

# NEW PRODUCT NEWS



Tungaloy Report No. 402-G

Small diameter internal turning tool

## TINY<sup>INI</sup>M TURN

**EXPANSION OF SH725 GRADE WITH COOLANT  
HILE SOLID CARBIDE BORING BAR**



# NEW PRODUCT NEWS



Tungaloy Report No. 402-G





## TINY<sup>INI</sup>TURN



5 strategically placed coolant holes one in the solid carbide bar and 4 within the sleeve, for superior chip formation, efficient evacuation, and extended tool life.

## TINY<sup>INI</sup>TURN

### Solid carbide boring bar series

<  $\varnothing$ 0.6 mm

Solid carbide boring bar - CBN

<  $\varnothing$ 2.8 mm

Indexable type

<  $\varnothing$ 5 mm

**New**

**SH725**

**JB\*\***

With coolant hole

**TB\*\***

Without coolant hole



**JBTR\*\***



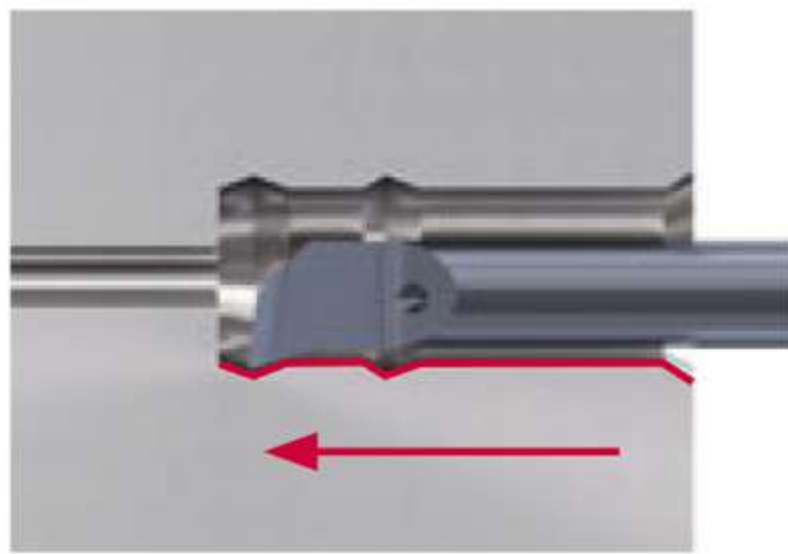
P.13

**A/E-SEXPR\*\***  
**A/E-SEZPR\*\***



P.25

10 geometries covers a wide range of machining

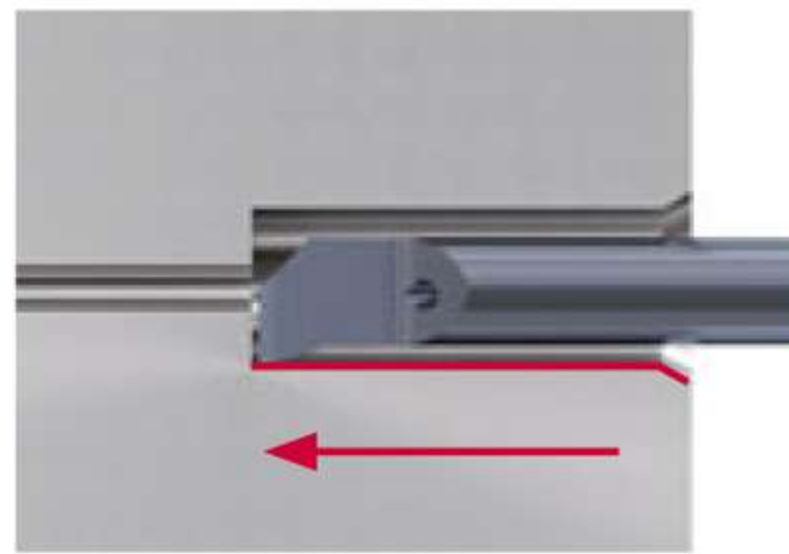


**Boring, profiling, chamfering**

**JBTR/L\*\*, TBTR/L\*\***

DMIN = 0.6 mm

P.12 - P.14

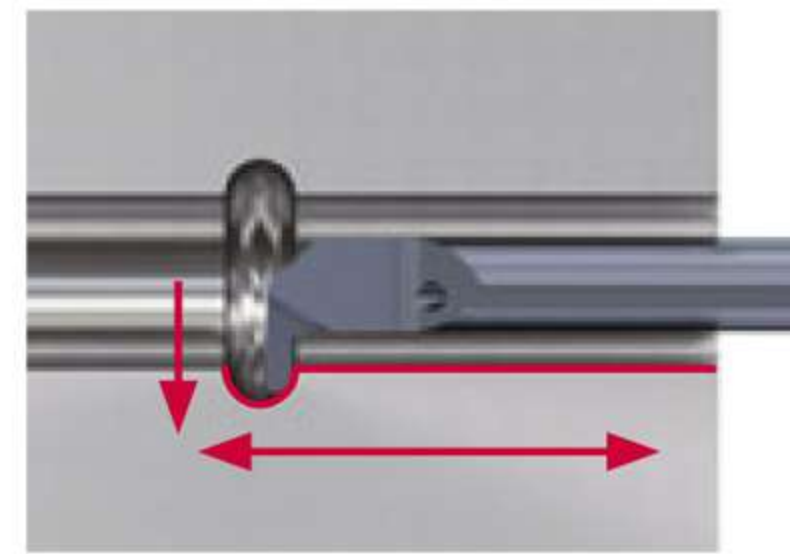


**Boring, chamfering**

**JBPR\*\*, TBPR\*\***

DMIN = 2.8 mm

P.15

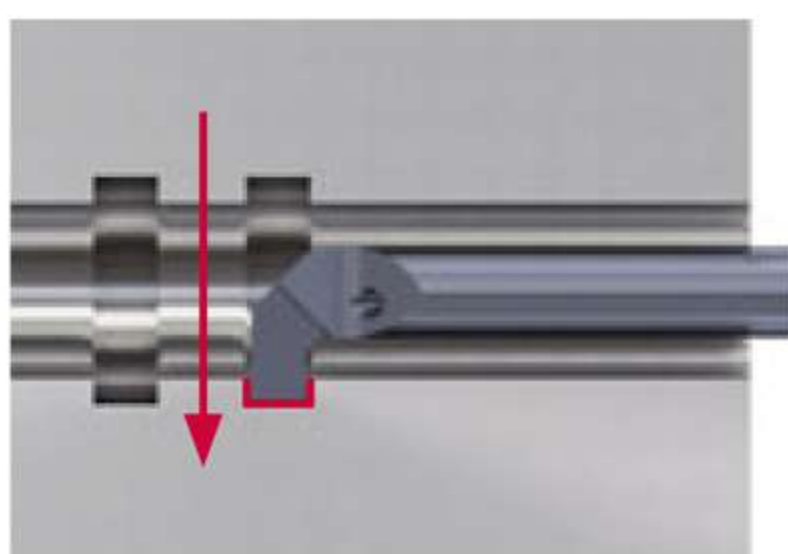


**Profiling**

**JBRR\*\*, TBRR\*\***

DMIN = 5 mm

P.16

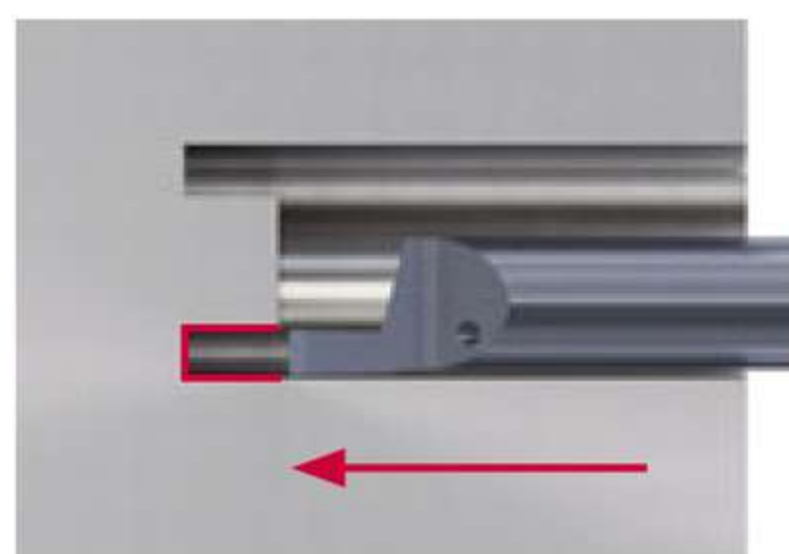


**Internal grooving**

**JBGR/L\*\*, TBGR\*\***

DMIN = 2 mm

P.17 - P.18

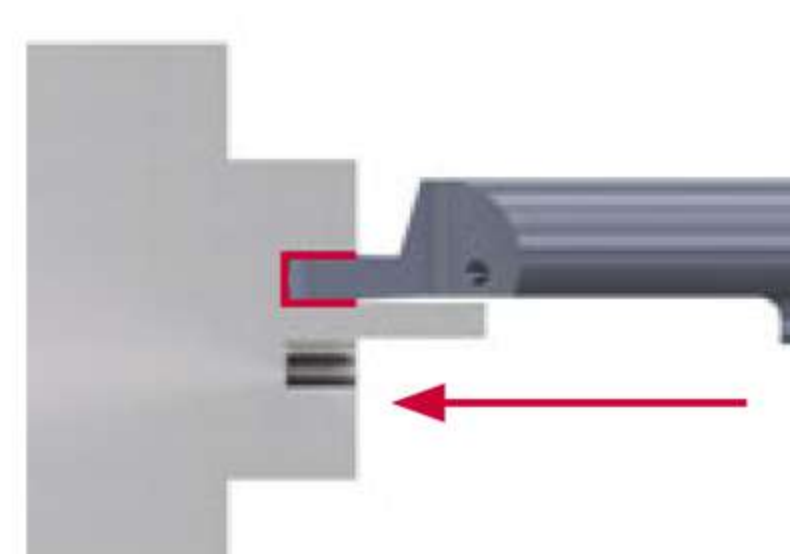


**Internal face grooving**

**JBFR/L\*\*, TBFR\*\***

DMIN = 6 mm

P.19

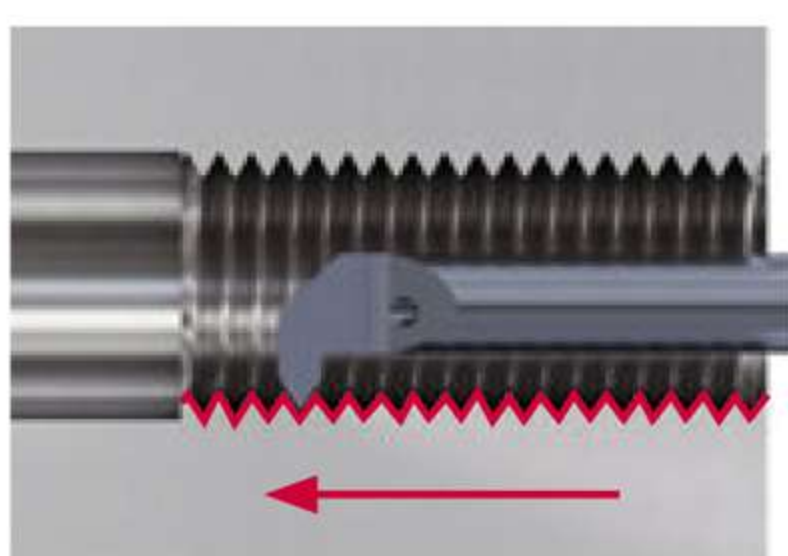


**Face grooving for shaft**

**JB SR\*\*, TB SR\*\***

DMIN = 6 mm

P.20

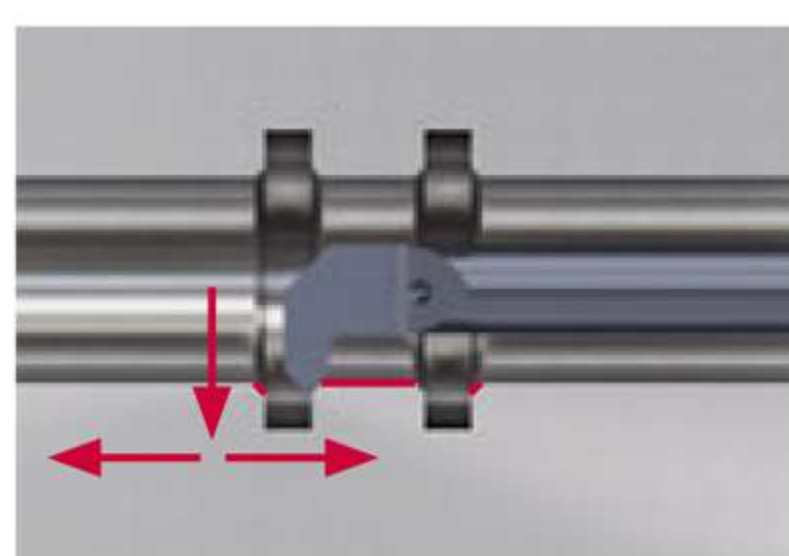


**Internal threading**

**JBIR\*\*, TBIR\*\***

DMIN = 4 mm

P.21

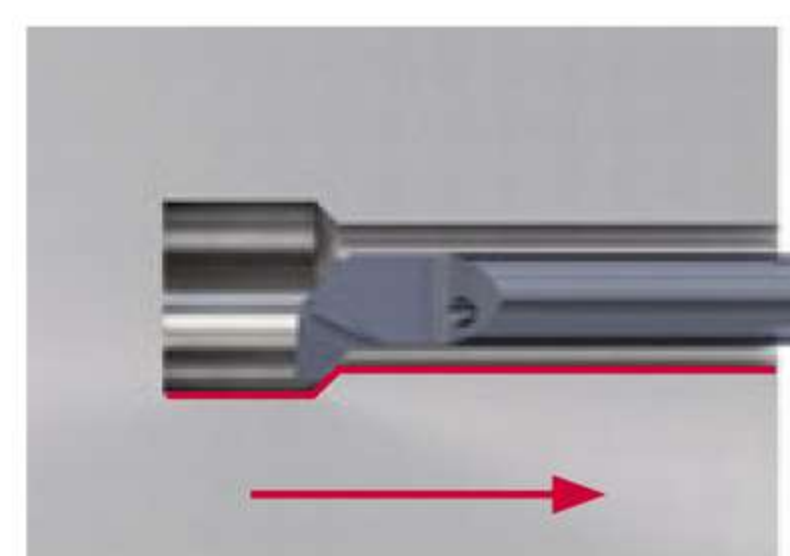


**Chamfering**

**JB CR\*\*, TB CR\*\***

DMIN = 5 mm

P.22

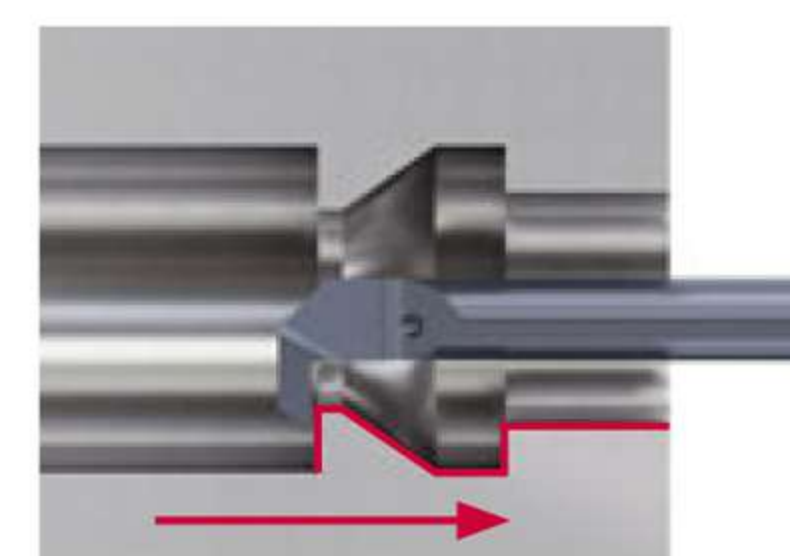


**Back boring, chamfering**

**JBUR\*\*, TBUR\*\***

DMIN = 5 mm

P.23



**Back boring**

**JB BR\*\*, TB BR\*\***

DMIN = 3 mm

P.24

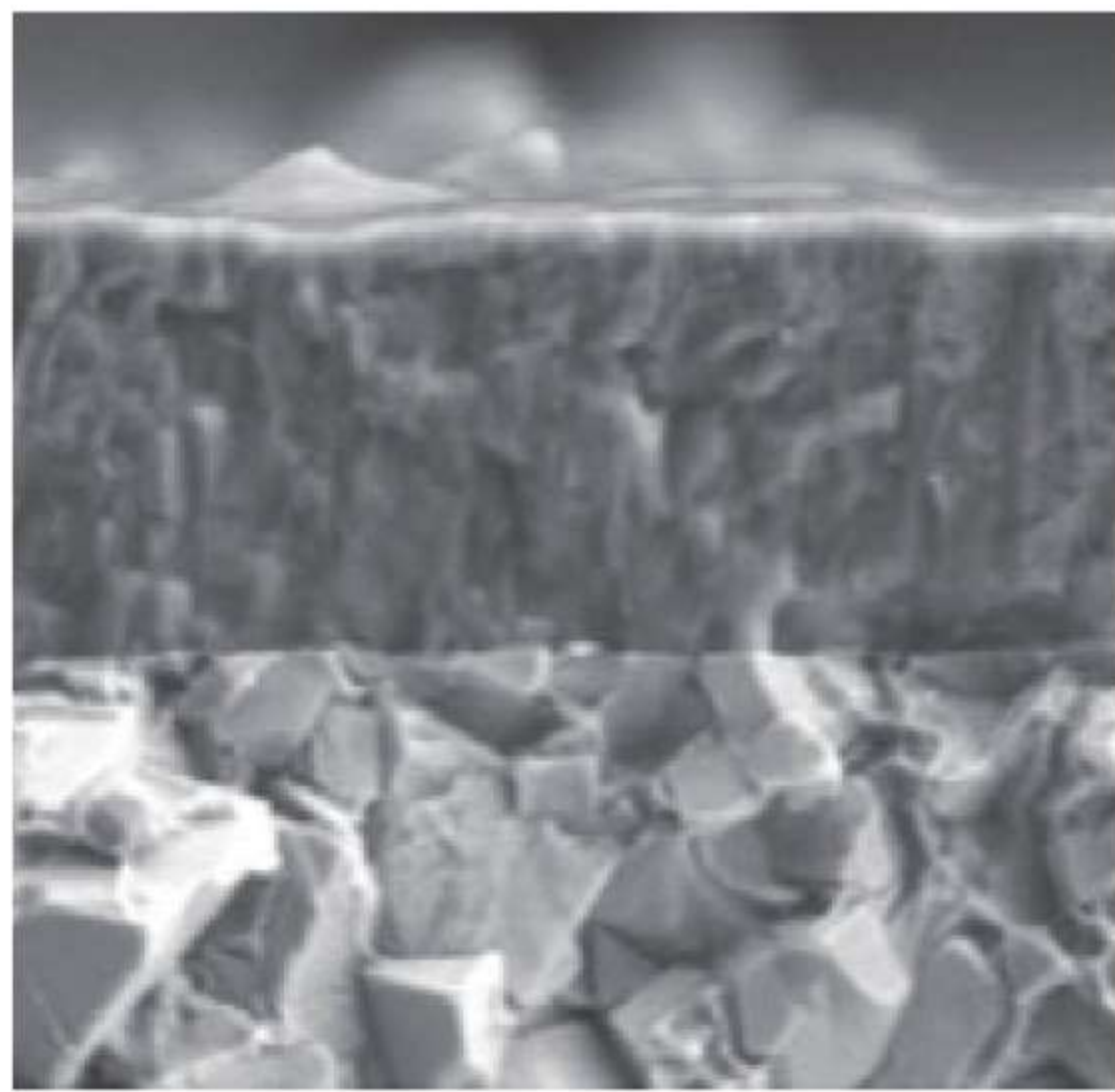
## TINY<sup>INI</sup>TURN

### Expansion of SH725 grade for solid carbide boring bar lineup

- Excellent wear and chipping resistance offers longer and predictable tool life combined with stable machining
- Solid bars with coolant hole



## SH725



### PVD coated grade SH725

(Ti,Al)N coating combined with a tough carbide substrate dedicated for small parts machining offers excellent coating adhesion and edge sharpness.

