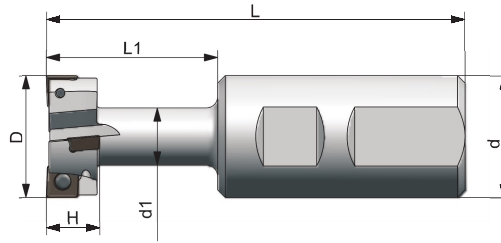
Designations		No. of Inserts	Dimension (mm)				
			D	D1	d	H1	H
PT01.06	J27.080.10.H08	10	80	41	27	12	8
	J32.100.14.H08	14	100	47	32	12	8
	J32.100.14.H10	14	100	47	32	14	10
	J40.125.16.H10	16	125	55	40	14	10
PT01.08	J40.125.12.H12	12	125	55	40	16	12
	J40.160.12.H12	14	160	62	40	16	12
PT01.12	J40.160.12.H16	18	160	62	40	20	16
	J40.160.12.H18	10	160	62	40	24	18
	J40.160.12.H20	12	160	62	40	26	20
	J50.200.14.H16	12	200	72	50	20	16
	J50.200.14.H18	14	200	72	50	24	18
	J50.200.14.H20	14	200	72	50	26	20

## PT01 Type Side Milling Cutter





Designations	No. of Inserts	Dimension (mm)							Arbor
		D	D1	d	H1	H	ap		
PT01.06	A22.080.10.H08	10	80	45	22	40	8	21	A
	B27.100.14.H08	14	100	55	27	40	8	24	B
	B27.100.14.H10	14	100	55	27	40	10	24	B
	B32.125.16.H10	16	125	65	32	45	10	33	B
PT01.08	B32.125.12.H12	12	125	65	32	45	12	33	B
	B40.160.14.H12	14	160	80	40	45	12	45	B
	C40.200.18.H12	18	200	92	40	50	12	53	C
PT01.12	B32.125.10.H16	10	125	65	32	50	16	30	B
	B40.160.12.H16	12	160	80	40	60	16	45	B
	B40.160.12.H18	12	160	80	40	60	18	45	B
	C40.200.14.H16	14	200	92	40	50	16	53	C
	C40.200.14.H18	14	200	92	40	50	18	53	C
	C40.200.14.H20	14	200	92	40	50	20	53	C

## PT01 Type T-Cutter

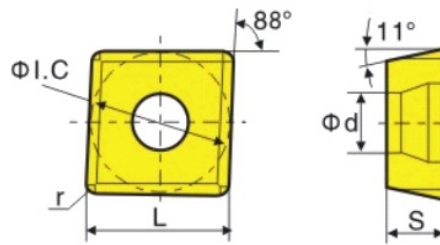


Designations		No. of Inserts	Dimension (mm)					
			D	d	d1	L	L1	H
PT01.06	W25.021.01.H09	1	21	25	10	100	32	9
	W25.025.01.H11	1	25	25	12	100	35	11
PT01.08	W32.032.02.H14	2	32	32	15	110	45	14
PT01.12	W32.040.02.H18	2	40	32	19	125	55	18
	W40.050.02.H22	2	50	40	25	140	65	22


## Parts

TYPE		
	Insert screw	Wrench
PT01.06	TS25	T-8
PT01.08	TS30	T-8
PT01.12	TS50	T-20

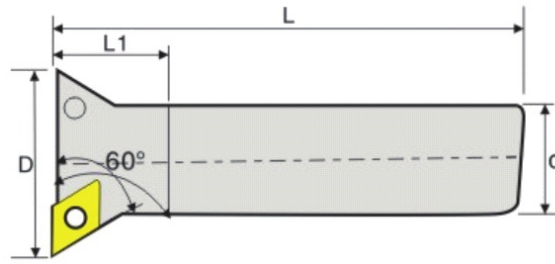
## Available inserts MPHT



Workpiece	Steel	△	▲	▲			▲	▲	▲	△
	Stainless steel	▲		△				▲	△	▲
	Castiron			△		▲	▲			△
	Non-ferrous metal					△	△			△
	Heat resistant alloy, Titanium alloy								▲	▲
	Hardened steel	△							▲	

