
TOOLS FOR CAST IRON



NEW

MC5100 SERIES

CVD COATED GRADES FOR CAST IRON TURNING
FROM HIGH SPEED THROUGH TO INTERRUPTED TURNING



MC5100 SERIES

CVD COATED GRADES FOR CAST IRON TURNING

MC5105

FOR HIGH SPEED CUTTING OF GRAY CAST IRON

Provides outstanding wear resistance when turning gray cast iron at up to 1000 m/min cutting speeds.

MC5115

FIRST RECOMMENDED GRADE FOR DUCTILE CAST IRON

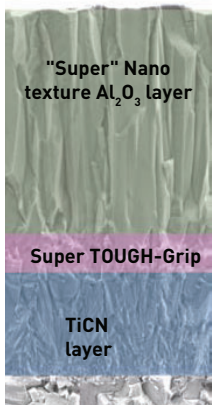
Prevents abnormal cutting edge damage and displays excellent wear and fracture resistance when machining ductile cast iron.

MC5125

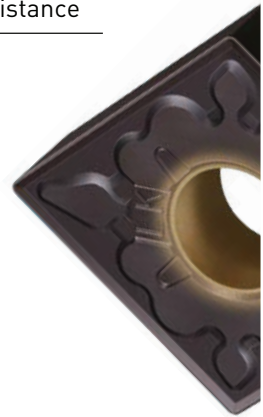
FOR HEAVY INTERRUPTED CUTTING OF DUCTILE CAST IRON

Demonstrates excellent fracture resistance that can withstand heavy interrupted cutting of high strength ductile cast iron.

MC5105 FOR HIGH SPEED CUTTING OF GRAY CAST IRON Harder and with outstanding wear resistance



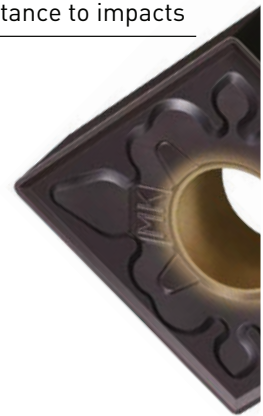
- A thick top coating layer.
- Intermediate layer suitable for high speed cutting.
- The substrate adopts a high hardness carbide material.



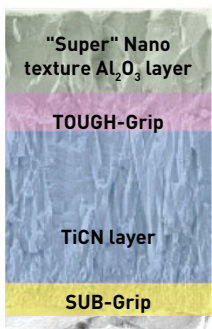
MC5115 FIRST RECOMMENDED GRADE FOR DUCTILE CAST IRON Excellent durability and resistance to impacts



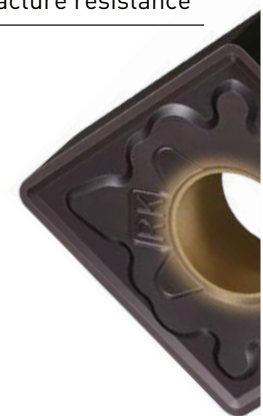
- Al_2O_3 layer with excellent wear resistance.
- Intermediate layer with microstructure suitable for ductile cast iron.
- Thick TiCN layer suitable for coping with the hardness of ductile cast iron.
- New adhesion layer with an enhanced resistance to peeling.



MC5125 FOR HEAVY INTERRUPTED CUTTING OF DUCTILE CAST IRON Excellent stability and fracture resistance



- Al_2O_3 layer with excellent wear resistance.
- Intermediate layer with microstructure suitable for ductile cast iron.
- TiCN layer for hardness for heavy interrupted cutting.
- New adhesion layer with an enhanced resistance to peeling.
- Tough substrate prevents fractures



MC5100 SERIES

CHIPBREAKER SYSTEM FOR CAST IRON TURNING

The entire range of new chipbreakers has been designed by taking advantage of the properties of the new grades. Each breaker has the optimum suitability for each respective application.

Stable cutting (continuous cutting, without scale, etc.)/Low cutting resistance machining

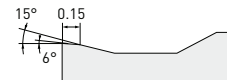
Focus on cutting edge sharpness

NEGATIVE INSERTS



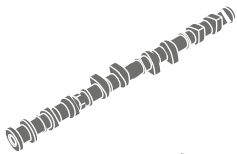
LK breaker

Positive land provides a sharp cutting edge and low cutting resistance.



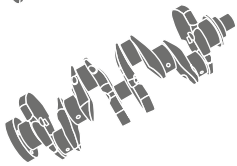
MA breaker

Positive land provides a sharp cutting edge.



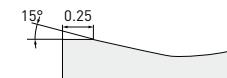
MK breaker

Optimum balance between sharpness and high edge strength for general use.



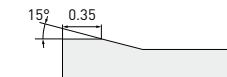
RK breaker

Extra wide land provides a stable cutting edge for interrupted machining and removal of scale.



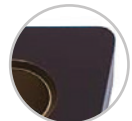
GK breaker

Versatile standard breaker. Flat land maintains a stable cutting edge.



Flat top

Flat top focusing on high edge strength.



