MillLine

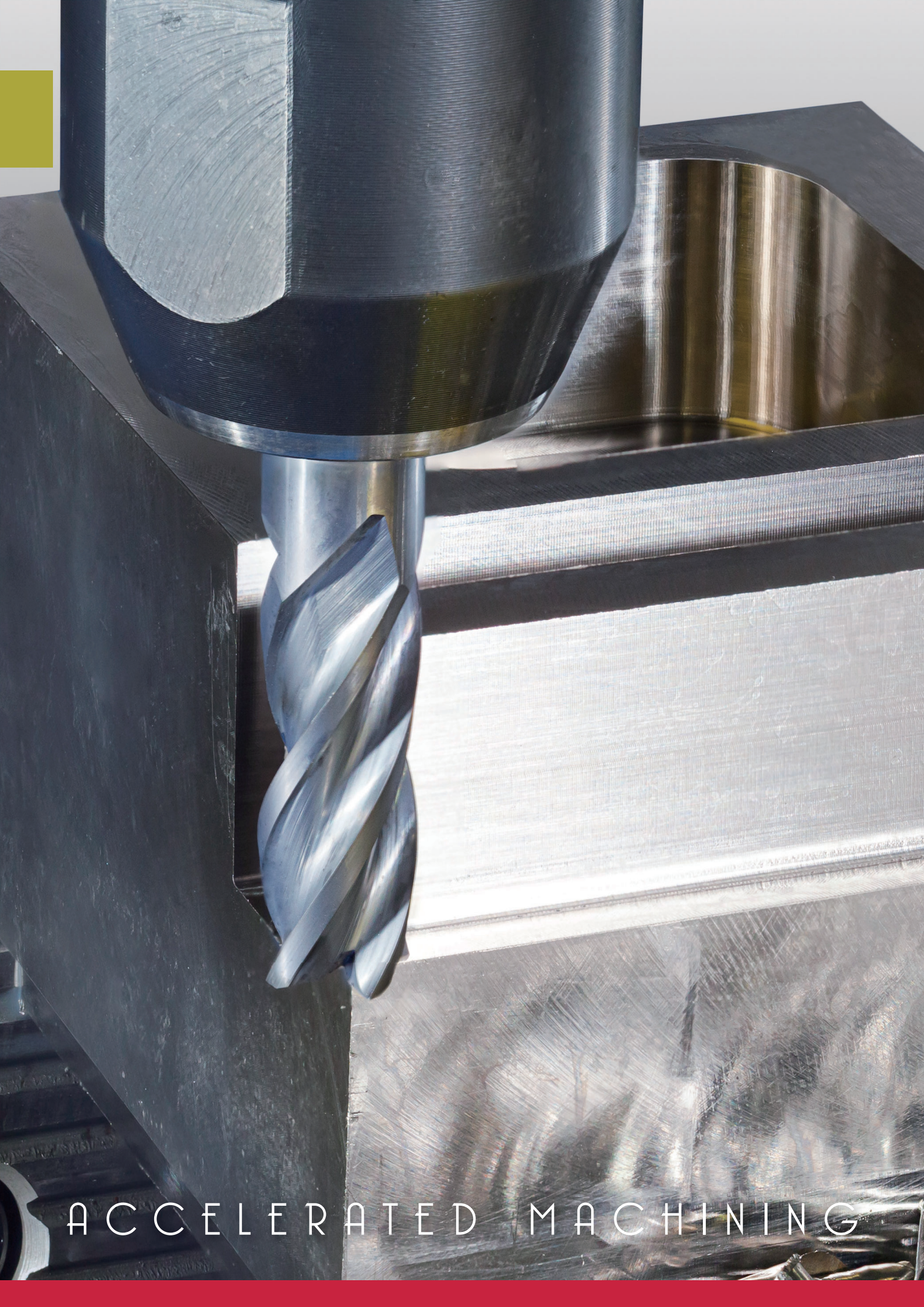
SOLIDMEISTER

www.tungaloy.com

Tungaloy Report No. 396-G

Powerful endmill
with excellent performance

INDUSTRY 4.0
FEED the SPEED!


ACCELERATED MACHINING

MillLine

SOLIDMEISTER

TUNGALOY

TUNGMILL FORCE

ACCELERATED MACHINING

SolidMeister - our wide range of solid carbide endmills enhances your machining efficiency and stability in a broad spectrum of applications.

Selection Guide

For roughing to semi-finishing operations

VARIABLEMEISTER TUNGALOY
ECOMEISTER TUNGALOY

TEC**H4S/M**CF-E

P M K

- General-purpose square endmill
- Excellent chatter dampening ability
- High performance on low power machine (BT40)

Page p.20

Diameter	ap	Neck length	No. of teeth	Corner form	Helix angle	Thru-coolant
ø6 - ø20	1xD 2xD	-	4	C	Variable	-

For good surface finish in roughing to semi-finishing

FINISHMEISTER TUNGALOY
VARIABLEMEISTER TUNGALOY

TEFS**E44-**CF

P K

- Excellent chatter dampening ability
- Good surface finish by the edge combination
- Highly efficient roughing operation

Page p.29

Diameter	ap	Neck length	No. of teeth	Corner form	Helix angle	Thru-coolant
ø6 - ø25	2xD	-	4	C	38°	-

High performance roughing

SHREDMEISTER TUNGALOY

TECR**B*M

P K H

- High-performing roughing endmill
- Serrated cutting edges for optimal chip breaking
- Chatter free

Page p.32

Diameter	ap	Neck length	No. of teeth	Corner form	Helix angle	Thru-coolant
ø5 - ø25	2xD	-	4 , 5 , 7	C , (R)	45°	-

For finishing operation

TECH**B6

P H K

- 6 cutting edged square endmill for finishing operation
- High stability

Page p.37(AH725) / p.55(AH750)

Diameter	ap	Neck length	No. of teeth	Corner form	Helix angle	Thru-coolant
ø6 - ø20	2xD	-	6	-	45°	-

Selection Guide

For roughing to semi-finishing of stainless steel

VARIABLEMEISTER TUNGALOY

TEC**H4M**CF-R

M S P H

- Square endmill with corner radii
- Excellent chatter dampening ability
- Suitable for alloy steel and carbon steel

Page p.25

Diameter	ap	Neck length	No. of teeth	Corner form	Helix angle	Thru-coolant
ø6 - ø25	2xD	-	4	R	Variable	-

For roughing to semi-finishing for titanium alloy

VARIABLEMEISTER TUNGALOY

TECK**H4M**CF-R

S M P

- Dedicated for titanium alloy
- Excellent chatter dampening ability
- Also suitable for alloy steel and carbon steel

Page p.24

Diameter	ap	Neck length	No. of teeth	Corner form	Helix angle	Thru-coolant
ø6 - ø20	2xD	-	4	R	Variable	optional

For efficient roughing for superalloys

FINISHMEISTER TUNGALOY

TEFS**B44

S M P

- Two-in-one tool
- High metal removal rate
- Good wall surface thanks to the edge combination

Page p.30

Diameter	ap	Neck length	No. of teeth	Corner form	Helix angle	Thru-coolant
ø4 - ø25	2xD	3xD	4	C	45°	optional

For finishing operation

VARIABLEMEISTER TUNGALOY

TEC**H7-CF

H P M K

- 7 cutting edges for finishing operation
- Seamless milling wide cutting width
- Good performance for trochoid milling

Page p.22

Diameter	ap	Neck length	No. of teeth	Corner form	Helix angle	Thru-coolant
ø6 - ø20	2 - 6xD	-	7	C , R	Variable	-

Selection Guide

Roughing to semi-finishing for aluminum alloy

VARIABLEMEISTER TUNGALOY

TECA**H3**CF-R

N

- 3 cutting edged square endmill
- Excellent chatter dampening ability
- High efficiency for slotting and shoulder milling

Page p.46

Diameter	ap	Neck length	No. of teeth	Corner form	Helix angle	Thru-coolant
ø1 - ø25	2xD	3 - 5xD	3	R	Variable	-

Roughing to semi-finishing for aluminum alloy

VARIABLEMEISTER TUNGALOY

TECA**H4**CF-R

N

- 4 cutting edged square endmill
- Excellent chatter dampening ability
- High efficiency for slotting and shoulder milling at high cutting speeds

Page p.48

Diameter	ap	Neck length	No. of teeth	Corner form	Helix angle	Thru-coolant
ø6 - ø16	2xD	3 , 5xD	4	R	Variable	-

High-efficiency roughing for aluminum alloy

SHREDMEISTER TUNGALOY

TECR**B3**R

N

- 3 cutting edged roughing endmill for aluminum alloys
- Innovative serrated cutting edges with high rake angle
- High performance thanks to smooth chip control

Page p.52

Diameter	ap	Neck length	No. of teeth	Corner form	Helix angle	Thru-coolant
ø6 - ø20	1xD	3 , 5xD	3	R	45º	-

Roughing to semi-finishing for aluminum alloy

TECA**B3

N

- 3 cutting edged square endmill
- Excellent surface finish quality
- Top performance due to optimized flute design

Page p.49

Diameter	ap	Neck length	No. of teeth	Corner form	Helix angle	Thru-coolant
ø4 - ø20	2xD	-	3	R	45º	-

Selection Guide

High feed endmill for profile milling

TEFFN4**

H P M S

FEEDMEISTER TUNGALOY

- Optimized for die and mold profile milling (<65HRC)
- Usable various milling operation
- Dramatically shortens machining time vs ball nose endmills

Page p.44

Diameter	ap	Neck length	No. of teeth	Corner form	Helix angle	Thru-coolant
ø6 - ø20	0.05xD	-	4	R	0°	-

Ceramic endmill line ideal for heat-resistant superalloys

TCFFA3**

S K N

FEEDMEISTER TUNGALOY

- High feed gemoetry at DOC = 0.25 mm - 1 mm
- Made of SiAlON ceramic. Suitable for high speed milling.

Page p.44

Diameter	ap	Neck length	No. of teeth	Corner form	Helix angle	Thru-coolant
ø6 - ø20	0.25 - 1.00	-	3	R	30°	-

Highly efficient 4 cutting edge ball nose

TEBE4L**CF**

H P M S

VARIABLEMEISTER TUNGALOY

- Excellent chatter dampening ability
- Roughing to finishing operations (<65 HRc)
- Longer tool life and high efficiency in profiling

Page p.62

Diameter	ap	Neck length	No. of teeth	Corner form	Helix angle	Thru-coolant
ø3 - ø16	2xD	3xD	4	r1.5 - r8	Variable	-

For roughing to semi-finishing

TECE*L**CF**

P M K

VARIABLEMEISTER TUNGALOY

- High-performing square endmill line
- Excellent chatter dampening ability
- Stable milling due to optimal flute-core design

Page p.21

Diameter	ap	Neck length	No. of teeth	Corner form	Helix angle	Thru-coolant
ø1 - ø25	2xD	3xD	4	C	38°	-

FINISHMEISTER • VARIABLEMEISTER

A Powerful Hybrid Solid Carbide Endmill with Extraordinary Performance

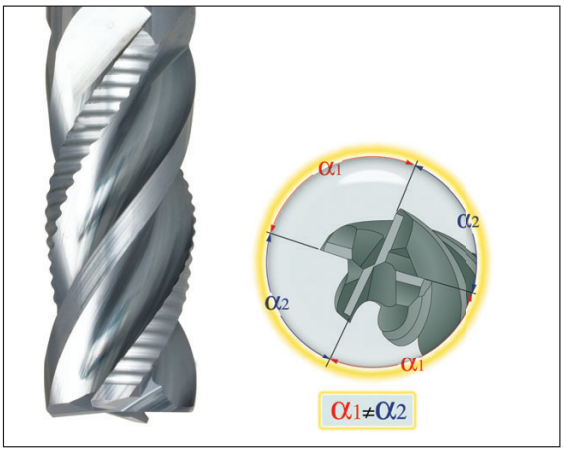
FinishMeister is known for its sophisticated geometries, enabling the tool to perform roughing and finishing operations at the same time. The result is the ability to apply roughing machining conditions, while obtaining excellent surface finish. The **FinishMeister** is also known for its high metal removal rates and long tool life, useful on a wide range of materials.

Reduction in machining time is one of the advantages when using **FinishMeister**, as well as decreased tool inventory. The shorter lead time, which delivers higher production rates, can easily be converted into high values of profitability.

VariableMeister is known for its sophisticated characteristics, which consist of a variable pitch configuration that enables a machining depth of up to 2xD on a full slot application, while eliminating vibration. The **VariableMeister** operates at a large metal removal rate, producing excellent surface finish and tremendously reducing machining time. By doing that, the **VariableMeister** not only improves productivity levels immensely, but also raises profitability values.

The **FinishMeister** VARIABLE PITCH, a new generation of solid carbide endmill, combines all the remarkable features detailed above, and the advantages of the two families. **The user gets a "3-in-1" rather than just a "2-in-1" version of the FinishMeister.**

The **FinishMeister** VARIABLE PITCH dramatically increases productivity, while reducing production cost and inventory.
Tool diameter range: ø6 - ø25 mm



Features
•4 flutes with a 38° helix - two serrated flutes and two continuous flutes
•Fully effective, 4 cutting edges enable running at rough machining parameters, while obtaining excellent surface finish quality
•The tool produces short and long chips simultaneously. This chip mixture is evacuated more easily than each individual chip type - an excellent solution in slotting and cavity milling applications.
•Reduces vibration at high load applications
•High productivity
•Reduces power consumption by 25 - 30%
•Excellent performance and tool life
•One tool change and setup time can be eliminated
•A single tool replaces the roughing and finishing endmills, dramatically reducing cycle time and increasing productivity
•Extra tool position is gained on the machine
•Reduces the amount of tool inventory
•Suitable for all types of steel and high temperature alloys

VARIABLEMEISTER Expansion of Solid Carbide Endmills Line

Tungaloy's new **VariableMeister** endmills are used for roughing and finishing operations and, due to their variable pitch, feature excellent chatter dampening ability.

These endmills are an excellent solution for low power machines with ISO40, BT40, or CAT40 adaptations, improving their material removal rate and eliminating vibration. They can be used for full slot machining of up to 2xD with solid carbide endmills.

The **VariableMeister** endmills maximize stock removal and reduce cycle time in most milling operations.
Their unique ground geometry provides excellent surface finish and long tool life, while machining at high material removal rates.

Cutting conditions for rough machining of alloy steel:
Cutting speed : V_C = 180 - 220 m/min
Feed per tooth : f_Z = 0.03 - 0.05 mm/z
Depth of cut : aP = 2 x D
Width of cut : ae = full slot
Flushing method : Air (it is vital to keep the air tube in the direction opposite of the tool's motion).
The new endmills feature longer necks for machining next to higher shoulders. They were designed for both roughing and finishing operations, featuring excellent chatter dampening ability. They can be used with external coolant at very high cutting speeds for full slot machining of aluminum up to 2xD depth of cut in up to 4xD slot depth or next to high shoulders.

Tungaloy's new **VariableMeister** endmills for machining aluminum are an excellent solution for low power machines with ISO40 or BT40 adaptations, improving their material removal rate and eliminating vibration. They maximize stock removal rate and reduce cycle time in most milling operations. Their unique ground and polished geometry provides excellent bottom and side surface finish with no mismatch. Extended tool life can be expected when machining at high material removal rates.

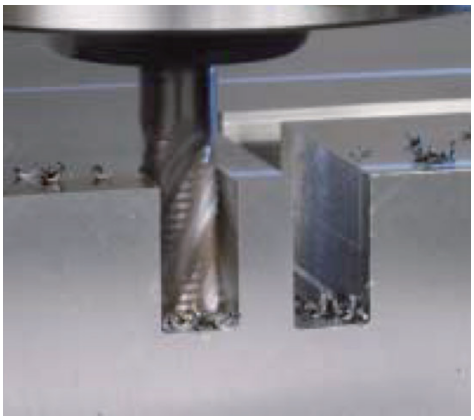
The new **TEC…H5M…CF-R, VariableMeister** incorporates 5 cutting edges, while **TEC…H7…CF** features 7 cutting edges in a variety of length-to-diameter ratios, ranging from 2 to 6, making a perfect, chatter-free solution in a trochoidal milling or wall finishing in a single pass to avoid steps on the wall surface, where a tool is prone to chatter due to fully engaging cutting edges to the work surface.

TECA…H3…CF-R and **TECA…H4…CF-R** are developed for machining aluminum. Their unique ground and polished geometries combined with optimized flute designs and variable pitches allow for high cutting parameters to be applied in various aluminum milling. 4-edged **TECK…H4M…CF-R** and 7- or 9-edged **TECK…H7/9…CF-R** are all dedicated for difficult materials including titanium alloys.

SHREDMEISTER Drastic reduction in machining time with various types of roughing endmills

The **ShredMeister** endmill series carries the widest variety of roughing endmills in unique serrated cutting edges, optimized according to different types of workpiece materials. **ShredMeister** helps reduce manufacturing cycle time in every roughing and semi-finishing operation.

TECR…B, the core line of the **ShredMeister** series, is made for standard steel milling. Its standard ratios of effective cutting edge length to diameter include 1 and 2; while L/D ratios of 3 and 4 are also available for high efficient milling in long reach areas.



TECR…B…MF incorporates robust, serrated geometry optimized for a high metal removal in milling difficult materials like titanium alloys and hardened steels.

TECR…T-M features a moderate helix for a high cutting depth at high feed rate. **TERF…A3/E4** is suitable for alloy steel milling thanks to its fine-pitched serrations on the cutting edges.

In milling stainless steel, serrated cutting edges with a chip-splitting geometry are preferred. **TECP…H4L…CF-R** features variable leads with radius corners for milling stability. Both the 3-edged **TECP…E3L** and 4-edged **TECP…E4L** styles cover rough and semi-finish millings.

For aluminum, three standard lines of endmills are available to significantly improve the metal removal rate in applications where a roughing process takes up most of the machining process. aerospace component machining

For aluminum, three standard lines of endmills are available; each designed to deliver a maximum metal removal rate. This is especially effective in aerospace applications where substantial material must be removed quickly.

TEAP…H3…CF-R : Variable leads and chipsplitter geometry ensures step-free wall finish. Suited for roughing and semi-finishing

TERC…E3 : Suitable for high feed milling thanks to optimized core design and serrated cutting edges

TECR…B3 : Excellent chip evacuation thanks to its optimal edge geometry and polished flutes

FEEDMEISTER High Productivity Solid Carbide Endmills

The new solid carbide **FeedMeister** endmills utilize a large radius cutting edge configuration that allows for greatly increased feed rates. The unique cutting edge geometry axially directs the resultant cutting forces towards the spindle. This results in high stability and enables machining at high feeds, even with long overhang.

4-flute
Tool diameter range: ø6 – ø20 mm

Due to this geometry, the solid **FeedMeister** can operate at feed per tooth (*fz*) rates up to 0.5 mm/z, at 0.3 to 0.7 mm depth of cut (*ap*), providing a significant reduction in cycle time, which thus increases productivity.

In addition, the tool features 4 flutes comprised of an ultra-fine grain substrate and is protected by the advanced coating technology. This combination provides outstanding wear resistance and toughness.
The unique radius geometry of the solid **FeedMeister** enables high productivity when milling slots, pockets, helical interpolation or contouring up to 3XD deep. In fact, the feed rate obtained by the solid **FeedMeister** is 5 to 10 times higher, when compared to conventional ball nose endmills.

These features are particularly attractive for the die & mold industry, when rough machining is required on materials such as hardened steel up to 65 HRC, P20 or H13. Similarly, the solid **FeedMeister** exhibits excellent performance on cast iron, stainless steel, titanium and nickel based alloys.

Features:
•An optimal solution for roughing operations; highly useful for the die & mold industry
•Covers a wide range of applications, including slotting, pocketing, helical interpolation and 3XD contouring
•Useful for machining materials such as hardened steel up to 65 HRC, P20, H13, cast iron, stainless steel, titanium and high temperature alloys
•5 to 10 times higher feed rates, when compared to conventional ball nose endmills
•4 flutes and a durable bottom radius geometry reduces cycle time and increases productivity

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	Type	Helix Angle	Cutting Length	Workpiece Hardness HRC	No. of Flutes	Diameter Range		Page
	Ball Nose Endmills							
	TEB**E4L**CF	38°		< 65 Hard material	4	ø3 - 16	VARIABLEMEISTER 4 cutting edge	62
	TEBRF**T3/4	20°	Long	< 55	3, 4	ø6 - 20	SHREDMEISTER	63
	TEB**A2-**C**M	30°	Medium	< 65 Hard material	2	ø0.4 - 3		64
	TEB**A2-**C**M TEB**A2-**C**H	30°	Medium	55 - 70 Hard material	2	ø1 - 20		65
	TEB**A2-**C**M...	30°	Long	< 65 Hard material	2	ø3 - 16		66
	TEB**A2-**C**M...	30°	Long	< 65	2	ø1 - 12	Tapered neck	66
	TEB**A2-**C**...	30°	Short		2	ø3 - 16		67
	TEB**A2-**C**-E	30°	Short		2	ø2 - 20	ECOMEISTER	68
	TEB**A3	30°	Short		3	ø3 - 12		69
	TEB**A4	30°	Short		4	ø3 - 20		69

SOLIDMEISTER Designation

❷ Endmill type	
C	Square endmill
CK	Square endmill for titanium alloy
CA	Square endmill for aluminium
CC	Square endmill with chamfered
CH	Square endmill for finishing
B	Ball nose
FF	High feed
FS	FINISHMEISTER
CP	Chip splitter
CR/RC/RF	Rougher
TR	Tapered & radius
BRF	Ball nose & rougher

❸ Cutting diameter (mm)	
004	0.4
045	4.5
100	10

Solid Carbide Endmill Code ❶

❶	❷	❸	❹	❺		❻
TE	C	009	A	2	-	0135
TE	C	100	E	4L	-	22

❹ Helix angle	
N	0°
C	10°
T	20°
A	30°
E	38°
B	45°
D	50°
F	55°
H	Variable helix

❺ No. of flutes	
2	2 flutes
3	3 flutes
4	4 flutes
4M	4 flutes & medium length
4L	4 flutes & long length
4X	4 flutes & extra long length
4MF	4 flutes & medium length for hardened steel
44	4 variable pitch flutes

❻ Effective cutting length (mm)	
006	0.6
0135	1.35
06	6
20	20

AH725

- High thermal and chemical stability.
- High hardness 3500 HV makes higher speeds, machining of harder materials, and dry machining possible. The TiAlN coating can be applied at 800° C.
- Recommended for hardened steel, high-temperature and steel alloys.
- Improves and expedites finishing on dies and molds.
- Longer tool life in high speed machining.

AH750 / AH710

- Excellent for machining hard steel up to 70 HRC and high temperature alloys.
- The small grain size improves cutting edge strength and tends to chip less.

Tolerances

Diameter range	Cutting diameter DC^{e8}	Shank $DCONMS^{h6}$
< 3	-0.014 - 0.028	0 - 0.007
3 - 6	-0.02 - 0.038	0 - 0.008
6 - 10	-0.025 - 0.047	0 - 0.009
10 - 18	-0.032 - 0.059	0 - 0.011
18 - 30	-0.04 - 0.073	0 - 0.013

/04	4
/10 /1.5	10 / 1.5°
/14	14
⑦ Length of neck / Angle neck (mm)	

C	Cylindrical
W	Weldon
⑧ Shank type	

055	5.5
08	8
4	4
⑨ Shank diameter (mm)	

⑦	⑧	⑨		
/06	C	4	M	E66
/32	C	10	CF-	72
			⑩	⑪

⑩ Workpiece material / Additional feature	
-	General
S	Stainless steel
M	Steel medium hardness ≤ 55 HRC
H	Steel high hardness ≥ 55 HRC
R02A	Aluminium
CF	VARIABLEMEISTER
R16	Corner radius: 1.6

⑪ Overall length / Corner radius	
66	66 mm
180	180 mm
E**	Eco type
M	Medium
R08	Corner radius: 0.8

KS15F

- Suited for aluminum alloys and non-ferrous metals.
- Excellent edge sharpness for super mirror surface finish qulaity.

