



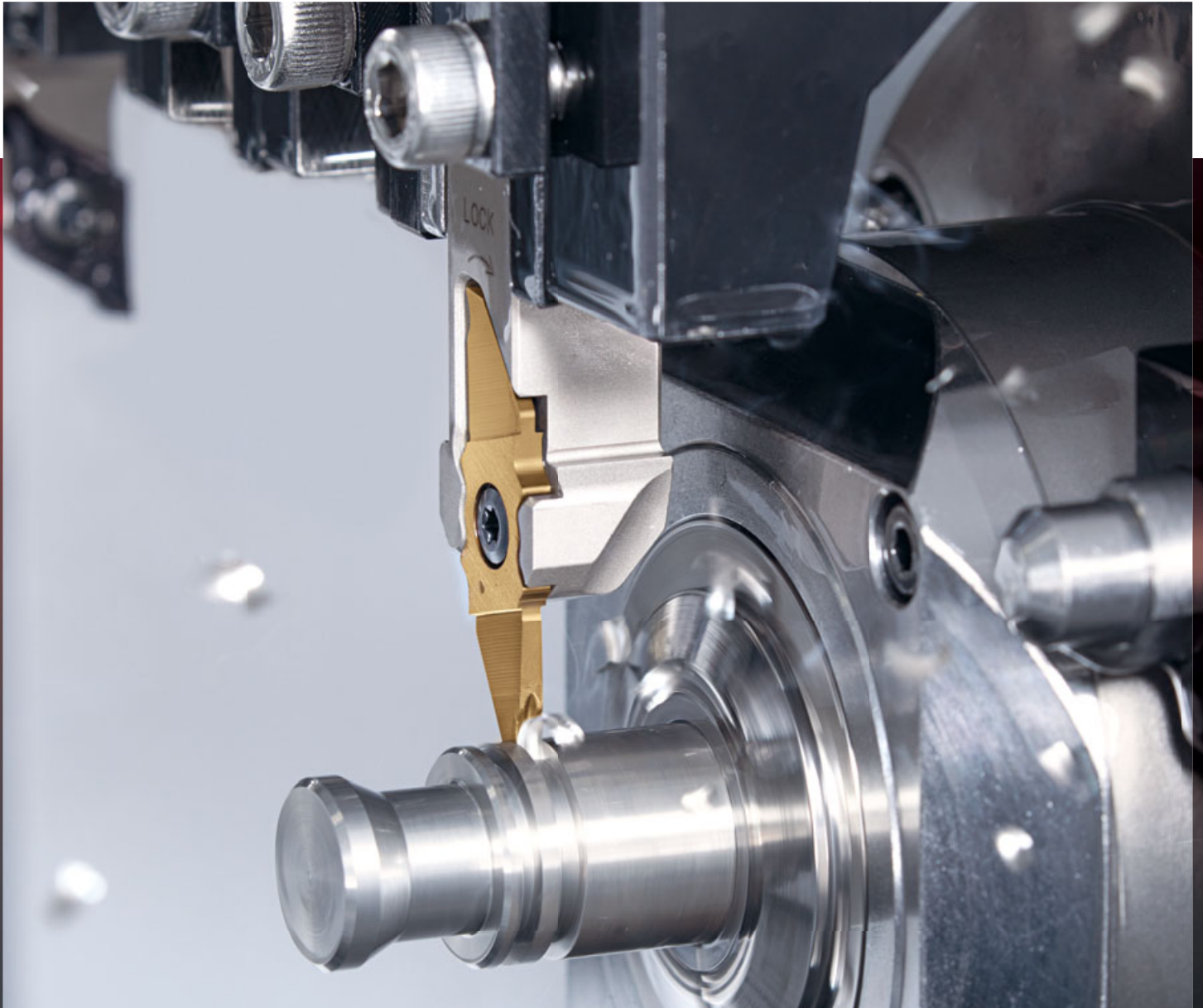
For more information

Parting off, Grooving, Threading Tools

DUO^{UST}**JCUT**

Tungaloy Report No. 504S3-G

Introducing the latest PVD grade **SH7025**



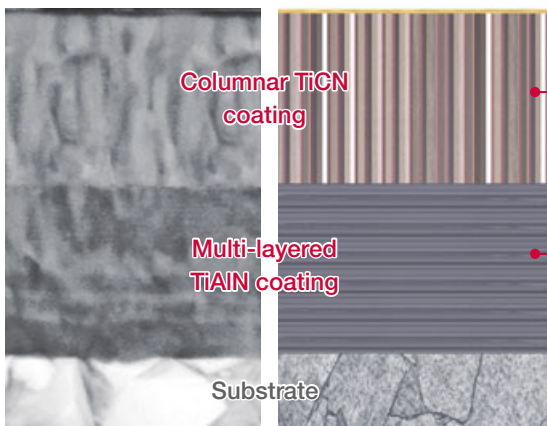
SH7025 - the latest PVD insert grade for superior surface quality and process security



SH7025

- The latest grade with sharp cutting edge designed for small part machining.
- A combination of a columnar-structured TiCN coating and multilayered TiAlN coating provides superior surface quality and process security.

