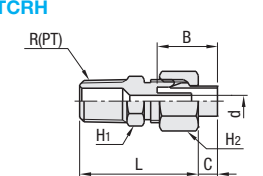
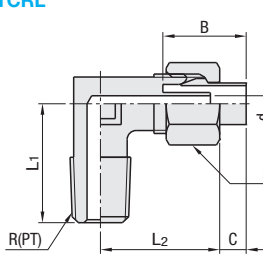
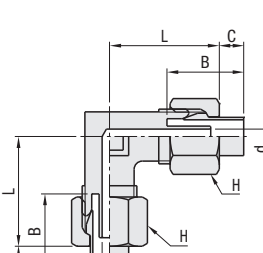
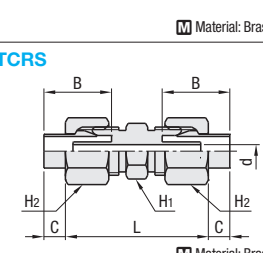
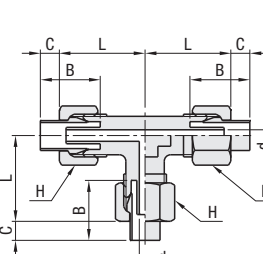


# Couplings with Tube Insert

## Nut and Sleeve Integrated Type

<b>Connectors</b>	<b>TCRH</b>	
<b>Elbows</b>	<b>TCRL</b>	
<b>Union Elbows</b>	<b>TCRF</b>	
<b>Union Connectors</b>	<b>TCRS</b>	
<b>Union Tees</b>	<b>TCRT</b>	

Material: Brass

Part Number	Applicable Tube O.D. (mm)	Nominal	R(PT)	Applicable Tube I.D. (mm)	L	B	C	d	H1 Wrench Flats	H2 Wrench Flats	Mass (g)	Unit Price 1 ~ 9 pc(s).	Volume Discount Rate 10~20
TCRH	4	1	1/8	2.5	28	13.5	3.5	1.3	10	10	13		
		2	1/4		28.5	13.5	3.5	1.3	14	10	18		
	6	1	1/8	4	27.5	14	4.5	2.7	10	12	14		
		2	1/4		28	14	4.5	2.7	14	12	21		
	8	1	1/8	6	28	16	5.5	4.7	12	14	17		
		2	1/4		28	16	5.5	4.7	14	14	23		
		3	3/8		29.5	16	5.5	4.7	17	14	31		
		4	1/2		30.5	19	5.5	6	17	17	30		
10	2	1/4	7.5	31.5	19	5.5	6	17	17	36			
	3	3/8		34.5	19	5.5	6	22	17	54			

Part Number	Applicable Tube O.D. (mm)	Nominal	R(PT)	Applicable Tube I.D. (mm)	L1	L2	B	C	d	H Wrench Flats	Mass (g)	Unit Price 1 ~ 9 pc(s).	Volume Discount Rate 10~20
TCRL	4	1	1/8	2.5	20	22	13.5	3.5	1.3	10	20		
		2	1/4		21	23	13.5	3.5	1.3	10	29		
	6	1	1/8	4	20	20	14	4.5	2.7	12	21		
		2	1/4		21	22.5	14	4.5	2.7	12	31		
	8	1	1/8	6	21	21	16	5.5	4.7	14	26		
		2	1/4		21	21	16	5.5	4.7	14	30		
		3	3/8		24	24.5	16	5.5	4.7	14	51		
		4	1/2		23	25	19	5.5	6	17	45		
10	2	1/4	7.5	24	25	19	5.5	6	17	53			
	3	3/8		29	28.5	19	5.5	6	17	88			

Part Number	Applicable Tube O.D. (mm)	Nominal	R(PT)	Applicable Tube I.D. (mm)	L	B	C	d	H Wrench Flats	Mass (g)	Unit Price 1 ~ 9 pc(s).	Volume Discount Rate 10~20
TCRF	4	2.5		22	13.5	3.5	1.3	10	22			
	6	4		20	14	4.5	2.7	12	24			
	8	6		21	16	5.5	4.7	14	31			
	10	7.5		25	19	5.5	6	17	54			

Part Number	Applicable Tube O.D. (mm)	Nominal	R(PT)	Applicable Tube I.D. (mm)	L	B	C	d	H1 Wrench Flats	H2 Wrench Flats	Mass (g)	Unit Price 1 ~ 9 pc(s).	Volume Discount Rate 10~20
TCRS	4	2.5		30.5	13.5	3.5	1.3	8	10	14			
	6	4		29.5	14	4.5	2.7	10	12	19			
	8	6		30	16	5.5	4.7	12	14	24			
	10	7.5		34	19	5.5	6	17	17	40			