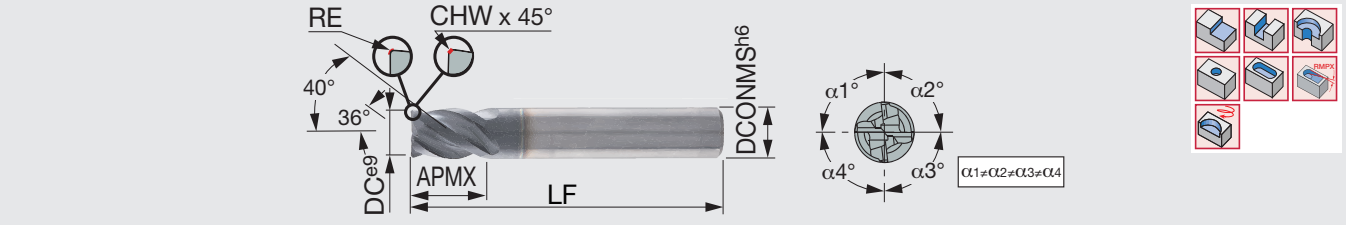
FX510

- Suitable for nickel-based heat-resistnt superalloys.
- SiAlON ceramic grade enables high speed milling.
- Also good for cast iron and specialty graphite materials.

VARIABLEMEISTER

TEC**H4S**CF-E

4 flute chatter dampening endmill, variable helix and variable pitch, short type

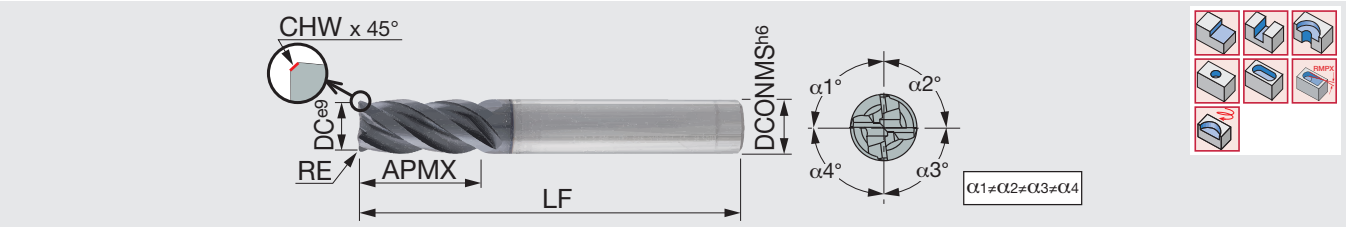


Designation	AH725	DC	DCONMS	CHW	RE	APMX	LF	Shank
TEC060H4S-06C06CF-E50	●	6	6	0.25	-	6	50	Cylindrical
TEC060H4S-06C06CF-R02E50	●	6	6	-	0.2	6	50	Cylindrical
TEC060H4S-06W06CF-E50	●	6	6	0.25	-	6	50	Weldon
TEC080H4S-08C08CF-E63	●	8	8	0.3	-	8	63	Cylindricall
TEC080H4S-08C08CF-R04E63	●	8	8	-	0.4	8	63	Cylindrical
TEC080H4S-08W08CF-E63	●	8	8	0.3	-	8	63	Weldon
TEC100H4S-10C10CF-E66	●	10	10	0.4	-	10	66	Cylindrical
TEC100H4S-10C10CFR.5E66	●	10	10	-	0.5	10	66	Cylindrical
TEC100H4S-10W10CF-E66	●	10	10	0.4	-	10	66	Weldon
TEC120H4S-12C12CF-E73	●	12	12	0.5	-	12	73	Cylindrical
TEC120H4S-12C12CF-R06E73	●	12	12	-	0.6	12	73	Cylindrical
TEC120H4S-12W12CF-E73	●	12	12	0.5	-	12	73	Weldon
TEC160H4S-16C16CF-E82	●	16	16	0.6	-	16	82	Cylindrical
TEC160H4S-16W16CF-E82	●	16	16	0.6	-	16	82	Weldon
TEC200H4S-20C20CF-E92	●	20	20	0.6	-	20	92	Cylindrical
TEC200H4S-20W20CF-E92	●	20	20	0.6	-	20	92	Weldon

VARIABLEMEISTER

TEC**H4M**CF-E

4 flute chatter dampening endmill, variable helix and variable pitch

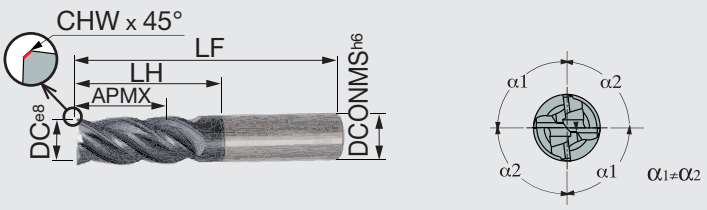


Designation	AH725	DC	DCONMS	CHW	APMX	LF	Shank
TEC060H4M-12C06CF-E57	●	6	6	0.25	12	57	Cylindrical
TEC060H4M-12W06CF-E57	●	6	6	0.25	12	57	Weldon
TEC080H4M-16C08CF-E63	●	8	8	0.3	16	63	Cylindrical
TEC080H4M-16W08CF-E63	●	8	8	0.3	16	63	Weldon
TEC100H4M-20C10CF-E72	●	10	10	0.4	20	72	Cylindrical
TEC100H4M-20W10CF-E72	●	10	10	0.4	20	72	Weldon
TEC120H4M-24C12CF-E83	●	12	12	0.5	24	83	Cylindrical
TEC120H4M-24W12CF-E83	●	12	12	0.5	24	83	Weldon
TEC160H4M-32C16CF-E92	●	16	16	0.6	32	92	Cylindrical
TEC160H4M-32W16CF-E92	●	16	16	0.6	32	92	Weldon
TEC200H4M-40C20CF-E104	●	20	20	0.6	40	104	Weldon
TEC200H4M-40W20CF-E104	●	20	20	0.6	40	104	Weldon

VARIABLEMEISTER

TEC**E4L**CF

4 flute endmill, 38° helix angle, variable pitch

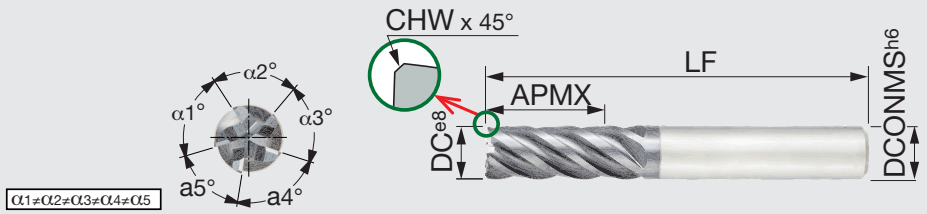


Designation	AH725	DC	DCONMS	CHW	APMX	LH	LF	Shank
TEC010E4L-2/04C04CF50	●	1	4	0.04	2.2	4	50	Cylindrical
TEC020E4L-4/06C04CF50	●	2	4	0.08	4.3	6.1	50	Cylindrical
TEC030E4L-8/11C06CF-57	●	3	6	0.1	8	11	57	Cylindrical
TEC040E4L-10/14C06CF-57	●	4	6	0.15	10	14	57	Cylindrical
TEC050E4L-12/17C06CF-57	●	5	6	0.18	12	17	57	Cylindrical
TEC060E4L-14/20C06CF-57	●	6	6	0.25	14	20	57	Cylindrical
TEC080E4L-18/26C08CFS63	●	8	8	-	18	26	63	Cylindrical
TEC080E4L-18/26C08CF-63	●	8	8	0.3	18	26	63	Cylindrical
TEC080E4L-18/26W08CF63	●	8	8	0.3	18	26	63	Weldon
TEC100E4L-22/32C10CFS72	●	10	10	-	22	32	72	Weldon
TEC100E4L-22/32C10CF-72	●	10	10	0.4	22	32	72	Weldon
TEC100E4L-22/32W10CF72	●	10	10	0.4	22	32	72	Weldon
TEC120E4L-26/38C12CFS83	●	12	12	-	26	38	83	Weldon
TEC120E4L-26/38C12CF-83	●	12	12	0.5	26	38	83	Weldon
TEC120E4L-26/38W12CF83	●	12	12	0.5	26	38	83	Weldon
TEC160E4L-34/50C16CF-100	●	16	16	0.6	34	50	100	Weldon
TEC160E4L-34/50W16CF-100	●	16	16	0.6	34	50	100	Weldon
TEC200E4L-42/60C20CF-110	●	20	20	0.6	42	60	110	Weldon
TEC200E4L-42/60W20CF-110	●	20	20	0.6	42	60	110	Weldon
TEC250E4L-50/65C25CF-121	●	25	25	0.6	50	65	121	Weldon
TEC250E4L-50/65W25CF121	●	25	25	0.6	50	65	121	Weldon

VARIABLEMEISTER

TEC**E5L**CF

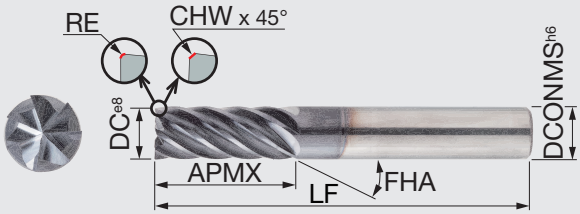
5 flute endmill, 38° helix angle, variable pitch



Designation	AH725	DC	DCONMS	CHW	APMX	LF	Shank
TEC060E5L-15C06CF-57	●	6	6	0.2	15	57	Cylindrical
TEC080E5L-20C08CF-63	●	8	8	0.25	20	63	Cylindrical
TEC100E5L-25C10CF-72	●	10	10	0.3	25	72	Cylindrical
TEC120E5L-30C12CF-83	●	12	12	0.4	30	83	Cylindrical
TEC160E5L-40C16CF-100	●	16	16	0.5	40	100	Cylindrical
TEC200E5L-50C20CF-125	●	20	20	0.5	50	125	Cylindrical

TEC**H7-CF

7 flute chatter dampening endmill, variable helix and variable pitch, for high speed finishing



Designation	AH710	DC	DCONMS	RE	CHW	APMX	FHA	LF	Shank
TEC060H7-12C06CF-M57	●	6	6	-	-	12	37°	57	Cylindrical
TEC060H7-12C06CF-R02M57	●	6	6	0.2	-	12	37°	57	Cylindrical
TEC060H7-18C06CF-M65	●	6	6	-	0.2	18	37°	65	Cylindrical
TEC060H7-24C06CF-70	●	6	6	-	0.2	24	37°	70	Cylindrical
TEC060H7-36C06CF-90	●	6	6	-	0.2	36	37°	90	Cylindrical
TEC080H7-16C08CF-M63	●	8	8	-	-	16	37°	63	Cylindrical
TEC080H7-16C08CF-R04M63	●	8	8	0.4	-	16	37°	63	Cylindrical
TEC080H7-24C08CF-M90	●	8	8	-	0.2	24	37°	90	Cylindrical
TEC080H7-32C08CF-90	●	8	8	-	0.2	32	37°	90	Cylindrical
TEC080H7-48C08CF-110	●	8	8	-	0.2	48	37°	110	Cylindrical
TEC100H7-20C10CF-M72	●	10	10	-	-	20	37°	72	Cylindrical
TEC100H7-20C10CF-R05M72	●	10	10	0.5	-	20	37°	72	Cylindrical
TEC100H7-20W10CF-M72	●	10	10	-	-	20	37°	72	Weldon
TEC100H7-30C10CF-M85	●	10	10	-	0.3	30	37°	85	Cylindrical
TEC100H7-40C10CF-100	●	10	10	-	0.3	40	37°	100	Cylindrical
TEC100H7-60C10CF-130	●	10	10	-	0.3	60	37°	130	Cylindrical
TEC120H7-24C12CF-M83	●	12	12	-	-	24	37°	83	Cylindrical
TEC120H7-24C12CF-R06M83	●	12	12	0.6	-	24	37°	83	Cylindrical
TEC120H7-24W12CF-M83	●	12	12	-	-	24	37°	83	Weldon
TEC120H7-36C12CF-M95	●	12	12	-	0.3	36	37°	95	Cylindrical
TEC120H7-48C12CF-110	●	12	12	-	0.3	48	37°	110	Cylindrical
TEC120H7-72C12CF-140	●	12	12	-	0.3	72	37°	140	Cylindrical
TEC160H7-32C16CF-M92	●	16	16	-	-	32	37°	92	Cylindrical
TEC160H7-32C16CF-R08M92	●	16	16	0.8	-	32	37°	92	Cylindrical
TEC160H7-32W16CF-M92	●	16	16	-	-	32	37°	92	Weldon
TEC160H7-48C12CF-M110	●	16	16	-	0.3	48	37°	110	Cylindrical
TEC160H7-64C16CF-131	●	16	16	-	0.3	64	37°	131	Cylindrical
TEC160H7-96C16CF-175	●	16	16	-	0.3	96	37°	175	Cylindrical
TEC200H7-40C20CF-M104	●	20	20	-	-	40	37°	104	Cylindrical
TEC200H7-40C20CF-R10M104	●	20	20	1	-	40	37°	104	Cylindrical
TEC200H7-40W20CF-M104	●	20	20	-	-	40	37°	104	Weldon
TEC200H7-60C20CF-M140	●	20	20	-	0.4	60	37°	140	Cylindrical
TEC200H7-80C20CF-140	●	20	20	-	0.4	80	37°	140	Cylindrical

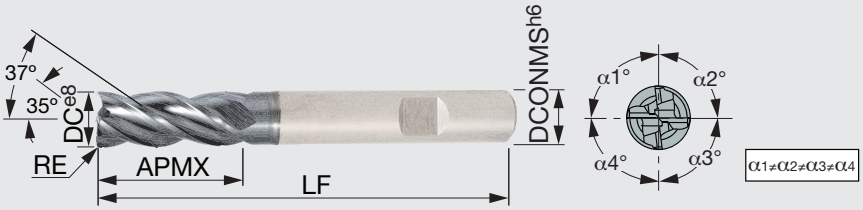
TEC**H**CF

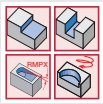
6-20 flute chatter dampening endmill, variable helix and variable pitch, for high speed finishing

Designation	AH710	DC	DCONMS	CHW	APMX	LF	NOF	Shank
TEC060H6-12C06CF-H57	●	6	6	0.2	12	57	6	Cylindrical
TEC080H8-16C08CF-H63	●	8	8	0.2	16	63	8	Cylindrical
TEC100H10-20C10CF-H72	●	10	10	0.3	20	72	10	Cylindrical
TEC120H12-24C12CF-H83	●	12	12	0.3	24	83	12	Cylindrical
TEC160H16-32C16CF-H92	●	16	16	0.3	32	92	16	Cylindrical
TEC200H20-40C20CFH104	●	20	20	0.4	40	104	20	Cylindrical

TECK**H4M**CF-R

4 flute chatter dampening endmill, variable helix and variable pitch, for titanium machining





Designation	AH725	DC	DCONMS	RE	APMX	RMPX	LF	Shank
TECK040H4M-08C06CF-R02	●	4	6	0.2	8	5°	57	Cylindrical
TECK050H4M-10C06CF-R02	●	5	6	0.2	10	5°	57	Cylindrical
TECK060H4M-12C06CF-R02	●	6	6	0.2	12	5°	57	Cylindrical
TECK060H4M-12W06CF-R02	●	6	6	0.2	12	5°	57	Weldon
TECK080H4M-16C08CF-R04	●	8	8	0.4	16	5°	63	Cylindrical
TECK080H4M-16W08CF-R04	●	8	8	0.4	16	5°	63	Weldon
TECK100H4M-20C10CF-R05	●	10	10	0.5	20	5°	72	Cylindrical
TECK100H4M-20W10CF-R05	●	10	10	0.5	20	5°	72	Weldon
TECK120H4M-24C12CF-R06	●	12	12	0.6	24	5°	83	Cylindrical
TECK120H4M-24W12CF-R06	●	12	12	0.6	24	5°	83	Weldon
TECK160H4M-32C16CF-R08	●	16	16	0.8	32	5°	92	Cylindrical
TECK160H4M-32W16CF-R08	●	16	16	0.8	32	5°	92	Weldon
TECK200H4M-40C20CF-R10	●	20	20	1	40	5°	104	Cylindrical
TECK200H4M-40W20CF-R10	●	20	20	1	40	5°	104	Weldon

VARIABLEMEISTER

TECK**H7/9M**CF-R

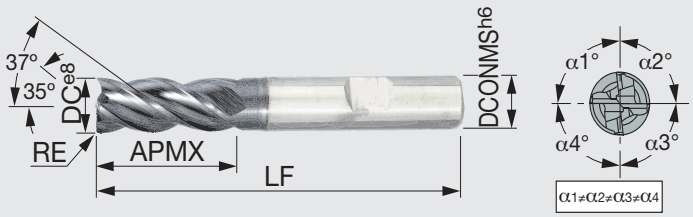
7 or 9 flute chatter dampening endmill, variable helix and variable pitch, for titanium machining

Designation	AH725	DC	DCONMS	RE	APMX	RMPX	LF	NOF	Shank
TECK060H7-13C06CF-R02T57	●	6	6	0.2	13	5°	57	7	Cylindrical
TECK060H7-13W06CF-R02T57	●	6	6	0.2	13	5°	57	7	Weldon
TECK080H7-19C08CF-R04T63	●	8	8	0.4	19	5°	63	7	Cylindrical
TECK080H7-19W08CF-R04T63	●	8	8	0.4	19	5°	63	7	Weldon
TECK100H7-22C10CF-R05T72	●	10	10	0.5	22	5°	72	7	Cylindrical
TECK100H7-22W10CF-R05T72	●	10	10	0.5	22	5°	72	7	Weldon
TECK120H7-26C12CF-R06T83	●	12	12	0.6	26	5°	83	7	Cylindrical
TECK120H7-26W12CF-R06T83	●	12	12	0.6	26	5°	83	7	Weldon
TECK160H9-32C16CF-R08T92	●	16	16	0.8	32	5°	92	9	Cylindrical
TECK160H9-32W16CF-R08T92	●	16	16	0.8	32	5°	92	9	Weldon
TECK200H9-38C20CF-R10T104	●	20	20	1	38	5°	104	9	Cylindrical
TECK200H9-38W20CF-R10T104	●	20	20	1	38	5°	104	9	Weldon

VARIABLEMEISTER

TEC**H4M**CF-R

4 flute chatter dampening endmill, variable helix and variable pitch

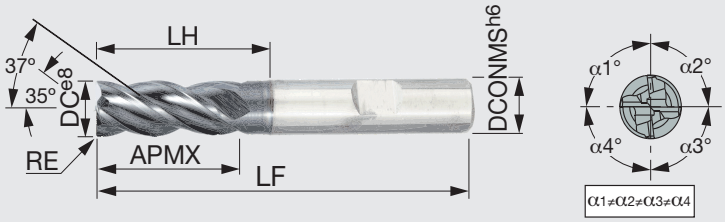


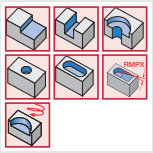
Designation	AH725	DC	DCONMS	RE	APMX	RMPX	LF	Shank
TEC060H4M-12C06CF-R02-57	●	6	6	0.2	12	5°	57	Cylindrical
TEC060H4M-12W06CF-R02-57	●	6	6	0.2	12	5°	57	Weldon
TEC080H4M-16C08CF-R04-63	●	8	8	0.4	16	5°	63	Cylindrical
TEC080H4M-16W08CF-R04-63	●	8	8	0.4	16	5°	63	Weldon
TEC100H4M-20C10CF-R05-72	●	10	10	0.5	20	5°	72	Cylindrical
TEC100H4M-20W10CF-R05-72	●	10	10	0.5	20	5°	72	Weldon
TEC120H4M-24C12CF-R06-83	●	12	12	0.6	24	5°	83	Cylindrical
TEC120H4M-24W12CF-R06-83	●	12	12	0.6	24	5°	83	Weldon
TEC140H4M-28C14CFR0.7-83	●	14	14	0.7	28	5°	83	Cylindrical
TEC140H4M-28W14CFR0.7-83	●	14	14	0.7	28	5°	83	Weldon
TEC160H4M-32C16CF-R08-92	●	16	16	0.8	32	5°	92	Cylindrical
TEC160H4M-32W16CF-R08-92	●	16	16	0.8	32	5°	92	Weldon
TEC200H4M-40C20CF-R10-104	●	20	20	1	40	5°	104	Cylindrical
TEC200H4M-40W20CF-R10-104	●	20	20	1	40	5°	104	Weldon
TEC250H4M-50C25CF-R12-121	●	25	25	1.2	50	5°	121	Cylindrical
TEC250H4M-50W25CF-R12-121	●	25	25	1.2	50	5°	121	Weldon

VARIABLEMEISTER
TUNGALOY

TEC**H4L**CF-R

4 flute chatter dampening endmill, variable helix and variable pitch, long neck type





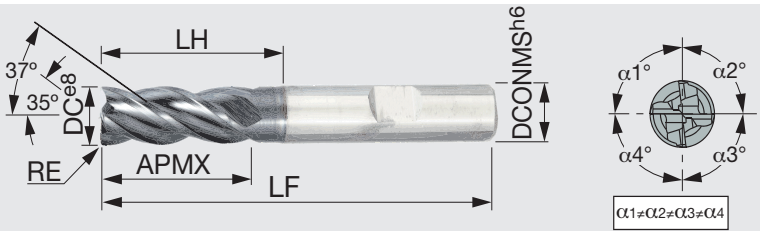
Designation	AH725	DC	DCONMS	RE	APMX	RMPX	LH	LF	Shank
TEC010H4L-02/3C4CF-R.05	▲	1	4	0.1	2	5°	3	50	Cylindrical
TEC020H4L-04/6C4CF-R01	▲	2	4	0.1	4	5°	6	50	Cylindrical
TEC030H4L-06/9C4CF-R015	▲	3	6	0.2	6	5°	9	57	Cylindrical
TEC040H4L-08/12C6CF-R02	▲	4	6	0.2	8	5°	12	57	Cylindrical
TEC050H4L-10/15C6CF-R02	▲	5	6	0.2	10	5°	15	57	Cylindrical
TEC060H4L-12/20C6CF-R02	▲	6	6	0.2	12	5°	20	57	Cylindrical
TEC080H4L-16/26C8CF-R04	▲	8	8	0.4	16	5°	26	63	Cylindrical
TEC100H4L-20/32C10CF-R05	▲	10	10	0.5	20	5°	32	72	Cylindrical
TEC100H4L-20/32W10CF-R05	▲	10	10	0.5	20	5°	32	72	Weldon
TEC120H4L-24/38C12CF-R06	▲	12	12	0.6	24	5°	38	83	Cylindrical
TEC120H4L-24/38W12CF-R06	▲	12	12	0.6	24	5°	38	83	Weldon
TEC160H4L-32/50C16CF-R08	▲	16	16	0.8	32	5°	50	100	Cylindrical
TEC160H4L-32/50W16CF-R08	▲	16	16	0.8	32	5°	50	100	Weldon
TEC200H4L-40/60C20CF-R10	▲	20	20	1	40	5°	60	110	Cylindrical
TEC200H4L-40/60W20CF-R10	▲	20	20	1	40	5°	60	110	Weldon

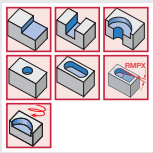
▲: To be discontinued

VARIABLEMEISTER
TUNGALOY

TEC**H4X**CF-R

4 flute chatter dampening endmill, variable helix and variable pitch, extra long neck type

