ENGINEERING YOUR SUCCESS.

Refrigerant Couplings and Fittings

Catalog O-1, October 2023

(Previously Catalog OEM-1)

信德迈公司2012年开始Parker-派克签约分销商: 信德迈科技（北京）有限公司

北京朝阳区望京 SOHO-T1-C 座 2115 室 邮编:100102

手机: 139 1096 2635 电子邮件: sales@cnmec.biz

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The user, through its own analysis and testing, is solely responsible for making the final selection of the system and components and assuring that all performance, endurance, maintenance, safety and warning requirements of the application are met. The user must analyze all aspects of the application, follow applicable industry standards, and follow the information concerning the product in the current product catalog and in any other materials provided from Parker or its subsidiaries or authorized distributors.

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Catalog O-1 Couplings, October 2023 supersedes Catalog OEM-1 Couplings, June 2017 and all prior publications.

Couplings

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5400 Series Self-Sealing Steel Couplings

Parker's 5400 self-sealing steel couplings are used in fluid-transfer applications for easy maintenance on refrigeration and air conditioning systems. The couplings also allow for pre-charging of units for easy installation. Applications can include data center cooling and battery cooling thermal management systems, along with cryogenic units.

Features and Benefits

- Self-sealing upon disconnection maintains minimum air inclusion and fluid loss.
- Field repairable allowing an internal valve to be replaced, if needed.
- Steel coupling provides durability.
- A variety of mechanical end connections available, along with sweat connections, to provide options for installation.
- Multiple sizes available, along with bulkhead mounting options, to match a coupling to a unique application.
- RoHS Compliant
- U.L. Listed

Applications

- Data Center Cooling
- Automotive including Battery Electric Vehicle Cooling
- Cryogenic systems
- General fluid-transfer applications

Specifications

U.L. Listed; File No: SA7511

All sizes are field repairable.

Standard Material:

Final Seal – Neoprene™*
Seal – Neoprene™*
Body – Zinc-plated steel
Adapter – Zinc-plated steel or brass

Temp. Rating: -40°F to +250°F
-40°C to +121°C

Compatible Refrigerants and Lubricants

Most HCFC, HFC & HFO Refrigerants
POE, PVE, AB & MO Lubricants

Base Product Part Number

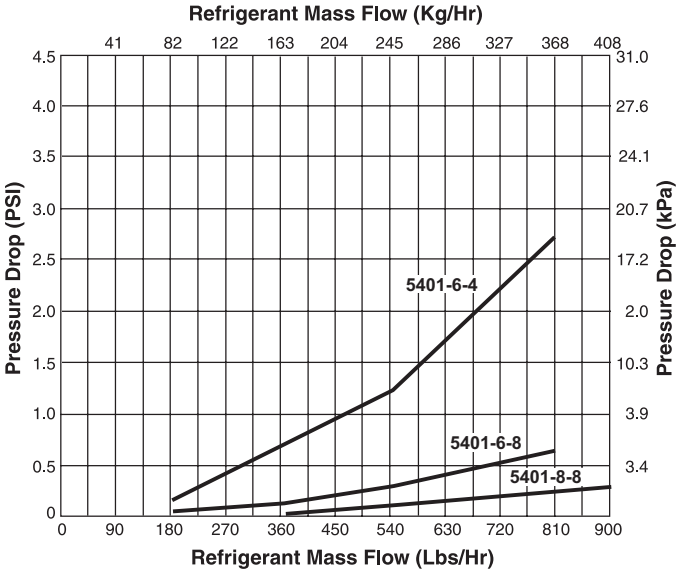
- **5400-S2** Male coupling half
- **5400-S5** Female coupling half

* Contact Parker for alternative elastomer sealing options.

Part	Operating Pressure psi (bar)	Minimum Burst Pressure psi (bar)	Air Inclusion cc/Connect	Maximum Fluid Loss cc/Disconnect	Coupled oz./yr (g./yr)	Uncoupled without Cap/Plug oz./yr (g./yr)	Uncoupled with Metal Cap/Plug oz/yr (g/yr)	Vacuum in. Hg (mm Hg)	Rated Flow gpm (lpm)
5400-S2-4 Male Half	2500 (179.5)	7500 (517)	0.1	0.05	-	< 0.5 (14.2)	< 0.25 (7.1)	-	-
5400-S5-4 Female Half	500 (34.5)	1500 (103.4)	0.1	0.05	-	< 0.5 (14.2)	< 0.25 (7.1)	-	-
Coupled Complete -4 Set	3000 (206.9)	9000 (620.7)	0.1	0.05	< 0.25 (7.1)	-	-	28 (711)	14 (52.9)
5400-S2-8 Male Half	1750 (120.7)	5200 (358.6)	0.1	0.1	-	< 0.5 (14.2)	< 0.25 (7.1)	-	-
5400-S5-8 Female Half	750 (51.7)	2250 (155)	0.1	0.1	-	< 0.5 (14.2)	< 0.25 (7.1)	-	-
Coupled Complete -8 Set	1750 (120.7)	5200 (358.6)	0.1	0.1	< 0.25 (7.1)	-	-	28 (711)	14 (52.9)
5400-S2-12 Male Half	800 (55)	2100 (144.8)	0.2	0.1	-	< 0.5 (14.2)	< 0.25 (7.1)	-	-
5400-S5-12 Female Half	750 (51.7)	2250 (155)	0.2	0.1	-	< 0.5 (14.2)	< 0.25 (7.1)	-	-
Coupled Complete -12 Set	700 (48)	2100 (144.8)	0.2	0.1	< 0.25 (7.1)	-	-	28 (711)	35 (132.4)
5400-S2-16 Male Half	700 (48)	2100 (144.8)	0.5	0.2	-	< 0.5 (14.2)	< 0.25 (7.1)	-	-
5400-S5-16 Female Half	300 (20.7)	900 (62)	0.5	0.2	-	< 0.5 (14.2)	< 0.25 (7.1)	-	-
Coupled Complete -16 Set	700 (48)	2100 (144.8)	0.5	0.2	< 0.25 (7.1)	-	-	28 (711)	75 (283.8)

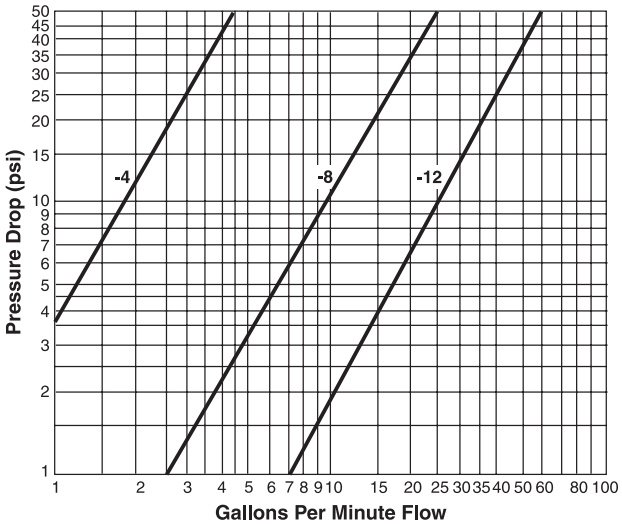
Performance Data

Liquid Line
Pressure Drop vs. Mass Flow
Refrigerant R22



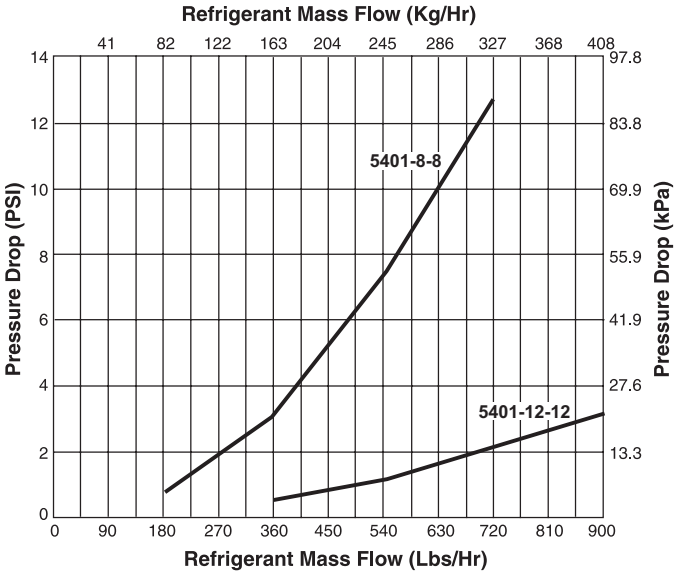
5401-6-4 — 1/4" Coupling Body (-04) with 3/8" (-06) Copper Connection, R22
5401-6-8 — 1/2" Coupling Body (-06) with 3/8" (-08) Copper Connection, R22
5401-8-8 — 1/2" Coupling Body (-08) with 1/2" (-08) Copper Connection, R22

Pressure Drop Versus Flow



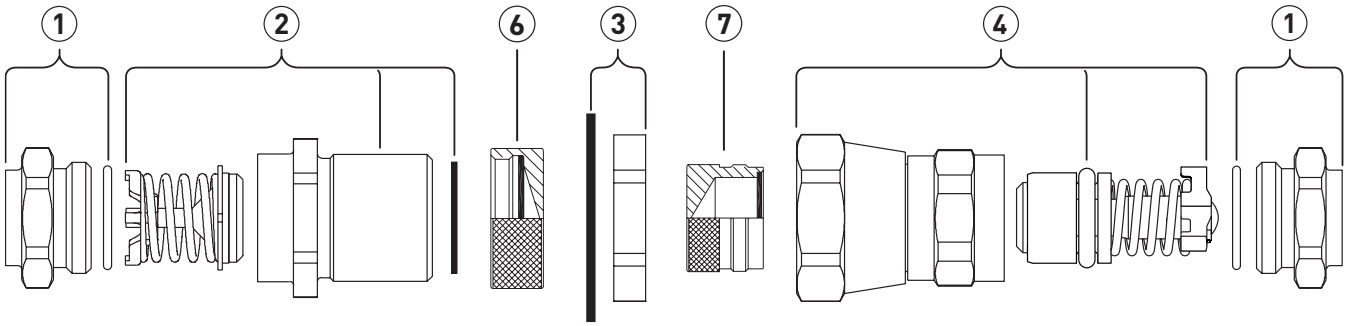
(Test Fluid MIL-H-5606 Hydraulic Oil at 100°F)

Suction Line
Pressure Drop vs. Mass Flow
Refrigerant R22



5401-8-8 — 1/2" Coupling Body (-08) with 1/2" (-08) Copper Connection, R22
5401-12-12 — 3/4" Coupling Body (-12) with 3/4" (-12) Copper Connection, R22

Components



Typical Male Coupling Half (S2)

Typical Female Coupling Half (S5)

Item I.D.	Description	Coupling Size			
		-4	-8	-12	-16
		Tube O.D. Size – Inches			
		1/4" - 3/8"	1/4" - 5/8"	5/8" - 7/8"	7/8" - 1-3/8"
1	Braze Adapter and O-Ring Kit	KIT-202208-*-4B	KIT-202208-*-8B	KIT-202208-*-12B	KIT-202208-*-16B
2	Male Coupling Half	5400-S2-4	5400-S2-8	5400-S2-12	5400-S2-16
3	Lock Washer and Jam Nut Kit	KIT-5400-4	KIT-5400-8	KIT-5400-12	KIT-5400-16
4	Female Coupling Half	5400-S5-4	5400-S5-8	5400-S5-12	5400-S5-16
6	Optional Steel Dust Cap (S2 MALE HALF ONLY)	5400-S6-4	5400-S6-8	5400-S6-12	5400-S6-16
7	Optional Steel Dust Plug (S5 FEMALE HALF ONLY)	5400-S8-4	5400-S8-8	5400-S8-12	5400-S8-16

* Specify O.D. Tubing size of adapter required in 16th of an inch.
Example: -4 coupling with 3/8" O.D. tubing = 6/16 or -6.
Part number would then be KIT-202208-6-4B (540018).