Focus on cutting edge strength

Unstable cutting (interrupted cutting, with scale, etc.)/General to heavy cutting

GRAY CAST IRON

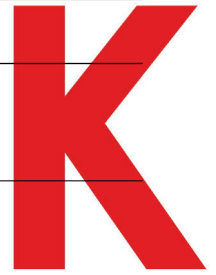
Medium cutting	Rough cutting	Heavy cutting
MK MC5105	RK MC5105	MC5105
MK MC5105	RK MC5105	MC5105
MK MC5105 MC5115	RK MC5105 MC5115	MC5105 MC5115

DUCTILE CAST IRON

Light cutting	Medium cutting	Rough cutting	Heavy cutting
LK MC5115	MK MC5115	RK MC5115	MC5115
LK MC5115	MK MC5115	RK MC5115	MC5115
LK MC5125	MK MC5125	RK MC5125	MC5125

CNMG, CNMA, DNMG, DNMA

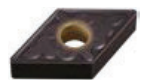
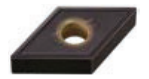
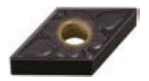
NEGATIVE INSERTS



Order number			MC5105	MC5115	MC5125
	L	M			
CNMG120404-LK	L		●	★	
CNMG120408-LK	L		●	★	
CNMG120412-LK	L		●	★	
CNMG120404-MA	M		●	●	
CNMG120408-MA	M		●	●	
CNMG120412-MA	M		●	●	
CNMG120416-MA	M		●	★	
CNMG160608-MA	M		●	●	
CNMG160612-MA	M		●	●	
CNMG160616-MA	M		●	★	
CNMG120404-MK	M	●	●	●	
CNMG120408-MK	M	●	●	●	
CNMG120412-MK	M	●	●	●	
CNMG120416-MK	M	★	●	●	
CNMG160608-MK	M	★	●	★	
CNMG160612-MK	M	●	●	●	
CNMG160616-MK	M	●	●	★	
CNMG190612-MK	M	★			
CNMG190616-MK	M	★			
CNMG120404-GK	M		●	●	
CNMG120408-GK	M		●	●	
CNMG120412-GK	M		●	●	
CNMG120416-GK	M		●	★	
CNMG160612-GK	M		●	★	
CNMG160616-GK	M		●	★	
CNMG120408-RK	R	●	●	●	
CNMG120412-RK	R	●	●	●	
CNMG120416-RK	R	●	●	●	
CNMG160608-RK	R	★	●	★	
CNMG160612-RK	R	●	●	●	
CNMG160616-RK	R	●	●	●	
CNMG190612-RK	R	★			
CNMG190616-RK	R	★			
CNMA120404	R	●	●	●	
CNMA120408	R	●	●	●	
CNMA120412	R	●	●	●	
CNMA120416	R	●	●	●	
CNMA160612	R	●	●	●	
CNMA160616	R	●	●	●	
CNMA190612	R	●			
CNMA190616	R	●			
CNMA190624	R	●			




Order number			MC5105	MC5115	MC5125
	L	M			
DNMG110408-LK	L		●	★	
DNMG150404-LK	L		●	★	
DNMG150408-LK	L		●	★	
DNMG150412-LK	L		★	★	
DNMG150604-LK	L		●	★	
DNMG150608-LK	L		●	★	
DNMG150612-LK	L		●	★	
DNMG150404-MA	M		●	★	
DNMG150408-MA	M		●	●	
DNMG150412-MA	M		★	★	
DNMG150604-MA	M		●	★	
DNMG150608-MA	M		●	●	
DNMG150612-MA	M		●	●	
DNMG110408-MK	M	★	●	●	
DNMG150404-MK	M	●	●	★	
DNMG150408-MK	M	●	●	●	
DNMG150412-MK	M	●	●	★	
DNMG150604-MK	M	●	●	●	
DNMG150608-MK	M	●	●	●	
DNMG150612-MK	M	●	●	●	
DNMG150404-GK	M		●	★	
DNMG150408-GK	M		●	★	
DNMG150412-GK	M		●	★	
DNMG150604-GK	M		●	★	
DNMG150608-GK	M		●	●	
DNMG150612-GK	M		●	★	
DNMG150408-RK	R	●	●	★	
DNMG150412-RK	R	●	●	★	
DNMG150608-RK	R	●	●	●	
DNMG150612-RK	R	●	●	●	
DNMA150404	R	●	●	★	
DNMA150408	R	●	●	★	
DNMA150412	R	●	●	★	
DNMA150604	R	●	●	★	
DNMA150608	R	●	●	●	
DNMA150612	R	●	●	●	




