NEW PRODUCT NEWS

mgt
MEGA TECH METALWORK

Collet-chuck sleeves

MICROCUT

THE ZENITH OF PRECISION MACHINING!

ENABLING QUICK TOOL CHANGEOVER AND PRECISE REPEATABILITY!

TOOLOFLO

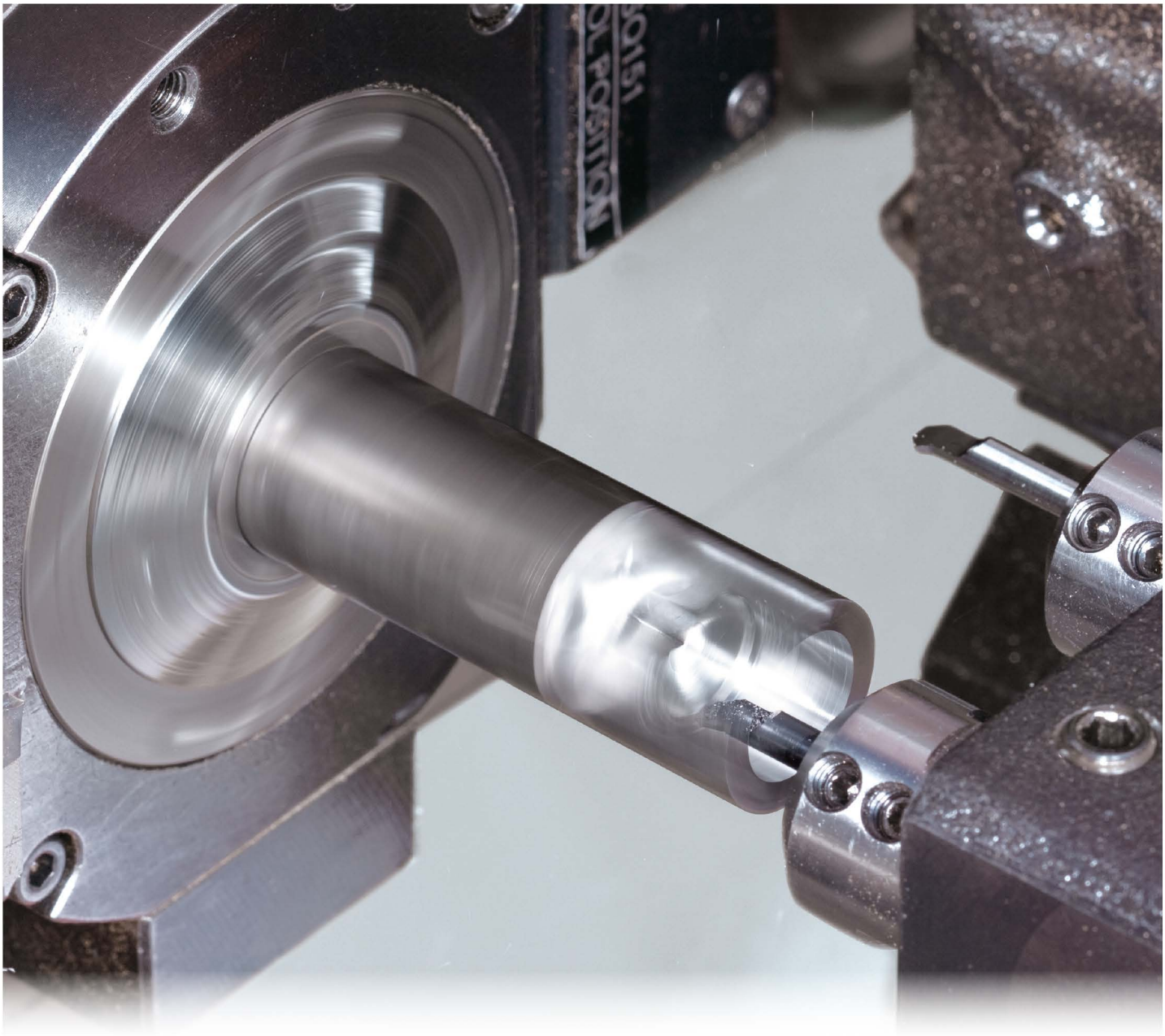
NEW PRODUCT NEWS

Collet-chuck sleeves

mgt
MEGA TECH METALWORK

MICROCUT

THE ZENITH OF PRECISION MACHINING!



ACCELERATED MACHINING

TOOLOFLO

NEW PRODUCT NEWS

Collet-chuck sleeves

mgt
MEGA TECH METALWORK

MICROCUT
THE ZENITH OF PRECISION MACHINING!

NEW!

see page 25

New Collet-Chuck sleeves!

For easy tool changeover and precise repeatability!

TOOLFLO

NEW PRODUCT NEWS

Collet-chuck sleeves

mgt
MEGA TECH METALWORK

MICROCUT
THE ZENITH OF PRECISION MACHINING!

Precision machining with exceptional surface finish for internal turning on small parts!

Engineered for precision machining with

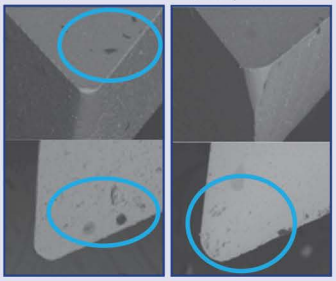
Durable cutting edges!

Comparison of tool surface and cutting edge

Smooth cutting edges and coating surface

Improvement

Competitor A Competitor B

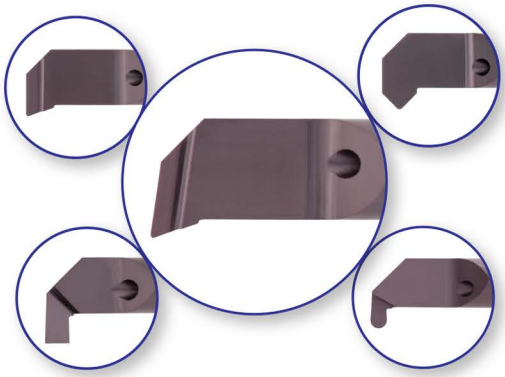


Chipped edges and unevenness on coating surface

▶ Degraded surface finishes
Short tool life due to edge build up.

Enhanced cutting edge integrity over the competition

- Generates fine surface finishes and prevents edge chipping.
- Smooth cutting edge yields high precision products.



Coolant hole

- Supplies coolant directly to the cutting edge.
- Offers exceptional chip evacuation.

ECO

Economy style for cost-effective solutions!

- All economy products contain an "E" in the nomenclature (ie. TFETR, TFEPR, etc.)
- All economy products are without coolant holes for cost savings!

TOOLOFLO

NEW PRODUCT NEWS

Collet-chuck sleeves

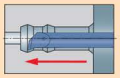
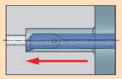
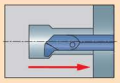
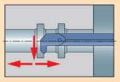
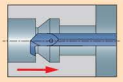
MEGA TECH METALWORK

ACCELERATED MACHINING

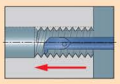
Expanded selection of tools for a wide range of internal operations

- 146 solid bar items in a wide range of geometries
- Minimum boring diameter: **DMIN = 0.6 mm**

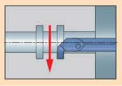
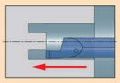
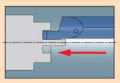
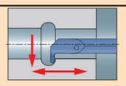
Boring, profiling, chamfering

Type	Application		Shank diameter DCONMS (mm)	Min. bore dia. DMIN (mm) (0 – 2 – 4 – 6 – 8 – 10)
TFT (P. 11) TFET (P. 12)		Boring, profiling, chamfering	ø4, ø7	ø0.6 – ø7.0
TFP TFEP (P. 13)		Boring, chamfering	ø4, ø7	ø2.8 – ø5.0
TFU TFEU (P. 14)		Back boring, chamfering	ø7	ø5.0
TFC TFEC (P. 15)		Boring, 45º chamfering	ø7	ø5.0 – ø6.8
TFB TFEB (P. 16)		Back boring	ø4, ø7	ø3.0 – ø7.0

Threading

Type	Application		Shank diameter DCONMS (mm)	Min. bore dia. DMIN (mm) (0 – 2 – 4 – 6 – 8 – 10)
TFI TFEI (P. 17)		Threading (Metric thread)	ø4, ø7	ø4.0 – ø7.0

Grooving

Type	Application		Shank diameter DCONMS (mm)	Groove width CW (mm)	Min. bore dia. DMIN (mm) (0 – 2 – 4 – 6 – 8 – 10 – 12 – 14 – 15)
TFG (P. 18) TFEG (P. 19)		Grooving	ø4, ø7	0.5 - 2.0	ø2.0 – ø6.8
TFF TFEF (P. 21)		Face grooving	ø7	1.0 - 3.0	ø6.0 – ø15.0
TFS TFES (P. 22)		Face grooving (for shaft)	ø7	2.0	ø6.0
TFR TFER (P. 20)		Boring, profiling (full radius type)	ø7	1.0	ø5.0 – ø6.8

Refined edge design and an expanded range of tools to maximize productivity in machining of small parts!

TOOLOFLO

NEW PRODUCT NEWS

Collet-chuck sleeves

MEGA TECH METALWORK

MICROCUT
THE ZENITH OF PRECISION MACHINING!

High precision collet-chuck sleeves for easy operation

Exceptional repeatability of solid bars

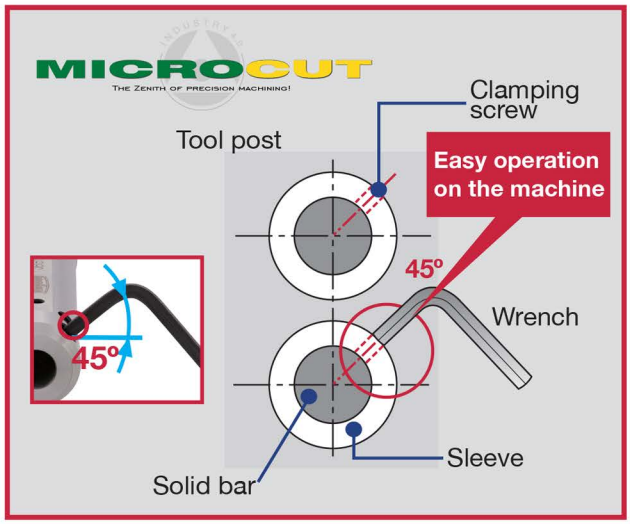
Innovative chucking system ensures exceptioinal repeatability for precision machining

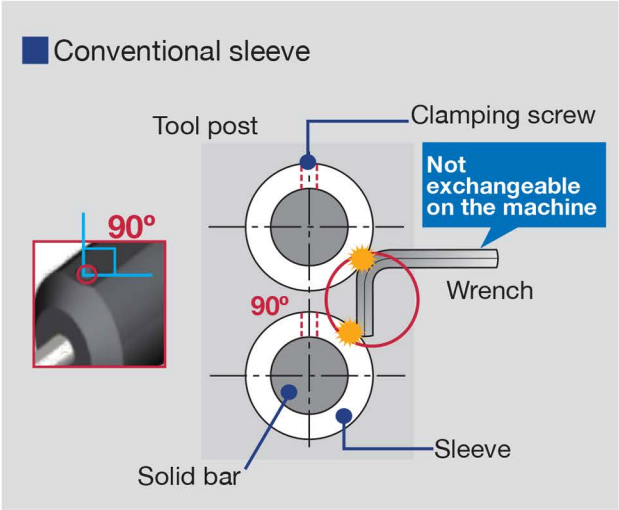
Double ended design for 2 different shank sizes

One sleeve can accommodate both ø4 mm and ø7 mm shank boring bars

Easy tool changeovers

Insert clamping screw can be accessed at a 45º angle, making tool changeover easy with the sleeve in the machine





Highly functional sleeves provide exceptional stability when boring small diameter holes!

TOOLFLO

NEW PRODUCT NEWS

Collet-chuck sleeves

mgt MEGA TECH METALWORK

ACCELERATED MACHINING

Sleeve designed for through-coolant supply

Easy connection to the coolant tube

Rc1/8 threads are provided at the end of the sleeve for coolant tube connection

Designed for optimal overhang lengths

Sleeve and flat lengths are designed to provide optimal overhang lengths

Precise and efficient tool changes

Engineered to deliver consistent accuracy and enable faster and more efficient tool changes without the need to remove the sleeve from the tool post

Collet-chuck sleeve NEW! (see page 25)

Easy tool changeovers

Allows for quick and easy tool changeovers

1. Place the tool in the sleeve
2. Tighten the cap with the special wrench

High accuracy indexing

The innovative collet chucking system guarantees superior repeatability for precise machining

Easy connection to coolant tube

Rc1/8 fitting are provided at the end of the sleeve. No additional connection is required for internal coolant supply

Sleeve selections

Sleeve type	TFBS	TFBS-C	NEW! (see page 25) TFBSA-C	TFBS-4N
Clamping system	Screw	Screw	Built-in collet	Screw
Through-coolant	No	No	Yes	Yes
Adaptable shank size	Both ø4 and ø7 mm can be assembled on the same sleeve	Separate sleeves for ø4 mm and ø7 mm	Separate sleeves for ø4 mm and ø7 mm	Separate sleeves for ø4 mm and ø7 mm
Available sleeve diameters	10 sizes, ø12.0 mm - ø25mm	7 sizes, ø15.875 mm - ø25.4mm	10 sizes, ø12.0 mm - ø25mm	10 sizes, ø12.0 mm - ø25mm
Tool changeover in the machine	Efficient	Efficient	Very Efficient	Efficient

TOOLOFLO

NEW PRODUCT NEWS

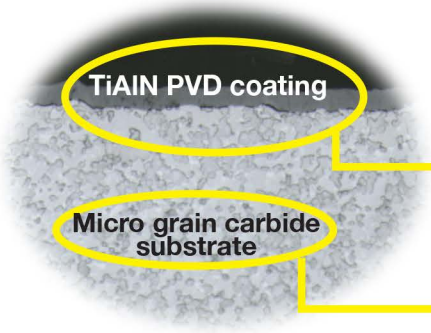
Collet-chuck sleeves

MEGA TECH METALWORK

MICROCUT
THE ZENITH OF PRECISION MACHINING!

Grades

AC22 PVD coated grade



Optimized combination of (TiAlN) coating and extremely tough carbide substrate ensures longer tool life and cutting edge integrity

Excellent chipping & welding resistance

Thin TiAlN coated layer is deposited evenly without sacrificing the cutting edge sharpness.

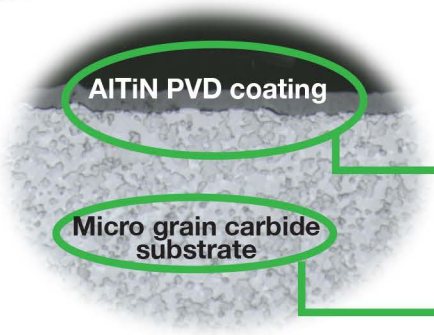
Tough carbide substrate ensures resistance to plastic deformation

Application		Application code	Grade	Substrate			Coating layer		Features
				Specific gravity	Hardness (HRA)	T.R.S. (GPa)	Main Composition	Thickness (µm)	
P	Steel	P20 - P30	AC22	14.4	91.5	3.0	TiAlN	1.0	Versatile PVD coated grade for a wide range of materials and applications.
M	Stainless	M20 - M30	AC22	14.4	91.5	3.0	TiAlN	1.0	
K	Cast iron	K20 - K30	AC22	14.4	91.5	3.0	TiAlN	1.0	
N	Non-ferrous	N20 - N30	AC22	14.4	91.5	3.0	TiAlN	1.0	
S	Superalloys	S20 - S30	AC22	14.4	91.5	3.0	TiAlN	1.0	

Expanded cost effective solution for a wider application coverage!

AC22S PVD coated grade

ECO



Excellent wear and chipping resistance yields longer and predictable tool life combined with stable machining on solid bars without coolant ports.

Excellent resistance to wear & chip welding

Smooth coating surface of the cutting edge prevents coating from peeling off, while its superior wear resistance provides longer tool life than existing grades.

High resistance to plastic deformation

Tough carbide substrate offers stable and longer tool life.