Outer layer TiN coating



Cross sectional micrograph

Cross sectional diagram

For high surface quality

Built-up edge resistant TiCN coating improves surface finish quality.

For extremely long tool life

Wear-resistant columnar-structured TiCN coating ensures long tool life.

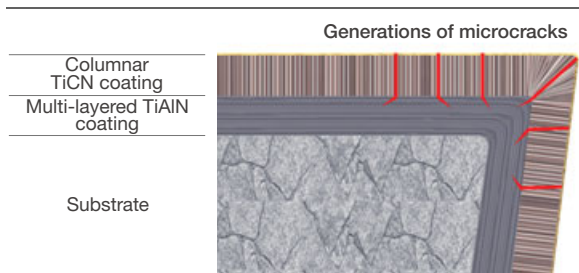
For superior process security

Chipping-resistant multi-layered TiAlN coating provides process security.

Superior process security

Chipping-resistant multi-layered TiAlN coating provides process security.

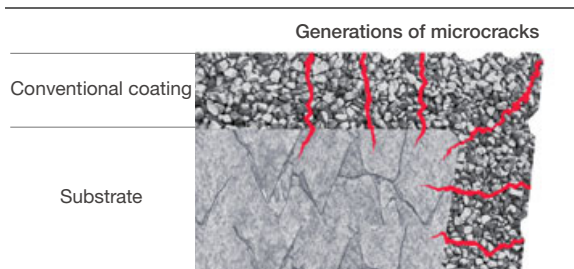
SH7025



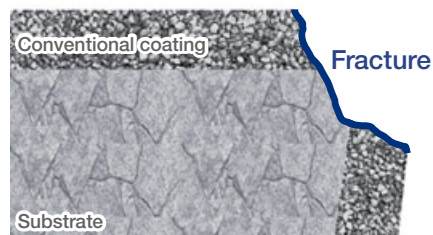
TiAlN coating prevents cracks from further propagation



Conventional

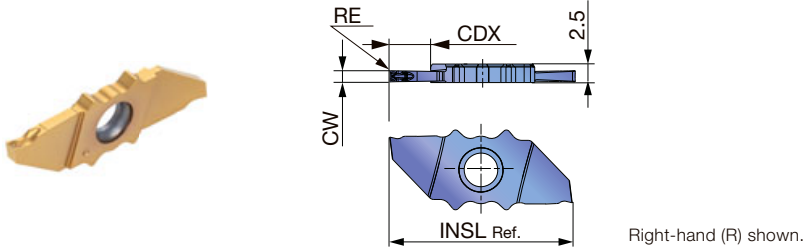


Crack reaches the substrate causing catastrophic failure



INSERTS

JXPS**R/L-F (with 3D chipbreaker, sharp edge)



P	Steel	★					
M	Stainless	★					
K	Cast iron	★					
N	Non-ferrous						
S	Superalloys	★					
H	Hard materials						

★ : First choice

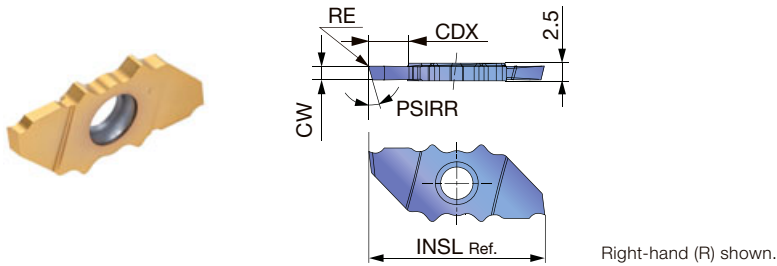
Designation	Right hand	Left hand	CW±0.025	RE	Coated				CUTDIA	CDX*	INSL
					SH7025						
JXPS06R06F	✓		0.6	0.05	●				6	3.5	21
JXPS12R08F	✓		0.8	0.05	●				12	6.5	25
JXPS12R10F	✓		1	0.05	●				12	6.5	25
JXPS12R15F	✓		1.5	0.05	●				12	6.5	25
JXPS16R15F	✓		1.5	0.05	●				16	8.5	29
JXPS20R20F	✓		2	0.05	●				20	10.5	33
JXPS06L06F		✓	0.6	0.05	●				6	3.5	21
JXPS12L08F		✓	0.8	0.05	●				12	6.5	25
JXPS12L10F		✓	1	0.05	●				12	6.5	25
JXPS12L15F		✓	1.5	0.05	●				12	6.5	25
JXPS16L15F		✓	1.5	0.05	●				16	8.5	29
JXPS20L20F		✓	2	0.05	●				20	10.5	33

*Max grooving depth (CDX) varies depending on workpiece diameters.

