

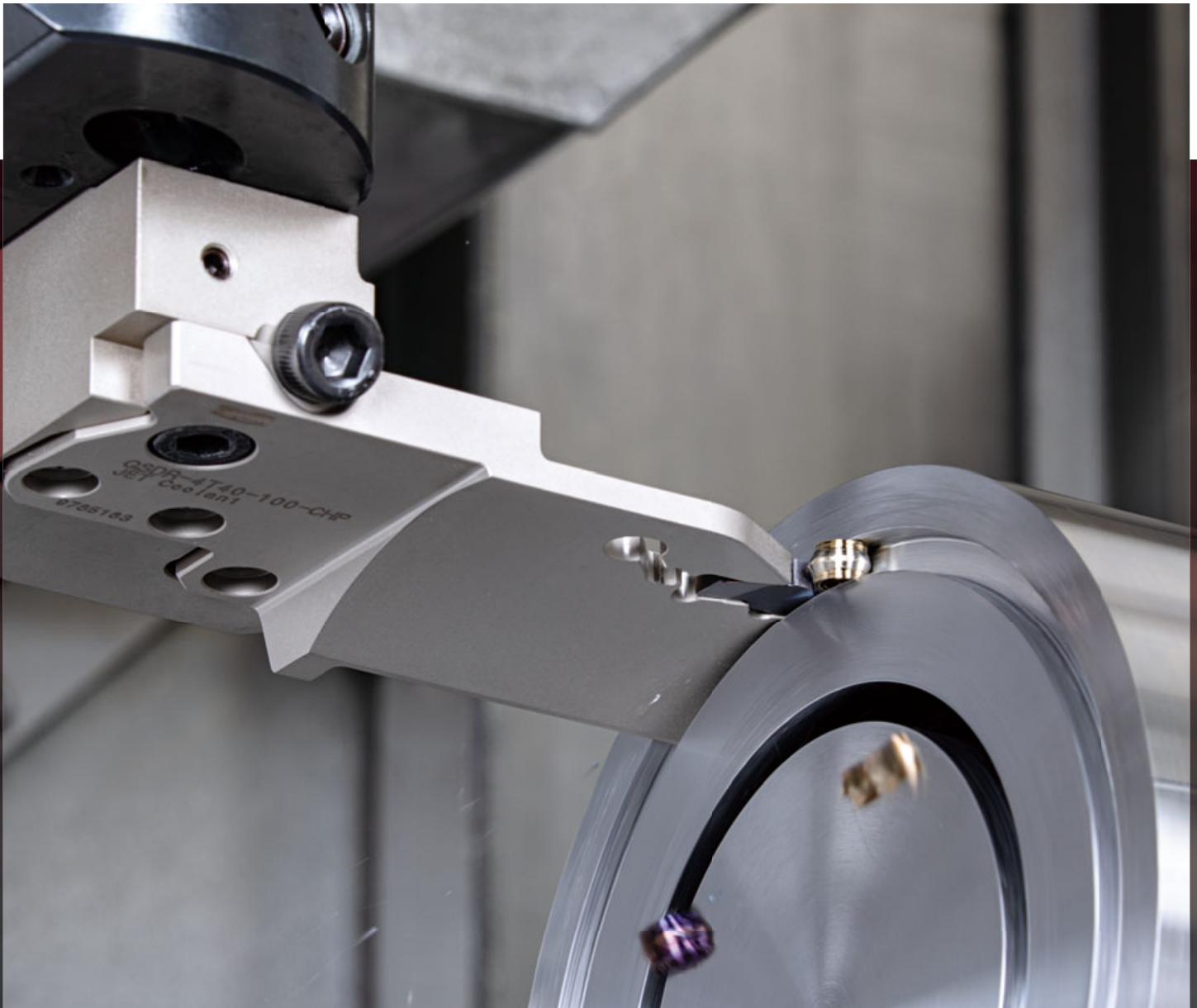


Grooving and parting-off tool

ADD^{ORCE}**FCUT**

Tungaloy Report No. 543S2-US

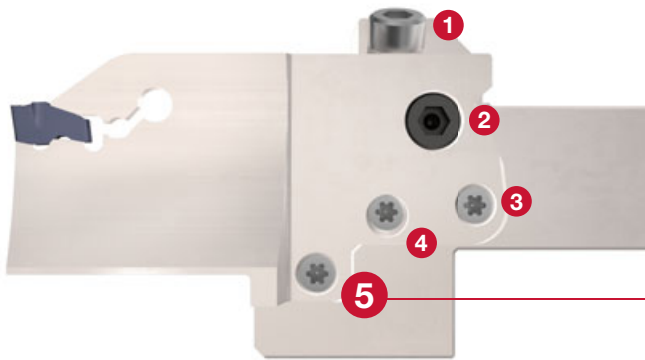
Now offering **deep face grooving tool system**
with maximum rigidity



New deep face grooving system

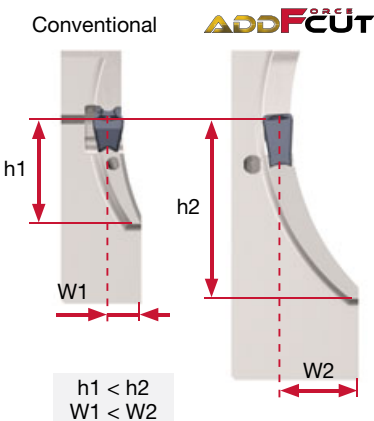
with unique insert clamping for maximum tool rigidity

Features



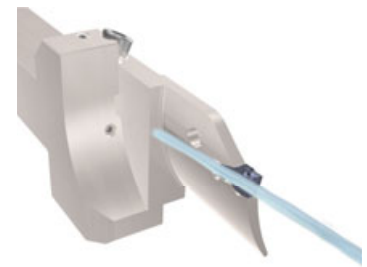
Added clamping screw for extra security

- Additional screw closer to the cutting edge
- Rigid tool design sustains long overhang tooling



Thicker blade design for maximum rigidity

- Redesigned for added blade strength