SNMG, SNMA, TNMG, TNMA

NEGATIVE INSERTS

Order number			MC5105	MC5115	MC5125
	L	M			
SNMG120408-LK	L		●	★	
SNMG120412-LK	L		●	★	
SNMG120404-MA	M		●	★	
SNMG120408-MA	M		●	★	
SNMG120412-MA	M		●	★	
SNMG120416-MA	M		●	★	
SNMG150612-MA	M		●	●	
SNMG120408-MK	M	●	●	★	
SNMG120412-MK	M	●	●	★	
SNMG120416-MK	M	★	●	★	
SNMG150612-MK	M	★	●	★	
SNMG150616-MK	M	★	●	★	
SNMG190612-MK	M	★			
SNMG190616-MK	M	★			
SNMG120404-GK	M		●	★	
SNMG120408-GK	M		●	●	
SNMG120412-GK	M		●	●	
SNMG120416-GK	M		●	★	
SNMG150612-GK	M		●	★	
SNMG120408-RK	R	●	●	★	
SNMG120412-RK	R	●	●	●	
SNMG120416-RK	R	●	●	★	
SNMG150612-RK	R	★	●	★	
SNMG150616-RK	R	★	●	★	
SNMG190612-RK	R	★			
SNMG190616-RK	R	★			
SNMA090308	R	★	★	★	
SNMA120408	R	●	●	★	
SNMA120412	R	●	●	●	
SNMA120416	R	●	●	●	
SNMA150612	R	●	●	★	
SNMA150616	R	●	●	●	
SNMA190612	R	●			
SNMA190616	R	●			



Order number			MC5105	MC5115	MC5125
	L	M			
TNMG160404-LK	L		●	★	
TNMG160408-LK	L		●	★	
TNMG160412-LK	L		●	★	
TNMG160404-MA	M		●	★	
TNMG160408-MA	M		●	●	
TNMG160412-MA	M		●	●	
TNMG160416-MA	M		●	★	
TNMG220408-MA	M		★	★	
TNMG220412-MA	M		★	★	
TNMG220416-MA	M		●	●	
TNMG160404-MK	M	●	●	★	
TNMG160408-MK	M	●	●		
TNMG160412-MK	M	●	●	★	
TNMG220408-MK	M	★	●	★	
TNMG220412-MK	M	★	★	★	
TNMG220416-MK	M	★	★	★	
TNMG160404-GK	M		●	★	
TNMG160408-GK	M		●	●	
TNMG160412-GK	M		●	★	
TNMG160416-GK	M		●	★	
TNMG220408-GK	M		●	★	
TNMG220412-GK	M		★	★	
TNMG160408-RK	R	●	●		
TNMG160412-RK	R	●	●		
TNMG160416-RK	R	●	●	★	
TNMG220408-RK	R	●	●	★	
TNMG220412-RK	R	●	●	★	
TNMG220416-RK	R	●	●	★	
TNMA160404	R	●	●	★	
TNMA160408	R	●	●		
TNMA160412	R	●	●		
TNMA160416	R	●	●		
TNMA160420	R	★	★	★	
TNMA220408	R	●	●	★	
TNMA220412	R	●	●	★	
TNMA220416	R	●	●	●	



●: Inventory in Europe

★: Inventory in Japan.

VNMG, WNMG, WNMA

NEGATIVE INSERTS

Order number		MC5105	MC5115	MC5125
VNMG160404-LK	L		●	★
VNMG160408-LK	L		●	★
VNMG160404-MA	M		●	★
VNMG160408-MA	M		●	★
VNMG160404-MK	M	●	●	★
VNMG160408-MK	M	●	●	●
VNMG160412-MK	M	●	●	●
VNMG160404-GK	M		●	★
VNMG160408-GK	M		●	★
VNMG160412-GK	M		●	★
VNMA160404	R	★	●	★
VNMA160408	R	★	●	●
VNMA160412	R	★	●	★
WNMG080404-LK	L		●	★
WNMG080408-LK	L		●	★
WNMG080412-LK	L		●	★
WNMG060408-MA	M		●	●
WNMG060412-MA	M		●	★
WNMG080404-MA	M		●	★
WNMG080408-MA	M		●	●
WNMG080412-MA	M		●	●
WNMG080416-MA	M		●	★
WNMG080404-MK	M	●	●	★
WNMG080408-MK	M	●	●	●
WNMG080412-MK	M	●	●	●
WNMG080416-MK	M	★	●	★
WNMG060404-GK	M		★	●
WNMG060408-GK	M		●	★
WNMG080404-GK	M		●	★
WNMG080408-GK	M		●	●
WNMG080412-GK	M		●	●
WNMG080416-GK	M		●	★
WNMG080408-RK	R	●	●	●
WNMG080412-RK	R	●	●	●
WNMG080416-RK	R	●	●	●
WNMA060408	R	★	●	★
WNMA060412	R	★	●	★
WNMA080404	R	●	●	★
WNMA080408	R	●	●	●
WNMA080412	R	●	●	●
WNMA080416	R	●	●	★



CN-, SN-, TNMN

NEGATIVE INSERTS (WITHOUT HOLE)

Order number		MC5105	MC5115	MC5125
CNMN120408	R	★	●	★
CNMN120412	R	★	●	★
CNMN120416	R	★	●	★
SNMN120408	R	★	●	★
SNMN120412	R	★	●	●
SNMN120416	R	★	★	★
SNMN120420	R	★	●	★
TNMN160408	R	★	●	★
TNMN160412	R	★	●	★
TNMN160416	R	★	★	●
TNMN160420	R	★	●	★