5 pieces per package

● : New product

JXPG**R/L-F (Sharp edge)



P	Steel	★				
M	Stainless	★				
K	Cast iron	★				
N	Non-ferrous					
S	Superalloys	★				
H	Hard materials					

★ : First choice

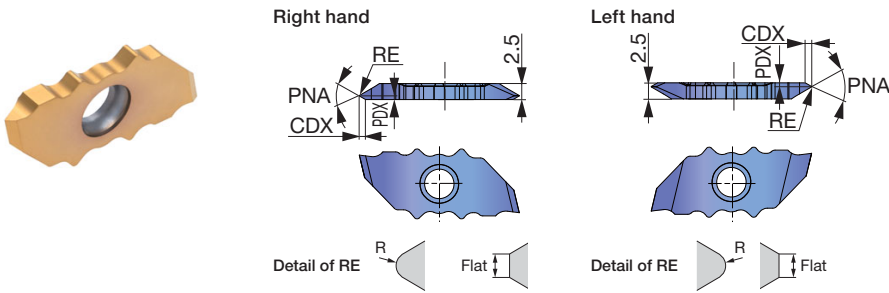
Designation	Right hand	Left hand	CW±0.025	RE	Coated				CUTDIA	CDX*	INSL	PSIRR
					SH7025							
JXPG06R10F	✓		1	0.05	●				6	3.5	21	0°
JXPG06R15F	✓		1.5	0.05	●				6	3.5	21	0°
JXPG06R10F-15	✓		1	0.05	●				6	3.5	21	15°
JXPG06R15F-15	✓		1.5	0.05	●				6	3.5	21	15°
JXPG12R15F	✓		1.5	0.05	●				12	6.5	25	0°
JXPG12R20F	✓		2	0.05	●				12	6.5	25	0°
JXPG12R15F-15	✓		1.5	0.05	●				12	6.5	25	15°
JXPG12R20F-15	✓		2	0.05	●				12	6.5	25	15°
JXPG16R15F	✓		1.5	0.05	●				16	8.5	29	0°
JXPG16R20F	✓		2	0.05	●				16	8.5	29	0°
JXPG16R15F-15	✓		1.5	0.05	●				16	8.5	29	15°
JXPG16R20F-15	✓		2	0.05	●				16	8.5	29	15°
JXPG20R15F	✓		1.5	0.05	●				20	10.5	33	0°
JXPG20R20F	✓		2	0.05	●				20	10.5	33	0°
JXPG20R15F-15	✓		1.5	0.05	●				20	10.5	33	15°
JXPG20R20F-15	✓		2	0.05	●				20	10.5	33	15°
JXPG06L10F		✓	1	0.05	●				6	3.5	21	0°
JXPG06L15F		✓	1.5	0.05	●				6	3.5	21	0°
JXPG06L10F-15		✓	1	0.05	●				6	3.5	21	15°
JXPG06L15F-15		✓	1.5	0.05	●				6	3.5	21	15°
JXPG12L15F		✓	1.5	0.05	●				12	6.5	25	0°
JXPG12L20F		✓	2	0.05	●				12	6.5	25	0°
JXPG12L15F-15		✓	1.5	0.05	●				12	6.5	25	15°
JXPG12L20F-15		✓	2	0.05	●				12	6.5	25	15°
JXPG16L15F		✓	1.5	0.05	●				16	8.5	29	0°
JXPG16L20F		✓	2	0.05	●				16	8.5	29	0°
JXPG16L15F-15		✓	1.5	0.05	●				16	8.5	29	15°
JXPG16L20F-15		✓	2	0.05	●				16	8.5	29	15°
JXPG20L15F		✓	1.5	0.05	●				20	10.5	33	0°
JXPG20L20F		✓	2	0.05	●				20	10.5	33	0°
JXPG20L15F-15		✓	1.5	0.05	●				20	10.5	33	15°
JXPG20L20F-15		✓	2	0.05	●				20	10.5	33	15°

*Max grooving depth (CDX) varies depending on workpiece diameters.