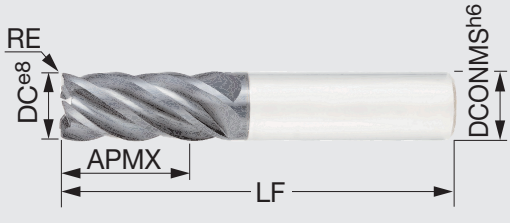


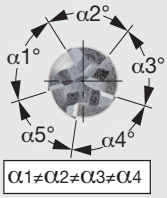


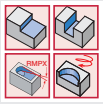
Designation	AH725	DC	DCONMS	RE	APMX	RMPX	LH	LF	Shank
TEC060H4X-12/25C06CF-R02	●	6	6	0.2	12	5°	25	61	Cylindrical
TEC060H4X-12/25W06CF-R02	●	6	6	0.2	12	5°	25	61	Weldon
TEC080H4X-16/32C08CF-R04	●	8	8	0.4	16	5°	32	68	Cylindrical
TEC080H4X-16/32W08CF-R04	●	8	8	0.4	16	5°	32	68	Weldon
TEC100H4X-20/40C10CF-R05	●	10	10	0.5	20	5°	40	80	Cylindrical
TEC100H4X-20/40W10CF-R05	●	10	10	0.5	20	5°	40	80	Weldon
TEC120H4X-24/50C12CF-R06	●	12	12	0.6	24	5°	50	95	Cylindrical
TEC120H4X-24/50W12CF-R06	●	12	12	0.6	24	5°	50	95	Weldon
TEC160H4X-32/64C16CF-R08	●	16	16	0.8	32	5°	64	115	Cylindrical
TEC160H4X-32/64W16CF-R08	●	16	16	0.8	32	5°	64	115	Weldon
TEC200H4X-40/75C20CF-R10	●	20	20	1	40	5°	75	125	Cylindrical
TEC200H4X-40/75W20CF-R10	●	20	20	1	40	5°	75	125	Weldon

TEC**H5M**CF-R

5 flute chatter dampening endmill, variable helix and variable pitch





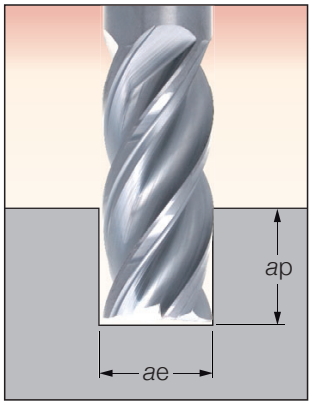


Designation	AH725	DC	DCONMS	RE	APMX	RMPX	LF	Shank
TEC040H5M-09C06CF-R02-57	▲	4	6	0.2	9	5°	57	Cylindrical
TEC050H5M-11C06CF-R02-57	▲	5	6	0.2	11	5°	57	Cylindrical
TEC060H5M-13W06CF-R02-57	▲	6	6	0.2	13	5°	57	Weldon
TEC080H5M-19C08CF-R04-63	▲	8	8	0.4	19	5°	63	Cylindrical
TEC080H5M-19W08CF-R04-63	▲	8	8	0.4	19	5°	63	Weldon
TEC100H5M-22C10CF-R05-72	▲	10	10	0.5	22	5°	72	Cylindrical
TEC100H5M-22W10CF-R05-72	▲	10	10	0.5	22	5°	72	Weldon
TEC160H5M-32W16CF-R08-92	▲	16	16	0.8	32	5°	92	Weldon
TEC200H5M-38C20CF-R10-104	▲	20	20	1	38	5°	104	Cylindrical
TEC200H5M-38W20CF-R10-104	▲	20	20	1	38	5°	104	Weldon

▲: To be discontinued

Recommended Feed - VariableMeister Solid Carbide Endmills

Slotting



ae = DC

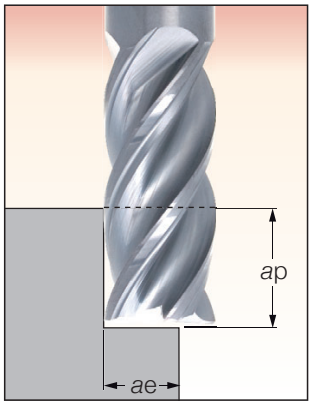
ap = DC × 0.5 - 1

DC	Min. *fz*	Max. *fz*
6	0.025	0.06
8	0.03	0.08
10	0.03	0.09
12	0.035	0.1
16	0.05	0.12
20	0.05	0.15
25	0.05	0.15

ap = DC × 1 - 2

DC	Min. *fz*	Max. *fz*
6	0.025	0.05
8	0.03	0.05
10	0.03	0.05
12	0.035	0.06
16	0.04	0.07
20	0.05	0.08
25	0.05	0.08

Side Milling



ae = DC × 45 - 75 %

ap = DC × 0.5 - 1

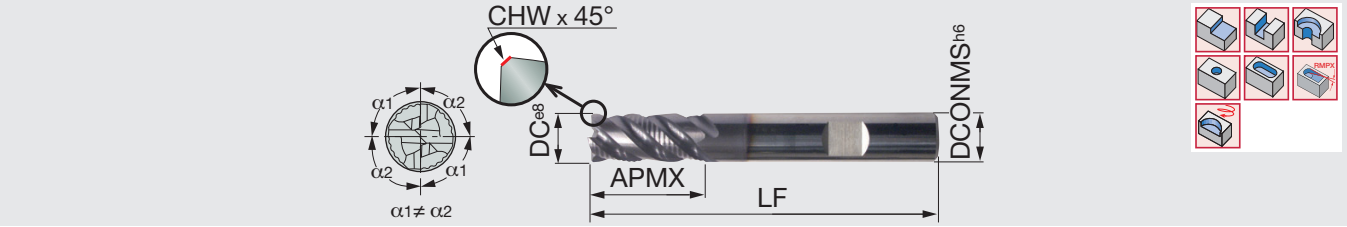
DC	Min. *fz*	Max. *fz*
6	0.025	0.07
8	0.03	0.09
10	0.03	0.1
12	0.035	0.11
16	0.05	0.13
20	0.05	0.17
25	0.05	0.17

ap = DC × 1 - 2

DC	Min. *fz*	Max. *fz*
6	0.025	0.06
8	0.03	0.08
10	0.03	0.09
12	0.035	0.1
16	0.05	0.11
20	0.05	0.11
25	0.05	0.11

TEFS**E44**CF

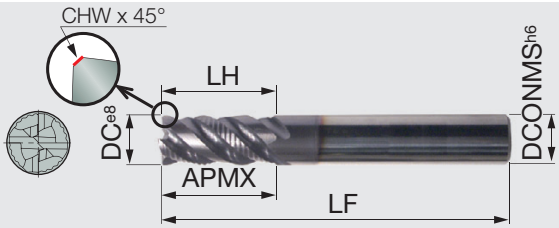
4 flute endmill, 38° helix angle, variable pitch, roughing and finishing combination type

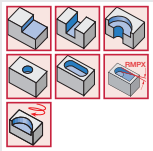


Designation	AH725	DC	DCONMS	CHW	APMX	LF	Shank
TEFS060E44-14C06CF57	●	6	6	0.25	14	57	Cylindrical
TEFS060E44-14W06CF-57	●	6	6	0.25	14	57	Weldon
TEFS080E44-18C08CF63	●	8	8	0.3	18	63	Cylindrical
TEFS080E44-18W08CF-63	●	8	8	0.3	18	63	Weldon
TEFS100E44-22C10CF72	●	10	10	0.4	22	72	Cylindrical
TEFS100E44-22W10CF-72	●	10	10	0.4	22	72	Weldon
TEFS120E44-26C12CF83	●	12	12	0.5	26	83	Cylindrical
TEFS120E44-26W12CF-83	●	12	12	0.5	26	83	Weldon
TEFS140E44-30C14CF83	●	14	14	0.5	30	83	Cylindrical
TEFS140E44-30W14CF-83	●	14	14	0.5	30	83	Weldon
TEFS160E44-34C16CF92	●	16	16	0.6	34	92	Cylindrical
TEFS160E44-34W16CF-92	●	16	16	0.6	34	92	Weldon
TEFS200E44-42C20CF104	●	20	20	0.6	42	104	Cylindrical
TEFS200E44-42W20CF-104	●	20	20	0.6	42	104	Weldon
TEFS250E44-52C25CF121	●	25	25	0.6	52	121	Cylindrical
TEFS250E44-52W25CF-121	●	25	25	0.6	52	121	Weldon

TEFS**B44

4 flute endmill, 45° helix angle, roughing and finishing combination type

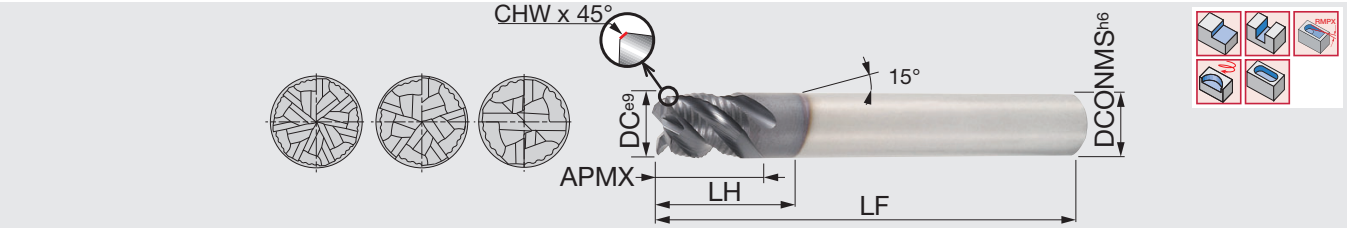




Designation	AH725	DC	DCONMS	CHW	APMX	LH	LF	Shank
TEFS040B44-10C06-57	●	4	6	0.12	10	-	57	Cylindrical
TEFS050B44-12C06-57	●	5	6	0.18	12	-	57	Cylindrical
TEFS060B44-14/20C06-57	●	6	6	0.25	14	20	57	Cylindrical
TEFS060B4414/20W06-57	●	6	6	0.25	14	20	57	Weldon
TEFS060B44-14C06-57	●	6	6	0.25	14	-	57	Cylindrical
TEFS060B44-14W06-57	●	6	6	0.25	14	-	57	Weldon
TEFS080B44-18/26C08-63	●	8	8	0.3	18	26	63	Cylindrical
TEFS080B44-18/26W08-63	●	8	8	0.3	18	26	63	Weldon
TEFS080B44-18C08-63	●	8	8	0.3	18	-	63	Cylindrical
TEFS080B44-18W08-63	●	8	8	0.3	18	-	63	Weldon
TEFS100B44-22/32C10-72	●	10	10	0.3	22	32	72	Cylindrical
TEFS100B44-22/32W10-72	●	10	10	0.3	22	32	72	Weldon
TEFS100B44-22C10-72	●	10	10	0.3	22	-	72	Cylindrical
TEFS100B44-22W10-72	●	10	10	0.3	22	-	72	Weldon
TEFS120B44-26/38C12-83	●	12	12	0.4	26	38	83	Cylindrical
TEFS120B44-26/38W12-83	●	12	12	0.4	26	38	83	Weldon
TEFS120B44-26C12-83	●	12	12	0.4	26	-	83	Cylindrical
TEFS120B44-26W12-83	●	12	12	0.4	26	-	83	Weldon
TEFS140B44-30C14-83	●	14	14	0.4	30	-	83	Cylindrical
TEFS140B44-30W14-83	●	14	14	0.4	30	-	83	Weldon
TEFS160B44-34/50C16-100	●	16	16	0.6	34	50	100	Cylindrical
TEFS160B44-34/50W16-100	●	16	16	0.6	34	50	100	Weldon
TEFS160B44-34C16-92	●	16	16	0.6	34	-	92	Cylindrical
TEFS160B44-34W16-92	●	16	16	0.6	34	-	92	Weldon
TEFS200B44-42/62C20-125	●	20	20	0.6	42	62	125	Cylindrical
TEFS200B44-42/62W20-125	●	20	20	0.6	42	62	125	Weldon
TEFS200B44-42C20-104	●	20	20	0.6	42	-	104	Cylindrical
TEFS200B44-42W20-104	●	20	20	0.6	42	-	104	Weldon
TEFS250B44-52C25-121	●	25	25	0.6	52	-	121	Cylindrical
TEFS250B44-52W25-121	●	25	25	0.6	52	-	121	Weldon

TECR**B*S

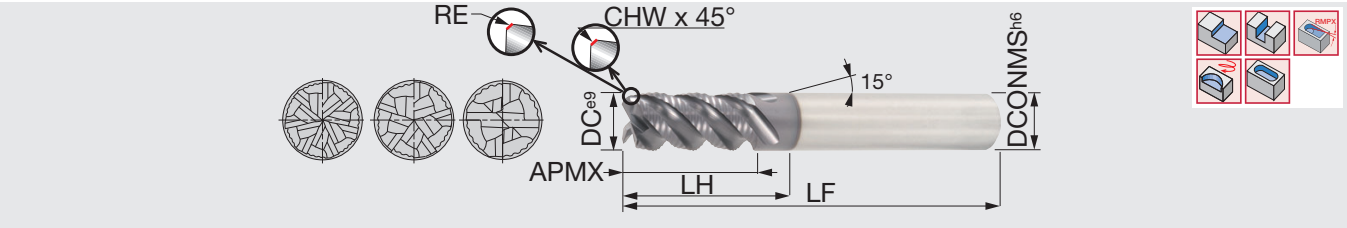
4-7 flute roughing endmill, 45° helix angle, short type



Designation	AH725	DC	DCONMS	CHW	APMX	LH	LF	NOF		Shank
TECR050B4S-05W06-57	●	5	6	0.2	5	10	57	4	●	Weldon
TECR060B4S-06W06-57	●	6	6	0.25	6	-	57	4	●	Weldon
TECR080B4S-08W08-63	●	8	8	0.25	8	-	63	4	●	Weldon
TECR100B4S-10W10-72	●	10	10	0.3	10	-	72	4	●	Weldon
TECR120B4S-12W12-83	●	12	12	0.35	12	-	83	4	●	Weldon
TECR160B5S-16W16-92	●	16	16	0.4	16	-	92	5		Weldon
TECR200B7S-20W20-104	●	20	20	0.4	20	-	104	7		Weldon

TECR**B*M

4-7 flute roughing endmill, 45° helix angle

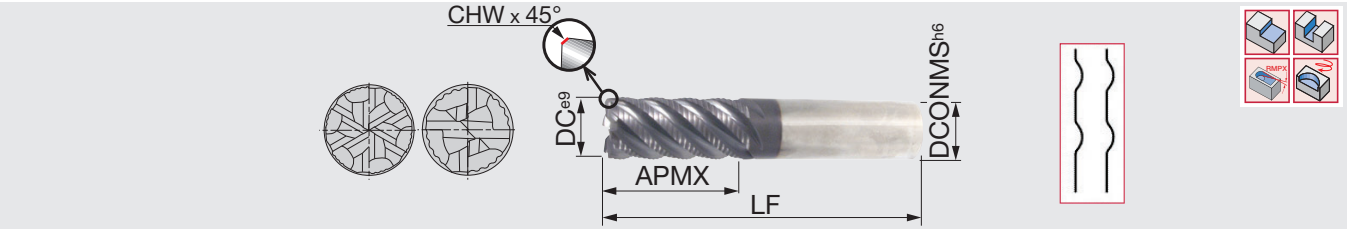


Designation	AH725	DC	DCONMS	CHW	RE	APMX	LH	LF	NOF		Shank
TECR050B4M-10C06-57	●	5	6	0.2	-	10	15	57	4	●	Cylindrical
TECR050B4M-10W06-57	●	5	6	0.2	-	10	15	57	4	●	Weldon
TECR060B4M-12C06-57	●	6	6	0.25	-	12	-	57	4	●	Cylindrical
TECR060B4M-12W06-57	●	6	6	0.25	-	12	-	57	4	●	Weldon
TECR080B4M-16C08-63	●	8	8	0.25	-	16	-	63	4	●	Cylindrical
TECR080B4M-16W08-63	●	8	8	0.25	-	16	-	63	4	●	Weldon
TECR100B4M-20C10-72	●	10	10	0.3	-	20	-	72	4	●	Cylindrical
TECR100B4M-20C10-72R10	●	10	10	-	1	20	-	72	4	●	Cylindrical
TECR100B4M-20W10-72	●	10	10	0.3	-	20	-	72	4	●	Weldon
TECR120B4M-24C12-83	●	12	12	0.35	-	24	-	83	4	●	Cylindrical
TECR120B4M-24C12-83R12	●	12	12	-	1.2	24	-	83	4	●	Cylindrical
TECR120B4M-24W12-83	●	12	12	0.35	-	24	-	83	4	●	Weldon
TECR120B4M-24W12-83R12	●	12	12	-	1.2	24	-	83	4	●	Weldon
TECR160B5M-32C16-92	●	16	16	0.4	-	32	-	92	5		Cylindrical
TECR160B5M-32C16-92R16	●	16	16	-	1.6	32	-	92	5		Cylindrical
TECR160B5M-32W16-92	●	16	16	0.4	-	32	-	92	5		Weldon
TECR160B5M-32W16-92R16	●	16	16	-	1.6	32	-	92	5		Weldon
TECR200B7M-40C20-104	●	20	20	0.4	-	40	-	104	7		Cylindrical
TECR200B7M-40W20-104	●	20	20	0.4	-	40	-	104	7		Weldon

First choice in roughing applications.

TECR**B*MF

4 or 6 flute roughing endmill, 45° helix angle



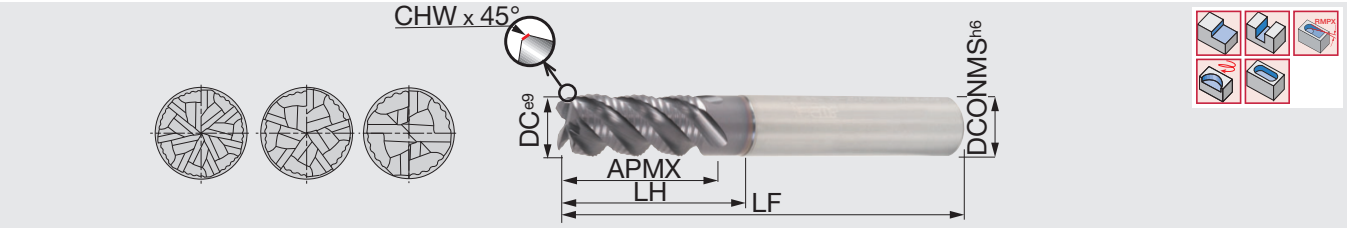
Designation	AH725	DC	DCONMS	CHW	APMX	LF	NOF	Shank
TECR060B4MF-14W06-57	●	6	6	0.25	14	57	4	Weldon
TECR080B4MF-18W08-63	●	8	8	0.3	18	63	4	Weldon
TECR100B4MF-22W10-72	●	10	10	0.3	22	72	4	Weldon
TECR120B4MF-26W12-83	●	12	12	0.4	26	83	4	Weldon
TECR140B4MF-30W14-83	●	14	14	0.4	30	83	4	Weldon
TECR160B6MF-34W16-92	●	16	16	0.5	34	92	6	Weldon
TECR200B6MF-42W20-104	●	20	20	0.7	42	104	6	Weldon
TECR250B6MF-52W25-121	●	25	25	0.9	52	121	6	Weldon

The rougher's cutting edge profile has shallow serrations. This is a very durable design which leaves only a small amount of material for the finishing cut.

SHREDMEISTER TUNGALOY

TECR**B*L

4-7 flute roughing endmill, 45° helix angle, long neck type (3xD)

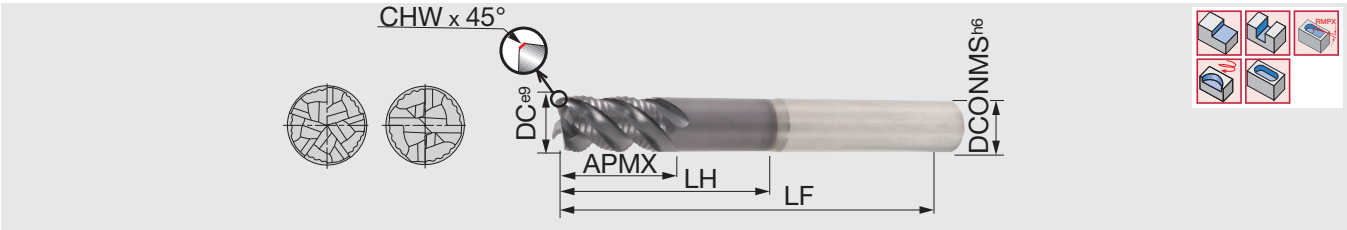


Designation	AH725	DC	DCONMS	CHW	APMX	LH	LF	NOF		Shank
TECR060B4L-12/18W06-57	●	6	6	0.25	12	18	57	4	●	Weldon
TECR080B4L-16/24W08-63	●	8	8	0.25	16	24	63	4	●	Weldon
TECR100B4L-20/30W10-72	●	10	10	0.3	20	30	72	4	●	Weldon
TECR120B4L-24/36W12-83	●	12	12	0.35	24	36	83	4	●	Weldon
TECR160B5L-32/48W16-100	●	16	16	0.4	32	48	100	5		Weldon
TECR200B7L-40/60W20-110	●	20	20	0.4	40	60	110	7		Weldon

SHREDMEISTER TUNGALOY

TECR**B*X

4-5 flute roughing endmill, 45° helix angle, long neck type (4xD)



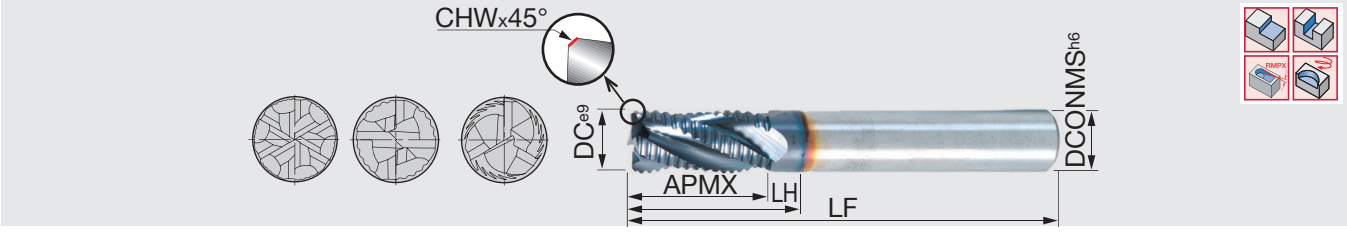
Designation	AH725	DC	DCONMS	CHW	APMX	LH	LF	NOF		Shank
TECR080B4X-12/32W08-68	●	8	8	0.25	12	32	68	4	●	Weldon
TECR100B4X-15/40W10-80	●	10	10	0.3	15	40	80	4	●	Weldon
TECR120B4X-18/48W12-100	●	12	12	0.35	18	48	100	4	●	Weldon
TECR160B5X-24/64W16-115	●	16	16	0.4	24	64	115	5		Weldon

First choice in roughing applications.