How to Order

Coupling Nomenclature

5400	-	S2	-	4
COUPLING SERIES		**HALF** S2 = Male S5 = Female		**BODY SIZE** -04 = 1/4" -08 = 1/2" -12 = 3/4" -16 = 1"

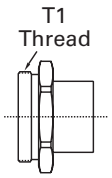
Adapter Nomenclature

202208	-	-04	-	-04
ADAPTER TYPE **202208 = Brass Braze** **202220 = Steel SAE 37° (JIC)**		**CONNECTION SIZE** -04 = 1/4" -06 = 3/8" -08 = 1/2" -10 = 5/8" -12 = 3/4" -14 = 7/8" -16 = 1" -18 = 1-1/8"		**COUPLING SIZE** -04 = 1/4" -08 = 1/2" -12 = 3/4" -16 = 1"

Dimensions - Accessories

Adapter — Braze

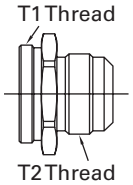
Item Number	Tube O.D. Size Inches	Coupling Size	Braze Adapter and O-Ring Kit			Thread Size T1
			Description	Kit Includes:		
				O-Ring	Brass Adapter	
540016	1/4	-4	KIT-202208-4-4B Braze Adapter	22546-12	202208-4-4B	1/2-20 UNF
540017	5/16	-4	KIT-202208-5-4B Braze Adapter	22546-12	202208-5-4B	1/2-20 UNF
540018	3/8	-4	KIT-202208-6-4B Braze Adapter	22546-12	202208-6-4B	1/2-20 UNF
540019	3/8	-8	KIT-202208-6-8B Braze Adapter	RA0486-17	202208-6-8B	7/8-20 UNEF
540020	1/2	-8	KIT-202208-8-8B Braze Adapter	RA0486-17	202208-8-8B	7/8-20 UNEF
540021	5/8	-8	KIT-202208-10-8B Braze Adapter	RA0486-17	202208-10-8B	7/8-20 UNEF
540022	5/8	-12	KIT-202208-10-12B Braze Adapter	22546-23	202208-10-12B	1-1/4-18 UNEF
540024	3/4	-12	KIT-202208-12-12B Braze Adapter	22546-23	202208-12-12B	1-1/4-18 UNEF
540026	7/8	-12	KIT-202208-14-12B Braze Adapter	22546-23	202208-14-12B	1-1/4-18 UNEF
540028	7/8	-16	KIT-202208-14-16B Braze Adapter	22546-28	202208-14-16B	1-19/32-20 UNS
540029	1	-16	KIT-202208-16-16B Braze Adapter	22546-28	202208-16-16B	1-19/32-20 UNS
540030	1-1/8	-16	KIT-202208-18-16B Braze Adapter	22546-28	202208-18-16B	1-19/32-20 UNS
540031	1-3/8	-16	KIT-202208-22-16B Braze Adapter	22546-28	202208-22-16B	1-19/32-20 UNS



O-Ring Required

Adapter — SAE 37° (JIC)

Item Number	Tube O.D. Size Inches	Coupling Size	SAE Adapter and O-Ring Kit			Thread Size T1	Thread Size T2
			Description	Kit Includes:			
				O-Ring	Steel Adapter		
540032	3/8	-4	KIT-202220-6-4S SAE Adapter	22546-12	202220-6-4S	1/2-20 UNF	9/16-18 UNF
540033	3/8	-8	KIT-202220-6-8S SAE Adapter	RA0486-17	202220-6-8S	7/8-20 UNEF	9/16-18 UNF
540034	1/2	-8	KIT-202220-8-8S SAE Adapter	RA0486-17	202220-8-8S	7/8-20 UNEF	3/4-16 UNF
540035	5/8	-12	KIT-202220-10-12S SAE Adapter	22546-23	202220-10-12S	1-1/4-18 UNEF	7/8-14 UNF
540036	3/4	-12	KIT-202220-12-12S SAE Adapter	22546-23	202220-12-12S	1-1/4-18 UNEF	1-1/16-12 UN
540037	1	-16	KIT-202220-16-16S SAE Adapter	22546-28	202220-16-16S	1-19/32-20 UNS	1-5/16-12 UN

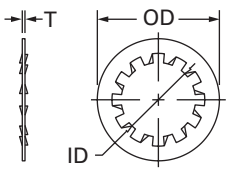


O-Ring Required

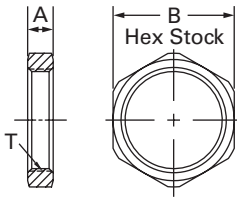
Lock Washer and Jam Nut

Item Number	Coupling Size	Lock Washer and Jam Nut Kit								
		Description	Kit Includes:							
			Lock Washer				Jam Nut			
			Part Number	T	ID	OD	Part Number	A	B	T Thread
540038	-4	KIT-5400-4S Jam Nut & Lock Washer	5400-54-4S	0.045	0.645	1.052	5400-53-4S	0.25	3/4	5/8-18 UNF-2B
540039	-8	KIT-5400-8S Jam Nut & Lock Washer	5400-54-8S	0.063	1.020	1.625	5400-53-8S	0.25	1-3/16	1-20 UNEF-2B
540040	-12	KIT-5400-12S Jam Nut & Lock Washer	5400-54-12S	0.055	1.520	2.500	5400-53-12S	0.31	1-9/16	1-7/16-16 UN-2B
540041	-16	KIT-5400-16S Jam Nut & Lock Washer	5400-54-16S	0.055	1.770	2.625	5400-53-16S	0.31	2	1-3/4-16 UN-2B

Lock Washer



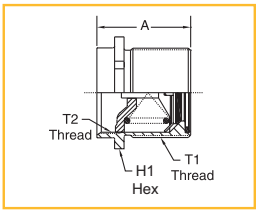
Jam Nut



Dimensions - Coupling, No Adapter

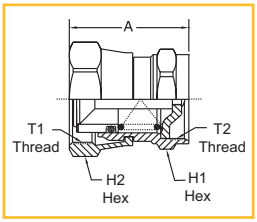
5400-S2 Male Coupling Half — No Adapter

Item Number	Description	Coupling Size	T1 Thread	A		H1 Hex		T2 Thread
				in.	mm	in.	mm	
540000	5400-S2-4 Male	-4	5/8-18 UNF	1.08	27.4	0.75	19.0	1/2-20 UNF
540001	5400-S2-8 Male	-8	1-20 UNEF	1.37	34.8	1.13	28.7	7/8-20 UNEF
540002	5400-S2-12 Male	-12	1-7/16-16 UN	1.74	44.2	1.63	41.4	1-1/4-18 UNEF
540003	5400-S2-16 Male	-16	1-3/4-16 UN	1.83	46.4	1.88	47.7	1-19/32-20 UNS



5400-S5 Female Coupling Half — No Adapter

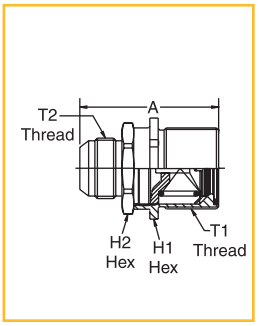
Item Number	Description	Coupling Size	T1 Thread	A		H1 Hex		H2 Hex		T2 Thread
				in.	mm	in.	mm	in.	mm	
540004	5400-S5-4 Female	-4	5/8-18 UNF	1.16	29.5	0.63	16.0	0.75	19.0	1/2-20 UNF
540005	5400-S5-8 Female	-8	1-20 UNEF	1.63	41.4	1.00	25.4	1.19	30.2	7/8-20 UNEF
540006	5400-S5-12 Female	-12	1-7/16-16 UN	2.13	54.1	1.38	35.0	1.63	41.4	1-1/4-18 UNEF
540007	5400-S5-16 Female	-16	1-3/4-16 UN	2.37	60.2	1.75	44.4	2.00	50.8	1-19/32-20 UNS



5410 Dimensions - Coupling with SAE 37° (JIC)

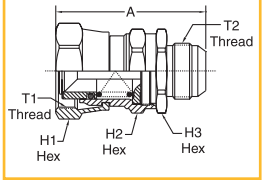
5410-S17 Male Coupling Half — SAE 37° (JIC)

Part Number	Adapter Size	Coupling Size	T1 Thread	SELLABLE ITEMS NEEDED TO ASSEMBLE		A		H1 Hex		H2 Hex		T2 Thread
				Base Coupling	Adapter & O-Ring	in.	mm	in.	mm	in.	mm	
5410-S17-6-4	-6	-4	5/8-18 UNF	5400-S2-4	KIT-202220-6-4S	1.89	48.0	0.75	19.0	0.63	16.0	9/16-18 UNF
5410-S17-6-8	-6	-8	1-20 UNEF	5400-S2-8	KIT-202220-6-8S	2.18	55.3	1.13	28.7	1.00	25.4	9/16-18 UNF
5410-S17-8-8	-8	-8	1-20 UNEF	5400-S2-8	KIT-202220-8-8S	2.28	57.9	1.13	28.7	1.00	25.4	3/4-16 UNF
5410-S17-10-12	-10	-12	1-7/16-16 UN	5400-S2-12	KIT-202220-10-12S	2.75	69.8	1.63	41.4	1.38	35.0	7/8-14 UNF
5410-S17-12-12	-12	-12	1-7/16-16 UN	5400-S2-12	KIT-202220-12-12S	2.86	72.6	1.63	41.4	1.38	35.0	1 1/16-12 UN
5410-S17-16-16	-16	-16	1-3/4-16 UN	5400-S2-16	KIT-202220-16-16S	2.99	75.9	1.88	47.7	1.75	44.4	1 5/16-12 UN



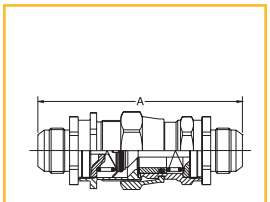
5410-S14 Female Coupling Half — SAE 37° (JIC)

Part Number	Adapter Size	Coupling Size	T1 Thread	SELLABLE ITEMS NEEDED TO ASSEMBLE		A		H1		H2 Hex		H3 Hex		T2 Thread
				Base Coupling	Adapter & O-Ring	in.	mm	in.	mm	in.	mm	in.	mm	
5410-S14-6-4	-6	-4	5/8-18 UNF	5400-S5-4	KIT-202220-6-4S	1.13	28.7	0.63	16.0	0.75	19.0	0.63	16.0	9/16-18 UNF
5410-S14-6-8	-6	-8	1-20 UNEF	5400-S5-8	KIT-202220-6-8S	1.63	41.4	1.00	25.4	1.19	30.2	1.00	25.4	9/16-18 UNF
5410-S14-8-8	-8	-8	1-20 UNEF	5400-S5-8	KIT-202220-8-8S	1.63	41.4	1.00	25.4	1.19	30.2	1.00	25.4	3/4-16 UNF
5410-S14-10-12	-10	-12	1-7/16-16 UN	5400-S5-12	KIT-202220-10-12S	2.15	54.6	1.38	35.0	1.63	41.4	1.38	35.0	7/8-14 UNF
5410-S14-12-12	-12	-12	1-7/16-16 UN	5400-S5-12	KIT-202220-12-12S	2.15	54.6	1.38	35.0	1.63	41.4	1.38	35.0	1 1/16-12 UN
5410-S14-16-16	-16	-16	1-3/4-16 UN	5400-S5-16	KIT-202220-16-16S	2.37	60.2	1.75	44.4	2.00	50.8	1.75	44.4	1 5/16-12 UN



5410 Coupled Complete Set — SAE 37° (JIC)

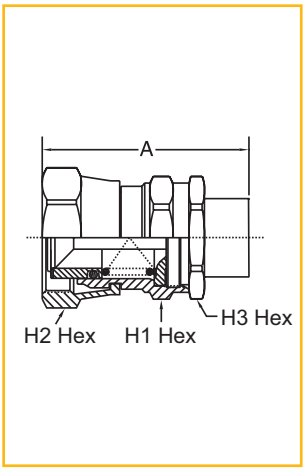
Part Number	Adapter Size	Coupling Size	SELLABLE ITEMS NEEDED TO ASSEMBLE		A	
			5410-S14	5410-S17	in.	mm
5410-6-4	-6	-4	5410-S14-6-4	5410-S17-6-4	3.54	89.9
5410-6-8	-6	-8	5410-S14-6-8	5410-S17-6-8	4.23	107.4
5410-8-8	-8	-8	5410-S14-8-8	5410-S17-8-8	4.44	112.7
5410-10-12	-10	-12	5410-S14-10-12	5410-S17-10-12	5.31	134.9
5410-12-12	-12	-12	5410-S14-12-12	5410-S17-12-12	5.54	140.7
5410-16-16	-16	-16	5410-S14-16-16	5410-S17-16-16	5.89	149.6



5401 Dimensions - Coupling with Braze Adapter

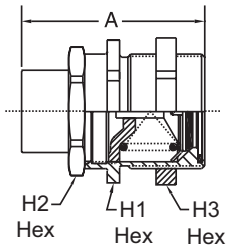
5401-S17 Male Coupling Half — Braze Tubing Adapter and Jam Nut

Part Number	Copper Size Inches	Coupling Size	SELLABLE ITEMS NEEDED TO ASSEMBLE		A		H1 Hex		H2 Hex		H3 Hex	
			Base Coupling	Adapter & O-Ring	in.	mm	in.	mm	in.	mm	in.	mm
5401-S17-4-4	1/4 (-4)	-4	5400-S2-4	KIT-202208-4-4B	1.52	38.6	0.75	19.0	0.63	16.0	0.75	19.0
5401-S17-6-4	3/8 (-6)	-4	5400-S2-4	KIT-202208-6-4B	1.52	38.6	0.75	19.0	0.63	16.0	0.75	19.0
5401-S17-6-8	3/8 (-6)	-8	5400-S2-8	KIT-202208-6-8B	1.75	44.4	1.13	28.7	1.00	25.4	1.19	30.2
5401-S17-8-8	1/2 (-8)	-8	5400-S2-8	KIT-202208-8-8B	1.75	44.4	1.13	28.7	1.00	25.4	1.19	30.2
5401-S17-10-8	5/8 (-10)	-8	5400-S2-8	KIT-202208-10-8B	1.75	44.4	1.13	28.7	1.00	25.4	1.19	30.2
5401-S17-10-12	5/8 (-10)	-12	5400-S2-12	KIT-202208-10-12B	2.47	62.7	1.63	41.4	1.38	35.0	1.56	39.6
5401-S17-12-12	3/4 (-12)	-12	5400-S2-12	KIT-202208-12-12B	2.47	62.7	1.63	41.4	1.38	35.0	1.56	39.6
5401-S17-14-12	7/8 (-14)	-12	5400-S2-12	KIT-202208-14-12B	2.47	62.7	1.63	41.4	1.38	35.0	1.56	39.6
5401-S17-14-16	7/8 (-14)	-16	5400-S2-16	KIT-202208-14-16B	2.80	71.1	1.88	47.7	1.75	44.4	2.00	50.8
5401-S17-16-16	1 (-16)	-16	5400-S2-16	KIT-202208-16-16B	2.80	71.1	1.88	47.7	1.75	44.4	2.00	50.8
5401-S17-18-16	1-1/8 (-18)	-16	5400-S2-16	KIT-202208-18-16B	2.80	71.1	1.88	47.7	1.75	44.4	2.00	50.8