TOOLOFLO

ACCELERATED MACHINING

STANDARD CUTTING CONDITIONS - BORING/THREADING

Boring, profiling, chamfering, back boring

ISO	Workpiece materials	Grade	Cutting speed Vc (m/min)	Cutting speed Vc (sfm)	Feed f (mm/rev)	Feed f (ipr)
P	Low carbon steels (1015, 1025, etc.)	AC22/AC22S	40 - 140	131 - 459	0.01 - 0.08*	0.0004 - 0.003*
	Carbon steels, Alloy steels (1055, 4140, etc.)	AC22/AC22S	40 - 140	131 - 459	0.01 - 0.08*	0.0004 - 0.003*
	Prehardened steels (NAK80, PX5 etc.)	AC22/AC22S	40 - 140	131 - 459	0.01 - 0.08*	0.0004 - 0.003*
M	Stainless steels (304, 316, etc)	AC22/AC22S	40 - 140	131 - 459	0.01 - 0.08*	0.0004 - 0.003*
K	Grey cast irons (No.250B, 300B, etc.)	AC22/AC22S	30 - 100	98 - 328	0.01 - 0.08*	0.0004 - 0.003*
	Ductile cast irons (65-45-12, 80-55-06, etc.)	AC22/AC22S	30 - 100	98 - 328	0.01 - 0.08*	0.0004 - 0.003*
N	Aluminium alloys, copper alloys (Si < 12%)	AC22/AC22S	90 - 200	295 - 656	0.01 - 0.08*	0.0004 - 0.003*
S	Titanium alloys (Ti-6Al-4V, etc.)	AC22/AC22S	30 - 100	98 - 328	0.01 - 0.08*	0.0004 - 0.003*
	Superalloys (Inconel718, etc.)	AC22/AC22S	30 - 100	98 - 328	0.01 - 0.08*	0.0004 - 0.003*

* TFTR/L04020004-D006, TFTR/L04030004-D006

mm/rev 0.01 = Max. f

Threading (metric thread)

ISO	Workpiece materials	Grade	Cutting speed Vc (m/min)	Cutting speed Vc (sfm)	Number of passes Pitch mm (in) 0.5 (0.020")	0.75 (0.030")	1 (0.039")	1.25 (0.049")	1.5 (0.059")
P	Low carbon steels (1015, 1025, etc.)	AC22/AC22S	40 - 140	131 - 459	6 - 8	8 - 10	10 - 12	12 - 15	15 - 18
	Carbon steels, Alloy steels (1055, 4140, etc.)	AC22/AC22S	40 - 140	131 - 459	6 - 8	8 - 10	10 - 12	12 - 15	15 - 18
	Prehardened steels (NAK80, PX5 etc.)	AC22/AC22S	40 - 140	131 - 459	6 - 8	8 - 10	10 - 12	12 - 15	15 - 18
M	Stainless steels (304, 316, etc)	AC22/AC22S	40 - 140	131 - 459	8	10	12	15	18
K	Grey cast irons (No.250B, 300B, etc.)	AC22/AC22S	30 - 100	98 - 328	7	9	12	14	17
	Ductile cast irons (465-45-12, 80-55-06, etc.)	AC22/AC22S	30 - 100	98 - 328	7	9	12	14	17
N	Aluminium alloys, copper alloys (Si < 12%)	AC22/AC22S	90 - 200	295 - 656	6	8	10	12	15

NEW PRODUCT NEWS

Collet-chuck sleeves

MEGA TECH METALWORK

MICROCUT
THE ZENITH OF PRECISION MACHINING!

STANDARD CUTTING CONDITIONS - GROOVING

Internal grooving

ISO	Workpiece materials	Grade	Cutting speed Vc (m/min)	Cutting speed Vc (sfm)	Feed f (mm/rev)	Feed f (ipr)
P	Low carbon steels (C15, C20 etc.)	AC22S/AC22	40 - 140	131 - 459	0.01 - 0.03	0.0004 - 0.001
	Carbon steels, Alloy steels (C55, 42CrMoS4 etc.)	AC22S/AC22	40 - 140	131 - 459	0.01 - 0.03	0.0004 - 0.001
	Prehardened steels (NAK80, PX5 etc.)	AC22S/AC22	40 - 140	131 - 459	0.01 - 0.03	0.0004 - 0.001
M	Stainless steels (X5CrNi18-9, X5CrNiMo17-12-2 etc)	AC22S/AC22	40 - 140	131 - 459	0.01 - 0.03	0.0004 - 0.001
K	Grey cast irons (250, 300 etc.)	AC22S/AC22	30 - 100	98 - 328	0.01 - 0.03	0.0004 - 0.001
	Ductile cast irons (400-15, 600-3 etc.)	AC22S/AC22	30 - 100	98 - 328	0.01 - 0.03	0.0004 - 0.001
N	Aluminium alloys, copper alloys Si < 12%	AC22S/AC22	90 - 200	295 - 656	0.01 - 0.03	0.0004 - 0.001
S	Titanium alloys Ti-6Al-4V etc.	AC22S/AC22	30 - 100	98 - 328	0.01 - 0.03	0.0004 - 0.001
	Superalloys (Inconel718, etc.)	AC22S/AC22	30 - 100	98 - 328	0.01 - 0.03	0.0004 - 0.001

Face grooving

ISO	Workpiece materials	Grade	Cutting speed Vc (m/min)	Cutting speed Vc (sfm)	Feed f (mm/rev)	Feed f (ipr)
P	Low carbon steels (C15, C20 etc.)	AC22S/AC22	40 - 140	131 - 459	0.01 - 0.05	0.0004 - 0.002
	Carbon steels, Alloy steels (C55, 42CrMoS4 etc.)	AC22S/AC22	40 - 140	131 - 459	0.01 - 0.05	0.0004 - 0.002
	Prehardened steels (NAK80, PX5 etc.)	AC22S/AC22	40 - 140	131 - 459	0.01 - 0.05	0.0004 - 0.002
M	Stainless steels (X5CrNi18-9, X5CrNiMo17-12-2 etc)	AC22S/AC22	40 - 140	131 - 459	0.01 - 0.05	0.0004 - 0.002
K	Grey cast irons (250, 300 etc.)	AC22S/AC22	30 - 100	98 - 328	0.01 - 0.05	0.0004 - 0.002
	Ductile cast irons (400-15, 600-3 etc.)	AC22S/AC22	30 - 100	98 - 328	0.01 - 0.05	0.0004 - 0.002
N	Aluminium alloys, copper alloys Si < 12%	AC22S/AC22	90 - 200	295 - 656	0.01 - 0.05	0.0004 - 0.002
S	Titanium alloys Ti-6Al-4V etc.	AC22S/AC22	30 - 100	98 - 328	0.01 - 0.05	0.0004 - 0.002
	Superalloys (Inconel718, etc.)	AC22S/AC22	30 - 100	98 - 328	0.01 - 0.05	0.0004 - 0.002

NEW PRODUCT NEWS

Collet-chuck sleeves

MEGA TECH METALWORK

ACCELERATED MACHINING

Solid boring bars,inserts, tools and sleeves

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BNGL	35	TFBR	17	TFFR	22
BNGR	35	TFBS	26	TFGL	19
BNPR	35	TFBS-L	27	TFGR	19
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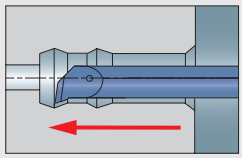
TOOLOFLO

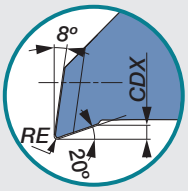
Solid boring bars

BORING, PROFILING, CHAMFERING

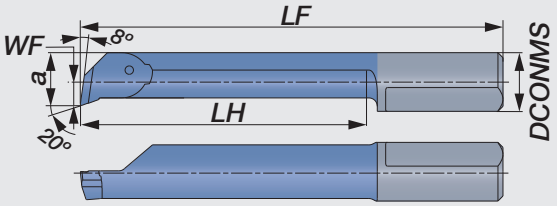
TFTR/L with coolant hole



Right hand (R) shown.



Details of edge



Designation	Grade AC22 RH	Grade AC22 LH	DMIN	DCONMS	WF	a	LF	LH	CDX	RE $^{+0.05}_{0}$
TFTR04020004-D006	√		0.6 (0.02)	4 (0.16)	-	0.5 (0.02)	18.5 (0.72)	2 (0.08)	0.08 (0.003)	0.04 (0.002)
TFTR04030004-D006	√		0.6 (0.02)	4 (0.16)	-	0.5 (0.02)	19.5 (0.77)	3 (0.12)	0.08 (0.003)	0.04 (0.002)
TFTR04045005-D010	√		1 (0.04)	4 (0.16)	-	0.9 (0.03)	21 (0.83)	4.5 (0.18)	0.1 (0.004)	0.05 (0.002)
TFTR04065005-D010	√		1 (0.04)	4 (0.16)	-	0.9 (0.03)	23 (0.91)	6.5 (0.26)	0.1 (0.004)	0.05 (0.002)
TFTR04040005-D020	√		2 (0.08)	4 (0.16)	-	1.7 (0.07)	20.5 (0.81)	4 (0.16)	0.1 (0.004)	0.05 (0.002)
TFTR04090005-D020	√		2 (0.08)	4 (0.16)	-	1.7 (0.07)	25.5 (1.00)	9 (0.35)	0.1 (0.004)	0.05 (0.002)
TFTR04140005-D020	√		2 (0.08)	4 (0.16)	-	1.7 (0.07)	30.5 (1.20)	14 (0.55)	0.1 (0.004)	0.05 (0.002)
TFTR/L04090010-D028	√	√	2.8 (0.11)	4 (0.16)	0.6 (0.02)	2.6 (0.10)	25.5 (1.00)	9 (0.35)	0.2 (0.007)	0.10 (0.004)
TFTR/L04150010-D028	√	√	2.8 (0.11)	4 (0.16)	0.6 (0.02)	2.6 (0.10)	31.5 (1.24)	15 (0.59)	0.2 (0.007)	0.10 (0.004)
TFTR/L04190010-D028	√	√	2.8 (0.11)	4 (0.16)	0.6 (0.02)	2.6 (0.10)	35.5 (1.40)	19 (0.75)	0.2 (0.007)	0.10 (0.004)
TFTR/L04090010-D040	√	√	4 (0.16)	4 (0.16)	1.5 (0.06)	3.5 (0.14)	25.5 (1.00)	9 (0.35)	0.3 (0.012)	0.10 (0.004)
TFTR/L04150010-D040	√	√	4 (0.16)	4 (0.16)	1.5 (0.06)	3.5 (0.14)	31.5 (1.24)	15 (0.59)	0.3 (0.012)	0.10 (0.004)
TFTR/L04190010-D040	√	√	4 (0.16)	4 (0.16)	1.5 (0.06)	3.5 (0.14)	35.5 (1.40)	19 (0.75)	0.3 (0.012)	0.10 (0.004)
TFTR04230010-D040	√		4 (0.16)	4 (0.16)	1.5 (0.06)	3.5 (0.14)	39.5 (1.56)	23 (0.91)	0.3 (0.012)	0.10 (0.004)
TFTR04270010-D040	√		4 (0.16)	4 (0.16)	1.5 (0.06)	3.5 (0.14)	43.5 (1.71)	27 (1.06)	0.3 (0.012)	0.10 (0.004)
TFTR/L07090015-D050	√	√	5 (0.20)	7 (0.28)	0.9 (0.03)	4.4 (0.17)	25 (0.98)	9 (0.35)	0.5 (0.019)	0.15 (0.006)
TFTR/L07140015-D050	√	√	5 (0.20)	7 (0.28)	0.9 (0.03)	4.4 (0.17)	30 (1.18)	14 (0.55)	0.5 (0.019)	0.15 (0.006)
TFTR/L07190015-D050	√	√	5 (0.20)	7 (0.28)	0.9 (0.03)	4.4 (0.17)	35 (1.38)	19 (0.75)	0.5 (0.019)	0.15 (0.006)
TFTR/L07240015-D050	√	√	5 (0.20)	7 (0.28)	0.9 (0.03)	4.4 (0.17)	40 (1.57)	24 (0.94)	0.5 (0.019)	0.15 (0.006)
TFTR/L07290015-D050	√	√	5 (0.20)	7 (0.28)	0.9 (0.03)	4.4 (0.17)	45 (1.77)	29 (1.14)	0.5 (0.019)	0.15 (0.006)
TFTR07340015-D050	√		5 (0.20)	7 (0.28)	0.9 (0.03)	4.4 (0.17)	50 (1.97)	34 (1.34)	0.5 (0.019)	0.15 (0.006)
TFTR/L07140015-D060	√	√	6 (0.24)	7 (0.28)	1.8 (0.07)	5.3 (0.21)	30 (1.18)	14 (0.55)	0.5 (0.019)	0.15 (0.006)
TFTR/L07210015-D060	√	√	6 (0.24)	7 (0.28)	1.8 (0.07)	5.3 (0.21)	37 (1.46)	21 (0.83)	0.5 (0.019)	0.15 (0.006)
TFTR/L07240015-D060	√	√	6 (0.24)	7 (0.28)	1.8 (0.07)	5.3 (0.21)	40 (1.57)	24 (0.94)	0.5 (0.019)	0.15 (0.006)
TFTR/L07290015-D060	√	√	6 (0.24)	7 (0.28)	1.8 (0.07)	5.3 (0.21)	45 (1.77)	29 (1.14)	0.5 (0.019)	0.15 (0.006)
TFTR07340015-D060	√		6 (0.24)	7 (0.28)	1.8 (0.07)	5.3 (0.21)	50 (1.97)	34 (1.34)	0.5 (0.019)	0.15 (0.006)
TFTR07410015-D060	√		6 (0.24)	7 (0.28)	1.8 (0.07)	5.3 (0.21)	57 (2.24)	41 (1.61)	0.5 (0.019)	0.15 (0.006)
TFTR/L07190015-D068	√	√	6.8 (0.27)	7 (0.28)	2.8 (0.11)	6.3 (0.25)	35 (1.38)	19 (0.75)	0.6 (0.019)	0.15 (0.006)
TFTR07240015-D068	√		6.8 (0.27)	7 (0.28)	2.8 (0.11)	6.3 (0.25)	40 (1.57)	24 (0.94)	0.6 (0.019)	0.15 (0.006)
TFTR/L07290015-D068	√	√	6.8 (0.27)	7 (0.28)	2.8 (0.11)	6.3(0.25)	45 (1.77)	29 (1.14)	0.6 (0.019)	0.15 (0.006)
TFTR/L07340015-D070	√	√	7 (0.28)	7 (0.28)	2.8 (0.11)	6.3(0.25)	50 (1.97)	34 (1.34)	0.6 (0.019)	0.15 (0.006)
TFTR07390015-D070	√		7 (0.28)	7 (0.28)	2.8 (0.11)	6.3(0.25)	55 (2.17)	39 (1.54)	0.6 (0.019)	0.15 (0.006)
TFTR07440015-D070	√		7 (0.28)	7 (0.28)	2.8 (0.11)	6.3(0.25)	60 (2.36)	44 (1.73)	0.6 (0.019)	0.15 (0.006)
TFTR07490015-D070	√		7 (0.28)	7 (0.28)	2.8 (0.11)	6.3 (0.25)	65 (2.56)	49 (1.93)	0.6 (0.019)	0.15 (0.006)

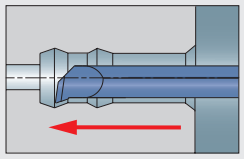
Unit: mm (inch)
√: Stocked items

Solid boring bars

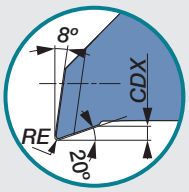
BORING, PROFILING, CHAMFERING

TFETR/L (without coolant hole)

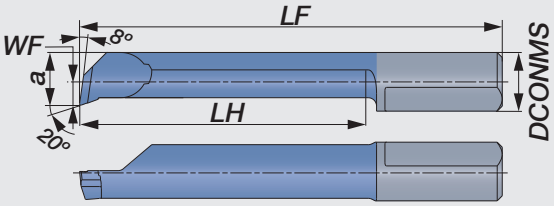
ECO



Right hand (R) shown.



