

Face milling cutter for roughing

AHM75

Tangential milling cutter for steels and cast iron.

**Increased roughing performance
on large workpieces.**



Mplus...

Tangential milling cutter for steel and cast iron.

AHM75

Features



High rigidity design

Arranging the inserts vertically absorbs the principal cutting force through the thickness of the insert and achieves extremely high rigidity.

High depth of cut

The cutter body design is optimized for high depths of cut max. 20 mm. This ensures extremely high productivity when roughing large workpieces.

High feed

The large chip pocket ensures excellent chip evacuation even at high feed rates.

Cartridge system

Secure modular milling system with cartridges for protection of the cutter body.



Inserts

Smooth cutting action reduces spindle wear

HRP / HRK

- For smooth cutting
- Improved chip breaking properties
- For tough materials such as alloy steels

R Chip Breaker

- Flat top insert for high cutting edge strength
- Ideal for machining of cast iron with scale



HRP / HRK



R

Grades

New PVD and CVD coated milling grades

HP1030 (ISO P35 / M30)

- PVD coated grade for steel and stainless steel
- High toughness for reliable milling



PVD
(Ti,Al)N + TiN

HC5020 (ISO K15)

- CVD coated grade for cast iron
- High wear resistance for stable milling



CVD
Ti(C,N) + Al₂O₃

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75°



Arbor type 75°



Fig. 3

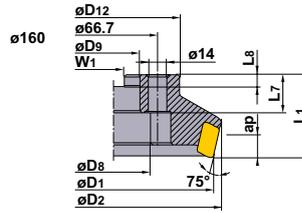
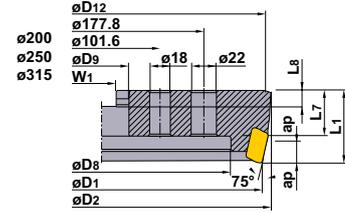


Fig. 4



Light Alloy	Cast Iron	Steel	Stainless Steel	Hardened Steel
➔				

Right hand tool holder only.

Type	Order Number	Stock	Number of Teeth	Dimensions (mm)							Mass (kg)	Max. ap (mm)	Type (Fig.)
				D1	D2	L1	D9	D12	W1	L8			
Normal Pitch	AHM75-160C08R	●	8	160	179.7	63	40	110	16.4	9	7.6	20	3
	-200C10R	●	10	200	220	63	60	131.6	25.7	14	11.5	20	4
	-250C12R	●	12	255	270	63	60	131.6	25.7	14	18.6	20	4
	-315C14R	●	14	315	335	80	60	226	25.7	14	35.5	20	4

* Clamp Torque (N · m) : L-TS5=6 Nm

Inserts

Shape	Order Number	Class	Honing	Coated		Geometry
				HP1030	HC5020	
	LNUX220920-HRP	U	E	●		
	LNUX220920-HRK	U	E		●	
	LNUC220920R	U	E	●		
	LNUC220920R	U	E		●	

Spare Parts

L-TS5	CLN22R	TKY15T

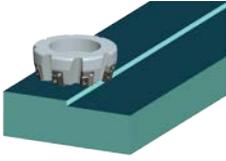
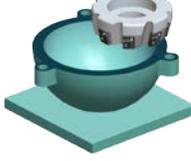
RECOMMENDED CUTTING CONDITIONS

	Work Material	Hardness	Grade	Cutting Speed (m/min)	Feed per Tooth (mm/tooth)	Breaker
P	Mild Steel	≤180 HB	HP1030	150 (70–180)	0.6 (0.4–0.9)	HRP / R
	Carbon Steel Alloy Steel	180–280 HB	HP1030	140 (70–170)	0.5 (0.3–0.8)	HRP / R
		280–350 HB	HP1030	100 (60–140)	0.4 (0.2–0.6)	HRP / R
M	Austenitic Stainless Steel	≤180 HB	HP1030	100 (40–150)	0.3 (0.2–0.5)	HRP
	Duplex Stainless Steel	≤280 HB	HP1030	100 (40–150)	0.3 (0.2–0.4)	HRP
	Hardened Stainless Steel	≤350 HB	HP1030	100 (40–150)	0.2 (0.1–0.4)	HRP
K	Gray Cast Iron	≤200 MPa	HC5020	250 (140–320)	0.6 (0.4–0.9)	R / HRK
	Ductile Cast Iron	≤350 MPa	HC5020	200 (110–280)	0.5 (0.3–0.7)	R / HRK
	Malleable Cast Iron	≤800 MPa	HC5020	170 (100–250)	0.4 (0.2–0.6)	R / HRK

● : Inventory maintained.

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APPLICATION EXAMPLES

Tool		AHM75-160C08R (HP1030)	AHM75-160C08R (HC5020)	AHM75-250C12R (HC5020)
Workpiece		56NiCrMo7 	GG25 	GGG40 
Component		Die Steel (1000n/mm ²)	Cast iron	Cast iron
Cutting conditions	Cutting Speed (m/min)	150	230	140
	Table Feed (mm/min)	715	1660	650
	Feed (mm/tooth)	0.3	0.45	0.3
	Depth of cut ae (mm)	120	50	180
	Depth of cut ap (mm)	10	12	14
Coolant		Dry cutting	Dry cutting	Dry cutting
Results		Smooth and stable machining is achieved on an SK50 machine with direct clamping to the spindle with an overhang of 115mm.	Increased performance when machining cast irons with scale is achieved due to the high strength cutting edge design.	Highly productive roughing of large workpieces is achieved due to good chip evacuation properties.

**MMC HARTMETALL GmbH**

Comeniusstr. 2, 40670 Meerbusch, Germany
Tel. +49-2159-9189-0 Fax +49-2159-918966
e-mail admin@mmchg.de

MMC HARDMETAL U.K. LTD.

Mitsubishi House, Galena Close, Tamworth, Staffs. B77 4AS, U.K.
Tel. +44-1827-312312 Fax +44-1827-312314
e-mail sales@mitsubishicarbide.co.uk

MMC METAL FRANCE s.a.r.l.

6, Rue Jacques Monod, 91400 Orsay, France
Tel. +33-1-69 35 53 53 Fax +33-1-69 35 53 50
e-mail mmfsales@mmc-metal-france.fr

MITSUBISHI MATERIALS ESPAÑA, S.A.

Calle Emperador 2, 46136 Museros/Valencia, Spain
Tel. +34-96-144-1711 Fax +34-96-144-3786
e-mail mme@mmevalencia.com

MMC ITALIA S.r.l.

V.le Delle Industrie 2, 20020 Milano, Italy
Tel. +39-02 93 77 03 1 Fax +39-02 93 58 90 93
e-mail info@mmc-italia.it

MMC HARDMETAL RUSSIA OOO LTD.

UL. Bolschaja Semenovskaya, 11, bld 5, 107023 Moscow, Russia
Tel. +7-495-72558-85 Fax +7-495-98139-73
e-mail info@mmc-carbide.ru