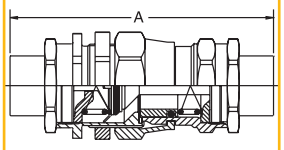
5401-S14 Female Coupling Half — Braze Tubing Adapter

Part Number	Copper Size Inches	Coupling Size	SELLABLE ITEMS NEEDED TO ASSEMBLE		A		H1 Hex		H2 Hex		H3 Hex	
			Base Coupling	Adapter & O-Ring	in.	mm	in.	mm	in.	mm	in.	mm
5401-S14-4-4	1/4 (-4)	-4	5400-S5-4	KIT-202208-4-4B	1.60	40.6	0.63	16.0	0.75	19.0	0.63	16.0
5401-S14-6-4	3/8 (-6)	-4	5400-S5-4	KIT-202208-6-4B	1.60	40.6	0.63	16.0	0.75	19.0	0.63	16.0
5401-S14-6-8	3/8 (-6)	-8	5400-S5-8	KIT-202208-6-8B	2.00	50.8	1.00	25.4	1.19	30.2	1.00	25.4
5401-S14-8-8	1/2 (-8)	-8	5400-S5-8	KIT-202208-8-8B	2.00	50.8	1.00	25.4	1.19	30.2	1.00	25.4
5401-S14-10-8	5/8 (-10)	-8	5400-S5-8	KIT-202208-10-8B	2.00	50.8	1.00	25.4	1.19	30.2	1.00	25.4
5401-S14-10-12	5/8 (-10)	-12	5400-S5-12	KIT-202208-10-12B	2.86	72.5	1.38	35.0	1.63	41.4	1.38	35.0
5401-S14-12-12	3/4 (-12)	-12	5400-S5-12	KIT-202208-12-12B	2.86	72.5	1.38	35.0	1.63	41.4	1.38	35.0
5401-S14-14-12	7/8 (-14)	-12	5400-S5-12	KIT-202208-14-12B	2.86	72.5	1.38	35.0	1.63	41.4	1.38	35.0
5401-S14-14-16	7/8 (-14)	-16	5400-S5-16	KIT-202208-14-16B	3.34	84.8	1.75	44.4	2.00	50.8	1.75	44.4
5401-S14-16-16	1 (-16)	-16	5400-S5-16	KIT-202208-16-16B	3.34	84.8	1.75	44.4	2.00	50.8	1.75	44.4
5401-S14-18-16	1-1/8 (-18)	-16	5400-S5-16	KIT-202208-18-16B	3.34	84.8	1.75	44.4	2.00	50.8	1.75	44.4



5401 Coupled Complete Set — Braze Tubing Adapter

Part Number	Copper Size Inches	Coupling Size	SELLABLE ITEMS NEEDED TO ASSEMBLE		A	
			401-S14 P/N	5401-S17 P/N	in.	mm
5401-4-4	1/4 (-4)	-4	5401-S14-4-4	5401-S17-4-4	2.85	72.4
5401-6-4	3/8 (-6)	-4	5401-S14-6-4	5401-S17-6-4	2.85	72.4
5401-6-8	3/8 (-6)	-8	5401-S14-6-8	5401-S17-6-8	3.37	85.6
5401-8-8	1/2 (-8)	-8	5401-S14-8-8	5401-S17-8-8	3.37	85.6
5401-10-8	5/8 (-10)	-8	5401-S14-10-8	5401-S17-10-8	3.37	85.6
5401-10-12	5/8 (-10)	-12	5401-S14-10-12	5401-S17-10-12	4.74	120.4
5401-12-12	3/4 (-12)	-12	5401-S14-12-12	5401-S17-12-12	4.74	120.4
5401-14-12	7/8 (-14)	-12	5401-S14-14-12	5401-S17-14-12	4.74	120.4
5401-14-16	7/8 (-14)	-16	5401-S14-14-16	5401-S17-14-16	5.52	140.2
5401-16-16	1 (-16)	-16	5401-S14-16-16	5401-S17-16-16	5.52	140.2
5401-18-16	1-1/8 (-18)	-16	5401-S14-18-16	5401-S17-18-16	5.52	140.2



Assembly Instructions

Step 1
After tubing or hose has been connected to adapters** from kit (1) and (5), install adapter O-rings from kit (1) and (5)* on adapters. Be sure O-rings are not twisted.

Step 2
Generously lubricate adapter O-rings from kit (1) and (5) with the system lubricant to prevent them from scuffing and tearing when coupling body is threaded on adapter.

Step 3
Adapter to S2 Male Coupling Half Connection

A. Lubricate the gasket material on the face of the male half (2) with system lubricant. If not already, re-insert internals of the male half into the male coupling body (2). Tighten body of coupling (2) on adapter from kit (1).

B. After body and adapter make metal-to-metal contact, torque to the value shown in the "Torque Values" table.

Step 4
Adapter to S5 Female Coupling Half Connection

A. Lubricate O-ring located on the internal assembly inside of female coupling half (4) liberally with system lubricant. Re-insert internals of the female coupling into the body (8). Tighten coupling body (4) on adapter (5).

B. After body and adapter make metal-to-metal contact, torque to the value shown in the "Torque Values" table.

Step 5
Coupling Connection

A. Generously lubricate the gasket seal on the face of the 5400-S2 male coupling half (2) with the system lubricant.

B. Thread the union nut of the female coupling (4) onto the male coupling half (2). Tighten union nut to torque values shown in the "Torque Values" table.

IMPORTANT - DO NOT rotate the S5 female coupling half body during connection.

C. After the coupling halves are seated, keep the bodies of the S2 male coupling half (2) and that of the S5 female coupling half (4) from rotating and tighten the union nut to the torque values shown in the "Torque Values" table.

IMPORTANT - DO NOT rotate the S2 or S5 coupling half body during connection.

Bulkhead Mounting — S2 Half

Install lock washer from kit (3) on S2 half (2), insert S2 male coupling half through bulkhead, and tighten jam nut from kit (3) so that lock washer teeth are fully compressed.

Note: Lock washer from kit (3) must be between hex of S2 male half and bulkhead.

IMPORTANT - Generous lubrication is required for all gaskets and O-rings. Lubrication should match system oil and be compatible with refrigerant system.

* Specify O.D. Tubing size of adapter required in 16th of an inch. Example: -4 coupling with 3/8" O.D. tubing = 6/16 or -6. Part number is then 202208-6-4B.

** Contact Parker Sales for alternative adapter sizes or connections.

Maximum Bulkhead Thickness

Coupling Size	Lock Washer Installed		Lock Washer Not Used	
	Inches	mm	Inches	mm
-4	0.21	5.33	0.26	6.60
-8	0.14	3.55	0.20	5.08
-12	0.23	5.84	0.29	7.36
-16	0.10	2.54	0.16	4.06

Recommended Torque Values

Dash Size	S2 Half to S5 Half	
	ft - lbs	N.m
-4	10 - 12	13.6 - 16.3
-8	35 - 37	47.5 - 50.2
-12	45 - 47	61.0 - 63.7
-16	65 - 67	88.1 - 90.8

Adapter Torque Value

Dash Size	Adapter Braze (Brass)		Adapter Non-Braze (Steel)	
	ft - lbs	N.m	ft - lbs	N.m
-4	6 - 8	8.1 - 10.8	12 - 15	16.3 - 20.3
-8	15 - 20	20.3 - 27.1	35 - 45	47.5 - 61.0
-12	35 - 40	47.5 - 54.2	45 - 55	61.0 - 74.6
-16	50 - 60	67.8 - 81.3	55 - 65	74.6 - 88.1

Recommended Jam Nut Torque Values

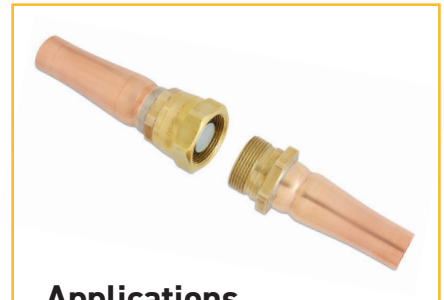
Dash Size	S2 Half to Bulkhead	
	ft - lbs	N.m
-4	18 - 22	24.4 - 28.9
-8	56 - 60	75.9 - 81.3
-12	71 - 75	96.3 - 101.7
-16	101 - 1105	136.9 - 142.4

5500 Series Self-Sealing Brass Coupling

Parker's 5500 self-sealing brass couplings allow for pre-charging of AC and heat pump systems. The couplings provide for easy maintenance and installation on refrigeration and air conditioning systems. Applications can also include marine refrigeration and air conditioning systems, split refrigeration, and portable cooling solutions.

Features and Benefits

- Self-sealing upon disconnection maintains minimum air inclusion and fluid loss.
- Brass coupling body provides corrosion resistance.
- Final metal-to-metal seal prevents refrigerant loss.
- Copper-sweat connections provide basic ends for brazing and eliminate the need for flux, simplifying the installation process.
- Panel mounting options are available for the unique needs of a unit.
- RoHS Compliant
- U.L. Listed



Applications

- Portable split-system air conditioners
- Split refrigeration systems
- Marine refrigeration systems
- Refrigerated dry cleaning systems
- Beverage systems

Specifications

U.L. Listed; File No: SA7511

Standard Material:

Seal – Neoprene™*
Body – Brass
Connctions – Copper

Temp. Rating: -40°F to +250°F
-40°C to +121°C

* Contact Parker for alternative elastomer sealing options.

Compatible Refrigerants and Lubricants

Most HCFC, HFC & HFO Refrigerants
POE, PVE, AB & MO Lubricants

Base Product Part Number

- **5502** Male coupling half
- **5505** Female coupling half

Part	Operating Pressure psi (bar)	Minimum Burst Pressure psi (bar)	Air Inclusion cc/Connect	Maximum Fluid Loss cc/Disconnect	Coupled oz./yr (g./yr)	Uncoupled without Cap/Plug oz./yr (g./yr)	Uncoupled with Metal Cap/Plug oz/yr (g/yr)	Vacuum in. Hg (mm Hg)	Rated Flow gpm (lpm)
5502 Male & Body Size -06	750 (51.7)	2700 (186)	0.15	0.1	-	< 0.5 (14.2)	*	-	-
5505 Female & Body Size -06	600 (41)	1800 (124)	0.15	0.1	-	< 0.5 (14.2)	*	-	-
Coupled Complete -06 Set	750 (51.7)	2700 (186)	0.15	0.1	< 0.1 (2.8)	-	-	28 (711)	14 (52.9)
5502 Male & Body Size -08	750 (51.7)	2700 (186)	0.1	0.1	-	< 0.5 (14.2)	< 0.25 (7.1)	-	-
5505 Female & Body Size -08	600 (41)	2250 (155)	0.1	0.1	-	< 0.5 (14.2)	< 0.25 (7.1)	-	-
Coupled Complete -08 Set	750 (51.7)	2700 (186)	0.1	0.1	< 0.1 (2.8)	-	-	28 (711)	14 (52.9)
5502 Male & Body Size -12	750 (51.7)	2700 (186)	0.2	0.3	-	< 0.5 (14.2)	< 0.25 (7.1)	-	-
5505 Female & Body Size -12	750 (51.7)	2250 (155)	0.2	0.3	-	< 0.5 (14.2)	< 0.25 (7.1)	-	-
Coupled Complete -12 Set	750 (51.7)	2700 (186)	0.2	0.3	< 0.1 (2.8)	-	-	28 (711)	35 (132.4)
5502 Male & Body Size -16	750 (51.7)	2700 (186)	0.4	0.2	-	< 0.5 (14.2)	< 0.25 (7.1)	-	-
5505 Female & Body Size -16	333 (23)	1000 (70)	0.4	0.2	-	< 0.5 (14.2)	< 0.25 (7.1)	-	-
Coupled Complete -16 Set	750 (51.7)	2700 (186)	0.4	0.2	< 0.1 (2.8)	-	-	28 (711)	75 (283.8)

*Protective metal cap/plug not available for -06 coupling body size.

How to Order

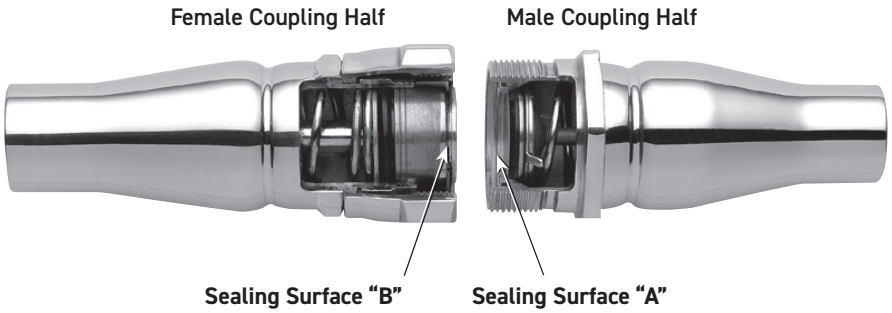
Nomenclature

5502	-	04	B	-	06
COUPLING SERIES and HALF 5502 = Male Coupling Half 5505 = Female Coupling Half		**CONNECTION SIZE** -04 = 1/4″ -06 = 3/8″ -08 = 1/2″ -10 = 5/8″ -12 = 3/4″ -14 = 7/8″ -16 = 1″ -18 = 1-1/8″	**CAP / PLUG** Cap if 5502 Male Half Plug if 5505 Female half B = Plastic Cap or Plug		**BODY SIZE** -06 = 3/8″ -08 = 1/2″ -12 = 3/4″ -16 = 1″

How It Operates

Disconnected

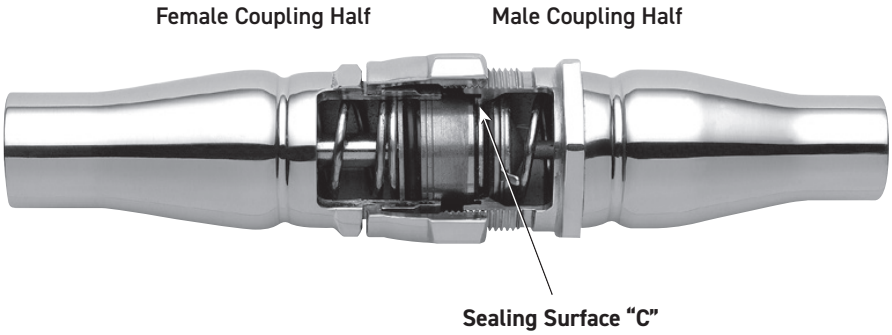
When disconnected, spring-loaded valve assemblies in the male and female coupling halves are sealed to prevent refrigerant loss and the inclusion of air or foreign materials. A spring in the male coupling half presses the bonded poppet against sealing surface “A” of the coupling body. Likewise, a spring in the female coupling half presses the sleeve against sealing surface “B” of the stem valve head. An O-ring on the female sleeve prevents leakage between the sleeve and coupling body.



