

DOVETAIL MILLING CUTTERS SERIES



Features

Available in
materials

P K M
N S H

Cost
100~300%
SAVING

Applicable
Machines
CNC Milling machine

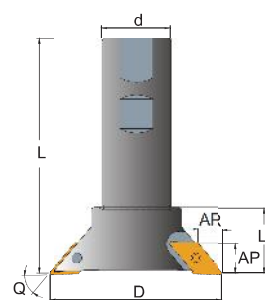
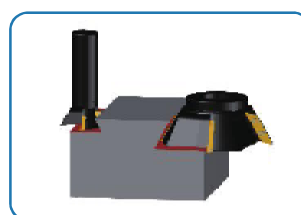
Efficiency
300%
UP

Durability
300%
UP

PRODUCT SPECIFICATIONS

Dovetail Toolholders

- Inserts P. 275
- Cutting Data P. 276



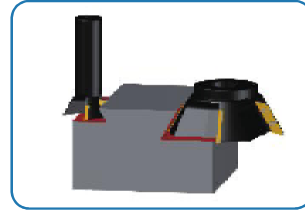
XD

Order Code	Dimensions (mm)							Z	KG	MAX. RPM	Inserts XDGT	Screw	Key
	D	d	Q	L	AP	AR	L1						
XD2040-50	40	20	50	100	10	8	30	2	0.31	17000	120308	C03507	T10P
XD2040-55			55		10.5	7							
XD2040-60			60		11	6							
XD3260-50	60	32	50	110	14	11	30	3	0.76	7500	190408	C04011	T15P
XD3260-55			55		15	10							
XD3260-60			60		16	9							
XD3280-50	80	32	50	110	14	11	30	4	0.97	6500	190408	C04011	T15P
XD3280-55			55		15	10							
XD3280-60			60		16	9							

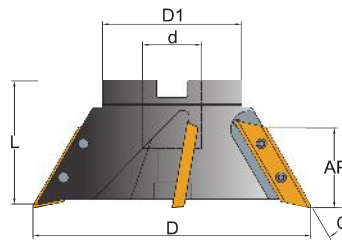
Dovetail

Dovetail Milling Cutters

- Inserts P. 275
- Cutting Data P. 276



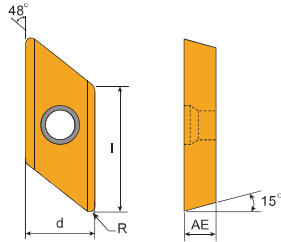
Big "AP" is available with insert XDGT40. Achieve better surface finishing.



XV

Order Code	Dimensions (mm)						Z	KG	MAX. RPM	Inserts XDGT	Screw	Key
	D	D1	d	L	AP	Q						
XV120-50-25.4	120	60	25.4	55	31	50	4	1.28	6000	400408	C04011	T15P
XV120-55-25.4					33	55						
XV120-60-25.4					35	60						
XV120-50-27			27		31	50						
XV120-55-27					33	55						
XV120-60-27					35	60						

XDGT - Inserts



Tolerances (mm)

	d	AE	I
XDGT12	±0.03	±0.025	±0.03
XDGT19	±0.03	±0.025	±0.03
XDGT40	±0.03	±0.025	±0.03

Code	Dimensions (mm)				
	l	d	AE	R	Q1
120308	12	8.30	3.10	0.8	-
190408	19	10.45	4.45	0.8	-
400408	40		4.70	0.8	-

Inserts	Order Code	Grades										
		Coated					Cermet		Uncoated			
		B100	C200	C250	F20	F30	CEZ5	CE100	CE60	K10		CE
	XDGT120308R-E											
	XDGT120308R-ME	⊙										
	XDGT120308TR-M	⊙										
	XDGT190408R-E											
	XDGT190408R-ME	⊙										
	XDGT190408TR-M	⊙										
	XDGT400408R-E											
	XDGT400408R-ME	⊙										
	XDGT400408TR-M	⊙										

- Steel Stainless Steel Steel/Stainless Steel/Super alloy Cast Iron Aluminum Steel/Cast Iron
- Steel/Stainless Steel/Cast Iron
- Prices and stocks are based on present conditions
- Please specify model numbers and the grade of inserts, i.e.: XDGT120308R-E,F20