SHREDMEISTER

TERF**A/E

3-4 flute roughing endmill, 30° or 38 helix angle, for alloy steel and stainless steel

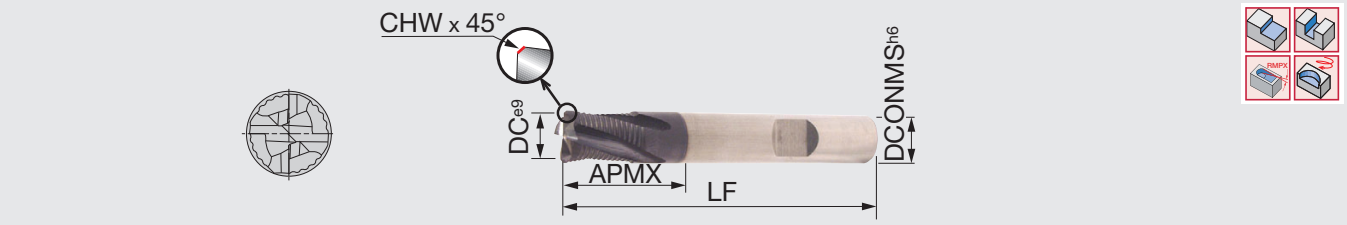


Designation	AH725	DC	DCONMS	CHW	APMX	LH	LF	FHA	NOF	Shank
TERF040E3-08C06-57	●	4	6	0.25	8	13	57	38°	3	Cylindrical
TERF050E3-10C06-57	●	5	6	0.3	10	17	57	38°	3	Cylindrical
TERF060E3-13C06-57	●	6	6	0.3	13	21	57	38°	3	Cylindrical
TERF070E3-20C08-63	●	7	8	0.3	20	26	63	38°	3	Cylindrical
TERF080E3-20C08-63	●	8	8	0.3	20	28	63	38°	3	Cylindrical
TERF090A4-22C10-72	●	9	10	0.3	22	30	72	30°	4	Cylindrical
TERF100A4-22C10-72	●	10	10	0.3	22	30	72	30°	4	Cylindrical
TERF110A4-25C12-83	●	11	12	0.3	25	32	83	30°	4	Cylindrical
TERF120A4-25C12-83	●	12	12	0.4	25	37	83	30°	4	Cylindrical
TERF140A4-25C14-83	●	14	14	0.5	25	37	83	30°	4	Cylindrical
TERF160A4-32C16-92	●	16	16	0.5	32	44	92	30°	4	Cylindrical
TERF180A4-32C18-92	●	18	18	0.5	32	44	92	30°	4	Cylindrical
TERF200A4-38C20-104	●	20	20	0.6	38	55	104	30°	4	Cylindrical

SHREDMEISTER

TECR**T4M

4 flute roughing endmill, 20° helix angle

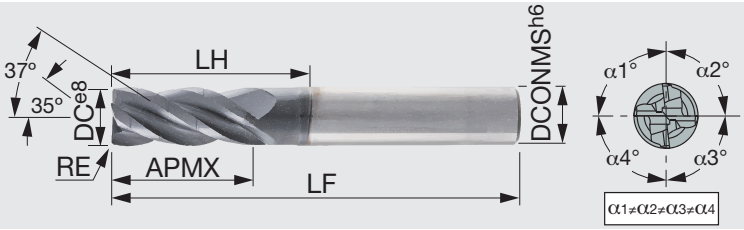


Designation	AH725	DC	DCONMS	CHW	APMX	LF	NOF	Shank
TECR060T4M-10W06-57	●	6	6	0.3	10	57	4	Weldon
TECR080T4M-16W08-63	●	8	8	0.4	16	63	4	Weldon
TECR100T4M-20W10-72	●	10	10	0.4	20	72	4	Weldon
TECR120T4M-24W12-83	●	12	12	0.4	24	83	4	Weldon
TECR160T4M-32W16-92	●	16	16	0.5	32	92	4	Weldon
TECR200T4M-40W20-104	●	20	20	0.5	40	104	4	Weldon

For maximum stock removal.

TECP**H4L**CFR

4 flute roughing endmill, variable helix and variable pitch, with chip splitter, long overhang

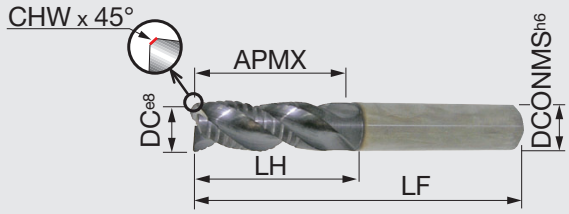


Designation	AH725	DC	DCONMS	RE	APMX	LH	LF	NOF	Shank
TECP060H4L-12/20C6CF-R02	▲	6	6	0.2	12	20	57	4	Cylindrical
TECP080H4L-16/26C8CF-R04	▲	8	8	0.4	16	26	63	4	Cylindrical
TECP080H4L-16/26W8CF-R04	▲	8	8	0.4	16	26	63	4	Weldon
TECP100H4L-20/32C10CF-R05	▲	10	10	0.5	20	32	72	4	Cylindrical
TECP100H4L-20/32W10CF-R05	▲	10	10	0.5	20	32	72	4	Weldon
TECP120H4L-24/38C12CF-R06	▲	12	12	0.6	24	38	83	4	Cylindrical
TECP120H4L-24/38W12CF-R06	▲	12	12	0.6	24	38	83	4	Weldon
TECP160H4L-32/50C16CF-R08	▲	16	16	0.8	32	50	100	4	Cylindrical
TECP160H4L-32/50W16CF-R08	▲	16	16	0.8	32	50	100	4	Weldon
TECP200H4L-40/60C20CF-R10	▲	20	20	1	40	60	110	4	Cylindrical
TECP200H4L-40/60W20CF-R10	▲	20	20	1	40	60	110	4	Weldon

▲: To be discontinued

TECP**E*L

3 flute roughing endmill, 38° helix angle, with chip splitter

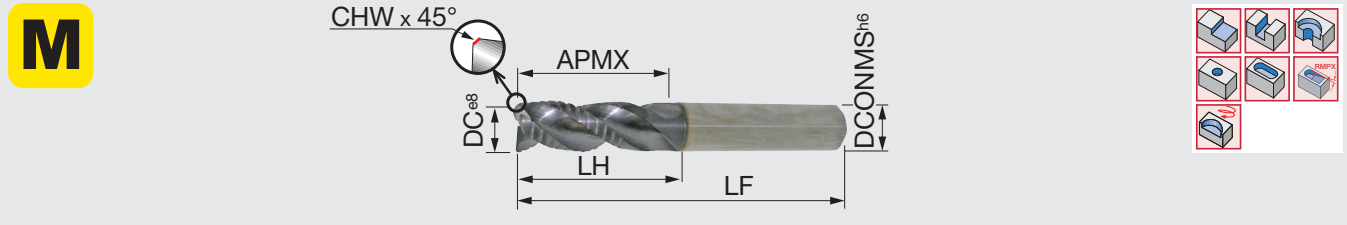


Designation	AH725	DC	DCONMS	CHW	APMX	LH	LF	Shank
TECP050E3L-12/17W06S57	●	5	6	0.3	12	17	57	Weldon
TECP060E3L-14/20W06S57	●	6	6	0.4	14	20	57	Weldon
TECP080E3L-18/26W08S63	●	8	8	0.4	18	26	63	Weldon
TECP100E3L-22/32W10S72	●	10	10	0.4	22	32	72	Weldon
TECP120E3L-26/38W12S83	●	12	12	0.4	26	38	83	Weldon
TECP140E3L-30/44W14S100	●	14	14	0.6	30	44	100	Weldon
TECP160E3L-34/50W16S100	●	16	16	0.5	34	50	100	Weldon
TECP200E3L-42/62W20S125	●	20	20	0.5	42	62	125	Weldon

SHREDMEISTER

TECP**E*L

4 flute roughing endmill, 38° helix angle, with chip splitter



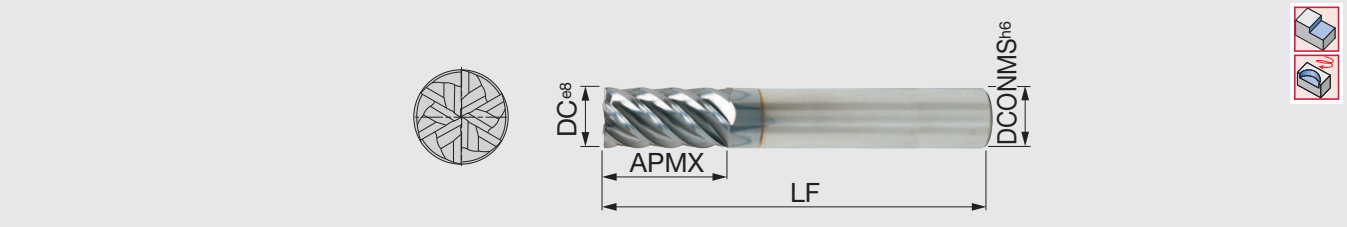
Designation	AH725	DC	DCONMS	CHW	APMX	LH	LF	Shank
TECP050E4L-12/17W06S57	●	5	6	0.3	12	17	57	Weldon
TECP060E4L-14/20W06S57	●	6	6	0.4	14	20	57	Weldon
TECP080E4L-18/26W08S63	●	8	8	0.4	18	26	63	Weldon
TECP100E4L-22/32W10S72	●	10	10	0.4	22	32	72	Weldon
TECP120E4L-26/38W12S83	●	12	12	0.4	26	38	83	Weldon
TECP140E4L-30/44W14S100	●	14	14	0.6	30	44	100	Weldon
TECP160E4L-34/50W16S100	●	16	16	0.5	34	50	100	Weldon
TECP200E4L-42/62W20S125	●	20	20	0.5	42	62	125	Weldon

Most recommended for machining stainless steel

SOLIDMEISTER

TECH**B6

6 flute endmill, 45° helix angle, for finishing

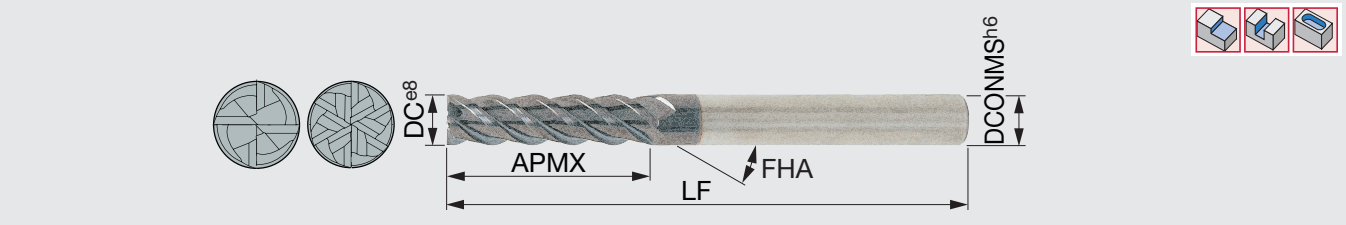


Designation	AH725	AH750	DC	DCONMS	APMX	LF	Shank
TECH060B6-16C06-57	●	●	6	6	16	57	Cylindrical
TECH060B6-16W06-57	●		6	6	16	57	Weldon
TECH080B6-20C08-63	●	●	8	8	20	63	Cylindrical
TECH080B6-20W08-63	●		8	8	20	63	Weldon
TECH100B6-22C10-72	●	●	10	10	22	72	Cylindrical
TECH100B6-22W10-72	●		10	10	22	72	Weldon
TECH120B6-25C12-83	●	●	12	12	25	83	Cylindrical
TECH120B6-25W12-83	●		12	12	25	83	Weldon
TECH160B6-32C16-92	●	●	16	16	32	92	Cylindrical
TECH160B6-32W16-92	●		16	16	32	92	Weldon
TECH200B6-38C20-104	●	●	20	20	38	104	Cylindrical
TECH200B6-38W20-104	●		20	20	38	104	Weldon

SOLIDMEISTER TUNGALOY

TECL**B4/6L

4 or 6 flute endmill, 45° helix angle, long neck type

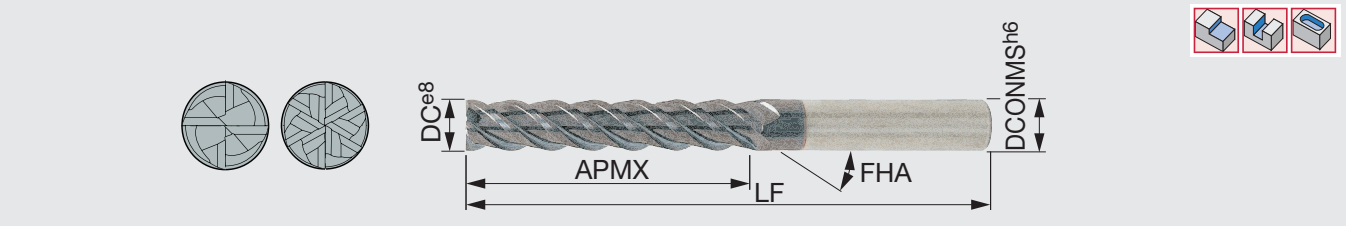


Designation	DC	DCONMS	APMX	FHA	LF	NOF		Shank
TEC060B4L-24C06-65	6	6	24	45°	65	4	●	Cylindrical
TEC060B4L-24W06-65	6	6	24	45°	65	4	●	Weldon
TEC080B4L-32C08-79	8	8	32	45°	79	4	●	Cylindrical
TEC080B4L-32W08-79	8	8	32	45°	79	4	●	Weldon
TEC100B4L-40C10-100	10	10	40	45°	100	4	●	Cylindrical
TEC100B4L-40W10-100	10	10	40	45°	100	4	●	Weldon
TEC120B4L-48C12-100	12	12	48	45°	100	4	●	Cylindrical
TEC120B4L-48W12-100	12	12	48	45°	100	4	●	Weldon
TEC140B4L-50C14-100	14	14	50	45°	100	4	●	Cylindrical
TEC140B4L-50W14-100	14	14	50	45°	100	4	●	Weldon
TEC160B6L-56C16-115	16	16	56	45°	115	6		Cylindrical
TEC160B6L-56W16-115	16	16	56	45°	115	6		Weldon
TEC200B6L-60C20-125	20	20	60	45°	125	6		Cylindrical
TEC200B6L-60W20-125	20	20	60	45°	125	6		Weldon

SOLIDMEISTER TUNGALOY

TECX**B4/6X

4 or 6 flute endmill, 45° helix angle, extra long neck type

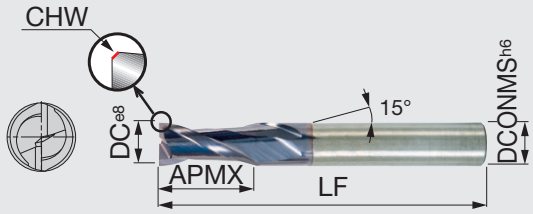


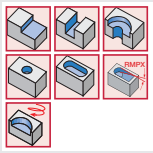
Designation	AH725	DC	DCONMS	APMX	FHA	LF	NOF		Shank
TEC100B4X-60C10-112	●	10	10	60	45°	112	4	●	Cylindrical
TEC100B4X-60W10-112	●	10	10	60	45°	112	4	●	Weldon
TEC120B4X-72C12-150	●	12	12	72	45°	150	4	●	Cylindrical
TEC120B4X-72W12-150	●	12	12	72	45°	150	4	●	Weldon
TEC160B6X-80C16-150	●	16	16	80	45°	150	6		Cylindrical
TEC160B6X-80W16-150	●	16	16	80	45°	150	6		Weldon
TEC200B6X-80C20-150	●	20	20	80	45°	150	6		Cylindrical

TECC**A/B2

2 flute slotting endmill, 30° or 45° helix angle

DC	CHW
DC<4	0.1x45°
4≤DC<10	0.15x45°
10≤DC	0.25x45°



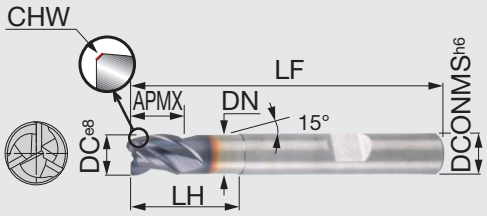


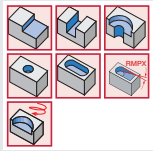
Designation	AH725	DC	DCONMS	APMX	LF	FHA	Shank
TECC020B2-07C03-38	●	2	3	7	38	30°	Cylindrical
TECC030A2-10C03-38	●	3	3	10	38	30°	Cylindrical
TECC040A2-12C04-50	●	4	4	12	50	30°	Cylindrical
TECC050A2-14C05-50	●	5	5	14	50	30°	Cylindrical
TECC060A2-16C06-57	●	6	6	16	57	30°	Cylindrical
TECC080A2-20C08-63	●	8	8	20	63	30°	Cylindrical
TECC100A2-22C10-72	●	10	10	22	72	30°	Cylindrical
TECC120A2-25C12-83	●	12	12	25	83	30°	Cylindrical
TECC160A2-32C16-92	●	16	16	32	92	30°	Cylindrical
TECC200A2-38C20-104	●	20	20	38	104	30°	Cylindrical

TECS/TECCS**E3

3 flute slotting endmill, 38° helix angle, short type

DC	CHW
DC<6	0
6≤DC<10	0.15x45°
10≤DC	0.25x45°





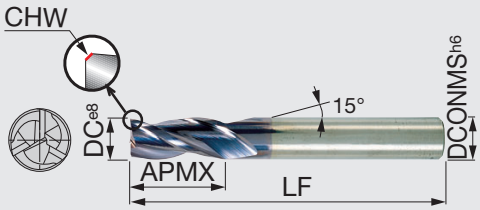
Designation	AH725	DC	DCONMS	DN	APMX	LH	LF	Shank
TECS020E3-03W06-57	●	2	6	1.9	3	7	57	Weldon
TECS030E3-04W06-57	●	3	6	2.9	4	10	57	Weldon
TECS040E3-05W06-57	●	4	6	3.9	5	12	57	Weldon
TECS050E3-06W06-57	●	5	6	4.9	6	14	57	Weldon
TECCS060E3-07W06-57	●	6	6	5.9	7	16	57	Weldon
TECCS080E3-09W08-63	●	8	8	7.6	9	20	63	Weldon
TECCS100E3-11W10-72	●	10	10	9.5	11	22	72	Weldon
TECCS120E3-12W12-83	●	12	12	11.3	12	25	83	Weldon
TECCS160E3-16W16-92	●	16	16	15.2	16	32	92	Weldon

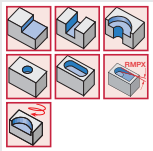
Due to short and stable design, feed can be increased.

TECC**B/E3

3 flute slotting endmill, 38° or 45° helix angle

DC	CHW
DC<4	0.1x45°
4≤DC<10	0.15x45°
10≤DC	0.25x45°



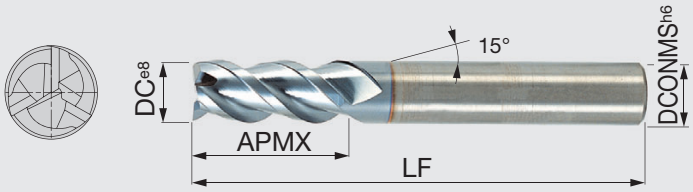


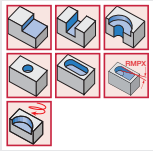
Designation	AH725	DC	DCONMS	APMX	LF	FHA	Shank
TECC040E3-12C04-50	●	4	4	12	50	38°	Cylindrical
TECC050E3-14C05-50	●	5	5	14	50	38°	Cylindrical
TECC060E3-16C06-57	●	6	6	16	57	38°	Cylindrical
TECC080E3-20C08-63	●	8	8	20	63	38°	Cylindrical
TECC100E3-22C10-72	●	10	10	22	72	38°	Cylindrical
TECC120E3-25C12-83	●	12	12	25	83	38°	Cylindrical
TECC160E3-32C16-92	●	16	16	32	92	38°	Cylindrical
TECC200E3-38C20-104	●	20	20	38	104	38°	Cylindrical

Multi-purpose endmills.
Also suitable for deep slotting.

TEC**B3

3 flute slotting endmill, 45° helix angle





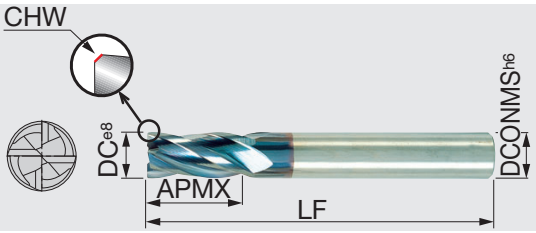
Designation	AH725	DC	DCONMS	APMX	LF	Shank
TEC060B3-16C06-57	●	6	6	16	57	Cylindrical
TEC080B3-20C08-63	●	8	8	20	63	Cylindrical
TEC090B3-20C09-67	●	9	9	20	67	Cylindrical
TEC100B3-22C10-72	●	10	10	22	72	Cylindrical
TEC120B3-25C12-83	●	12	12	25	83	Cylindrical
TEC180B3-32C18-92	●	18	18	32	92	Cylindrical

Excellent for deep slotting and shoulder milling.

