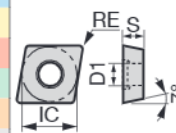
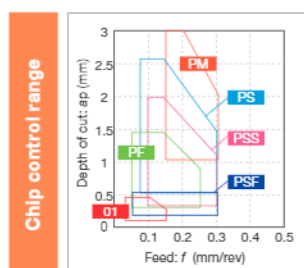


- : Continuous cutting
- ◐ : Light interrupted cutting
- ⊕ : Heavy interrupted cutting

[illegible]

*Corner radius (RE) with a sign of inequality (<) means minus tolerance.

●: Line up
▲: To be discontinued



Reference pages: External toolholder → **C024** - Internal toolholder → **D014**
J-Series toolholder → **G019** - PINZBOHR® → **K180** -

B-

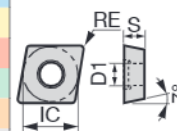
Insert POSITIVE TYPE

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

CC



Rhombic, 80°
with hole
Positive 7°

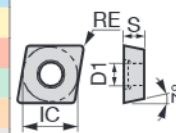
[illegible][illegible]

* Please see **L032-L036** about the adjustment of the machining program for rounding or taper machining by using SW/FW.
Please contact our sales representatives if you have any question.

●: Line up
▲: To be discontinued

Reference pages: External toolholder → **C024** - Internal toolholder → **D014**
J-Series toolholder → **G019** - PINZBOHR® → **K180** -

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

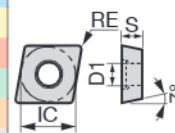
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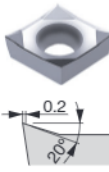
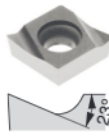
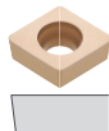
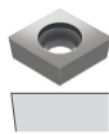
●: Line up
▲: To be discontinued



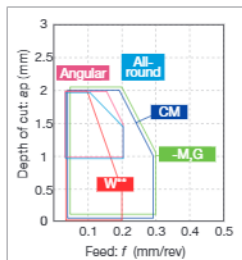
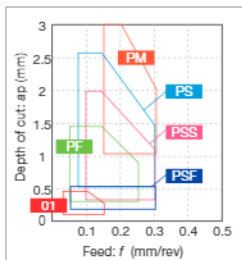
Tungaloy B111

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

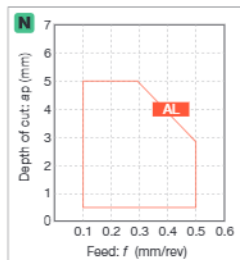
[illegible]

Application	Chipbreaker	Designation	Coated		Cermet	Uncoated												Dimension (mm)			
			T5115 GH110			NS9530		TH10	KS05F										RE	IC	S
Finishing to medium cutting	AL	CCGT060202-AL					●											0.2	6.35	2.38	2.8
		CCGT060204-AL					●											0.4	6.35	2.38	2.8
		CCGT09T302-AL					●											0.2	9.525	3.97	4.4
		CCGT09T304-AL					●											0.4	9.525	3.97	4.4
		CCGT09T308-AL					●											0.8	9.525	3.97	4.4
		CCGT120402-AL					●											0.2	12.7	4.76	5.5
		CCGT120404-AL					●											0.4	12.7	4.76	5.5
		CCGT120408-AL					●											0.8	12.7	4.76	5.5
	All-round	CCGT060202			●													0.2	6.35	2.38	2.8
		CCGT060204			●													0.4	6.35	2.38	2.8
		CCGT09T302			●													0.2	9.525	3.97	4.4
		CCGT09T304			●													0.4	9.525	3.97	4.4
		CCGT09T308			●													0.8	9.525	3.97	4.4
	Angular	CCGT060200R					●											0.03	6.35	2.38	2.8
		CCGT060202R					●											0.2	6.35	2.38	2.8
		CCGT060202L					●											0.2	6.35	2.38	2.8
		CCGT060204L					●											0.4	6.35	2.38	2.8
		CCGT09T302R					●											0.2	9.525	3.97	4.4
		CCGT09T302L					●											0.2	9.525	3.97	4.4
		CCGT09T304R					●											0.4	9.525	3.97	4.4
		CCGT09T304L					●											0.4	9.525	3.97	4.4
	-	CCMW060204	●															0.4	6.35	2.38	2.8
		CCMW060208	●															0.8	6.35	2.38	2.8
		CCMW09T304	●															0.4	9.525	3.97	4.4
		CCMW09T308	●															0.8	9.525	3.97	4.4
-	CCGW060202					●											0.2	6.35	2.38	2.8	
	CCGW060204					●											0.4	6.35	2.38	2.8	
	CCGW09T304		●			●											0.4	9.525	3.97	4.4	

Chip control range



*-M,G: Without chipbreaker



Internal toolholder → **D016 -**
PINZBOHR® → **K180 -**

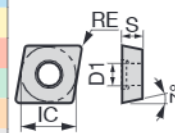
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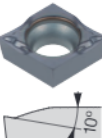
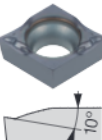
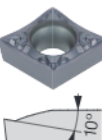
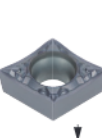
- : Continuous cutting
- ◐ : Light interrupted cutting
- ⊕ : Heavy interrupted cutting

CC



Rhombic, 80°
with hole
Positive 7°

[illegible]

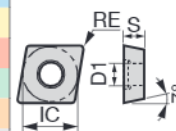
Application			Material												Dimension (mm)					
	Chipbreaker	Designation	Coated												RE	IC	S	D1		
For internal turning on Swiss lathes	JS 	CCGT03X101-JS	AH725	SH725	SH730												<0.1	3.57	1.39	1.9
		CCGT03X102-JS															<0.2	3.57	1.39	1.9
		CCGT03X104-JS															<0.4	3.57	1.39	1.9
		CCGT04T101-JS															<0.1	4.37	1.79	2.2
		CCGT04T102-JS															<0.2	4.37	1.79	2.2
		CCGT04T104-JS															<0.4	4.37	1.79	2.2
For internal turning on Swiss lathes (sharp edge)	JS 	CCGT03X101F-JS														<0.1	3.57	1.39	1.9	
		CCGT03X102F-JS														<0.2	3.57	1.39	1.9	
		CCGT03X104F-JS														<0.4	3.57	1.39	1.9	
		CCGT04T101F-JS														<0.1	4.37	1.79	2.2	
		CCGT04T102F-JS														<0.2	4.37	1.79	2.2	
		CCGT04T104F-JS														<0.4	4.37	1.79	2.2	
For external turning on Swiss lathes	JS 	CCGT060201N-JS														0.1	6.35	2.38	2.8	
		CCGT060202N-JS														0.2	6.35	2.38	2.8	
		CCGT060204N-JS														0.4	6.35	2.38	2.8	
		CCGT09T301N-JS														0.1	9.525	3.97	4.4	
		CCGT09T302N-JS														0.2	9.525	3.97	4.4	
		CCGT09T304N-JS														0.4	9.525	3.97	4.4	
For external turning on Swiss lathes (sharp edge)	JS 	CCGT060200FN-JS														0.03	6.35	2.38	2.8	
		CCGT060201FN-JS														<0.1	6.35	2.38	2.8	
		CCGT060202FN-JS														<0.2	6.35	2.38	2.8	
		CCGT060204FN-JS														<0.4	6.35	2.38	2.8	
		CCGT09T300FN-JS														0.03	9.525	3.97	4.4	
		CCGT09T301FN-JS														<0.1	9.525	3.97	4.4	
		CCGT09T302FN-JS														<0.2	9.525	3.97	4.4	
		CCGT09T304FN-JS														<0.4	9.525	3.97	4.4	