### Excellent resistance to wear and chip welding

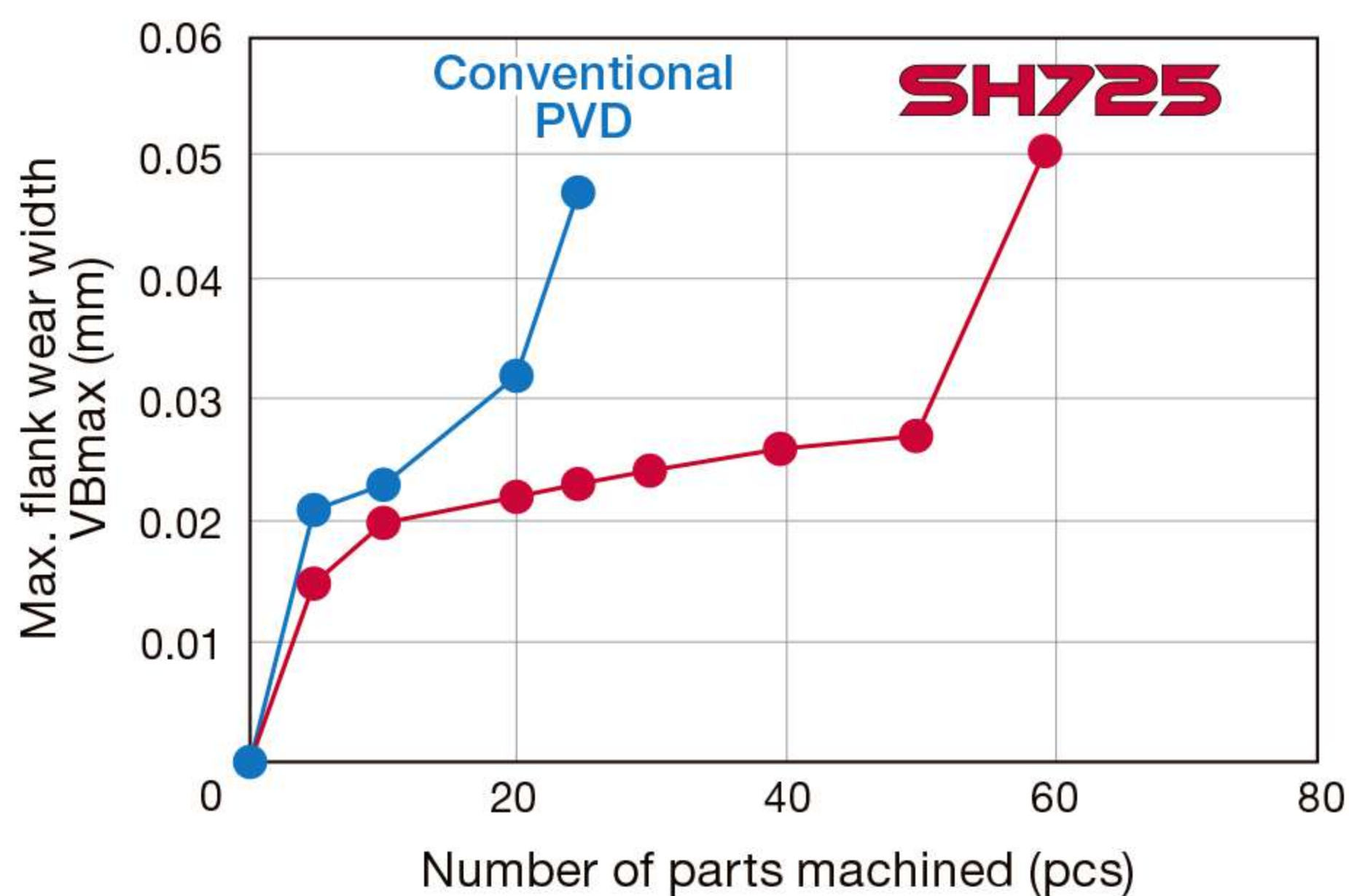
Smooth coating surface of the cutting edge prevents coating from peeling off, while its incredible wear resistance provides longer tool life than existing grades.

### High resistance to plastic deformation

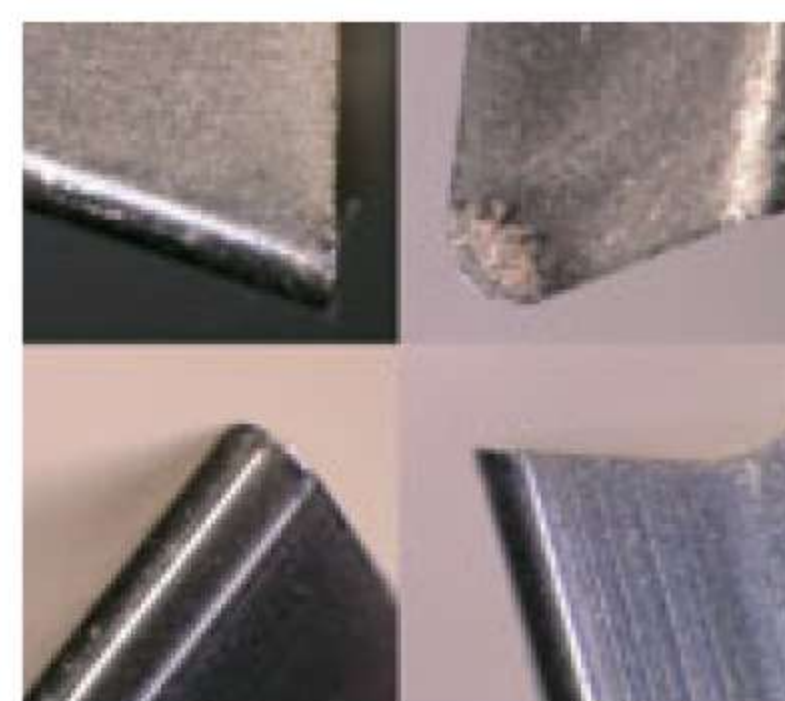
Tough carbide substrate offers stable and longer tool life.

## CUTTING PERFORMANCE

**M** SUS316L / X2CrNiMo17-12-2

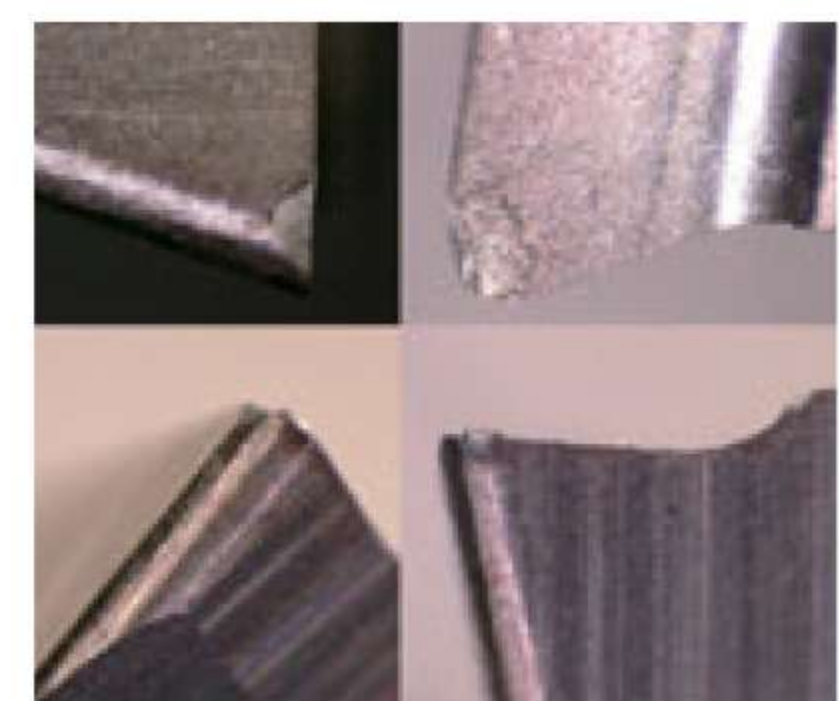


After machining 50 pcs



**SH725**

After machining 25 pcs



Conventional PVD

Solid bar : **TBTR07210015-D060**  
 Grade : **SH725**  
 Cutting speed :  $V_c = 60$  m/min  
 Feed :  $f = 0.02$  mm/rev  
 Depth of cut :  $a_p = 0.5$  mm  
 Coolant : Wet

**SH725 showed excellent wear resistance.**

# TINY<sup>INI</sup>TURN

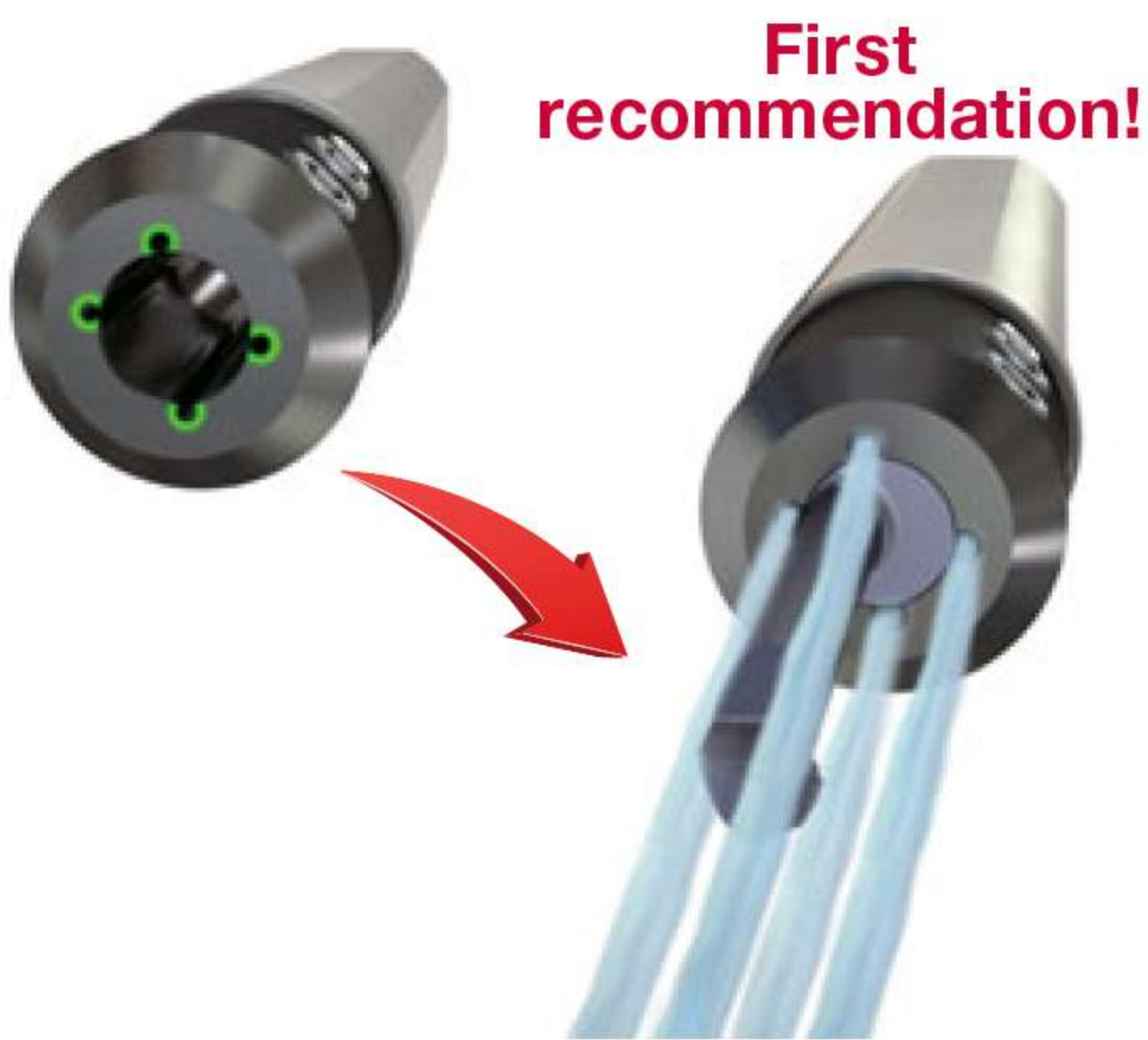
### ■ New sleeve with 4 coolant holes for optimal performance

- Optimum sleeve for all boring operations. Sleeves with four coolant holes can be used with all TinyMini-Turn tools
- 4 streams of coolant jets are directed to the cutting point, improving chip evacuation
- Sufficient coolant supply eliminates chip bird-nesting on the tools or workpiece, enabling trouble-free, unattended operation over an extended time
- Significantly prolongs tool life



### ■ Perfect chip evacuation

#### Internal coolant sleeve



Excellent chip evacuation



- No chip jamming
- No machine stoppage
- No downtime

#### Conventional (External coolant)



- Chip jamming
- Increased machine downtime

## Tungaloy Report No. 402-G

### ■ New economical indexable solution for miniature boring applications

- Applicable for boring operations as small as  $\phi 5$  mm
- Available in a wide variety of chipbreakers and grades
- Provides excellent chip control due to unique chipbreakers
- Coolant-through tools dramatically improve chip evacuation
- Long overhang with carbide tools



Workpiece material	<b>PMS</b>	<b>PMNS</b>	<b>PMS</b>	<b>SH</b>	<b>N</b>
Chipbreaker	<b>JS</b>	<b>W08</b>	<b>J08</b>	<b>None</b>	<b>None</b>
Image					
Applicable grade EPG*04...	SH7025 / SH725 SH730	SH7025 / SH725 SH730 / GT9530 NS9530 / TH10	SH7025 / SH725 SH730 / J740	BX310* / BX470*	DX140
Applicable grade EPG*03...	SH7025 / SH725 SH730	SH7025 / SH725 SH730 / TH10	-	BX310* / BX470*	-
Chip control range				-	-

\*Designation: 1QP-EPGW...

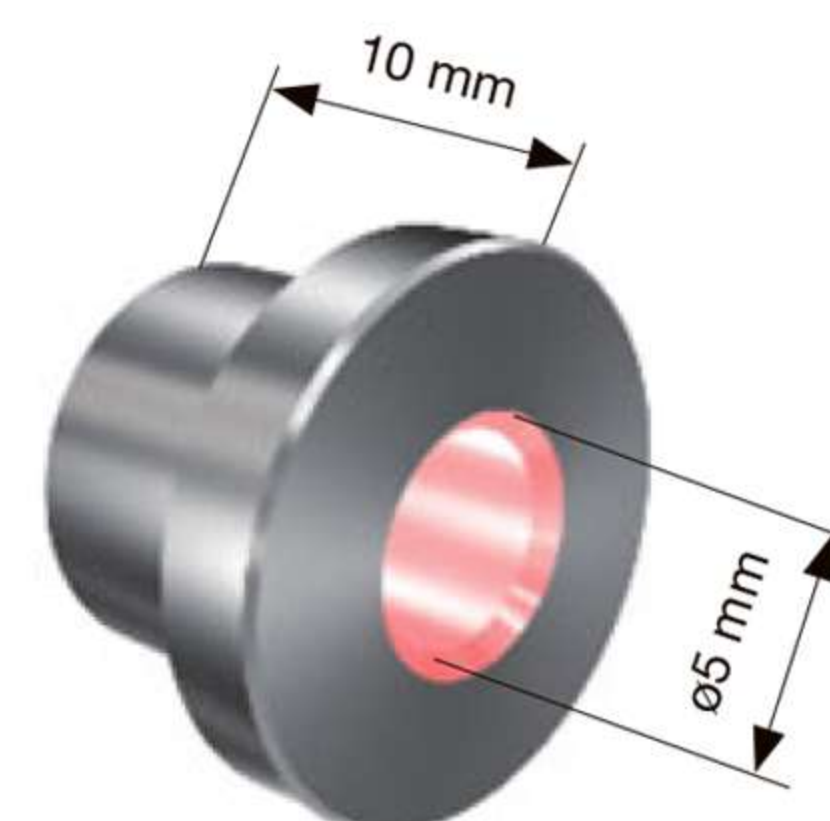
### ■ CUTTING PERFORMANCE

**P** S45C / C45

	<b>New indexable tool</b>	<b>Conventional</b>
Tool	<p>Tool: A07050-SEXPR03-3 Insert: EPGT040101F-JS <b>SH725</b></p>	<p>Solid bar: Conventional PVD</p>
Chipbreaker		
Surface quality		

Cutting speed :  $V_c = 80$  m/min  
 Feed :  $f = 0.03$  mm/rev  
 Depth of cut :  $a_p = 0.3$  mm  
 Coolant : Wet

**Excellent chip control and surface finish thanks to tool stability and perfect chip formation and evacuation.**



## TINY<sup>MINI</sup>TURN

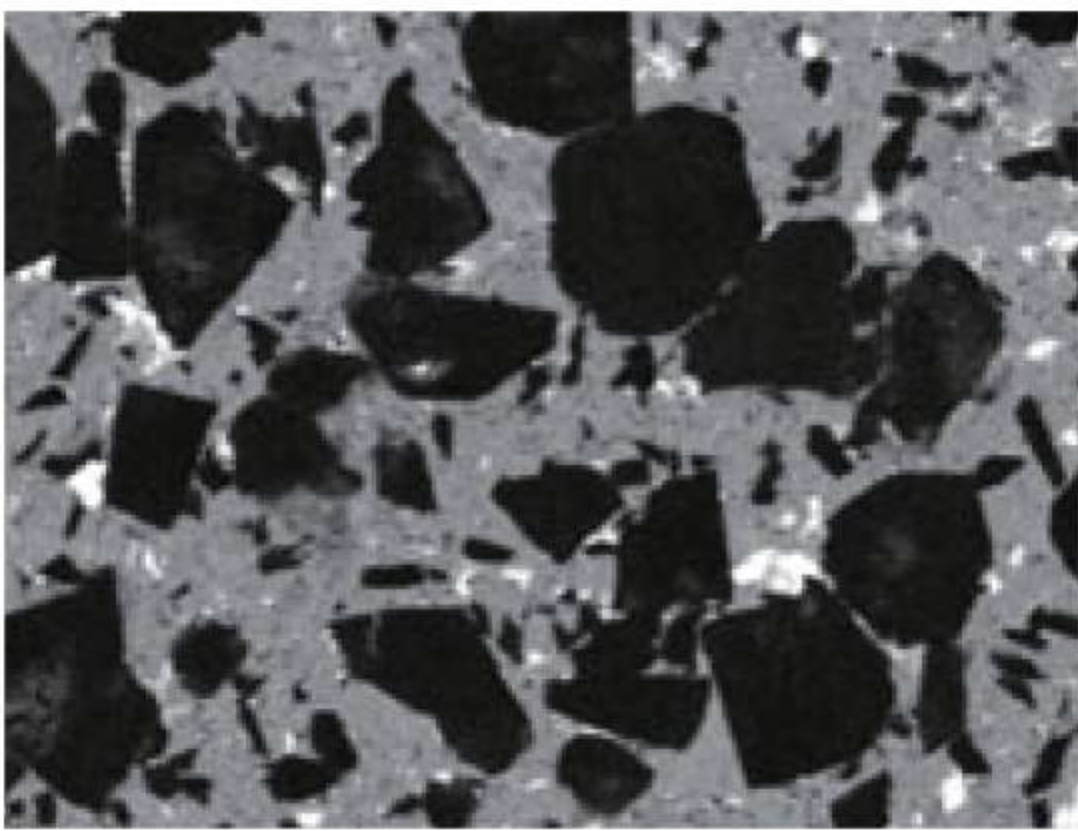
### TinyMini-Turn CBN for as small as 2.8 mm bore diameter