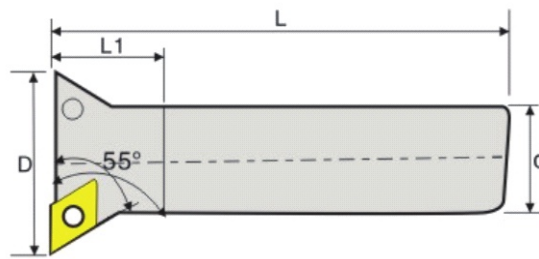
Designations	Dimensions (mm)					CVD Coated						PVD Coated							
	IC	L	S	d	r	DCP9330	DCP9340	DCP9350	DCK5205	DCK5305	DCK5215	DCK5315	DCK5225	DCK5325	DPM8115	DPM8125	DPM8225	DPM8328	DPM8335
<b>MPHT</b>	060304-DM	6..35	6.35	3.18	2.80	0.4	○	○	○			●	●		○	●	●	●	○
	080305-DM	8.30	8.30	3.18	3.40	0.5	○	○	○			●	●		○	●	●	●	○
	120408-DM	12.70	12.70	4.76	5.56	0.8	○	○	○			●	●		○	●	●	●	○

## DCW60 Type Dovetail Slot Cutter





Designations		No. of Inserts	Dimension (mm)				Available Inserts
			D	d	L1	L	
DCW60	25-C16-120L-2T-07	2	25	16	25	120	DC□□0702**
	25-C20-120L-2T-07	2	25	20	25	120	
	30-C20-120L-3T-07	3	30	20	25	120	
	40-C25-160L-3T-11	3	40	25	25	160	DC□□11T3**
	50-C32-160L-3T-11	3	50	32	30	160	
	60-C32-160L-4T-11	4	60	32	30	160	
	80-C32-160L-5T-11	5	80	32	30	160	

## DCW55 Type Dovetail Cutter

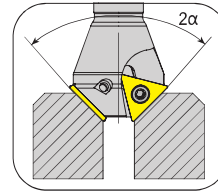
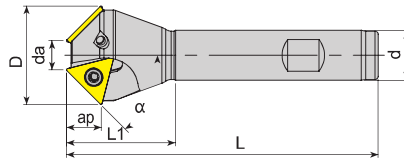


Designations	No. of Inserts	Dimension (mm)				Available Inserts
		D	d	L1	L	
DCW55 25-C16-120L-2T-07	2	25	16	25	120	DC□□0702**
25-C20-120L-2T-07	2	25	20	25	120	
30-C20-120L-3T-07	3	30	20	25	120	
40-C25-160L-3T-11	3	40	25	25	160	DC□□11T3**
50-C32-160L-3T-11	3	50	32	30	160	
60-C32-160L-4T-11	4	60	32	30	160	
80-C32-160L-5T-11	5	80	32	30	160	