Details of edge



Designation	Grade AC22S RH	Grade AC22S LH	DMIN	DCONMS	WF	a	LF	LH	CDX	RE $^{+0.05}_{0}$
TFETR04045005-D010	√		1 (0.039)	4 (0.157)	-	0.9 (0.035)	21 (0.827)	4.5 (0.177)	0.1 (0.004)	0.05 (0.002)
TFETR04065005-D010	√		1 (0.039)	4 (0.157)	-	0.9 (0.035)	23 (0.906)	6.5 (0.256)	0.1 (0.004)	0.05 (0.002)
TFETR04040005-D020	√		2 (0.079)	4 (0.157)	-	1.7 (0.067)	20.5 (0.807)	4 (0.157)	0.1 (0.004)	0.05 (0.002)
TFETR04090005-D020	√		2 (0.079)	4 (0.157)	-	1.7 (0.067)	25.5 (1.00)	9 (0.354)	0.1 (0.004)	0.05 (0.002)
TFETR04140005-D020	√		2 (0.079)	4 (0.157)	-	1.7 (0.067)	30.5 (1.201)	14 (0.551)	0.1 (0.004)	0.05 (0.002)
TFETR/L04090010-D028	√	√	2.8 (0.11)	4 (0.157)	0.6 (0.024)	2.6 (0.102)	25.5 (1.004)	9 (0.354)	0.2 (0.008)	0.10 (0.004)
TFETR04150010-D028	√		2.8 (0.11)	4 (0.157)	0.6 (0.024)	2.6 (0.102)	31.5 (1.240)	15 (0.591)	0.2 (0.008)	0.10 (0.004)
TFETR04190010-D028	√		2.8 (0.11)	4 (0.157)	0.6 (0.024)	2.6 (0.102)	35.5 (1.398)	19 (0.748)	0.2 (0.008)	0.10 (0.004)
TFETR04090010-D040	√		4 (0.16)	4 (0.157)	1.5 (0.059)	3.5 (0.138)	25.5 (1.004)	9 (0.354)	0.3 (0.012)	0.10 (0.004)
TFETR04150010-D040	√		4 (0.16)	4 (0.157)	1.5 (0.059)	3.5 (0.138)	31.5 (1.240)	15 (0.591)	0.3 (0.012)	0.10 (0.004)
TFETR04190010-D040	√		4 (0.16)	4 (0.157)	1.5 (0.059)	3.5 (0.138)	35.5 (1.398)	19 (0.748)	0.3 (0.012)	0.10 (0.004)
TFETR04230010-D040	√		4 (0.16)	4 (0.157)	1.5 (0.059)	3.5 (0.138)	39.5 (1.555)	23 (0.906)	0.3 (0.012)	0.10 (0.004)
TFETR04270010-D040	√		4 (0.16)	4 (0.157)	1.5 (0.059)	3.5 (0.138)	43.5 (1.713)	27 (1.063)	0.3 (0.012)	0.10 (0.004)
TFETR07090015-D050	√		5 (0.20)	7 (0.276)	0.9 (0.035)	4.4 (0.173)	25 (0.984)	9 (0.354)	0.5 (0.020)	0.15 (0.006)
TFETR07140015-D050	√		5 (0.20)	7 (0.276)	0.9 (0.035)	4.4 (0.173)	30 (1.181)	14 (0.551)	0.5 (0.020)	0.15 (0.006)
TFETR07190015-D050	√		5 (0.20)	7 (0.276)	0.9 (0.035)	4.4 (0.173)	35 (1.378)	19 (0.748)	0.5 (0.020)	0.15 (0.006)
TFETR07240015-D050	√		5 (0.20)	7 (0.276)	0.9 (0.035)	4.4 (0.173)	40 (1.575)	24 (0.945)	0.5 (0.020)	0.15 (0.006)
TFETR07290015-D050	√		5 (0.20)	7 (0.276)	0.9 (0.035)	4.4 (0.173)	45 (1.772)	29 (1.142)	0.5 (0.020)	0.15 (0.006)
TFETR07340015-D050	√		5 (0.20)	7 (0.276)	0.9 (0.035)	4.4 (0.173)	50 (1.968)	34 (1.339)	0.5 (0.020)	0.15 (0.006)
TFETR07140015-D060	√		6 (0.23)	7 (0.276)	1.8 (0.071)	5.3 (0.209)	30 (1.181)	14 (0.551)	0.5 (0.020)	0.15 (0.006)
TFETR/L07210015-D060	√	√	6 (0.23)	7 (0.276)	1.8 (0.071)	5.3 (0.209)	37 (1.457)	21 (0.827)	0.5 (0.020)	0.15 (0.006)
TFETR07240015-D060	√		6 (0.23)	7 (0.276)	1.8 (0.071)	5.3 (0.209)	40 (1.575)	24 (0.945)	0.5 (0.020)	0.15 (0.006)
TFETR07290015-D060	√		6 (0.23)	7 (0.276)	1.8 (0.071)	5.3 (0.209)	45 (1.772)	29 (1.142)	0.5 (0.020)	0.15 (0.006)
TFETR07340015-D060	√		6 (0.23)	7 (0.276)	1.8 (0.071)	5.3 (0.209)	50 (1.968)	34 (1.339)	0.5 (0.020)	0.15 (0.006)
TFETR07410015-D060	√		6 (0.23)	7 (0.276)	1.8 (0.071)	5.3 (0.209)	57 (2.244)	41 (1.614)	0.5 (0.020)	0.15 (0.006)
TFETR07190015-D068	√		6.8 (0.27)	7 (0.276)	2.8 (0.110)	6.3 (0.250)	35 (1.378)	19 (0.748)	0.6 (0.020)	0.15 (0.006)
TFETR07240015-D068	√		6.8 (0.27)	7 (0.276)	2.8 (0.110)	6.3 (0.250)	40 (1.575)	24 (0.945)	0.6 (0.002)	0.15 (0.006)
TFETR07290015-D068	√		6.8 (0.27)	7 (0.276)	2.8 (0.110)	6.3(0.250)	45 (1.772)	29 (1.142)	0.6 (0.020)	0.15 (0.006)
TFETR07340015-D070	√		7 (0.28)	7 (0.276)	2.8 (0.110)	6.3(0.250)	50 (1.968)	34 (1.339)	0.6 (0.020)	0.15 (0.006)
TFETR07390015-D070	√		7 (0.28	7 (0.276)	2.8 (0.110)	6.3(0.250)	55 (2.165)	39 (1.535)	0.6 (0.020)	0.15 (0.006)
TFETR07440015-D070	√		7 (0.28)	7 (0.276)	2.8 (0.110)	6.3(0.250)	60 (2.362)	44 (1.732)	0.6 (0.020)	0.15 (0.006)
TFETR07490015-D070	√		7 (0.28)	7 (0.276)	2.8 (0.110)	6.3 (0.250)	65 (2.559)	49 (1.929)	0.6 (0.020)	0.15 (0.006)

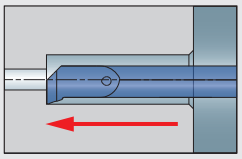
Unit: mm (inch)

√: Stocked items

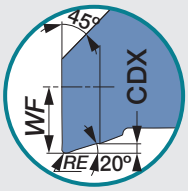
Solid boring bars

BORING, CHAMFERING

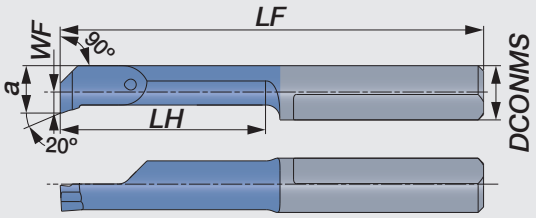
TFPR with coolant hole



Right hand (R) shown.



Detail of edge



Designation	Grade AC22 RH	DMIN	DCONMS	WF	a	LF	LH	CDX	RE ε ± 0.05
TFPR04090010-D028	√	2.8 (0.11)	4 (0.16)	0.9 (0.04)	2.6 (0.10)	25.5 (1.004)	9 (0.354)	0.2 (0.007)	0.10 (0.004)
TFPR04150010-D028	√	2.8 (0.11)	4 (0.16)	0.9 (0.04)	2.6 (0.10)	31.5 (1.240)	15 (0.591)	0.2 (0.007)	0.10 (0.004)
TFPR04090010-D040	√	4 (0.16)	4 (0.16)	1.5 (0.06)	3.5 (0.14)	25.5 (1.004)	9 (0.354)	0.3 (0.012)	0.10 (0.004)
TFPR04150010-D040	√	4 (0.16)	4 (0.16)	1.5 (0.06)	3.5 (0.14)	31.5 (1.240)	15 (0.591)	0.3 (0.012)	0.10 (0.004)
TFPR07140015-D050	√	5 (0.20)	7 (0.28)	0.9 (0.04)	4.4 (0.17)	30 (1.181)	14 (0.551)	0.5 (0.019)	0.15 (0.006)
TFPR07190015-D050	√	5 (0.20)	7 (0.28)	0.9 (0.04)	4.4 (0.17)	35 (1.389)	19 (0.748)	0.5 (0.019)	0.15 (0.006)

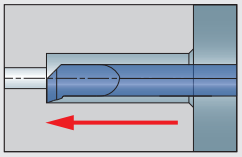
Unit: mm (inch)
√: Stocked items

Solid boring bars

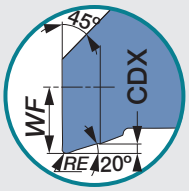
BORING, CHAMFERING

TFEPR (without coolant hole)

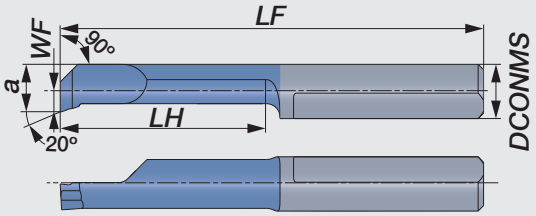
ECO



Right hand (R) shown.



Detail of edge



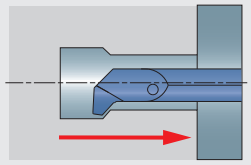
Designation	Grade AC22S RH	DMIN	DCONMS	WF	a	LF	LH	CDX	RE ± 0.05
TFEPR04090010-D028	√	2.8 (0.11)	4 (0.157)	0.9 (0.035)	2.6 (0.10)	25.5 (1.004)	9 (0.354)	0.2 (0.008)	0.10 (0.0039)
TFEPR04150010-D040	√	4 (0.16)	4 (0.157)	1.5 (0.059)	3.5 (0.14)	31.5 (1.240)	15 (0.591)	0.3 (0.012)	0.10 (0.0039)
TFEPR07140015-D050	√	5 (0.20)	7 (0.276)	0.9 (0.035)	4.4 (0.17)	30 (1.181)	14 (0.551)	0.5 (0.019)	0.15 (0.0059)
TFEPR07190015-D050	√	5 (0.20)	7 (0.276)	0.9 (0.035)	4.4 (0.17)	35 (1.378)	19 (0.748)	0.5 (0.019)	0.15 (0.0059)

Unit: mm (inch)
√: Stocked items

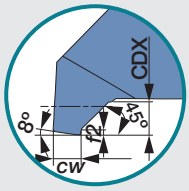
Solid boring bars

BACK BORING, CHAMFERING

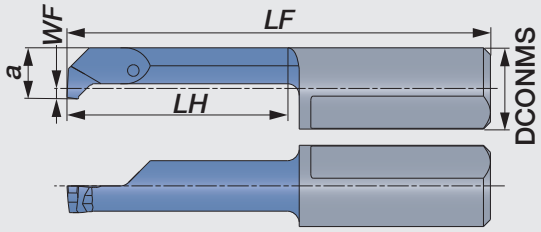
TFUR with coolant hole



Right hand (R) shown.



Detail of edge



Designation	Grade AC22 RH	DMIN	DCONMS	WF	a	LF	LH	f2	CDX	CW + 0.05 0
TFUR07140010-D050	√	5 (0.20)	7 (0.276)	0.9 (0.035)	4.4 (0.17)	30 (1.181)	14 (0.551)	0.2 (0.008)	1 (0.039)	1 (0.039)
TFUR07190010-D050	√	5 (0.20)	7 (0.276)	0.9 (0.035)	4.4 (0.17)	35 (1.378)	19 (0.748)	0.2 (0.008)	1 (0.039)	1 (0.039)

Unit: mm (inch)

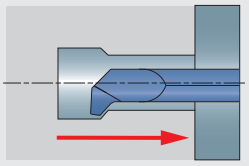
√: Stocked items

Solid boring bars

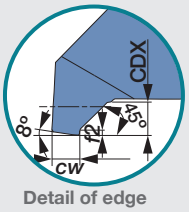
BACK BORING, CHAMFERING

TFEUR (without coolant hole)

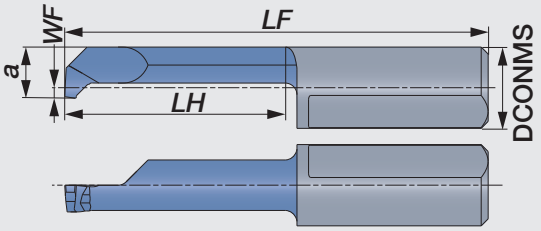
ECO



Right hand (R) shown.



Detail of edge



Designation	Grade AC22S RH	DMIN	DCONMS	WF	a	LF	LH	f2	CDX	CW + 0.05 0
TFEUR07140010-D050	√	5 (0.20)	7 (0.276)	0.9 (0.035)	4.4 (0.173)	30 (1.181)	14 (0.551)	0.2 (0.008)	1 (0.039)	1 (0.039)
TFEUR07190010-D050	√	5 (0.20)	7 (0.276)	0.9 (0.035)	4.4 (0.173)	35 (1.378)	19 (0.748)	0.2 (0.008)	1 (0.039)	1 (0.039)

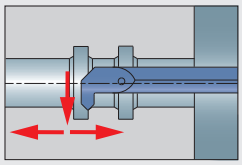
Unit: mm (inch)

√: Stocked items

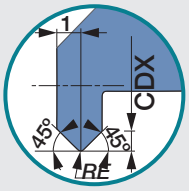
Solid boring bars

45° CHAMFERING

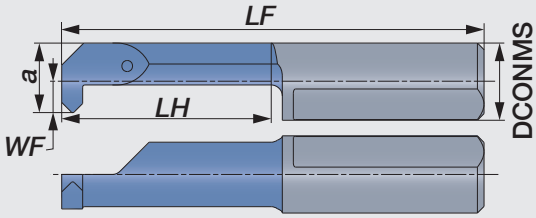
TFCR with coolant hole



Right hand (R) shown.



Detail of edge



Designation	Grade AC22 RH	DMIN	DCONMS	WF	a	LF	LH	CDX	RE ± 0.05
TFCR07140020-D050	√	5 (0.20)	7 (0.28)	0.9 (0.04)	4.4 (0.17)	30 (1.18)	14 (0.55)	0.7 (0.03)	0.2 (0.008)
TFCR07190020-D050	√	5 (0.20)	7 (0.28)	0.9 (0.04)	4.4 (0.17)	35 (1.38)	19 (0.75)	0.7 (0.03)	0.2 (0.008)
TFCR07190020-D068	√	6.8 (0.27)	7 (0.28)	2.8 (0.11)	6.3 (0.25)	35 (1.38)	19 (0.75)	0.7 (0.03)	0.2 (0.008)

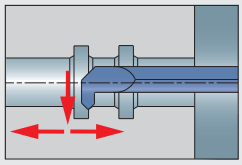
Unit: mm (inch)
√: Stocked items

Solid boring bars

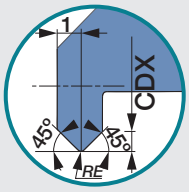
45° CHAMFERING

TFECR (without coolant hole)

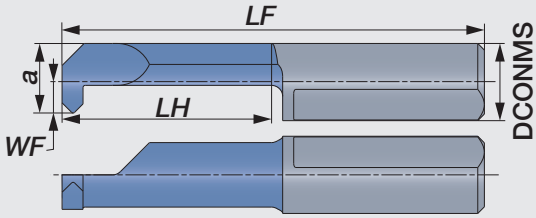
ECO



Right hand (R) shown.



Detail of edge



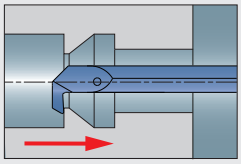
Designation	Grade AC22S RH	DMIN	DCONMS	WF	a	LF	LH	CDX	RE ± 0.05
TFECR07140020-D050	√	5 (0.20)	7 (0.276)	0.9 (0.035)	4.4 (0.17)	30 (1.181)	14 (0.551)	0.7 (0.028)	0.2 (0.0079)
TFECR07190020-D068	√	6.8 (0.27)	7 (0.276)	2.8 (0.110)	6.3 (0.25)	35 (1.378)	19 (0.748)	0.7 (0.028)	0.2 (0.0079)

Unit: mm (inch)
√: Stocked items

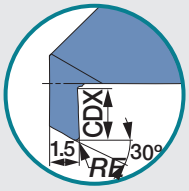
Solid boring bars

BACK BORING

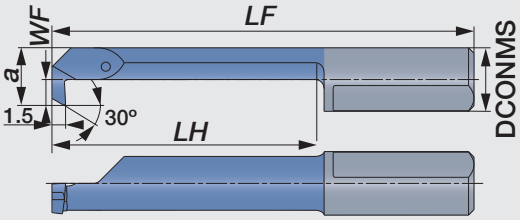
TFBR with coolant hole



Right hand (R) shown.