- Available in three minimum bore diameters (DMIN): 2.8, 4 and 5 mm
- Available in 2xD and 3xD tool lengths
- Through-coolant



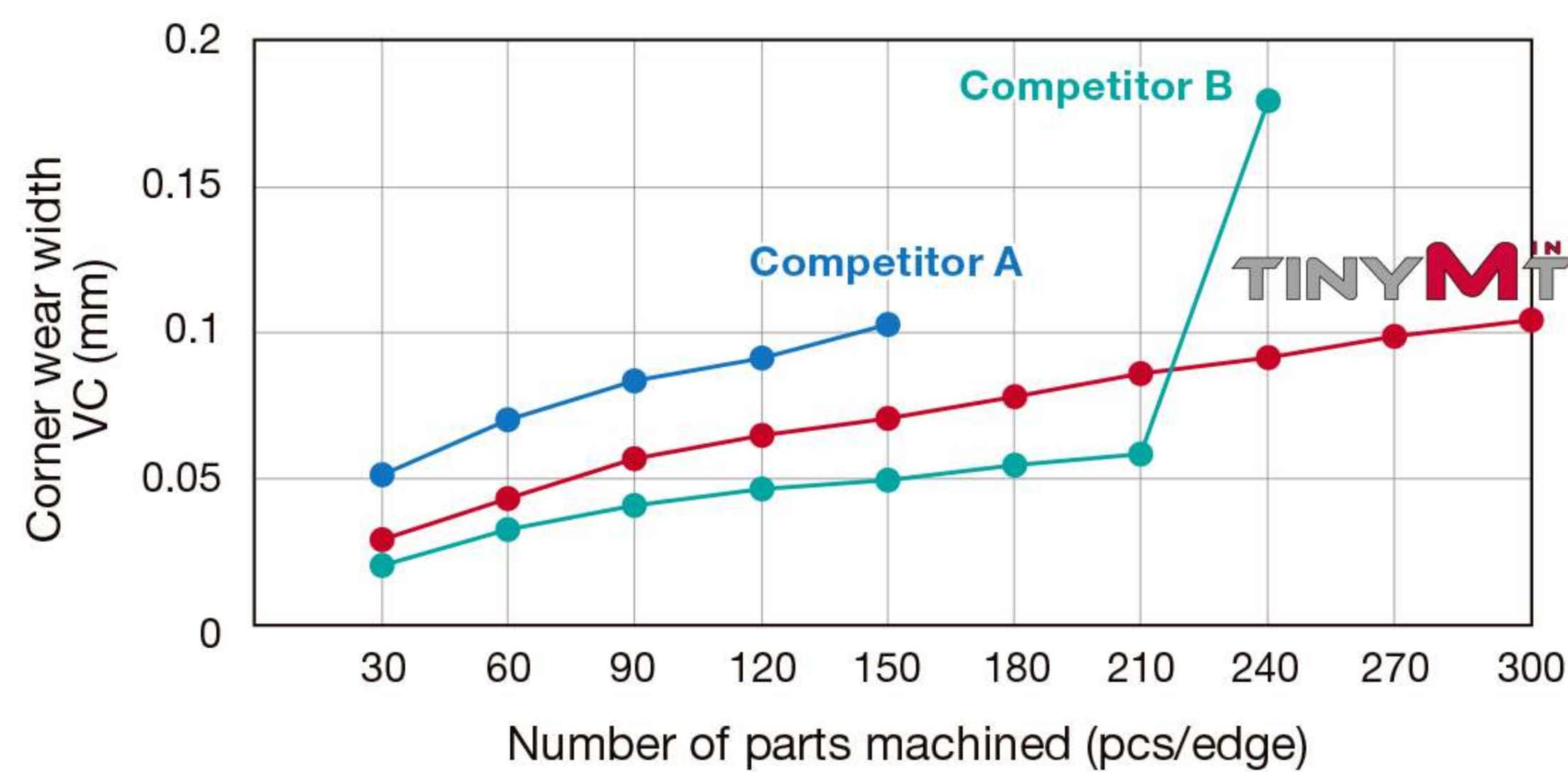
Uncoated CBN grade

### BX310



Thanks to extremely wear resistant Ti-ceramic binder, BX310 provides long and predictable tool life in small-diameter boring operations where high cutting speed operation is difficult.

### CUTTING PERFORMANCE



<b>H</b> Insert	: JBTR04060010-D028ST BX310
Sleeve	: JBBS19-4-L100C
Workpiece material	: SCM420 (60-62HRC)
Cutting speed	: $V_c = 28$ m/min
Number of revolutions	: $n = 3,000$ min <sup>-1</sup>
Feed	: $f = 0.02$ mm/rev
Depth of cut	: $a_p = 0.01$ mm
Coolant	: Wet

**TinyMini-Turn CBN enabled long and predictable tool life**



### STANDARD CUTTING CONDITIONS

For solid boring bar



Boring, profiling, chamfering, back boring

ISO	Workpiece material	Grade	Cutting speed Vc (m/min)	Feed f (mm/rev)
<b>P</b>	Low carbon steels S15C, S25C, etc. C15E, C15E4, etc.	SH725	40 - 140	0.01 - 0.08
	Carbon steels, Alloy steels S55C, SCM440, etc. C55, 42CrMo4, etc.	SH725	40 - 140	0.01 - 0.08
	Prehardened steels NAK80, PX5, etc.	SH725	40 - 140	0.01 - 0.08
<b>M</b>	Stainless steels SUS304, SUS316, etc. X5CrNi18-9, X5CrNiMo17-12-3, etc.	SH725	40 - 140	0.01 - 0.08
<b>K</b>	Grey cast irons FC250, FCD300, etc. GG25, 250, GG30, 300, etc.	SH725	30 - 100	0.01 - 0.08
	Ductile cast irons FC450, FCD600, etc. GGG60, 600-3, etc.	SH725	30 - 100	0.01 - 0.08
<b>N</b>	Aluminium alloys, Copper alloys Si < 12%	SH725	90 - 200	0.01 - 0.08
<b>S</b>	Titanium alloys Ti-6Al-4V, etc.	SH725	30 - 100	0.01 - 0.08
	Superalloys Inconel718, etc.	SH725	30 - 100	0.01 - 0.08

ISO	Workpiece material	Hardness	Grade	Cutting speed Vc (m/min)	Feed f (mm/rev)
<b>H</b>	Hardened steel	55 - 65 HRC	BX310	15 - 100	0.01 - 0.1*

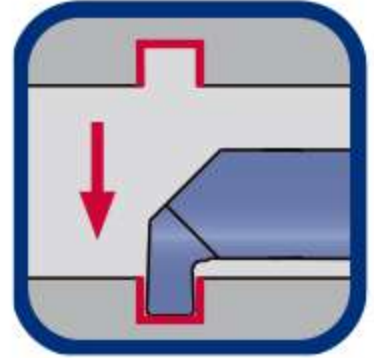
\*Set the D.O.C. and feed according to the tool's corner radius (RE) outlined in the chart below.



Threading (metric thread)

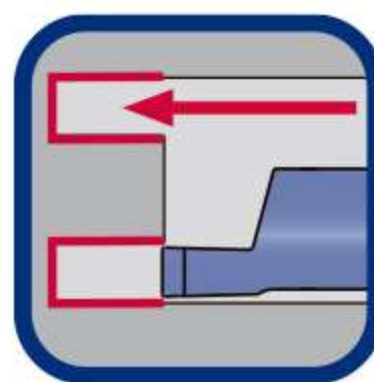
ISO	Workpiece material	Grade	Cutting speed Vc (m/min)	Number of passes Pitch (mm)				
				0.5	0.75	1	1.25	1.5
<b>P</b>	Low carbon steels S15C, S25C, etc. C15E, C15E4, etc.	SH725	40 - 140	6 - 8	8 - 10	10 - 12	12 - 15	15 - 18
	Carbon steels, Alloy steels S55C, SCM440, etc. C55, 42CrMo4, etc.	SH725	40 - 140	6 - 8	8 - 10	10 - 12	12 - 15	15 - 18
	Prehardened steels NAK80, PX5, etc.	SH725	40 - 140	6 - 8	8 - 10	10 - 12	12 - 15	15 - 18
<b>M</b>	Stainless steels SUS304, SUS316, etc. X5CrNi18-9, X5CrNiMo17-12-3, etc.	SH725	40 - 140	8	10	12	15	18
<b>K</b>	Grey cast irons FC250, FCD300, etc. GG25, 250, GG30, 300, etc.	SH725	30 - 100	7	9	12	14	17
	Ductile cast irons FC450, FCD600, etc. GGG60, 600-3, etc.	SH725	30 - 100	7	9	12	14	17
<b>N</b>	Aluminium alloys, Copper alloys Si < 12%	SH725	90 - 200	6	8	10	12	15

# TINY<sup>INI</sup>TURN



### Internal grooving

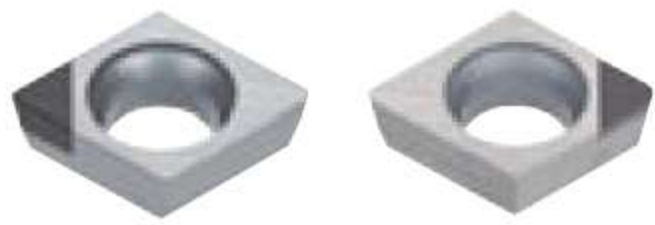
ISO	Workpiece material	Grade	Cutting speed Vc (m/min)	Feed f (mm/rev)
<b>P</b>	Low carbon steels S15C, S25C, etc. C15E, C15E4, etc.	SH725	40 - 140	0.01 - 0.03
	Carbon steels, Alloy steels S55C, SCM440, etc. C55, 42CrMo4, etc.	SH725	40 - 140	0.01 - 0.03
	Prehardened steels NAK80, PX5, etc.	SH725	40 - 140	0.01 - 0.03
<b>M</b>	Stainless steels SUS304, SUS316, etc. X5CrNi18-9, X5CrNiMo17-12-3, etc.	SH725	40 - 140	0.01 - 0.03
<b>K</b>	Grey cast irons FC250, FCD300, etc. GG25, 250, GG30, 300, etc.	SH725	30 - 100	0.01 - 0.03
	Ductile cast irons FC450, FCD600, etc. GGG60, 600-3, etc.	SH725	30 - 100	0.01 - 0.03
<b>N</b>	Aluminium alloys, Copper alloys Si < 12%	SH725	90 - 200	0.01 - 0.03
<b>S</b>	Titanium alloys Ti-6Al-4V, etc.	SH725	30 - 100	0.01 - 0.03
	Superalloys Inconel718, etc.	SH725	30 - 100	0.01 - 0.03



### Face grooving

ISO	Workpiece material	Grade	Cutting speed Vc (m/min)	Feed f (mm/rev)
<b>P</b>	Low carbon steels S15C, S25C, etc. C15E, C15E4, etc.	SH725	40 - 140	0.01 - 0.05
	Carbon steels, Alloy steels S55C, SCM440, etc. C55, 42CrMo4, etc.	SH725	40 - 140	0.01 - 0.05
	Prehardened steels NAK80, PX5, etc.	SH725	40 - 140	0.01 - 0.05
<b>M</b>	Stainless steels SUS304, SUS316, etc. X5CrNi18-9, X5CrNiMo17-12-3, etc.	SH725	40 - 140	0.01 - 0.05
<b>K</b>	Grey cast irons FC250, FCD300, etc. GG25, 250, GG30, 300, etc.	SH725	30 - 100	0.01 - 0.05
	Ductile cast irons FC450, FCD600, etc. GGG60, 600-3, etc.	SH725	30 - 100	0.01 - 0.05
<b>N</b>	Aluminium alloys, Copper alloys Si < 12%	SH725	90 - 200	0.01 - 0.05
<b>S</b>	Titanium alloys Ti-6Al-4V, etc.	SH725	30 - 100	0.01 - 0.05
	Superalloys Inconel718, etc.	SH725	30 - 100	0.01 - 0.05

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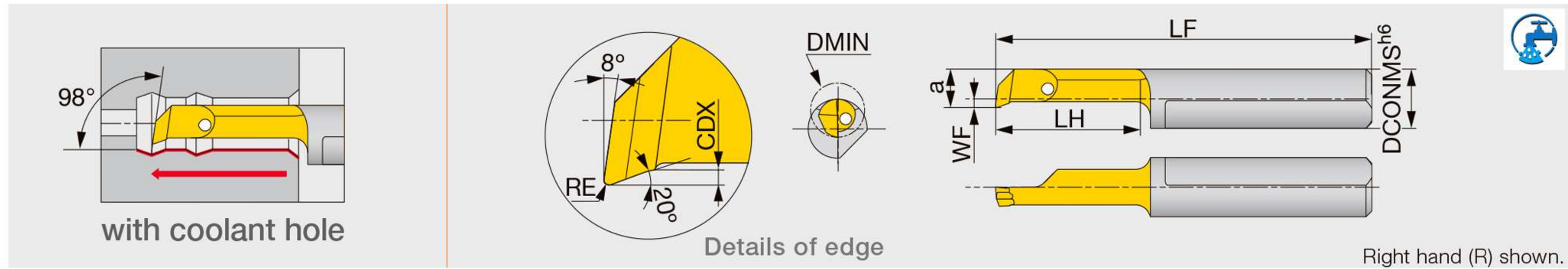
For new indexable boring bar (EPG\*04 / EPG\*03 insert)

ISO	Workpiece material	Grade	Cutting speed Vc (m/min)
<b>P</b>	Low carbon steels S15C, S25C, etc. C15E, C15E4, etc.  Carbon steels S45C, S55C, etc. C45, C55, etc.  Alloy steels SCM440, SCr420, etc. 42CrMo4, 20Cr4, etc.	SH7025	10 - 200
		SH725	10 - 200
		SH730	10 - 150
		J740	10 - 100
		NS9530	150 - 300
		GT9530	150 - 300
<b>M</b>	Stainless steels SUS304, SUS316, etc. X5CrNi18-9, X5CrNiMo17-12-3, etc.	SH7025	10 - 200
		SH725	10 - 200
		SH730	10 - 150
<b>K</b>	Grey cast iron FC250, GG25, 250, etc.	TH10	30 - 100
<b>N</b>	Aluminium alloys Si < 12%	TH10	> 100
		DX140	> 500
	Aluminium alloys Si > 12%	TH10	> 100
		DX140	> 400
	Copper alloys	TH10	> 100
		DX140	> 500
<b>H</b>	Hardened materials	BX310	30 - 150
<b>Powder metal</b>	Sintered powder metals	BX470	100 - 300

# TINY<sup>INI</sup>TURN

### JBTR/L

Solid boring bar for boring, profiling, and chamfering



Designation	SH725	SH730	DMIN	DCONMS	WF	a	LF	LH	CDX	RE <sup>+0.05</sup> <sub>0</sub>
JBTR04020004-D006	●	●	0.6	4	-1.5	0.5	18.5	2	0.08	0.04
JBTR04030004-D006	●	●	0.6	4	-1.5	0.5	19.5	3	0.08	0.04
JBTR04045005-D010	●	●	1	4	-1.1	0.9	21	4.5	0.1	0.05
JBTR04065005-D010	●	●	1	4	-1.1	0.9	23	6.5	0.1	0.05
JBTR04040005-D020	●	●	2	4	-0.3	1.7	20.5	4	0.1	0.05
JBTR04090005-D020	●	●	2	4	-0.3	1.7	25.5	9	0.1	0.05
JBTR04140005-D020	●	●	2	4	-0.3	1.7	30.5	14	0.1	0.05
JBTR/L04090010-D028	●	●	2.8	4	0.9	2.6	25.5	9	0.2	0.1
JBTR/L04150010-D028	●	●	2.8	4	0.9	2.6	31.5	15	0.2	0.1
JBTR/L04190010-D028	●	●	2.8	4	0.9	2.6	35.5	19	0.2	0.1
JBTR/L04090010-D040	●	●	4	4	1.5	3.5	25.5	9	0.3	0.1
JBTR/L04150010-D040	●	●	4	4	1.5	3.5	31.5	15	0.3	0.1
JBTR/L04190010-D040	●	●	4	4	1.5	3.5	35.5	19	0.3	0.1
JBTR04230010-D040	●	●	4	4	1.5	3.5	39.5	23	0.3	0.1
JBTR04270010-D040	●	●	4	4	1.5	3.5	43.5	27	0.3	0.1
JBTR/L07090015-D050	●	●	5	7	0.9	4.4	25	9	0.5	0.15
JBTR/L07140015-D050	●	●	5	7	0.9	4.4	30	14	0.5	0.15
JBTR/L07190015-D050	●	●	5	7	0.9	4.4	35	19	0.5	0.15
JBTR/L07240015-D050	●	●	5	7	0.9	4.4	40	24	0.5	0.15
JBTR07290015-D050	●	●	5	7	0.9	4.4	45	29	0.5	0.15
JBTL07290015-D050	●	●	5	7	0.9	4.4	45	29	0.5	0.15
JBTR07340015-D050	●	●	5	7	0.9	4.4	50	34	0.5	0.15
JBTL07340015-D050	●	●	5	7	0.9	4.4	50	34	0.5	0.15
JBTR/L07140015-D060	●	●	6	7	1.8	5.3	30	14	0.5	0.15
JBTR/L07210015-D060	●	●	6	7	1.8	5.3	37	21	0.5	0.15
JBTR/L07240015-D060	●	●	6	7	1.8	5.3	40	24	0.5	0.15
JBTR/L07290015-D060	●	●	6	7	1.8	5.3	45	29	0.5	0.15
JBTR07340015-D060	●	●	6	7	1.8	5.3	50	34	0.5	0.15
JBTR07410015-D060	●	●	6	7	1.8	5.3	57	41	0.5	0.15
JBTR/L07190015-D068	●	●	6.8	7	2.8	6.3	35	19	0.6	0.15
JBTR07240015-D068	●	●	6.8	7	2.8	6.3	40	24	0.6	0.15
JBTR/L07290015-D068	●	●	6.8	7	2.8	6.3	45	29	0.6	0.15
JBTR/L07340015-D070	●	●	7	7	2.8	6.3	50	34	0.6	0.15
JBTR07390015-D070	●	●	7	7	2.8	6.3	55	39	0.6	0.15
JBTR07440015-D070	●	●	7	7	2.8	6.3	60	44	0.6	0.15
JBTR07490015-D070	●	●	7	7	2.8	6.3	65	49	0.6	0.15

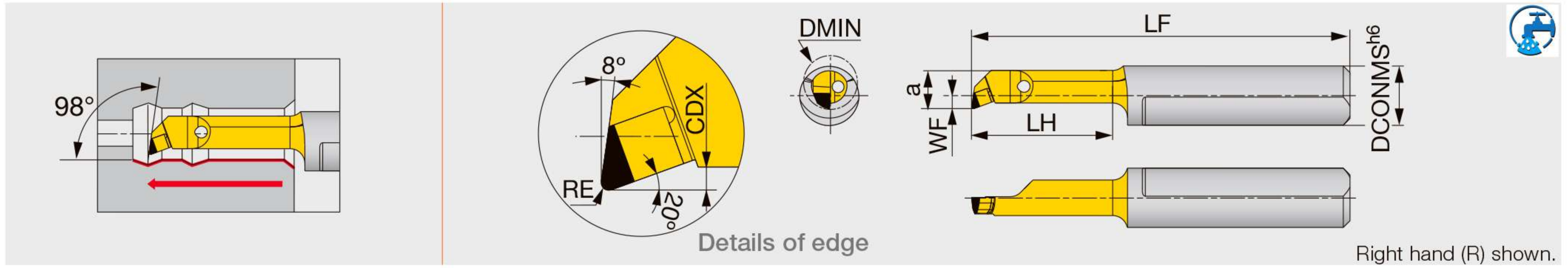
● : New  
● : Line up

Application	Description	Material	Through coolant	Cylindrical shank		Groove width	Min. bore diameter DMIN (mm)										
				ø4	ø7		0	2	4	6	8	10	12	14	15		
Boring, profiling & chamfering	JBT	Carbide	○	○	○	-	ø0.6	ø7									

## Tungaloy Report No. 402-G

### JBTR

For boring, profiling, and chamfering



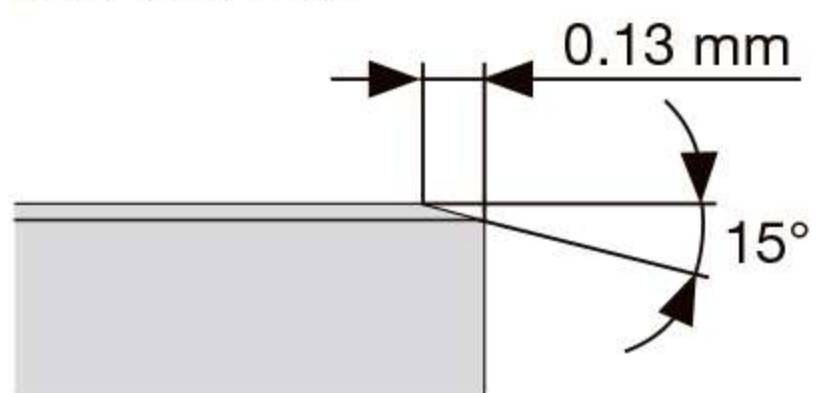
Right hand (R) shown.