CCMT, DCMT

7° POSITIVE INSERTS

Order number		MC5105	MC5115	MC5125
CCMT060204-MK	M	●	●	
CCMT060208-MK	M	●	★	
CCMT09T304-MK	M	●	●	
CCMT09T308-MK	M	●	●	
CCMT120404-MK	M	●	★	
CCMT120408-MK	M	●	●	
CCMT120412-MK	M	●	★	
DCMT070204-MK	M	●	★	
DCMT070208-MK	M	●	★	
DCMT11T304-MK	M	●	●	
DCMT11T308-MK	M	●	●	
DCMT150404-MK	M	●	★	
DCMT150408-MK	M	●	★	



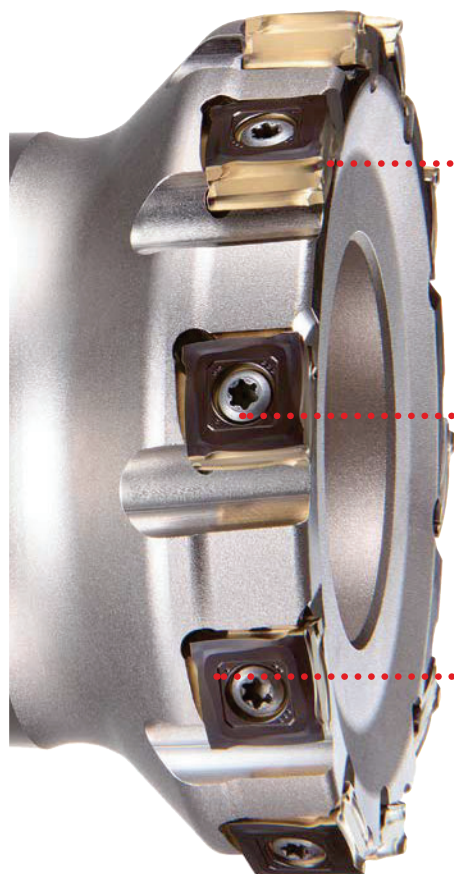
VOX400

VOX CUTTER WITH VERTICAL INSERTS
FOR ULTRA HIGH EFFICIENCY



VOX400

VERTICAL INSERTS WITH HIGH STRENGTH CUTTING EDGE. SUITABLE FOR A WIDE RANGE CAST IRON ROUGHING MILLING APPLICATIONS



CUTTER BODY FEATURES

HIGH RIGIDITY DESIGN

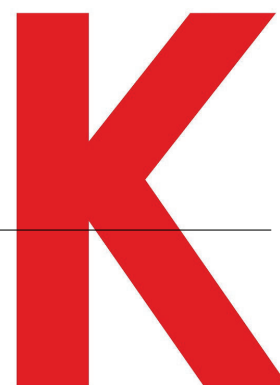
Arranging the inserts vertically absorbs the principal cutting force through the thickness of the insert and achieves extremely high rigidity.

EASY TO CLAMP INSERT

The insert profile is precisely matched to the insert seats in the tool body. This enables user friendly, accurate positioning and provides extra secure clamping.

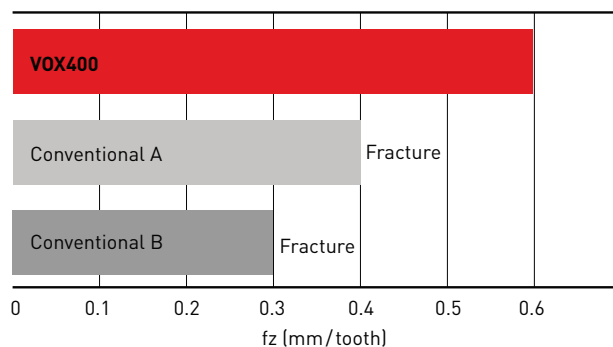
WIDE SELECTION OF BODIES

VOX400 meets the needs for a wide range of cast iron milling applications. Available as standard are cutter bodies with normal, fine and extra fine tooth pitches for high productivity.



FRACTURE RESISTANCE

The original insert shape with a convex cutting edge and shaped relief face offers excellent sharpness and outstanding fracture resistance.



Tool	VOX400-080A08R(Ø80)
Insert	SONX1206PER(MC5020)
Workpiece	GGG70
Vc (m/min)	200
fz (mm/tooth)	0.2-0.6
ap (mm)	5
ae (mm)	40
Coolant	Dry Cut

VOX400

INSERT FEATURES

UNIQUE VERTICAL INSERT

- 8 usable corners with a high strength cutting edge.
- Fracture resistance is significantly improved due to a convex curve cutting edge and a specially shaped relief face.
- Maximum depth of cut is 10 mm.



MC5020

- Ideal for milling cast iron.
- The "Black Super Smooth" coating surface protects against built-up edge, thus ensuring longer tool life.
- Dry machining is recommended.



VP15TF

- A PVD coated grade for application versatility.
- Ideal for ductile cast iron, unstable cutting conditions and low rigidity workpieces.
- Wet cutting is possible.

SELECTION OF NUMBER OF TEETH

To achieve higher efficiency, the number of teeth can be increased with stable workpiece clamping and with sufficient machine power. In these cases we recommend milling cutters with fine or extra fine pitches when machining gray cast iron.