- Provides secure face grooving operation for deep grooves



High-pressure-coolant capable

- Ensures precise coolant delivery to the cutting area
- Ensures coolant access inside the groove, providing process security

QTX chipbreaker

Thanks to an optimized position of the protrusions, the chipbreaker is able to capture the chips and forms ideal curls at any feed rate.



The recess in the rake center promotes smooth chip evacuation out of the cutting area.

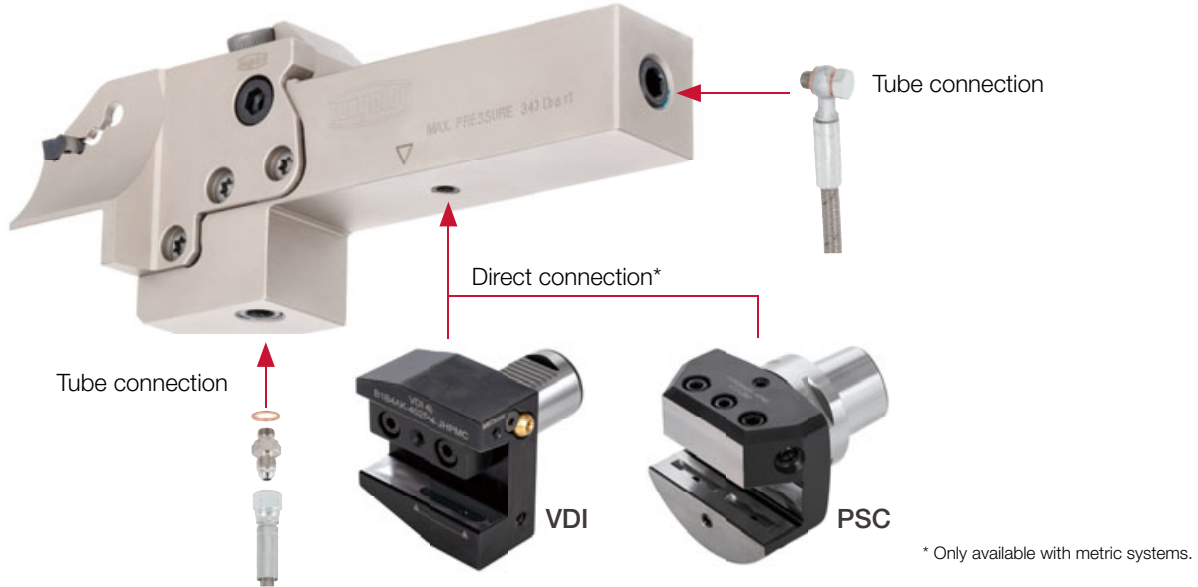
Chip control

Cutting speed V_c (sfm)	262					
		0.004	0.005	0.006	0.007	0.008
Feed: f (ipr)						