Partially Connected

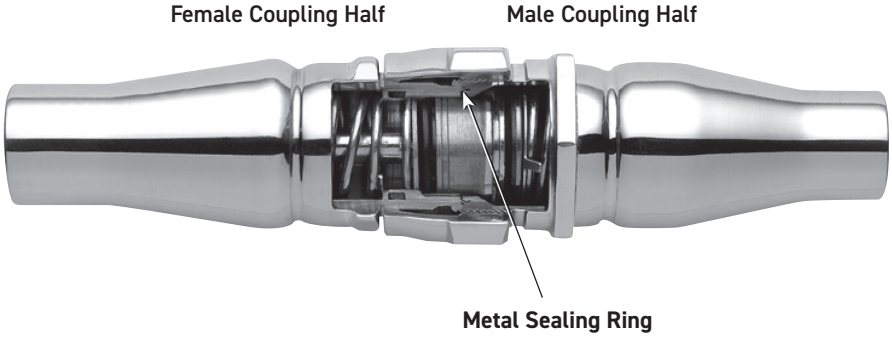
As the two coupling halves are threaded together, sealing surface “C” of the male coupling body contacts the bonded seal of the female coupling’s sleeve assembly.

At the same time, the stem valve head in the female coupling assembly contacts the male coupling’s bonded poppet, forcing air out of the coupling. During this stage, both coupling halves are sealed, preventing leakage of refrigerant.



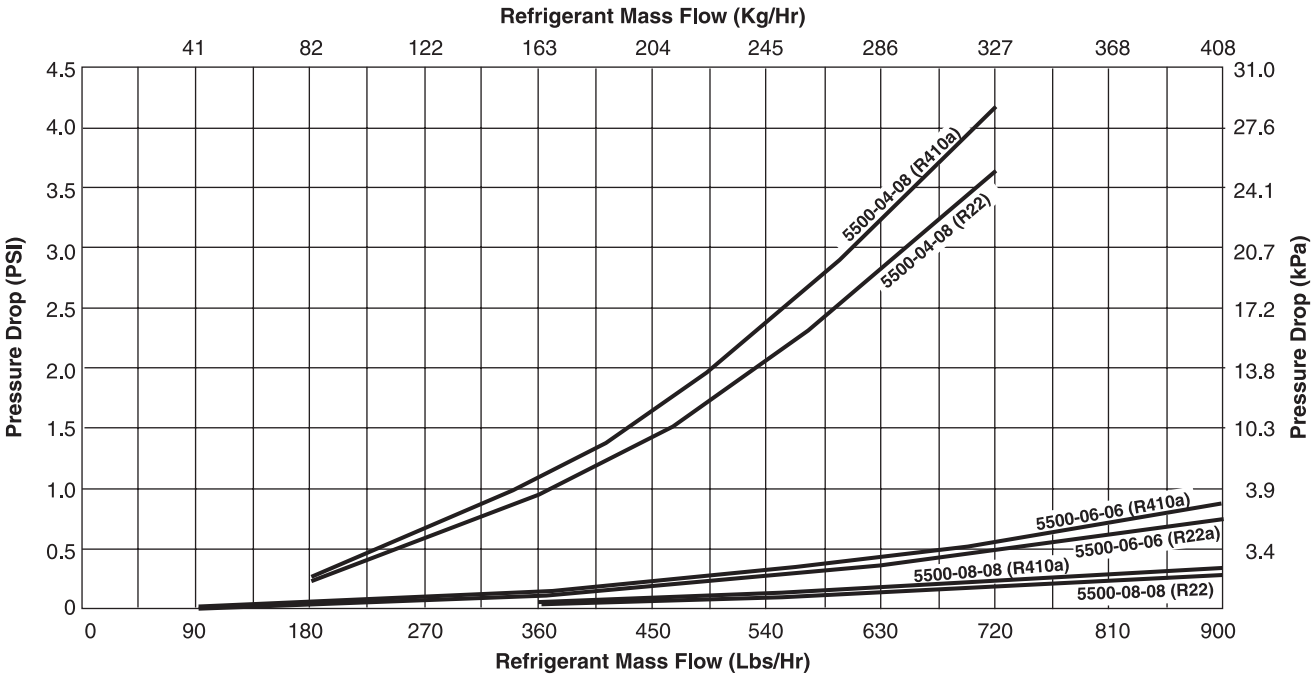
Fully Connected

Continued tightening of the union nut (female coupling) draws the couplings together, and opens the fluid passage by forcing the male coupling’s poppet assembly and the female coupling’s sleeve assembly open. When fully coupled a metal ring located in the front of the male coupling, forms a leak-free metal to metal seal between the two coupling halves.



Flow Data

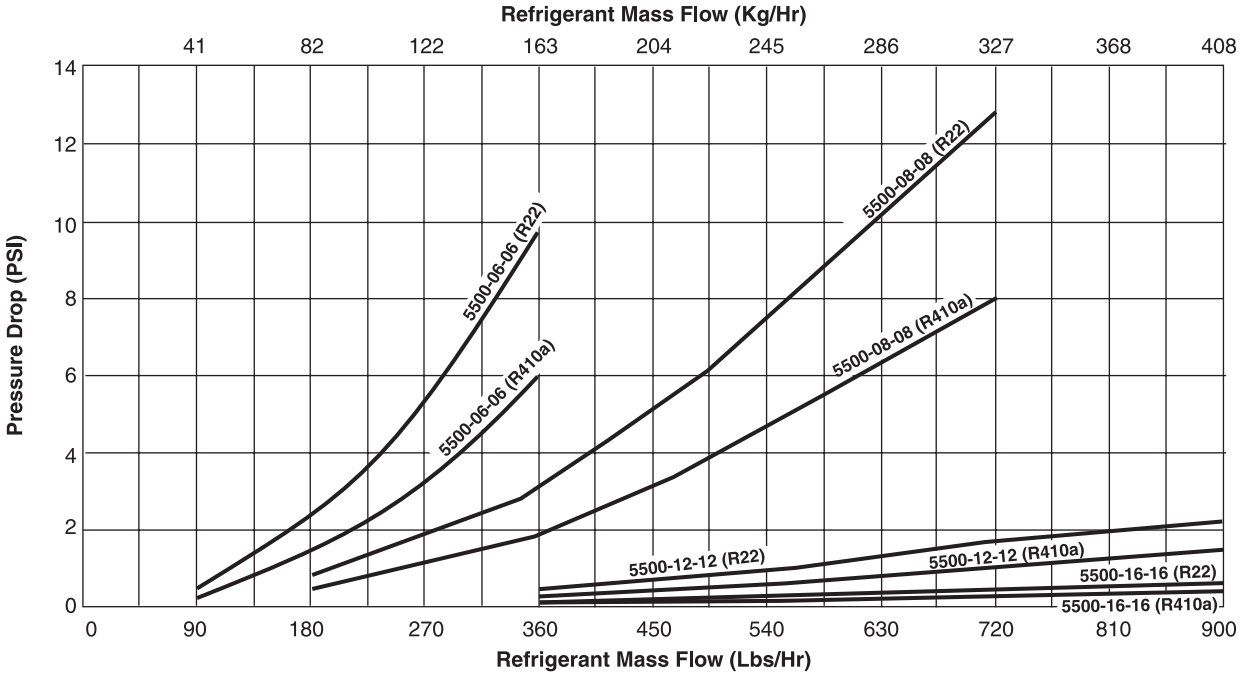
Liquid Line Pressure Drop vs. Mass Flow
Refrigerant R22 and R410A



5500-04-08 — 1/2" coupling body (-08) with 1/4" (-04) copper connection, R22
5500-06-06 — 3/8" coupling body (-06) with 3/8" (-06) copper connection, R22
5500-08-08 — 1/2" coupling body (-08) with 1/2" (-08) copper connection, R22

5500-04-08 — 1/2" coupling body (-08) with 1/4" (-04) copper connection, R410a
5500-06-06 — 3/8" coupling body (-06) with 3/8" (-06) copper connection, R410a
5500-08-08 — 1/2" coupling body (-08) with 1/2" (-08) copper connection, R410a

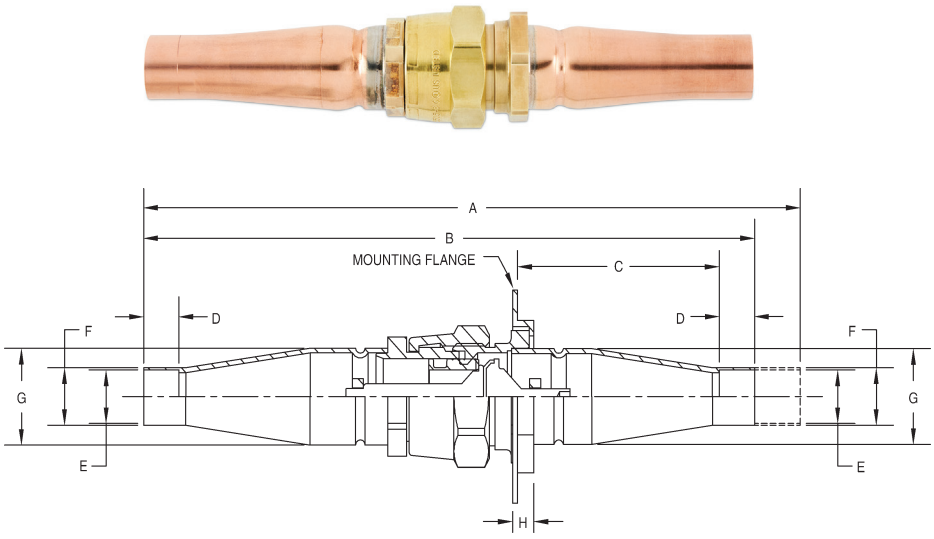
Suction Line Pressure Drop vs. Mass Flow
Refrigerant R22 and R410A



5500-06-06 — 3/8" coupling body (-06) with 3/8" (-06) copper connection, R22
5500-08-08 — 1/2" coupling body (-08) with 1/2" (-08) copper connection, R22
5500-12-12 — 3/4" coupling body (-12) with 3/4" (-12) copper connection, R22
5500-16-16 — 1" coupling body (-16) with 1" (16) copper connection, R22

5500-06-06 — 3/8" coupling body (-06) with 3/8" (-06) copper connection, R410a
5500-08-08 — 1/2" coupling body (-08) with 1/2" (-08) copper connection, R410a
5500-12-12 — 3/4" coupling body (-12) with 3/4" (-12) copper connection, R410a
5500-16-16 — 1" coupling body (-16) with 1" (16) copper connection, R410a