*Corner radius (RE) with a sign of inequality (<) means minus tolerance.

● : Line up

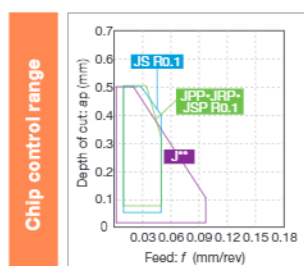
Reference pages: External toolholder → **C024** - Internal toolholder → **D016** -
J-Series toolholder → **G019** - PINZBOHR® → **K180**

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

[illegible]

Application	Chipbreaker	Designation	Coated			Cermet	Uncoated											Dimension (mm)			
			SH725	J740		NS9530		TH10										RE	IC	S	D1
For external turning on Swiss lathes (sharp edge)		J10 CCGT060200FR-J10	●	●				●										0.03	6.35	2.38	2.8
		CCGT060200FL-J10	●	●				●										0.03	6.35	2.38	2.8
		CCGT060201FR-J10	●	●		●		●										0.1	6.35	2.38	2.8
		CCGT060201FL-J10	●	●				●										0.1	6.35	2.38	2.8
		CCGT060202FR-J10	●	●		●		●										0.2	6.35	2.38	2.8
		CCGT060202FL-J10	●	●		●		●										0.2	6.35	2.38	2.8
		CCGT09T300FR-J10	●	●				●										0.03	9.525	3.97	4.4
		CCGT09T300FL-J10	●	●				●										0.03	9.525	3.97	4.4
		CCGT09T301FR-J10	●	●				●										0.1	9.525	3.97	4.4
		CCGT09T301FL-J10	●	●				●										0.1	9.525	3.97	4.4
		CCGT09T302FR-J10	●	●				●										0.2	9.525	3.97	4.4
		CCGT09T302FL-J10	●	●				●										0.2	9.525	3.97	4.4
		CCGT09T304FR-J10	●															0.4	9.525	3.97	4.4

● : Line up



*Chip control range with typical R0.1

Reference pages: External toolholder → **C024** - Internal toolholder → **D016** -
J-Series toolholder → **G019** - PINZBOHR® → **K180** -

Index

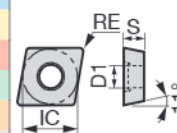
Insert POSITIVE TYPE

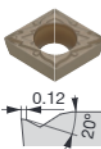
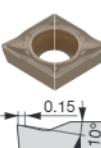
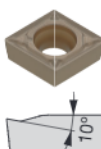
- : Continuous cutting
- ◐ : Light interrupted cutting
- ⊗ : Heavy interrupted cutting

CP



Rhombic, 80°
with hole
Positive 11°

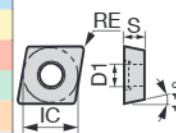
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Application	Chipbreaker	Designation	Coated													Coated cermet		Cermet	Dimension (mm)								
			T9205	T9215	T9225	T9235	T9115	T9125	T6120	T6130	AH630	AH645	AH120	AH725	AH8005	AH8015	GH730	GT9530	AT9530	NS9530					RE	IC	S
Finishing	PSF	CPMT060202-PSF											●											0.2	6.35	2.38	2.8
		CPMT060204-PSF	●	●		▲	▲						●											0.4	6.35	2.38	2.8
		CPMT080202-PSF											●											0.2	7.94	2.38	3.4
		CPMT080204-PSF	●	●		▲	▲						●											0.4	7.94	2.38	3.4
		CPMT090302-PSF											●					●						0.2	9.525	3.18	4.4
		CPMT090304-PSF	●	●		▲	▲						●					●						0.4	9.525	3.18	4.4
		CPMT09T302-PSF											●						●					0.2	9.525	3.97	4.4
		CPMT09T304-PSF	●	●		▲	▲						●							●				0.4	9.525	3.97	4.4
	PF	CPMT090302-PF																●		●				0.2	9.525	3.18	4.4
	CPMT090304-PF																●		●				0.4	9.525	3.18	4.4	
Finishing to light cutting	PSS	CPMT060204-PSS	●	●		▲	▲						●					●		●				0.4	6.35	2.38	2.8
		CPMT080204-PSS	●	●		▲	▲	●	●	●	●	●	●					●		●				0.4	7.94	2.38	3.4
		CPMT080208-PSS	●	●		▲	▲	●	●	●	●	●	●					●		●				0.8	7.94	2.38	3.4
		CPMT090304-PSS	●	●		▲	▲	●	●	●	●	●	●					●		●				0.4	9.525	3.18	4.4
		CPMT090308-PSS	●	●		▲	▲	●	●	●	●	●	●					●		●				0.8	9.525	3.18	4.4
		CPMT09T304-PSS	●	●		▲	▲						●							●				0.4	9.525	3.97	4.4
		CPMT09T308-PSS	●	●		▲	▲						●							●				0.8	9.525	3.97	4.4
Finishing to medium cutting	PS	CPMT060202-PS	●	●		▲	▲						●	●	●	●			●				0.2	6.35	2.38	2.8	
		CPMT060204-PS	●	●		▲	▲					●	●	●	●	●	●	●	●				0.4	6.35	2.38	2.8	
		CPMT080202-PS	●	●		▲	▲	●	●	●	●	●	●					●	●	●				0.2	7.94	2.38	3.4
		CPMT080204-PS	●	●		▲	▲	●	●	●	●	●	●					●	●	●				0.4	7.94	2.38	3.4
		CPMT080208-PS	●	●		▲	▲	●	●	●	●	●	●					●	●	●				0.8	7.94	2.38	3.4
		CPMT090304-PS	●	●		▲	▲	●	●	●	●	●	●					●	●	●				0.4	9.525	3.18	4.4
		CPMT090308-PS	●	●		▲	▲	●	●	●	●	●	●					●	●	●				0.8	9.525	3.18	4.4
		CPMT09T302-PS	●	●		▲	▲						●	●	●	●								0.2	9.525	3.97	4.4
		CPMT09T304-PS	●	●		▲	▲						●	●	●	●				●				0.4	9.525	3.97	4.4
		CPMT09T308-PS	●	●		▲	▲						●	●	●	●								0.8	9.525	3.97	4.4
TSF	CPMT09T304-TSF	●	●																				0.4	9.525	3.97	4.4	
	CPMT09T308-TSF	●	●																				0.8	9.525	3.97	4.4	
Finishing to medium cutting	TM	CPMT09T304-TM	●	●																				0.4	9.525	3.97	4.4
		CPMT09T308-TM	●	●																				0.8	9.525	3.97	4.4