TECC**A/B4

4 flute endmill, 30° or 45° helix angle

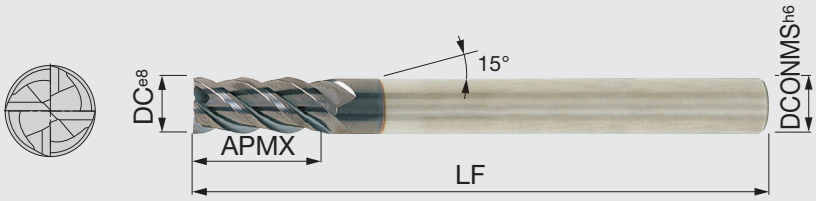
DC	CHW
DC<4	0.1x45°
4≤DC<10	0.15x45°
10≤DC	0.25x45°



Designation	AH725	DC	DCONMS	APMX	LF	FHA	Shank
TECC020B4-07C03-38	●	2	3	7	38	45°	Cylindrical
TECC030A4-10C03-38	●	3	3	10	38	30°	Cylindrical
TECC040A4-12C04-50	●	4	4	12	50	30°	Cylindrical
TECC050A4-14C05-50	●	5	5	14	50	30°	Cylindrical
TECC060A4-16C06-57	●	6	6	16	57	30°	Cylindrical
TECC080A4-20C08-63	●	8	8	20	63	30°	Cylindrical
TECC100A4-22C10-72	●	10	10	22	72	30°	Cylindrical
TECC120A4-25C12-83	●	12	12	25	83	30°	Cylindrical
TECC160A4-32C16-92	●	16	16	32	92	30°	Cylindrical
TECC200A4-38C20-104	●	20	20	38	104	30°	Cylindrical

TEC**B4

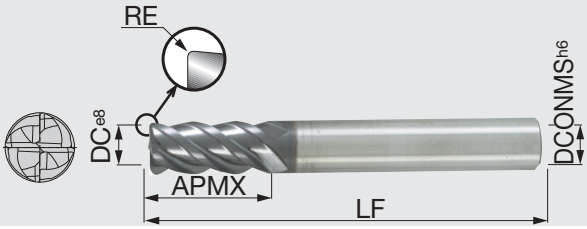
4 flute endmill, 45° helix angle

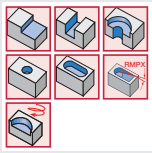


Designation	AH725	DC	DCONMS	APMX	LF	Shank
TEC020B4-07C06-57	●	2	6	7	57	Cylindrical
TEC030B4-10C06-57	●	3	6	10	57	Cylindrical
TEC040B4-12C06-57	●	4	6	12	57	Cylindrical
TEC050B4-14C06-57	●	5	6	14	57	Cylindrical
TEC060B4-16C06-57	●	6	6	16	57	Cylindrical
TEC080B4-20C08-63	●	8	8	20	63	Cylindrical
TEC100B4-22C10-72	●	10	10	22	72	Cylindrical
TEC120B4-25C12-83	●	12	12	25	83	Cylindrical
TEC140B4-25C14-83	●	14	14	25	83	Cylindrical
TEC160B4-32C16-92	●	16	16	32	92	Cylindrical
TEC180B4-32C18-92	●	18	18	32	92	Cylindrical
TEC200B4-38C20-104	●	20	20	38	104	Cylindrical

TEC**B4**R

4 flute radius endmill, 45° helix angle



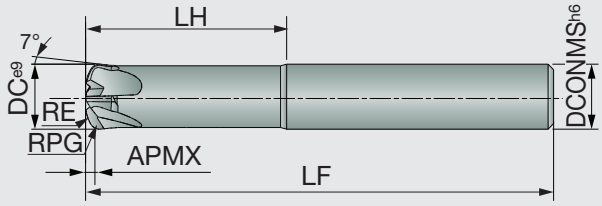


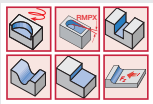
Designation	AH725	DC	DCONMS	RE	APMX	LF	Shank
TEC060B4-16C06R05-57	●	6	6	0.5	16	57	Cylindrical
TEC060B4-16C06R1-57	●	6	6	1	16	57	Cylindrical
TEC080B4-20C08R05-63	●	8	8	0.5	20	63	Cylindrical
TEC080B4-20C08R1-63	●	8	8	1	20	63	Cylindrical
TEC080B4-20C08R15-63	●	8	8	1.5	20	63	Cylindrical
TEC080B4-20C08R2-63	●	8	8	2	20	63	Cylindrical
TEC100B4-22C10R05-72	●	10	10	0.5	22	72	Cylindrical
TEC100B4-22C10R1-72	●	10	10	1	22	72	Cylindrical
TEC100B4-22C10R15-72	●	10	10	1.5	22	72	Cylindrical
TEC100B4-22C10R2-72	●	10	10	2	22	72	Cylindrical
TEC100B4-22C10R3-72	●	10	10	3	22	72	Cylindrical
TEC120B4-25C12R05-83	●	12	12	0.5	25	83	Cylindrical
TEC120B4-25C12R1-83	●	12	12	1	25	83	Cylindrical
TEC120B4-25C12R15-83	●	12	12	1.5	25	83	Cylindrical
TEC120B4-25C12R2-83	●	12	12	2	25	83	Cylindrical
TEC120B4-25C12R3-83	●	12	12	3	25	83	Cylindrical
TEC160B4-32C16R05-92	●	16	16	0.5	32	92	Cylindrical
TEC160B4-32C16R1-92	●	16	16	1	32	92	Cylindrical
TEC160B4-32C16R2-92	●	16	16	2	32	92	Cylindrical
TEC160B4-32C16R3-92	●	16	16	3	32	92	Cylindrical
TEC200B4-38C20R05-104	●	20	20	0.5	38	104	Cylindrical
TEC200B4-38C20R1-104	●	20	20	1	38	104	Cylindrical
TEC200B4-38C20R2-104	●	20	20	2	38	104	Cylindrical
TEC200B4-38C20R3-104	●	20	20	3	38	104	Cylindrical
TEC200B4-38C20R4-104	●	20	20	4	38	104	Cylindrical

FEEDMEISTER TUNGALOY

TEFF**N4

4 flute high feed endmill





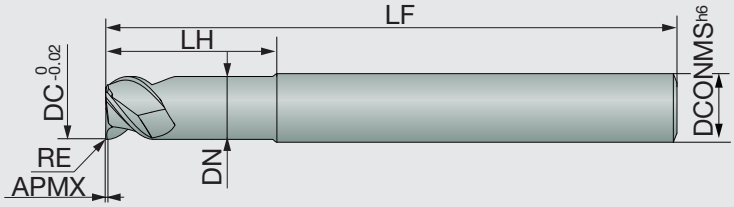
Designation	AH750	DC	DCONMS	RPG[1]	RE	APMX	LH	LF	Max. fz mm/t
TEFF060N4-030/20C06R10M	●	6	6	1.0	5.3	0.3	20	57	0.3
TEFF080N4-035/26C08R13M	●	8	8	1.3	7	0.4	26	63	0.4
TEFF100N4-040/30C10R16M	●	10	10	1.6	8.8	0.5	30	72	0.5
TEFF120N4-045/34C12R20M	●	12	12	2.0	10.6	0.6	34	83	0.5
TEFF160N4-055/42C16R26M	●	16	16	2.6	14	0.8	42	92	0.6
TEFF200N4-060/46C20R32M	●	20	20	3.2	17.7	1	46	104	0.7

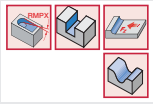
(1) R0 should be used for programming.

FEEDMEISTER TUNGALOY

TCFF**A3

3 flute high feed endmill



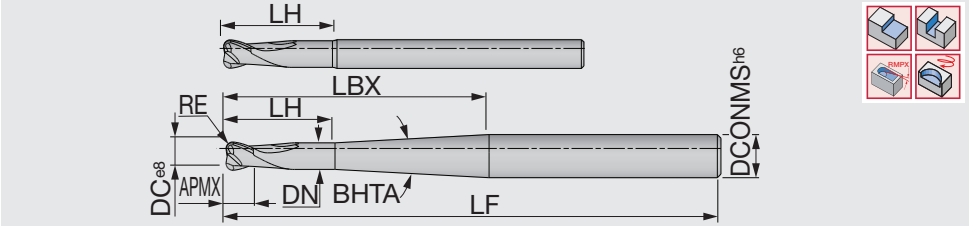


Designation	FX510	DC	DCONMS	DN	RE	APMX	LH	LF	Shank
TCFF060A3-06/15C6-50	●	6	6	5.5	0.42	0.25	15	50	3
TCFF080A3-08/20C8-57	●	8	8	7.5	0.56	0.4	20	57	3
TCFF100A3-08/25C10-65	●	10	10	9.5	0.7	0.5	25	65	3
TCFF120A3-10/30C12-72	●	12	12	11.5	1.1	0.6	30	72	3
TCFF160A3-12/35C16-83	●	16	16	15.5	1.9	0.75	35	83	3
TCFF200A3-15/40C20-93	●	20	20	19.5	2.5	1	40	93	3

Caution:
High speed machining generates heat in the tool and chuck holder. Thermal expansion of the holder will often lead to tool damage. Use an air coolant during machining to cool the tool holder.
Milling chucks are recommended for the tool holder.
*Use these corner radius values for programming.

TETR**A2**R

2 flute toroidal endmill

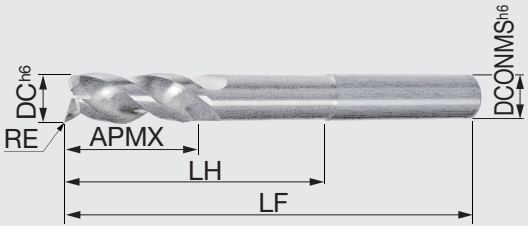


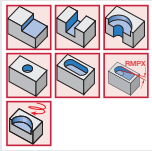
Designation	AH725	DC	DCONMS	DN	RE	APMX	LH	LBX	BHTA	LF	Shank
TETR020A2-2/08C06R05M80	●	2	6	1.9	0.5	2	8	40	3.6°	80	Cylindrical
TETR030A2-2/12C06R05M80	●	3	6	2.8	0.5	2	12	40	3.3°	80	Cylindrical
TETR040A2-3/16C06R1M80	●	4	6	3.7	1	3	16	40	2.8°	80	Cylindrical
TETR060A2-4/25C08R2M100	●	6	8	5.6	2	4	25	66	2.0°	100	Cylindrical

TECA**H3**CF-R

3 flute endmill, 39°-41° variable helix, center cutting edge, for aluminium machining

N





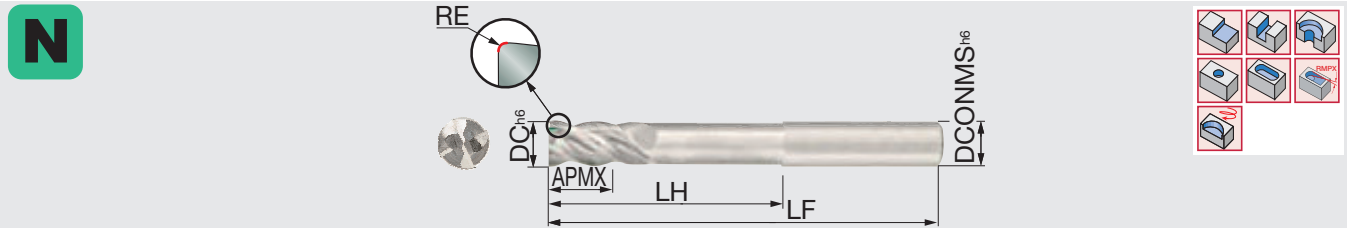
Designation	KS15F	DC	DCONMS	RE	APMX	LH	LF	Shank
TECA010H3-04C06CF-R.05	●	1	6	0.05	4	6	57	Cylindrical
TECA015H3-04/06C06CF-R01	●	1.5	6	0.1	4	6	57	Cylindrical
TECA020H3-05/08C06CF-R01	●	2	6	0.1	5	8	57	Cylindrical
TECA025H3-05/08C06CF-R01	●	2.5	6	0.1	5	8	57	Cylindrical
TECA030H3-07/12C06CF-R01	●	3	6	0.1	7	12	57	Cylindrical
TECA040H3-10/16C06CF-R02	●	4	6	0.2	10	16	57	Cylindrical
TECA050H3-12/20C06CF-R02	●	5	6	0.2	12	20	57	Cylindrical
TECA060H3-09/18C06CF-R02	●	6	6	0.2	9	18	57	Cylindrical
TECA060H3-09/18C06CF-R04	●	6	6	0.4	9	18	57	Cylindrical
TECA060H3-09/18C06CF-R08	●	6	6	0.8	9	18	57	Cylindrical
TECA060H3-09/30C06CF-R02	●	6	6	0.2	9	30	65	Cylindrical
TECA060H3-09/30C06CF-R04	●	6	6	0.4	9	30	65	Cylindrical
TECA060H3-09/30C06CF-R08	●	6	6	0.8	9	30	65	Cylindrical
TECA060H3-14/24C06CF-R02	●	6	6	0.2	14	24	60	Cylindrical
TECA080H3-12/24C08CF-R02	●	8	8	0.2	12	24	63	Cylindrical
TECA080H3-12/24C08CF-R04	●	8	8	0.4	12	24	63	Cylindrical
TECA080H3-12/24C08CF-R08	●	8	8	0.8	12	24	63	Cylindrical
TECA080H3-12/24C08CF-R30	●	8	8	3	12	24	63	Cylindrical
TECA080H3-12/40C08CF-R02	●	8	8	0.2	12	40	79	Cylindrical
TECA080H3-12/40C08CF-R04	●	8	8	0.4	12	40	79	Cylindrical
TECA080H3-12/40C08CF-R08	●	8	8	0.8	12	40	79	Cylindrical
TECA080H3-18/32C08CF-R02	●	8	8	0.2	18	32	68	Cylindrical
TECA100H3-15/30C10CF-R02	●	10	10	0.2	15	30	72	Cylindrical
TECA100H3-15/30C10CF-R04	●	10	10	0.4	15	30	72	Cylindrical
TECA100H3-15/30C10CF-R08	●	10	10	0.8	15	30	72	Cylindrical
TECA100H3-15/30C10CF-R16	●	10	10	1.6	15	30	72	Cylindrical
TECA100H3-15/30C10CF-R30	●	10	10	3	15	30	72	Cylindrical
TECA100H3-15/50C10CF-R02	●	10	10	0.2	15	50	92	Cylindrical
TECA100H3-15/50C10CF-R04	●	10	10	0.4	15	50	92	Cylindrical
TECA100H3-15/50C10CF-R08	●	10	10	0.8	15	50	92	Cylindrical
TECA100H3-15/50C10CF-R16	●	10	10	1.6	15	50	92	Cylindrical
TECA100H3-15/50C10CF-R20	●	10	10	2	15	50	92	Cylindrical
TECA100H3-15/50C10CF-R30	●	10	10	3	15	50	92	Cylindrical
TECA100H3-22/40C10CF-R02	●	10	10	0.2	22	40	80	Cylindrical
TECA100H3-22/40C10CF-R30	●	10	10	3	22	40	80	Cylindrical
TECA120H3-18/36C12CF-R02	●	12	12	0.2	18	36	83	Cylindrical
TECA120H3-18/36C12CF-R04	●	12	12	0.4	18	36	83	Cylindrical
TECA120H3-18/36C12CF-R08	●	12	12	0.8	18	36	83	Cylindrical
TECA120H3-18/36C12CF-R16	●	12	12	1.6	18	36	83	Cylindrical
TECA120H3-18/36C12CF-R20	●	12	12	2	18	36	83	Cylindrical
TECA120H3-18/36C12CF-R25	●	12	12	2.5	18	36	83	Cylindrical
TECA120H3-18/60C12CF-R02	●	12	12	0.2	18	60	100	Cylindrical
TECA120H3-18/60C12CF-R04	●	12	12	0.4	18	60	100	Cylindrical
TECA120H3-18/60C12CF-R08	●	12	12	0.8	18	60	100	Cylindrical
TECA120H3-18/60C12CF-R16	●	12	12	1.6	18	60	100	Cylindrical
TECA120H3-18/60C12CF-R20	●	12	12	2	18	60	100	Cylindrical
TECA120H3-18/60C12CF-R25	●	12	12	2.5	18	60	100	Cylindrical
TECA120H3-18/60C12CF-R30	●	12	12	3	18	60	100	Cylindrical

Designation	KS15F	DC	DCONMS	RE	APMX	LH	LF	Shank
TECA160H3-24/48C16CF-R02	●	16	16	0.2	24	48	92	Cylindrical
TECA160H3-24/48C16CF-R04	●	16	16	0.4	24	48	92	Cylindrical
TECA160H3-24/48C16CF-R08	●	16	16	0.8	24	48	92	Cylindrical
TECA160H3-24/48C16CF-R16	●	16	16	1.6	24	48	92	Cylindrical
TECA160H3-24/48C16CF-R20	●	16	16	2	24	48	92	Cylindrical
TECA160H3-24/48C16CF-R25	●	16	16	2.5	24	48	92	Cylindrical
TECA160H3-24/48C16CF-R30	●	16	16	3	24	48	92	Cylindrical
TECA160H3-24/48C16CF-R32	●	16	16	3.2	24	48	92	Cylindrical
TECA160H3-24/48C16CF-R40	●	16	16	4	24	48	92	Cylindrical
TECA160H3-24/48C16CF-R50	●	16	16	5	24	48	92	Cylindrical
TECA160H3-24/80C16CF-R02	●	16	16	0.2	24	80	128	Cylindrical
TECA160H3-24/80C16CF-R04	●	16	16	0.4	24	80	128	Cylindrical
TECA160H3-24/80C16CF-R08	●	16	16	0.8	24	80	128	Cylindrical
TECA160H3-24/80C16CF-R16	●	16	16	1.6	24	80	128	Cylindrical
TECA160H3-24/80C16CF-R20	●	16	16	2	24	80	128	Cylindrical
TECA160H3-24/80C16CF-R25	●	16	16	2.5	24	80	128	Cylindrical
TECA160H3-24/80C16CF-R30	●	16	16	3	24	80	128	Cylindrical
TECA160H3-24/80C16CF-R32	●	16	16	3.2	24	80	128	Cylindrical
TECA160H3-24/80C16CF-R40	●	16	16	4	24	80	128	Cylindrical
TECA160H3-24/80C16CF-R50	●	16	16	5	24	80	128	Cylindrical
TECA160H3-34/64C16CF-R02	●	16	16	0.2	34	64	115	Cylindrical
TECA200H3-30/100C20CF-R02	●	20	20	0.2	30	100	150	Cylindrical
TECA200H3-30/100C20CF-R04	●	20	20	0.4	30	100	150	Cylindrical
TECA200H3-30/100C20CF-R08	●	20	20	0.8	30	100	150	Cylindrical
TECA200H3-30/100C20CF-R32	●	20	20	3.2	30	100	150	Cylindrical
TECA200H3-30/100C20CF-R40	●	20	20	4	30	100	150	Cylindrical
TECA200H3-30/100C20CF-R50	●	20	20	5	30	100	150	Cylindrical
TECA200H3-30/60C20CF-R02	●	20	20	0.2	30	60	110	Cylindrical
TECA200H3-30/60C20CF-R04	●	20	20	0.4	30	60	110	Cylindrical
TECA200H3-30/60C20CF-R08	●	20	20	0.8	30	60	110	Cylindrical
TECA200H3-30/60C20CF-R16	●	20	20	1.6	30	60	110	Cylindrical
TECA200H3-30/60C20CF-R20	●	20	20	2	30	60	110	Cylindrical
TECA200H3-30/60C20CF-R32	●	20	20	3.2	30	60	110	Cylindrical
TECA200H3-30/60C20CF-R40	●	20	20	4	30	60	110	Cylindrical
TECA200H3-30/60C20CF-R50	●	20	20	5	30	60	110	Cylindrical
TECA200H3-42/80C20CF-R02	●	20	20	0.2	42	80	130	Cylindrical
TECA250H3-38/125C25CF-R02	●	25	25	0.2	38	125	185	Cylindrical
TECA250H3-38/125C25CF-R08	●	25	25	0.8	38	125	185	Cylindrical
TECA250H3-38/125C25CF-R16	●	25	25	1.6	38	125	185	Cylindrical
TECA250H3-38/125C25CF-R20	●	25	25	2	38	125	185	Cylindrical
TECA250H3-38/125C25CF-R40	●	25	25	4	38	125	185	Cylindrical
TECA250H3-38/125C25CF-R50	●	25	25	5	38	125	185	Cylindrical
TECA250H3-38/75C25CF-R02	●	25	25	0.2	38	75	130	Cylindrical
TECA250H3-38/75C25CF-R04	●	25	25	0.4	38	75	130	Cylindrical
TECA250H3-38/75C25CF-R16	●	25	25	1.6	38	75	130	Cylindrical
TECA250H3-38/75C25CF-R20	●	25	25	2	38	75	130	Cylindrical
TECA250H3-38/75C25CF-R32	●	25	25	3.2	38	75	130	Cylindrical
TECA250H3-38/75C25CF-R50	●	25	25	5	38	75	130	Cylindrical
TECA250H3-52/100C25CF-R02	●	25	25	0.2	52	100	156	Cylindrical

VARIABLEMEISTER

TECA**H4**CF-R

4 flute endmill, variable helix and variable pitch, relieved neck type, for aluminium machining (1.5xD, 2xD)

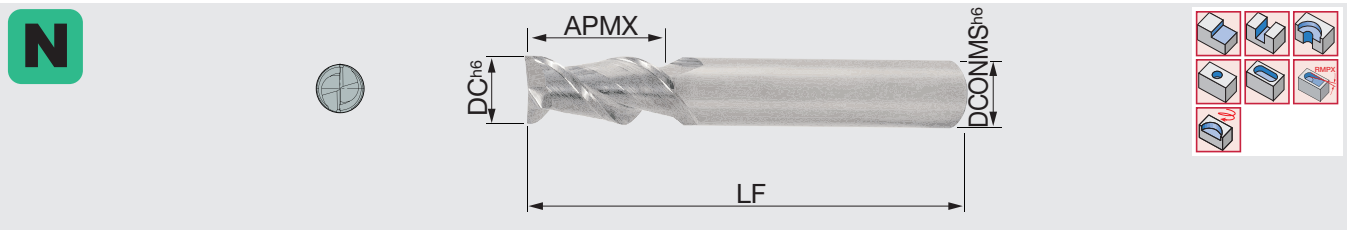


Designation	KS15F	DC	DCONMS	RE	APMX	LH	LF	Shank
TECA060H4-09/30C06CF-R02	●	6	6	0.2	9	30	65	Cylindrical
TECA060H4-12/18C06CF-R02	●	6	6	0.2	12	18	57	Cylindrical
TECA080H4-12/40C08CF-R02	●	8	8	0.2	12	40	79	Cylindrical
TECA080H4-16/24C08CF-R02	●	8	8	0.2	16	24	63	Cylindrical
TECA100H4-15/50C10CF-R02	●	10	10	0.2	15	50	92	Cylindrical
TECA100H4-20/30C10CF-R02	●	10	10	0.2	20	30	72	Cylindrical
TECA120H4-18/60C12CF-R02	●	12	12	0.2	18	60	100	Cylindrical
TECA120H4-24/36C12CF-R02	●	12	12	0.2	24	36	83	Cylindrical
TECA160H4-24/80C16CF-R02	●	16	16	0.2	24	80	128	Cylindrical
TECA160H4-32/48C16CF-R02	●	16	16	0.2	32	48	100	Cylindrical

SOLIDMEISTER

TECA**B2

2 flute slotting endmill, 45° helix angle, for aluminium machining

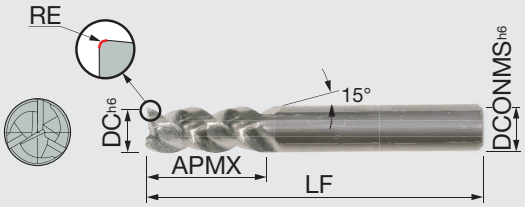


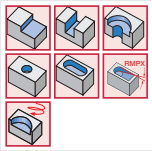
Designation	KS15F	DC	DCONMS	APMX	LF	Shank
TECA040B2-12C06-57	●	4	6	12	57	Cylindrical
TECA050B2-14C06-57	●	5	6	14	57	Cylindrical
TECA060B2-16C06-57	●	6	6	16	57	Cylindrical
TECA080B2-20C08-63	●	8	8	20	63	Cylindrical
TECA100B2-22C10-72	●	10	10	22	72	Cylindrical
TECA120B2-25C12-83	●	12	12	25	83	Cylindrical
TECA160B2-32C16-92	●	16	16	32	92	Cylindrical
TECA200B2-38C20-104	●	20	20	38	104	Cylindrical

Special design for aluminium

TECA**B3

3 flute endmill, 45° helix angle, for aluminium machining





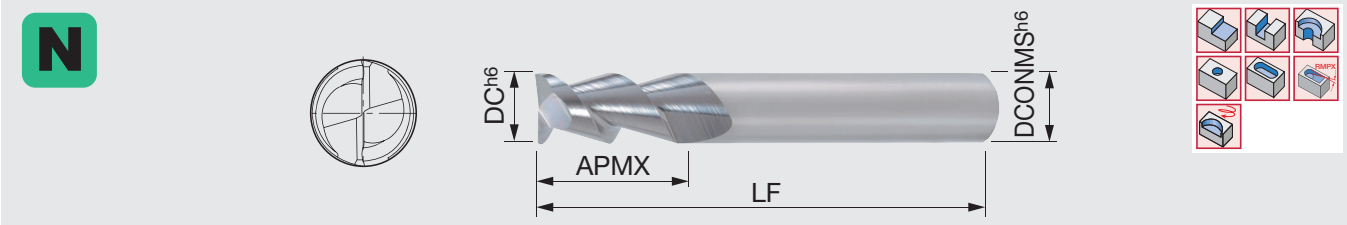
Designation	KS15F	DC	DCONMS	RE	APMX	LF	Shank
TECA040B3-12C06-57	●	4	6	0.1	12	57	Cylindrical
TECA040B3-12W06-57	●	4	6	0.1	12	57	Weldon
TECA050B3-14C06-57	●	5	6	0.2	14	57	Cylindrical
TECA050B3-14W06-57	●	5	6	0.2	14	57	Weldon
TECA060B3-16C06-57	●	6	6	0.2	16	57	Cylindrical
TECA060B3-16W06-57	●	6	6	0.2	16	57	Weldon
TECA080B3-20C08-63	●	8	8	0.2	20	63	Cylindrical
TECA080B3-20C08R30-63	●	8	8	3	20	63	Cylindrical
TECA080B3-20W08-63	●	8	8	0.2	20	63	Weldon
TECA100B3-22C10-72	●	10	10	0.2	22	72	Cylindrical
TECA100B3-22W10-72	●	10	10	0.2	22	72	Weldon
TECA100B3-25C10R30-72	●	10	10	3	25	72	Cylindrical
TECA100B3-25C10R40-72	●	10	10	4	25	72	Cylindrical
TECA120B3-25C12-83	●	12	12	0.2	25	83	Cylindrical
TECA120B3-25W12-83	●	12	12	0.2	25	83	Weldon
TECA120B3-30C12R30-83	●	12	12	3	30	83	Cylindrical
TECA120B3-30C12R40-83	●	12	12	4	30	83	Cylindrical
TECA140B3-30C14-83	●	14	14	0.2	30	83	Cylindrical
TECA140B3-30W14-83	●	14	14	0.2	30	83	Weldon
TECA160B3-32C16-92	●	16	16	0.2	32	92	Cylindrical
TECA160B3-32W16-92	●	16	16	0.2	32	92	Weldon
TECA200B3-38C20-104	●	20	20	0.2	38	104	Cylindrical
TECA200B3-38W20-104	●	20	20	0.2	38	104	Weldon