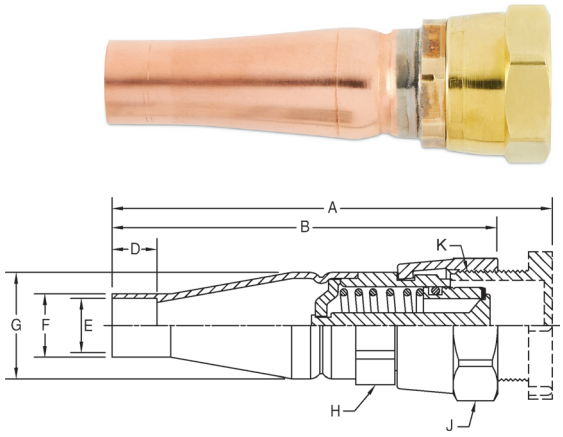
Dimensions - Coupling Assembly



Copper Connection		Coupling Body	Kit Part Number	Dimensions – Inches (mm)							
Inch (Dash Size*)	mm	Inch (Dash Size)	5500 Copper Coupling Body Size	Overall Disconnected Length	Overall Connected Length	Flange to Tube End	Connection Depth	Connection I.D.	Connection O.D.	Copper O.D.	Mounting Flange (Width)
				A	B	C	D	E	F	G	H
1/4 ODF (-04)	6.4 ODF	3/8 (-06)	N/A	5.06 (128.5)	4.77 (121.2)	N/A	0.32 (8.1)	0.25 (6.4)	0.34 (8.6)	0.71 (18.0)	N/A
3/8 ODF (-06)	9.5 ODF	3/8 (-06)	N/A	5.06 (128.5)	4.77 (121.2)	N/A	0.32 (8.1)	0.38 (9.7)	0.46 (11.7)	0.71 (18.0)	N/A
1/4 ODF (-04)	6.4 ODF	1/2 (-08)	5500-04-08	6.95 (176.5	6.56 (166.6)	2.64 (67.1)	0.31 (7.9)	0.25 (6.4)	0.38 (9.7)	0.92 (23.4)	0.23 (5.8)
3/8 ODF (-06)	9.5 ODF	1/2 (-08)	5500-06-08	6.90 (174.2)	6.51 (165.4)	2.62 (66.5)	0.31 (7.9)	0.38 (9.7)	0.47 (12.0)	0.92 (23.4)	0.23 (5.8)
1/2 ODF (-08)	12.7 ODF	1/2 (-08)	5500-08-08	6.86 (172.2)	6.47 (164.3)	2.58 (65.5)	0.38 (9.7)	0.50 (12.7)	0.59 (14.9)	0.92 (23.4)	0.23 (5.8)
5/8 ODF (-10)	15.9 ODF	1/2 (-08)	5500-10-08	6.78 (172.2)	6.39 (162.3)	2.56 (65.0)	0.38 (9.7)	0.63 (16.0)	0.71 (17.9)	0.92 (23.4)	0.23 (5.8)
5/8 ODF (-10)	15.9 ODF	3/4 (-12)	5500-10-12	7.79 (197.9)	7.24 (183.9)	2.71 (68.8)	0.50 (12.7)	0.63 (16.0)	0.75 (19.1)	1.32 (33.5)	0.23 (5.8)
3/4 ODF (-12)	19.1 ODF	3/4 (-12)	5500-12-12	7.85 (199.4)	7.30 (185.4)	2.67 (67.8)	0.62 (15.7)	0.75 (19.1)	0.86 (21.7)	1.32 (33.5)	0.23 (5.8)
7/8 ODF (-14)	22.2 ODF	3/4 (-12)	5500-14-12	7.85 (199.4)	7.30 (185.4)	2.67 (67.8)	0.75 (19.1)	0.88 (22.4)	0.97 (24.6)	1.32 (33.5)	0.23 (5.8)
7/8 ODF (-14)	22.2 ODF	1 (-16)	5500-14-16	9.33 (237.0)	8.73 (221.7)	3.34 (84.8)	0.75 (19.1)	0.88 (22.4)	1.02 (25.8)	1.68 (42.7)	0.23 (5.8)
1 ODF (-16)	25.4 ODF	1 (-16)	5500-16-16	9.46 (240.3)	8.86 (225.0)	3.42 (86.9)	0.88 (22.4)	1.00 (25.4)	1.12 (28.4)	1.68 (42.7)	0.23 (5.8)
1-1/8 ODF (-18)	28.6 ODF	1 (-16)	5500-18-16	9.45 (240.0)	8.85 (224.8)	3.42 (86.9)	0.88 (22.4)	1.13 (28.7)	1.24 (31.4)	1.68 (42.7)	0.23 (5.8)

* Dash size = copper connection size x 16

Dimensions - Female Coupling Half



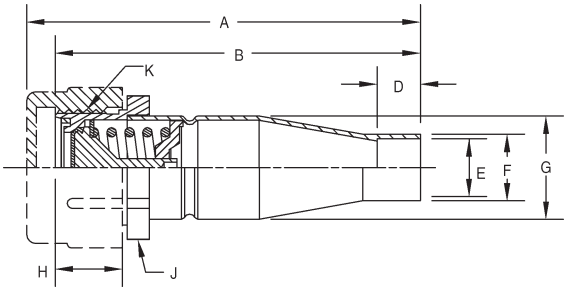
Copper Connection		Coupling Body	Part Number		Dimensions – Inches (mm)								
Inch (Dash Size*)	mm	Inch (Dash Size)	Less Plug	With Plug**	Coupling Length		Connection			Copper	Coupling Body	Union Nut Hex+	Thread Size
					With Plug		Depth	I.D.	O.D.	O.D.	Hex+		
					A	B	D	E	F	G	H	J	K
1/4 ODF (-04)	6.4 ODF	3/8 (-06)	N/A	5505-04B-06	3.14 (79.8)	2.72 (69.1)	0.32 (8.1)	0.25 (6.4)	0.34 (8.6)	0.71 (18.0)	0.75 (19.1)	0.94 (23.9)	M20-1.5
3/8 ODF (-06)	9.5 ODF	3/8 (-06)	N/A	5505-06B-06	3.14 (79.8)	2.72 (69.1)	0.32 (8.1)	0.38 (9.7)	0.46 (11.7)	0.71 (18.0)	0.75 (19.1)	0.94 (23.9)	M20-1.5
1/4 ODF (-04)	6.4 ODF	1/2 (-08)	N/A	5505-04B-08	3.80 (96.5)	3.60 (91.4)	0.31 (7.9)	0.25 (6.4)	0.38 (9.7)	0.92 (23.4)	1.00 (25.4)	1.19 (30.2)	1-20 UNEF
1/4 ODF (-04)	6.4 ODF	1/2 (-08)	N/A	5505-04S-08	3.95 (100.3)	3.60 (91.4)	0.31 (7.9)	0.25 (6.4)	0.38 (9.7)	0.92 (23.4)	1.00 (25.4)	1.19 (30.2)	1-20 UNEF
3/8 ODF (-06)	9.5 ODF	1/2 (-08)	N/A	5505-06B-08	3.85 (97.8)	3.66 (93.0)	0.31 (7.9)	0.38 (9.7)	0.47 (12.0)	0.92 (23.4)	1.00 (25.4)	1.19 (30.2)	1-20 UNEF
3/8 ODF (-06)	9.5 ODF	1/2 (-08)	N/A	5505-06S-08	4.01 (101.9)	3.66 (93.0)	0.31 (7.9)	0.38 (9.7)	0.47 (12.0)	0.92 (23.4)	1.00 (25.4)	1.19 (30.2)	1-20 UNEF
1/2 ODF (-08)	12.7 ODF	1/2 (-08)	N/A	5505-08B-08	3.85 (97.8)	3.66 (93.0)	0.38 (9.7)	0.50 (12.7)	0.59 (14.9)	0.92 (23.4)	1.00 (25.4)	1.19 (30.2)	1-20 UNEF
1/2 ODF (-08)	12.7 ODF	1/2 (-08)	N/A	5505-08S-08	4.01 (101.9)	3.66 (93.0)	0.38 (9.7)	0.50 (12.7)	0.59 (14.9)	0.92 (23.4)	1.00 (25.4)	1.19 (30.2)	1-20 UNEF
5/8 ODF (-10)	15.9 ODF	1/2 (-08)	N/A	5505-10B-08	3.88 (98.6)	3.69 (93.7)	0.50 (12.7)	0.63 (16.0)	0.71 (17.9)	0.92 (23.4)	1.00 (25.4)	1.19 (30.2)	1-20 UNEF
5/8 ODF (-10)	15.9 ODF	1/2 (-08)	N/A	5505-10S-08	4.04 (102.6)	3.69 (93.7)	0.50 (12.7)	0.63 (16.0)	0.71 (17.9)	0.92 (23.4)	1.00 (25.4)	1.19 (30.2)	1-20 UNEF
5/8 ODF (-10)	15.9 ODF	3/4 (-12)	5505-10-12	5505-10S-12	4.64 (117.9)	4.09 (103.9)	0.50 (12.7)	0.63 (16.0)	0.75 (19.1)	1.32 (33.5)	1.38 (35.1)	1.62 (30.2)	1 7/16-16 UN
3/4 ODF (-12)	19.1 ODF	3/4 (-12)	5505-12-12	5505-12S-12	4.77 (121.2)	4.19 (106.4)	0.62 (15.7)	0.75 (19.1)	0.86 (21.7)	1.32 (33.5)	1.38 (35.1)	1.62 (41.4)	1 7/16-16 UN
7/8 ODF (-14)	22.2 ODF	3/4 (-12)	5505-14-12	5505-14S-12	4.77 (121.2)	4.19 (106.4)	0.75 (19.1)	0.88 (22.4)	0.97 (24.6)	1.32 (33.5)	1.38 (35.1)	1.62 (41.4)	1 7/16-16 UN
7/8 ODF (-14)	22.2 ODF	1 (-16)	5505-14-16	5505-14S-16	5.48 (139.2)	4.96 (126.0)	0.75 (19.1)	0.88 (22.4)	1.02 (25.8)	1.68 (42.7)	1.69 (42.9)	2.00 (50.8)	1 3/4-16 UN
1 ODF (-16)	25.4 ODF	1 (-16)	5505-16-16	5505-16S-16	5.62 (142.7)	5.01 (127.3)	0.88 (22.4)	1.00 (25.4)	1.12 (28.4)	1.68 (42.7)	1.69 (42.9)	2.00 (50.8)	1 3/4-16 UN
1-1/8 ODF (-18)	28.6 ODF	1 (-16)	5505-18-16	5505-18S-16	5.52 (140.2)	5.00 (127.0)	0.88 (22.4)	1.13 (28.7)	1.24 (31.4)	1.68 (42.7)	1.69 (42.9)	2.00 (50.8)	1 3/4-16 UN

* Dash size = copper connection size x 16

** "B" in the part number denotes a plastic plug. "S" in the part number denotes a steel plug.

+ Dimension is across hex flats.

Dimensions - Male Coupling Half



Copper Connection		Coupling Body	Part Number**		Dimensions – Inches (mm)								
Inch (Dash Size*)	mm	Inch (Dash Size)	Less Cap	With Cap**	Coupling Length		Connection			Copper	Coupling Body		Thread Size
					With Cap		Depth	I.D.	O.D.	O.D.	Thread Length	Hex Diameter+	
					A	B	D	E	F	G	H	J	K
1/4 ODF (-04)	6.4 ODF	3/8 (-06)	N/A	5502-04B-06	2.58 (65.5)	2.40 (61.0)	0.32 (8.1)	0.25 (6.4)	0.34 (8.6)	0.71 (18.0)	0.49 (12.4)	0.83 (21.1)	M20-1.5
3/8 ODF (-06)	9.5 ODF	3/8 (-06)	N/A	5502-06B-06	2.58 (65.5)	2.40 (61.0)	0.32 (8.1)	0.38 (9.7)	0.46 (11.7)	0.71 (18.0)	0.49 (12.4)	0.83 (21.1)	M20-1.5
1/4 ODF (-04)	6.4 ODF	1/2 (-08)	N/A	5502-04B-08	3.23 (82.0)	3.18 (80.8)	0.31 (7.9)	0.25 (6.4)	0.38 (9.7)	0.92 (23.4)	0.62 (15.7)	1.13 (28.7)	1-20 UNEF
1/4 ODF (-04)	6.4 ODF	1/2 (-08)	N/A	5502-04S-08	3.39 (86.1)	3.18 (80.8)	0.31 (7.9)	0.25 (6.4)	0.38 (9.7)	0.92 (23.4)	0.62 (15.7)	1.13 (28.7)	1-20 UNEF
3/8 ODF (-06)	9.5 ODF	1/2 (-08)	N/A	5502-06B-08	3.25 (82.5)	3.20 (81.3)	0.31 (7.9)	0.38 (9.7)	0.47 (12.0)	0.92 (23.4)	0.62 (15.7)	1.13 (28.7)	1-20 UNEF
3/8 ODF (-06)	9.5 ODF	1/2 (-08)	N/A	5502-06S-08	3.41 (86.6)	3.20 (81.3)	0.31 (7.9)	0.38 (9.7)	0.47 (12.0)	0.92 (23.4)	0.62 (15.7)	1.13 (28.7)	1-20 UNEF
1/2 ODF (-08)	12.7 ODF	1/2 (-08)	N/A	5502-08B-08	3.28 (83.3)	3.23 (82.0)	0.38 (9.7)	0.50 (12.7)	0.59 (14.9)	0.92 (23.4)	0.62 (15.7)	1.13 (28.7)	1-20 UNEF
1/2 ODF (-08)	12.7 ODF	1/2 (-08)	N/A	5502-08S-08	3.45 (87.6)	3.23 (82.8)	0.38 (9.7)	0.50 (12.7)	0.59 (14.9)	0.92 (23.4)	0.62 (15.7)	1.13 (28.7)	1-20 UNEF
5/8 ODF (-10)	15.9 ODF	1/2 (-08)	N/A	5502-10B-08	3.31 (84.1)	3.26 (82.8)	0.50 (12.7)	0.63 (16.0)	0.71 (17.9)	0.92 (23.4)	0.62 (15.7)	1.13 (28.7)	1-20 UNEF
5/8 ODF (-10)	15.9 ODF	1/2 (-08)	N/A	5502-10S-08	3.99 (101.3)	3.26 (82.8)	0.50 (12.7)	0.63 (16.0)	0.71 (17.9)	0.92 (23.4)	0.62 (15.7)	1.13 (28.7)	1-20 UNEF
5/8 ODF (-10)	15.9 ODF	3/4 (-12)	5502-10-12	5502-10S-12	3.91 (99.3)	3.70 (93.9)	0.50 (12.7)	0.63 (16.0)	0.75 (19.1)	1.32 (33.5)	0.99 (25.1)	1.63 (41.4)	1 7/16-16 UN
3/4 ODF (-12)	19.1 ODF	3/4 (-12)	5502-12-12	5502-12S-12	3.96 (100.6)	3.75 (95.3)	0.62 (15.7)	0.75 (19.1)	0.86 (21.7)	1.32 (33.5)	0.99 (25.1)	1.63 (41.4)	1 7/16-16 UN
7/8 ODF (-14)	22.2 ODF	3/4 (-12)	5502-14-12	5502-14S-12	3.96 (100.6)	3.75 (95.3)	0.75 (19.1)	0.88 (22.4)	0.97 (24.6)	1.32 (33.5)	0.99 (25.1)	1.63 (41.4)	1 7/16-16 UN
7/8 ODF (-14)	22.2 ODF	1 (-16)	5502-14-16	5502-14S-16	4.68 (118.9)	4.37 (111.0)	0.75 (19.1)	0.88 (22.4)	1.02 (25.8)	1.68 (42.7)	1.03 (26.2)	1.88 (47.8)	1 3/4-16 UN
1 ODF (-16)	25.4 ODF	1 (-16)	5502-16-16	5502-16S-16	4.76 (120.9)	4.45 (113.0)	0.88 (22.4)	1.00 (25.4)	1.12 (28.4)	1.68 (42.7)	1.03 (26.2)	1.88 (47.8)	1 3/4-16 UN
1-1/8 ODF (-18)	28.6 ODF	1 (-16)	5502-18-16	5502-18S-16	4.76 (120.9)	4.45 (113.0)	0.88 (22.4)	1.13 (28.7)	1.24 (31.4)	1.68 (42.7)	1.03 (26.2)	1.88 (47.8)	1 3/4-16 UN

* Dash size = copper connection size x 16

** "B" in the part number denotes a plastic cap. "S" in the part number denotes a steel cap.

+ Dimension is across hex flats.