Designation	BX310	DMIN	DCONMS	WF	a	LF	LH	CDX	RE <sup>+0.05</sup> <sub>0</sub>
JBTR04060010-D028ST	●	2.8	4	0.9	2.6	22	6	0.3	0.1
JBTR04095010-D028ST	●	2.8	4	0.9	2.6	25.5	9.5	0.3	0.1
JBTR04070015-D040ST	●	4	4	1.5	3.5	23	7	0.5	0.15
JBTR04110015-D040ST	●	4	4	1.5	3.5	27	11	0.5	0.15
JBTR07090020-D050ST	●	5	7	0.6	4.15	25	9	0.4	0.2
JBTR07140020-D050ST	●	5	7	0.6	4.15	30	14	0.4	0.2

● : New

### Edge preparation

ST: T01315

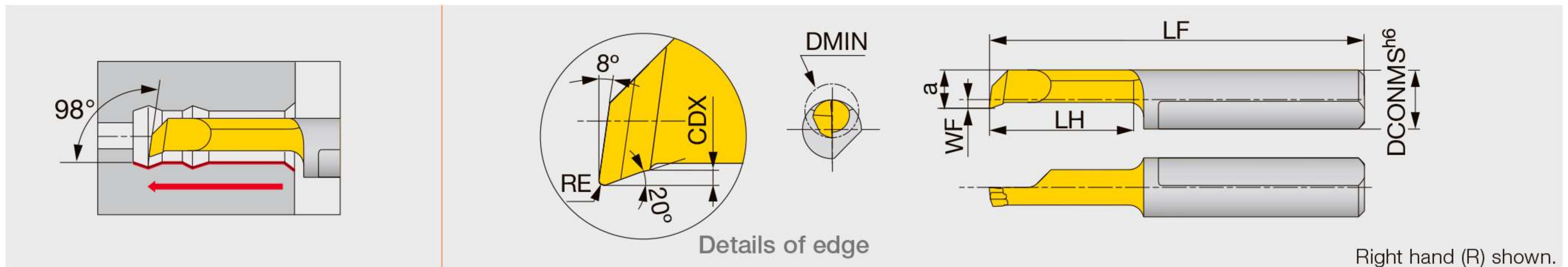


Application	Description	Material	Through coolant	Cylindrical shank		Groove width	Min. bore diameter DMIN (mm)										
				ø4	ø7		0	2	4	6	8	10	12	14	15		
Boring, profiling & chamfering	JBT	Carbide	○	○	○	-	ø2.8	ø5									

# TINY<sup>INI</sup>TURN

### TBTR/L

Solid boring bar for boring, profiling, and chamfering



Right hand (R) shown.

Designation	SH725	DMIN	DCONMS	WF	a	LF	LH	CDX	RE <sup>+0.05</sup> <sub>0</sub>
TBTR04045005-D010	●	1	4	-1.1	0.9	21	4.5	0.1	0.05
TBTR04065005-D010	●	1	4	-1.1	0.9	23	6.5	0.1	0.05
TBTR04040005-D020	●	2	4	-0.3	1.7	20.5	4	0.1	0.05
TBTR04090005-D020	●	2	4	-0.3	1.7	25.5	9	0.1	0.05
TBTR04140005-D020	●	2	4	-0.3	1.7	30.5	14	0.1	0.05
TBTR/L04090010-D028	●	2.8	4	0.9	2.6	25.5	9	0.2	0.1
TBTR04150010-D028	●	2.8	4	0.9	2.6	31.5	15	0.2	0.1
TBTR04190010-D028	●	2.8	4	0.9	2.6	35.5	19	0.2	0.1
TBTR04090010-D040	●	4	4	1.5	3.5	25.5	9	0.3	0.1
TBTR04150010-D040	●	4	4	1.5	3.5	31.5	15	0.3	0.1
TBTR04190010-D040	●	4	4	1.5	3.5	35.5	19	0.3	0.1
TBTR04230010-D040	●	4	4	1.5	3.5	39.5	23	0.3	0.1
TBTR04270010-D040	●	4	4	1.5	3.5	43.5	27	0.3	0.1
TBTR07090015-D050	●	5	7	0.9	4.4	25	9	0.5	0.15
TBTR07140015-D050	●	5	7	0.9	4.4	30	14	0.5	0.15
TBTR07190015-D050	●	5	7	0.9	4.4	35	19	0.5	0.15
TBTR07240015-D050	●	5	7	0.9	4.4	40	24	0.5	0.15
TBTR07290015-D050	●	5	7	0.9	4.4	45	29	0.5	0.15
TBTR07340015-D050	●	5	7	0.9	4.4	50	34	0.5	0.15
TBTR07140015-D060	●	6	7	1.8	5.3	30	14	0.5	0.15
TBTR/L07210015-D060	●	6	7	1.8	5.3	37	21	0.5	0.15
TBTR07240015-D060	●	6	7	1.8	5.3	40	24	0.5	0.15
TBTR07290015-D060	●	6	7	1.8	5.3	45	29	0.5	0.15
TBTR07340015-D060	●	6	7	1.8	5.3	50	34	0.5	0.15
TBTR07410015-D060	●	6	7	1.8	5.3	57	41	0.5	0.15
TBTR07190015-D068	●	6.8	7	2.8	6.3	35	19	0.6	0.15
TBTR07240015-D068	●	6.8	7	2.8	6.3	40	24	0.6	0.15
TBTR07290015-D068	●	6.8	7	2.8	6.3	45	29	0.6	0.15
TBTR07340015-D070	●	7	7	2.8	6.3	50	34	0.6	0.15
TBTR07390015-D070	●	7	7	2.8	6.3	55	39	0.6	0.15
TBTR07440015-D070	●	7	7	2.8	6.3	60	44	0.6	0.15
TBTR07490015-D070	●	7	7	2.8	6.3	65	49	0.6	0.15

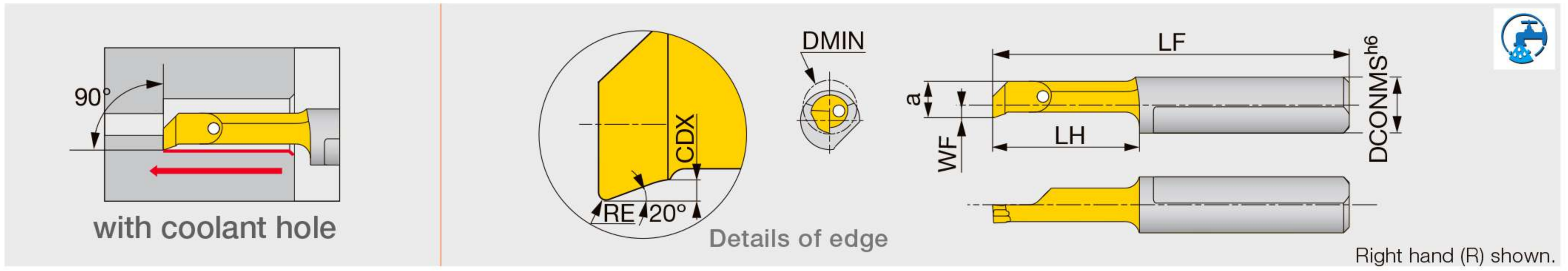
● : New

Application	Description	Material	Through coolant	Cylindrical shank		Groove width	Min. bore diameter DMIN (mm)										
				ø4	ø7		0	2	4	6	8	10	12	14	15		
Boring, profiling & chamfering	TBT	Carbide	-	○	○	-	ø1	ø7									

## Tungaloy Report No. 402-G

### JBPR

Solid boring bar for boring and chamfering

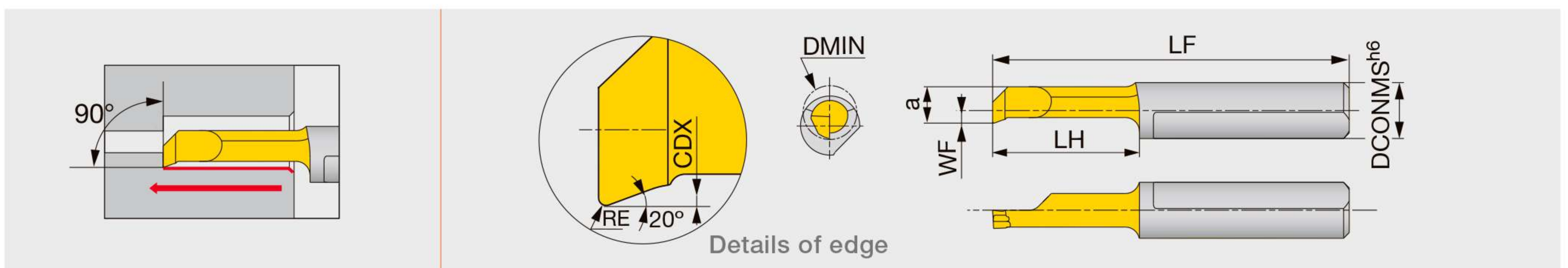


Designation	SH725	SH730	DMIN	DCONMS	WF	a	LF	LH	CDX	RE <sup>+0.05</sup> <sub>0</sub>
JBPR04090010-D028	●	●	2.8	4	0.9	2.6	25.5	9	0.2	0.1
JBPR04150010-D028	●	●	2.8	4	0.9	2.6	31.5	15	0.2	0.1
JBPR04090010-D040	●	●	4	4	1.5	3.5	25.5	9	0.3	0.1
JBPR04150010-D040	●	●	4	4	1.5	3.5	31.5	15	0.3	0.1
JBPR07140015-D050	●	●	5	7	0.9	4.4	30	14	0.5	0.15
JBPR07190015-D050	●	●	5	7	0.9	4.4	35	19	0.5	0.15

● : New  
● : Line up

### TBPR

Solid boring bar for boring and chamfering



Designation	SH725	DMIN	DCONMS	WF	a	LF	LH	CDX	RE <sup>+0.05</sup> <sub>0</sub>
TBPR04090010-D028	●	2.8	4	0.9	2.6	25.5	9	0.2	0.1
TBPR04150010-D040	●	4	4	1.5	3.5	31.5	15	0.3	0.1
TBPR07140015-D050	●	5	7	0.9	4.4	30	14	0.5	0.15
TBPR07190015-D050	●	5	7	0.9	4.4	35	19	0.5	0.15

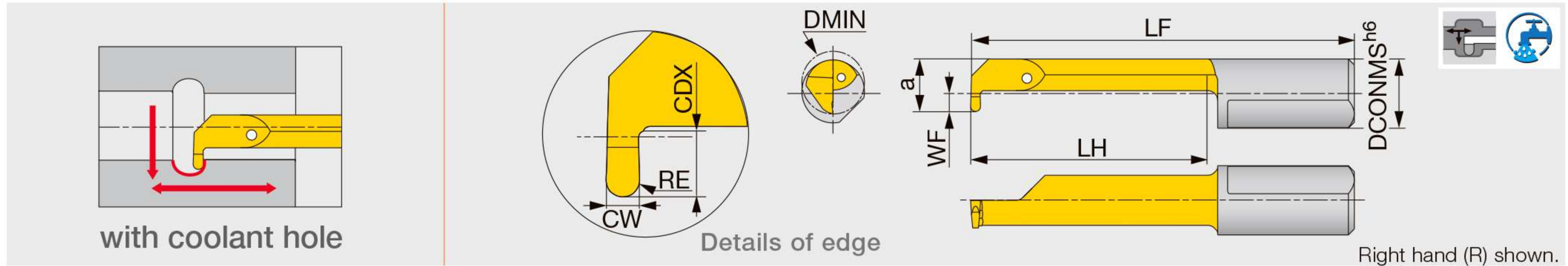
● : New

Application	Description	Material	Through coolant	Cylindrical shank		Groove width	Min. bore diameter DMIN (mm)										
				ø4	ø7		0	2	4	6	8	10	12	14	15		
Boring, profiling & chamfering	JBP	Carbide	○	○	○	-	ø2.8	ø5									
	TBP	Carbide	-	○	○	-	ø2.8	ø5									

# TINY<sup>INI</sup>TURN

### JBRR

Solid boring bar for boring and profiling

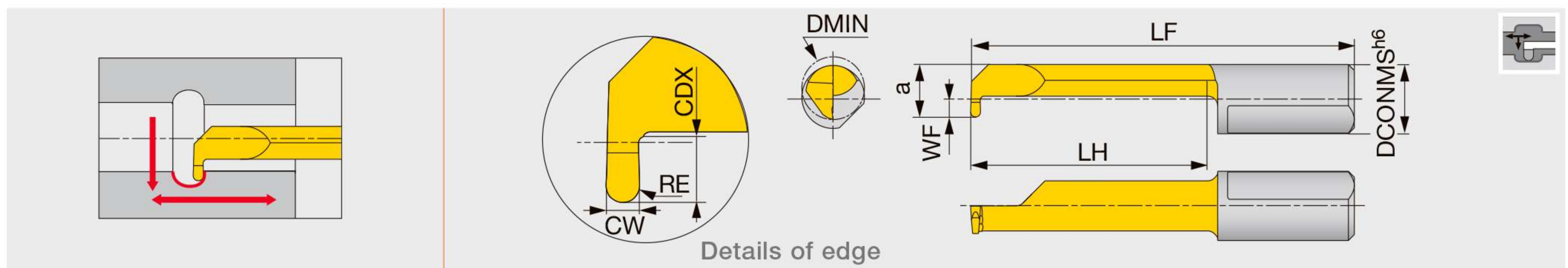


Designation	SH725	SH730	CW <sup>+0.05</sup> <sub>0</sub>	DMIN	DCONMS	WF	a	LF	LH	CDX	RE
JBRR07190050-D050	●	●	1	5	7	0.9	4.4	35	19	1	0.5
JBRR07240050-D060	●	●	1	6	7	1.8	5.3	40	24	1.8	0.5
JBRR07290050-D068	●	●	1	6.8	7	2.8	6.3	45	29	2.5	0.5

● : New  
● : Line up

### TBRR

Solid boring bar for boring and profiling



Designation	SH725	CW <sup>+0.05</sup> <sub>0</sub>	DMIN	DCONMS	WF	a	LF	LH	CDX	RE
TBRR07190050-D050	●	1	5	7	0.9	4.4	35	19	1	0.5
TBRR07240050-D060	●	1	6	7	1.8	5.3	40	24	1.8	0.5
TBRR07290050-D068	●	1	6.8	7	2.8	6.3	45	29	2.5	0.5

● : New

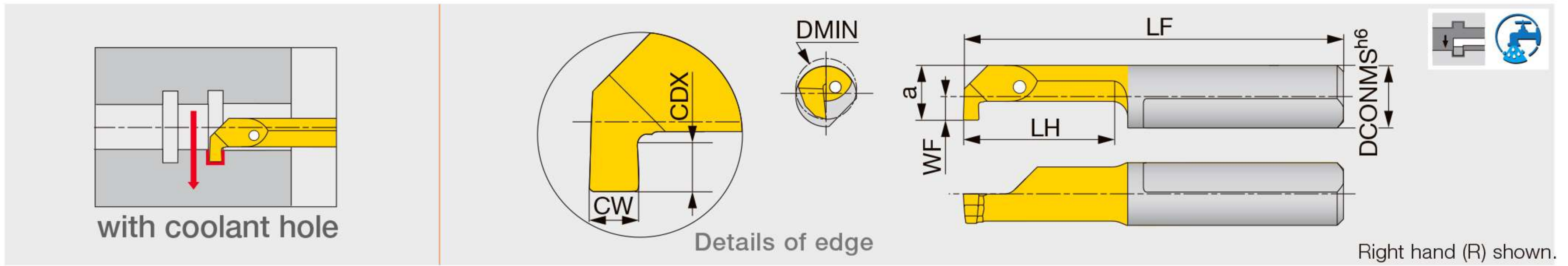
Application	Description	Material	Through coolant	Cylindrical shank		Groove width	Min. bore diameter DMIN (mm)									
				ø4	ø7		0	2	4	6	8	10	12	14	15	
	JBR	Carbide	○	-	○	-				ø5	ø6.8					
	TBR	Carbide	-	-	○	1			ø5	ø6.8						