Special design for aluminium

SOLIDMEISTER

TECA**F2

2 flute slotting endmill, 55° helix angle, for aluminium machining

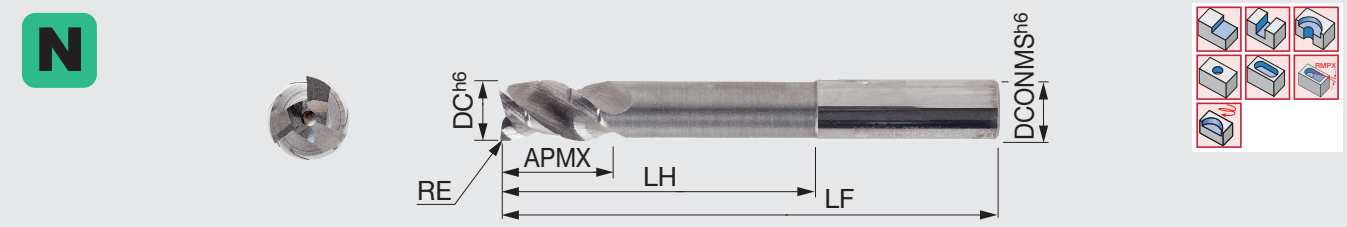


Designation	KS15F	DC	DCONMS	APMX	LF	Shank
TECA040F2-11C04 -50	●	4	4	11	50	Cylindrical
TECA060F2-13C06-57	●	6	6	13	57	Cylindrical
TECA080F2-20C08-63	●	8	8	20	63	Cylindrical
TECA100F2-22C10-72	●	10	10	22	72	Cylindrical
TECA120F2-25C12-83	●	12	12	25	83	Cylindrical
TECA160F2-32C16-92	●	16	16	32	92	Cylindrical
TECA200F2-38C20-104	●	20	20	38	104	Cylindrical
TECA250F2-45C25-121	●	25	25	45	121	Cylindrical

VARIABLEMEISTER SHREDMEISTER

TEAP**H3**CFR**C

3 flute endmill, variable helix, with chip splitter, relieved neck type, for aluminium machining



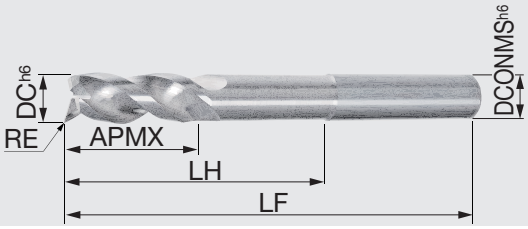
Designation	KS15F	DC	DCONMS	RE	APMX	LH	LF	Oil hole	Shank
TEAP100H3-15/50C10CFR02C	●	10	10	0.2	15	50	92	with	Cylindrical
TEAP100H3-22/40C10CFR02C	●	10	10	0.2	22	40	80	with	Cylindrical
TEAP120H3-18/60C12CFR02C	●	12	12	0.2	18	60	100	with	Cylindrical
TEAP120H3-26/48C12CFR02C	●	12	12	0.2	26	48	93	with	Cylindrical
TEAP160H3-24/80C16CFR02C	●	16	16	0.2	24	80	128	with	Cylindrical
TEAP160H3-34/64C16CFR02C	●	16	16	0.2	34	64	115	with	Cylindrical
TEAP200H3-42/80C20CFR02C	●	20	20	0.2	42	80	130	with	Cylindrical
TEAP200H3-30/100C20CFR02C	●	20	20	0.2	30	100	150	with	Cylindrical

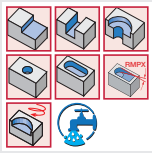
VARIABLEMEISTER

TECA**H3**CFR**C

3 flute endmill, variable helix, center cutting edge, for aluminium machining

N





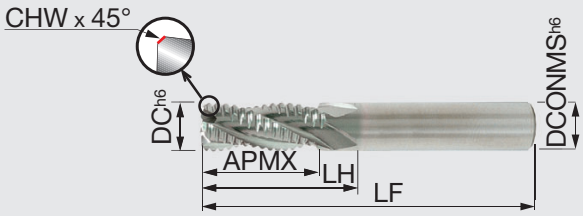
Designation	KS15F	DC	DCONMS	RE	APMX	LH	LF	Oil hole	Shank
TECA060H3-12/18C06CF-R02C	●	6	6	0.2	12	18	57	with	Cylindrical
TECA060H3-12/30C06CF-R02C	●	6	6	0.2	12	30	65	with	Cylindrical
TECA080H3-16/24C08CF-R02C	●	8	8	0.2	16	24	63	with	Cylindrical
TECA080H3-16/40C08CF-R02C	●	8	8	0.2	16	40	79	with	Cylindrical
TECA100H3-20/30C10CF-R02C	●	10	10	0.2	20	30	72	with	Cylindrical
TECA100H3-20/50C10CF-R02C	●	10	10	0.2	20	50	100	with	Cylindrical
TECA120H3-24/36C12CF-R02C	●	12	12	0.2	24	36	83	with	Cylindrical
TECA120H3-24/60C12CF-R02C	●	12	12	0.2	24	60	100	with	Cylindrical
TECA160H3-32/48C16CF-R02C	●	16	16	0.2	32	48	92	with	Cylindrical
TECA160H3-32/80C16CF-R02C	●	16	16	0.2	32	80	128	with	Cylindrical
TECA250H3-50/75C25CF-R02C	●	25	25	0.2	50	75	130	with	Cylindrical

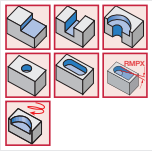
SHREDMEISTER

TERC**E3

3 flute roughing endmill, 38° helix angle, for aluminium alloy and non-ferrous metal

N



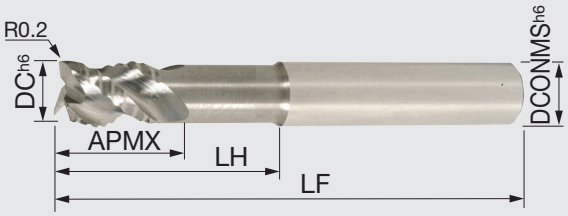


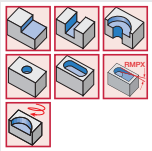
Designation	KS15F	DC	DCONMS	CHW	APMX	LH	LF	Shank
TERC060E3-13C06-57	●	6	6	0.5	13	21	57	Cylindrical
TERC080E3-20C08-63	●	8	8	0.5	20	28	63	Cylindrical
TERC100E3-22C10-72	●	10	10	0.6	22	30	72	Cylindrical
TERC120E3-25C12-83	●	12	12	0.6	25	37	83	Cylindrical
TERC140E3-25C14-83	●	14	14	0.6	25	37	83	Cylindrical
TERC160E3-32C16-92	●	16	16	0.6	32	44	92	Cylindrical
TERC200E3-38C20-104	●	20	20	0.7	38	55	104	Cylindrical
TERC250E3-45C25-121	●	25	25	0.7	45	64	121	Cylindrical

TECR**B3**R

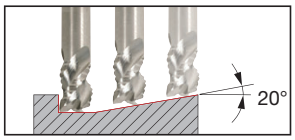
3 flute roughing endmill, 45° helix angle, relieved neck type, for aluminium machining

N





Designation	KS15F	DC	DCONMS	APMX	LH	LF	Shank
TECR060B3-09/21C06R02A57	●	6	6	9	21	57	Cylindrical
TECR060B3-09/21W06R02A57	●	6	6	9	21	57	Weldon
TECR060B3-09/30C06R02A65	●	6	6	9	30	65	Cylindrical
TECR060B3-09/30W06R02A65	●	6	6	9	30	65	Weldon
TECR080B3-12/27C08R02A63	●	8	8	12	27	63	Cylindrical
TECR080B3-12/27W08R02A63	●	8	8	12	27	63	Weldon
TECR080B3-12/40C08R02A78	●	8	8	12	40	78	Cylindrical
TECR080B3-12/40W08R02A78	●	8	8	12	40	78	Weldon
TECR100B3-12/31C10R02A72	●	10	10	12	31	72	Cylindrical
TECR100B3-12/31W10R02A72	●	10	10	12	31	72	Weldon
TECR100B3-12/50C10R02A100	●	10	10	12	50	100	Cylindrical
TECR100B3-12/50W10R02A100	●	10	10	12	50	100	Weldon
TECR120B3-12/37C12R02A83	●	12	12	12	37	83	Cylindrical
TECR120B3-12/37W12R02A83	●	12	12	12	37	83	Weldon
TECR120B3-14/55C12R02A100	●	12	12	14	55	100	Cylindrical
TECR120B3-14/55W12R02A100	●	12	12	14	55	100	Weldon
TECR160B3-14/43C16R02A92	●	16	16	14	43	92	Cylindrical
TECR160B3-14/43W16R02A92	●	16	16	14	43	92	Weldon
TECR160B3-18/80C16R02A150	●	16	16	18	80	150	Cylindrical
TECR160B3-18/80W16R02A150	●	16	16	18	80	150	Weldon
TECR200B3-17/53C20R02A104	●	20	20	17	53	104	Cylindrical
TECR200B3-17/53W20R02A104	●	20	20	17	53	104	Weldon
TECR200B3-22/80C20R02A150	●	20	20	22	80	150	Cylindrical
TECR200B3-22/80W20R02A150	●	20	20	22	80	150	Weldon

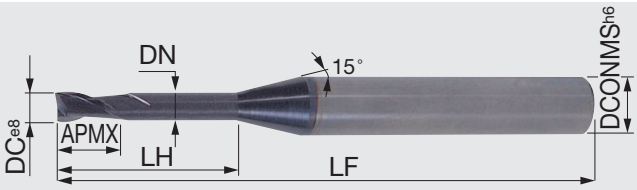


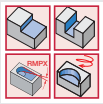
Rampdown angle

TEC**A2

2 flute rib processing endmill, 30° helix angle, for hardened steel up to 55 HRC

H



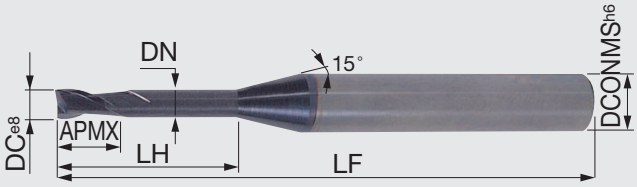


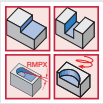
Designation	AH750	DC	DCONMS	DN	APMX	LH	LF	Shank
TEC004A2-006/02C4M45	●	0.4	4	0.37	0.6	2	45	Cylindrical
TEC004A2-006/04C4M45	●	0.4	4	0.37	0.6	4	45	Cylindrical
TEC005A2-007/02C4M45	●	0.5	4	0.45	0.7	2	45	Cylindrical
TEC005A2-007/04C4M45	●	0.5	4	0.45	0.7	4	45	Cylindrical
TEC005A2-007/06C4M45	●	0.5	4	0.45	0.7	6	45	Cylindrical
TEC006A2-009/02C4M45	●	0.6	4	0.55	0.9	2	45	Cylindrical
TEC006A2-009/04C4M45	●	0.6	4	0.55	0.9	4	45	Cylindrical
TEC006A2-009/06C4M45	●	0.6	4	0.55	0.9	6	45	Cylindrical
TEC007A2-010/02C4M45	●	0.7	4	0.65	1	2	45	Cylindrical
TEC008A2-012/04C4M45	●	0.8	4	0.75	1.2	4	45	Cylindrical
TEC008A2-012/06C4M45	●	0.8	4	0.75	1.2	6	45	Cylindrical
TEC008A2-012/08C4M45	●	0.8	4	0.75	1.2	8	45	Cylindrical
TEC009A2-0135/06C4M45	●	0.9	4	0.85	1.35	6	45	Cylindrical
TEC009A2-0135/08C4M45	●	0.9	4	0.85	1.35	8	45	Cylindrical
TEC009A2-0135/10C4M45	●	0.9	4	0.85	1.35	10	45	Cylindrical
TEC010A2-015/04C4M45	●	1	4	0.97	1.5	4	45	Cylindrical
TEC010A2-015/06C4M45	●	1	4	0.97	1.5	6	45	Cylindrical
TEC010A2-015/08C4M45	●	1	4	0.95	1.5	8	45	Cylindrical
TEC010A2-015/10C4M45	●	1	4	0.95	1.5	10	45	Cylindrical
TEC010A2-015/12C4M45	●	1	4	0.93	1.5	12	45	Cylindrical
TEC010A2-015/16C4M50	●	1	4	0.93	1.5	16	50	Cylindrical
TEC012A2-018/06C4M45	●	1.2	4	1.17	1.8	6	45	Cylindrical
TEC012A2-018/08C4M45	●	1.2	4	1.15	1.8	8	45	Cylindrical
TEC012A2-018/10C4M45	●	1.2	4	1.15	1.8	10	45	Cylindrical
TEC012A2-018/16C4M50	●	1.2	4	1.13	1.8	16	50	Cylindrical
TEC014A2-021/06C4M45	●	1.4	4	1.35	2.1	6	45	Cylindrical
TEC014A2-021/08C4M45	●	1.4	4	1.35	2.1	8	45	Cylindrical
TEC014A2-021/10C4M45	●	1.4	4	1.35	2.1	10	45	Cylindrical
TEC015A2-023/06C4M45	●	1.5	4	1.47	2.3	6	45	Cylindrical
TEC015A2-023/08C4M45	●	1.5	4	1.45	2.3	8	45	Cylindrical
TEC015A2-023/10C4M45	●	1.5	4	1.45	2.3	10	45	Cylindrical
TEC015A2-023/12C4M45	●	1.5	4	1.43	2.3	12	45	Cylindrical
TEC015A2-023/16C4M50	●	1.5	4	1.41	2.3	16	50	Cylindrical

TEC**A2

2 flute rib processing endmill, 30° helix angle, for hardened steel up to 55 HRC

H

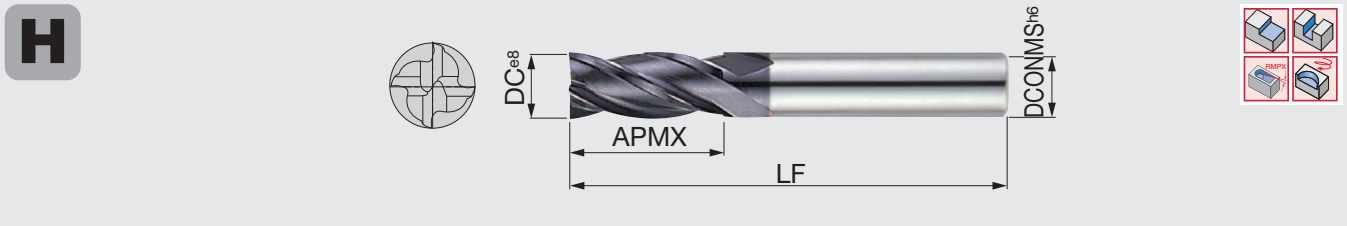




Designation	AH750	DC	DCONMS	DN	APMX	LH	LF	Shank
TEC015A2-023/18C4M55	●	1.5	4	1.41	2.3	18	55	Cylindrical
TEC015A2-023/20C4M55	●	1.5	4	1.41	2.3	20	55	Cylindrical
TEC016A2-024/06C4M45	●	1.6	4	1.57	2.4	6	45	Cylindrical
TEC016A2-024/08C4M45	●	1.6	4	1.55	2.4	8	45	Cylindrical
TEC016A2-024/10C4M45	●	1.6	4	1.55	2.4	10	45	Cylindrical
TEC016A2-024/18C4M55	●	1.6	4	1.53	2.4	18	55	Cylindrical
TEC016A2-024/20C4M55	●	1.6	4	1.53	2.4	20	55	Cylindrical
TEC016A2-024/26C4M60	●	1.6	4	1.53	2.4	26	60	Cylindrical
TEC018A2-027/06C4M45	●	1.8	4	1.77	2.7	6	45	Cylindrical
TEC018A2-027/08C4M45	●	1.8	4	1.75	2.7	8	45	Cylindrical
TEC018A2-027/10C4M45	●	1.8	4	1.75	2.7	10	45	Cylindrical
TEC018A2-027/12C4M45	●	1.8	4	1.73	2.7	12	45	Cylindrical
TEC020A2-030/06C4M45	●	2	4	1.97	3	6	45	Cylindrical
TEC020A2-030/08C4M45	●	2	4	1.95	3	8	45	Cylindrical
TEC020A2-030/10C4M45	●	2	4	1.95	3	10	45	Cylindrical
TEC020A2-030/12C4M45	●	2	4	1.93	3	12	45	Cylindrical
TEC020A2-030/16C4M50	●	2	4	1.91	3	16	50	Cylindrical
TEC020A2-030/20C4M55	●	2	4	1.89	3	20	55	Cylindrical
TEC020A2-030/30C4M70	●	2	4	1.89	3	30	70	Cylindrical
TEC025A2-037/08C4M45	●	2.5	4	2.4	3.7	8	45	Cylindrical
TEC025A2-037/10C4M45	●	2.5	4	2.4	3.7	10	45	Cylindrical
TEC025A2-037/12C4M45	●	2.5	4	2.4	3.7	12	45	Cylindrical
TEC025A2-037/16C4M55	●	2.5	4	2.4	3.7	16	55	Cylindrical
TEC025A2-037/20C4M60	●	2.5	4	2.4	3.7	20	60	Cylindrical
TEC025A2-037/30C4M80	●	2.5	4	2.4	3.7	30	80	Cylindrical
TEC030A2-045/08C6M45	●	3	6	2.85	4.5	8	45	Cylindrical
TEC030A2-045/10C6M45	●	3	6	2.85	4.5	10	45	Cylindrical
TEC030A2-045/12C6M45	●	3	6	2.85	4.5	12	45	Cylindrical
TEC030A2-045/16C6M55	●	3	6	2.85	4.5	16	55	Cylindrical
TEC030A2-045/20C6M60	●	3	6	2.85	4.5	20	60	Cylindrical
TEC030A2-045/30C6M70	●	3	6	2.85	4.5	30	70	Cylindrical
TEC030A2-045/40C6M90	●	3	6	2.85	4.5	40	90	Cylindrical

TEC**A4

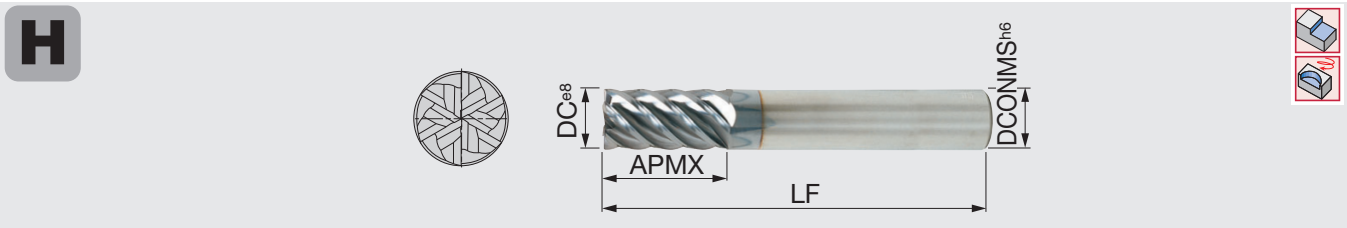
4 flute endmill, 30° helix angle, for hardened steel up to 65 HRC



Designation	AH750	DC	DCONMS	APMX	LF	Shank
TEC040A4-11C06-50	●	4	6	11	50	Cylindrical
TEC050A4-13C06-50	●	5	6	13	50	Cylindrical
TEC060A4-13C06-50	●	6	6	13	50	Cylindrical
TEC070A4-16C08-63	●	7	8	16	63	Cylindrical
TEC080A4-19C08-63	●	8	8	19	63	Cylindrical
TEC090A4-19C10-72	●	9	10	19	72	Cylindrical
TEC100A4-22C10-72	●	10	10	22	72	Cylindrical
TEC120A4-26C12-73	●	12	12	26	73	Cylindrical
TEC140A4-26C14-83	●	14	14	26	83	Cylindrical
TEC160A4-32C16-92	●	16	16	32	92	Cylindrical
TEC180A4-32C18-100	●	18	18	32	100	Cylindrical
TEC200A4-38C20-104	●	20	20	38	104	Cylindrical

TECH**B6

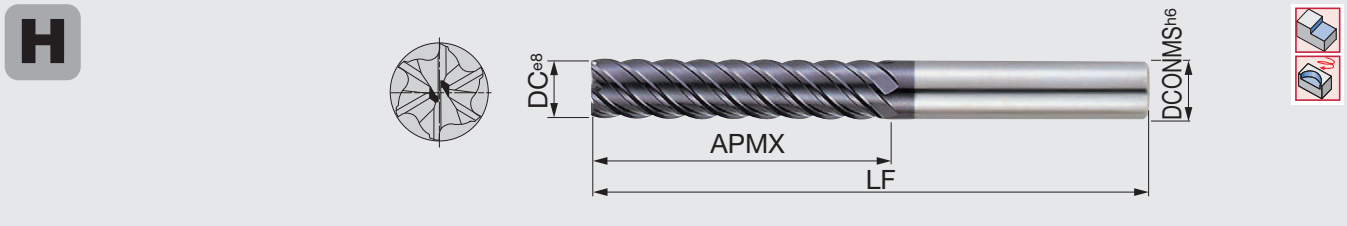
6 flute endmill, 45° helix angle, for hardened steel up to 65 HRC



Designation	AH750	DC	DCONMS	APMX	LF	Shank
TECH060B6-16C06-57	●	6	6	16	57	Cylindrical
TECH080B6-20C08-63	●	8	8	20	63	Cylindrical
TECH100B6-22C10-72	●	10	10	22	72	Cylindrical
TECH120B6-25C12-83	●	12	12	25	83	Cylindrical
TECH160B6-32C16-92	●	16	16	32	92	Cylindrical
TECH200B6-38C20-104	●	20	20	38	104	Cylindrical

TEC**B6

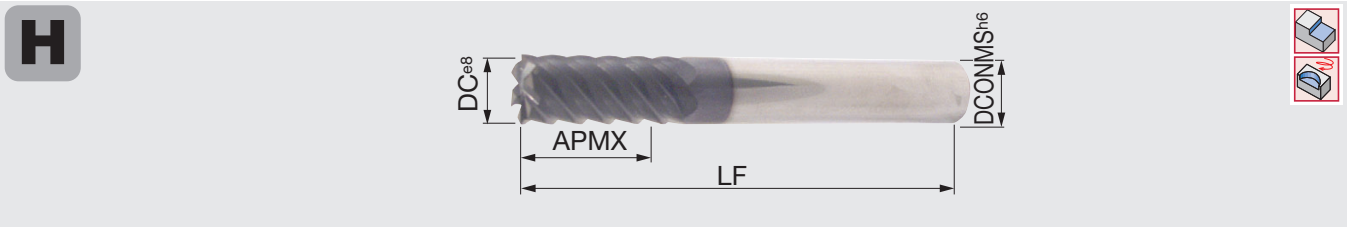
6 flute endmill, 45° helix angle, extra long neck type, for hardened steel up to 65 HRC



Designation	AH750	DC	DCONMS	APMX	LF	Shank
TEC060B6-26C06-70	●	6	6	26	70	Cylindrical
TEC080B6-36C08-90	●	8	8	36	90	Cylindrical
TEC100B6-46C10-100	●	10	10	46	100	Cylindrical
TEC120B6-56C12-110	●	12	12	56	110	Cylindrical
TEC160B6-66C16-130	●	16	16	66	130	Cylindrical
TEC200B6-76C20-140	●	20	20	76	140	Cylindrical
TEC250B6-92C25-180	●	25	25	92	180	Cylindrical