Detail of edge



Designation	Grade AC22 RH	DMIN	DCONMS	WF	a	LF	LH	CDX	RE ± 0.05
TFBR04140020-D030	√	3 (0.12)	4 (0.16)	0.6 (0.02)	2.6 (0.10)	30 (1.18)	14 (0.55)	0.5 (0.02)	0.2 (0.007)
TFBR04190020-D030	√	3 (0.12)	4 (0.16)	0.6 (0.02)	2.6 (0.10)	35 (1.38)	19 (0.75)	0.5 (0.02)	0.2 (0.007)
TFBR04140015-D040	√	4 (0.16)	4 (0.16)	1.5 (0.06)	3.5 (0.14)	30 (1.18)	14 (0.55)	0.8 (0.03)	0.15 (0.006)
TFBR04240015-D040	√	4 (0.16)	4 (0.16)	1.5 (0.06)	3.5 (0.14)	40 (1.57)	24 (0.94)	0.8 (0.03)	0.15 (0.006)
TFBR07190020-D050	√	5 (0.20)	7 (0.28)	0.9 (0.04)	4.4 (0.17)	35 (1.38)	19 (0.75)	1 (0.04)	0.2 (0.007)
TFBR07290020-D050	√	5 (0.20)	7 (0.28)	0.9 (0.04)	4.4 (0.17)	45 (1.77)	29 (1.14)	1 (0.04)	0.2 (0.007)
TFBR07190020-D060	√	6 (0.24)	7 (0.28)	1.8 (0.07)	5.3 (0.21)	35 (1.38)	19 (0.75)	1.8 (0.07)	0.2 (0.007)
TFBR07290020-D060	√	6 (0.24)	7 (0.28)	1.8 (0.07)	5.3 (0.21)	45 (1.77)	29 (1.14)	1.8 (0.07)	0.2 (0.007)
TFBR07190020-D070	√	7 (0.28)	7 (0.28)	2.8 (0.11)	6.3 (0.25)	35 (1.38)	19 (0.75)	2.5 (0.10)	0.2 (0.007)
TFBR07290020-D070	√	7 (0.28)	7 (0.28)	2.8 (0.11)	6.3 (0.25)	45 (1.77)	29 (1.14)	2.5 (0.10)	0.2 (0.007)

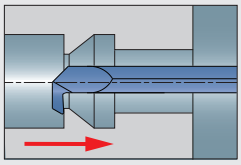
Unit: mm (inch)
√: Stocked items

Solid boring bars

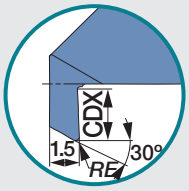
BACK BORING

TFEBR (without coolant hole)

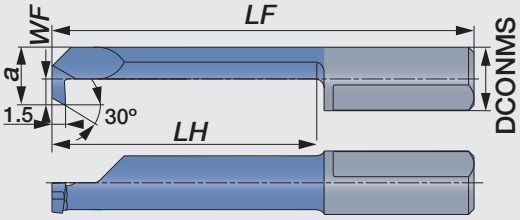
ECO



Right hand (R) shown.



Detail of edge



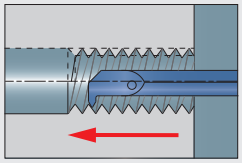
Designation	Grade AC22S RH	DMIN	DCONMS	WF	a	LF	LH	CDX	RE ± 0.05
TFEBR04140020-D030	√	3 (0.12)	4 (0.157	0.6 (0.02)	2.6 (0.10)	30 (1.18)	14 (0.55)	0.5 (0.02)	0.2 (0.008)
TFEBR04140015-D040	√	4 (0.16)	4 (0.157)	1.5 (0.06)	3.5 (0.14)	30 (1.18)	14 (0.55)	0.8 (0.03)	0.15 (0.006)
TFEBR07190020-D050	√	5 (0.20)	7 (0.276)	0.9 (0.04)	4.4 (0.17)	35 (1.38)	19 (0.75)	1 (0.04)	0.2 (0.008)

Unit: mm (inch)
√: Stocked items

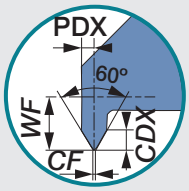
Solid boring bars

THREADING (METRIC)

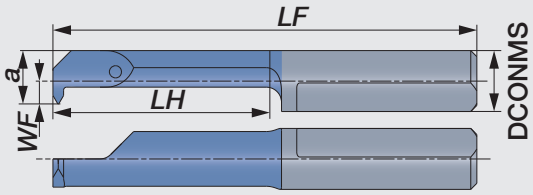
TFIR with coolant hole



Right hand (R) shown.



Detail of edge



Designation	Grade AC22 RH	Pitch	DMIN	CF $^{0}_{-0.02}$	DCONMS	WF	a	LF	LH	CDX	PDX
TFIR04140050-D040	√	0.5	4 (0.16)	0.06 (0.002)	4 (0.16)	1.5 (0.06)	3.5 (0.14)	30 (1.18)	14 (0.55)	0.3 (0.012)	0.35 (0.014)
TFIR07140050-D050	√	1.0	5 (0.20)	0.06 (0.002)	7 (0.28)	0.9 (0.04)	4.4 (0.17)	30 (1.18)	14 (0.55)	0.3 (0.012)	0.35 (0.014)
TFIR07140075-D050	√	0.75	5 (0.20)	0.09 (0.004)	7 (0.28)	0.9 (0.04)	4.4 (0.17)	30 (1.18)	14 (0.55)	0.4 (0.015)	0.45 (0.017)
TFIR07140100-D048	√	1.0	4.8 (0.19)	0.12 (0.005)	7 (0.28)	0.9 (0.04)	4.4 (0.17)	30 (1.18)	14 (0.55)	0.6 (0.024)	0.55 (0.022)
TFIR07140100-D060	√	1.5	6 (0.24)	0.12 (0.005)	7 (0.28)	1.8 (0.07)	5.3 (0.21)	30 (1.18)	14 (0.55)	0.6 (0.024)	0.55 (0.022)
TFIR07140125-D060	√	1.25	6 (0.24)	0.15 (0.006)	7 (0.28)	1.8 (0.07)	5.3 (0.21)	30 (1.18)	14 (0.55)	0.7 (0.028)	0.65 (0.026)
TFIR07140150-D060	√	1.5	6 (0.24)	0.18 (0.007)	7 (0.28)	1.8 (0.07)	5.3 (0.21)	30 (1.18)	14 (0.55)	0.8 (0.032)	0.75 (0.029)
TFIR07140150-D070	√	1.5	7 (0.28)	0.18 (0.007)	7 (0.28)	2.8 (0.11)	6.3 (0.25)	30 (1.18)	14 (0.55)	0.8 (0.032)	0.75 (0.029)

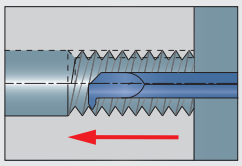
Unit: mm (inch)
√: Stocked items

Solid boring bars

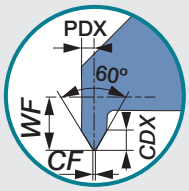
THREADING (METRIC)

TFEIR (without coolant hole)

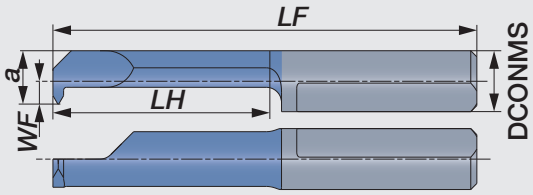
ECO



Right hand (R) shown.



Detail of edge



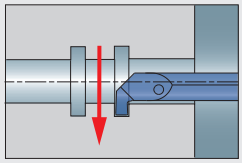
Designation	Grade AC22S RH	Pitch	DMIN	CF $^{0}_{-0.02}$	DCOMNS	WF	a	LF	LH	CDX	PDX
TFEIR04140050-D040	√	0.5	4 (0.16)	0.06 (0.002)	4 (0.157)	1.5 (0.059)	3.5 (0.14)	30 (1.181)	14 (0.551)	0.3 (0.012)	0.35 (0.014)
TFEIR07140050-D050	√	0.5	5 (0.20)	0.06 (0.002)	7 (0.276)	0.9 (0.035)	4.4 (0.17)	30 (1.181)	14 (0.551)	0.3 (0.012)	0.35 (0.014)
TFEIR07140075-D050	√	0.75	5 (0.20)	0.09 (0.004)	7 (0.276)	0.9 (0.035)	4.4 (0.17)	30 (1.181)	14 (0.551)	0.4 (0.016)	0.45 (0.018)
TFEIR07140100-D048	√	1.0	4.8 (0.19)	0.12 (0.005)	7 (0.276)	0.9 (0.035)	4.4 (0.17)	30 (1.181)	14 (0.551)	0.6 (0.024)	0.55 (0.022)
TFEIR07140100-D060	√	1.0	6 (0.24)	0.12 (0.005)	7 (0.276)	1.8 (0.071)	5.3 (0.21)	30 (1.181)	14 (0.551)	0.6 (0.024)	0.55 (0.022)
TFEIR07140150-D060	√	1.5	6 (0.24)	0.18 (0.007)	7 (0.276)	1.8 (0.071)	5.3 (0.21)	30 (1.181)	14 (0.551)	0.8 (0.032)	0.75 (0.029)

Unit: mm (inch)
√: Stocked items

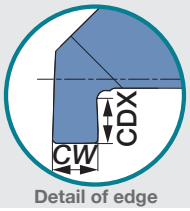
Solid boring bars

INTERNAL GROOVING

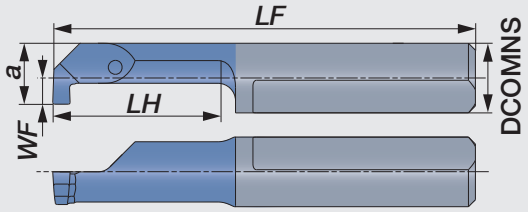
TFGR/L with coolant hole



Right hand (R) shown.



Detail of edge



Designation	Grade AC22 R	Grade AC22 L	CW $^{+0.05}_{0}$	DMIN	DCONMS	WF	a	LF	LH	CDX
TFGR04050050-D020	√		0.5 (0.019)	2 (0.008)	4 (0.16)	0.2 (0.008)	1.8 (0.07)	21 (0.83)	5 (0.20)	0.4 (0.016)
TFGR04100050-D020	√		0.5 (0.019)	2 (0.008)	4 (0.16)	0.2 (0.008)	1.8 (0.07)	26 (1.02)	10 (0.39)	0.4 (0.016)
TFGR04050070-D030	√		0.7 (0.028)	3 (0.118)	4 (0.16)	0.7 (0.028)	2.7 (0.11)	21 (0.83)	5 (0.20)	0.6 (0.024)
TFGR04100070-D030	√		0.7 (0.028)	3 (0.118)	4 (0.16)	0.7 (0.028)	2.7 (0.11)	26 (1.02)	10 (0.39)	0.6 (0.024)
TFGR04090100-D040	√		1 (0.039)	4 (0.157)	4 (0.16)	1.5 (0.059)	3.5 (0.14)	25.5 (1.00)	9 (0.35)	0.8 (0.031)
TFGR04150100-D040	√		1 (0.039)	4 (0.157)	4 (0.16)	1.5 (0.059)	3.5 (0.14)	31.5 (1.24)	15 (0.59)	0.8 (0.031)
TFGR07090100-D050	√		1 (0.039)	5 (0.197)	7 (0.28)	0.9 (0.035)	4.4 (0.17)	25 (0.98)	9 (0.35)	1 (0.039)
TFGR07140100-D050	√		1 (0.039)	5 (0.197)	7 (0.28)	0.9 (0.035)	4.4 (0.17)	30 (1.18)	14 (0.55)	1 (0.039)
TFGR07090150-D050	√		1.5 (0.059)	5 (0.197)	7 (0.28)	0.9 (0.035)	4.4 (0.17)	25 (0.98)	9 (0.35)	1 (0.039)
TFGR07140150-D050	√		1.5 (0.059)	5 (0.197)	7 (0.28)	0.9 (0.035)	4.4 (0.17)	30 (1.18)	14 (0.55)	1 (0.039)
TFGR07090200-D050	√		2 (0.079)	5 (0.197)	7 (0.28)	0.9 (0.035)	4.4 (0.17)	25 (0.98)	9 (0.35)	1 (0.039)
TFGR07190200-D050	√		2 (0.079)	5 (0.197)	7 (0.28)	0.9 (0.035)	4.4 (0.17)	35 (1.38)	19 (0.75)	1 (0.039)
TFGR/L07090100-D060	√	√	1 (0.039)	6 (0.236)	7 (0.28)	1.8 (0.071)	5.3 (0.21)	25 (0.98)	9 (0.35)	1.8 (0.070)
TFGR07140100-D060	√		1 (0.039)	6 (0.236)	7 (0.28)	1.8 (0.071)	5.3 (0.21)	30 (1.18)	14 (0.55)	1.8 (0.070)
TFGR07210100-D060	√		1 (0.039)	6 (0.236)	7 (0.28)	1.8 (0.071)	5.3 (0.21)	37 (1.46)	21 (0.83)	1.8 (0.070)
TFGR07290100-D060	√		1 (0.039)	6 (0.236)	7 (0.28)	1.8 (0.071)	5.3 (0.21)	45 (1.77)	29 (1.14)	1.8 (0.070)
TFGR/L07090150-D060	√	√	1.5 (0.059)	6 (0.236)	7 (0.28)	1.8 (0.071)	5.3 (0.21)	25 (0.98)	9 (0.35)	1.8 (0.070)
TFGR07140150-D060	√		1.5 (0.059)	6 (0.236)	7 (0.28)	1.8 (0.071)	5.3 (0.21)	30 (1.18)	14 (0.55)	1.8 (0.070)
TFGR07210150-D060	√		1.5 (0.059)	6 (0.236)	7 (0.28)	1.8 (0.071)	5.3 (0.21)	37 (1.46)	21 (0.83)	1.8 (0.070)
TFGR07240150-D060	√		1.5 (0.059)	6 (0.236)	7 (0.28)	1.8 (0.071)	5.3 (0.21)	40 (1.57)	24 (0.94)	1.8 (0.070)
TFGR07290150-D060	√		1.5 (0.059)	6 (0.236)	7 (0.28)	1.8 (0.071)	5.3 (0.21)	45 (1.77)	29 (1.14)	1.8 (0.070)
TFGR07090200-D060	√		2 (0.079)	6 (0.236)	7 (0.28)	1.8 (0.071)	5.3 (0.21)	25 (0.98)	9 (0.35)	1.8 (0.070)
TFGR07140200-D060	√		2 (0.079)	6 (0.236)	7 (0.28)	1.8 (0.071)	5.3 (0.21)	30 (1.18)	14 (0.55)	1.8 (0.070)
TFGR07210200-D060	√		2 (0.079)	6 (0.236)	7 (0.28)	1.8 (0.071)	5.3 (0.21)	37 (1.46)	21 (0.83)	1.8 (0.070)
TFGR07240200-D060	√		2 (0.079)	6 (0.236)	7 (0.28)	1.8 (0.071)	5.3 (0.21)	40 (1.57)	24 (0.94)	1.8 (0.070)
TFGR07290200-D060	√		2 (0.079)	6 (0.236)	7 (0.28)	1.8 (0.071)	5.3 (0.21)	45 (1.77)	29 (1.14)	1.8 (0.070)
TFGR07090100-D068	√		1 (0.039)	6.8 (0.268)	7 (0.28)	2.7 (0.106)	6.2 (0.24)	25 (0.98)	9 (0.35)	2.5 (0.098)
TFGR07140100-D068	√		1 (0.039)	6.8 (0.268)	7 (0.28)	2.7 (0.106)	6.2 (0.24)	30 (1.18)	14 (0.55)	2.5 (0.098)
TFGR07210100-D068	√		1 (0.039)	6.8 (0.268)	7 (0.28)	2.7 (0.106)	6.2 (0.24)	37 (1.46)	21 (0.83)	2.5 (0.098)
TFGR07090150-D068	√		1.5 (0.059)	6.8 (0.268)	7 (0.28)	2.7 (0.106)	6.2 (0.24)	25 (0.98)	9 (0.35)	2.5 (0.098)
TFGR07140150-D068	√		1.5 (0.059)	6.8 (0.268)	7 (0.28)	2.7 (0.106)	6.2 (0.24)	30 (1.18)	14 (0.55)	2.5 (0.098)
TFGR07210150-D068	√		1.5 (0.059)	6.8 (0.268)	7 (0.28)	2.7 (0.106)	6.2 (0.24)	37 (1.46)	21 (0.83)	2.5 (0.098)
TFGR07290150-D068	√		1.5 (0.059)	6.8 (0.268)	7 (0.28)	2.7 (0.106)	6.2 (0.24)	45 (1.77)	29 (1.14)	2.5 (0.098)
TFGR07090200-D068	√		2 (0.079)	6.8 (0.268)	7 (0.28)	2.7 (0.106)	6.2 (0.24)	25 (0.98)	9 (0.35)	2.5 (0.098)
TFGR/L07140200-D068	√	√	2 (0.079)	6.8 (0.268)	7 (0.28)	2.7 (0.106)	6.2 (0.24)	30 (1.18)	14 (0.55)	2.5 (0.098)
TFGR07210200-D068	√		2 (0.079)	6.8 (0.268)	7 (0.28)	2.7 (0.106)	6.2 (0.24)	37 (1.46)	21 (0.83)	2.5 (0.098)
TFGR07250200-D068	√		2 (0.079)	6.8 (0.268)	7 (0.28)	2.7 (0.106)	6.2 (0.24)	40 (1.57)	25 (0.98)	2.5 (0.098)
TFGR07290200-D068	√		2 (0.079)	6.8 (0.268)	7 (0.28)	2.7 (0.106)	6.2 (0.24)	45 (1.77)	29 (1.14)	2.5 (0.098)

- Corner radius : less than 0.01 mm.