## Tungaloy Report No. 402-G

### JBGR/L

Solid boring bar for internal grooving



Designation	SH725	SH730	CW <sup>+0.05</sup> <sub>0</sub>	DMIN	DCONMS	WF	a	LF	LH	CDX
JBGR04050050-D020	●	●	0.5	2	4	-0.2	1.8	21	5	0.4
JBGR04100050-D020	●	●	0.5	2	4	-0.2	1.8	26	10	0.4
JBGR04050070-D030	●	●	0.7	3	4	0.7	2.7	21	5	0.6
JBGR04100070-D030	●	●	0.7	3	4	0.7	2.7	26	10	0.6
JBGR04090100-D040	●	●	1	4	4	1.5	3.5	25.5	9	0.8
JBGR04150100-D040	●	●	1	4	4	1.5	3.5	31.5	15	0.8
JBGR07090100-D050	●	●	1	5	7	0.9	4.4	25	9	1
JBGR07140100-D050	●	●	1	5	7	0.9	4.4	30	14	1
JBGR07090150-D050	●	●	1.5	5	7	0.9	4.4	25	9	1
JBGR07140150-D050	●	●	1.5	5	7	0.9	4.4	30	14	1
JBGR07090200-D050	●	●	2	5	7	0.9	4.4	25	9	1
JBGR07190200-D050	●	●	2	5	7	0.9	4.4	35	19	1
JBGR/L07090100-D060	●	●	1	6	7	1.8	5.3	25	9	1.8
JBGR07140100-D060	●	●	1	6	7	1.8	5.3	30	14	1.8
JBGR07210100-D060	●	●	1	6	7	1.8	5.3	37	21	1.8
JBGR07290100-D060	●	●	1	6	7	1.8	5.3	45	29	1.8
JBGR/L07090150-D060	●	●	1.5	6	7	1.8	5.3	25	9	1.8
JBGR07140150-D060	●	●	1.5	6	7	1.8	5.3	30	14	1.8
JBGR07210150-D060	●	●	1.5	6	7	1.8	5.3	37	21	1.8
JBGR07240150-D060	●	●	1.5	6	7	1.8	5.3	40	24	1.8
JBGR07290150-D060	●	●	1.5	6	7	1.8	5.3	45	29	1.8
JBGR07090200-D060	●	●	2	6	7	1.8	5.3	25	9	1.8
JBGR07140200-D060	●	●	2	6	7	1.8	5.3	30	14	1.8
JBGR07210200-D060	●	●	2	6	7	1.8	5.3	37	21	1.8
JBGR07240200-D060	●	●	2	6	7	1.8	5.3	40	24	1.8
JBGR07290200-D060	●	●	2	6	7	1.8	5.3	45	29	1.8
JBGR07090100-D068	●	●	1	6.8	7	2.7	6.2	25	9	2.5
JBGR07140100-D068	●	●	1	6.8	7	2.7	6.2	30	14	2.5
JBGR07210100-D068	●	●	1	6.8	7	2.7	6.2	37	21	2.5
JBGR07090150-D068	●	●	1.5	6.8	7	2.7	6.2	25	9	2.5
JBGR07140150-D068	●	●	1.5	6.8	7	2.7	6.2	30	14	2.5
JBGR07210150-D068	●	●	1.5	6.8	7	2.7	6.2	37	21	2.5
JBGR07290150-D068	●	●	1.5	6.8	7	2.7	6.2	45	29	2.5
JBGR07090200-D068	●	●	2	6.8	7	2.7	6.2	25	9	2.5
JBGR/L07140200-D068	●	●	2	6.8	7	2.7	6.2	30	14	2.5
JBGR07210200-D068	●	●	2	6.8	7	2.7	6.2	37	21	2.5
JBGR07250200-D068	●	●	2	6.8	7	2.7	6.2	40	25	2.5
JBGR07290200-D068	●	●	2	6.8	7	2.7	6.2	45	29	2.5

Corner radius: less than 0.1 mm

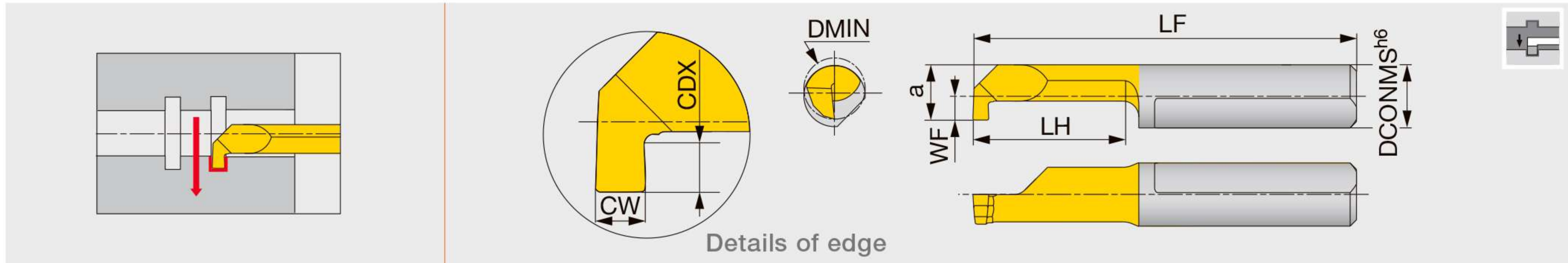
● : New  
● : Line up

Application	Description	Material	Through coolant	Cylindrical shank		Groove width	Min. bore diameter DMIN (mm)											
				ø4	ø7		0	2	4	6	8	10	12	14	15			
Internal Grooving	JBG	Carbide	○	○	○	-	ø0.5	[Orange bar]						ø6.8				

# TINY<sup>INI</sup>TURN

### TBGR

Solid boring bar for internal grooving



Designation	SH725	CW <sup>+0.05</sup> <sub>0</sub>	DMIN	DCONMS	WF	a	LF	LH	CDX
TBGR04100050-D020	●	0.5	2	4	-0.2	1.8	26	10	0.4
TBGR04090100-D040	●	1	4	4	1.5	3.5	25.5	9	0.8
TBGR04150100-D040	●	1	4	4	1.5	3.5	31.5	15	0.8
TBGR07090200-D050	●	2	5	7	0.9	4.4	25	9	1
TBGR07090100-D060	●	1	6	7	1.8	5.3	25	9	1.8
TBGR07140100-D060	●	1	6	7	1.8	5.3	30	14	1.8
TBGR07090150-D060	●	1.5	6	7	1.8	5.3	25	9	1.8
TBGR07090200-D060	●	2	6	7	1.8	5.3	25	9	1.8
TBGR07140200-D060	●	2	6	7	1.8	5.3	30	14	1.8
TBGR07090100-D068	●	1	6.8	7	2.7	6.2	25	9	2.5
TBGR07090150-D068	●	1.5	6.8	7	2.7	6.2	25	9	2.5
TBGR07140150-D068	●	1.5	6.8	7	2.7	6.2	30	14	2.5
TBGR07090200-D068	●	2	6.8	7	2.7	6.2	25	9	2.5
TBGR07140200-D068	●	2	6.8	7	2.7	6.2	30	14	2.5
TBGR07210200-D068	●	2	6.8	7	2.7	6.2	37	21	2.5
TBGR07290200-D068	●	2	6.8	7	2.7	6.2	45	29	2.5

Corner radius : less than 0.1 mm.

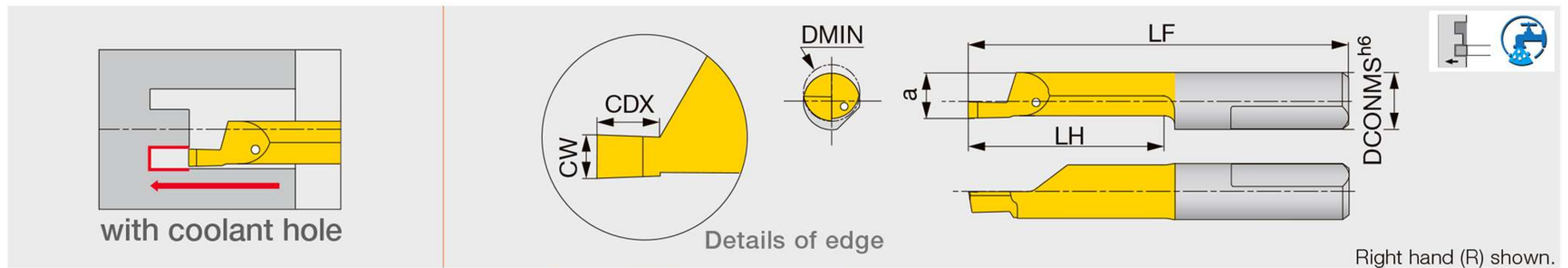
● : New

Application	Description	Material	Through coolant	Cylindrical shank		Groove width	Min. bore diameter DMIN (mm)										
				ø4	ø7		0	2	4	6	8	10	12	14	15		
Internal Grooving	TBG	Carbide	-	○	○	0.5 - 2	ø2					ø6.8					

## Tungaloy Report No. 402-G

### JBFR/L

Solid boring bar for face grooving



Right hand (R) shown.

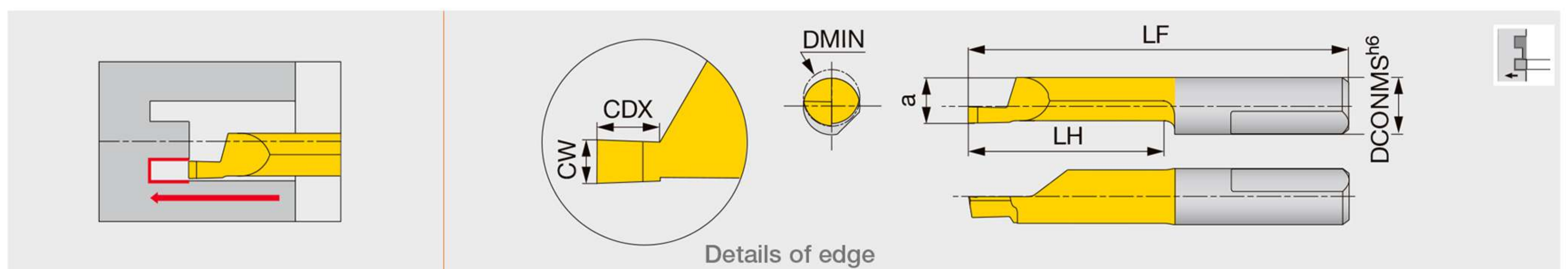
Designation	SH725	SH730	CW <sup>+0.05</sup> <sub>0</sub>	DMIN	DCONMS	a	LF	LH	CDX
JBFR07110100-D060	●	●	1	6	7	5.2	27	10	1.5
JBFR07110150-D060	●	●	1.5	6	7	5.2	27	10	2
JBFR07110200-D060	●	●	2	6	7	5.2	27	10	3
JBFR07110100-D080	●	●	1	8	7	5.9	27	11	1.5
JBFR07110150-D080	●	●	1.5	8	7	5.9	27	11	2.5
JBFR07110200-D080	●	●	2	8	7	5.9	27	11	3
JBFR07110250-D080	●	●	2.5	8	7	5.9	27	11	3.5
JBFR07110300-D080	●	●	3	8	7	5.9	27	11	3.5
JBFR/L07210150-D080	●	●	1.5	8	7	5.9	36	21	2.5
JBFR07210200-D080	●	●	2	8	7	5.9	36	21	3
JBFR07210250-D080	●	●	2.5	8	7	5.9	36	21	3.5
JBFR07210300-D080	●	●	3	8	7	5.9	36	21	3.5
JBFR/L07300200-D080	●	●	2	8	7	5.9	46	30	3
JBFR07300300-D080	●	●	3	8	7	5.9	46	30	3.5
JBFR07200200-D080	●	●	2	8	7	5.9	36	20	3
JBFR07200250-D150	●	●	2.5	15	7	5.9	36	20	20
JBFR07200300-D150	●	●	3	15	7	5.9	36	20	20
JBFR07300300-D150	●	●	3	15	7	5.9	46	30	30

Corner radius: less than 0.1 mm

● : New  
● : Line up

### TBFR

Solid boring bar for face grooving



Designation	SH725	CW <sup>+0.05</sup> <sub>0</sub>	DMIN	DCONMS	a	LF	LH	CDX
TBFR07110100-D060	●	1	6	7	5.2	27	10	1.5
TBFR07110200-D060	●	2	6	7	5.2	27	10	3
TBFR07110100-D080	●	1	8	7	5.9	27	11	1.5
TBFR07110250-D080	●	2.5	8	7	5.9	27	11	3.5
TBFR07300300-D080	●	3	8	7	5.9	46	30	3.5
TBFR07200250-D150	●	2.5	15	7	5.9	36	20	20
TBFR07200300-D150	●	3	15	7	5.9	36	20	20
TBFR07300300-D150	●	3	15	7	5.9	46	30	30

Corner radius : less than 0.1 mm.

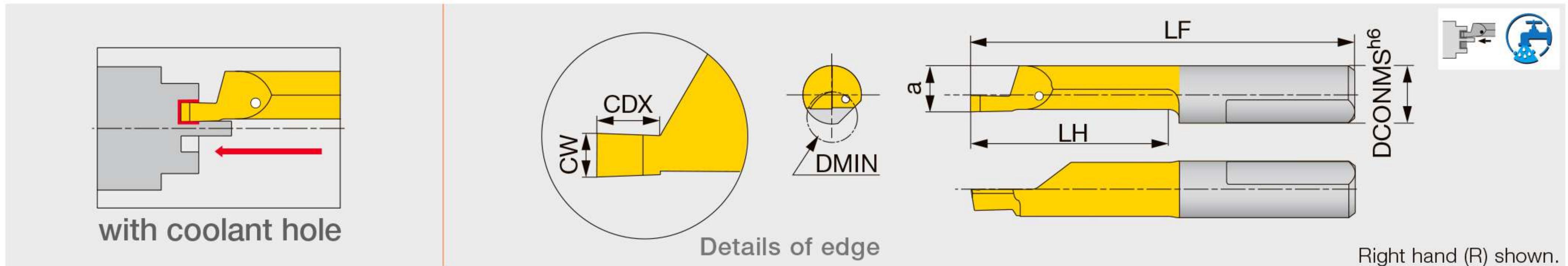
● : New

Application	Description	Material	Through coolant	Cylindrical shank		Groove width	Min. bore diameter DMIN (mm)										
				ø4	ø7		0	2	4	6	8	10	12	14	15		
Face grooving	JBF	Carbide	○	-	○	-					ø6						ø15
	TBF	Carbide	-	-	○	1 - 3				ø6							ø15

# TINY<sup>INI</sup>TURN

### JBSR

Solid boring bar for face grooving (for shaft)



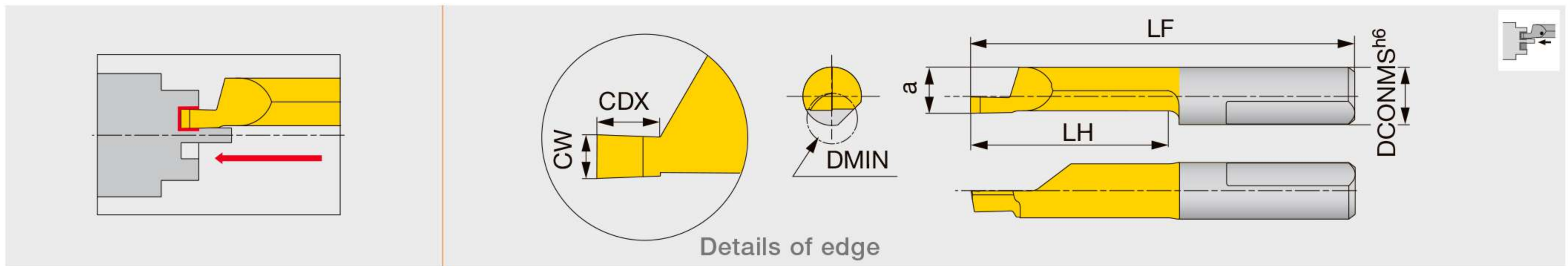
Designation	SH725	SH730	CW $+0.05$ <sub>0</sub>	DMIN	DCONMS	a	LF	LH	CDX
JBSR07200200-D060	●	●	2	6	7	5.2	36	20	4

Corner radius: less than 0.1 mm

● : New product  
● : Line up

### TBSR

Solid boring bar for face grooving (for shaft)



Designation	SH725	CW $+0.05$ <sub>0</sub>	DMIN	DCONMS	a	LF	LH	CDX
TBSR07200200-D060	●	2	6	7	5.2	36	20	4

Corner radius : less than 0.1 mm.

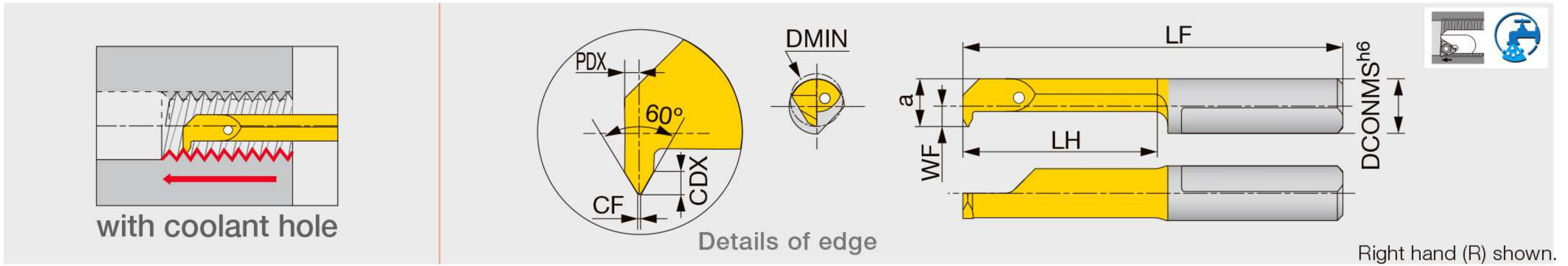
● : New

Application	Description	Material	Through coolant	Cylindrical shank		Groove width	Min. bore diameter DMIN (mm)									
				ø4	ø7		0	2	4	6	8	10	12	14	15	
Face grooving (for shaft)	JBS	Carbide	○	-	○	-					ø6					
	TBS	Carbide	-	-	○	2				ø6						

## Tungaloy Report No. 402-G

### JBIR

Solid boring bar for threading (metric)

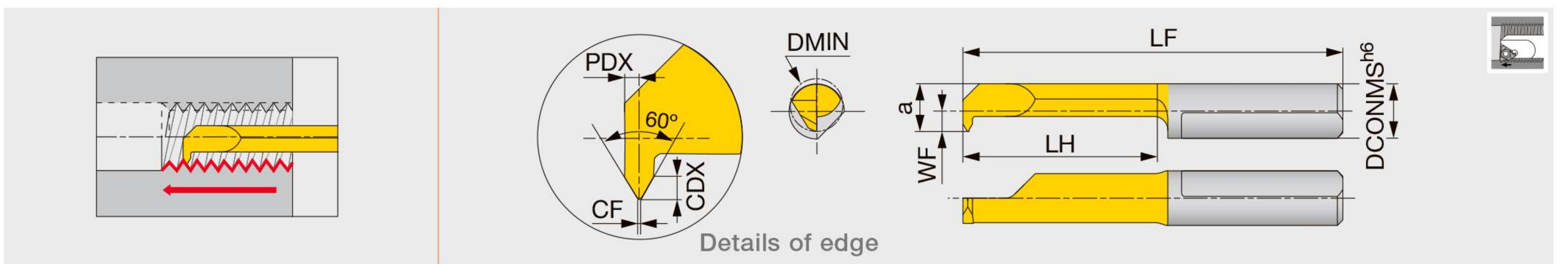


Designation	SH725	SH730	Pitch	DMIN	CF <sup>0</sup> <sub>-0.02</sub>	DCONMS	WF	a	LF	LH	CDX	PDX
JBIR04140050-D040	●	●	0.5	4	0.06	4	1.5	3.5	30	14	0.3	0.35
JBIR07140050-D050	●	●	0.5	5	0.06	7	0.9	4.4	30	14	0.3	0.35
JBIR07140075-D050	●	●	0.75	5	0.09	7	0.9	4.4	30	14	0.4	0.45
JBIR07140100-D048	●	●	1	4.8	0.12	7	0.9	4.4	30	14	0.6	0.55
JBIR07140100-D060	●	●	1	6	0.12	7	1.8	5.3	30	14	0.6	0.55
JBIR07140125-D060	●	●	1.25	6	0.15	7	1.8	5.3	30	14	0.7	0.65
JBIR07140150-D060	●	●	1.5	6	0.18	7	1.8	5.3	30	14	0.8	0.75
JBIR07140150-D070	●	●	1.5	7	0.18	7	2.8	6.3	30	14	0.8	0.75

● : New  
● : Line up

### TBIR

Solid boring bar for threading (metric)



Designation	SH725	Pitch	DMIN	CF <sup>0</sup> <sub>-0.02</sub>	DCONMS	WF	a	LF	LH	CDX	PDX
TBIR04140050-D040	●	0.5	4	0.06	4	1.5	3.5	30	14	0.3	0.35
TBIR07140050-D050	●	0.5	5	0.06	7	0.9	4.4	30	14	0.3	0.35
TBIR07140075-D050	●	0.75	5	0.09	7	0.9	4.4	30	14	0.4	0.45
TBIR07140100-D048	●	1	4.8	0.12	7	0.9	4.4	30	14	0.6	0.55
TBIR07140100-D060	●	1	6	0.12	7	1.8	5.3	30	14	0.6	0.55
TBIR07140150-D060	●	1.5	6	0.18	7	1.8	5.3	30	14	0.8	0.75