TEC**D6

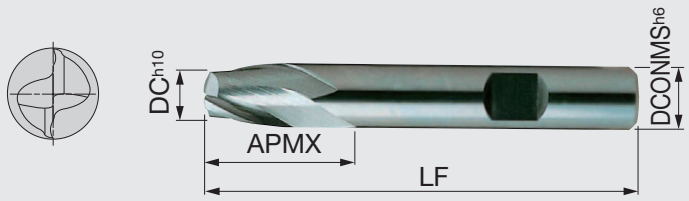
6 flute endmill, 50° helix angle, for hardened steel up to 65 HRC

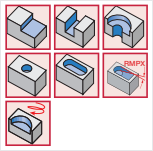


Designation	AH750	DC	DCONMS	APMX	LF	Shank
TEC060D6-13C06H57	●	6	6	13	57	Cylindrical
TEC080D6-20C08H63	●	8	8	20	63	Cylindrical
TEC100D6-22C10H72	●	10	10	22	72	Cylindrical
TEC120D6-25C12H83	●	12	12	25	83	Cylindrical
TEC140D6-30C14H83	●	14	14	30	83	Cylindrical
TEC160D6-32C16H92	●	16	16	32	92	Cylindrical
TEC200D6-38C20H104	●	20	20	38	104	Cylindrical

TEC**A2**E

2 flute endmill, 30° helix angle, short type

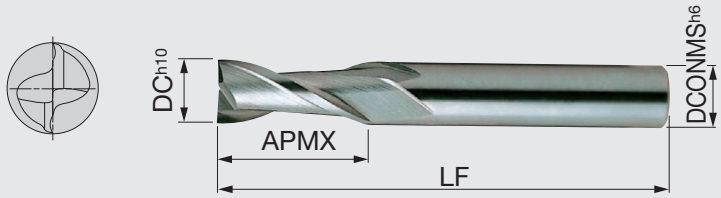


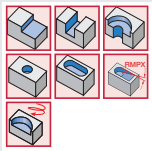


Designation	AH725	DC	DCONMS	APMX	LF	Shank
TEC020A2-03W06-E50	●	2	6	3	50	Weldon
TEC030A2-04W06-E50	●	3	6	4	50	Weldon
TEC040A2-05W06-E54	●	4	6	5	54	Weldon
TEC045A2-05W06-E54	●	4.5	6	5	54	Weldon
TEC050A2-06W06-E54	●	5	6	6	54	Weldon
TEC060A2-07W06-E54	●	6	6	7	54	Weldon
TEC080A2-09W08-E58	●	8	8	9	58	Weldon
TEC100A2-11W10-E66	●	10	10	11	66	Weldon
TEC180A2-18W18-E84	●	18	18	18	84	Weldon
TEC200A2-20W20-E92	●	20	20	20	92	Weldon

TEC**A2**E

2 flute endmill, 30° helix angle



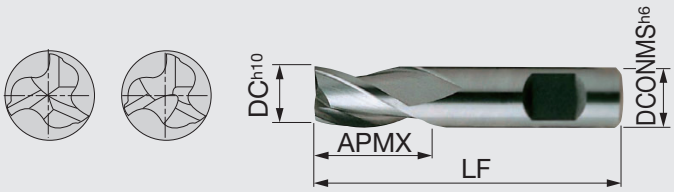


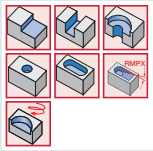
Designation	AH725	DC	DCONMS	APMX	LF	Shank
TEC010A2-03C04-E50	●	1	4	3	50	Cylindrical
TEC015A2-045C04-E50	●	1.5	4	4.5	50	Cylindrical
TEC020A2-08C02-E32	●	2	2	8	32	Cylindrical
TEC025A2-08C025-E32	●	2.5	2.5	8	32	Cylindrical
TEC030A2-12C03-E38	●	3	3	12	38	Cylindrical
TEC035A2-12C035-E32	●	3.5	3.5	12	32	Cylindrical
TEC040A2-12C04-E50	●	4	4	12	50	Cylindrical
TEC050A2-14C05-E50	●	5	5	14	50	Cylindrical
TEC055A2-16C055-E50	●	5.5	5.5	16	50	Cylindrical
TEC060A2-16C06-E50	●	6	6	16	50	Cylindrical
TEC070A2-20C07-E60	●	7	7	20	60	Cylindrical
TEC080A2-20C08-E63	●	8	8	20	63	Cylindrical
TEC090A2-20C09-E60	●	9	9	20	60	Cylindrical
TEC100A2-22C10-E72	●	10	10	22	72	Cylindrical
TEC120A2-22C12-E73	●	12	12	22	73	Cylindrical
TEC140A2-25C14-E75	●	14	14	25	75	Cylindrical
TEC160A2-25C16-E92	●	16	16	25	92	Cylindrical
TEC200A2-32C20-E100	●	20	20	32	100	Cylindrical

ECOMEISTER TUNGALOY

TEC**A/E3**E

3 flute endmill, 30° or 38° helix angle, short type



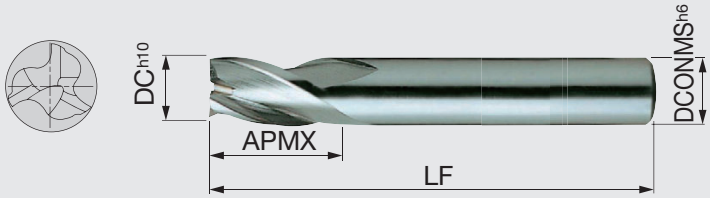


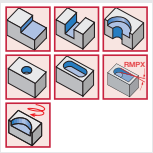
Designation	AH725	DC	DCONMS	APMX	LF	FHA	Shank
TEC020E3-04C06-E35	●	2	6	4	35	38°	Cylindrical
TEC025E3-05C06-E36	●	2.5	6	5	36	38°	Cylindrical
TEC030E3-05C06-E36	●	3	6	5	36	38°	Cylindrical
TEC035A3-06W06-E37	●	3.5	6	6	37	30°	Weldon
TEC040E3-07C06-E39	●	4	6	7	39	38°	Cylindrical
TEC045A3-08W06-E38	●	4.5	6	8	38	30°	Weldon
TEC050A3-08C06-E39	●	5	6	8	39	30°	Cylindrical
TEC055A3-08W06-E39	●	5.5	6	8	39	30°	Weldon
TEC060E3-08C06-E39	●	6	6	8	39	38°	Cylindrical
TEC070A3-10W08-E42	●	7	8	10	42	30°	Weldon
TEC080E3-11C08-E43	●	8	8	11	43	38°	Cylindrical
TEC090A3-11W10-E48	●	9	10	11	48	30°	Weldon
TEC100E3-13C10-E50	●	10	10	13	50	38°	Cylindrical

ECOMEISTER TUNGALOY

TEC**A/E3**E

3 flute endmill, 30° or 38° helix angle

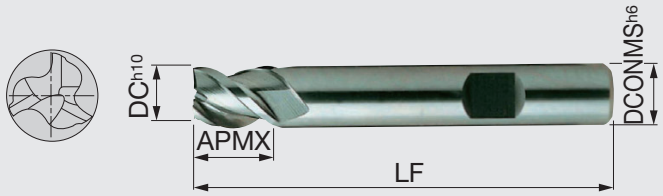


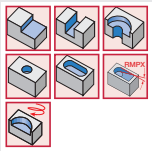


Designation	AH725	DC	DCONMS	APMX	LF	FHA	Shank
TEC020E3-08C02-E32	●	2	2	8	32	38°	Cylindrical
TEC030E3-12C03-E38	●	3	3	12	38	38°	Cylindrical
TEC040E3-12C04-E50	●	4	4	12	50	38°	Cylindrical
TEC050E3-14C05-E50	●	5	5	14	50	38°	Cylindrical
TEC060E3-16C06-E50	●	6	6	16	50	38°	Cylindrical
TEC070E3-20C07-E60	●	7	7	20	60	38°	Cylindrical
TEC080E3-20C08-E63	●	8	8	20	63	38°	Cylindrical
TEC090A3-20C09-E60	●	9	9	20	60	30°	Cylindrical
TEC100E3-22C10-E72	●	10	10	22	72	38°	Cylindrical
TEC120E3-22C12-E73	●	12	12	22	73	38°	Cylindrical
TEC140A3-25C14-E75	●	14	14	25	75	30°	Cylindrical
TEC160A3-25C16-E75	●	16	16	25	75	30°	Cylindrical

TEC**B3**W

3 flute endmill, 45° helix angle, short type





Designation	AH725	DC	DCONMS	APMX	LF	Shank
TEC020B3-03W06-50	●	2	6	3	50	Weldon
TEC030B3-04W06-50	●	3	6	4	50	Weldon
TEC040B3-05W06-54	●	4	6	5	54	Weldon
TEC050B3-06W06-54	●	5	6	6	54	Weldon
TEC060B3-07W06-54	●	6	6	7	54	Weldon
TEC080B3-09W08-58	●	8	8	9	58	Weldon
TEC100B3-11W10-66	●	10	10	11	66	Weldon
TEC120B3-12W12-73	●	12	12	12	73	Weldon
TEC140B3-14W14-75	●	14	14	14	75	Weldon
TEC160B3-16W16-82	●	16	16	16	82	Weldon
TEC200B3-20W20-92	●	20	20	20	92	Weldon

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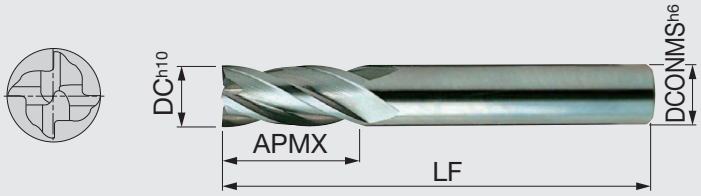
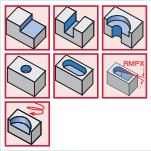
TEC**A4**E

4 flute endmill, 30° helix angle

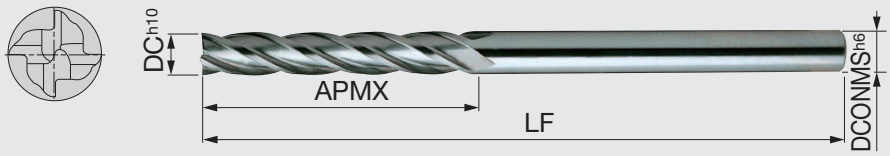




Designation	AH725	DC	DCONMS	APMX	LF	Shank
TEC020A4-08C02-E32	●	2	2	8	32	Cylindrical
TEC025A4-08C025-E32	●	2.5	2.5	8	32	Cylindrical
TEC030A4-12C03-E38	●	3	3	12	38	Cylindrical
TEC040A4-12C04-E50	●	4	4	12	50	Cylindrical
TEC050A4-14C05-E50	●	5	5	14	50	Cylindrical
TEC055A4-16C055-E50	●	5.5	5.5	16	50	Cylindrical
TEC060A4-16C06-E50	●	6	6	16	50	Cylindrical
TEC070A4-20C07-E60	●	7	7	20	60	Cylindrical
TEC080A4-20C08-E60	●	8	8	20	60	Cylindrical
TEC090A4-20C09-E60	●	9	9	20	60	Cylindrical
TEC100A4-22C10-E72	●	10	10	22	72	Cylindrical
TEC120A4-22C12-E73	●	12	12	22	73	Cylindrical
TEC140A4-25C14-E83	●	14	14	25	83	Cylindrical
TEC160A4-25C16-E82	●	16	16	25	82	Cylindrical
TEC200A4-32C20-E104	●	20	20	32	104	Cylindrical

TEC**A4**E

4 flute endmill, 30° helix angle, extra long neck type



Designation	AH725	DC	DCONMS	APMX	LF	Shank
TEC030A4-30C03-E75	●	3	3	30	75	Cylindrical
TEC040A4-30C04-E75	●	4	4	30	75	Cylindrical
TEC050A4-40C05-E100	●	5	5	40	100	Cylindrical
TEC060A4-50C06-E150	●	6	6	50	150	Cylindrical
TEC080A4-50C08-E150	●	8	8	50	150	Cylindrical
TEC100A4-60C10-E150	●	10	10	60	150	Cylindrical
TEC120A4-75C12-E150	●	12	12	75	150	Cylindrical
TEC140A4-65C14-E150	●	14	14	65	150	Cylindrical
TEC160A4-65C16-E150	●	16	16	65	150	Cylindrical
TEC200A4-65C20-E150	●	20	20	65	150	Cylindrical

TEB**E4L**CF

4 flute chatter dampening ball nose endmill (2xD), 38°helix angle, variable pitch, relieved neck type, for high hardened metal

Designation	AH710	DC	DCONMS	APMX	LH	LF	Shank
TEB030E4L-06/09C06CFH57	●	3	6	6	9	57	Cylindrical
TEB040E4L-08/12C06CFH57	●	4	6	8	12	57	Cylindrical
TEB050E4L-10/15C06CFH57	●	5	6	10	15	57	Cylindrical
TEB060E4L-12/18C06CFH57	●	6	6	12	18	57	Cylindrical
TEB080E4L-16/24C08CFH63	●	8	8	16	24	63	Cylindrical
TEB100E4L-20/30C10CFH72	●	10	10	20	30	72	Cylindrical
TEB120E4L-24/36C12CFH83	●	12	12	24	36	83	Cylindrical
TEB160E4L-32/48C16CFH92	●	16	16	32	48	92	Cylindrical

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TEBRF**T3/4

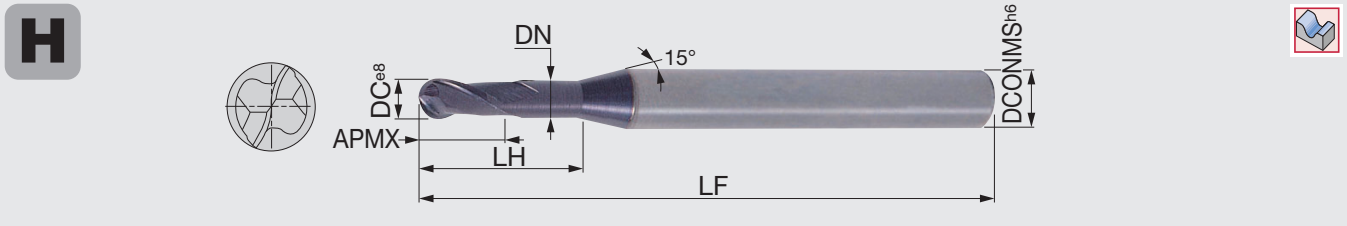
3 or 4 flute ball nose roughing endmill, 20° helix angle, long edge type, for hardened steel up to 55 HRC

H

Designation	AH750	DC	DCONMS	RE	APMX	LF	NOF	Shank
TEBRF060T3-16C06M57	●	6	6	3	16	57	3	Cylindrical
TEBRF080T3-16C08M63	●	8	8	4	16	63	3	Cylindrical
TEBRF100T4-22C10M72	●	10	10	5	22	72	4	Cylindrical
TEBRF120T4-26C12M83	●	12	12	6	26	83	4	Cylindrical
TEBRF140T4-26C14M83	●	14	14	7	26	83	4	Cylindrical
TEBRF160T4-32C16M92	●	16	16	8	32	92	4	Cylindrical
TEBRF180T4-32C18M92	●	18	18	9	32	92	4	Cylindrical
TEBRF200T4-38C20M104	●	20	20	10	38	104	4	Cylindrical

TEB**A2-**C**M

2 flute ball nose rib processing endmill, 30° helix angle, for hardened steel up to 55 HRC



Designation	AH750	DC	DCONMS	DN	APMX	LH	LF	Shank
TEB004A2-006/02C4M45	●	0.4	4	0.36	0.6	2	45	Cylindrical
TEB004A2-006/03C4M45	●	0.4	4	0.36	0.6	3	45	Cylindrical
TEB005A2-007/02C4M45	●	0.5	4	0.45	0.7	2	45	Cylindrical
TEB005A2-007/04C4M45	●	0.5	4	0.45	0.7	4	45	Cylindrical
TEB005A2-007/06C4M45	●	0.5	4	0.45	0.7	6	45	Cylindrical
TEB006A2-009/02C4M45	●	0.6	4	0.55	0.9	2	45	Cylindrical
TEB006A2-009/04C4M45	●	0.6	4	0.55	0.9	4	45	Cylindrical
TEB008A2-012/04C4M45	●	0.8	4	0.75	1.2	4	45	Cylindrical
TEB008A2-012/06C4M45	●	0.8	4	0.75	1.2	6	45	Cylindrical
TEB010A2-015/04C4M45	●	1	4	0.97	1.5	4	45	Cylindrical
TEB010A2-015/06C4M45	●	1	4	0.97	1.5	6	45	Cylindrical
TEB010A2-015/08C4M45	●	1	4	0.95	1.5	8	45	Cylindrical
TEB010A2-015/10C4M45	●	1	4	0.95	1.5	10	45	Cylindrical
TEB010A2-015/12C4M45	●	1	4	0.93	1.5	12	45	Cylindrical
TEB010A2-015/16C4M50	●	1	4	0.93	1.5	16	50	Cylindrical
TEB012A2-018/08C4M45	●	1.2	4	1.17	1.8	8	45	Cylindrical
TEB012A2-018/12C4M45	●	1.2	4	1.13	1.8	12	45	Cylindrical
TEB014A2-021/08C4M45	●	1.4	4	1.35	2.1	8	45	Cylindrical
TEB014A2-021/16C4M50	●	1.4	4	1.31	2.1	16	50	Cylindrical
TEB015A2-023/06C4M45	●	1.5	4	1.47	2.3	6	45	Cylindrical
TEB015A2-023/08C4M45	●	1.5	4	1.45	2.3	8	45	Cylindrical
TEB015A2-023/10C4M45	●	1.5	4	1.45	2.3	10	45	Cylindrical
TEB015A2-023/12C4M45	●	1.5	4	1.43	2.3	12	45	Cylindrical
TEB015A2-023/20C4M55	●	1.5	4	1.39	2.3	20	55	Cylindrical
TEB016A2-024/08C4M45	●	1.6	4	1.55	2.4	8	45	Cylindrical
TEB016A2-024/12C4M45	●	1.6	4	1.53	2.4	12	45	Cylindrical

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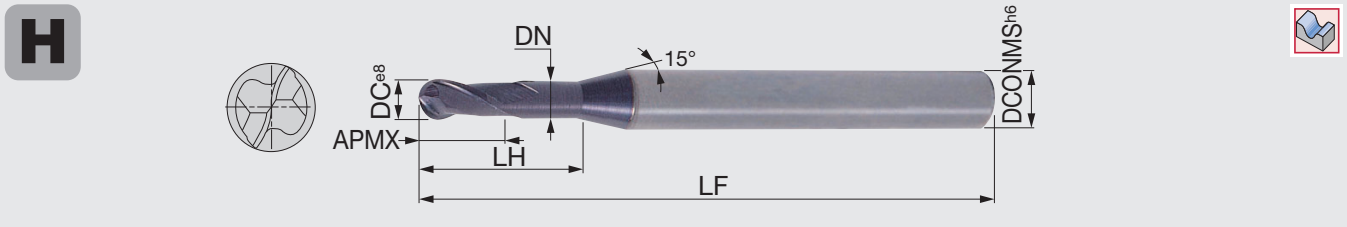
TEB**A2-**C**M

2 flute ball nose rib processing endmill, 30° helix angle, for hardened steel up to 55 HRC



Designation	AH750	DC	DCONMS	DN	APMX	LH	LF	Shank
TEB018A2-027/08C4M45	●	1.8	4	1.75	2.7	8	45	Cylindrical
TEB018A2-027/12C4M45	●	1.8	4	1.73	2.7	12	45	Cylindrical
TEB018A2-027/16C4M50	●	1.8	4	1.71	2.7	16	50	Cylindrical
TEB020A2-030/06C4M45	●	2	4	1.97	3	6	45	Cylindrical
TEB020A2-030/10C4M45	●	2	4	1.93	3	10	45	Cylindrical
TEB020A2-030/12C4M50	●	2	4	1.93	3	12	50	Cylindrical
TEB020A2-030/16C4M50	●	2	4	1.91	3	16	50	Cylindrical
TEB020A2-030/20C4M55	●	2	4	1.89	3	20	55	Cylindrical
TEB020A2-030/30C4M70	●	2	4	1.89	3	30	70	Cylindrical
TEB030A2-045/08C6M50	●	3	6	2.85	4.5	8	50	Cylindrical
TEB030A2-045/10C6M50	●	3	6	2.85	4.5	10	50	Cylindrical
TEB030A2-045/12C6M50	●	3	6	2.85	4.5	12	50	Cylindrical
TEB030A2-045/16C6M55	●	3	6	2.85	4.5	16	55	Cylindrical
TEB030A2-045/20C6M60	●	3	6	2.85	4.5	20	60	Cylindrical
TEB030A2-045/30C6M70	●	3	6	2.85	4.5	30	70	Cylindrical
TEB030A2-045/35C6M80	●	3	6	2.85	4.5	35	80	Cylindrical

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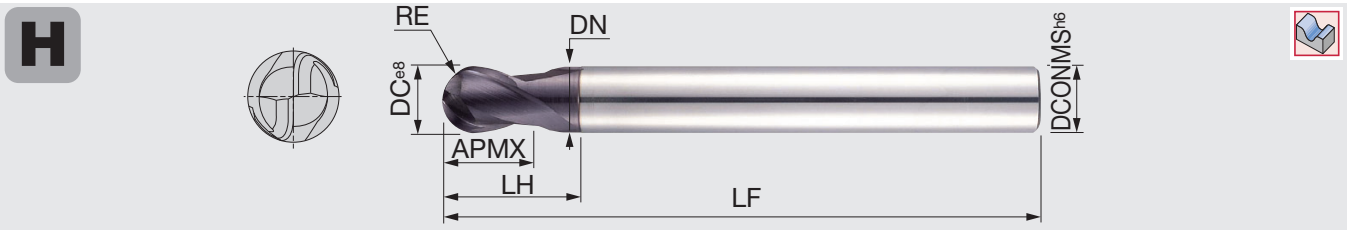
TEB**A2-**C**H

2 flute ball nose endmill, 30° helix angle, short type, for hardened steel with 55 to 70 HRC



Designation	AH750	DC	DCONMS	DN	RE±0.01	APMX	LH	LF	Shank
TEB010A2-01/02C04H50	●	1	4	0.95	0.5	1	2.2	50	Cylindrical
TEB020A2-02/04C06H50	●	2	6	1.9	1	2	4	50	Cylindrical
TEB030A2-03/06C06H60	●	3	6	2.9	1.5	3	6	60	Cylindrical
TEB040A2-04/08C06H70	●	4	6	3.9	2	4	8	70	Cylindrical
TEB050A2-05/10C06H80	●	5	6	4.9	2.5	5	10	80	Cylindrical
TEB060A2-06/12C06H90	●	6	6	5.9	3	6	12	90	Cylindrical
TEB080A2-08/16C08H100	●	8	8	7.9	4	8	16	100	Cylindrical
TEB100A2-10/20C10H100	●	10	10	9.9	5	10	20	100	Cylindrical
TEB120A2-12/24C12H110	●	12	12	11.9	6	12	24	110	Cylindrical
TEB200A2-20/40C20H160	●	20	20	19.8	10	20	40	160	Cylindrical

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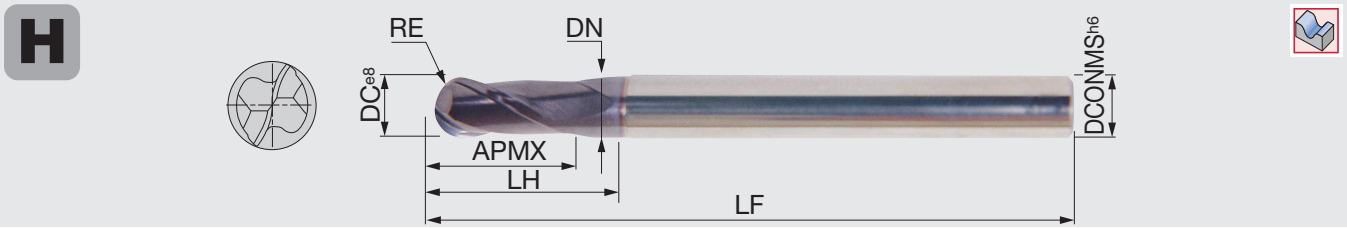
TEB**A2-**C**M...