● : Line up
▲ : To be discontinued

Reference pages: Internal toolholder → **D019 -**

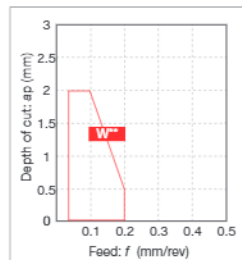
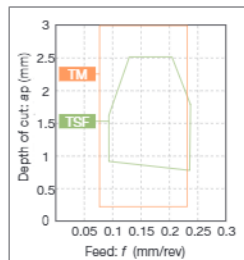
- : Continuous cutting
- ◐ : Light interrupted cutting
- ⊕ : Heavy interrupted cutting

[illegible][illegible]

●: Line up
▲: To be discontinued

Figure 10 is a line graph showing the depth of cut (mm) versus feed (mm/rev) for five different tool materials: PM, PS, PSS, PF, and PSE. The y-axis represents the depth of cut in mm, ranging from 0 to 3. The x-axis represents the feed in mm/rev, ranging from 0 to 0.5. The graph shows that the depth of cut generally increases with feed rate, with PM and PS showing the highest values and PSE showing the lowest.

Feed (mm/rev)	PM (mm)	PS (mm)	PSS (mm)	PF (mm)	PSE (mm)
0.05	0.5	0.5	0.5	0.5	0.5
0.1	2.5	2.0	1.5	1.5	0.5
0.2	3.0	2.5	2.0	1.5	0.5
0.3	2.5	2.0	1.5	1.5	0.5
0.4	2.0	1.5	1.0	1.0	0.5
0.5	1.5	1.0	0.5	0.5	0.5



Reference pages: Internal toolholder → **D019 -** Cartridge → **K194 -**
Boring bar tool → **K209 -**

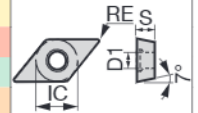
[illegible]

Insert POSITIVE TYPE

● : Continuous cutting
● : Light interrupted cutting
✱ : Heavy interrupted cutting

DC

Rhombic, 55°
with hole
Positive 7°

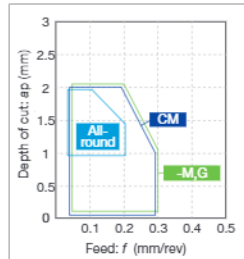
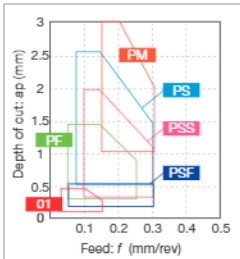


Application	Chipbreaker	Designation	Coated										Coated cermet		Cermet		Dimension (mm)			
			T9215	T9225	T9115	T9125	AH725	AH8005	AH8015	AH905	GH730	SH725	J740	GT9530	J9530	NS9530	RE	IC	S	D1
Precision finishing	01	DCGT070202-01															0.2	6.35	2.38	2.8
		DCGT11T302-01															0.2	9.525	3.97	4.4
Precision finishing (sharp edge)	01	DCGT070202F-01															<0.2	6.35	2.38	2.8
		DCGT070204F-01															<0.4	6.35	2.38	2.8
		DCGT11T302F-01															<0.2	9.525	3.97	4.4
		DCGT11T304F-01															<0.4	9.525	3.97	4.4
Finishing	PSF	DCMT070202-PSF															0.2	6.35	2.38	2.8
		DCMT070204-PSF	●	●	▲	▲	●							●		●	0.4	6.35	2.38	2.8
		DCMT11T302-PSF					●							●		●	0.2	9.525	3.97	4.4
		DCMT11T304-PSF	●	●	▲	▲	●	●	●	●				●		●	0.4	9.525	3.97	4.4
		DCMT11T308-PSF	●	●	▲	▲	●	●	●	●							0.8	9.525	3.97	4.4
	PF	DCMT070202-PF												●		●	0.2	6.35	2.38	2.8
		DCMT070204-PF												●		●	0.4	6.35	2.38	2.8
		DCMT070208-PF												●		●	0.8	6.35	2.38	2.8
		DCMT11T302-PF												●		●	0.2	9.525	3.97	4.4
		DCMT11T304-PF												●		●	0.4	9.525	3.97	4.4
		DCMT11T308-PF												●			0.8	9.525	3.97	4.4

*Corner radius (RE) with a sign of inequality (<) means minus tolerance.

● : Line up
▲ : To be discontinued

Chip control range



*-M,G: Without chipbreaker

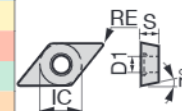
Reference pages: External toolholder → C048 - Internal toolholder → D048 -
J-Series toolholder → G026 - PINZBOHR® → K184 -

Insert POSITIVE TYPE

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

DC

Rhombic, 55°
with hole
Positive 7°

[illegible][illegible]

●: Line up
▲: To be discontinued

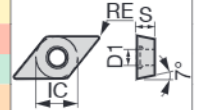
Reference pages: External toolholder → **C048** - Internal toolholder → **D048** -
J-Series toolholder → **G026** - PINZBOHR® → **K184**

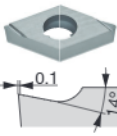
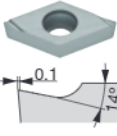
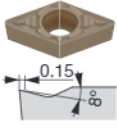
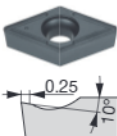
Insert POSITIVE TYPE

● : Continuous cutting
● : Light interrupted cutting
✱ : Heavy interrupted cutting