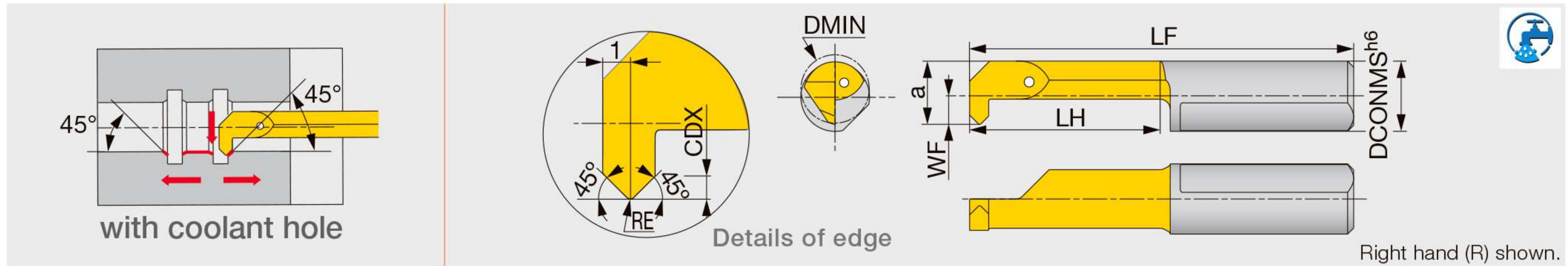
● : New

Application	Description	Material	Through coolant	Cylindrical shank		Groove width	Min. bore diameter DMIN (mm)										
				ø4	ø7		0	2	4	6	8	10	12	14	15		
Threading (Metric thread)	JBI	Carbide	○	○	○	-			ø4							ø7	
	TBI	Carbide	-	○	○	-			ø4							ø6	

# TINY<sup>INI</sup>TURN

### JBCR

Solid boring bar for boring and 45° chamfering

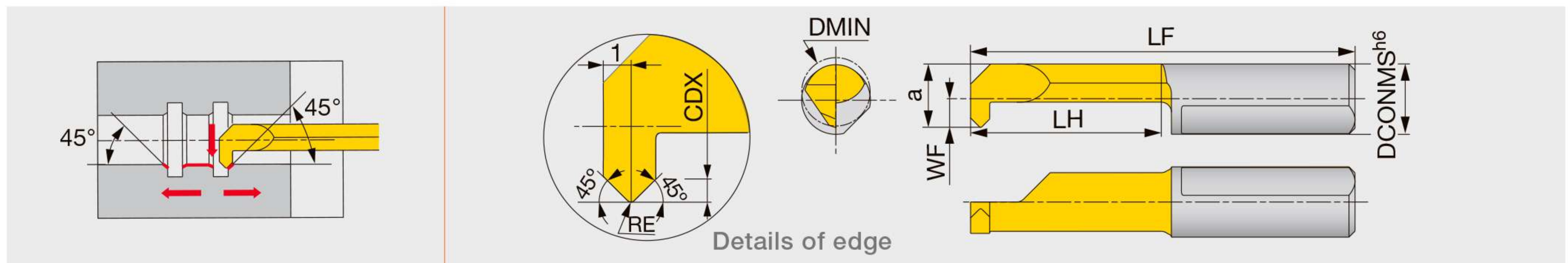


Designation	SH725	SH730	DMIN	DCONMS	WF	a	LF	LH	CDX	RE±0.05
JBCR07140020-D050	●	●	5	7	0.9	4.4	30	14	0.7	0.2
JBCR07190020-D050	●	●	5	7	0.9	4.4	35	19	0.7	0.2
JBCR07190020-D068	●	●	6.8	7	2.8	6.3	35	19	0.7	0.2

● : New  
● : Line up

### TBCR

Solid boring bar for boring and 45° chamfering



Designation	SH725	DMIN	DCONMS	WF	a	LF	LH	CDX	RE <sup>+0.05</sup> <sub>0</sub>
TBCR07140020-D050	●	5	7	0.9	4.4	30	14	0.7	0.2
TBCR07190020-D068	●	6.8	7	2.8	6.3	35	19	0.7	0.2

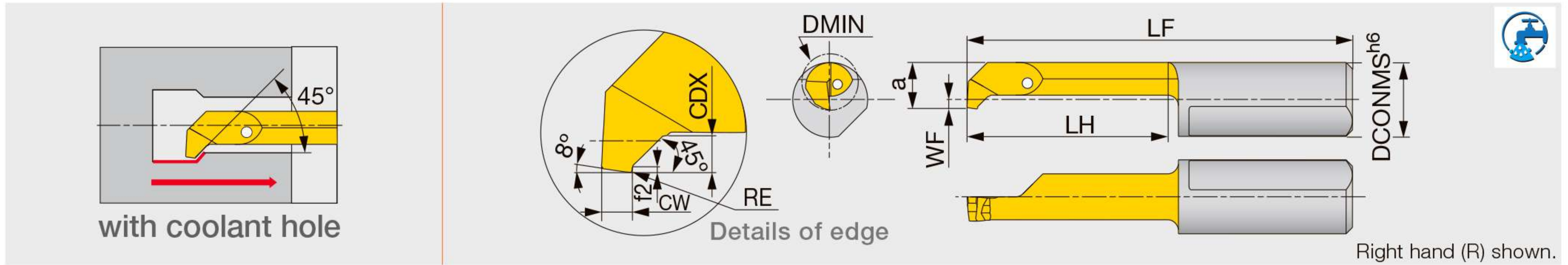
● : New

Application	Description	Material	Through coolant	Cylindrical shank		Groove width	Min. bore diameter DMIN (mm)										
				ø4	ø7		0	2	4	6	8	10	12	14	15		
Boring & 45° chamfering	JBC	Carbide	○	-	○	-			ø5		ø6.8						
	TBC	Carbide	-	-	○	-			ø5		ø6.8						

## Tungaloy Report No. 402-G

### JBUR

Solid boring bar for back boring and chamfering

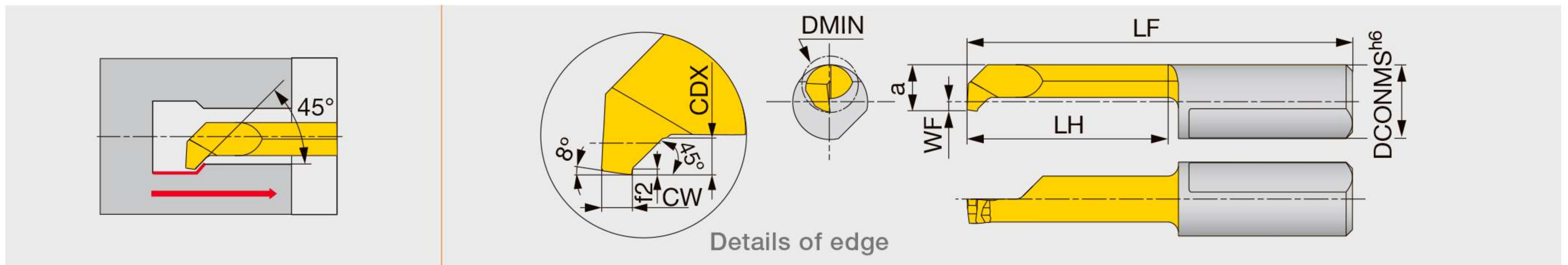


Designation	SH725	SH730	DMIN	DCONMS	WF	a	LF	LH	f2	CDX	CW <sup>+0.05</sup>	RE
JBUR07140010-D050	●	●	5	7	0.9	4.4	30	14	0.2	1	1	0.1
JBUR07190010-D050	●	●	5	7	0.9	4.4	35	19	0.2	1	1	0.1

● : New  
● : Line up

### TBUR

Solid boring bar for back boring and chamfering



Designation	SH725	DMIN	DCONMS	WF	a	LF	LH	f2	CDX	CW <sup>+0.05</sup>
TBUR07140010-D050	●	5	7	0.9	4.4	30	14	0.2	1	1
TBUR07190010-D050	●	5	7	0.9	4.4	35	19	0.2	1	1

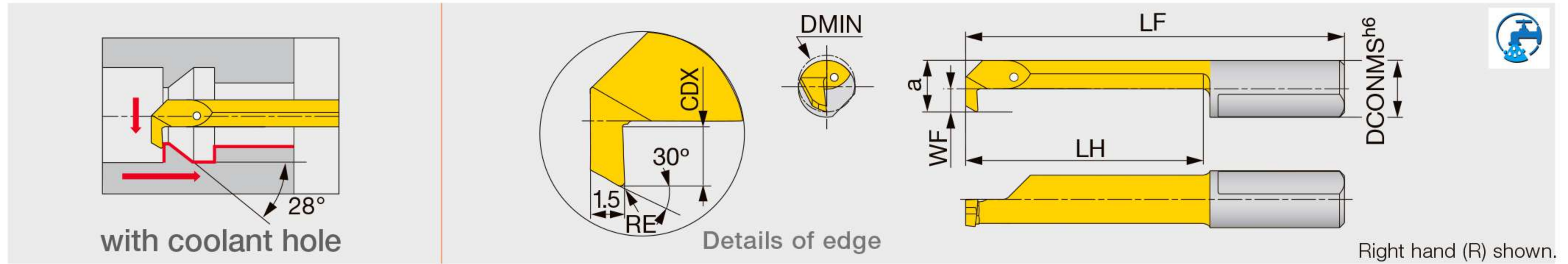
● : New

Application	Description	Material	Through coolant	Cylindrical shank		Groove width	Min. bore diameter DMIN (mm)									
				ø4	ø7		0	2	4	6	8	10	12	14	15	
Back boring & chamfering	JBU	Carbide	○	-	○	-	ø5									
	TBU	Carbide	-	-	○	-	ø5									

# TINY<sup>INI</sup>TURN

### JBBR

Solid boring bar for back boring

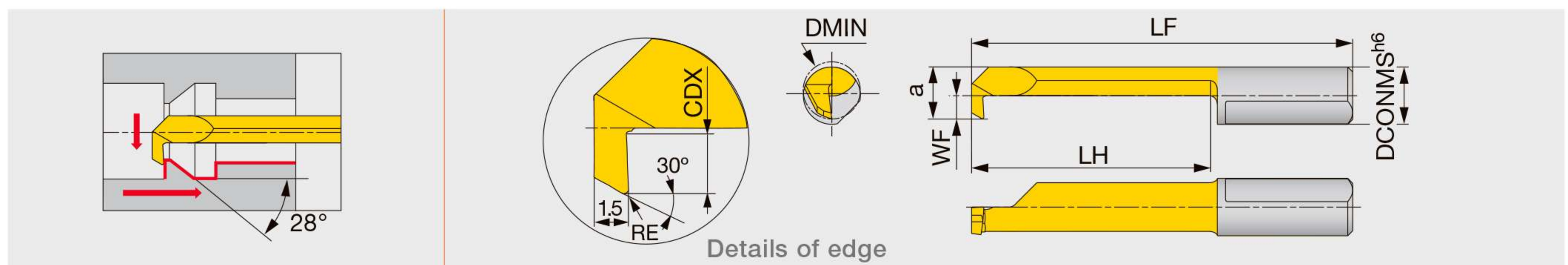


Designation	SH725	SH730	DMIN	DCONMS	WF	a	LF	LH	CDX	RE <sup>+0.05</sup>
JBBR04140020-D030	●	●	3	4	0.6	2.6	30	14	0.5	0.2
JBBR04190020-D030	●	●	3	4	0.6	2.6	35	19	0.5	0.2
JBBR04140015-D040	●	●	4	4	1.5	3.5	30	14	0.8	0.15
JBBR04240015-D040	●	●	4	4	1.5	3.5	40	24	0.8	0.15
JBBR07190020-D050	●	●	5	7	0.9	4.4	35	19	1	0.2
JBBR07290020-D050	●	●	5	7	0.9	4.4	45	29	1	0.2
JBBR07190020-D060	●	●	6	7	1.8	5.3	35	19	1.8	0.2
JBBR07290020-D060	●	●	6	7	1.8	5.3	45	29	1.8	0.2
JBBR07190020-D070	●	●	7	7	2.8	6.3	35	19	2.5	0.2
JBBR07290020-D070	●	●	7	7	2.8	6.3	45	29	2.5	0.2

● : New  
● : Line up

### TBBR

Solid boring bar for back boring



Designation	SH725	DMIN	DCONMS	WF	a	LF	LH	CDX	RE <sup>+0.05</sup>
TBBR04140020-D030	●	3	4	0.6	2.6	30	14	0.5	0.2
TBBR04140015-D040	●	4	4	1.5	3.5	30	14	0.8	0.15
TBBR07190020-D050	●	5	7	0.9	4.4	35	19	1	0.2

● : New

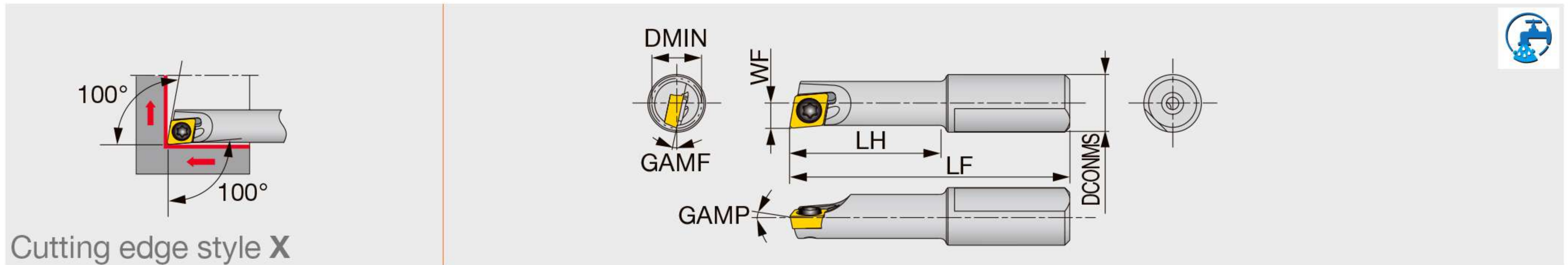
Application	Description	Material	Through coolant	Cylindrical shank		Groove width	Min. bore diameter DMIN (mm)										
				ø4	ø7		0	2	4	6	8	10	12	14	15		
Back boring	JBB	Carbide	○	○	○	-	ø3							ø7			
	TBB	Carbide	-	○	○	-	ø3						ø5				



## Tungaloy Report No. 402-G

### A/E-SEXPR

Screw-on boring bar, for positive 75° rhombic inserts



Designation	Material	DMIN	DCONMS	WF	LF	LH	GAMP	GAMF	RE**	Insert	Torque*
A07050-SEXPR03-3	Steel	5	7	2.5	31	15	0°	-13°	0.2	EPGT03X1...	0.6
A07060-SEXPR04-3	Steel	6	7	3.1	34	18	0°	-12°	0.2	EPGT0401...	0.6
E07050-SEXPR03-4	Carbide	5	7	2.5	37	20	0°	-13°	0.2	EPGT03X1...	0.6
E07050-SEXPR03-5	Carbide	5	7	2.5	42	25	0°	-13°	0.2	EPGT03X1...	0.6
E07060-SEXPR04-5	Carbide	6	7	3.1	46	30	0°	-12°	0.2	EPGT0401...	0.6

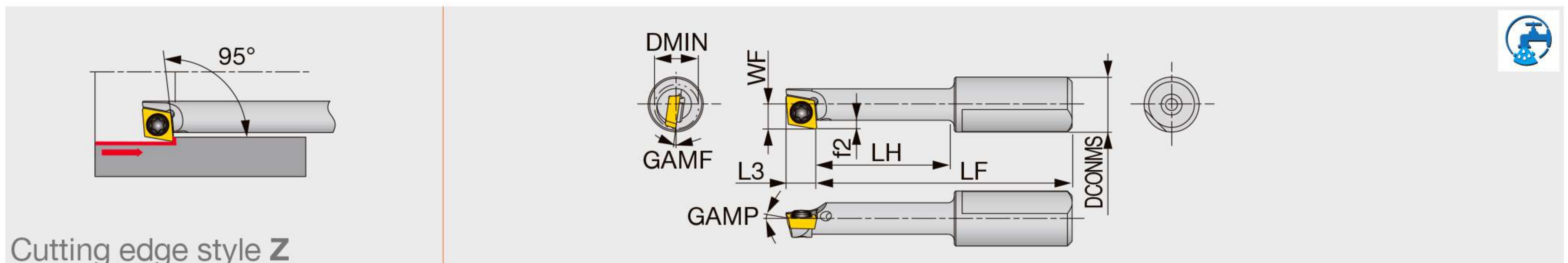
\*Torque: Recommended clamping torque (N·m)

\*\*RE : Standard corner radius

Note: Use right-hand toolholders (SEXPR\*\*) with left-hand inserts (L).

### A/E-SEZPR

Screw-on boring bar, for positive 75° rhombic inserts



Designation	Material	DMIN	DCONMS	WF	LF	LH	f2	L3	GAMP	GAMF	RE**	Insert	Torque*
A07055-SEZPR03-3	Steel	5.5	7	3.2	32.5	16.5	1.2	3.9	0°	-8°	0.2	EPGT03X1...	0.6
E07055-SEZPR03-5	Carbide	5.5	7	3.2	44.7	27.5	1.2	3.9	0°	-8°	0.2	EPGT03X1...	0.6

\*Torque: Recommended clamping torque (N·m)

\*\*RE : Standard corner radius

Note: Use right-hand toolholders (SEZPR\*\*) with right-hand inserts (R).