XDGT Insert Grade Selection

Material group	Recom. fz (mm/tooth)	Grades		
		XDGT ... M	XDGT ... ME	XDGT ... E
1	0.08-0.25	-	B100	-
2	0.08-0.25	-	B100	-
3	0.08-0.25	-	B100	-
4	0.08-0.25	-	B100	-
5	0.06-0.20	-	B100	-
6	0.06-0.20	-	B100	-
7	0.08-0.15	-	B100	-
8	0.08-0.15	-	B100	-
9	0.07-0.15	-	B100	-
10	0.06-0.15	-	B100	-
11	0.10-0.15	-	B100	-
12	0.10-0.25	-	F30	-
13	0.10-0.25	-	F30	-
14	0.10-0.20	-	F30	-
15	0.05-0.20	-	F30	-
16	0.05-0.25	-	-	F20
17	0.06-0.25	-	-	F20
18	0.06-0.25	-	-	F20
19	0.05-0.08	-	B100	-
20	0.05-0.08	-	B100	-
21	0.06-0.08	-	B100	-
22	0.05-0.08	-	B100	-

Dovetail

Recommended Cutting Data


• Recommended Cutting speed, Vc(m/min)


Material group	Grades													
	B100		C250		F20		CE60		CE		K10		F30	
	fz (mm/tooth)													
	0.08 0.15 0.20		0.08 0.15 0.20		0.08 0.15 0.25								0.08 0.15 0.25	
Cutting Speed, V _c (m/min)														
1	192	152	136	-	-	-	-	-	-	-	-	-	-	-
2	168	132	116	-	-	-	-	-	-	-	-	-	-	-
3	136	118	100	-	-	-	-	-	-	-	-	-	-	-
4	124	104	84	-	-	-	-	-	-	-	-	-	-	-
5	108	92	-	-	-	-	-	-	-	-	-	-	-	-
6	92	72	-	-	-	-	-	-	-	-	-	-	-	-
7	32	28	-	-	-	-	-	-	-	-	-	-	-	-
8	108	89	79	-	-	-	-	-	-	-	-	-	-	-
9	92	76	66	-	-	-	-	-	-	-	-	-	-	-
10	76	60	54	-	-	-	-	-	-	-	-	-	-	-
11	54	45	-	-	-	-	-	-	-	-	-	-	-	-
12	-	-	-	-	-	-	-	-	-	-	-	170	145	125
13	-	-	-	-	-	-	-	-	-	-	-	155	125	115
14	-	-	-	-	-	-	-	-	-	-	-	110	90	-
15	-	-	-	-	-	-	-	-	-	-	-	90	70	-
16	-	-	-	1080	900	780	-	-	-	-	-	-	-	-
17	-	-	-	950	900	770	-	-	-	-	-	-	-	-
18	-	-	-	1080	900	780	-	-	-	-	-	-	-	-
19	50	40	-	40	32	-	-	-	-	-	-	-	-	-
20	35	30	-	28	24	-	-	-	-	-	-	-	-	-
21	50	40	-	40	32	-	-	-	-	-	-	-	-	-
22	50	40	-	40	32	-	-	-	-	-	-	-	-	-

• Cutting Data

Operations	AR / Dc	Recom. fz (mm/tooth)			Speed factor
Full engagement	100%	0.02	0.07	0.12	1.00
	5%	0.06	0.20	0.34	1.60
Side milling	10%	0.04	0.14	0.25	1.50
	25%	0.03	0.09	0.16	1.30
Average chip thickness (hm)	-	0.01	0.04	0.08	-

• Type Of Inserts

	Code	Length of insert edge (mm)
		120308
	190408	18
	-	-
	-	-
	-	-

	Code	Length of insert edge (mm)
		400408
	-	-
	-	-
	-	-
	-	-



ALUMINIUM ALLOY FACE MILLING CUTTER

Features

Available in
materials
N

Cost
150%
SAVING

Applicable
Machines
CNC Milling machine

Efficiency
150%
UP

Durability
150%
UP

Product Design

Clamping By A Cartridge Centre-Lock Clamping

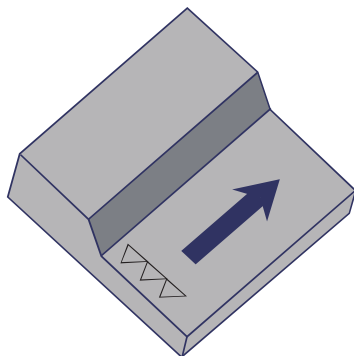
Designed with adjustable cartridges by which inserts held in position and fine-tunable.