DC

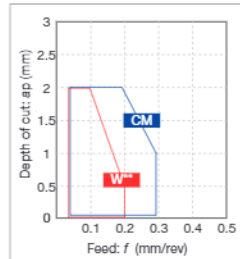
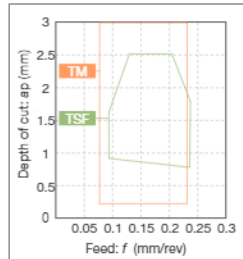
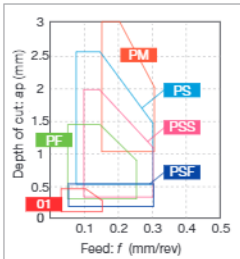
Rhombic, 55°
with hole
Positive 7°



Application	Chipbreaker	Designation	Coated												Coated cermet	Cermet	Uncoated	Dimension (mm)					
			T9215	T9225	T9115	T9125	T6120	T6130	AH630	AH645	T515	T5115	AH120	AH725	GH330	GH730	GT9530	NS9530	TH10	RE	IC	S	D1
Finishing		W10 DCGT070200R-W10																	●	0.03	6.35	2.38	2.8
		DCGT070200L-W10																	●	0.03	6.35	2.38	2.8
		DCGT070202R-W10																●	●	0.2	6.35	2.38	2.8
		DCGT070202L-W10														●		●	●	0.2	6.35	2.38	2.8
		DCGT070204R-W10													●		●	●	●	0.4	6.35	2.38	2.8
		DCGT070204L-W10													●		●	●	●	0.4	6.35	2.38	2.8
		W15 DCGT11T302R-W15																●	●	0.2	9.525	3.97	4.4
		DCGT11T302L-W15															●	●		0.2	9.525	3.97	4.4
		DCGT11T304R-W15																●		0.4	9.525	3.97	4.4
		DCGT11T304L-W15													●		●	●	●	0.4	9.525	3.97	4.4
		DCGT11T308R-W15																●	●	0.8	9.525	3.97	4.4
		DCGT11T308L-W15																●	●	0.8	9.525	3.97	4.4
Medium cutting		PM DCMT070204-PM	●	●	▲	▲	●	●	●	●			●	●	●		●	●		0.4	6.35	2.38	2.8
		DCMT070208-PM	●	●	▲	▲	●	●	●	●			●	●	●		●	●		0.8	6.35	2.38	2.8
		DCMT11T304-PM	●	●	▲	▲	●	●	●	●			●	●	●		●	●		0.4	9.525	3.97	4.4
		DCMT11T308-PM	●	●	▲	▲	●	●	●	●			●	●	●		●	●		0.8	9.525	3.97	4.4
		DCMT11T312-PM		●		▲	●	●	●	●				●						1.2	9.525	3.97	4.4
Finishing to medium cutting		CM DCMT070204-CM									●									0.4	6.35	2.38	2.8
		DCMT070208-CM									●									0.8	6.35	2.38	2.8
		DCMT11T304-CM								●	●									0.4	9.525	3.97	4.4
		DCMT11T308-CM								●	●									0.8	9.525	3.97	4.4
		DCMT11T312-CM									●									1.2	9.525	3.97	4.4

● : Line up
▲ : To be discontinued

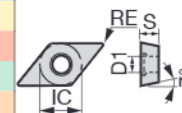
Chip control range



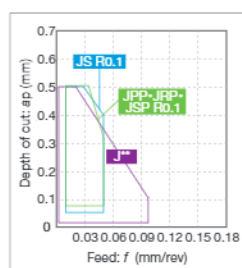
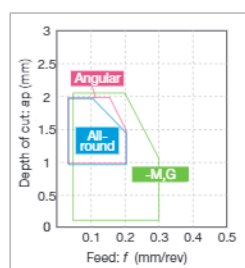
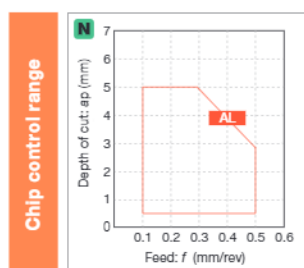
Reference pages: External toolholder → C048 - Internal toolholder → D048 -
J-Series toolholder → G026 - PINZBOHR® → K184 -

Rhombic, 55°
with hole
Positive 7°

		P	M	K	N	S	H
Steel	c ●●●●●						
Stainless	c ●●●●●						
Cast iron	c						
Non-ferrous							
Superalloy	● ●●						
Hard material							

[illegible]

● : Line up



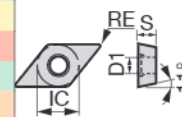
*Chip control range with typical R0.1

Reference pages: External toolholder → **C049** - Internal toolholder → **D048** -
J-Series toolholder → **G026** - PINZBOHR® → **K184**

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

DP

Rhombic, 55°
with hole
Positive 11°

[illegible][illegible]

●: Line up
▲: To be discontinued

Insert POSITIVE TYPE / DOUBLE SIDE

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

DX

Rhombic, 55°
with hole

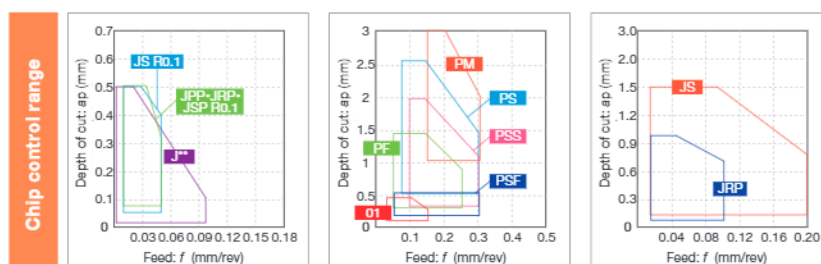
[illegible][illegible]

*Corner radius (RE) with a sign of inequality (<) means minus tolerance.

** For external turning applications

(1) Due to chipbreaker profile, max ap for face or ID turning is 1 mm

● : Line up



*Chip control range with typical R0.1

Reference pages: DPMT...: Internal toolholder → D051 -

DXGU...: External toolholder → **C039** -, Internal toolholder → **D035** -

Insert POSITIVE TYPE / DOUBLE SIDE

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

DX



Rhombic, 55°
with hole

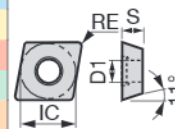
[illegible][illegible]

*Corner radius (RE) with a sign of inequality (<) means minus tolerance.