#### SPARE PARTS

Designation	Clamping screw	Wrench
A/E070**03-...	CSTA-1.6	T-6F
A/E070**04-...	CSTB-2	T-6F

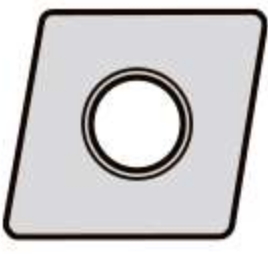
Application	Description	Cylindrical shank ø7	Through coolant	Min. bore diameter DMIN (mm)						
				0	2	4	6	8	10	
Boring & internal facing 	SEXPR	○	○				ø5	ø6		
Back boring 	SEZPR	○	○				ø5.5			



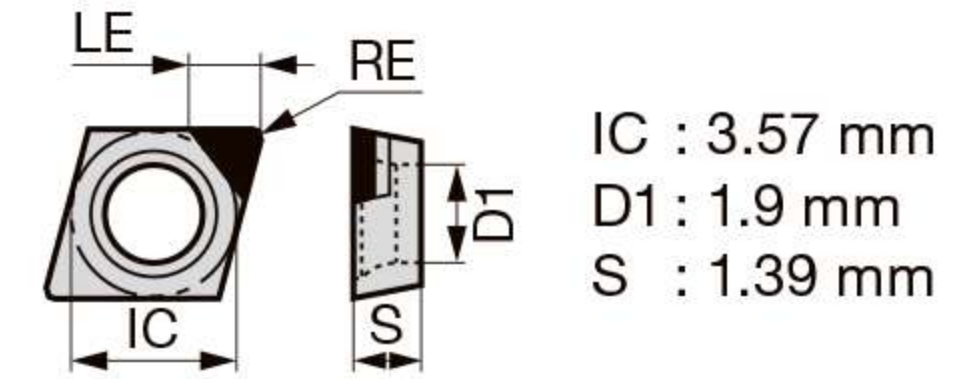
## CBN Insert POSITIVE TYPE

- : Continuous cutting
- ◐ : Light interrupted cutting
- ⊗ : Heavy interrupted cutting

### EP



**Rhombic, 75°  
with hole  
Positive 11°**



K	Cast iron																	
S	Superalloy																	
H	Hard material	●																
	Sintered metal	●	◐															

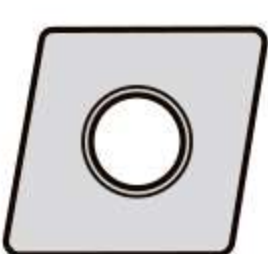
Application	Designation	Dimension (mm)		No. of corners	Wiper	Standard	Problem				BX310	BX470							
		RE	LE				Burr	Finak wear	Crater wear	Chipping									
Finishing	1QP-EPGW03X102	0.2	1.4	1		O					●	●							
	1QP-EPGW03X104	0.4	1.3	1		O					●	●							
	1QP-EPGW040102	0.2	1.7	1		O					●	●							
	1QP-EPGW040104	0.4	1.6	1		O					●	●							

● : Line up

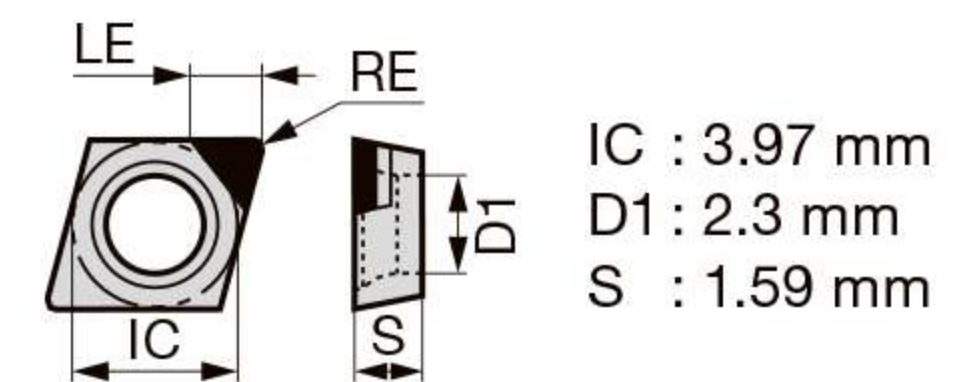
## PCD Insert POSITIVE TYPE

- : Continuous cutting
- ◐ : Light interrupted cutting
- ⊗ : Heavy interrupted cutting

### EP



**Rhombic, 75°  
with hole  
Positive 11°**



N	Non-ferrous	●	◐															
---	-------------	---	---	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

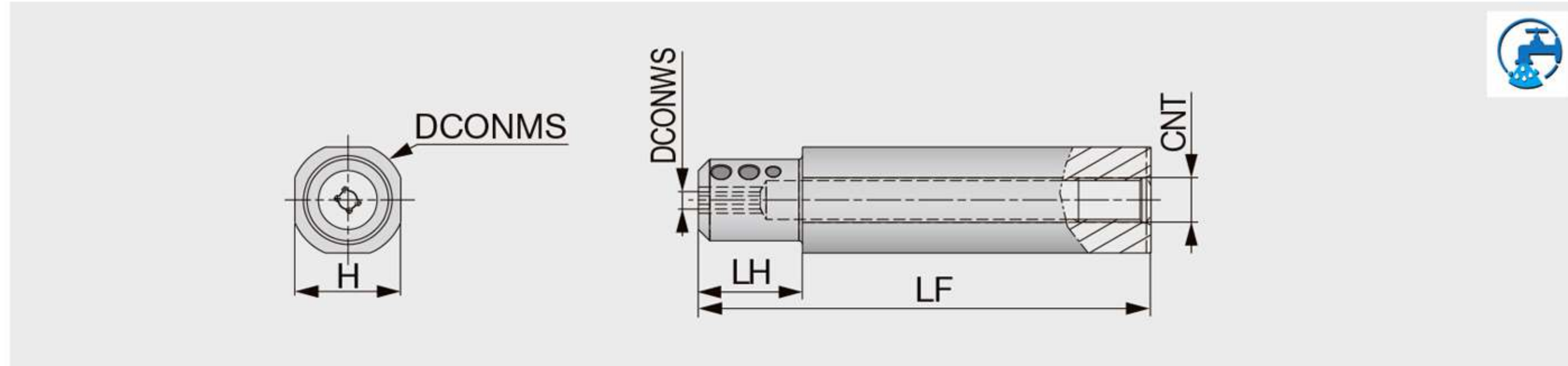
Application	Designation	Dimension (mm)		No. of corners	Chipbreaker	DX140
		RE	LE			
Finishing	EPGW040102-DIA	0.2	2	1		●
	EPGW040104-DIA	0.4	1.9	1		●

● : Line up

# TINY<sup>INI</sup>TURN

### JBBS-4N

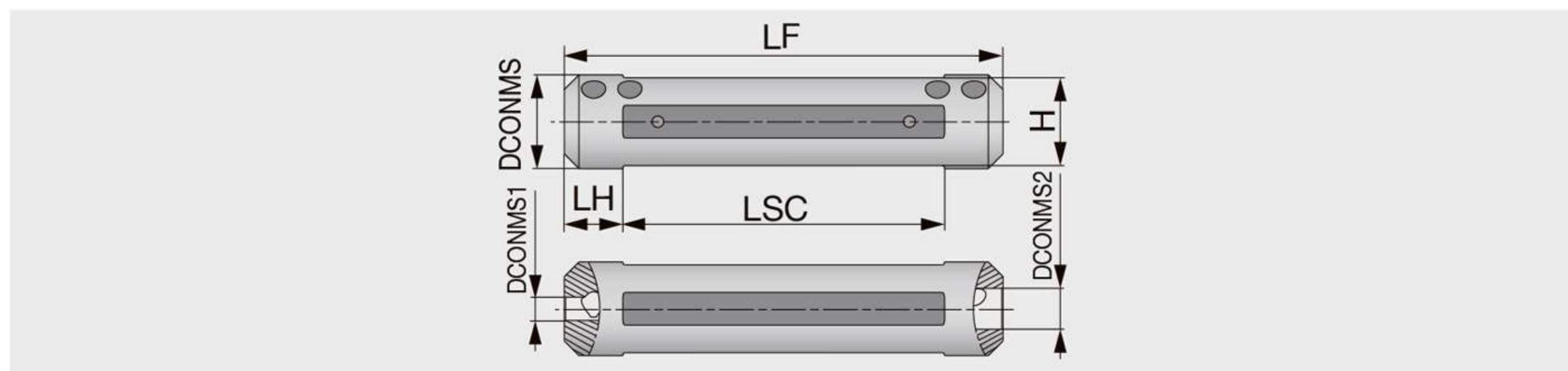
Sleeve for internal coolant supply with 4 coolant holes



Designation	DCONMS	DCONWS	LF	LH	H	CNT
JBBS12-4-L80C-4N	12	4	80	10	10.3	Rc1/16
JBBS127-4-L80C-4N	12.7	4	80	10	11.6	Rc1/16
JBBS14-4-L80C-4N	14	4	80	10	12	Rc1/8
JBBS159-4-L100C-4N	15.875	4	100	10	14.58	Rc1/8
JBBS159-7-L100C-4N	15.875	7	100	10	14.58	Rc1/8
JBBS16-4-L100C-4N	16	4	100	10	15	Rc1/8
JBBS16-7-L100C-4N	16	7	100	10	15	Rc1/8
JBBS19-4-L100C-4N	19.05	4	100	20	17.2	Rc1/8
JBBS19-7-L100C-4N	19.05	7	100	20	17.2	Rc1/8
JBBS20-4-L100C-4N	20	4	100	20	18	Rc1/8
JBBS20-7-L100C-4N	20	7	100	20	18	Rc1/8
JBBS22-4-L100C-4N	22	4	100	20	20	Rc1/8
JBBS22-7-L100C-4N	22	7	100	20	20	Rc1/8
JBBS25-4-L100C-4N	25	4	100	23	23	Rc1/8
JBBS25-7-L100C-4N	25	7	100	23	23	Rc1/8
JBBS254-4-L100C-4N	25.4	4	100	23	23.4	Rc1/8
JBBS254-7-L100C-4N	25.4	7	100	23	23.4	Rc1/8

### JBBS

Sleeve for external coolant supply





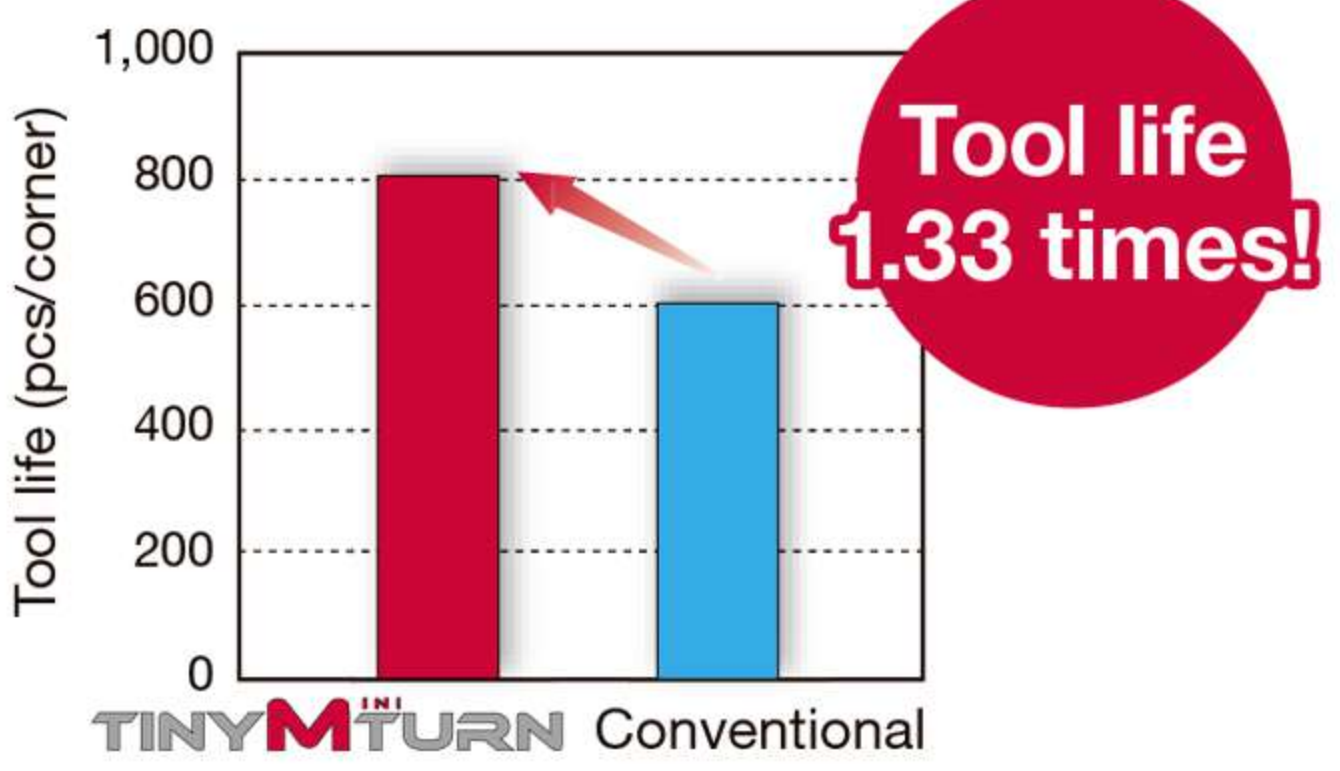
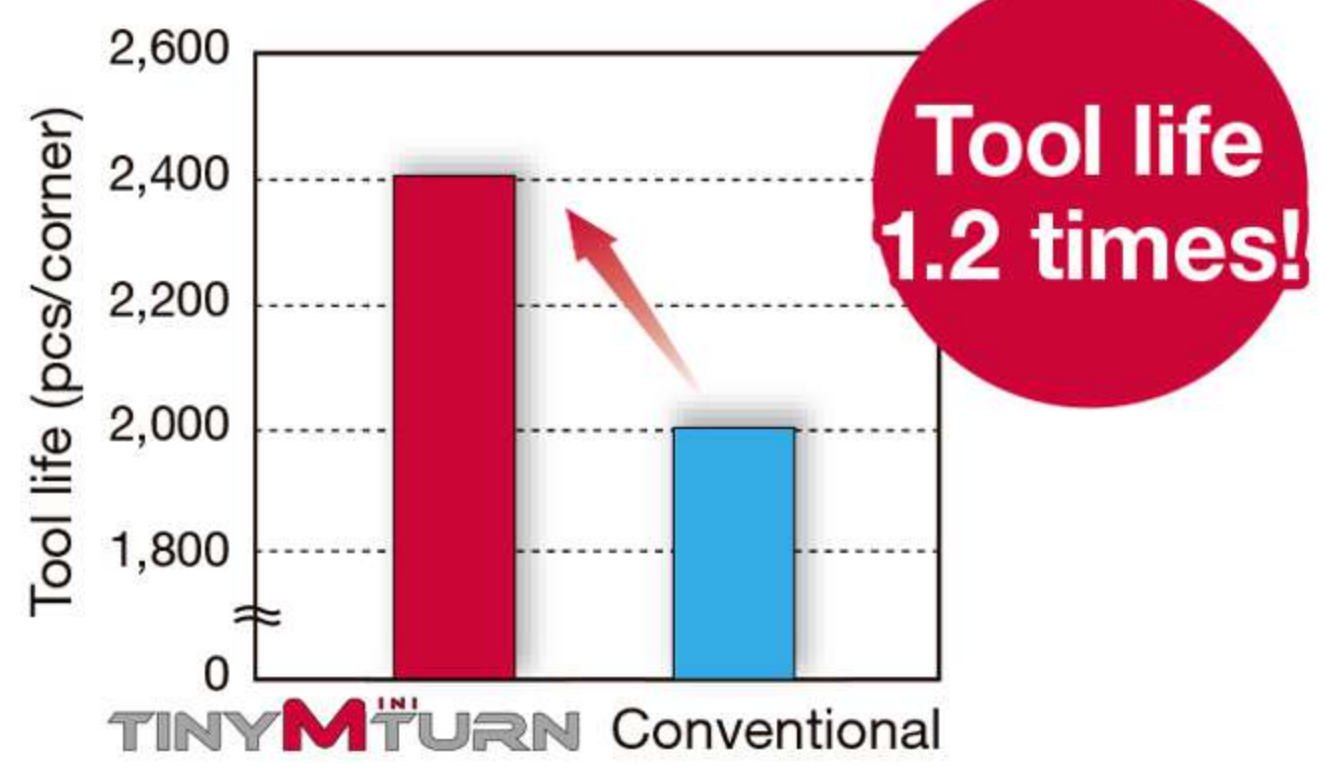


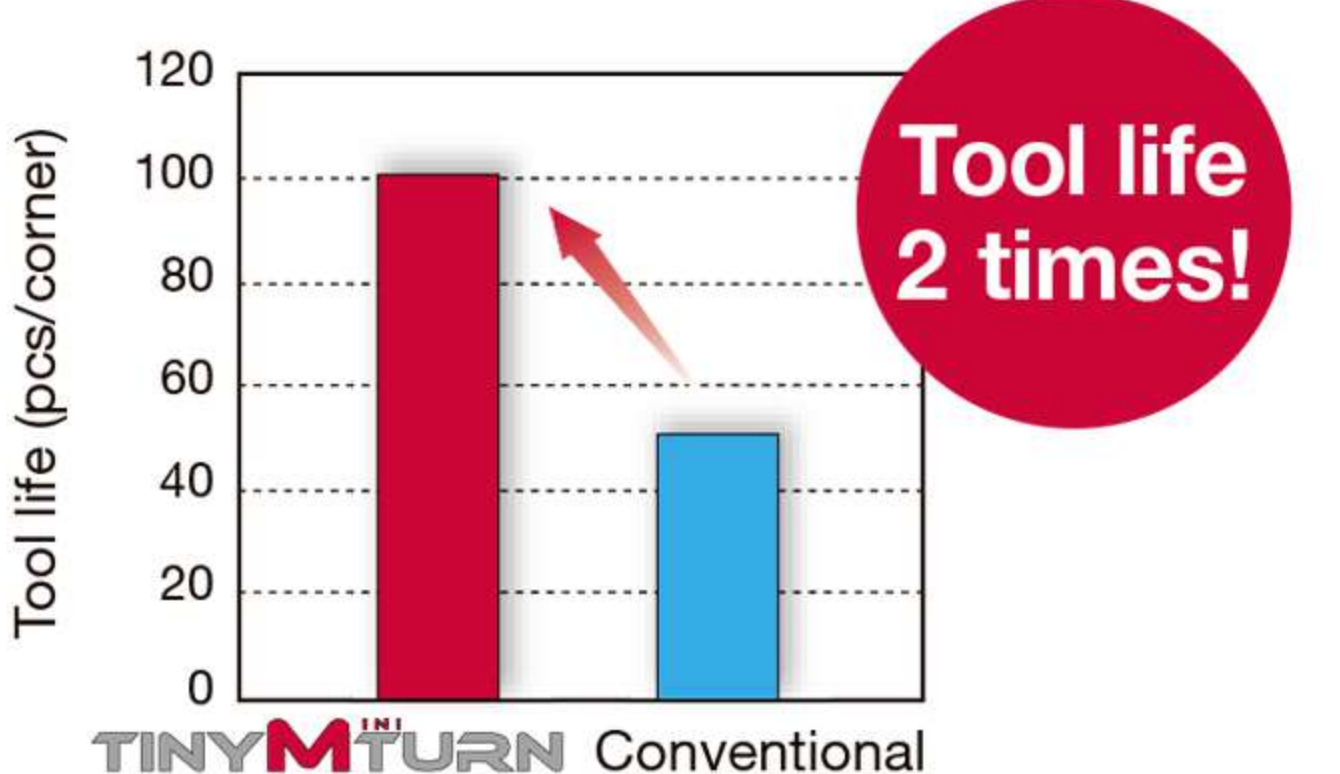
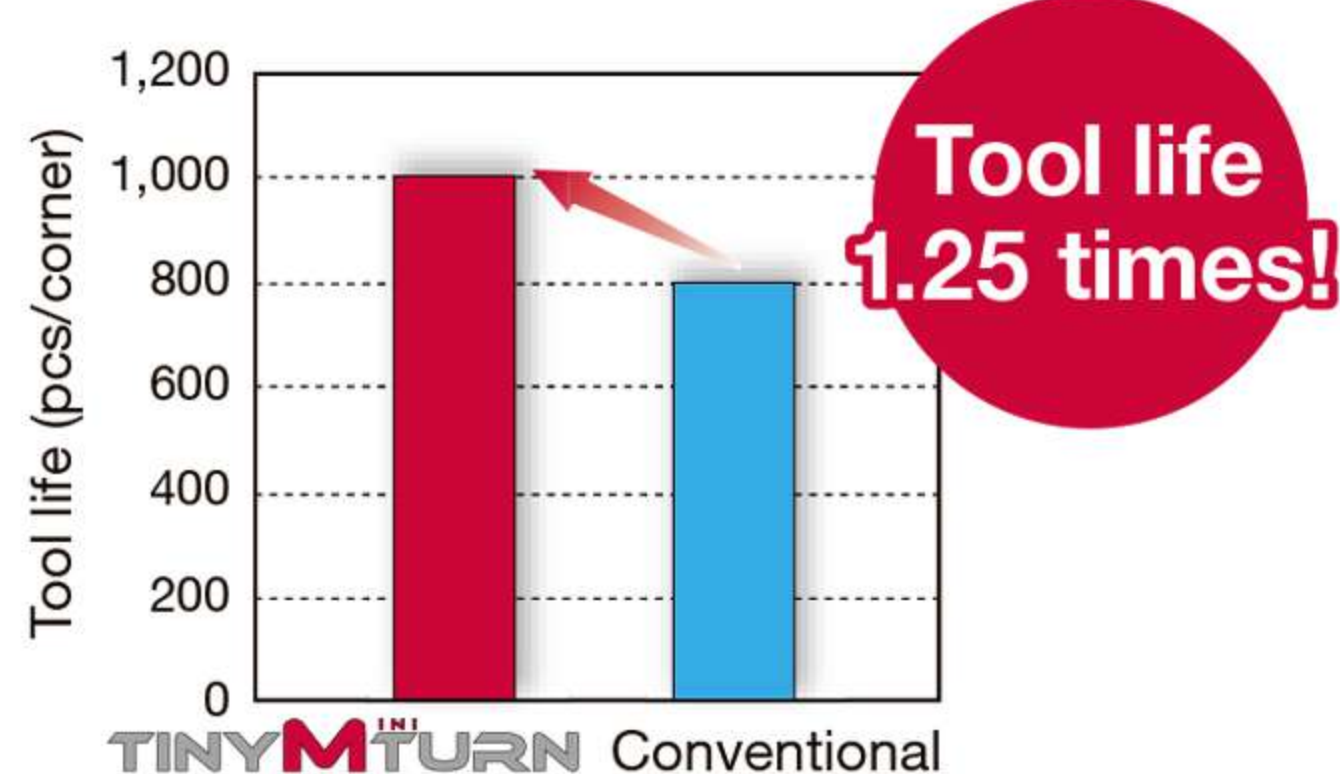
Designation	DCONMS	DCONWS1	DCONWS2	LF	LH	LSC	H
JBBS12-4-4	12	4	4	75	10	55	10.3
JBBS127-4-4	12.7	4	4	76.2	10	56.2	11.6
JBBS14-4-4	14	4	4	75	10	55	12
JBBS159-4-7	15.875	4	7	76.2	10	56.2	14
JBBS16-4-7	16	4	7	75	10	55	15
JBBS19-4-7	19.05	4	7	89	10	69	17.2
JBBS20-4-7	20	4	7	90	10	70	18
JBBS22-4-7	22	4	7	90	10	70	20
JBBS25-4-7	25	4	7	100	10	80	23
JBBS254-4-7	25.4	4	7	90	10	70	23.4