Part Number	Applicable Tube O.D. (mm)	Nominal	R(PT)	Applicable Tube I.D. (mm)	L	B	C	d	H Wrench Flats	Mass (g)	Unit Price 1 ~ 9 pc(s).	Volume Discount Rate 10~20
TCRT	4	2.5		22	13.5	3.5	1.3	10	30			
	6	4		20	14	4.5	2.7	12	33			
	8	6		21	16	5.5	4.7	14	44			
	10	7.5		25	19	5.5	6	17	74			

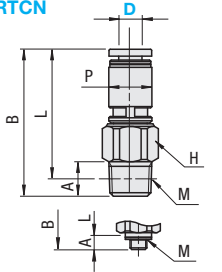
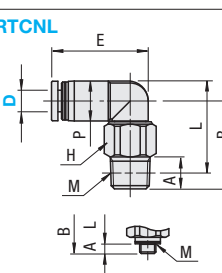
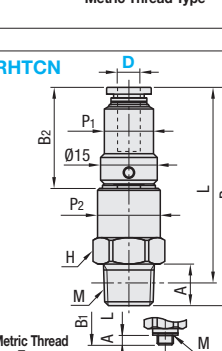
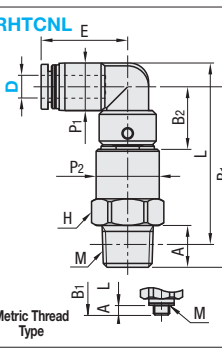
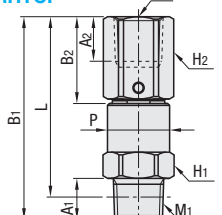
**Specifications**

Applicable Fluid	Air, Water, Oil
Operating Temperature Range*	Air: -20 ~ 60°C Water: 0 ~ 60°C Oil: -20 ~ 60°C
Max. Operating Pressure	It applies to Maximum Operating Pressure of tubes.
Operating Vacuum Level	~100kPa

\* No Freezing

Ordering Example: Part Number - Nominal  
TCRH4 - 1

# Rotary Joints / High Rotary Joints

<b>Rotary Joints Connectors</b>	<b>RTCN</b>	
<b>Rotary Joints Elbows</b>	<b>RTCNL</b>	
<b>High Rotary Joints Straight</b>	<b>RHTCN</b>	
<b>High Rotary Joints Elbows</b>	<b>RHTCNL</b>	
<b>High Rotary Joints Bushing</b>	<b>RHTCF</b>	

Material: Brass

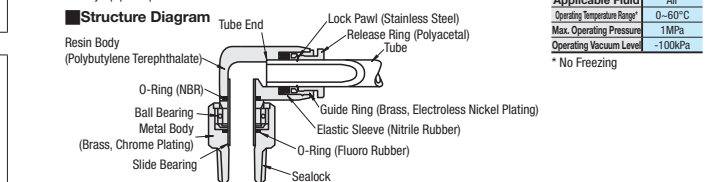
Part Number	Nominal	Thread Size	A	B	L	P	Width Across H	Allowable Revolutions (min <sup>-1</sup> )	Rotary torque (N·cm)	Effective Sectional Area (mm <sup>2</sup> )	Mass (g)	Unit Price 1 ~ 9 pc(s).	Volume Discount Rate 10~20
RTCN	4	M5	3	32.6	29.6		10	12	500	0.6	1.9	13	
		R1/8	8	34.1	30.1					3.6	14		
	6	M5	3	36.2	33.2		12.5	14	500	1.2	-	19	
		R1/8	8	38.9	32.8					9	23		
	8	1	R1/8	8	45.3	41.3						34	
		2	R1/4	11	44.3	38.3	14.5	17	400	1.5	20	32	
		3	R3/8	12	38							39	
		4	R1/2	11	58.8	52.8	17.8	22	300	2.0	35	74	
	10	2	R1/4	11	56.8	50.5						74	
		3	R3/8	12	56.8	50.5						70	