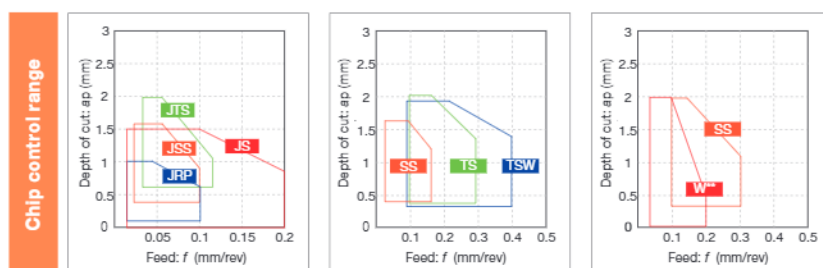
●: Line up

Reference pages: External toolholder → **C039** - Internal toolholder → **D035** -

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

[illegible]

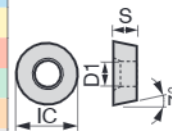
● : Line up



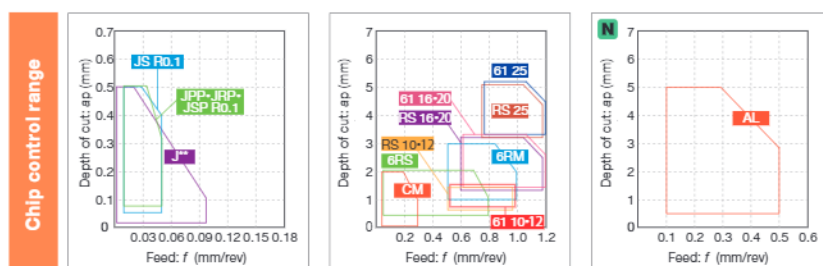
Reference pages: Internal toolholder → **D033** - Boring bar tool → **K211** -
Top-borer tool → **K213**

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

Round,
with hole
Positive 7°

[illegible][illegible]

●: Line up
▲: To be discontinued



*Chip control range with typical R0.1

Reference pages: External toolholder → C074 -, C083

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

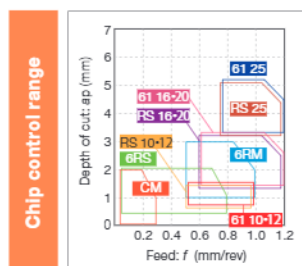
Round,
without hole
Positive 7°

	P	M	K	N	S	H
Steel						
Stainless						
Cast iron						
Non-ferrous						
Superalloy						
Hard material	●					



Application	Material		Ceramic													Dimension (mm)				
	Chipbreaker	Designation	LX11														RE	IC	S	D1
Medium cutting	-	RCGX090800	●														-	9.525	8	-
		RCGX120800	●														-	12.7	8	-
																				

● : Line up



Positive

C

D

G

R

S

T

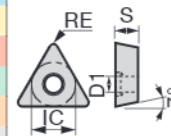
V

W

Y

MEMO

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

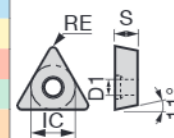
[illegible]

● : Line up

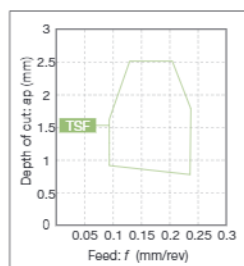
*Chip control range with typical R0.1

dex

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

[illegible]

●: Line up
▲: To be discontinued



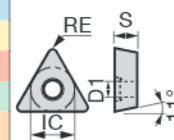
Reference pages: Mounting hole specification → **B147**
 Internal toolholder → **D043** - Cartridge → **K193** -
 Boring bar tool → **K209** - Top-borer tool → **K213**

Insert POSITIVE TYPE

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

TP

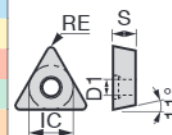
Triangular, 60°
with hole
Positive 11°

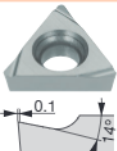
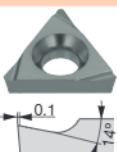
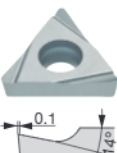


●: Line up
▲: To be discontinued

Reference pages: Mounting hole specification → **B147**
Internal toolholder → **D043** - Cartridge → **K193** -
Top-borer tool → **K213**

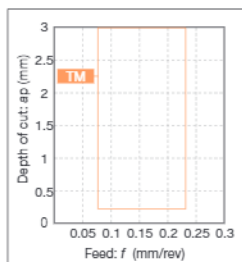
- : Continuous cutting
- ◐ : Light interrupted cutting
- ⊕ : Heavy interrupted cutting

[illegible]

Application	Chipbreaker	Designation	Coated			Coated cermet			Cermet			Uncoated			Dimension (mm)				
			GH110	GH330		GT9530			NS9530				TH10	UX30			RE	IC	S
Finishing	W10 	TPGH080202L-W10				●			●							0.2	4.76	2.38	2.3
		TPGH080204L-W10				●			●							0.4	4.76	2.38	2.3
		TPGH090204L-W10				●			●							0.4	5.56	2.38	3.0
	W13 	TPGH110204L-W13				●			●							0.4	6.35	2.38	3.4
		TPGH110302L-W13				●			●							0.2	6.35	3.18	3.4
		TPGH110304L-W13				●			●							0.4	6.35	3.18	3.4
	W15 	TPGT090202R-W15							●							0.2	5.56	2.38	2.5
		TPGT090202L-W15				●			●		●					0.2	5.56	2.38	2.5
		TPGT090204R-W15							●							0.4	5.56	2.38	2.5
		TPGT090204L-W15	●	●		●			●		●	●				0.4	5.56	2.38	2.5
		TPGT110202R-W15							●							0.2	6.35	2.38	2.8
		TPGT110202L-W15				●			●		●					0.2	6.35	2.38	2.8
		TPGT110204L-W15	●	●		●			●		●	●				0.4	6.35	2.38	2.8
		TPGT110208R-W15							●							0.8	6.35	2.38	2.8
		TPGT110208L-W15										●				0.8	6.35	2.38	2.8
		TPGT110302L-W15							●							0.2	6.35	3.18	3.4
		TPGT110304R-W15							●							0.4	6.35	3.18	3.4
		TPGT110304L-W15							●							0.4	6.35	3.18	3.4
		TPGT110308L-W15							●							0.8	6.35	3.18	3.4
		TPGT130302R-W15							●							0.2	7.94	3.18	3.4
		TPGT130302L-W15				●			●		●					0.2	7.94	3.18	3.4
		TPGT130304R-W15	●						●							0.4	7.94	3.18	3.4
		TPGT130304L-W15	●	●		●			●		●	●				0.4	7.94	3.18	3.4
TPGT130308L-W15							●		●					0.8	7.94	3.18	3.4		
TPGT16T302R-W15							●							0.2	9.525	3.97	4.4		
TPGT16T302L-W15				●			●		●					0.2	9.525	3.97	4.4		
TPGT16T304R-W15							●		●					0.4	9.525	3.97	4.4		
TPGT16T304L-W15	●	●		●			●		●	●				0.4	9.525	3.97	4.4		
TPGT16T308L-W15							●			●				0.8	9.525	3.97	4.4		