### SPARE PARTS


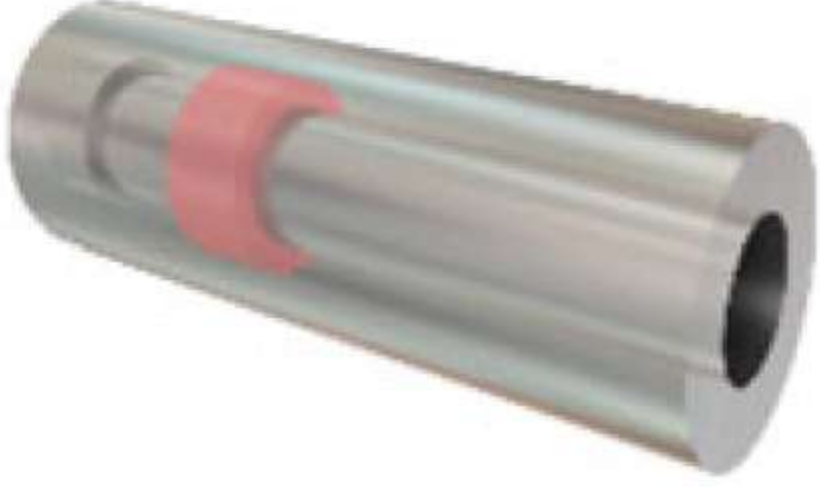
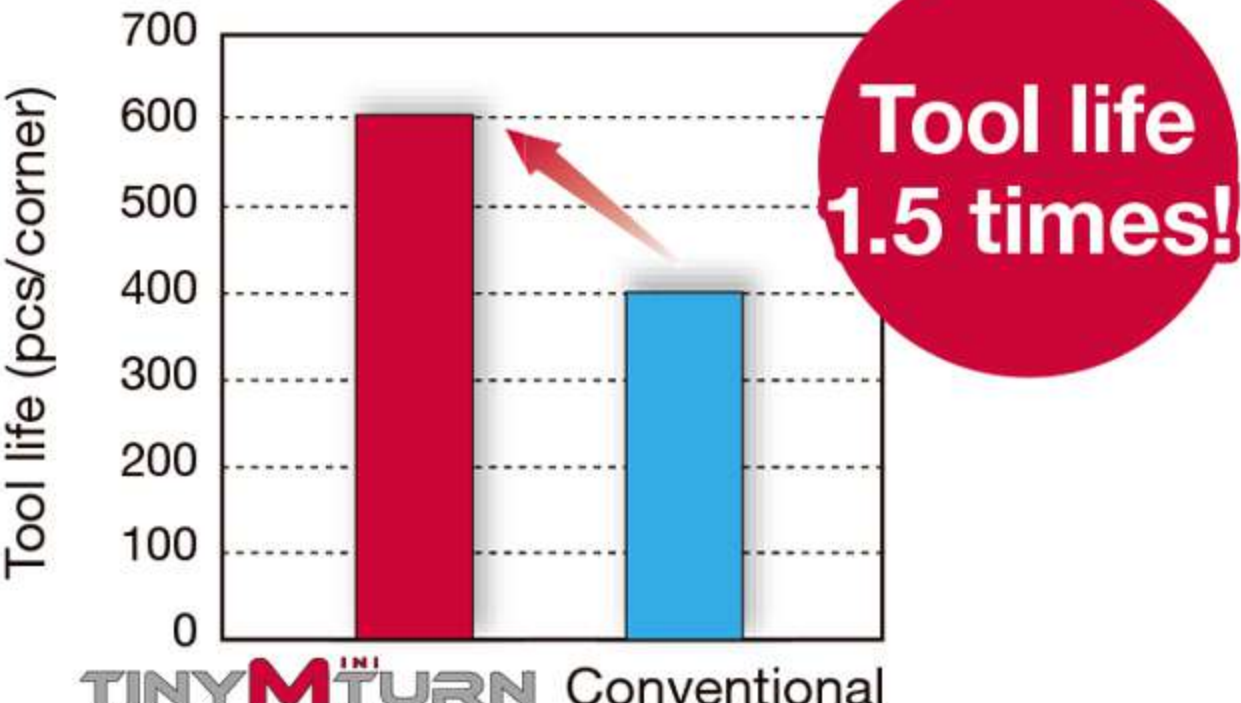
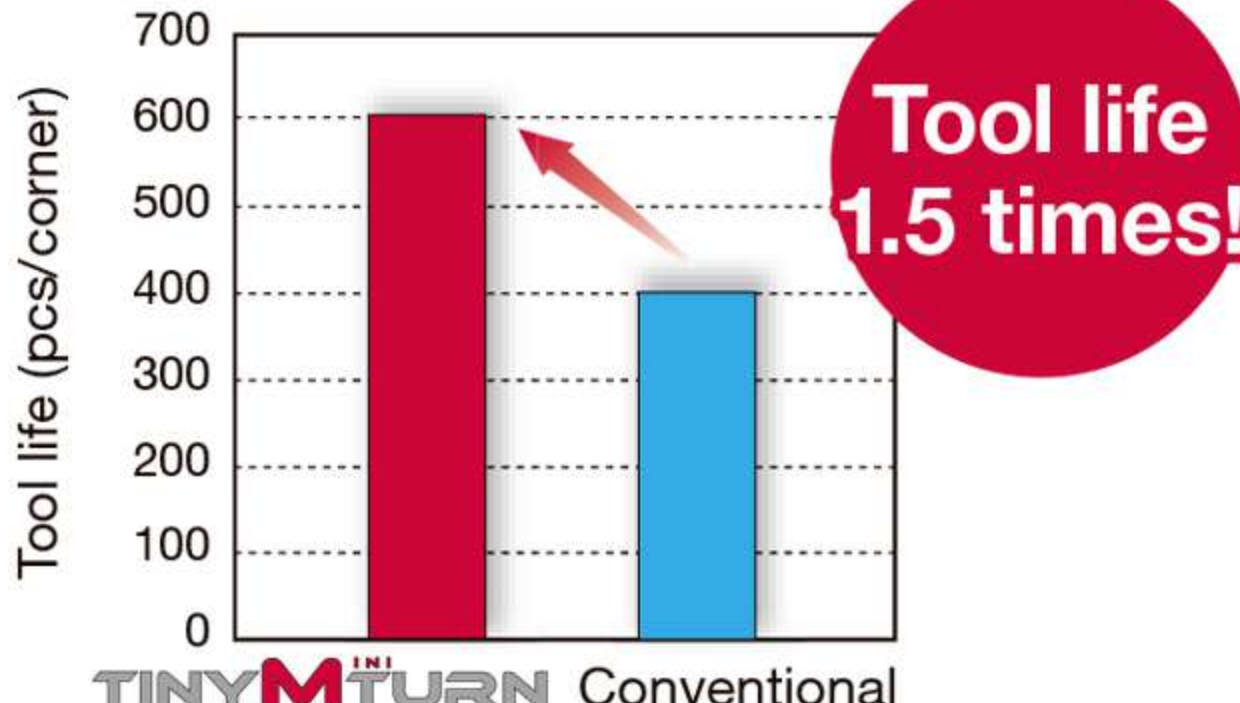


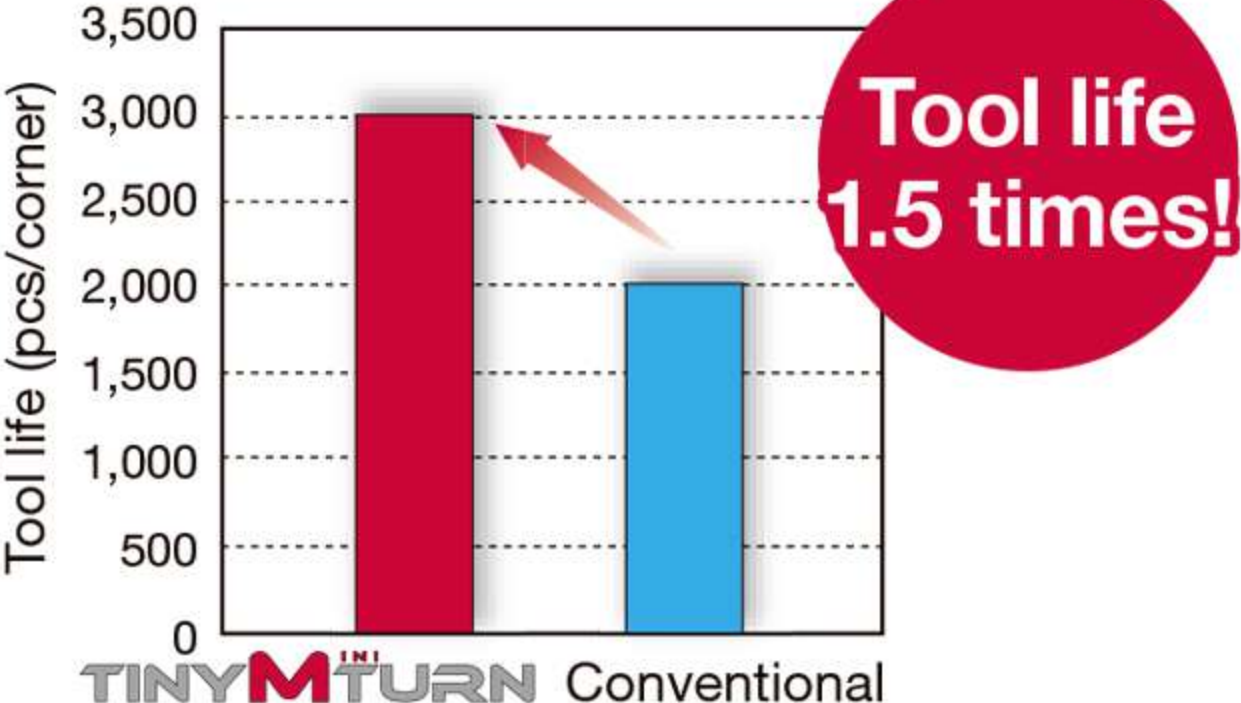
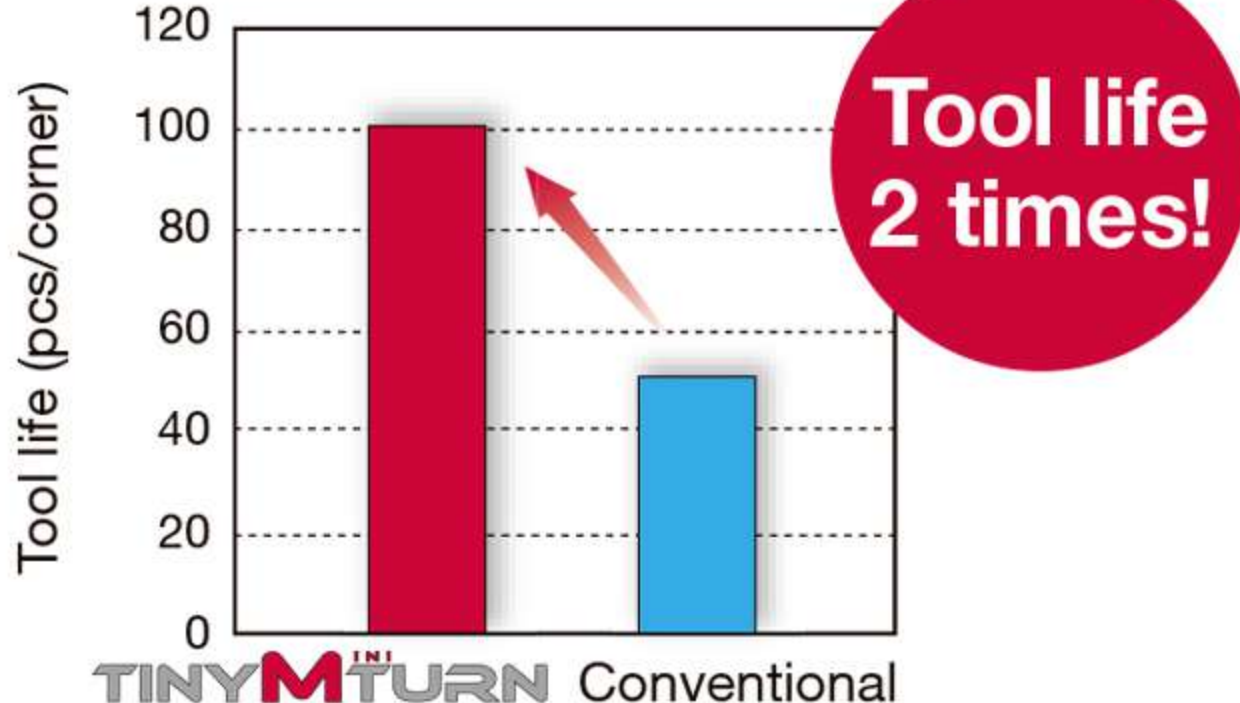


Designation	Clamping screw	Wrench
JBBS**-4-L**C-4N, JBBS127-4-4, JBBS**-4-7	SSHM5-6PF-S	P-2.5
JBBS**-7-L**C-4N, JBBS12-4-4, JBBS14-4-4	SSHM5-4PF-S	P-2.5

### ■ PRACTICAL EXAMPLE

Workpiece type		Sleeve	Motor part	
Sleeve / Toolholder		JBBS16-4-7	JBBS25-4-7 / A07050-SEXPR03-3	
Insert		TBTR04090010-D028	EPGT03X102F-JS	
Grade		SH725	SH725	
		SUS303 / X10CrNiS18-9	SUM24L / 11SMnPb28	
Workpiece material		 <b>M</b>	 <b>P</b>	
Cutting conditions	Cutting speed: Vc (m/min)	61	120	
	Feed : f (mm/rev)	0.02	0.02	
	Depth of cut : ap (mm)	0.5	0.1	
	Machining	Internal turning	Internal turning	
	Coolant	Wet (External)	Wet (External)	
Results	 <p><b>Tool life 1.33 times!</b></p> <p>TinyMini-Turn SH725 provides high adhesion and excellent wear resistance, achieving 1.33 times longer tool life than the competitor.</p>		 <p><b>Tool life 1.2 times!</b></p> <p>SH725 grade combined with JS geometry drastically improved chip control over the competitor's solid bar, providing 1.2 times tool life.</p>	
Workpiece type		Socket	Connector	
Sleeve		JBBS16-7-L100C-4N	JBBS25-7-L100C-4N	
Insert		TBTR07140015-D060	TBBR07190020-D050	
Grade		SH725	SH725	
		SUS316 / X5CrNiMo17-12-3	SUS304 / X5CrNi18-9	
Workpiece material		 <b>M</b>	 <b>M</b>	
Cutting conditions	Cutting speed: Vc (m/min)	60	90	
	Feed : f (mm/rev)	0.06	0.05	
	Depth of cut : ap (mm)	0.15	0.1	
	Machining	Internal turning	Back boring	
	Coolant	Wet (Internal)	Wet (Internal)	
Results	 <p><b>Tool life 2 times!</b></p> <p>New JBBS-4N sleeve, combined with SH725 grade insert, eliminated chip jamming thanks to its four streams of coolant jets, while achieving double tool life.</p>		 <p><b>Tool life 1.25 times!</b></p> <p>New JBBS-4N sleeve, combined with SH725 grade insert, eliminated chip jamming in back boring application, thanks to its four streams of coolant jets, while achieving 1.25 times tool life.</p>	

# TINY<sup>INI</sup>TURN

Workpiece type		Gear head	Gear part	
Sleeve		JBBS16-7-L100C-4N	JBBS20-7-L100C-4N	
Insert		TBFR07110250-D080	TBGR07140200-D060	
Grade		SH725	SH725	
		SUS316L	SUJ2 / 100Cr6	
Workpiece material		 <b>M</b>	 <b>P</b>	
Cutting conditions	Cutting speed: $V_c$ (m/min)	80	152	
	Feed : $f$ (mm/rev)	0.02	0.1	
	Grooving depth (mm)	3	1	
	Machining	Face grooving	Internal grooving	
	Coolant	Wet (Internal)	Wet (Internal)	
Results	 <p><b>Tool life 1.5 times!</b></p> <p>TINY<sup>INI</sup>TURN Conventional</p> <p>New JBBS-4N sleeve, combined with SH725 grade insert, eliminated chip jamming in face grooving application, thanks to its four streams of coolant jets, while achieving 1.5 times tool life.</p>		 <p><b>Tool life 1.5 times!</b></p> <p>TINY<sup>INI</sup>TURN Conventional</p> <p>New JBBS-4N sleeve, combined with SH725 grade insert, eliminated chip jamming thanks to its four streams of coolant jets, while providing 1.5 times tool life.</p>	
Workpiece type		Thrust spacer	Valve	
Sleeve / Toolholder		JBBS16-7-L100C-4N / A07050-SEXPR03-3	JBBS19-7-L100C-4N / E07060-SEXPR04-5	
Insert		EPGT03X104R-W08	1QP-EPGW040102	
Grade		SH725	BX310	
		S15C / C15	SCM415H	
Workpiece material		 <b>P</b>	 <b>H</b>	
Cutting conditions	Cutting speed: $V_c$ (m/min)	113	60	
	Feed : $f$ (mm/rev)	0.05	0.03	
	Depth of cut : $a_p$ (mm)	0.3	0.05	
	Machining	Internal turning	Internal turning	
	Coolant	Wet (Internal)	Wet (Internal)	
Results	 <p><b>Tool life 1.5 times!</b></p> <p>TINY<sup>INI</sup>TURN Conventional</p> <p>New JBBS-4N sleeve, combined with W08 geometry &amp; SH725 grade insert, eliminated chip jamming thanks to its four streams of coolant jets, while achieving 1.5 times tool life.</p>		 <p><b>Tool life 2 times!</b></p> <p>TINY<sup>INI</sup>TURN Conventional</p> <p>New JBBS-4N sleeve, combined with BX310 grade insert, eliminated chip jamming thanks to its four streams of coolant jets, while achieving double tool life.</p>	

# CONTACT US



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