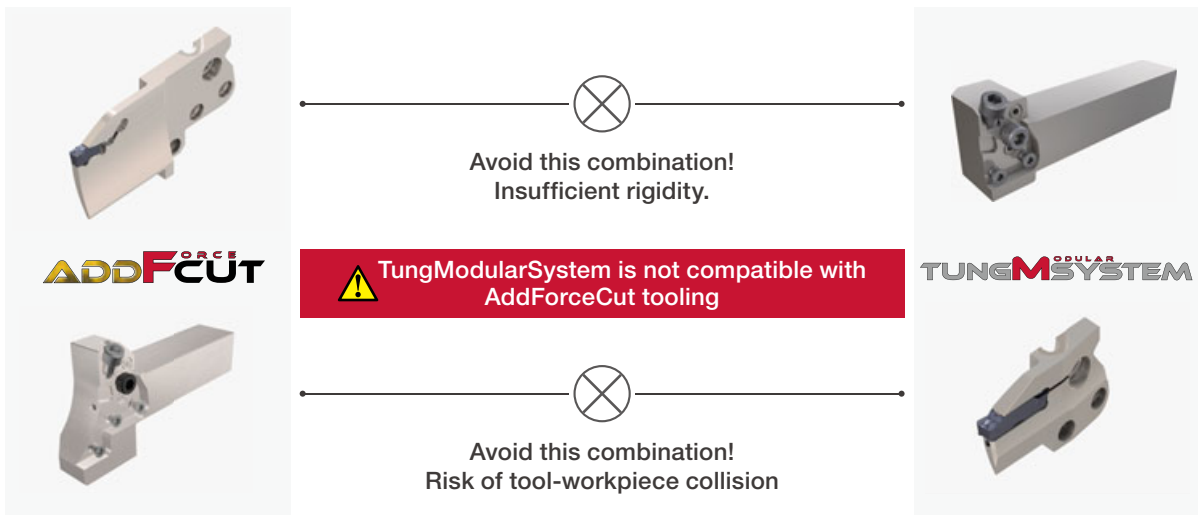
- P** Insert : QTX5-040 AH7025
 Workpiece material : 1045
 Groove width : CW = 0.197"
 Groove depth : 1.575"
 Coolant : Wet (1MPa)

■ Toolholder system with two coolant connection options

Internal coolant can be supplied either via tube subassembly or directly from the adapter without using a tube.



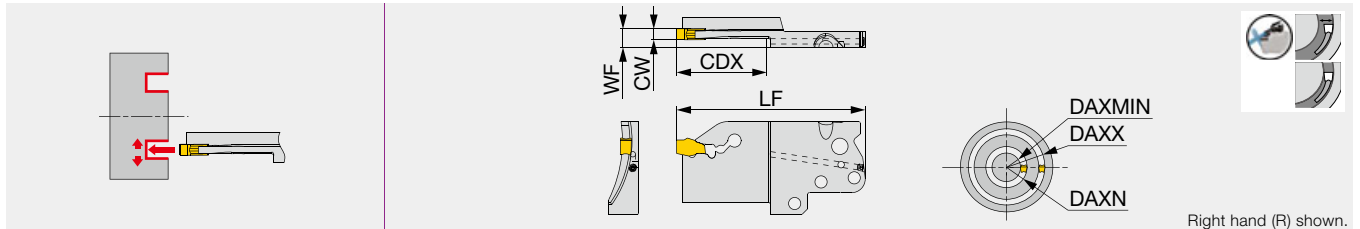
■ AVOID THESE BLADE-TOOLHOLDER COMBINATIONS