Part Number	Nominal	Thread Size	A	B	L	P	E	Width Across H	Allowable Revolutions (min <sup>-1</sup> )	Rotary torque (N·cm)	Effective Sectional Area (mm <sup>2</sup> )	Mass (g)	Unit Price 1 ~ 9 pc(s).	Volume Discount Rate 10~20	
RTCNL	4	M5	3	20.5	22.5			10	19.7	12	500	0.6	1.5	13	
		R1/8	8	22	23							2.9	15		
	6	1	R1/8	8	24	26.5			12.5	22.8	14	500	1.2	-	20
		2	R1/4	11	26	26.2							7.5	19	
	8	1	R1/8	8	31.5	34.7								24	
		2	R1/4	11	30.5	31.7	14.5	25.7	17	400	1.5	16.5	33		
		3	R3/8	12	30.5	31.4							41		
		4	R1/2	11	38.3	41	17.5	29.5	22	300	2.0	21	67		
	10	2	R1/4	11	36.3	38.7							30	63	
		3	R3/8	12	36.3	38.7							30	63	

Turning torque is the torque necessary for the joint to turn when it is free of compressed air pressure.

**Features**

- Use as handy couplings for connecting tubes to swivel and rotary parts of general pneumatic equipment.
- With ball bearings used at the rotary part, rotary joints offer suitable use for tube connecting to swivel and rotary equipment parts.



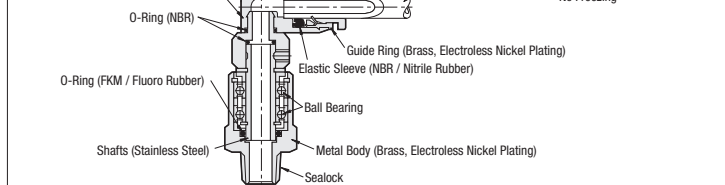
Part Number	Nominal	Thread Size	A	B1	B2	L	P1	P2	Width Across H	Allowable Revolutions (min <sup>-1</sup> )	Rotary torque (N·cm)	Effective Sectional Area (mm <sup>2</sup> )	Mass (g)	Unit Price 1 ~ 9 pc(s).	Volume Discount Rate 10~20
RHTCN	4	M5	3	43.2	22.7	40.2	11	11.6	12	1500	1.5	2.2	24		
		R1/8	8	47.7		43.7						3.4	28		
	6	1	R1/8	8	54.8	26.8	50.8	13	16.6	17	1200	1.5	12	51	
		2	R1/4	11	57.8		51.7						11.5	56	
	8	1	R1/8	8	58.1	30.1	54.1	15	16.6	17	1200	1.5	12	57	
		2	R1/4	11	61.1		55.1						12.5	63	

Part Number	Nominal	Thread Size	A	B1	B2	E	L	P1	P2	Width Across H	Allowable Revolutions (min <sup>-1</sup> )	Rotary torque (N·cm)	Effective Sectional Area (mm <sup>2</sup> )	Mass (g)	Unit Price 1 ~ 9 pc(s).	Volume Discount Rate 10~20
RHTCNL	4	M5	3	33.7	13.2	19.7	35.7	10	11.6	12	1500	1.5	2.2	21		
		R1/8	8	38.2		19.7	39.2						4.1	26		
	6	1	R1/8	8	44.5	16.5	22.8	46.7	12.5	16.6	17	1200	1.5	10	47	
		2	R1/4	11	47.5		22.8	47.7						10.5	53	
	8	1	R1/8	8	45.5	17.5	25.7	48.7	14.5	16.6	17	1200	1.5	11	50	
		2	R1/4	11	48.5		25.7	49.7						11.5	56	

Part Number	No.	M1	M2	A1	A2	B1	B2	L	P	Width Across H	Width Across E	Allowable Revolutions (min <sup>-1</sup> )	Rotary torque (N·cm)	Effective Sectional Area (mm <sup>2</sup> )	Mass (g)	Unit Price 1 ~ 9 pc(s).	Volume Discount Rate 10~20
RHTCF	11	R1/8	Rc1/8	8	9.5	47.2	19.2	43.2	16.6	17	14	1200	1.5	13.9	50		
	22	R1/4	Rc1/4	11	13.5	54.2	23.2	48.2	16.6	17	17	1200	1.5	11.2	68		
	33	R3/8	Rc3/8	12	14.5	62.1	26.6	55.8	23.6	24	22	900	2.5	47.2	133		

**Features**

- Use as handy couplings for connecting tubes to swivel and fast rotary parts of general pneumatic equipment.
- With two ball bearings used at the rotary part, rotary joints offer suitable use for tube connecting to fast-moving swivel and rotary equipment parts.



Ordering Example: Part Number - Nominal  
RTCN4 - M5  
RHTCN6 - 2