## Parts



TYPE		
	Insert screw	Wrench
DCW-07	TS25	T-8
DCW-11	TS40	T-15

## TC Type Chamfer Cutter

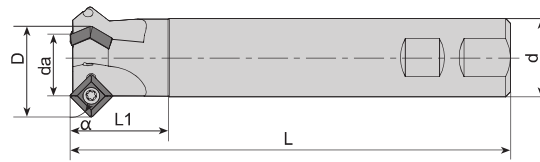


Designations	No. of Inserts	Dimension (mm)								Available Inserts
		D	d	L1	L	da	ap	$\alpha$		
B15° TC11 C20T2-120ap18-22	2	22	20	30	120	18	9.7	15°	TC□□1102**	
TC16 C20T1-120ap13-19	1	20	20	30	120	13	14.9	15°		
TC16 C20T1-120ap18-22	1	25	20	30	120	18	14.9	15°		
TC16 C20T1-120ap25-32	1	30	20	40	120	25	14.9	15°	TC□□16T3**	
B30° TC16 C16T1-120ap6-20	1	20	16	30	120	6	13.4	30°		
TC16 C20T2-120ap18-30	2	30	20	30	120	18	13.4	30°		
TC16 C25T2-120ap19-30	2	30	25	30	120	19	13.4	30°	TC□□16T3**	
TC16 C25T2-120ap28-40	2	40	25	40	120	28	13.4	30°		
B45° TC11 C12T1-120ap4-15	1	15	12	30	120	4	6.9	45°		TC□□1102**
TC16 C16T1-120ap6-20	1	20	16	30	120	6	10.8	45°		
TC16 C20T1-120ap6-20	1	20	20	30	120	6	10.8	45°		
TC16 C20T1-150ap8-25	1	25	20	40	150	8	10.8	45°	TC□□16T3**	
TC16 C20T2-120ap14-30	2	30	20	30	120	14	10.8	45°		
TC16 C25T2-120ap14-30	2	30	25	30	120	14	10.8	45°		
TC16 C25T2-120ap20-40	2	40	25	40	120	20	10.8	45°		
TC16 C25T2-120ap30-50	2	50	25	40	120	30	10.8	45°		
TC16 C25T2-120ap45-60	2	60	25	45	120	45	10.8	45°		
B60° TC11 C20T2-120ap6-20	2	20	20	30	120	6	5.0	60°	TC□□1102**	
TC11 C20T2-120ap10-25	2	25	20	30	120	10	5.0	60°		
TC16 C16T1-120ap6-20	1	20	16	30	120	6	7.8	60°	TC□□16T3**	
TC16 C20T2-120ap10-30	2	30	20	30	120	10	7.8	60°		
TC16 C25T2-120ap10-30	2	30	25	30	120	10	7.8	60°		
TC16 C25T2-120ap17-40	2	40	25	30	120	17	7.8	60°		
B75° TC16 C25T2-120ap13-40	2	40	25	30	120	13	4.0	75°	TC□□16T3**	

## Parts

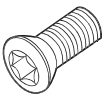

TYPE		
	Insert screw	Wrench
B-TC11	TS25	T-8
B-TC16	TS35	T-15

## 45° SP Type Chamfer Cutter



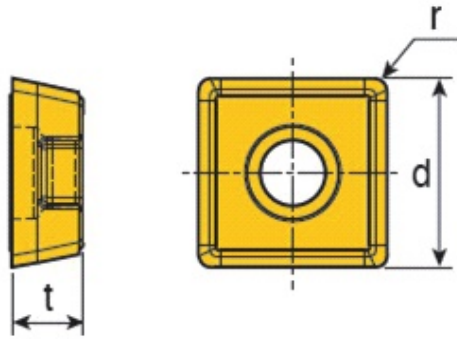
Designations		No. of Inserts	Dimension (mm)					
			D	d	L1	L	da	a
B45°	Sp06 C12-T1-120ap08-16	1	16	12	30	120	8	45°
	SP09 C16-T1-120ap12-20	1	20	16	30	120	12	45°
	SP09 C20-T1-120ap12-22	1	22	20	30	120	12	45°
	SP09 C20-T2-120ap19-32	2	32	20	30	120	19	45°
	SP11 C20-T1-150ap12-26	1	26	20	30	150	12	45°
	SP11 C25-T2-150ap25-39	2	39	25	35	150	25	45°
	SP11 C32-T3-150ap32-46	3	46	32	40	150	32	45°

## Parts

TYPE		
	Insert screw	Wrench
B45°SP06	TS22	T-6
B45°SP09	TS35	T-15
B45°SP11	TS40	T-15