ADAPTER

QSDR/L-CHP

Face grooving adapter, with high pressure coolant capability



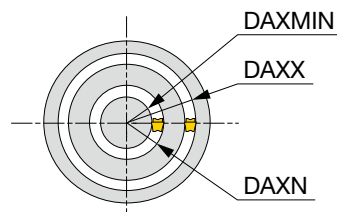
Metric	CW	DAXMIN	DAXN	DAXX	Seat size	CDX	LF	WF ⁽¹⁾
QSDR/L-3T26-055-CHP	3	49	55	60	3	26	71.6	7.5
QSDR/L-3T26-060-CHP	3	54	60	70	3	26	71.6	7.5
QSDR/L-3T32-070-CHP	3	64	70	85	3	32	77.6	7.5
QSDR/L-3T32-085-CHP	3	79	85	110	3	32	77.6	7.5
QSDR/L-3T32-110-CHP	3	104	110	140	3	32	77.6	7.5
QSDR/L-3T32-140-CHP	3	134	140	180	3	32	77.6	7.5
QSDR/L-3T32-180-CHP	3	174	180	250	3	32	77.6	7.5
QSDR/L-3T32-250-CHP	3	244	250	400	3	32	77.6	7.5
QSDR/L-3T32-400-CHP	3	394	400	800	3	32	77.6	7.5
QSDR/L-3T32-800-CHP	3	794	800	∞	3	32	77.6	7.5
QSDR/L-4T35-060-CHP	4	52	60	70	4	35	80.6	8
QSDR/L-4T35-070-CHP	4	62	70	85	4	35	80.6	8
QSDR/L-4T35-085-CHP	4	77	85	100	4	35	80.6	8
QSDR/L-4T40-100-CHP	4	92	100	130	4	40	85.6	8
QSDR/L-4T40-130-CHP	4	122	130	180	4	40	85.6	8
QSDR/L-4T40-180-CHP	4	172	180	300	4	40	85.6	8
QSDR/L-4T40-300-CHP	4	292	300	600	4	40	85.6	8
QSDR/L-4T40-600-CHP	4	592	600	∞	4	40	85.6	8
QSDR/L-5T42-060-CHP	5	50	60	80	5	42	87.6	8.5
QSDR/L-5T42-080-CHP	5	70	80	110	5	42	87.6	8.5
QSDR/L-5T42-110-CHP	5	100	110	150	5	42	87.6	8.5
QSDR/L-5T42-150-CHP	5	140	150	200	5	42	87.6	8.5
QSDR/L-5T42-200-CHP	5	190	200	300	5	42	87.6	8.5
QSDR/L-5T42-300-CHP	5	290	300	600	5	42	87.6	8.5
QSDR/L-5T42-600-CHP	5	590	600	∞	5	42	87.6	8.5

(1) WF is calculated with the groove width (CW) in the above table.

SPARE PARTS

Designation	Wrench
QSDR/L...	QL-39

Insert	Groove width CW	Face grooving
		Min. machining dia. DAXN
QGM / QGS	3	80
QGM / QGS	4	60
QGM / QGS	5	60
QTX	3	55
QTX	4	60
QTX	5	60

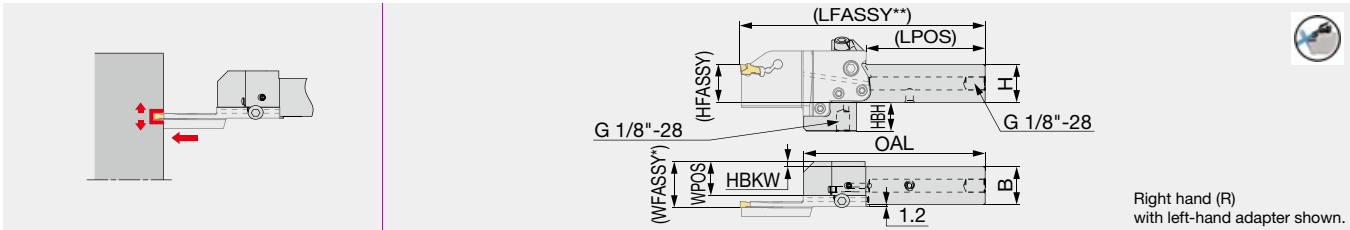


SHANKS

QHSR/L-CHP

Direct connection Tube connection

Shank for adapter, with high pressure coolant capability



Right hand (R)
with left-hand adapter shown.