Recommended Torque Values

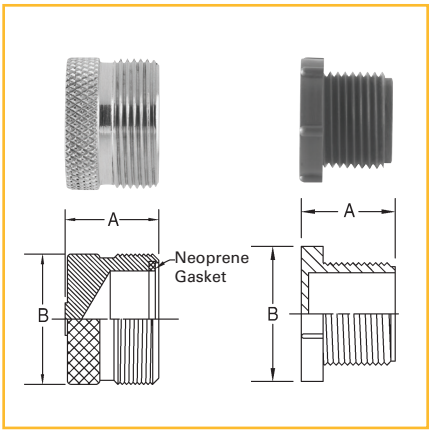
Dash Size	Male Half to Female Half	
	ft - lbs	N.m
-6	18 - 20	24.4 - 27.1
-8	30 - 35	40.7 - 47.5
-12	45 - 50	61.0 - 67.8
-16	60 - 65	81.3 - 88.1

Dimensions - Accessories

Protective Plugs

Coupling Body Size		Part Number	Dimensions – Inches (mm)	
			Length	Diameter
Inch (Dash Size*)	mm		A	B
Plastic				
3/8 (-06)	9.5	5410-06	0.72 (18.3)	1.04 (26.4)
1/2 (-08)	12.7	5410-08	0.04 (9.9)	1.20 (30.5)
Steel				
1/2 (-08)	12.7	5400-S8-08	0.72 (18.3)	1.00 (25.4)
3/4 (-12)	19.1	5400-S8-12	1.13 (28.7)	1.44 (36.6)
1 (-16)	25.4	5400-S8-16	1.25 (31.8)	1.75 (44.5)

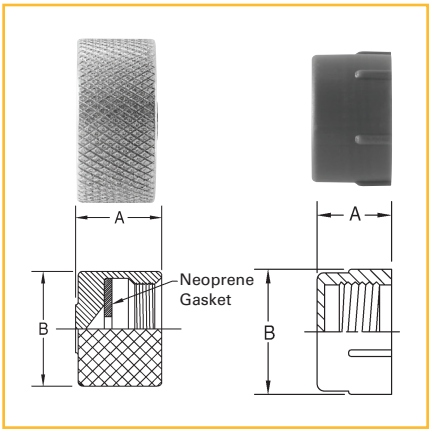
* Dash size = coupling body size x 16



Protective Caps

Coupling Body Size		Part Number	Dimensions – Inches (mm)	
			Length	Diameter
Inch (Dash Size*)	mm		A	B
Plastic				
3/8 (-06)	9.5	5409-06	0.55 (14.0)	0.93 (23.6)
1/2 (-08)	12.7	Plastic Cap	N/A	N/A
Steel				
1/2 (-08)	12.7	5400-S6-08	0.56 (14.2)	1.13 (28.7)
3/4 (-12)	19.1	5400-S6-12	0.56 (14.2)	1.63 (41.4)
1 (-16)	25.4	5400-S6-16	0.75 (19.1)	2.00 (50.8)

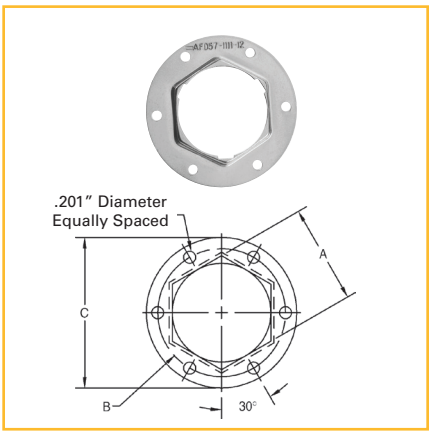
* Dash size = coupling body size x 16



Mounting Flange (Steel)

Coupling Body Size		Part Number	Dimensions – Inches (mm)		
			Hex Diameter A	Bolt Circle Diameter B	Outside Diameter C
Inch (Dash Size*)	mm				
3/8 (-06)	9.5	N/A	N/A	N/A	N/A
1/2 (-08)	12.7	150-22-08	1.13 (28.7)	1.69 (42.9)	2.00 (50.8)
3/4 (-12)	19.1	150-22-12	1.63 (41.4)	2.12 (53.9)	2.50 (63.5)
1 (-16)	25.4	150-22-16	1.88 (47.8)	2.38 (60.5)	2.75 (69.9)

* Dash size = coupling body size x 16



Bulkhead Mount Installation

Applicable for Sizes -08, -12, and -16

Bulkhead Set-up

Step 1

Drill holes in bulkhead or panel to accommodate 5502 coupling half and flange mounting screws. Remove dust cap before positioning on bulkhead. Mount male coupling in half by sliding flange over end of coupling (before brazing tubing) and attaching to bulkhead with self tapping sheet metal screws. Reinstall dust cap before brazing.

Step 2

Braze tubing ends using running water bath, chill blocks or wet rags on coupling bodies to prevent seal damage.

Step 3

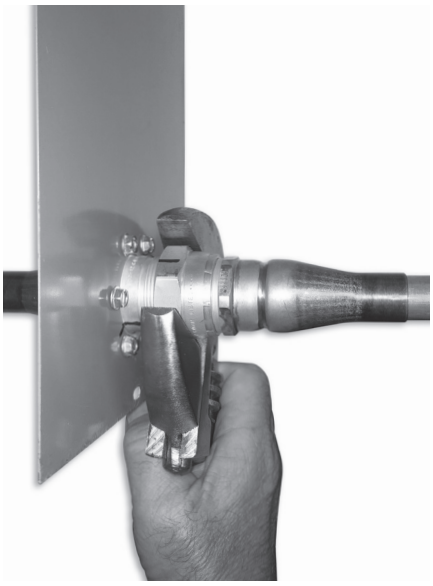
Remove dust caps and plugs if used, making sure that component synthetic seals are intact.

Step 4

Wipe off coupling seals and threaded surfaces with a clean cloth to prevent the inclusion of dirt or any foreign material in the system.

Step 5

LUBRICATE rubber seal in male half with refrigeration oil. Thread coupling halves together by hand to insure proper mating of threads. Use proper size wrenched (on coupling body hex and on union nut) and tighten until coupling bodies “bottom” or a definite resistance is felt. Using a marker or ink pen, mark a line lengthwise from the union nut to the bulkhead. Then tighten an additional 1/8 to 1/4 turn. The misalignment of the line will show the degree of tightening. This final turn is necessary to insure that the knife edge metal seal bites into the brass seat of the coupling halves, forming the leakproof joint. If torque wrench is used, use the torque values listed in the 5500 series torque specifications.



5700 Series One-Shot™ Brass Couplings

Parker's 5700 one-shot brass couplings allow for easy installation of pre-charged systems and provide nearly full flow when completely connected. Applications typically include split air conditioning systems, split heat pumps, manufactured homes, and pre-charged line sets.

Applications

- Split air conditioning systems
- Split heat pumps
- Manufactured homes

Features and Benefits

- Single-use coupling contains a diaphragm that is pierced upon connection and folded back into the coupling to provide a high flow path and low pressure drop.
- Final metal-to-metal seal prevents air inclusion.
- Brass coupling provides corrosion resistance.
- Brass sweat connections and panel-mounting options are available for the unique needs of a unit.
- Male/female charge ports can be included for easy system diagnostics.
- Stub kits (FD57) are also available with copper connections.
- RoHS compliant
- Disconnected operating pressure: vacuum to 700 psi. Connected minimum burst pressure: 2100 psi.

Specifications

U.L. Recognized; File No: SA7511

Standard Material:

Seal – Neoprene™*
Body – Brass
Connections – Brass

Temp. Rating: -40°F to +250°F
-40°C to +121°C

*Contact Parker for alternative elastomer sealing options.

Compatible Refrigerants and Lubricants

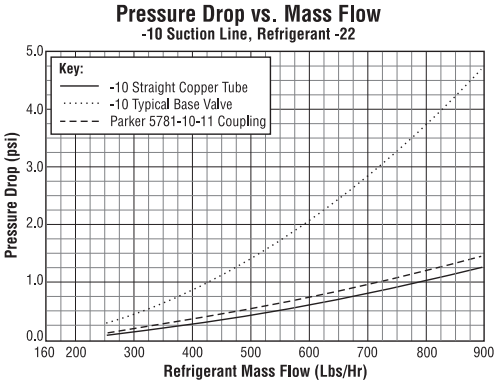
Most HCFC, HFC & HFO Refrigerants
POE, PVE, AB & MO Lubricants

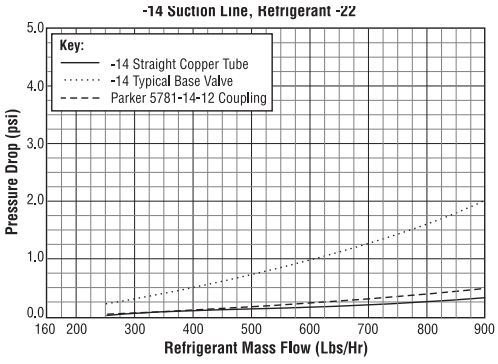
Base Product Part Number

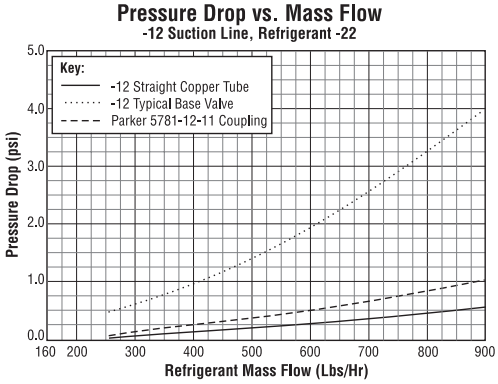
- **5780** Female coupling half without charge port
- **5781** Female coupling half with charge port
- **5782** Male coupling half without charge port
- **5783** Male coupling half with charge port

Pressure Drop Comparison

The graphs below show significant reduction in pressure drop and associated efficiency gains utilizing Parker 5700 Series Couplings vs. standard base valves.



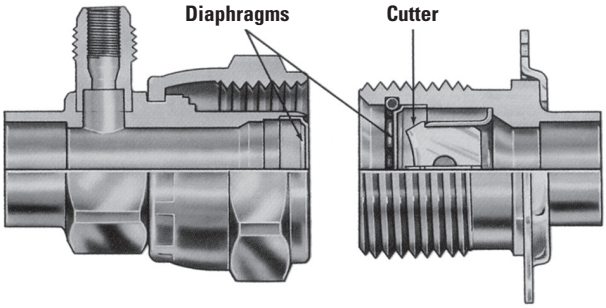




Technical Information

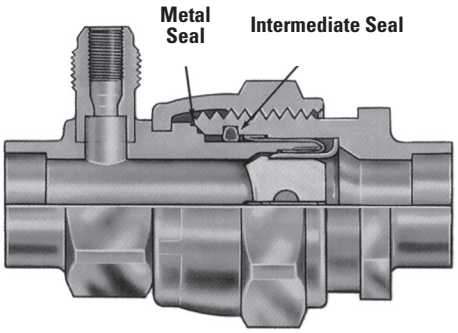
Design and Operation

A complete 5780 series coupling consists of the combination of male and female coupling halves. Either coupling half is available with or without a charging port, depending on the particular application.



Coupling Halves Before Connection

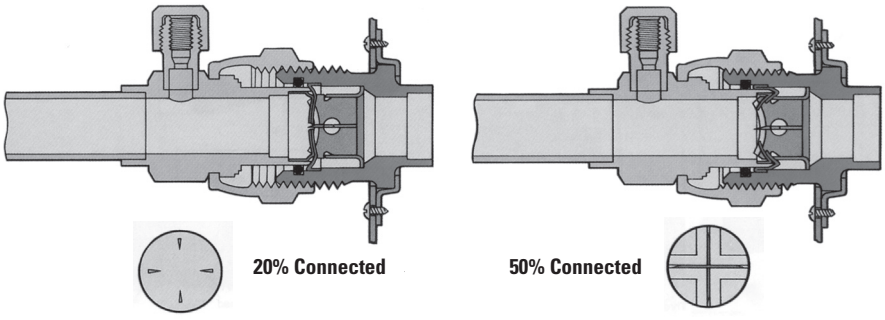
Diaphragms in the coupling halves provide a seal that prevents refrigerant loss before connection. The male half (right unit) contains a cutter blade, the metal refrigerant sealing diaphragm and intermediate synthetic rubber seal which prevent loss of refrigerant while the coupling is being connected. The female half (left unit) contains a metal diaphragm which is a leakproof metal closure.