● : Line up

Feed: f (mm/rev)	Depth of cut: a_p (mm)
0.05	2.0
0.10	2.0
0.15	1.0
0.20	0.5



Reference pages: Mounting hole specification → **B147**
Internal toolholder → **D043** - Cartridge → **K193** -
Top-borer tool → **K213**

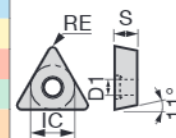
Insert POSITIVE TYPE

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

TP



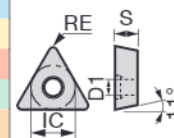
Triangular, 60°
with hole
Positive 11°



● : Line up
▲ : To be discontinued

Reference pages: Mounting hole specification → **B147**
 Internal toolholder → **D043** - Cartridge → **K193** -
 Boring bar tool → **K209** - Top-borer tool → **K213**

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

[illegible]

● : Line up

Chip control range

Figure 10 consists of two graphs showing the chip control range, plotting Depth of cut: a_p (mm) on the Y-axis (0 to 3) against Feed: f (mm/rev) on the X-axis (0 to 0.5).

The left graph shows the chip control range for various materials:

- PM (Red line): a_p ranges from 0 to 2.5 mm for f from 0 to 0.1 mm/rev, then decreases to 1.0 mm for f from 0.1 to 0.2 mm/rev, and then to 0.5 mm for f from 0.2 to 0.3 mm/rev.
- PS (Blue line): a_p ranges from 0 to 2.5 mm for f from 0 to 0.1 mm/rev, then decreases to 1.0 mm for f from 0.1 to 0.2 mm/rev, and then to 0.5 mm for f from 0.2 to 0.3 mm/rev.
- PSS (Pink line): a_p ranges from 0 to 2.0 mm for f from 0 to 0.1 mm/rev, then decreases to 1.0 mm for f from 0.1 to 0.2 mm/rev, and then to 0.5 mm for f from 0.2 to 0.3 mm/rev.
- PSF (Dark blue line): a_p ranges from 0 to 2.5 mm for f from 0 to 0.1 mm/rev, then decreases to 1.0 mm for f from 0.1 to 0.2 mm/rev, and then to 0.5 mm for f from 0.2 to 0.3 mm/rev.
- PF (Green line): a_p ranges from 0 to 1.0 mm for f from 0 to 0.1 mm/rev, then decreases to 0.5 mm for f from 0.1 to 0.2 mm/rev, and then to 0.2 mm for f from 0.2 to 0.3 mm/rev.
- 01 (Red line): a_p ranges from 0 to 0.5 mm for f from 0 to 0.1 mm/rev, then decreases to 0.2 mm for f from 0.1 to 0.2 mm/rev, and then to 0.1 mm for f from 0.2 to 0.3 mm/rev.

The right graph shows the chip control range for various materials:

- SS (Red line): a_p ranges from 0 to 2.0 mm for f from 0 to 0.1 mm/rev, then decreases to 1.0 mm for f from 0.1 to 0.2 mm/rev, and then to 0.5 mm for f from 0.2 to 0.3 mm/rev.
- CM (Blue line): a_p ranges from 0 to 2.0 mm for f from 0 to 0.1 mm/rev, then decreases to 1.0 mm for f from 0.1 to 0.2 mm/rev, and then to 0.5 mm for f from 0.2 to 0.3 mm/rev.
- M,G (Green line): a_p ranges from 0 to 1.0 mm for f from 0 to 0.1 mm/rev, then decreases to 0.5 mm for f from 0.1 to 0.2 mm/rev, and then to 0.2 mm for f from 0.2 to 0.3 mm/rev.

*-M.G: Without chipbreaker

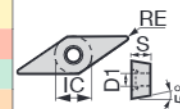
Reference pages: Internal toolholder → **D043 -** Cartridge → **K193 -**
 Boring bar tool → **K209 -**

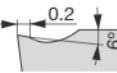
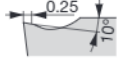
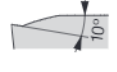
Insert POSITIVE TYPE

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

VB

Rhombic, 35°
with hole
Positive 5°

[illegible]

Application	Chipbreaker	Designation	Material										Dimension (mm)								
			Coated							Coated cermet		Cermet	Uncoated	RE	IC	S	D1				
Medium cutting	24	VBMT160404-24	●	●	▲	▲								●				0.4	9.525	4.76	4.4
		VBMT160408-24	●	●	▲	▲								●				0.8	9.525	4.76	4.4
																					
Finishing to medium cutting	CM	VBMT110304-CM					●											0.4	6.35	3.18	2.8
		VBMT110308-CM					●											0.8	6.35	3.18	2.8
		VBMT160404-CM					●	●										0.4	9.525	4.76	4.4
		VBMT160408-CM					●	●										0.8	9.525	4.76	4.4
		VBMT160412-CM					●	●										1.2	9.525	4.76	4.4
For external turning on Swiss lathes (sharp edge)	JS	VBGT110300FN-JS							●	●								0.03	6.35	3.18	2.8
		VBGT110301FN-JS							●	●								<0.1	6.35	3.18	2.8
		VBGT110302FN-JS							●	●								<0.2	6.35	3.18	2.8
		VBGT110304FN-JS							●	●								<0.4	6.35	3.18	2.8
For external turning on Swiss lathes	JS	VBGT110301N-JS						●										0.1	6.35	3.18	2.8
		VBGT110302N-JS						●										0.2	6.35	3.18	2.8
		VBGT110304N-JS						●										0.4	6.35	3.18	2.8
For external turning on Swiss lathes (sharp edge)	J10	VBGT110300FR-J10							●	●					●			0.03	6.35	3.18	2.8
		VBGT110300FL-J10							●	●					●			0.03	6.35	3.18	2.8
		VBGT110301FR-J10							●	●			●		●			0.1	6.35	3.18	2.8
		VBGT110301FL-J10							●	●			●		●			0.1	6.35	3.18	2.8
		VBGT110302FR-J10							●	●			●		●			0.2	6.35	3.18	2.8
		VBGT110302FL-J10							●	●			●		●			0.2	6.35	3.18	2.8
		VBGT110304FR-J10							●	●			●		●			0.4	6.35	3.18	2.8
		VBGT110304FL-J10							●	●			●		●			0.4	6.35	3.18	2.8
For external turning on Swiss lathes (honed edge)	J10	VBGT110302R-J10									●							0.2	6.35	3.18	2.8
		VBGT110302L-J10									●							0.2	6.35	3.18	2.8
		VBGT110304R-J10									●							0.4	6.35	3.18	2.8
		VBGT110304L-J10									●							0.4	6.35	3.18	2.8

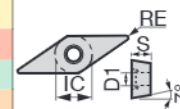
*Corner radius (RE) with a sign of inequality (<) means minus tolerance.