Inch	H	B	OAL	LPOS	WPOS	HBKW	HFASSY	HBH	Adapter (Optional)	Torque
QHSR/L12-CHP	0.75	0.75	5.732	4.016	0.514	0.197	0.75	0.984	QSDL/R*-CHP	4.79
QHSR/L16-CHP	1	1	5.732	4.016	0.764	-	1	0.732	QSDL/R*-CHP	4.79
Metric	H	B	OAL	LPOS	WPOS	HBKW	HFASSY	HBH	Adapter (Optional)	Torque*
QHSR/L2020-CHP	20	20	120	76.4	14	5	20	24	QSDL/R*-CHP	6.5
QHSR/L2525-CHP	25	25	120	76.4	19	-	25	19	QSDL/R*-CHP	6.5

WFASSY* : Shank (WPOS) + adapter (WF)

LFASSY** : Shank (LPOS) + adapter (LF)

Depending on the adapter type, the value of LFASSY or WFASSY may change.

*Torque: Recommended clamping torque: lbs-ft (*N-m)

Applicable for 30 MPa coolant

Use right-hand adapters (R) with left-hand shanks (L); and left-hand adapters (L) with right-hand shanks (R).

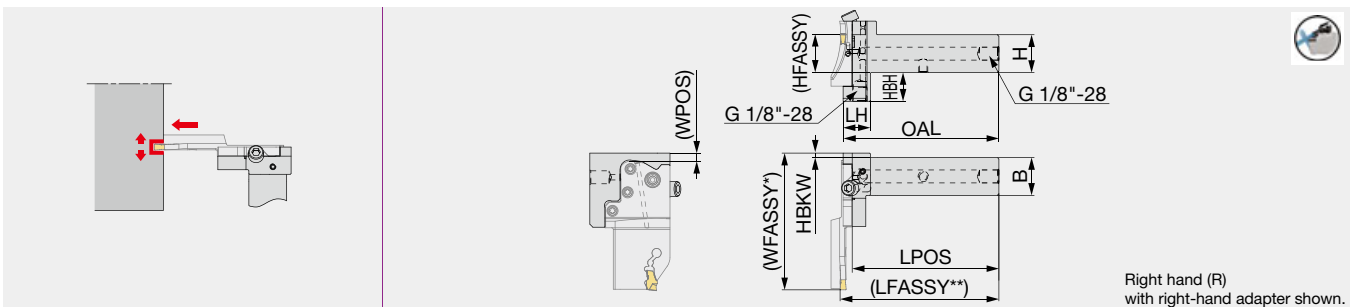
SPARE PARTS

Designation	Clamping screw 1	Wrench 1	Clamping screw 2	Clamping screw 3	Wrench 2	O-ring	Plug
QHSR/L...	SR M5-04451	T-20/5	SR M6X12DIN6912	SR M6X20-XT	P-5	OR 5X1N	PLUGG1/8ISO1179

QHTR/L-CHP

Direct connection Tube connection

Shank for perpendicularly-mounted adapter, with high pressure coolant capability



Right hand (R)
with right-hand adapter shown.

Inch	H	B	LH	OAL	LPOS	WPOS	HBKW	HFASSY	HBH	Adapter (Optional)	Torque*
QHTR/L12-CHP	0.75	0.75	5.5	0.591	5.264	0.142	0.217	0.75	0.984	QSDR/L*-CHP	4.79
QHTR/L16-CHP	1	1	5.5	0.591	5.264	0.075	-	1	0.732	QSDR/L*-CHP	4.79
Metric	H	B	LH	OAL	LPOS	WPOS	HBKW	HFASSY	HBH	Adapter (Optional)	Torque*
QHTR/L2020-CHP	20	20	18	90	84	3.6	5.5	20	24	QSDR/L*-CHP	6.5
QHTR/L2525-CHP	25	25	18	103	97	1.9	-	25	19	QSDR/L*-CHP	6.5

WFASSY* : Shank (WPOS) + adapter (LF)

LFASSY** : Shank (LPOS) + adapter (WF)

Depending on the adapter type, the value of LFASSY or WFASSY may change.