REGULAR PITCH CUTTER



Differential split milling cutters with a small number of cutting edges

- 1st choice for unstable machining due to the lowest cutting forces
- Limited machine performance
- Milling application with long overhangs

FINE PITCH CUTTER



Sufficient chip space for roughing ISO K materials

- 1st choice for roughing under stable conditions
- Excellent productivity

EXTRA FINE PITCH CUTTER



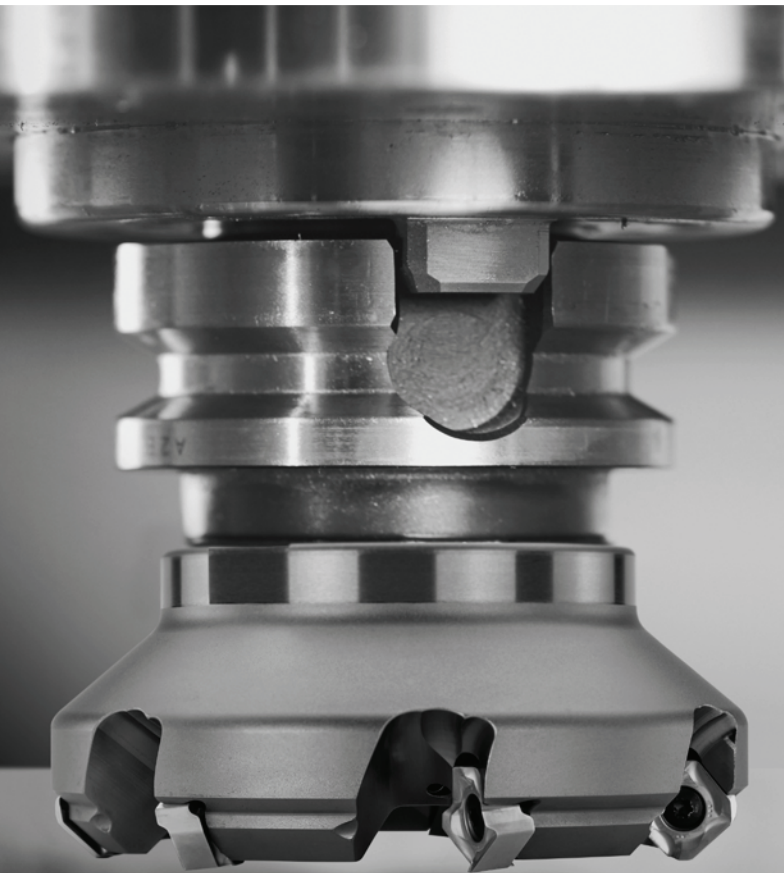
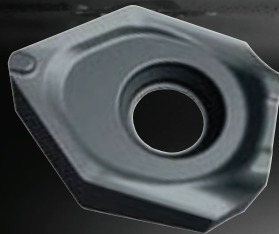
Equally spaced, fine pitch cutter with max. number of cutting edges

- 1st choice for high productivity in applications with a small side engagement
- Roughing of ISO K materials under stable cutting conditions



WSX445

NEW GENERATION OF LOW RESISTANCE MILLING FOR
GREY AND DUCTILE CAST IRONS. DOUBLE-SIDED
INSERTS FOR EFFICIENCY AND ECONOMY



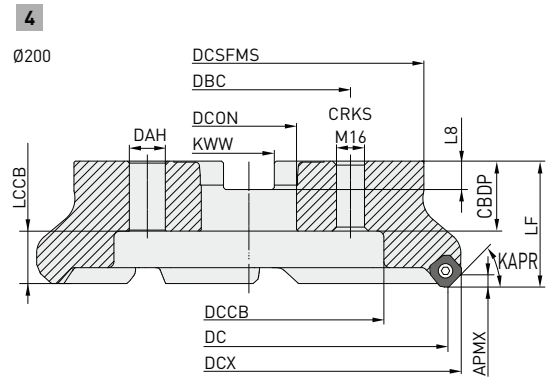
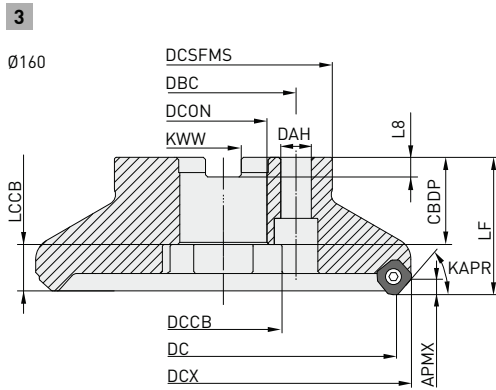
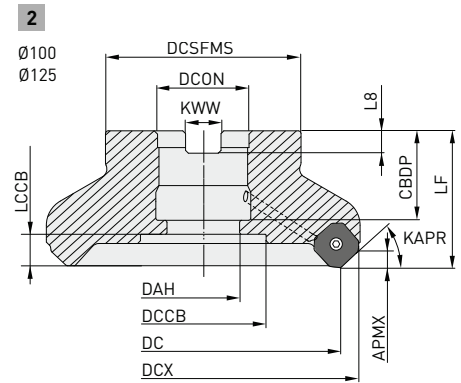
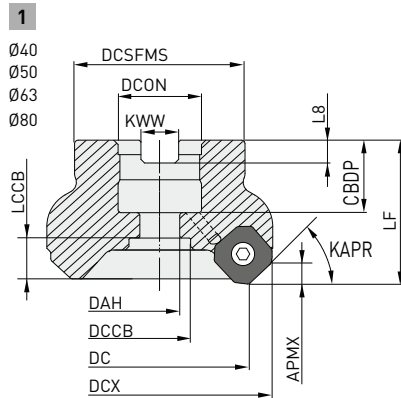
WSX445