Unit: mm (inch)

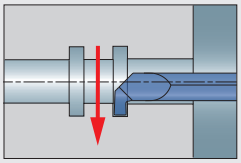
√: Stocked items

Solid boring bars

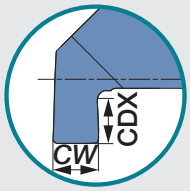
INTERNAL GROOVING

TFEGR/L (without coolant hole)

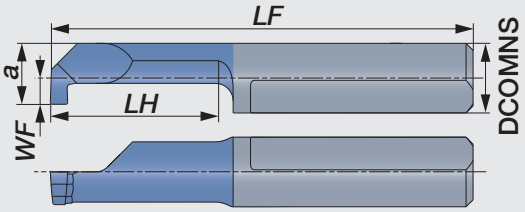
ECO



Right hand (R) shown.



Detail of edge



Designation	Grade AC22S R	CW $^{+0.05}_{0}$	DMIN	DCONMS	WF	a	LF	LH	CDX
TFEGR04100050-D020	√	0.5 (0.019)	2 (0.008)	4 (0.157)	0.2 (0.008)	1.8 (0.07)	26 (1.024)	10 (0.394)	0.4 (0.016)
TFEGR04090100-D040	√	1 (0.039)	4 (0.157)	4 (0.157)	1.5 (0.059)	3.5 (0.14)	25.5 (1.004)	9 (0.354)	0.8 (0.032)
TFEGR04150100-D040	√	1 (0.039)	4 (0.157)	4 (0.157)	1.5 (0.059)	3.5 (0.14)	31.5 (1.24)	15 (0.591)	0.8 (0.032)
TFEGR07090200-D050	√	2 (0.076)	5 (0.197)	7 (0.276)	0.9 (0.035)	4.4 (0.17)	25 (0.984)	9 (0.354)	1 (0.039)
TFEGR07090100-D060	√	1 (0.039)	6 (0.236)	7 (0.276)	1.8 (0.071)	5.3 (0.21)	25 (0.984)	9 (0.354)	1.8 (0.071)
TFEGR07140100-D060	√	1 (0.039)	6 (0.236)	7 (0.276)	1.8 (0.071)	5.3 (0.21)	30 (1.181)	14 (0.551)	1.8 (0.071)
TFEGR07090150-D060	√	1.5 (0.059)	6 (0.236)	7 (0.276)	1.8 (0.071)	5.3 (0.21)	25 (0.984)	9 (0.354)	1.8 (0.071)
TFEGR07090200-D060	√	2 (0.079)	6 (0.236)	7 (0.276)	1.8 (0.071)	5.3 (0.21)	25 (0.984)	9 (0.354)	1.8 (0.071)
TFEGR07140200-D060	√	2 (0.079)	6 (0.236)	7 (0.276)	1.8 (0.071)	5.3 (0.21)	30 (1.181)	14 (0.551)	1.8 (0.071)
TFEGR07090100-D068	√	1 (0.039)	6.8 (0.268)	7 (0.276)	2.7 (0.106)	6.2 (0.24)	25 (0.984)	9 (0.354)	2.5 (0.098)
TFEGR07090150-D068	√	1.5 (0.059)	6.8 (0.268)	7 (0.276)	2.7 (0.106)	6.2 (0.24)	25 (0.984)	9 (0.354)	2.5 (0.098)
TFEGR07140150-D068	√	1.5 (0.059)	6.8 (0.268)	7 (0.276)	2.7 (0.106)	6.2 (0.24)	30 (1.181)	14 (0.551)	2.5 (0.098)
TFEGR07090200-D068	√	2 (0.079)	6.8 (0.268)	7 (0.276)	2.7 (0.106)	6.2 (0.24)	25 (0.984)	9 (0.354)	2.5 (0.098)
TFEGR07140200-D068	√	2 (0.079)	6.8 (0.268)	7 (0.276)	2.7 (0.106)	6.2 (0.24)	30 (1.181)	14 (0.551)	2.5 (0.098)
TFEGR07210200-D068	√	2 (0.079)	6.8 (0.268)	7 (0.276)	2.7 (0.106)	6.2 (0.24)	37 (1.457)	21 (0.827)	2.5 (0.098)
TFEGR07290200-D068	√	2 (0.079)	6.8 (0.268)	7 (0.276)	2.7 (0.106)	6.2 (0.24)	45 (1.772)	29 (1.142)	2.5 (0.098)

- Corner radius : less than 0.01 mm.

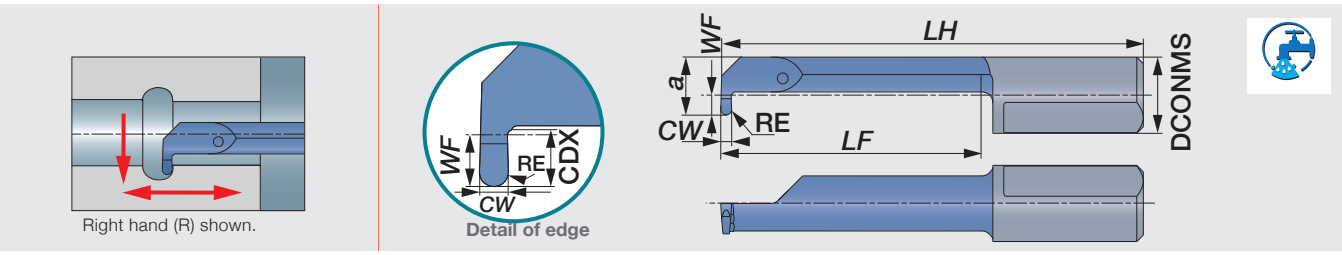
Unit: mm (inch)

√: Stocked items

Solid boring bars

GROOVING, PROFILING (FULL RADIUS TYPE)

TFRR with coolant hole



Designation	Grade AC22 RH	CW +0.05 0	DMIN	DCONMS	WF	a	LF	LH	CDX	RE
TFRR07190050-D050	√	1 (0.04)	5 (0.20)	7 (0.28)	0.9 (0.035)	4.4 (0.17)	35 (1.38)	19 (0.75)	1 (0.04)	0.5 (0.02)
TFRR07240050-D060	√	1 (0.04)	6 (0.24)	7 (0.28)	1.8 (0.071)	5.3 (0.21)	40 (1.57)	24 (0.94)	1.8 (0.07)	0.5 (0.02)
TFRR07290050-D068	√	1 (0.04)	6.8 (0.27)	7 (0.28)	2.8 (0.110)	6.3 (0.25)	45 (1.77)	29 (1.14)	2.5 (0.10)	0.5 (0.02)

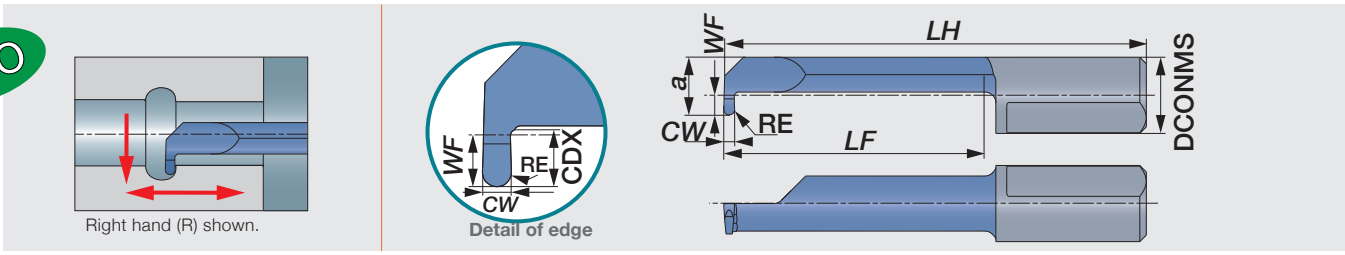
Unit: mm (inch)
√: Stocked items

Solid boring bars

GROOVING, PROFILING (FULL RADIUS TYPE)

TFERR (without coolant hole)

ECO



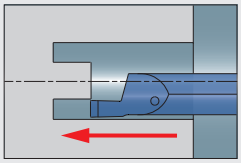
Designation	Grade AC22S RH	CW +0.05 0	DMIN	DCONMS	WF	a	LF	LH	CDX	RE
TFERR07190050-D050	√	1 (0.04)	5 (0.20)	7 (0.28)	0.9 (0.035)	4.4 (0.17)	35 (1.38)	19 (0.75)	1 (0.04)	0.5 (0.02)
TFERR07240050-D060	√	1 (0.04)	6 (0.24)	7 (0.28)	1.8 (0.071)	5.3 (0.21)	40 (1.57)	24 (0.94)	1.8 (0.07)	0.5 (0.02)
TFERR07290050-D068	√	1 (0.04)	6.8 (0.27)	7 (0.28)	2.8 (0.110)	6.3 (0.25)	45 (1.77)	29 (1.14)	2.5 (0.10)	0.5 (0.02)

Unit: mm (inch)
√: Stocked items

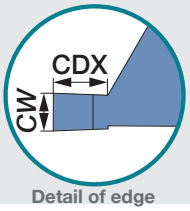
Solid boring bars

FACE GROOVING

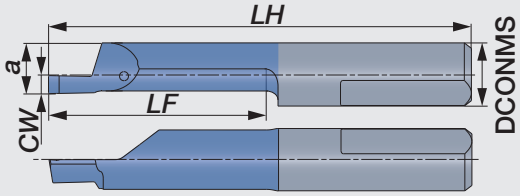
TFFR/L with coolant hole



Right hand (R) shown.



Detail of edge



Designation	Grade AC22 R	Grade AC22 L	CW $^{+0.05}_{0}$	DMIN	DCONMS	a	LH	LF	CDX
TFFR07110100-D060	√		1 (0.04)	6 (0.24)	7 (0.28)	5.2 (0.20)	26 (1.02)	10 (0.39)	1.5 (0.06)
TFFR07110150-D060	√		1.5 (0.06)	6 (0.24)	7 (0.28)	5.2 (0.20)	26 (1.02)	10 (0.39)	2 (0.08)
TFFR07110200-D060	√		2 (0.08)	6 (0.24)	7 (0.28)	5.2 (0.20)	26 (1.02)	10 (0.39)	3 (0.12)
TFFR07110100-D080	√		1 (0.04)	8 (0.31)	7 (0.28)	5.9 (0.23)	27 (1.06)	11 (0.43)	1.5 (0.06)
TFFR07110150-D080	√		1.5 (0.06)	8 (0.31)	7 (0.28)	5.9 (0.23)	27 (1.06)	11 (0.43)	2.5 (0.10)
TFFR07110200-D080	√		2 (0.08)	8 (0.31)	7 (0.28)	5.9 (0.23)	27 (1.06)	11 (0.43)	3 (0.12)
TFFR07110250-D080	√		2.5 (0.10)	8 (0.31)	7 (0.28)	5.9 (0.23)	27 (1.06)	11 (0.43)	3.5 (0.14)
TFFR07110300-D080	√		3 (0.12)	8 (0.31)	7 (0.28)	5.9 (0.23)	27 (1.06)	11 (0.43)	3.5 (0.14)
TFFR07200200-D080	√		2 (0.08)	8 (0.31)	7 (0.28)	5.9 (0.23)	36 (1.42)	20 (0.79)	3 (0.12)
TFFR/L07210150-D080	√	√	1.5 (0.06)	8 (0.31)	7 (0.28)	5.9 (0.23)	36 (1.42)	21 (0.83)	2.5 (0.10)
TFFR07210200-D080	√		2 (0.08)	8 (0.31)	7 (0.28)	5.9 (0.23)	36 (1.42)	21 (0.83)	3 (0.12)
TFFR07210250-D080	√		2.5 (0.10)	8 (0.31)	7 (0.28)	5.9 (0.23)	36 (1.42)	21 (0.83)	3.5 (0.14)
TFFR07210300-D080	√		3 (0.12)	8 (0.31)	7 (0.28)	5.9 (0.23)	36 (1.42)	21 (0.83)	3.5 (0.14)
TFFR/L07300200-D080	√	√	2 (0.08)	8 (0.31)	7 (0.28)	5.9 (0.23)	46 (1.81)	30 (1.18)	3 (0.12)
TFFR07300300-D080	√		3 (0.12)	8 (0.31)	7 (0.28)	5.9 (0.23)	46 (1.81)	30 (1.18)	3.5 (0.14)
TFFR07200250-D150	√		2.5 (0.10)	15 (0.59)	7 (0.28)	5.9 (0.23)	36 (1.42)	20 (0.79)	20 (0.79)
TFFR07200300-D150	√		3 (0.12)	15 (0.59)	7 (0.28)	5.9 (0.23)	36 (1.42)	20 (0.79)	20 (0.79)
TFFR07300300-D150	√		3 (0.12)	15 (0.59)	7 (0.28)	5.9 (0.23)	46 (1.81)	30 (1.18)	30 (1.18)

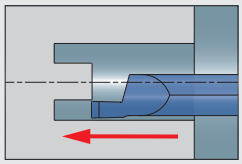
Unit: mm (inch)
√: Stocked items

Solid boring bars

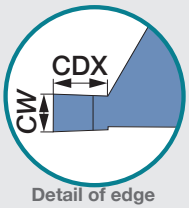
FACE GROOVING

TFEFR/L (without coolant hole)

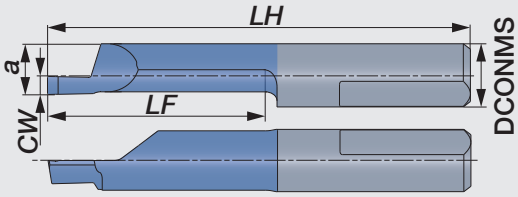
ECO



Right hand (R) shown.



Detail of edge



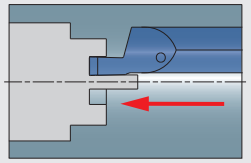
Designation	Grade AC22S R	Grade AC22S L	CW $^{+0.05}_{0}$	DMIN	DCONMS	a	LH	LF	CDX
TFEFR07110100-D060	√		1 (0.039)	6 (0.236)	7 (0.276)	5.2 (0.205)	26 (1.024)	10 (0.394)	1.5 (0.059)
TFEFR07110200-D060	√		2 (0.079)	6 (0.236)	7 (0.276)	5.2 (0.205)	26 (1.024)	10 (0.394)	3 (0.118)
TFEFR07110100-D080	√		1 (0.039)	8 (0.315)	7 (0.276)	5.9 (0.232)	27 (1.063)	11 (0.433)	1.5 (0.059)
TFEFR07110250-D080	√		2.5 (0.098)	8 (0.315)	7 (0.276)	5.9 (0.232)	27 (1.063)	11 (0.433)	3.5 (0.138)
TFEFR07300300-D080	√		3 (0.118)	8 (0.315)	7 (0.276)	5.9 (0.232)	46 (1.811)	30 (1.181)	3.5 (0.138)
TFEFR07200250-D150	√		2.5 (0.098)	15 (0.591)	7 (0.276)	5.9 (0.232)	36 (1.417)	20 (0.787)	20 (0.787)
TFEFR07200300-D150	√		3 (0.118)	15 (0.591)	7 (0.276)	5.9 (0.232)	36 (1.417)	20 (0.787)	20 (0.787)
TFEFR07300300-D150	√		3 (0.118	15 (0.591)	7 (0.276)	5.9 (0.232)	46 (1.811)	30 (1.181)	30 (1.181)

Unit: mm (inch)
√: Stocked items

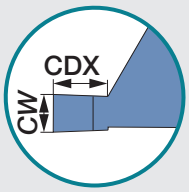
Solid boring barst

FACE GROOVING (FOR MACHINING SHAFT)

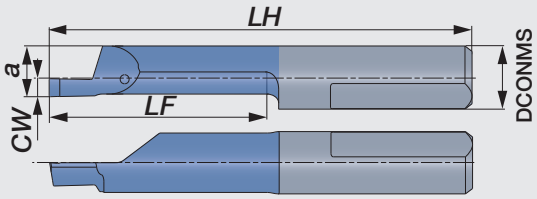
TFSR with coolant hole



Right hand (R) shown.