*Torque: Recommended clamping torque: lbs-ft (*N-m)

Applicable for 30 MPa coolant

Use right-hand adapters (R) with right-hand shanks (R); and left-hand adapters (L) with left-hand shanks (L).

SPARE PARTS

Designation	Clamping screw 1	Wrench 1	Clamping screw 2	Clamping screw 3	Wrench 2	O-ring	Plug
QHTR/L...	SR M5-04451	T-20/5	SR M6X12DIN6912	CM6X16	P-5	OR 5X1N	PLUGG1/8ISO1179

Recommended clamping torque (N-m)

Clamping screw	Torque (N-m)
SR M5-04451	2.5
SR M6X12DIN6912	6.5
SR M6X20-XT	6.5
CM6X16	6.5


Combination of adapter and shank

Shank	Face grooving adapter	
	QSDR**-CHP	QSDL**-CHP
QHSR**-CHP		●
QHSL**-CHP	●	
QHTR**-CHP	●	
QHTL**-CHP		●

● : Corresponding

CHIPBREAKER GUIDE

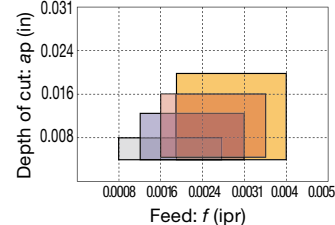
QTX



First choice for face grooving

Unique geometry ensures strong and sharp cutting edge, providing light cutting and long tool life.
CW = 0.079" - 0.197"

■ Standard feed and DoC (for turning)

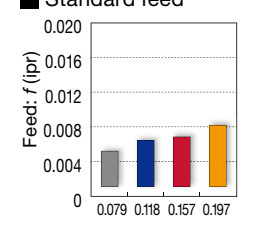


Depth of cut: ap (in)

Feed: f (ipr)

Legend: Groove width: CW (in)
 ■ 0.079 ■ 0.118 ■ 0.157 ■ 0.197

■ Standard feed



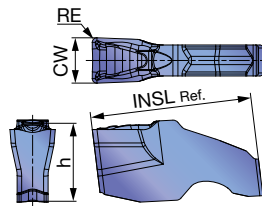
Feed: f (ipr)

Groove width: CW (in)

INSERT

QTX

Face grooving



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

★ : First choice

Designation	Seat size	CW±0.05 (mm)	CW±0.002 (in)	RE (in)	Coated						INSL (in)	h (in)
					AH7025							
QTX2-020	2	2	0.079	0.008	●						0.433	0.209
QTX3-030	3	3	0.118	0.012	●						0.433	0.209
QTX4-040	4	4	0.157	0.016	●						0.512	0.287
QTX5-040	5	5	0.197	0.016	●						0.512	0.287

●: Line up

STANDARD CUTTING CONDITIONS

ISO	Workpiece material	Hardness	Grade	Cutting speed Vc (sfm)
P	Steels 1045, etc.	< 300 HB	AH7025	164 - 591
M	Stainless steel 303SS, etc.	< 200 HB	AH7025	164 - 394
K	Gray cast iron Class 25, etc.	-	AH7025	164 - 591
	Ductile cast irons 65-45-12, etc.	-	AH7025	164 - 394
S	Superalloys Inconel718, etc.	< HRC 40	AH7025	66 - 197
	Titanium alloys Ti-6Al-4V, etc.	< HRC 40	AH7025	66 - 262

Please see page P.6 for feed: f (sfm).