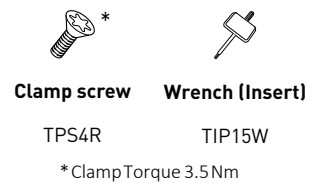
P M K N S H



C.H: 45°
A.R: +17° T: -7° - -2°
R.R: -6° - +1° I: +16° - +19°



Tool holder type	Set bolt		Type	Bolt type
WSX445-040A [] AR	HSC08025H	HSC08040	1	
WSX445-050A [] AR	HSC10030H	HSC10035	1	
WSX445-063A [] AR	HSC10030H	HSC10035	1	
WSX445-080A [] AR	HSC12035H	HSC12035 HSC12045	1	
WSX445-100B [] AR	MBA16033H	—	2	
WSX445-125B [] AR	MBA10030H	—	2	
WSX445-160C [] NR	◇	—	2	
WSX445-200C [] NR	◇	—	1	



1. ◇ Holder without coolant hole.

WSX445

Order number	Stock	DC	DCON	LF	WT	ZEFP	C.H.	Type
EXTRA FINE PITCH								
WSX445-050A05AR	●	50	22	40	0.4	5	○	1
WSX445-063A06AR	●	63	22	40	0.6	6	○	1
WSX445-080A08AR	●	80	27	50	1.1	8	○	1
WSX445-100B10AR	●	100	32	50	1.6	10	○	2
WSX445-125B12AR	●	125	40	63	3.0	12	○	2
WSX445-160C16NR	●	160	40	63	4.6	16	—	3
WSX445-200C20NR	●	200	60	63	8.4	20	—	4

○ = With through coolant holes

WSX445

INSERT GRADES FOR A WIDE RANGE OF APPLICATIONS

P	PVD	M	PVD	K	CVD	PVD	N	PVD	S
P10	MP6120	M10		K10	MC5020		N10		S10
P20	MP6130	M20	MP7130	K20		VP15TF	N20		S20
P30	MX3030	M30	MP7140	K30		VP20RT	N30	TF15	S30
P40		M40		K40			N40		S40

MP6120

For general milling of steel

MP6130

For interrupted milling of steel

MP7130

For stable milling of stainless steel

MP7140

For unstable milling of stainless steel

MC5020

For general milling of cast iron

MP9120

For general milling of HRSA and titanium alloy

MP9130

For interrupted general milling of HRSA and titanium alloy

MX3030

For finishing

TF15

For general milling of aluminium

K Cast iron		
Order number	Class	MC5020
SNGU140812ANER-M	G	●
SNMU140812ANER-M	M	●
SNMU140812ANER-R	M	●
SNMU140812ANER-H	M	●
SNGU140812ANER-L	G	●
WNGU1406ANEN8C-M*	G	●

* Wiper insert



WSX445

RECOMMENDED CUTTING CONDITIONS

DRY CUTTING

Material	Properties	Grade	Vc	F — L		L — M		M — R	
				fz	ap	fz	ap	fz	ap
Gray cast iron	≤ 350MPa	MC5020	220 (200—270)	0.15 (0.1—0.2)	< 3.0	0.2 (0.15—0.25)	< 4.0	0.25 (0.2—0.3)	< 5.0
		VP15TF	180 (130—250)	0.15 (0.1—0.2)	< 3.0	0.2 (0.15—0.25)	< 4.0	0.25 (0.2—0.3)	< 5.0
		VP20RT							
Ductile cast iron	≤ 800MPa	MX3030	150 (120—180)	0.15 (0.1—0.2)	< 1.0	0.15 (0.1 —0.2)	< 2.0	0.2 (0.15—0.25)	< 3.0
		MC5020	200 (180—250)	0.15 (0.1—0.2)	< 3.0	0.2 (0.15—0.25)	< 4.0	0.25 (0.2—0.3)	< 5.0
		VP15TF	160 (110—240)	0.15 (0.1—0.2)	< 3.0	0.2 (0.15—0.25)	< 4.0	0.25 (0.2—0.3)	< 5.0
VP20RT									

WSX445

WET CUTTING

Material	Properties	Grade	Vc	F — L		L — M		M — R	
				fz	ap	fz	ap	fz	ap
Gray cast iron	< 350MPa	MC5020	180 (160—200)	0.15 (0.1—0.2)	≤ 3.0	0.2 (0.15—0.25)	≤ 4.0	0.25 (0.2—0.3)	≤ 5.0
		VP15TF	130 (100—160)	0.15 (0.1—0.2)	≤ 3.0	0.2 (0.15—0.25)	≤ 4.0	0.25 (0.2—0.3)	≤ 5.0
		VP20RT							
Ductile cast iron	< 800MPa	MC5020	180 (160—200)	0.15 (0.1—0.2)	≤ 3.0	0.2 (0.15—0.25)	≤ 4.0	0.25 (0.2—0.3)	≤ 5.0
		VP15TF	110 (80—140)	0.15 (0.1—0.2)	≤ 3.0	0.2 (0.15—0.25)	≤ 4.0	0.25 (0.2—0.3)	≤ 5.0
		VP20RT							