Detail of edge



Designation	Grade AC22 RH	CW +0.05 0	DMIN	DCONMS	a	LH	LF	CDX
TFSR07200200-D060	√	2 (0.08)	6 (0.24)	7 (0.28)	5.2 (0.20)	36 (1.42)	20 (0.79)	4 (0.16)

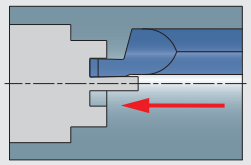
Unit: mm (inch)
√: Stocked items

Solid boring bars

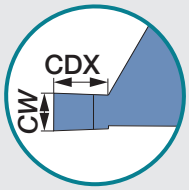
FACE GROOVING (FOR MACHINING SHAFT)

TFESR (without coolant hole)

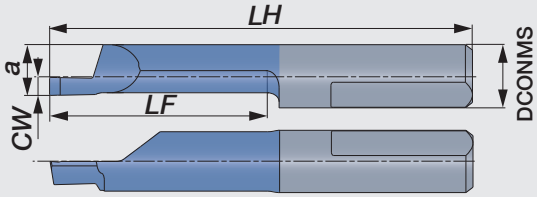
ECO



Right hand (R) shown.



Detail of edge



Designation	Grade AC22S RH	CW +0.05 0	DMIN	DCONMS	a	LH	LF	CDX
TFESR07200200-D060	√	2 (0.08)	6 (0.24)	7 (0.28)	5.2 (0.20)	36 (1.42)	20 (0.79)	4 (0.16)

Unit: mm (inch)
√: Stocked items

NEW PRODUCT NEWS

Collet-chuck sleeves

MEGA TECH METALWORK

MICROCUT
THE ZENITH OF PRECISION MACHINING!

SLEEVES

(see page 25)

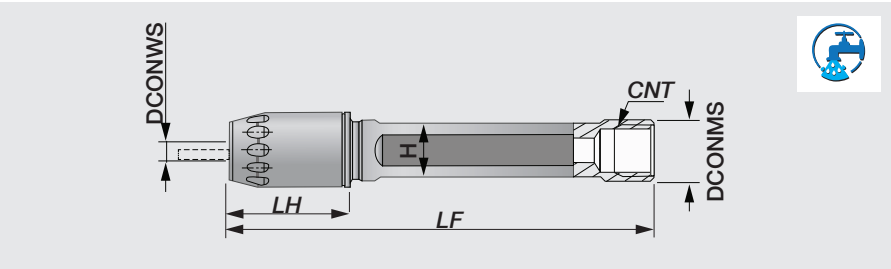
Excellent cutting edge offers high precision machining for a wide range of internal applications!

TOOLFLO

Collet chuck sleeve for solid carbide bars

SLEEVE WITH INTERNAL COOLANT SUPPLY

TFBSA-C



Description	DCONMS	DCONWS	LF	LH	H	CNT	CSP
TFBSA12-4-L80C	12 (0.472)	4 (0.157)	80 (3.149)	23 (0.906)	10.3 (0.406)	Rc1/8	w/coolant hole
TFBSA127-4-L80C	12.7 (0.499)	4 (0.157)	80 (3.149)	23 (0.906)	11.6 (0.457)	Rc1/8	w/coolant hole
TFBSA14-4-L80C	14 (0.551)	4 (0.157)	80 (3.149)	23 (0.906)	12 (0.472)	Rc1/8	w/coolant hole
TFBSA159-4-L100C	15.88 (0.625)	4 (0.157)	100 (3.937)	23 (0.906)	14 (0.551)	Rc1/8	w/coolant hole
TFBSA159-7-L100C	15.88 (0.625)	7 (0.276)	100 (3.937)	23 (0.906)	14 (0.551)	Rc1/8	w/coolant hole
TFBSA16-4-L100C	16 (0.629)	4 (0.157)	100 (3.937)	23 (0.906)	14 (0.551)	Rc1/8	w/coolant hole
TFBSA16-7-L100C	16 (0.629)	7 (0.276)	100 (3.937)	23 (0.906)	14 (0.551)	Rc1/8	w/coolant hole
TFBSA19-4-L120C	19 (0.754)	4 (0.157)	120 (4.724)	23 (0.906)	17.2 (0.677)	Rc1/8	w/coolant hole
TFBSA19-7-L120C	19 (0.754)	7 (0.276)	120 (4.724)	23 (0.906)	17.2 (0.677)	Rc1/8	w/coolant hole
TFBSA20-4-L120C	20 (0.787)	4 (0.157)	120 (4.724)	23 (0.906)	18 (0.709)	Rc1/8	w/coolant hole
TFBSA20-7-L120C	20 (0.787)	7 (0.276)	120 (4.724)	23 (0.906)	18 (0.709)	Rc1/8	w/coolant hole
TFBSA22-4-L135C	22 (0.866)	4 (0.157)	135 (5.315)	23 (0.906)	20 (0.787)	Rc1/8	w/coolant hole
TFBSA22-7-L135C	22 (0.866)	7 (0.276)	135 (5.315)	23 (0.906)	20 (0.787)	Rc1/8	w/coolant hole
TFBSA25-4-L135C	25.4 (0.984)	4 (0.157)	120 (4.724)	23 (0.906)	23 (0.906)	Rc1/8	w/coolant hole
TFBSA25-7-L135C	25.4 (0.984)	7 (0.276)	120 (4.724)	23 (0.906)	23 (0.906)	Rc1/8	w/coolant hole
TFBSA254-4-L120C	25 (1.000)	4 (0.157)	120 (4.724)	23 (0.906)	23.4 (0.921)	Rc1/8	w/coolant hole
TFBSA254-7-L120C	25 (1.000)	7 (0.276)	120 (4.724)	23 (0.906)	23.4 (0.921)	Rc1/8	w/coolant hole

Unit: mm (inch)

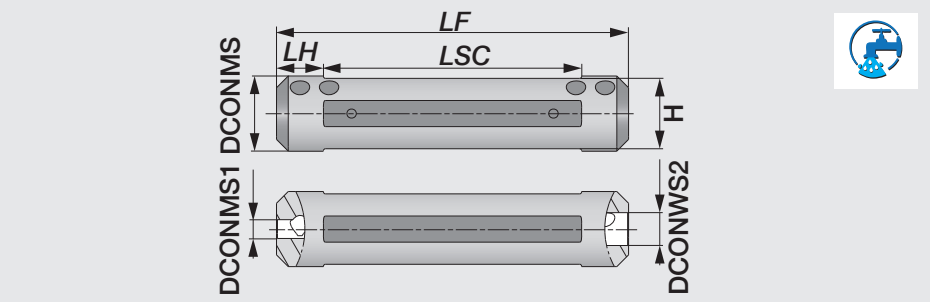
SPARE PARTS

Designation	Clamping screw	Wrench
TFBSA**-4-L100C	CAP-A-4	WRENCH-A-4
TFBSA**-7-L100C	CAP-A-7	WRENCH-A-7

Sleeve with double-ended clamping and coolant supply

SLEEVE FOR CLAMPING TWO DIFFERENT SHANK SIZES

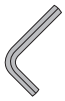
TFBS



Designation	DCONMS	DCONMS1	DCONWS2	LF	LH	LSC	H
TFBS12-4-4	12 (0.47)	4 (0.16)	4 (0.16)	75 (2.95)	10 (0.39)	55 (2.17)	10.3 (0.41)
TFBS127-4-4	12.7 (0.50)	4 (0.16)	4 (0.16)	76.2 (3.00)	10 (0.39)	56.2 (2.21)	11.6 (0.46)
TFBS14-4-4	14 (0.55)	4 (0.16)	4 (0.16)	75 (2.95)	10 (0.39)	55 (2.17)	12 (0.47)
TFBS159-4-7	15.875 (0.62)	4 (0.16)	7 (0.28)	76.2 (3.00)	10 (0.39)	56.2 (2.21)	14 (0.55)
TFBS16-4-7	16 (0.63)	4 (0.16)	7 (0.28)	75 (2.95)	10 (0.39)	55 (2.17)	15 (0.59)
TFBS19-4-7	19.05 (0.75)	4 (0.16)	7 (0.28)	89 (3.50)	10 (0.39)	69 (2.72)	17.2 (0.68)
TFBS20-4-7	20 (0.79)	4 (0.16)	7 (0.28)	90 (3.54)	10 (0.39)	70 (2.76)	18 (0.71)
TFBS22-4-7	22 (0.87)	4 (0.16)	7 (0.28)	90 (3.54)	10 (0.39)	70 (2.76)	20 (0.79)
TFBS25-4-7	25 (0.98)	4 (0.16)	7 (0.28)	100 (3.94)	10 (0.39)	80 (3.15)	23 (0.91)
TFBS254-4-7	25.4 (1.00)	4 (0.16)	7 (0.28)	90 (3.54)	10 (0.39)	70 (2.76)	23.4 (0.92)

Unit: mm (inch)

SPARE PARTS

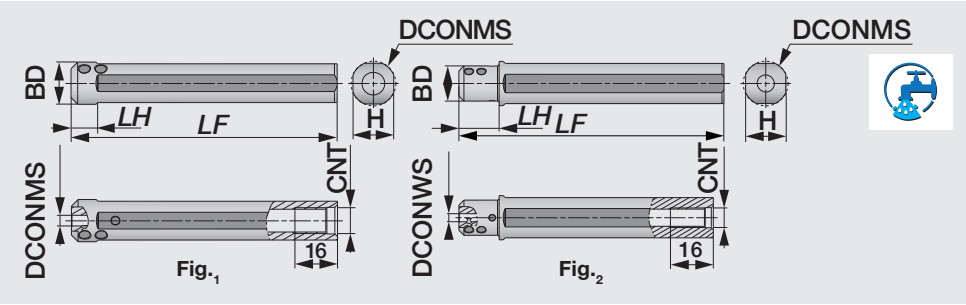


Designation	Clamping screw	Wrench
TFBS12-4-4	SSHM5-4PF-S	P-2.5
TFBS14-4-4	SSHM5-4PF-S	P-2.5
TFBS127-4-4	SSHM5-6PF-S	P-2.5
TFBS...-4-7	SSHM5-6PF-S	P-2.5

Single-ended sleeve

SLEEVE WITH INTERNAL COOLANT SUPPLY

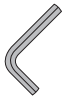
TFBS-C



Description	DCONMS	BD	DCONWS	LF	LH	H	CNT	CSP	Fig
TFBS159-4-L100C	15.875 (0.62)	15.875 (0.62)	4 (0.16)	100 (3.94)	10 (0.39)	14.6 (0.57)	Rc1/8	w/coolant hole	1
TFBS159-7-L100C	15.875 (0.62)	15.875 (0.62)	7 (0.28)	100 (3.94)	10 (0.39)	14.6 (0.57)	Rc1/8	w/coolant hole	1
TFBS16-4-L100C	16 (0.63)	16 (0.63)	4 (0.16)	100 (3.94)	10 (0.39)	15 (0.59)	Rc1/8	w/coolant hole	1
TFBS16-7-L100C	16 (0.63)	16 (0.63)	7 (0.28)	100 (3.94)	10 (0.39)	15 (0.59)	Rc1/8	w/coolant hole	1
TFBS19-4-L100C	19.05 (0.75)	17.5 (0.69)	4 (0.16)	100 (3.94)	20 (0.79)	17.2 (0.68)	Rc1/8	w/coolant hole	2
TFBS19-7-L100C	19.05 (0.75)	17.5 (0.69)	7 (0.28)	100 (3.94)	20 (0.79)	17.2 (0.68)	Rc1/8	w/coolant hole	2
TFBS20-4-L100C	20 (0.79)	17.5 (0.69)	4 (0.16)	100 (3.94)	20 (0.79)	18 (0.71)	Rc1/8	w/coolant hole	2
TFBS20-7-L100C	20 (0.79)	17.5 (0.69)	7 (0.28)	100 (3.94)	20 (0.79)	18 (0.71)	Rc1/8	w/coolant hole	2
TFBS22-4-L100C	22 (0.87)	17.5 (0.69)	4 (0.16)	100 (3.94)	20 (0.79)	20 (0.79)	Rc1/8	w/coolant hole	2
TFBS22-7-L100C	22 (0.87)	17.5 (0.69)	7 (0.28)	100 (3.94)	20 (0.79)	20 (0.79)	Rc1/8	w/coolant hole	2
TFBS25-4-L100C	25 (0.98)	18 (0.71)	4 (0.16)	100 (3.94)	23 (0.91)	23 (0.91)	Rc1/8	w/coolant hole	2
TFBS25-7-L100C	25 (0.98)	18 (0.71)	7 (0.28)	100 (3.94)	23 (0.91)	23 (0.91)	Rc1/8	w/coolant hole	2
TFBS254-4-L100C	25.4 (1.00)	18 (0.71)	4 (0.16)	100 (3.94)	23 (0.91)	23.4 (0.92)	Rc1/8	w/coolant hole	2
TFBS254-7-L100C	25.4 (1.00)	18 (0.71)	7 (0.28)	100 (3.94)	23 (0.91)	23.4 (0.92)	Rc1/8	w/coolant hole	2

Unit: mm (inch)

SPARE PARTS

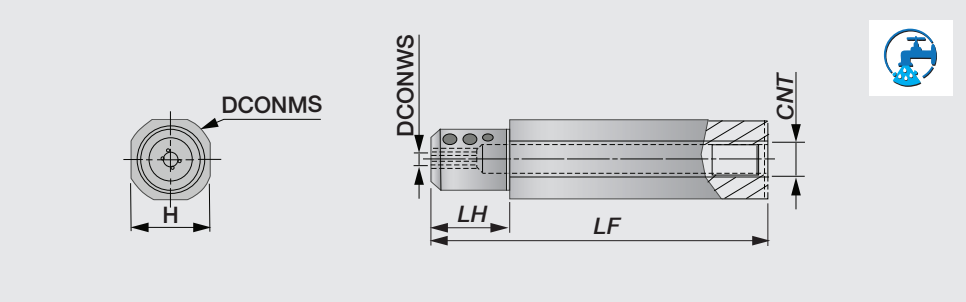


Designation	Clamping screw	Wrench
TFBS...-4-L100C	SSHM5-6PF-S	P-2.5
TFBS...-7-L100C	SSHM5-4PF-S	P-2.5