PARTS FOR COOLANT HOSE

Connecting hose

Fig.1

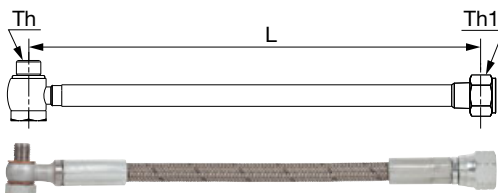
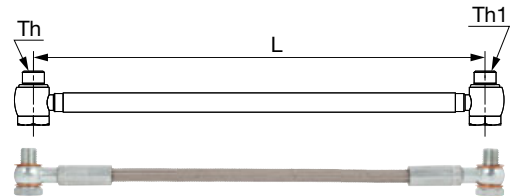
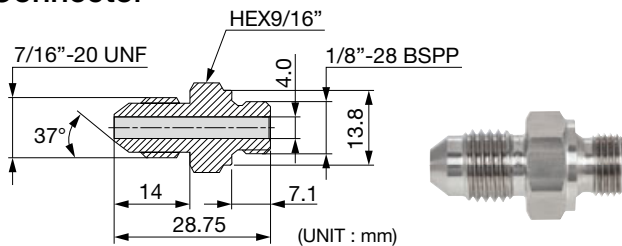


Fig.2



Designation	Length L (in)	Th	Screw	Th1	Max. pressure (Mpa)	Fig.
CHP-HOSE-G1/8-7/16-200BS	7.874	G1/8"-28 BSPP		7/16"-20 UNF	26	1
CHP-HOSE-G1/8-7/16-250BS	9.843	G1/8"-28 BSPP		7/16"-20 UNF	26	1
CHP-HOSE-5/16-7/16-200BS	7.874	5/16"-24UNF		7/16"-20 UNF	20	1
CHP-HOSE-5/16-G1/8-200BS	7.874	5/16"-24UNF		G1/8"-28 BSPP	20	1
CHP-HOSE-G1/8-G1/8-200BB	7.874	G1/8"-28 BSPP		G1/8"-28 BSPP	26	2
CHP-HOSE-G1/8-G1/8-250BB	9.843	G1/8"-28 BSPP		G1/8"-28 BSPP	26	2

Connector



Designation
CHP-NIPPLE-G1/8-7/16UNF

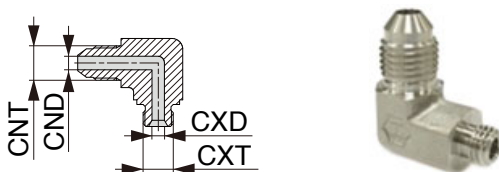
Seal washer



Designation	øD	ød	W
CHP-COPPER-SEAL1/8	0.591	0.394	0.039
CHP-COPPER-SEAL5/16	0.469	0.321	0.053
CHP-COPPER-SEAL5/16-2.5	0.370	0.315	0.098

(UNIT : in)

Connector elbow



Designation	CNT	CND	CXT	CXD
CHP-ELBOW-90-G1/8-7/16UNF	7/16"-20 UNF	0.173	1/8"-28 BSPP	0.157
CHP-ELBOW-90-5/16-7/16UNF	7/16"-20 UNF	0.173	5/16"-24 UNF	0.157

(UNIT : in)

Tungaloy-NTK America Inc.

United States

3726 N Ventura Drive, Arlington Heights, IL 60004, U.S.A.

Inside Sales: +1-888-554-8394

Technical Support: +1-888-554-8391

Fax: +1-888-554-8392

www.tungaloy.com/us

Canada

432 Elgin St. Unit 3, Brantford, Ontario N3S 7P7, Canada

Phone: +1-519-758-5779 Fax: +1-519-758-5791

www.tungaloy.com/ca

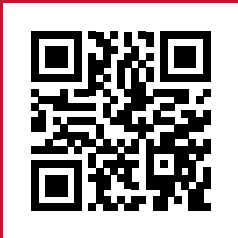
Mexico

C Los Arellano 113, Parque Industrial Siglo XXI

Aguascalientes, AGS, Mexico 20290

Phone: +52-449-929-5410 Fax: +52-449-929-5411

www.tungaloy.com/mx



Scan for instant
web access



tungaloy.com/us

follow us at:

facebook.com/tungaloyamerica

instagram.com/tungaloyamerica

linkedin.com/company/tungaloy-america

To see Tungaloy products in action visit:



www.youtube.com/tungaloycorporation

Distributed by:



FIND US ON THE CLOUD!
machingcloud.com



AS9100 Certified
78006
2015.11.04
ISO 14001 Certified
EC97J123
1997.11.26