DRILLING

MPS1

HIGH PERFORMANCE SOLID CARBIDE DRILL

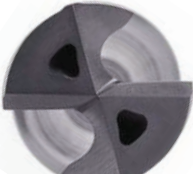


DIA  **EDGE**

 **MITSUBISHI MATERIALS**

MPS1

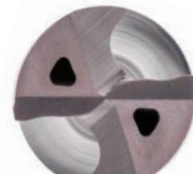
HIGH PERFORMANCE SOLID CARBIDE DRILL



LxDC 3 - 8

STRONG CUTTING EDGE

For high performance drilling.



LxDC 10 - 40
LxDC 2 (PC)

OPTIMIZED GEOMETRY

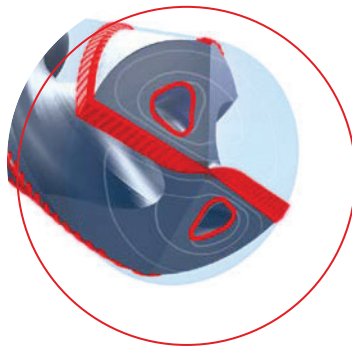
For extra deep hole drilling and optimal hole quality.

DP1021

New ALTiCrN PVD coating technology ensures a long tool life and high productivity in standard and high cutting speeds. Suitable in steels, stainless steels and cast iron.

ACCURACY

The double margin and Tri-Coolant Technology helps to provide high quality hole surface finishes.

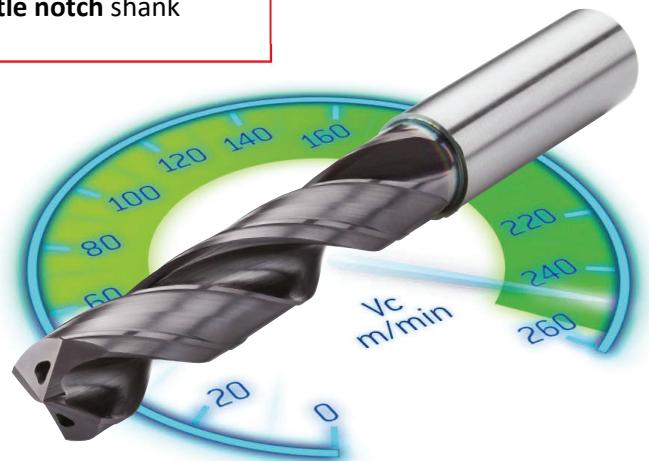


- Increased coolant volume
- Optimized flow at the margin
- Faster chip evacuation