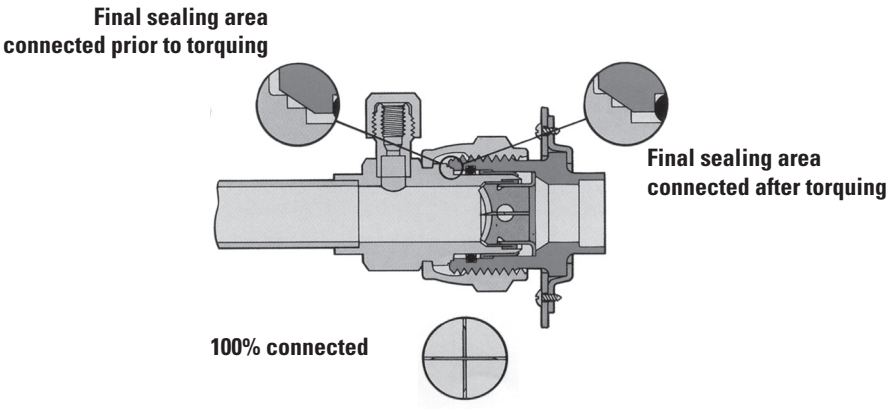


Coupling Halves Connected

Tightening the union nut draws the coupling halves together, piercing and folding both metal diaphragms back and opening the fluid passage, thereby providing minimal restriction to flow. When fully coupled, a metal seal forms a permanent leakproof joint between the two coupling halves preventing the loss of refrigerant to the atmosphere.

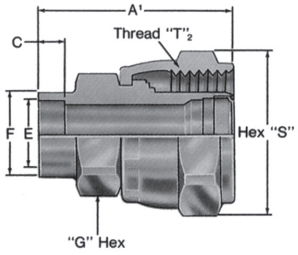
The cutaway views below show male and female coupling halves joined at 20%, 50%, and 100% connection. Note the way the cutter blades pierce the diaphragms and fold them back out of the flow path. Also note the difference in the final sealing area before and after torquing.



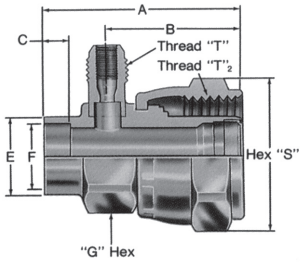


Dimensions

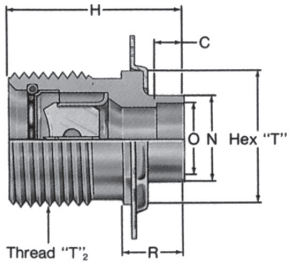
5780-Size Female Half without Charge Port



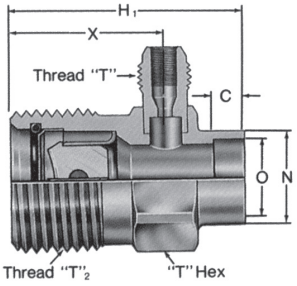
5781-Size Female Half with Charge Port



5782-Size Male Half without Charge Port



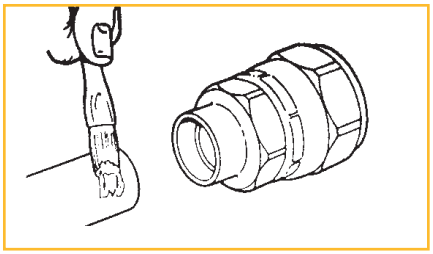
5783-Size Male Half with Charge Port



Dimensions

Basic Cplg. Size	O.D. Tubing Size Inches	Cplg. Dash Size	Thread "T"	Thread "T2"	Dimensions – Inches (mm)														
					A	A1	B	C	E	F	G	H	H1	N	O	R	S	T	X
-6	1/4	-4-6	7/16″-20	5/8″-18	1.55 (39.37)	1.30 (33.02)	1.06 (26.92)	0.19 (4.83)	0.25 (6.35)	0.38 (9.65)	0.62 (15.75)	1.21 (30.73)	1.46 (37.08)	0.38 (9.65)	0.25 (6.35)	0.50 (12.70)	0.81 (20.57)	0.75 (19.05)	0.98 (24.89)
-6	5/16	-5-6	7/16″-20	5/8″-18	1.55 (39.37)	1.30 (33.02)	1.06 (26.92)	0.19 (4.83)	0.32 (8.13)	0.44 (11.18)	0.62 (15.75)	1.21 (30.73)	1.46 (37.08)	0.44 (11.18)	0.32 (8.13)	0.50 (12.70)	0.81 (20.57)	0.75 (19.05)	0.98 (24.89)
-6	3/8	-6-6	7/16″-20	5/8″-18	1.55 (39.37)	1.30 (33.02)	1.06 (26.92)	0.19 (4.83)	0.38 (9.65)	0.50 (12.70)	0.62 (15.75)	1.21 (30.73)	1.51 (38.35)	0.50 (12.70)	0.38 (9.65)	0.50 (12.70)	0.81 (20.57)	0.75 (19.05)	0.98 (24.89)
-10	1/2	-8-10	7/16″-20	1-1/16″-12	1.81 (45.97)	1.56 (39.62)	1.24 (31.50)	0.25 (6.35)	0.50 (12.70)	0.62 (15.75)	1.00 (25.40)	1.37 (34.80)	1.66 (42.16)	0.62 (15.75)	0.50 (12.70)	0.52 (13.21)	1.31 (33.27)	1.06 (26.92)	1.10 (27.94)
-10	5/8	-10-10	7/16″-20	1-1/16″-12	1.86 (47.24)	1.61 (40.89)	1.24 (31.50)	0.25 (6.35)	0.62 (15.75)	0.75 (19.05)	1.00 (25.40)	1.43 (36.32)	–	0.75 (19.05)	0.62 (15.75)	0.56 (14.22)	1.31 (33.27)	1.06 (26.92)	–
-10	3/4	-12-10	7/16″-20	1-1/16″-12	1.92 (48.77)	1.67 (42.42)	1.24 (31.50)	0.25 (6.35)	0.75 (19.05)	0.91 (23.11)	1.00 (25.40)	1.52 (38.61)	1.66 (42.16)	0.91 (23.11)	0.75 (19.05)	0.65 (16.51)	1.31 (33.27)	1.06 (26.92)	1.10 (27.94)
-11	1/2	-8-11	7/16″-20	1-1/8″-12	1.85 (46.99)	1.60 (40.64)	1.28 (32.51)	0.25 (6.35)	0.50 (12.70)	0.62 (15.75)	1.00 (25.40)	1.48 (37.59)	1.78 (45.21)	0.62 (15.75)	0.50 (12.70)	0.50 (12.70)	1.31 (33.27)	1.12 (28.45)	1.21 (30.73)
-11	5/8	-10-11	7/16″-20	1-1/8″-12	1.90 (48.26)	1.65 (41.91)	1.28 (32.51)	0.25 (6.35)	0.62 (15.75)	0.75 (19.05)	1.00 (25.40)	1.54 (39.12)	1.84 (46.74)	0.75 (19.05)	0.62 (15.75)	0.56 (14.22)	1.31 (33.27)	1.12 (28.45)	1.22 (30.99)
-11	3/4	-12-11	7/16″-20	1-1/8″-12	1.96 (49.78)	1.71 (43.43)	1.28 (32.51)	0.25 (6.35)	0.75 (19.05)	0.91 (23.11)	1.00 (25.40)	1.63 (41.40)	1.84 (46.74)	0.91 (23.11)	0.75 (19.05)	0.65 (16.51)	1.31 (33.27)	1.12 (28.45)	1.22 (30.99)
-11	7/8	-14-11	7/16″-20	1-1/8″-12	2.06 (52.32)	1.81 (45.97)	1.28 (32.51)	0.31 (7.87)	0.88 (22.35)	0.98 (24.89)	1.00 (25.40)	1.70 (43.18)	1.92 (48.77)	1.03 (26.16)	0.88 (22.35)	0.72 (18.29)	1.31 (33.27)	1.12 (28.45)	1.22 (30.99)
-12	3/4	-12-12	7/16″-20	1-7/16″-16	2.26 (57.40)	2.01 (51.05)	1.60 (40.64)	0.25 (6.35)	0.75 (19.05)	0.91 (23.11)	1.38 (35.05)	1.78 (45.21)	–	0.91 (23.11)	0.75 (19.05)	0.63 (16.00)	1.69 (42.93)	1.44 (36.58)	–
-12	7/8	-14-12	7/16″-20	1-7/16″-16	2.36 (59.94)	2.11 (53.59)	1.60 (40.64)	0.31 (7.87)	0.88 (22.35)	1.03 (26.16)	1.38 (35.05)	1.87 (47.50)	–	1.03 (26.16)	0.88 (22.350	0.72 (18.29)	1.69 (42.93)	1.44 (36.58)	–
-12	1-1/8	-18-12	7/16″-20	1-7/16″-16	2.43 (61.72)	2.18 (55.37)	1.60 (40.64)	0.31 (7.87)	1.12 (28.45)	1.28 (32.51)	1.38 (35.05)	1.98 (50.29)	–	1.28 (32.51)	1.12 (28.45)	0.84 (21.34)	1.69 (42.93)	1.44 (36.58)	–

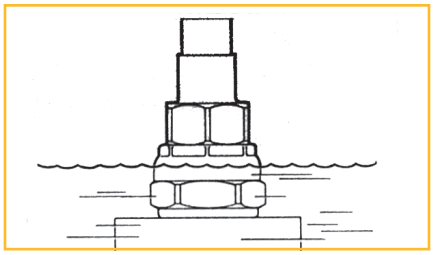
Factory Brazing Instructions



Step 1

Sparingly apply paste flux to the copper tube.

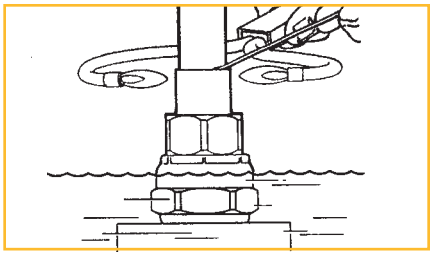
Note: Liquid flux or excessive flux can run inside the coupling and cause corrosion.



Step 2

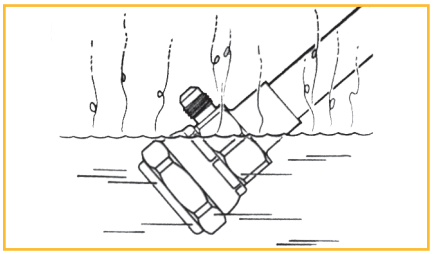
Immerse the coupling diaphragm end) into a flowing cool water bath.

- 5780 and 5781 female halves: Water level should be halfway up the nut and the nut hex fully immersed.
- 5782 and 5783 male halves: Water level should fully cover the threads.



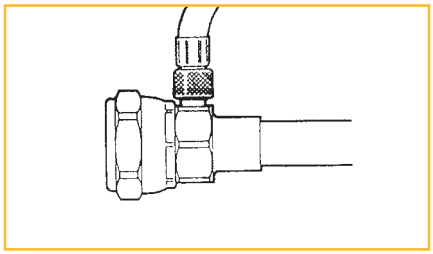
Step 3

Use a double tip torch to promote even heating and reduce braze time.



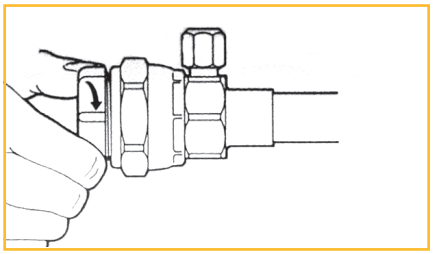
Step 4

After the alloy solidifies, quench the tubing and coupling to reduce the temperature below 400°F. Make sure the water does not enter the open charge port in the 5781 or 5783 half.



Step 5

The couplings can be subjected to unit test pressures up to 300 psig. If pressures in excess of 300 psig are used, the protector caps and plugs should be installed.



Step 6

Protector caps and plugs should be installed finger tight. Overtightening can damage the diaphragm. The diaphragm and O-ring can be lubricated with refrigerant oil prior to installing the protector caps or plugs as added assurance of proper lubrication when connected at unit installation.

Male-Half Installation Procedure

Male half (5782) should be mounted with the hex on the inside of the unit held in place with the appropriate mounting flange. Sheet metal opening, screw hole diameter, and mounting bolt circle dimensions are included in the chart below.

Coupling Part Number	Coupling Hex Size	Recommended Sheet Metal Opening		Flange Part Number	Mounting Bolt Circle		Screw Hole Diameter	
		Inches	mm		Inches	mm	Inches	mm
5782-Size-6	3/4"	0.656	16.6	5700-22-6	1.44	36.5	0.201	5.10
5782-Size-6	3/4"	0.656	16.6	5706-22-6	1.44	36.5	0.153	3.88
5782-Size-10	1-1/16"	1.094	27.7	FD57-1110-10	1.69	42.9	0.201	5.10
5782-Size-10	1-1/16"	1.094	27.7	FD67-1008-12	1.69	42.9	0.153	3.88
5782-Size-11	1-1/8"	1.156	29.3	150-22-8	1.69	42.9	0.201	5.10
5782-Size-11	1-1/8"	1.156	29.3	5700-22-10	1.69	42.9	0.153	3.88
5782-Size-12	1-7/16"	1.469	37.3	FD57-1110-12	2.12	53.8	0.201	5.10
5782-Size-12	1-7/16"	1.469	37.6	FD57-1111-12	2.12	53.8	0.153	3.88

Line-Set Field Installation Instructions

Step 1

Apply refrigerant oil to the entire surface of diaphragm, o-ring, and threaded area of male coupling assembly. The amount of lubricant used must cover all designated surfaces sufficiently. Ideal application is a small applicator brush saturated with lubricant and applied liberally. An alternate lubricant for this application is a refrigerant compatible silicone grease product like Dow Corning DC200/60,000 cst.