2 flute ball nose rib processing endmill, 30° helix angle, for hardened steel up to 65 HRC



Designation	AH750	DC	DCONMS	DN	RE	APMX	LH	LF	Shank
TEB030A2-08C03M100	●	3	3	-	1.5	8	-	100	Cylindrical
TEB030A2-08C06M70	●	3	6	-	1.5	8	-	70	Cylindrical
TEB040A2-08C06M70	●	4	6	-	2	8	-	70	Cylindrical
TEB040A2-08C04M100	●	4	4	-	2	8	-	100	Cylindrical
TEB050A2-12C06M80	●	5	6	-	2.5	12	-	80	Cylindrical
TEB060A2-10C06M120	●	6	6	-	3	10	-	120	Cylindrical
TEB060A2-12/22C06M80	●	6	6	5.8	3	12	22	80	Cylindrical
TEB080A2-14/27C08M90	●	8	8	7.8	4	14	27	90	Cylindrical
TEB100A2-18/31C10M100	●	10	10	9.8	5	18	31	100	Cylindrical
TEB120A2-22/35C12M110	●	12	12	11.8	6	22	35	110	Cylindrical
TEB160A2-30/50C16M140	●	16	16	15.8	8	30	50	140	Cylindrical

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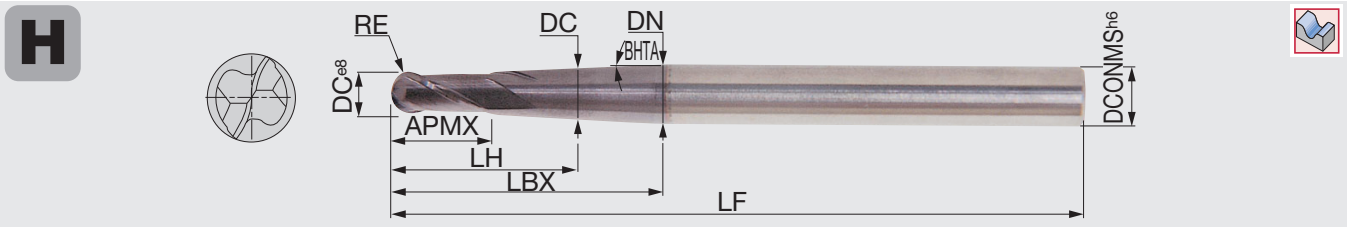
TEB**A2-**C**M...

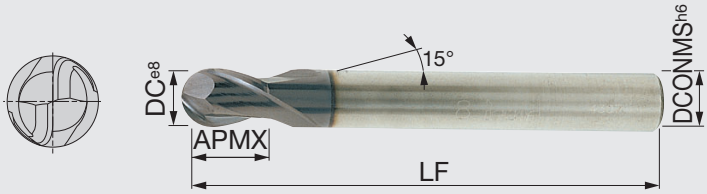
2 flute ball nose endmill, tapered neck type, for hardened steel up to 65 HRC



Designation	AH750	DC	DCONMS	DN	RE±0.01	APMX	LH	LBX	BHTA	LF	Shank
TEB010A2-02/04/3.0C06M80	●	1	6	5	0.5	2	4	42	3°	80	Cylindrical
TEB020A2-04/06/3.0C06M80	●	2	6	5.7	1	4	6	41	3°	80	Cylindrical
TEB030A2-06/08/3.0C06M70	●	3	6	5.6	1.5	6	8	32	3°	70	Cylindrical
TEB040A2-08/10/1.5C06M90	●	4	6	6	2	8	10	49	1.5°	90	Cylindrical
TEB050A2-10/12/1.5C08M110	●	5	8	7.6	2.5	10	12	61	1.5°	110	Cylindrical
TEB060A2-12/15/1.5C08M110	●	6	8	8	3	12	15	53	1.5°	110	Cylindrical
TEB080A2-14/17/1.5C10M120	●	8	10	10	4	14	17	55	1.5°	120	Cylindrical
TEB100A2-18/21/1.5C12M130	●	10	12	12	5	18	21	59	1.5°	130	Cylindrical

TEB**A2-**C**-...

2 flute ball nose endmill, 30° helix angle, short type

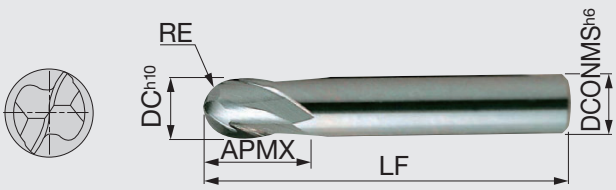


Designation	AH750	AH725	DC	DCONMS	APMX	LF	Shank
TEB030A2-05C06-57	●	●	3	6	5	57	Cylindrical
TEB040A2-07C06-57	●	●	4	6	7	57	Cylindrical
TEB050A2-08C06-57	●	●	5	6	8	57	Cylindrical
TEB060A2-08C06-57	●	●	6	6	8	57	Cylindrical
TEB080A2-11C08-63	●	●	8	8	11	63	Cylindrical
TEB100A2-13C10-72	●	●	10	10	13	72	Cylindrical
TEB120A2-14C12-83	●	●	12	12	14	83	Cylindrical
TEB160A2-16C16-92	●	●	16	16	16	92	Cylindrical
TEB200A2-20C20-104	●	●	20	20	20	104	Cylindrical

Short and stable design for profiling (roughing).

TEB**A2**E

2 flute ball nose endmill, 30° helix angle, short type



Designation	AH725	DC	DCONMS	RE	APMX	LF	Shank
TEB020A2-04C06-E48	●	2	6	1	4	48	Cylindrical
TEB020A2-06C03-E38	●	2	3	1	6	38	Cylindrical
TEB025A2-04C06-E48	●	2.5	6	1.25	4	48	Cylindrical
TEB030A2-04C06-E48	●	3	6	1.5	4	48	Cylindrical
TEB040A2-06C06-E50	●	4	6	2	6	50	Cylindrical
TEB040A2-08W06-E57	●	4	6	2	8	57	Weldon
TEB060A2-07C06-E51	●	6	6	3	7	51	Cylindrical
TEB060A2-10W06-E57	●	6	6	3	10	57	Weldon
TEB080A2-09C08-E63	●	8	8	4	9	63	Cylindrical
TEB100A2-10C10-E66	●	10	10	5	10	66	Cylindrical
TEB120A2-14C12-E71	●	12	12	6	14	71	Cylindrical
TEB200A2-20C20-E82	●	20	20	10	20	82	Cylindrical

Short and stable design for profiling (roughing).

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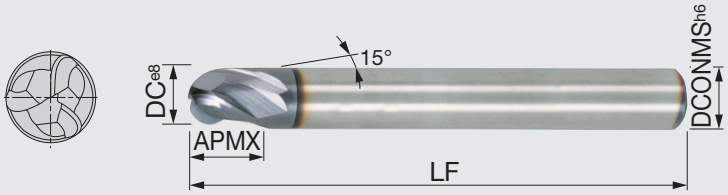
TEB**A3

3 flute ball nose endmill, 30° helix angle, short type



Designation	AH725	DC	DCONMS	APMX	LF	Shank
TEB030A3-05C06-57	●	3	6	5	57	Cylindrical
TEB040A3-07C06-57	●	4	6	7	57	Cylindrical
TEB050A3-08C06-57	●	5	6	8	57	Cylindrical
TEB060A3-08C06-57	●	6	6	8	57	Cylindrical
TEB080A3-11C08-63	●	8	8	11	63	Cylindrical
TEB100A3-13C10-72	●	10	10	13	72	Cylindrical
TEB120A3-14C12-83	●	12	12	14	83	Cylindrical

Short and stable design for contouring (roughing)

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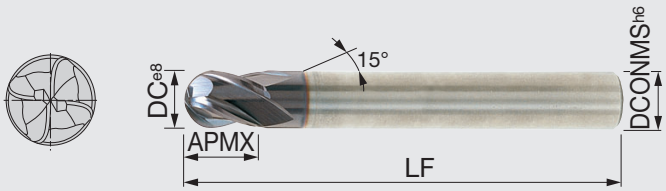
TEB**A4

4 flute ball nose endmill, 30° helix angle, short type



Designation	AH725	DC	DCONMS	APMX	LF	Shank
TEB030A4-05C06-57	●	3	6	5	57	Cylindrical
TEB040A4-07C06-50	●	4	6	7	50	Cylindrical
TEB050A4-08C06-57	●	5	6	8	57	Cylindrical
TEB060A4-08C06-57	●	6	6	8	57	Cylindrical
TEB080A4-11C08-63	●	8	8	11	63	Cylindrical
TEB100A4-13C10-72	●	10	10	13	72	Cylindrical
TEB120A4-14C12-83	●	12	12	14	83	Cylindrical
TEB200A4-20C20-104	●	20	20	20	104	Cylindrical

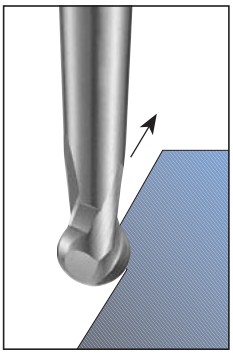
Short and stable design for profiling (finishing)

Ball Nose Characteristics

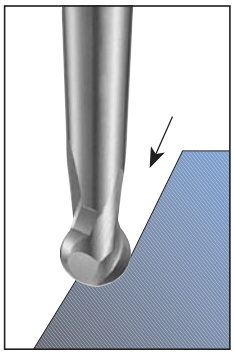
- Die & mold making, turbine manufacturing and aircraft industry, etc.
- Useful for intricate-shaped surfaces.
- Profiling of up to 70 HRC high hardened steels and alloy steels, nickel based alloys, titanium alloys.
- Ultra-fine grain carbide which increases both toughness and hardness.
- Suitable for dry and high speed cutting.
- Special sphere shaped tool geometry provides increased tool life and enables higher speed and feed operations.

Milling Features

- Operating angle 208º - 212º
- Excellent surface roughness and high milling process.
- Enables milling with high speed and feed in back milling mode.



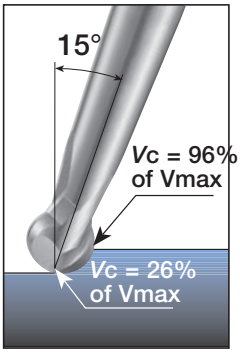
Favorable Back Milling



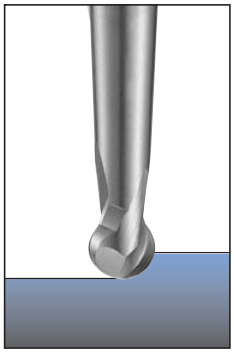
Unfavorable Drilling

Operating Recommendations

- It is recommended to machine with the tool inclined at a 15º angle. This technique eliminates cutting at nearly zero speed at the tool axis. Cutting is more efficient, and tool life substantially improves.
- Decreased cutting force.
- Excellent surface roughness and brightness.



Favorable Profiling



Unfavorable Profiling

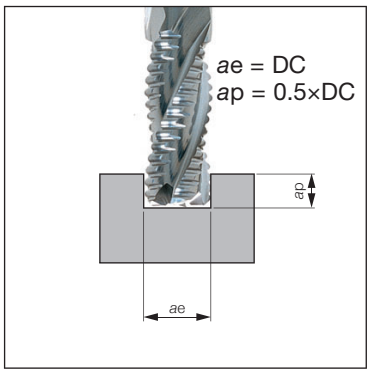
SOLIDMEISTER TUNGALOY

STANDARD CUTTING CONDITIONS (for rougher endmills)

ISO	Material		Condition	Tensile Strength (N/mm2)	Hardness HB	Cutting speed: *Vc* (m/min) min	max
P	Non-alloy steel and cast steel, free cutting steel	< 0.25 %C	Annealed	420	125	260	280
		≥ 0.25 %C	Annealed	650	190	200	230
		< 0.55 %C	Quenched and tempered	850	250	160	190
		≥ 0.55 %C	Annealed	750	220	160	180
		≥ 0.55 %C	Quenched and tempered	1000	300	140	160
	Low alloy steel and cast steel (less than 5% all elements)		Annealed	600	200	160	190
			Quenched and tempered	930	275	120	140
			Quenched and tempered	1000	300	130	150
			Quenched and tempered	1200	350	140	160
	High alloy steel, cast steel, and tool steel		Annealed	680	200	130	160
			Quenched and tempered	1100	325	70	90
M	Stainless steel and cast steel		Ferritic / martensitic	680	200	110	200
			Martensitic	820	240	60	180
			Austenitic	600	180	80	120
K	Grey cast iron (GG)		Ferritic / pearlitic	-	180	80	260
			Pearlitic	-	260	130	240
	Nodular cast iron (GGG)		Ferritic	-	160	150	280
			Pearlitic	-	250	90	280
	Malleable cast iron		Ferritic	-	130	150	280
			Pearlitic	-	230	140	240
N	Aluminium-wrought alloy		Not cureable	-	60	810	840
			Cured	-	100	730	830
	Aluminium-cast, alloyed	≤ 12% Si	Not cureable	-	75	800	840
			Cured	-	90	730	830
		> 12% Si	High temperature	-	130	320	340
	Copper alloys	> 1% Pb	Free cutting	-	110	400	430
			Brass	-	90	400	430
			Electrolitic copper	-	100	270	300
	Non-metallic		Duroplastics, fiber plastics	-	-	-	-
			Hard rubber	-	-	-	-
S	High temp. alloys	Fe based	Annealed	-	200	20	40
		Fe based	Cured	-	280	20	30
		Ni or Co based	Annealed	-	250	20	30
		Ni or Co based	Cured	-	350	20	30
		Ni or Co based	Cast	-	320	30	70
	Titanium and Ti alloys			RM 400	-	30	70
			Alpha + beta alloys cured	RM 1050	-	30	70
H	Hardened steel		Hardened	-	55 HRC	30	50
			Hardened	-	60 HRC	30	40
	Chilled cast iron		Cast	-	400	60	80
	Cast iron		Hardened	-	55 HRC	30	50

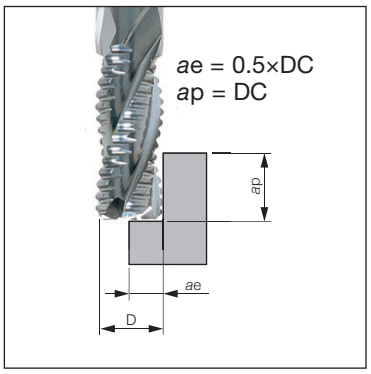
Recommended Feeds

Slotting



DC (mm)	Min. *fz*	Max. *fz*
1	0.006	0.01
1.3	0.006	0.02
1.5	0.006	0.04
1.8	0.01	0.05
2	0.01	0.06
2.3	0.01	0.06
2.5	0.01	0.06
2.8	0.02	0.07
3	0.02	0.08
3.3	0.02	0.08
4	0.03	0.09
4.3	0.03	0.09
5	0.04	0.1
6	0.05	0.12
7	0.06	0.14
8	0.06	0.16
9	0.06	0.16
10	0.06	0.18
12	0.07	0.2
14	0.08	0.22
16	0.1	0.24
18	0.1	0.26
20	0.1	0.3
25	0.12	0.3

Shoulder milling



DC (mm)	Min. *fz*	Max. *fz*
1	0.006	0.014
1.3	0.006	0.024
1.5	0.006	0.044
1.8	0.01	0.056
2	0.01	0.066
2.3	0.01	0.066
2.5	0.01	0.066
2.8	0.02	0.076
3	0.02	0.088
3.3	0.02	0.088
4	0.03	0.098
4.3	0.03	0.098
5	0.04	0.11
6	0.05	0.132
7	0.06	0.154
8	0.06	0.176
9	0.06	0.176
10	0.06	0.196
12	0.07	0.216
14	0.08	0.238
16	0.1	0.26
18	0.1	0.28
20	0.1	0.34
25	0.12	0.36

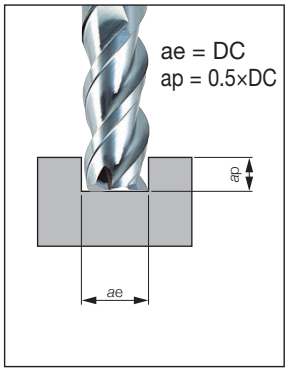
SOLIDMEISTER TUNGALOY

STANDARD CUTTING CONDITIONS (for endmills)

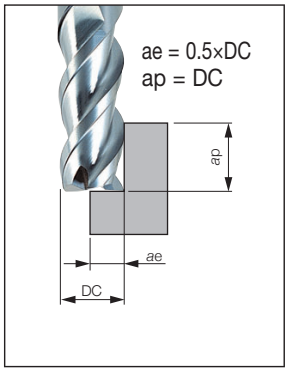
ISO	Material		Condition	Tensile Strength (N/mm2)	Hardness HB	Cutting speed: *Vc* (m/min) min	max
P	Non-alloy steel and cast steel, free cutting stee	< 0.25 %C	Annealed	420	125	220	230
		≥ 0.25 %C	Annealed	650	190	170	190
		< 0.55 %C	Quenched and tempered	850	250	140	150
		≥ 0.55 %C	Annealed	750	220	140	150
		≥ 0.55 %C	Quenched and tempered	1000	300	120	130
	Low alloy steel and cast steel (less than 5% all elements)		Annealed	600	200	140	150
			Quenched and tempered	930	275	100	110
			Quenched and tempered	1000	300	110	120
			Quenched and tempered	1200	350	120	130
	High alloy steel, cast steel, and tool steel		Annealed	680	200	110	130
			Quenched and tempered	1100	325	60	70
M	Stainless steel and cast steel		Ferritic / martensitic	680	200	100	170
			Martensitic	820	240	60	150
			Austenitic	600	180	70	100
K	Grey cast iron (GG)		Ferritic / pearlitic	-	180	70	220
			Pearlitic	-	260	110	200
	Nodular cast iron (GGG)		Ferritic	-	160	130	230
			Pearlitic	-	250	70	230
	Malleable cast iron		Ferritic	-	130	130	230
			Pearlitic	-	230	110	200
N	Aluminium-wrought alloy		Not cureable	-	60	670	700
			Cured	-	100	610	690
	Aluminium-cast, alloyed	≤ 12% Si	Not cureable	-	75	670	700
			Cured	-	90	610	690
		> 12% Si	High temperature	-	130	270	280
	Copper alloys	> 1% Pb	Free cutting	-	110	330	350
			Brass	-	90	330	350
			Electrolitic copper	-	100	230	250
	Non-metallic		Duroplastics, fiber plastics	-	-	-	-
			Hard rubber	-	-	-	-
S	High temp. alloys	Fe based	Annealed	-	200	20	30
		Fe based	Cured	-	280	20	20
		Ni or Co based	Annealed	-	250	20	20
		Ni or Co based	Cured	-	350	20	20
		Ni or Co based	Cast	-	320	30	60
	Titanium and Ti alloys	Ni or Co based		RM 400	-	30	60
		Ni or Co based	Alpha + beta alloys cured	RM 1050	-	30	60
H	Hardened steel		Hardened	-	55 HRC	30	40
			Hardened	-	60 HRC	30	30
	Chilled cast iron		Cast	-	400	50	60
	Cast iron		Hardened	-	55 HRC	30	40

Recommended Feeds

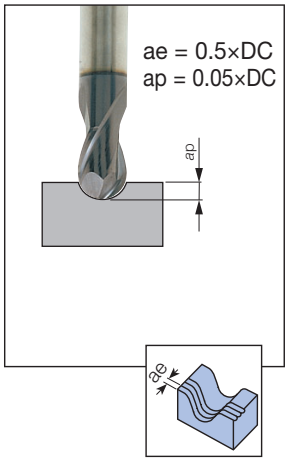
Slotting



Shoulder milling



Profiling



	Slotting		Shoulder milling / Profiling	
DC (mm)	Min. *fz*	Max. *fz*	Min. *fz*	Max. *fz*
1	0.003	0.005	0.003	0.007
1.3	0.003	0.01	0.003	0.012
1.5	0.003	0.02	0.003	0.022
1.8	0.005	0.025	0.005	0.028
2	0.005	0.03	0.005	0.033
2.3	0.005	0.03	0.005	0.033
2.5	0.005	0.03	0.005	0.03
2.8	0.01	0.035	0.01	0.038
3	0.01	0.04	0.01	0.044
3.3	0.015	0.04	0.01	0.044
4	0.015	0.045	0.015	0.049
4.3	0.020	0.045	0.015	0.049
5	0.025	0.05	0.02	0.055
6	0.03	0.06	0.025	0.066
7	0.03	0.07	0.03	0.077
8	0.03	0.08	0.03	0.088
9	0.03	0.08	0.03	0.088
10	0.035	0.09	0.03	0.098
12	0.04	0.1	0.035	0.108
14	0.05	0.11	0.04	0.119
16	0.05	0.12	0.05	0.13
18	0.05	0.13	0.05	0.14
20	0.05	0.15	0.05	0.17
25	0.06	0.15	0.06	0.18

1. For Slotting	M type materials	—	*a*p max = 0.5D
	S type materials	—	*a*p max = 0.25D
2. For Finishing	P type materials	—	*a*p max = 1.5D
3. For Roughing			*a*p max = 1.5D
			V = 1.25 x *V*c

High speed cutting on Hard materials (up to 60 HRC):
Apply small depth of cut: ap (0.1 - 0.3 mm) at Vc 80 - 160 m/min

FEEDMEISTER (Ceramic Endmil)

STANDARD CUTTING CONDITIONS (for endmills)

ISO	Material	Hardness	Max D.O.C (mm)	Cutting speed *Vc* (m/min)	Feed per tooth (mm / tooth)					
					ø6	ø8	ø10	ø12	ø16	ø20
K	Cast iron	180- 260HB	0.25-1.0	250-1000	0.10	0.15	0.17	0.19	0.23	0.25
K	Nodular cast iron	160- 250HB	0.25-1.0	250-1000	0.10	0.15	0.17	0.19	0.23	0.25
K	Malleable cast iron	130- 230HB	0.25-1.0	250-1000	0.10	0.15	0.17	0.19	0.23	0.25
N	Non ferrous/ graphite products	-	0.25-1.0	500-1500	0.10	0.15	0.17	0.19	0.23	0.25
S	Ni-based superalloys	-	0.25-1.0	250-1000	0.10	0.13	0.15	0.18	0.20	0.22

For machining nickel-based alloys, use a cutting speed of 250 m/min or more in dry cutting.

GRADE PRIORITIES FOR SOLID CARBIDE ENDMILLS

In most cases the best performance can be attained without using coolant for specific grades. However, it should be noted that if for any reason coolant must be used, it could possibly affect tool life and sometimes cause insert failure, due to thermal shock.

Material Groups	ISO P	ISO H	ISO M	ISO S	ISO K	ISO N
	Steel	Hard Materials	Stainless	Superalloys	Cast Iron	Non-ferrous
	Harder AH750 AH725 Tougher	Harder AH750 AH725 Tougher	Harder AH725 Tougher	Harder AH750 AH725 KS15F Tougher	Harder AH750 AH725 Tougher	Harder AH725 KS15F Tougher

MEMO

MEMO

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SOLIDMEISTER

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