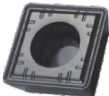


## Available inserts SPMT

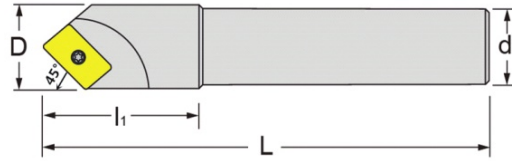


▲ good △ In general

Workpiece	Steel	△	▲	▲			▲	▲	▲	△
	Stainless steel	▲		△				▲	△	▲
	Cast iron			△		▲	▲			△
	Non-ferrous metal					△	△			△
	Heat resistant alloy, Titanium alloy								▲	▲
	Hardened steel	△						▲		

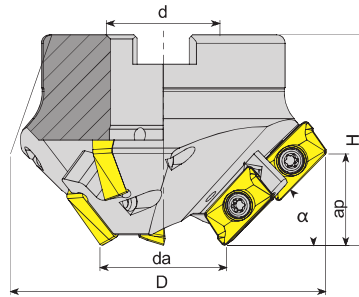
Designations	Dimensions (mm)			CVD Coated						PVD Coated							
	d	t	r	DCP9330	DCP9340	DCP9350	DCK5205	DCK5305	DCK5215	DCK5315	DCK5225	DCK5325	DPM8115	DPM8125	DPM8225	DPM8328	DPM8335
<b>SPMG</b> 	060204	6.0	2.38	0.4	○	○			○				○	●	●		
	090408	9.8	4.30	0.8	○	○			○				○	●	●		
	110408	11.5	4.80	0.8	○	○			○				○	●	●		
<b>SPMG-MW</b> 	060204	6.0	2.38	0.4		○			○				○	●	●		
	090408	9.8	4.30	0.8		○			○				○	●	●		
	110408	11.5	4.80	0.8		○			○				○	●	●		

## ➤ 45° AP Type Chamfer Cutter





Designations		No. of Inserts	Dimension (mm)				
			D	d	l1	L	Chamfering Range
B45°	AP11 C16T1-120ap4-13	1	13	16	30	120	4-13
	AP16 C16T1-120ap8-21	1	21	16	35	120	8-21
	AP16 C20T1-120ap8-21	1	21	20	35	120	8-21
	AP16 C20T2-120ap18-32	2	32	20	35	120	18-32
	AP16 C25T2-120ap25-40	2	40	25	35	120	25-40

## AP Type Chamfer Cutter

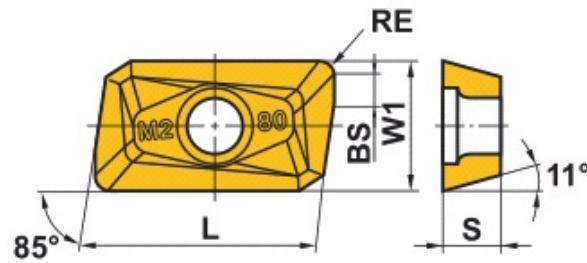


Designations		No. of flute	No. of Inserts	Dimension (mm)					
				D	da	d	H	ap	a
B15°	AP16-D35x93-A27-Z0306	3	6	93	35	27	50	8.0	15°
B30°	AP16-D35x87-A27-Z0306	3	6	87	35	27	50	15.0	30°
B45°	AP16-D35x77-A27-Z0306	3	6	77	35	27	50	21.5	45°
B60°	AP16-D35x65-A22-Z0306	3	6	65	35	22	50	26.5	60°
B75°	AP16-D35x50-A22-Z0306	3	6	50	35	22	50	29.5	75°