5 pieces per package

● : New product

JXTG12FR/L-60 (For Threading / Sharp edge)



P	Steel	★							
M	Stainless	★							
K	Cast iron	★							
N	Non-ferrous								
S	Superalloys	★							
H	Hard materials								

★ : First choice

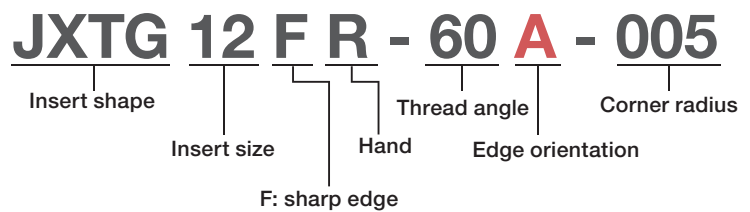
Designation	Right hand	Left hand	RE	Coated				Pitches	PDX	CDX	PNA
				SH7025							
JXTG12FR-60A-000	✓		Flat 0.05 max	●				0.2 - 0.4	0.25	0.4	60°
JXTG12FR-60B-000	✓		Flat 0.05 max	●				0.2 - 0.4	2.25	0.4	60°
JXTG12FR-60A-005	✓		R 0.05	●				0.4 - 1	0.6	0.99	60°
JXTG12FR-60B-005	✓		R 0.05	●				0.4 - 1	1.9	0.99	60°
JXTG12FR-60N-010	✓		R 0.1	●				1 - 1.5	1.25	2.07	60°
JXTG12FL-60A-000		✓	Flat 0.05 max	●				0.2 - 0.4	0.25	0.4	60°
JXTG12FL-60B-000		✓	Flat 0.05 max	●				0.2 - 0.4	2.25	0.4	60°
JXTG12FL-60A-005		✓	R 0.05	●				0.4 - 1	0.6	0.99	60°
JXTG12FL-60B-005		✓	R 0.05	●				0.4 - 1	1.9	0.99	60°
JXTG12FL-60N-010		✓	R 0.1	●				1 - 1.5	1.25	2.07	60°

5 pieces per package

● : New product

EDGE ORIENTATION AND DESCRIPTION OF THREADING INSERTS

	Edge Orientation		
	Type A	Type B	Type N
Right hand			
Left hand			



STANDARD CUTTING CONDITIONS

Parting, Grooving

ISO	Workpiece materials	Grades	Cutting speed Vc (m/min)	Feed f (mm/rev)
P	Low carbon steels S15C, SS400, etc. C15E4, E275A, etc.	SH7025	50 - 200	0.01 - 0.05
	Carbon steels, Alloy steels S55C, SCM440, etc. C55, 42CrMo4, etc.	SH7025	50 - 200	0.01 - 0.05
	Free cutting steels SUH22, SUH23, etc.	SH7025	50 - 200	0.01 - 0.05
M	Stainless steels SUS304, X5CrNi18-9, etc.	SH7025	50 - 200	0.01 - 0.05
N	Aluminium alloys A5056, A6061, etc.	SH7025	150 - 200	0.01 - 0.05
	Copper alloy C2600, C280C, etc.	SH7025	100 - 200	0.01 - 0.05
S	Titanium alloys Ti-6Al-4V, etc.	SH7025	30 - 80	0.01 - 0.05
	Superalloys Inconel718, etc.	SH7025	30 - 80	0.01 - 0.05

Threading

ISO	Workpiece materials	Grades	Cutting speed Vc (m/min)
P	Low carbon steels S15C, SS400, etc. C15E4, E275A, etc.	SH7025	50 - 200
	Carbon steels, Alloy steels S55C, SCM440, etc. C55, 42CrMo4, etc.	SH7025	50 - 200
	Free cutting steels SUH22, SUH23, etc.	SH7025	50 - 200
M	Stainless steels SUS304, X5CrNi18-9, etc.	SH7025	50 - 200
N	Aluminium alloys A5056, A6061, etc.	SH7025	150 - 200
	Copper alloy C2600, C280C, etc.	SH7025	100 - 200
S	Titanium alloys Ti-6Al-4V, etc.	SH7025	30 - 80
	Superalloys Inconel718, etc.	SH7025	30 - 80



tungaloy.com

follow us at:

facebook.com/tungaloyjapan

twitter.com/tungaloyjapan

www.youtube.com/tungaloycorporation

Distributed by:



FIND US ON THE CLOUD!
machiningcloud.com



AS9100 Certified
78006
2015.11.04
ISO 14001 Certified
EC97J1123
1997.11.26