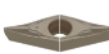
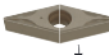
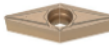
● : Line up
▲ : To be discontinued

Reference pages: External toolholder → **C062** Internal toolholder → **D036** -
J-Series toolholder → **G033** -

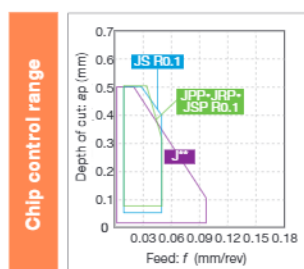
- : Continuous cutting
- ◐ : Light interrupted cutting
- ⊕ : Heavy interrupted cutting

Rhombic, 35°
with hole
Positive 7°

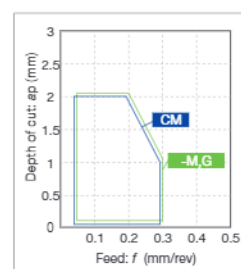
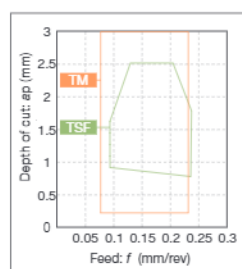
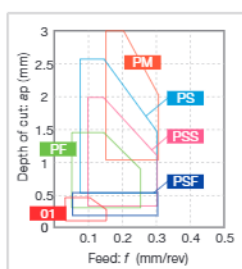
[illegible]

Application	Chipbreaker	Designation	Coated												Coated cermet		Cermet		Dimension (mm)					
			T9215	T9225	T9115	T9125	T6120	T6130	AH630	AH645	AH120	AH725	AH8005	AH8015	AH905	GT9530	AT9530	NS9530			RE	IC	S	D1
Finishing	PSF	VCMT080202-PSF									●				●		●			0.2	4.76	2.38	2.3	
		VCMT080204-PSF	●	●	▲	▲					●				●		●			0.4	4.76	2.38	2.3	
		VCMT110302-PSF									●								0.2	6.35	3.18	2.8		
		VCMT110304-PSF	●	●	▲	▲					●								0.4	6.35	3.18	2.8		
		VCMT160404-PSF	●	●	▲	▲					●	●	●	●	●		●		0.4	9.525	4.76	4.4		
		VCMT160408-PSF	●	●	▲	▲					●	●	●	●	●		●		0.8	9.525	4.76	4.4		
	PF	VCMT080202-PF													●		●			0.2	4.76	2.38	2.3	
		VCMT080204-PF													●		●			0.4	4.76	2.38	2.3	
		VCMT160404-PF													●		●			0.4	9.525	4.76	4.4	
	VCMT160408-PF													●		●			0.8	9.525	4.76	4.4		
Finishing to light cutting	PSS	VCMT110304-PSS	●	●	▲	▲	●	●	●	●	●	●	●	●	●		●	●		0.4	6.35	3.18	2.8	
		VCMT110308-PSS	●	●	▲	▲	●	●	●	●	●	●	●	●	●		●	●		0.8	6.35	3.18	2.8	
		VCMT160404-PSS	●	●	▲	▲	●	●	●	●	●	●	●	●	●		●	●		0.4	9.525	4.76	4.4	
		VCMT160408-PSS	●	●	▲	▲	●	●	●	●	●	●	●	●	●		●	●		0.8	9.525	4.76	4.4	
Finishing to medium cutting	PS	VCMT110302-PS	●	●	▲	▲	●	●	●	●	●	●	●	●	●	●	●	●		0.2	6.35	3.18	2.8	
		VCMT110304-PS	●	●	▲	▲	●	●	●	●	●	●	●	●	●	●	●	●		0.4	6.35	3.18	2.8	
		VCMT110308-PS	●	●	▲	▲	●	●	●	●	●	●	●	●	●	●	●	●		0.8	6.35	3.18	2.8	
		VCMT160404-PS	●	●	▲	▲	●	●	●	●	●	●	●	●	●	●	●	●		0.4	9.525	4.76	4.4	
		VCMT160408-PS	●	●	▲	▲	●	●	●	●	●	●	●	●	●	●	●	●		0.8	9.525	4.76	4.4	
	TSF	VCMT160404-TSF	●	●																0.4	9.525	4.76	4.4	
		VCMT160408-TSF	●	●																0.8	9.525	4.76	4.4	
	TM	VCMT160404-TM	●	●																0.4	9.525	4.76	4.4	
	VCMT160408-TM	●	●																0.8	9.525	4.76	4.4		

● : Line up
▲ : To be discontinued



*Chip control range with typical R0.1



*-M,G: Without chipbreaker

Internal toolholder → D037 -

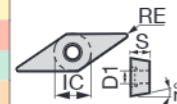
Index	User's Guide	Tooling System	Drilling tool	Endmill	Milling cutter	Miniature tool	Grooving	Threading	Int. Toolholder	Ext. Toolholder	Insert	Grade
1												
2												
3												
4												
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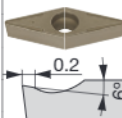
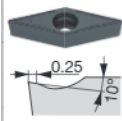
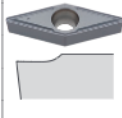
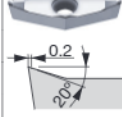
Insert POSITIVE TYPE

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

VC

Rhombic, 35°
with hole
Positive 7°

[illegible]

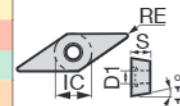
Application	Chipbreaker	Designation	Material										Dimension (mm)										
			Coated					Cermet		Uncoated													
			T9215	T9225	T9115	T9125	T515	T5115	AH8005	AH8015	AH905		NS9530		KS05F					RE	IC	S	D1
Finishing to medium cutting	24	VCMT160404-24	●	●	▲	▲							●							0.4	9.525	4.76	4.4
		VCMT160408-24	●	●	▲	▲							●							0.8	9.525	4.76	4.4
	CM	VCMT080204-CM							●											0.4	4.76	2.38	2.3
		VCMT160404-CM						●	●											0.4	9.525	4.76	4.4
Finishing to medium cutting		VCMT160408-CM					●	●											0.8	9.525	4.76	4.4	
		VCMT160412-CM						●											1.2	9.525	4.76	4.4	
Medium cutting	All-round	VCMT160404							●	●	●								0.4	9.525	4.76	4.4	
		VCMT160408							●	●	●								0.8	9.525	4.76	4.4	
		VCMT160412							●	●	●								1.2	9.525	4.76	4.4	
Finishing to medium cutting	AL	VCGT160404-AL													●			0.4	9.525	4.76	4.4		
		VCGT160408-AL													●			0.8	9.525	4.76	4.4		
		VCGT160412-AL													●			1.2	9.525	4.76	4.4		
		VCGT220520-AL													●			2	12.7	5.56	5.5		
		VCGT220530-AL													●			3	12.7	5.56	5.5		