Single-ended sleeve

SLEEVE FOR INTERNAL COOLANT WITH 4 COOLANT HOLES

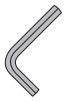
TFBS-4N



Description	DCONMS	DCONWS	LF	LH	H	CNT	CSP
TFBS12-4-L80C-4N	12 (0.472)	4 (0.157)	80 (3.149)	10 (0.394)	10.3 (0.406)	Rc1/16	w/coolant hole
TFBS127-4-L80C-4N	12.7 (0.499)	4 (0.157)	80 (3.149)	10 (0.394)	11.6 (0.457)	Rc1/16	w/coolant hole
TFBS14-4-L80C-4N	14 (0.551)	4 (0.157)	80 (3.149)	10 (0.394)	12 (0.472)	Rc1/8	w/coolant hole
TFBS159-4-L100C-4N	15.9 (0.625)	4 (0.157)	100 (3.937)	10 (0.394)	14.6 (0.575)	Rc1/8	w/coolant hole
TFBS159-7-L100C-4N	15.9 (0.625)	7 (0.276)	100 (3.937)	10 (0.394)	14.6 (0.575)	Rc1/8	w/coolant hole
TFBS16-4-L100C-4N	16 (0.629)	4 (0.157)	100 (3.937)	10 (0.394)	15 (0.591)	Rc1/8	w/coolant hole
TFBS16-7-L100C-4N	16 (0.629)	7 (0.276)	100 (3.937)	10 (0.394)	15 (0.591)	Rc1/8	w/coolant hole
TFBS19-4-L100C-4N	19 (0.748)	4 (0.157)	100 (3.937)	20 (0.787)	17.2 (0.677)	Rc1/8	w/coolant hole
TFBS19-7-L100C-4N	19 (0.748)	7 (0.276)	100 (3.937)	20 (0.787)	17.2 (0.677)	Rc1/8	w/coolant hole
TFBS20-4-L100C-4N	20 (0.787)	4 (0.157)	100 (3.937)	20 (0.787)	18 (0.709)	Rc1/8	w/coolant hole
TFBS20-7-L100C-4N	20 (0.787)	7 (0.276)	100 (3.937)	20 (0.787)	18 (0.709)	Rc1/8	w/coolant hole
TFBS22-4-L100C-4N	22 (0.866)	4 (0.157)	100 (3.937)	20 (0.787)	20 (0.787)	Rc1/8	w/coolant hole
TFBS22-7-L100C-4N	22 (0.866)	7 (0.276)	100 (3.937)	20 (0.787)	20 (0.787)	Rc1/8	w/coolant hole
TFBS25-4-L100C-4N	25 (0.984)	4 (0.157)	100 (3.937)	23 (0.906)	23 (0.906)	Rc1/8	w/coolant hole
TFBS25-7-L100C-4N	25 (0.984)	7 (0.276)	100 (3.937)	23 (0.906)	23 (0.906)	Rc1/8	w/coolant hole
TFBS254-4-L100C-4N	25.4 (1.000)	4 (0.157)	100 (3.937)	23 (0.906)	23.4 (0.921)	Rc1/8	w/coolant hole
TFBS254-7-L100C-4N	25.4 (1.000)	7 (0.276)	100 (3.937)	23 (0.906)	23.4 (0.921)	Rc1/8	w/coolant hole

Unit: mm (inch)

SPARE PARTS

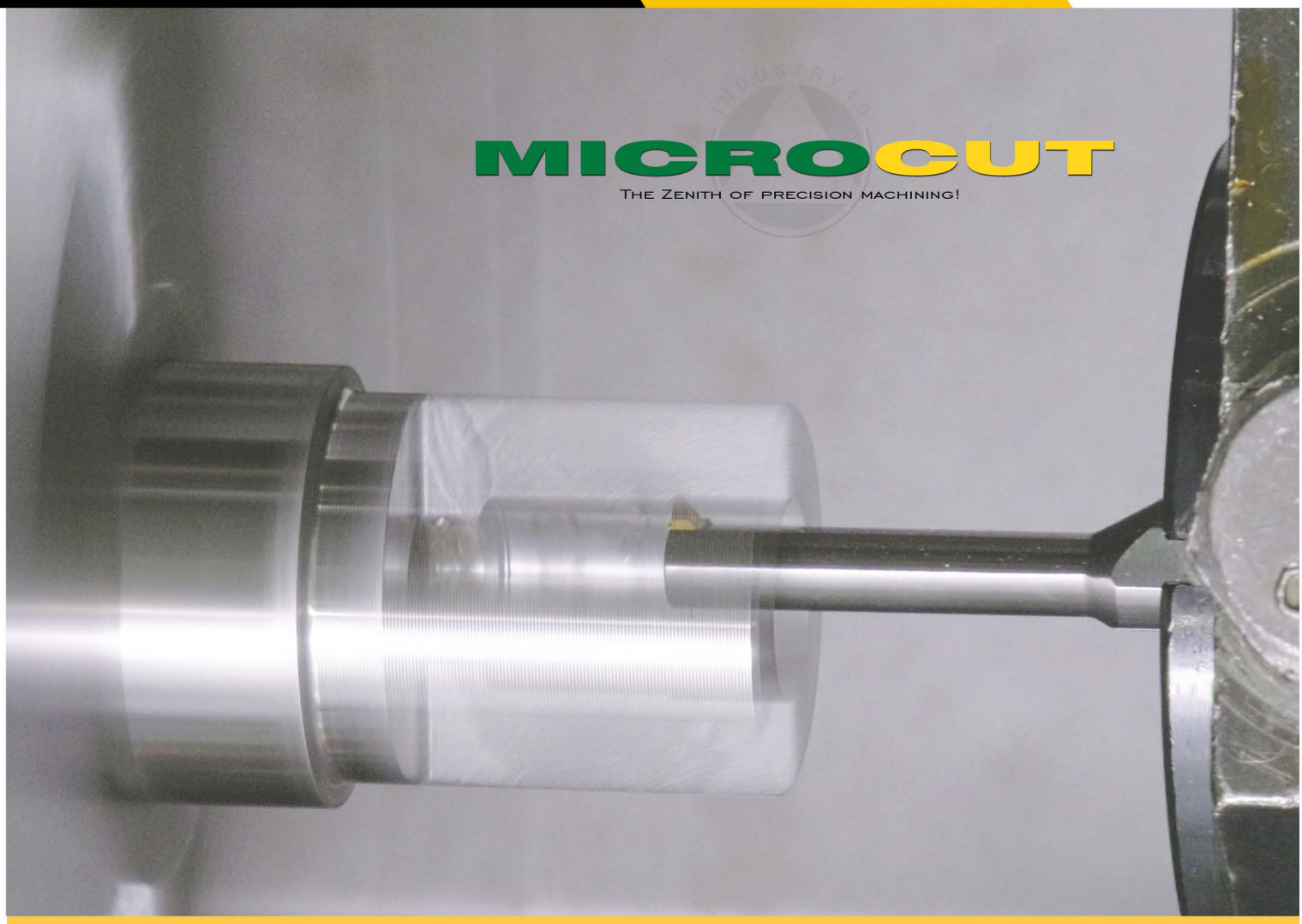


Designation	Clamping screw	Wrench
TFBS...-4-L100C	SSHM5-6PF-S	P-2.5
TFBS...-7-L100C	SSHM5-4PF-S	P-2.5

NEW PRODUCT NEWS

mgt
MEGA TECH METALWORK

Collet-chuck sleeves

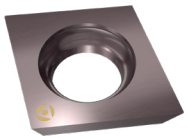


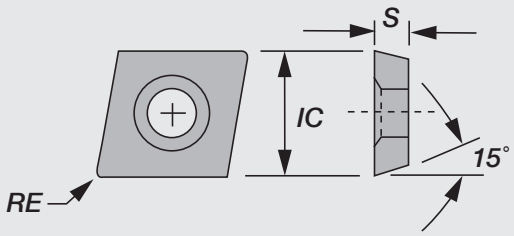
TOOLOFLO

Bantam Series indexable carbide inserts

BORING

CDCD





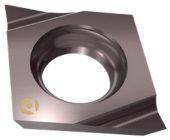
Designation	IC	RE	S	Grades GP22	Grades GP4
CDCD-500	3.96 (0.156)	0.051 (0.002)	1.02 (0.09)	√	√
CDCD-505	3.96 (0.156)	0.177 (0.007)	1.02 (0.09)	√	√
CDCD-51	3.96 (0.156)	0.381 (0.015)	1.02 (0.09)	√	√

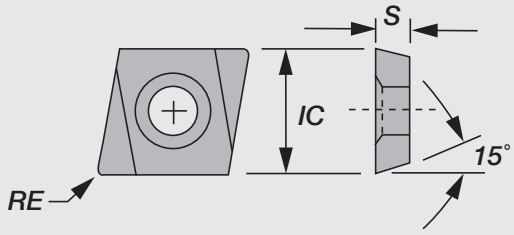
Unit: mm (inch)
√: Stocked items

Bantam Series indexable carbide inserts

BORING

CDCG with chipbreaker





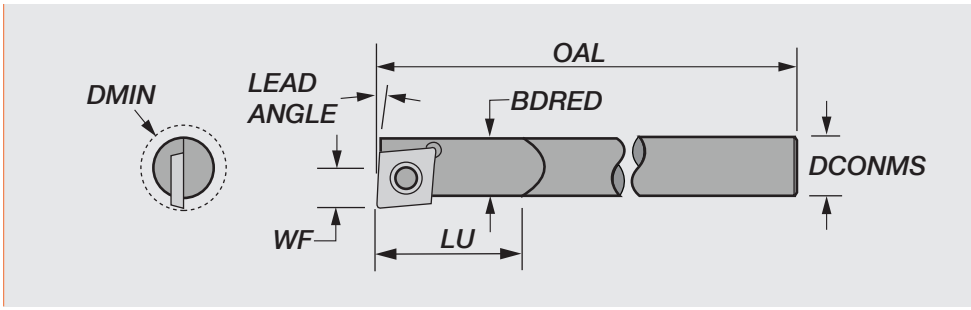
Designation	IC	RE	S	Grades GP22	Grades GP4
CDCG-500L	3.96 (0.156)	0.051 (0.002)	1.02 (0.09)	√	√
CDCG-505L	3.96 (0.156)	0.177 (0.007)	1.02 (0.09)	√	√
CDCG-51L	3.96 (0.156)	0.381 (0.015)	1.02 (0.09)	√	√

Unit: mm (inch)
√: Stocked items

Bantam Series indexable internal tools

BORING

CCBI/CSBI



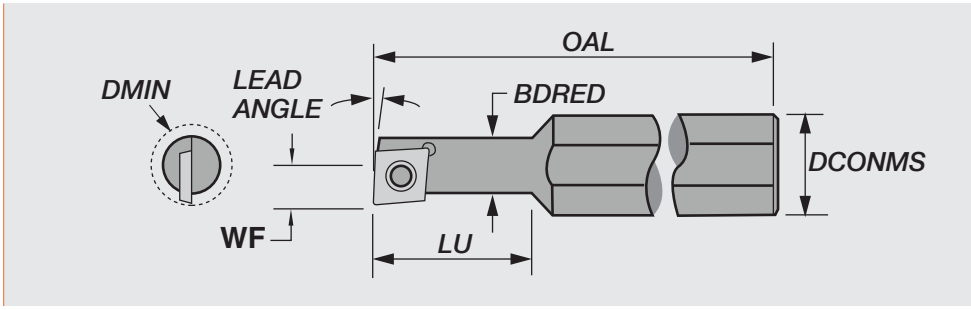
Designation	Material	MIID	Lead Angle	BDRED	DCONMS	OAL	LU	WF	DMIN	SCREW
CSBI-165/187-1/2-7R	Steel	CDCD/G	7°	4.19 (0.165)	4.75 (0.187)	63.5 (2.50)	12.7 (0.500)	2.39 (0.094)	4.57 (0.180)	TS1
CCBI-165/156-6-7R	Carbide	CDCD/G	7°	4.19 (0.165)	3.96 (0.156)	152.4 (6.00)	–	2.39 (0.094)	4.57 (0.180)	TS1
CSBI-180/187-2 1/2-5R	Steel	CDCD/G	5°	4.57 (0.180)	4.75 (0.187)	63.5 (2.50)	12.7 (0.500)	2.64 (0.104)	5.28 (0.208)	TS1
CCBI-180/187-4-5R	Carbide	CDCD/G	5°	4.80 (0.189)	4.75 (0.187)	101.6 (4.00)	–	2.64 (0.104)	5.28 (0.208)	TS1
CSBI-250-3-5R	Steel	CDCD/G	5°	6.60 (0.260)	6.35 (0.250)	76.2 (3.00)	–	3.68 (0.145)	7.24 (0.285)	TS1
CCBI-250-4-5R	Carbide	CDCD/G	5°	6.55 (0.258)	6.35 (0.250)	101.6 (4.00)	–	3.68 (0.145)	7.24 (0.285)	TS1
CSBI-250-3-0R	Steel	CDCD/G	0°	6.60 (0.260)	6.35 (0.250)	76.2 (3.00)	–	3.86 (0.152)	7.42 (0.292)	TS1
CCBI-250-4-0R	Carbide	CDCD/G	0°	6.55 (0.258)	6.35 (0.250)	101.6 (4.00)	–	3.86 (0.152)	7.42 (0.292)	TS1

Unit: mm (inch)
√: Stocked items

Bantam Series indexable internal tools

BORING

CCBI/CSBI



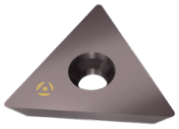
Designation	Material	MIID	Lead Angle	BDRED	DCONMS	OAL	LU	WF	DMIN	SCREW
CSBI-180/500-1/2-5R	Steel	CDCD/G	5°	4.57 (0.180)	12.7 (0.500)	69.9 (2.75)	12.7 (0.500)	2.64 (0.104)	5.28 (0.208)	TS1
CCBI-180/500-7/8-5R	Carbide	CDCD/G	5°	4.80 (0.189)	12.7 (0.500)	60.2 (2.37)	22.2 (0.875)	2.64 (0.104)	5.28 (0.208)	TS1
CSBI-250/500-3/4-5R	Steel	CDCD/G	5°	6.60 (0.260)	12.7 (0.500)	69.9 (2.75)	19.1 (0.750)	3.68 (0.145)	7.24 (0.285)	TS1
CCBI-250/500-1 1/4-5R	Carbide	CDCD/G	5°	6.55 (0.258)	12.7 (0.500)	69.9 (2.75)	31.8 (1.250)	3.68 (0.145)	7.24 (0.285)	TS1
CSBI-250/500-3/4-0R	Steel	CDCD/G	0°	6.60 (0.260)	12.7 (0.500)	69.9 (2.75)	19.1 (0.750)	3.86 (0.152)	7.42 (0.292)	TS1
CCBI-250/500-1 1/4-0R	Carbide	CDCD/G	0°	6.55 (0.258)	12.7 (0.500)	69.9 (2.75)	31.8 (1.250)	3.68 (0.145)	7.24 (0.285)	TS1

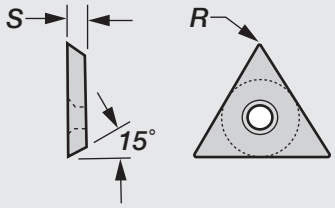
Unit: mm (inch)
√: Stocked items

Bantam Series indexable carbide inserts

BORING

TDAB





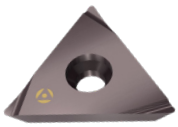
Designation	IC	RE	S	Grades GP22	Grades GP4
TDAB-505	4.06 (0.160)	0.177 (0.007)	1.19 (0.047)	√	√
TDAB-51	4.06 (0.160)	0.381 (0.015)	1.19 (0.047)	√	√

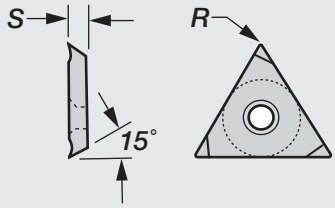
Unit: mm (inch)
√: Stocked items

Bantam Series indexable carbide inserts

BORING

TDCG with chipbreaker





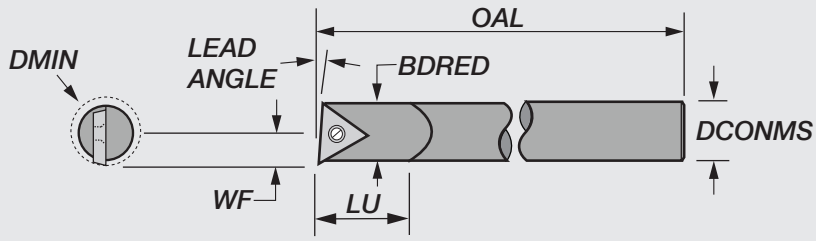
Designation	IC	RE	S	Grades GP22	Grades GP4
TDCG-500L	4.06 (0.160)	0.177 (0.007)	1.19 (0.047)	√	√
TDCG-51L	4.06 (0.160)	0.381 (0.015)	1.19 (0.047)	√	√

Unit: mm (inch)
√: Stocked items

Bantam Series indexable internal tools

BORING

FCBI/FSBI



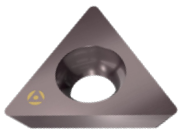
Designation	Material	MIID	Lead Angle	BDRED	DCONMS	OAL	WF	DMIN	SCREW
FCBI-187-4-5R	Carbide	TDAB/CG	5°	5.16 (0.203)	4.75 (0.187)	101.6 (4.00)	3.20 (0.126)	6.99 (0.275)	TS3
FCBI-250-4-5R	Carbide	TDAB/CG	5°	6.35 (0.250)	6.35 (0.250)	101.6 (4.00)	3.96 (0.156)	7.62 (0.300)	TS3
FSBI-250-4-5R	Steel	TDAB/CG	5°	6.35 (0.250)	6.35 (0.250)	101.6 (4.00)	3.96 (0.156)	7.62 (0.300)	TS3
FCBI-312-4-5R	Carbide	TDAB/CG	5°	7.92 (0.312)	7.92 (0.312)	101.6 (4.00)	4.75 (0.187)	9.14 (0.360)	TS3
FSBI-312-4-5R	Steel	TDAB/CG	5°	7.92 (0.312)	7.92 (0.312)	101.6 (4.00)	4.75 (0.187)	9.14 (0.360)	TS3