Octagon insert with 8 cutting edges, the best choice for economical cost



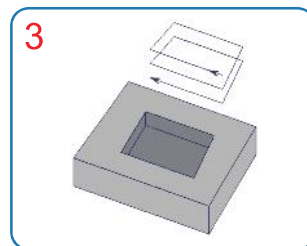
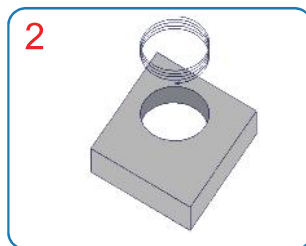
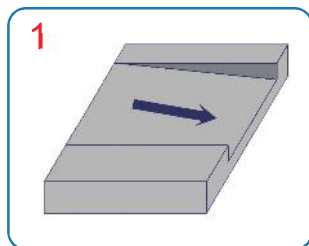
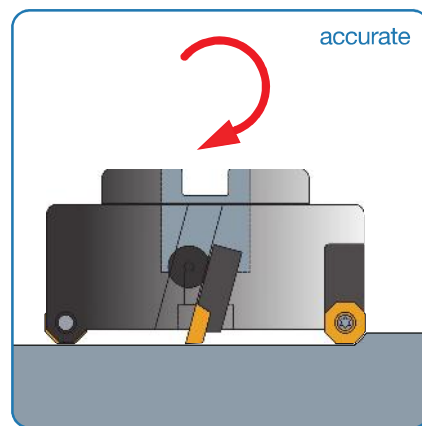
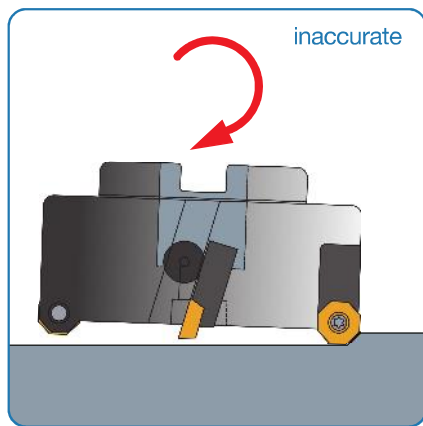
Light aluminum alloy cutter in better stability, specially for machining non-ferrous metals in high cutting speed. It performs excellent surface finishing.

Surface Finish $Ra < 1.5 \mu m$



Features Description

The importance of spindle accuracy in face milling.



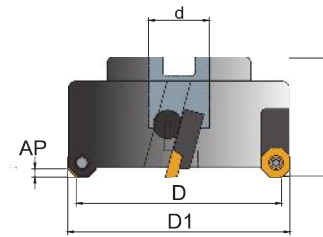
Alu-
Face Milling

PRODUCT SPECIFICATIONS

Aluminium Alloy Face Milling Cutters

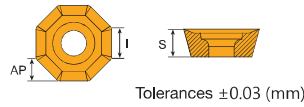
- Inserts P. 281
- Cutting Data P. 282

MO





Order Code	Dimensions (mm)					Z	KG	MAX RPM	Inserts ODGT	Screw	Key
	D	D1	d	L	AP						
MO-080R-AL-C-22	80	92	22	50	3	5	0.68	4600	050408	C04011	T15P
MO-100R-AL-C-27	100	112	27			6	1.01	4100			
MO-125R-AL-C-27	125	137				7	1.60	3600			
MO-160R-AL-C-32	160	172	32	60	8	2.85	3100				
MO-200R-AL-C-40	200	212	40		10	4.35	2800				
MO-250R-AL-C-40	250	262			12	5.45	2500				
MO-300R-AL-C-40	300	312			14	7.95	2200				

ODGT - Insert



Dimensions (mm)			
Code	S	I	AP
050408	4.7	12.7	3.5

Inserts	Order Code	Grades								 Inserts 10 PCS / Box										
		Carbide					Cermet		Uncoated											
		B100	C200	C250	F20	F30	CE100	CE60	K10		CE									
	ODGT050408N-E																			

- Steel ■ Stainless Steel ■ Steel/Stainless Steel /Super alloy ■ Cast Iron ■ Aluminum ■ Steel/Cast Iron
- Steel/Stainless Steel/Cast Iron
- Prices and stocks are based on present conditions
- Please specify model numbers the and grade of inserts, ie.: ODGT050408N-E,K10