Available sizes from 3 mm to 20 mm

12 lengths from 2xD to 40xD

Sylindrical and **Whistle notch** shank



MPS1

Machining data recommendation

Material	Properties	DC	L x DC	Vc	f
K Cast iron	≤350 MPa	3	3-8	90 (60-100)	0.15 (0.10-0.20)
			10-25	90 (40-110)	0.19 (0.11-0.26)
			30-40	75 (45- 95)	0.15 (0.09-0.21)
		4	3-8	100 (70-110)	0.21 (0.12-0.30)
			10-25	90 (40-110)	0.22 (0.13-0.33)
			30-40	75 (45- 95)	0.18 (0.10-0.26)
		5	3-8	110 (80-130)	0.25 (0.15-0.35)
			10-25	90 (40-110)	0.28 (0.17-0.39)
			30-40	75 (45- 95)	0.22 (0.13-0.31)
		6	3-8	120 (90-140)	0.29 (0.18-0.40)
			10-25	100 (60-110)	0.30 (0.19-0.41)
			30-40	90 (60-110)	0.24 (0.15-0.33)
		8	3-8	140 (100-160)	0.33 (0.20-0.45)
			10-25	100 (60-110)	0.33 (0.22-0.44)
			30-40	90 (60-100)	0.26 (0.18-0.35)
		10	3-8	150 (100-170)	0.35 (0.20-0.50)
			10-25	100 (60-110)	0.35 (0.24-0.46)
			30-40	90 (60-100)	0.28 (0.19-0.37)
		12	3-8	160 (100-170)	0.40 (0.20-0.60)
			10-25	120 (90-140)	0.37 (0.26-0.48)
			30-40	105 (65-115)	0.30 (0.21-0.38)
		16	3-8	160 (100-170)	0.43 (0.20-0.65)
			10-25	120 (90-140)	0.40 (0.29-0.48)
		20	3-8	160 (100-170)	0.45 (0.20-0.70)
K Ductile cast iron	≤450 MPa	3	3-8	80 (50- 90)	0.12 (0.08-0.16)
			10-25	90 (40-110)	0.17 (0.10-0.24)
			30-40	30 (20- 50)	0.14 (0.08-0.19)
		4	3-8	90 (60-100)	0.17 (0.10-0.24)
			10-25	90 (40-110)	0.20 (0.12-0.30)
			30-40	30 (20- 50)	0.16 (0.10-0.24)
		5	3-8	90 (70-120)	0.21 (0.14-0.28)
			10-25	90 (40-110)	0.25 (0.15-0.35)
			30-40	30 (20- 50)	0.20 (0.12-0.28)
		6	3-8	100 (80-130)	0.25 (0.16-0.34)
			10-25	100 (60-110)	0.27 (0.17-0.37)
			30-40	40 (30- 60)	0.22 (0.14-0.30)
		8	3-8	120 (90-150)	0.28 (0.18-0.38)
			10-25	100 (60-110)	0.30 (0.20-0.40)
			30-40	40 (30- 60)	0.24 (0.16-0.32)
		10	3-8	130 (90-160)	0.29 (0.18-0.40)
			10-25	100 (60-110)	0.32 (0.22-0.42)
			30-40	40 (30- 60)	0.26 (0.18-0.34)
		12	3-8	140 (90-160)	0.31 (0.18-0.44)
			10-25	120 (90-140)	0.34 (0.24-0.44)
			30-40	50 (40- 70)	0.27 (0.19-0.35)
		16	3-8	140 (90-160)	0.33 (0.18-0.48)
			10-25	120 (90-140)	0.36 (0.26-0.46)
		20	3-8	140 (90-160)	0.35 (0.18-0.52)
K Ductile cast iron	≤ 800 MPa	3	3-8	60 (40- 80)	0.09 (0.06-0.12)
		4	3-8	70 (50- 90)	0.13 (0.08-0.18)
		5	3-8	70 (60-100)	0.17 (0.12-0.22)
		6	3-8	80 (70-110)	0.20 (0.14-0.26)
		8	3-8	100 (80-130)	0.23 (0.16-0.30)
		10	3-8	110 (80-140)	0.24 (0.16-0.32)
		12	3-8	110 (80-140)	0.25 (0.16-0.34)
		16	3-8	110 (80-140)	0.27 (0.16-0.38)
20	3-8	110 (80-140)	0.28 (0.16-0.40)		

GG-HT, GGST, CT-FC

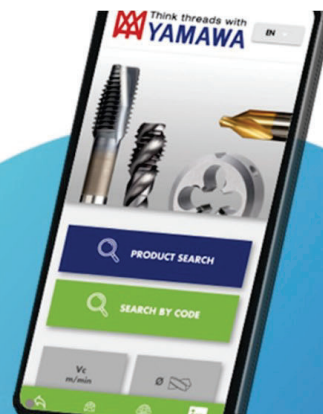
HIGH PERFORMANCE THREADING TAPS FOR CAST IRONS



Tool Finder

Yamawa Europe

 Think threads with
YAMAWA

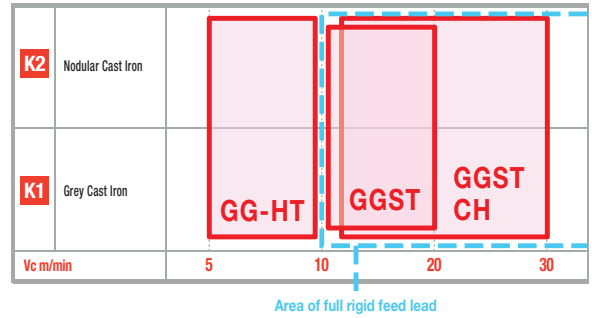


GG-HT



Straight fluted taps for general machining of cast iron

- Nitride treatment ensuring good wear resistance.
- Recommended tapping speed: ~ 10 m/min
- Size range: Metric M3 - M24; Metric Fine MF8x1 - MF24x1.5; Pipe G1/8 - G1



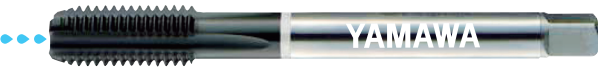
GGST



Straight fluted taps for high efficiency machining of cast iron

- Optimized cutting geometry and coating for high performance and long tool life.
- Recommended tapping speed: 10~20 m/min
- Size range: Metric M3 - M24; Metric Fine MF8x1 - MF24x1.5; Pipe G1/8 - G1

GGST CH - GGST CH E(1.5P)



Straight Fluted Taps for cast iron with internal coolant

- Optimized cutting geometry and coating for high performance and long tool life.
- Axial coolant hole helps to eject chips and to clean the hole.
- Recommended tapping speed: 10~30 m/min
- Size range GGST CH (2.5P): Metric M6 - M20; Metric Fine MF8x1 - MF20x1.5
- Size range GGST CH E(1.5P): Metric M6 - M16; Metric Fine MF10x1 - MF16x1.5

CT-FC



Carbide taps for superior life time in cast iron

- Micrograin carbide taps can last 50 times longer than the HSS taps offering great cost-per-thread reduction.
- Carbide tap with specific design based on GG-HT geometry for extremely long and stable tool life.
- Recommended tapping speed: 10~15 m/min
- Size range: Metric M3 - M16; Pipe G3/8

Optimized
Tooling for
ISO group **K**

TERÄSKONTTORI
K-D GROUP

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