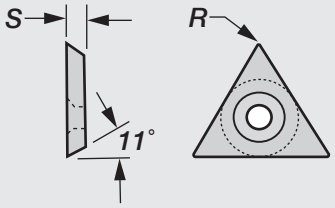
Unit: mm (inch)
√: Stocked items

Bantam Series indexable carbide inserts

BORING

TPCB





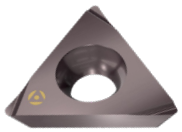
Designation	IC	RE	S	Grades GP22	Grades GP4
TPCB-2205	6.35 (0.250)	0.177 (0.007)	2.44 (0.096)	√	√
TPCB-221	6.35 (0.250)	0.381 (0.015)	2.44 (0.096)	√	√

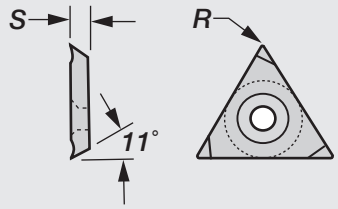
Unit: mm (inch)
√: Stocked items

Bantam Series indexable carbide inserts

BORING

TPCG with chipbreaker





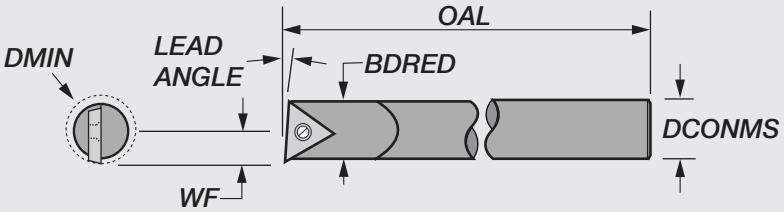
Designation	IC	RE	S	Grades GP22	Grades GP4
TPCG-2205L	6.35 (0.250)	0.177 (0.007)	2.44 (0.096)	√	√
TPCG-221L	6.35 (0.250)	0.381 (0.015)	2.44 (0.096)	√	√

Unit: mm (inch)
√: Stocked items

Bantam Series indexable internal tools

BORING

QCBI/QSBI



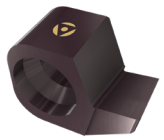
Designation	Material	MIID	Lead Angle	BDRED	DCONMS	OAL	WF	DMIN	SCREW
QSBI-375-5-5R	Steel	TPCB/G	5°	9.78 (0.385)	9.53 (0.375)	127.0 (5.00)	2.39 (0.094)	11.1 (0.438)	TS6
QCBI-375-6-5R	Carbide	TPCB/G	5°	9,91 (0.390)	9.53 (0.375)	152.4 (6.00)	2.39 (0.094)	11.1 (0.438)	TS61
QSBI-500-6-5R	Steel	TPCB/G	5°	4.57 (0.180)	12.7 (0.500)	152.4 (6.00)	2.64 (0.104)	5.28 (0.208)	TS6
QCBI-500-8-5R	Carbide	TPCB/G	5°	12.9 (0.510)	12.7 (0.500)	203.2 (8.00)	2.64 (0.104)	14.3 (0.563)	TS6
QSBI-500-8-5R	Steel	TPCB/G	5°	12.9 (0.510)	12.7 (0.500)	203.2 (8.00)	3.68 (0.145)	14.3 (0.563)	TS6

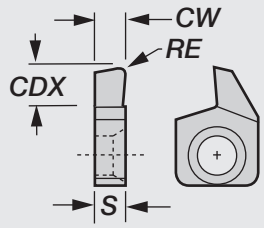
Unit: mm (inch)
√: Stocked items

Bantam Series indexable carbide inserts

BORING

BNBR





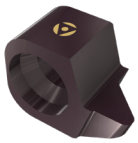
Designation	R	L	CW	RE	CDX	S	Grades GP22	GP4*
BNBR/L-125W	√	√	3.175 (0.125)	0.127/0.254 (0.005/0.010)	2.03 (0.080)	3.48 (0.137)	√	√

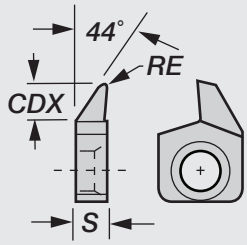
Unit: mm (inch)
√: Stocked items
*Available in right hand only

Bantam Series indexable carbide inserts

PROFILING

BNPR





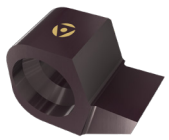
Designation	RE	CDX	S	Grades GP22	GP4
BNPR-015R	0.381 (0.015)	1.78 (0.070)	3.48 (0.137)	√	√

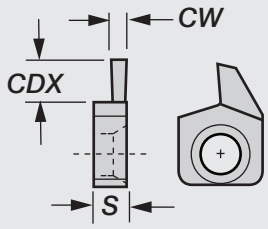
Unit: mm (inch)
√: Stocked items

Bantam Series indexable carbide inserts

GROOVING

BNGR





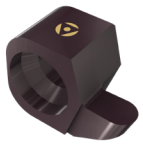
Designation	R	L	CW	CDX	S	Grades GP22	GP4*
BNGR-031W	√		0.787 (0.031)	1.27 (0.050)	3.48 (0.137)	√	√
BNGR-047W	√		1.194 (0.047)	1.78 (0.070)	3.48 (0.137)	√	√
BNGR/L-062W	√	√	1.575 (0.062)	1.78 (0.070)	3.48 (0.137)	√	√
BNGR/L-094W	√	√	2.388 (0.094)	1.78 (0.070)	3.48 (0.137)	√	√
BNGR-125W	√		3.175 (0.125)	1.78 (0.070)	3.48 (0.137)	√	√

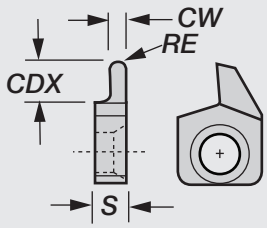
Unit: mm (inch)
√: Stocked items
*Available in right hand only

Bantam Series indexable carbide inserts

GROOVING

BNRR - Full nose radius





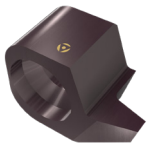
Designation	CW	CDX	RE	S	Grades GP22	Grades GP4
BNRR-031W	0.787 (0.031)	1.27 (0.050)	0.393 (0.0155)	3.48 (0.137)	√	√
BNRR-047W	1.194 (0.047)	1.78 (0.070)	0.597 (0.0235)	3.48 (0.137)	√	√
BNRR-062W	1.575 (0.062)	1.78 (0.070)	0.787 (0.0310)	3.48 (0.137)	√	√
BNRR-094W	2.388 (0.094)	1.78 (0.070)	1.194 (0.0470)	3.48 (0.137)	√	√
BNRR-125W	3.175 (0.125)	1.78 (0.070)	1.588 (0.0625)	3.48 (0.137)	√	√

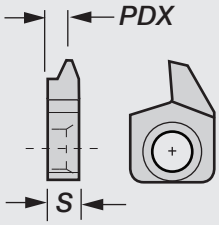
Unit: mm (inch)
√: Stocked items

Bantam Series indexable carbide inserts

THREADING - ACME

BNAR





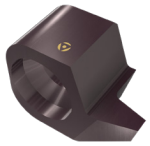
Designation	TPI	PDX	S	Grades GP22	Grades GP4
BNAR-10ACME	10	2.54 (0.100)	3.48 (0.137)	√	
BNAR-12ACME	12	2.44 (0.096)	3.48 (0.137)	√	
BNAR-16ACME	16	2.54 (0.100)	3.48 (0.137)	√	√

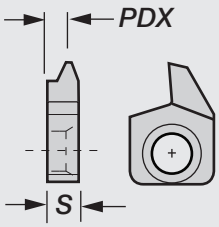
Unit: mm (inch)
√: Stocked items

Bantam Series indexable carbide inserts

THREADING - STUB ACME

BNAR





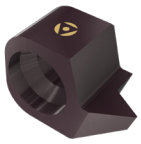
Designation	TPI	PDX	S	Grades GP22
BNAR-10STACME	10	2.54 (0.100)	3.48 (0.137)	√
BNAR-12STACME	12	2.44 (0.096)	3.48 (0.137)	√
BNAR-16STACME	16	2.54 (0.100)	3.48 (0.137)	√

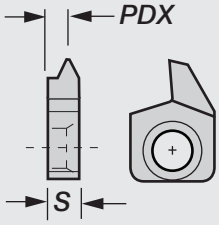
Unit: mm (inch)
√: Stocked items

Bantam Series indexable carbide inserts

THREADING - NPT

BNVR





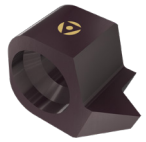
Designation	TPI	PDX	S	Grades GP22	GP4
BNVR-14NPT	14	2.54 (0.100)	3.48 (0.137)	√	√
BNVR-18NPT	18	2.44 (0.096)	3.48 (0.137)	√	√
BNVR-27NPT	27	2.54 (0.100)	3.48 (0.137)	√	√

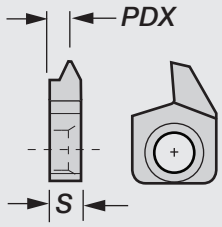
Unit: mm (inch)
√: Stocked items

Bantam Series indexable carbide inserts

THREADING - UN

BNVR





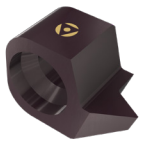
Designation	TPI	PDX	S	Grades GP22	Grades GP4
BNVR-12UN	12	2.54 (0.100)	3.48 (0.137)	√	√
BNVR-16UN	16	2.69 (0.106)	3.48 (0.137)	√	√
BNVR-18UN	18	2.69 (0.106)	3.48 (0.137)	√	√
BNVR-20UN	20	2.72 (0.107)	3.48 (0.137)	√	√
BNVR-24UN	24	2.92 (0.115)	3.48 (0.137)	√	√
BNVR-28UN	28	2.72 (0.107)	3.48 (0.137)	√	√
BNVR-32UN	32	2.97 (0.117)	3.48 (0.137)	√	√

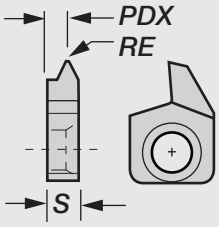
Unit: mm (inch)
√: Stocked items

Bantam Series indexable carbide inserts

THREADING - 60° V

BNVR





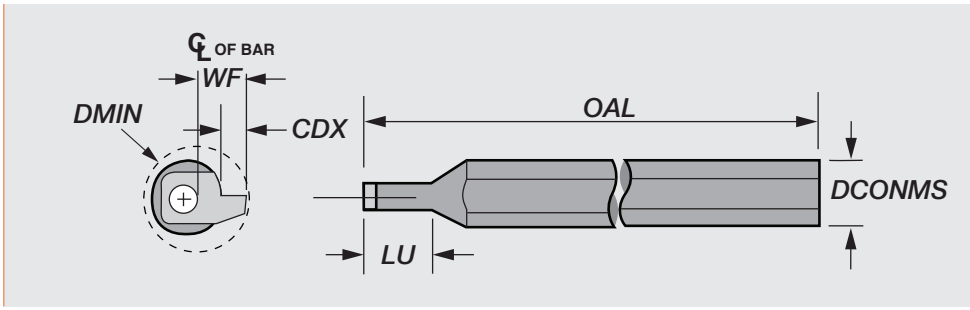
Designation	R	L	TPIN	TPIX	RE	PDX	S	Grades GP22	Grades GP4*
BNVR/L-60	√	√	18	40	0.080 (0.003)F	2.41 (0.095)	3.48 (0.137)	√	√

Unit: mm (inch)
√: Stocked items
*Available in right hand only

Bantam Series indexable internal tools

BORING, PROFILING, GROOVING AND THREADING

BB



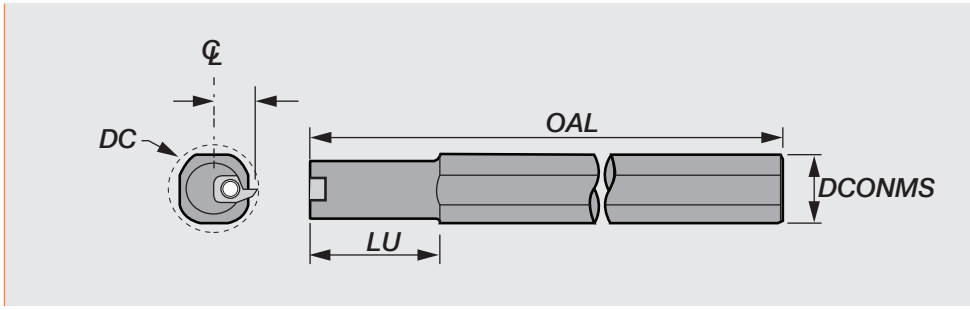
Designation	Material	MIID	DCONMS	OAL	LU	WF	CDX	DMIN	SCREW
BB-312S	Steel	BN_R	12.7 (0.500)	127 (5.00)	19.05 (0.750)	3.91 (0.154)	1.78 (0.070)	7.92 (0.312)	TS25
BB-344S	Steel	BN_R	12.7 (0.500)	127 (5.00)	19.05 (0.750)	3.61 (0.142)	1.78 (0.070)	8.74 (0.344)	TS25
BB-375S	Steel	BN_R	12.7 (0.500)	127 (5.00)	19.05 (0.750)	4.14 (0.163)	1.78 (0.070)	9.53 (0.375)	TS25
BB-440S	Steel	BN_R	12.7 (0.500)	127 (5.00)	25.4 (1.000)	4.57 (0.180)	1.78 (0.070)	5.28 (0.440)	TS25
BB-312HM	Heavy Metal	BN_R	12.7 (0.500)	127 (5.00)	25.4 (1.000)	3.96 (0.156)	1.78 (0.070)	7.92 (0.312)	TS25
BB-344HM	Heavy Metal	BN_R	12.7 (0.500)	127 (5.00)	25.4 (1.000)	3.61 (0.142)	1.78 (0.070)	8.74 (0.344)	TS25
BB-375HM	Heavy Metal	BN_R	12.7 (0.500)	127 (5.00)	28.58 (1.125)	4.14 (0.163)	1.78 (0.070)	9.53 (0.375)	TS25
BB-440HM	Heavy Metal	BN_R	12.7 (0.500)	127 (5.00)	38.1 (1.500)	4.57 (0.180)	1.78 (0.070)	11.18 (0.440)	TS25
BB-312C	Carbide	BN_R	12.7 (0.500)	127 (5.00)	31.75 (1.250)	3.91 (0.154)	1.78 (0.070)	7.92 (0.312)	TS25
BB-440C	Carbide	BN_R	12.7 (0.500)	127 (5.00)	38.1 (1.500)	4.57 (0.180))	1.78 (0.070)	11.18 (0.440)	TS25

Unit: mm (inch)
√: Stocked items

Bantam Series indexable internal tools

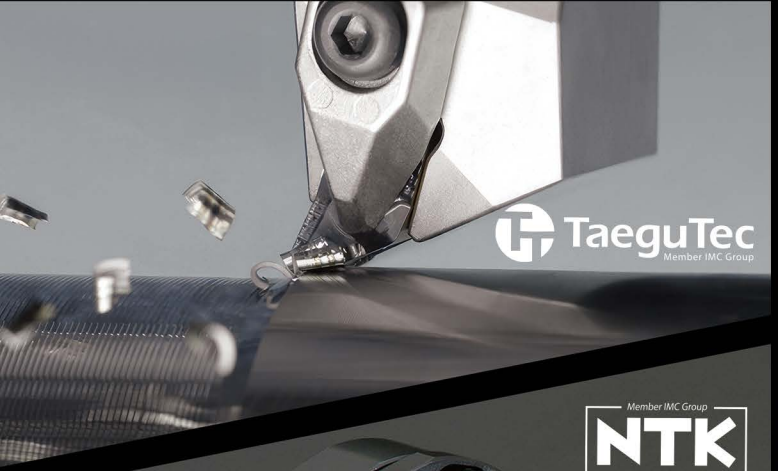
THREADMILLING/MILL GROOVING

BBC - Circular Interpolating



Designation	Material	MIID	DCONMS	OAL	LU	DC	SCREW
BBC-516S	Steel	BN_R	12.7 (0.500)	127 (5.00)	25.4 (1.000)	13.1 (0.516)	TS25
BBC-516HM	Heavy Metal	BN_R	12.7 (0.500)	127 (5.00)	25.4 (1.000)	13.1 (0.516)	TS25

Unit: mm (inch)
√: Stocked items



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For more information