Standard Spare Parts

For Cutter					
MO-080~300	OD05AR	C04011	SL16	M0515	S0610

Recommended Insert Grades

Material group	Recom. fz (mm/tooth)	Grades			
		ODGT05 ... M	ODGT05...ME	ODGT05...E	
1	-	-	-	-	-
2	-	-	-	-	-
3	-	-	-	-	-
4	-	-	-	-	-
5	-	-	-	-	-
6	-	-	-	-	-
7	-	-	-	-	-
8	-	-	-	-	-
9	-	-	-	-	-
10	-	-	-	-	-
11	-	-	-	-	-
12	-	-	-	-	-
13	-	-	-	-	-
14	-	-	-	-	-
15	-	-	-	-	-
16	0.06-0.13	-	-	K10	-
17	0.06-0.12	-	-	K10	-
18	0.06-0.11	-	-	K10	-
19	-	-	-	-	-
20	-	-	-	-	-
21	-	-	-	-	-
22	-	-	-	-	-

Alu-Face Milling

Recommended Cutting Data

- Recommended Cutting speed, V_c (m/min)

Material group	Grades						
	B100	C250	F20	CE60	CE	K10	F30
	fz (mm/tooth)						
						0.13	0.25
Cutting Speed, V_c (m/min)							
1	-	-	-	-	-	-	-
2	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-
4	-	-	-	-	-	-	-
5	-	-	-	-	-	-	-
6	-	-	-	-	-	-	-
7	-	-	-	-	-	-	-
8	-	-	-	-	-	-	-
9	-	-	-	-	-	-	-
10	-	-	-	-	-	-	-
11	-	-	-	-	-	-	-
12	-	-	-	-	-	-	-
13	-	-	-	-	-	-	-
14	-	-	-	-	-	-	-
15	-	-	-	-	-	-	-
16	-	-	-	-	-	1200 1000 850	-
17	-	-	-	-	-	1050 850 750	-
18	-	-	-	-	-	1200 1000 850	-
19	-	-	-	-	-	-	-
20	-	-	-	-	-	-	-
21	-	-	-	-	-	-	-
22	-	-	-	-	-	-	-

- Surface Finishing

Order Code	Feed mm / Rev <=	Ra um
ODGT050408	1.5	<1.5

COMBIMASTER TOOLHOLDERS



Features

Maximum
Run Out At
3XD Is 5 μ m

Cost
150%
SAVING

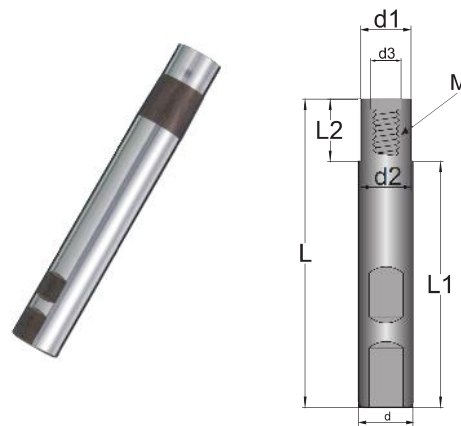
Applicable
Machines
CNC Milling machine

Efficiency
150%
UP


Durability
150%
UP

PRODUCT SPECIFICATIONS

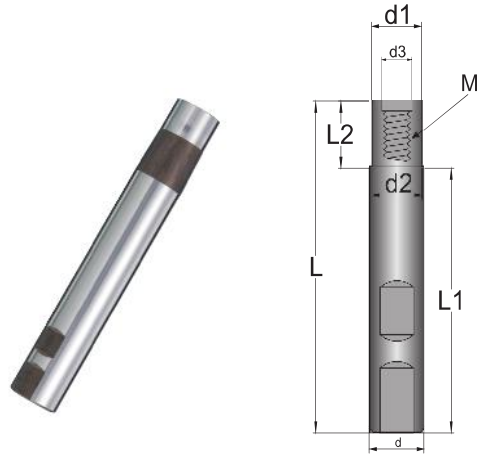
Combimaster Toolholders



CBH

Order Code	Dimensions (mm)								
	d	d1	d2	d3	L1	L2	L	M	
CBH-1010-80	10	10	10	6.5	-	-	60	M6	0.04
CBH-1009-100		9	9		60	20	80		0.05
CBH-1212-80	12	12	12		-	-	60		M6
CBH-1211-100		11	11	60	20	80			
CBH-1211-120				80		100			
CBH-1211-140				100		120			
CBH-1616-100	16	16	16	8.5	-	-	70	M8	0.11
CBH-1615-120		15	15		70	20	90		0.14
CBH-1615-150					95	25	120		0.18