## Parts

TYPE		
	Insert screw	Wrench
B-AP11	TS25	T-8
B-AP16	TS40	T-15

## Available inserts APMT

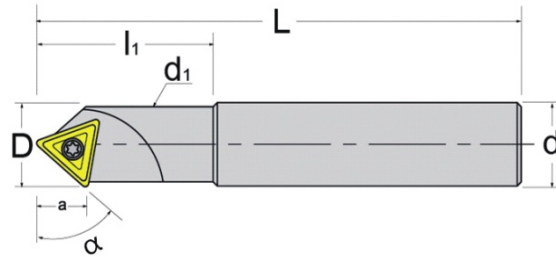


▲good △In general

Workpiece	Steel	△	▲	▲				▲	▲	▲	△
	Stainless steel	▲		△					▲	△	▲
	Castiron			△				▲	▲		△
	Non-ferrous metal							△	△		△
	Heat resistant alloy, Titanium alloy									▲	▲
	Hardened steel	△								▲	



Designations	Dimensions(mm)					CVD Coated						PVD Coated							
	L	W1	S	BS	RE	DCP9330	DCP9340	DCP9350	DCK5205	DCK5305	DCK5215	DCK5315	DCK5225	DCK5325	DPM8115	DPM8125	DPM8225	DPM8328	DPM8335
<b>APMT-H2</b> 	1135PDERH2	11.0	6.35	3.5	1.2	0.8	○	○	○			○			●	●	●	●	●
	1604PDERH2	16.5	9.525	4.76	1.7	0.8	○	○	○			○			●	●	●	●	●
<b>APMT-M2</b> 	1135PDERM2	11.0	6.35	3.5	1.2	0.8	○	○	○			○			●	●	●	●	●
	1604PDERM2	16.5	9.525	4.76	1.7	0.8	○	○	○			○			●	●	●	●	●
<b>APMT-XM</b> 	1135PDERXM	11.0	6.35	3.5	1.2	0.8	○	○	○			○			●	●			
	1605PDERXM	16.4	9.33	5.26	1.6	0.8	○	○	○			○			●	●			

## SSP Type Multi-functional Chamfer Cutter

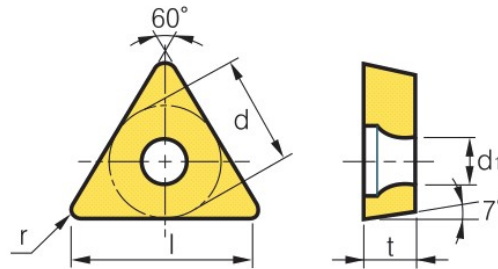


Designations		No. of Inserts	Dimension (mm)						
			D	d1	d	l1	L	a	$\alpha$
SSP30	TC09R0.4-C12T1-120L	1	13.8	11.8	12	26	120	4.60	30°
	TC13R0.4-C16T1-120L	1	19.2	14.0	16	30	120	6.50	30°
	TC16R0.4-C20T1-120L	1	22.5	19.0	20	50	120	7.60	30°
	TC16R0.8-C20T1-120L	1	22.5	19.0	20	50	120	7.60	30°
SSP45	TC09R0.4-C12T1-120L	1	13.8	11.8	12	26	120	6.05	45°
	TC13R0.4-C16T1-120L	1	19.2	14.0	16	30	120	9.70	45°
	TC16R0.4-C20T1-120L	1	22.5	19.0	20	50	120	11.30	45°
	TC16R0.8-C20T1-120L	1	22.5	19.0	20	50	120	11.30	45°
SSP60	TC09R0.4-C12T1-120L	1	13.8	11.8	12	26	120	8.50	60°
	TC13R0.4-C16T1-120L	1	19.2	14.0	16	30	120	11.16	60°
	TC16R0.4-C20T1-120L	1	22.5	19.0	20	50	120	11.83	60°
	TC16R0.8-C20T1-120L	1	22.5	19.0	20	50	120	11.83	60°

## Parts

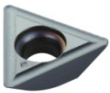
TYPE		
	Insert screw	Wrench
SSP-TC09	TS22	T-6
SSP-TC13	TS35	T-15
SSP-TC16	TS40	T-15