●: Line up
▲: To be discontinued

Reference pages: VC*T...: External toolholder → C063 - Internal toolholder → D037 -

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

Rhombic, 35°
with hole
Positive 11°

[illegible]

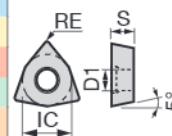
For external turning on Swiss lathes
(sharp edge)

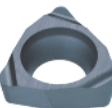
● : Line up



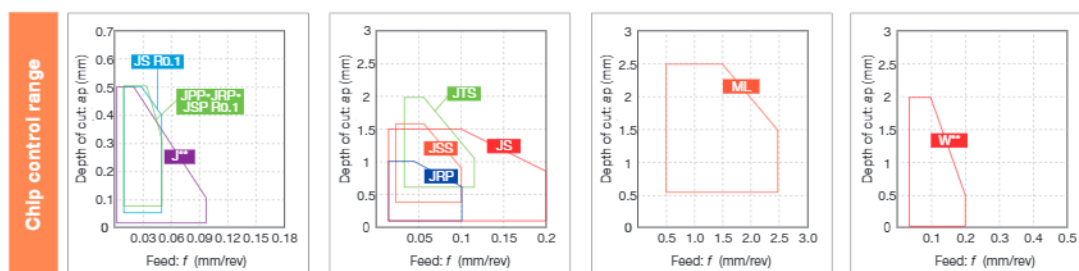
Tungaloy B155

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

[illegible]

Application	Chipbreaker	Designation	Coated				Cermet		Uncoated										Dimension (mm)			
			GH110	SH725	SH730		NS9530			TH10	UX30								RE	IC	S	D1
Finishing		W08	WBGT030100R-W08			●													0.03	3.97	1.59	2.3
			WBGT030100L-W08			●		●		●	●								0.03	3.97	1.59	2.3
			WBGT030101R-W08			●													0.1	3.97	1.59	2.3
			WBGT030101L-W08			●				●									0.1	3.97	1.59	2.3
			WBGT030102R-W08			●													0.2	3.97	1.59	2.3
			WBGT030102L-W08	●		●		●		●	●								0.2	3.97	1.59	2.3
			WBGT030104R-W08			●													0.4	3.97	1.59	2.3
			WBGT030104L-W08	●		●		●		●	●								0.4	3.97	1.59	2.3
Finishing (sharp edge)		W08	WBGT030100FL-W08		●														0.03	3.97	1.59	2.3
			WBGT030100FR-W08		●														0.03	3.97	1.59	2.3
			WBGT030101FL-W08		●														0.1	3.97	1.59	2.3
			WBGT030101FR-W08		●														0.1	3.97	1.59	2.3
			WBGT030102FL-W08		●														0.2	3.97	1.59	2.3
			WBGT030102FR-W08		●														0.2	3.97	1.59	2.3
			WBGT030104FL-W08		●														0.4	3.97	1.59	2.3
			WBGT030104FR-W08		●														0.4	3.97	1.59	2.3

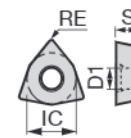
● : Line up



*Chip control range with typical R0.1

Reference pages: Internal toolholder → **D075** Top-borer tool → **K213**

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

[illegible]

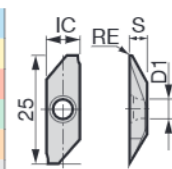
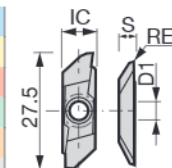
*Corner radius (RE) with a sign of inequality (<) means minus tolerance.

● : Line up



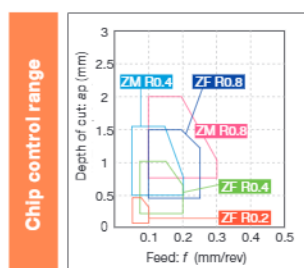
Tungaloy B159

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

[illegible][illegible]

Application	Chipbreaker	Designation	Material		Coated		Uncoated												Dimension (mm)			
			J740		TH10												RE	IC	S	D1		
Back turning		JXBR8000F	●		●												0.03	8	3.97	4.4		
		JXBL8000F	●		●												0.03	8	3.97	4.4		
		JXBR8005F	●		●												0.05	8	3.97	4.4		
		JXBL8005F	●		●												0.05	8	3.97	4.4		
		JXBR8005	●														0.05	8	3.97	4.4		
		JXBL8005	●														0.05	8	3.97	4.4		
		JXBR8010F	●		●												0.10	8	3.97	4.4		
		JXBL8010F	●		●												0.10	8	3.97	4.4		
		JXBR8010	●														0.10	8	3.97	4.4		
		JXBL8010	●														0.10	8	3.97	4.4		
		JXBR8015F	●		●												0.15	8	3.97	4.4		
		JXBL8015F	●		●												0.15	8	3.97	4.4		
		JXBR8015	●														0.15	8	3.97	4.4		
		JXBL8015	●														0.15	8	3.97	4.4		

● : Line up



● : Continuous cutting
 ● : Light interrupted cutting
 ✱ : Heavy interrupted cutting

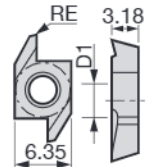
Insert POSITIVE TYPE

10E*



Back turning

P	Steel	●
M	Stainless	●
K	Cast iron	●
N	Non-ferrous	●
S	Superalloy	●
H	Hard material	



Application	Chipbreaker	Designation	Uncoated										Dimension (mm)			
			TH10										RE	IC	S	D1
Back turning	-	10ER100B	●										0.03	6.35	3.18	3.0
		10EL100B	●										0.03	6.35	3.18	3.0
		10ER150B	●										0.03	6.35	3.18	3.0
		10EL150B	●										0.03	6.35	3.18	3.0
		10ER300	●										-	6.35	3.18	3.0
		10EL300	●										-	6.35	3.18	3.0

● : Line up

Grade
 Insert
 Toolholder
 Ext. Toolholder
 Int. Toolholder
 Threading
 Grooving
 Miniature tool
 Milling cutter
 Endmill
 Drilling tool
 Tooling System
 User's Guide
 Index