Combimaster Toolholders

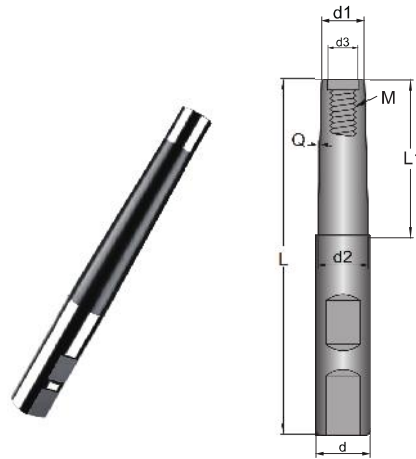


CBH

Order Code	Dimensions (mm)								
	d	d1	d2	d3	L1	L2	L	M	KG
CBH-2020-100	20	20	20	10.5	-	-	70	M10	0.16
CBH-2019-120		19	19		70	20	90		0.21
CBH-2019-160		95	25		120	0.28			
CBH-2523-130	25	23	23	14	70	20	90	M12	0.31
CBH-2523-170					100	30	130		0.46
CBH-2523-210					140		170		0.60
CBH-2523-240					170		200		0.72
CBH-2525-110	25	25	-	-	70	0.25			
CBH-3232-120	32	32	32	22.0	-	-	80	M16	0.48
CBH-3230-140		30	30		80	20	100		0.56
CBH-3230-200					130	30	160		0.92
CBH-3230-240					170		200		1.16
CBH-3230-300					210		50		260
CBH-4240-220	42	40	40	28.0	130	20	150	M18	2.14
CBH-50.849-215	50.8	49	49	36.0	170	30	200	M25	2.14
CBH-50.849-265									2.93

Accessories

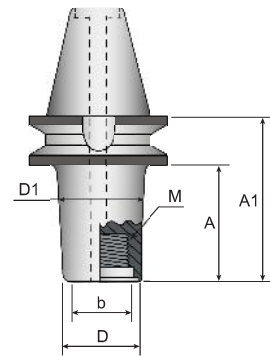
Combimaster Toolholders



CBH

Order Code	Dimensions (mm)								
	d	d1	d2	d3	L1	L	M	Q	KG
CBH-1209-120	12	9	11.9	6.5	40	100	M6	2°	0.10
CBH-1611-120	16	11	15.5		60	130		2.5°	0.13
CBH-1611-150					70	150		M8	2°
CBH-2015-160	20	15	19.5	80	200	0.30			
CBH-2015-180				70	150	0.43			
CBH-2015-230				80	200	0.47			
CBH-2519-180	25	19	24	10.5	70	150	M10	2°	0.62
CBH-2519-220					90	190			0.81
CBH-3223-200					32	23			28
CBH-3223-240	31.5	80	200	1.42					
CBH-3230-280	42	32	41.5	22.0		30	39	M16	2°
CBH-4232-280					110	240	2.63		
CBH-4232-340					120	300	3.00		
CBH-4232-410					150	370			

Face Milling Arbor



BT

Order Code	Dimensions (mm)						
	D	A	A1	b	D1	M	KG
BT40-2380A	23	53	78	14	28	M12	1.40
BT40-23120A		93	118		31		2.00
BT40-3080A	30	53	78	22	35	M16	2.40
BT40-30120A		93	118		38		
BT40-4080A	40	53	78	28	45	M18	2.90
BT40-40120A		93	118		48		
BT50-2380A	23	42	77	14	28	M12	4.60
BT50-23120A		82	117		31		4.80
BT50-3080A	30	42	77	22	35	M16	4.60
BT50-30120A		82	117		38		5.50
BT50-4080A	40	42	77	28	45	M18	5.30
BT50-40120A		82	117		48		6.30
BT50-5080A	50	42	77	36	55	M25	6.10
BT50-50120A		82	117		58		7.00
BT50-50160A		122	157		61		8.10

Accessories