Available inserts  
**TCEX**



▲good △In general

Workpiece	Steel	△	▲	▲			▲	▲	▲	△
	Stainless stell	▲		△				▲	△	▲
	Castiron		△		▲	▲			△	
	Non-ferrous metal				△	△			△	△
	Heat resistant alloy, Titanium alloy							▲	▲	▲
	Hardened steel	△						▲		△

Designations	Dimensions (mm)				CVD Coated						PVD Coated							
	l	t	d	r	DCP9330	DCP9340	DCP9350	DCK5205	DCK5305	DCK5215	DCK5315	DCK5225	DCK5325	DPM8115	DPM8125	DPM8225	DPM8328	DPM8335
<b>TCEX-AR</b>	090204-AR	9.6	2.50	5.56	0.4									●				
	13T304-AR	13.4	3.97	7.90	0.4													
	16T304-AR	16.5	3.97	9.525	0.4									●				
	16T308-AR	16.5	3.97	9.525	0.8									●				

## MFT Carbide Modular Head Holder



A: standard



B: customization

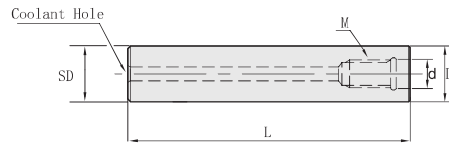


Fig1.

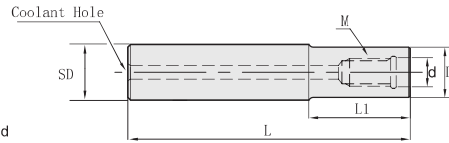


Fig1.

The size of the clearance space is customized according to customer requirements

Designation		Dimension (mm)					Shape
		D	SD	d	L	M	
MFT08	08-100-M04	8.0	8	4.5	100	M4	Fig.1
MFT10	10-100-M05	10.0	10	5.5	100	M5	
	10-150-M05	10.0	10	5.5	150	M5	
	10-100-M06	10.0	10	6.5	100	M6	
	10-150-M06	10.0	10	6.5	150	M6	
MFT12	12-100-M06	12.0	12	6.5	100	M6	
	12-150-M06	12.0	12	6.5	150	M6	
	12-200-M06	12.0	12	6.5	200	M6	
MFT15	15-100-M08	15.0	15	8.5	100	M8	
	15-150-M08	15.0	15	8.5	150	M8	
	15-200-M08	15.0	15	8.5	200	M8	
	15-250-M08	15.0	15	8.5	250	M8	
MFT15.6	15.6-100-M08	15.6	15.6	8.5	100	M8	
	15.6-150-M08	15.6	15.6	8.5	150	M8	
	15.6-200-M08	15.6	15.6	8.5	200	M8	
	15.6-250-M08	15.6	15.6	8.5	250	M8	
MFT16	16-100-M08	16.0	16	8.5	100	M8	
	16-150-M08	16.0	16	8.5	150	M8	
	16-200-M08	16.0	16	8.5	200	M8	
	16-250-M08	16.0	16	8.5	250	M8	
MFT19	19-100-M10	19.0	19	10.5	100	M10	
	19-200-M10	19.0	19	10.5	200	M10	
	19-250-M10	19.0	19	10.5	250	M10	
MFT20	20-100-M10	20.0	20	10.5	100	M10	
	20-150-M10	20.0	20	10.5	150	M10	
	20-200-M10	20.0	20	10.5	200	M10	
	20-250-M10	20.0	20	10.5	250	M10	
MFT24	24-150-M12	24.0	24	12.5	150	M12	
	24-200-M12	24.0	24	12.5	200	M12	
	24-250-M12	24.0	24	12.5	250	M12	
	24-300-M12	24.0	24	12.5	300	M12	

## MFT Carbide Modular Head Holder



A: standard



B: customization

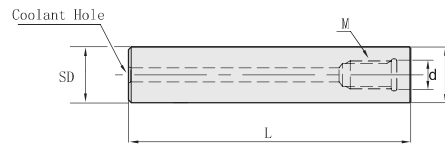


Fig1.

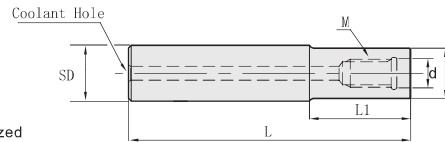


Fig1.

The size of the clearance space is customized according to customer requirements

mm

Designation		Dimension (mm)					Shape
		D	SD	d	L	M	
MFT25	25-150-M12	25.0	25	12.5	150	M12	Fig.1
	25-200-M12	25.0	25	12.5	200	M12	
	25-250-M12	25.0	25	12.5	250	M12	
	25-300-M12	25.0	25	12.5	300	M12	
MFT32	32-200-M16	32.0	32	17.0	200	M16	
	32-250-M16	32.0	32	17.0	250	M16	
	32-300-M16	32.0	32	17.0	300	M16	
	32-350-M16	32.0	32	17.0	350	M16	
	32-400-M16	32.0	32	17.0	400	M16	

Type B does not have any inventory, which needs to be produced, And can also be customized according to the customer's size

Designation		Dimension (mm)					Shape	
		D	SD	d	L1	L		M
MFT10	9.5-100-M06	9.5	10	5.5	40	100	M6	Fig.2
	9.5-150-M06	9.5	10	5.5	80	150	M6	
MFT12	11.5-100-M06	11.5	12	6.5	40	100	M6	
	11.5-150-M06	11.5	12	6.5	80	150	M6	
	11.5-200-M06	11.5	12	6.5	120	200	M6	
MFT16	15.5-100-M08	15.5	16	8.5	40	100	M8	
	15.5-150-M08	15.5	16	8.5	80	150	M8	
	15.5-200-M08	15.5	16	8.5	120	200	M8	
	15.5-250-M08	15.5	16	8.5	160	250	M8	
MFT20	19.5-100-M10	19.5	20	10.5	40	100	M10	
	19.5-150-M10	19.5	20	10.5	80	150	M10	
	19.5-200-M10	19.5	20	10.5	120	200	M10	
	19.5-250-M10	19.5	20	10.5	160	250	M10	
MFT25	24.3-150-M12	24.3	25	12.5	70	150	M12	
	24.3-200-M12	24.3	25	12.5	100	200	M12	
	24.3-250-M12	24.3	25	12.5	150	250	M12	
	24.3-300-M12	24.3	25	12.5	200	300	M12	



## MFT Carbide Modular Head Holder



A: standard



B: customization

The size of the clearance space is customized according to customer requirements

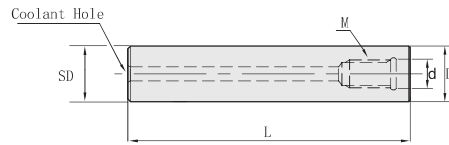


Fig.1.

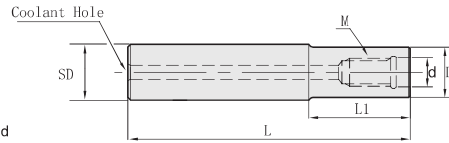
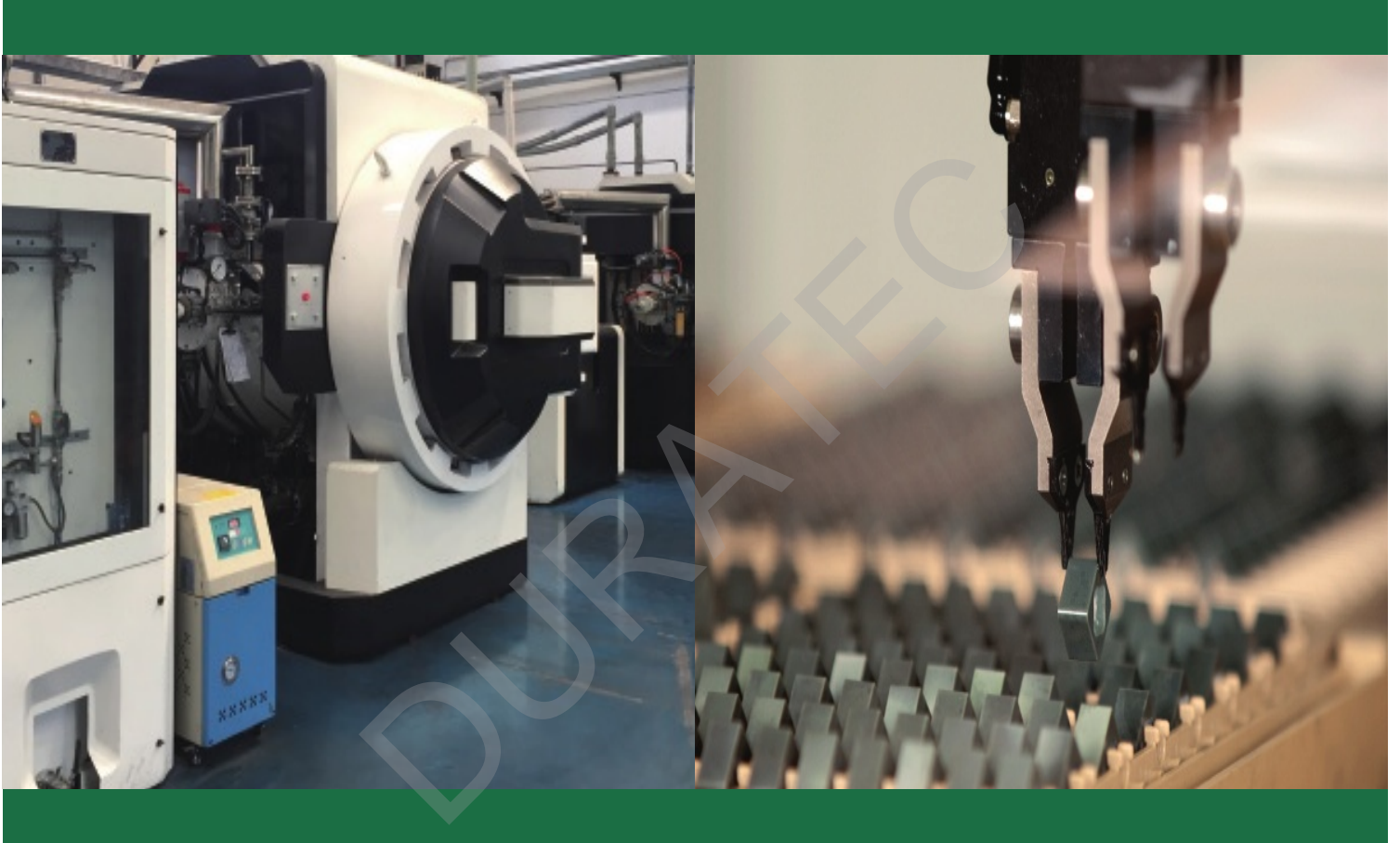


Fig.1.

mm

Designation29.		Dimension (mm)						Shape
		D	SD	d	L1	L	M	
MFT32	29.0-150-M16	29.0	32	17.0	70	150	M32	Fig.2
	29.0-200-M16	29.0	32	17.0	120	200	M32	
	29.0-250-M16	29.0	32	17.0	150	250	M32	
	29.0-300-M16	29.0	32	17.0	200	300	M32	
	29.0-350-M16	29.0	32	17.0	250	350	M32	
	29.0-400-M16	29.0	32	17.0	300	400	M32	



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## DURATEC E-CATALOGUE OPENS

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This CATALOGUE is made as of January 2020 as per ISO standard, the information of products such as dimensions, prospective performance and quality, contained in the CATALOGUE is subject to change due to the constant Research & Development. Please, Contact us for more information