Step 2

Ensure that the coupling halves are held in proper alignment with each other prior to starting the threads of the female coupling nut onto the male half. The coupling end faces should be parallel with each other and visually in line with each other, this allows the female coupling nut to be easily threaded on by hand for the initial 2-3 rotation of the union nut. These initial rotations will bring the diaphragm in contact and a sharp increase in torque will be felt when they come into contact.

If the nut will not start by hand, adjust the position of the line set to ensure proper coupling alignment and eliminate/minimize all side-load force on the coupling during assembly.

Step 3

Using appropriate size wrenches, reference table below for the female coupling body and female union nut, tighten the female union nut while preventing rotation of the female body with respect to the male half. The nut should be tightened until a definite increase in resistance, metal to metal contact occurs, is felt (at this point, the nut will have covered most of the threads on the male body). It is important to ensure the male and female coupling bodies **DO NOT ROTATE** during any portion of the wrench installation.

Step 4

Using a permanent marker or scribe, mark a line lengthwise from the female coupling union nut to either the bulkhead or female coupling body. Then tighten an additional one (1) wrench flat (60°); refer to the marking on the union nut to confirm the rotation has occured. This final rotation is necessary to ensure the formation of the leak-proof seal, between the male and female couplings.

Step 5

Repeat step 1 through 4 for all connections.

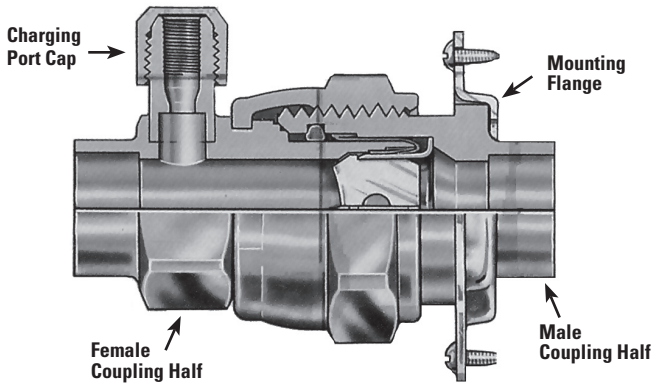
Size Designation	Torque Values Union Nut Min-Max		Male Coupling Hex Size		Female Coupling Union Nut Hex Size		Female Coupling Body Hex Size	
	Ft. Lbs	N.m	Inches	mm	Inches	mm	Inches	mm
-06	10-12	13.5 - 16.2	3/4	19.05	13/16	17.46	5/8	15.87
-10	35-45	47.5 - 61.0	1-1/16	26.98	1-5/16	33.33	1	25.40
-11	35-45	47.5 - 61.0	1-1/8	28.57	1-5/16	46.55	1	25.40
-12	50-65	67.8 - 88.1	1-7/16	36.51	1-11/16	34.9	1-3/8	42.86

Reconnection Instructions

Note: The O-ring is only an intermediate seal during the initial connection of a precharged unit/line set combination. The O-ring is only used for sealing between the time the diaphragm is pierced and the final metal-to-metal seal is made.

The final leak-proof seal is a metal-to-metal connection made between the male and female coupling bodies.

Order Options



Step 1

Upon disconnection, remove O-ring.

Step 2

If O-ring is missing from groove, insure O-ring is not lodged inside coupling halves and reconnect without O-ring.

Step 3

Carefully wipe coupling seats and threaded surfaces with a clean cloth, to prevent the inclusion of dirt or any foreign material in the system.

Step 4

Lubricate male half diaphragm with system-compatible refrigerant oil. Thread coupling halves together by hand to insure proper mating of threads. Use proper size wrenches (on coupling body hex and on union nut) and tighten until coupling bodies seat or seal or a definite resistance is felt.

Step 5

Using a marker, mark a line lengthwise from the coupling union nut to the bulkhead. Then tighten an additional one (1) wrench flat (60°); the misalignment of the line will show the amount the coupling has been tightened. This final rotation is necessary to insure the formation of a leakproof joint.

If a torque wrench is used, the following torque values are recommended:

Coupling Size	Ft - Lbs	N.m
-6	10 - 12	13.5 - 16.2
-10	35 - 45	47.5 - 61.0
-11	35 - 45	47.5 - 61.0
-12	55 - 65	74.6 - 88.1

O.D. Tube Size Inches	Basic Coupling Size	Female Coupling Half without Charging Port (Includes Plug)	Female Coupling Half with Charging Valve Port less Cap and Core (Includes Plug)	Male Coupling Half with Protector Cap less Mounting Flange	Male Coupling Half with Charging Valve Port less Cap and Core (Includes Plug)	Mounting Flanges for 5782 Couplings Only		Charging Port Cap	Charging Valve Core
						Bolt Hole Dia. 0.15 (#10 Screw)	Bolt Hole Port (#14 Screw)		
1/4	-6	5780-4-6	5781-4-6	5782-4-6	5783-4-6	5706-22-6	5700-22-6	221014-4B	222034-4
5/16	-6	5780-5-6	5781-5-6	5782-5-6	–	5706-22-6	5700-22-6	221014-4B	222034-4
3/8	-6	5780-6-6	5781-6-6	5782-6-6	5783-6-6	5706-22-6	5700-22-6	221014-4B	222034-4
1/2	-10	5780-8-10	5781-8-10	5782-8-10	5783-8-10	FD67-1008-12	FD57-1111-10	221014-4B	222034-4
5/8	-10	5780-10-10	5781-10-10	5782-10-10	–	FD67-1008-12	FD57-1111-10	221014-4B	222034-4
3/4	-10	5780-12-10	5781-12-10	5782-12-10	5783-12-10	FD67-1008-12	FD57-1111-10	221014-4B	222034-4
1/2	-11	5780-8-11	5781-8-11	5782-8-11	5783-8-11	5700-22-10	150-22-8	221014-4B	222034-4
5/8	-11	5780-10-11	5781-10-11	5782-10-11	–	5700-22-10	150-22-8	221014-4B	222034-4
3/4	-11	5780-12-11	5781-12-11	5782-12-11	5783-12-11	5700-22-10	150-22-8	221014-4B	222034-4
7/8	-11	5780-14-11	5781-14-11	5782-14-11	5783-14-11	5700-22-10	150-22-8	221014-4B	222034-4
3/4	-12	5780-12-12	5781-12-12	5782-12-12	–	FD57-1111-12	FD57-1110-12	221014-4B	222034-4
7/8	-12	5780-14-12	5781-14-12	5782-14-12	–	FD57-1111-12	FD57-1110-12	221014-4B	222034-4
1-1/8	-12	5780-18-12	5781-18-12	5782-18-12	–	FD57-1111-12	FD57-1110-12	221014-4B	222034-4

FD57 Series Stub Kit Couplings

Parker's FD57 series stub kit couplings combine the 5700 series couplings with unique copper connections. The additional copper creates a drop-in replacement and allows copper-to-copper brazing.

Features and Benefits

- Easy installation of replacement units.
- Direct copper braze capability.

Specifications

U.L. Recognized; File No: SA7511
Standard Material:
Seal – Neoprene ™*
Body – Brass
Connections – Copper

Temp. Rating: -40°F to +250°F
-40°C to +121°C

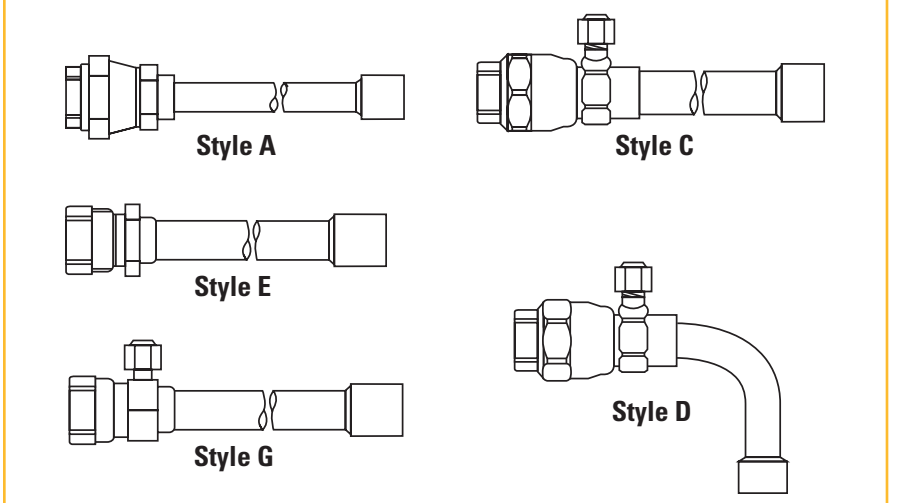
*Contact Parker for alternative elastomer sealing options.

Compatible Refrigerants and Lubricants

Most HCFC, HFC & HFO Refrigerants
POE, PVE, AB & MO Lubricants

Base Product Part Number

- **FD57** - XXXX - Copper size - coupling size



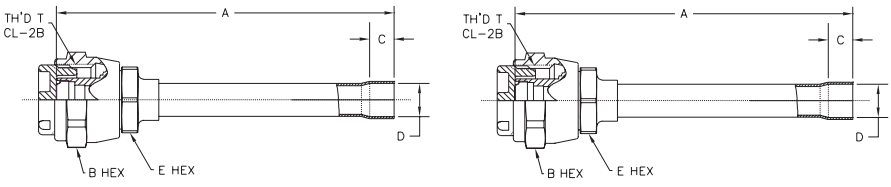
Applications

- Factory pre-charged heat pump and split-type air conditioning systems.

Style A

5780 Series Coupling with Straight/Belled Copper Configuration

Part Number	Dimensions – Inches					
	Thread T	A Ref.	B Ref.	C Ref.	D Ref.	E Ref.
FD57-1127-04-06	5/8"-18	4.09	0.81	0.31	0.25	0.62
FD57-1127-06-06	5/8"-18	4.09	0.81	0.31	0.38	0.62
FD57-1127-08-10	1-1/16"-12	5.28	1.31	0.38	0.50	1.00
FD57-1127-08-11	1-1/8"-12	5.32	1.31	0.38	0.50	1.00

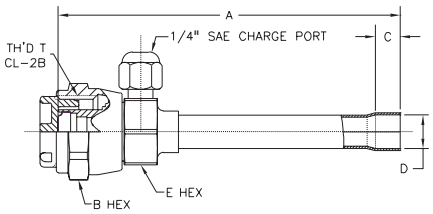


Dimensions

Style C

5781 Series Coupling with Straight/Belled Copper Configuration

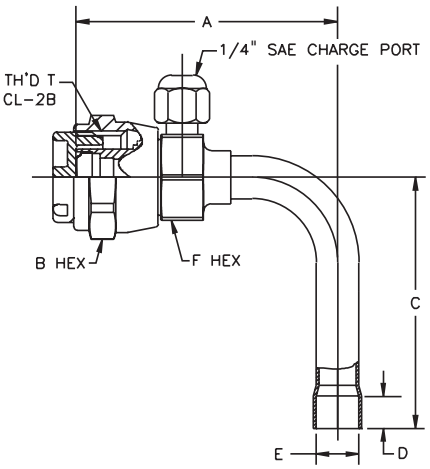
Part Number	Thread T	Dimensions – Inches				
		A Ref.	B Ref.	C Ref.	D Ref.	E Ref.
FD57-1084-06-06	5/8"-18	7.42	0.81	0.75	0.375	0.62
FD57-1084-10-10	1-1/16"-12	7.86	1.31	0.75	0.625	1.00
FD57-1084-14-11	1-1/8"-12	8.00	1.31	0.75	0.875	1.00
FD57-1084-12-11	1-1/8"-12	7.96	1.31	0.75	0.750	1.00
FD57-1084-10-11	1-1/8"-12	7.90	1.31	0.75	0.625	1.00
FD57-1129-04-06	5/8"-18	4.34	0.81	0.31	0.25	0.62
FD57-1129-05-06	5/8"-18	4.34	0.81	0.31	0.31	0.62
FD57-1129-06-06	5/8"-18	4.34	0.81	0.31	0.38	0.62
FD57-1129-08-10	1-1/16"-12	5.53	1.31	0.38	0.50	1.00
FD57-1129-10-10	1-1/16"-12	5.98	1.31	0.50	0.62	1.00
FD57-1129-10-11	1-1/8"-12	6.02	1.31	0.50	0.62	1.00
FD57-1129-12-11	1-1/8"-12	6.08	1.31	0.62	0.75	1.00
FD57-1129-12-12	1-7/16"-12	6.38	1.69	0.62	0.75	1.38
FD57-1129-14-11	1-1/8"-12	6.09	1.31	0.75	0.88	1.00
FD57-1129-14-12	1-7/16"-12	6.39	1.69	0.75	0.88	1.38
FD57-1129-18-11	1-1/8"-12	6.09	1.31	0.91	1.12	1.00
FD57-1147-06-06	5/8"-18	4.34	0.81	0.31	0.38	0.62
FD57-1147-06-11	1-1/8"-12	4.50	1.31	0.31	0.38	1.00
FD57-1147-08-10	1-1/16"-12	5.53	1.31	0.38	0.50	1.00



Style D

5781 Series Coupling with Bent/Belled Copper Configuration

Part Number	Thread T	Dimensions – Inches					
		A Ref.	B Ref.	C Ref.	D Ref.	E Ref.	F Ref.
FD57-1130-06-06	5/8"-18	2.55	0.81	2.16	0.31	0.38	0.62
FD57-1130-08-10	1-1/16"-12	3.06	1.31	2.94	0.38	0.50	1.00
FD57-1130-10-10	1-1/16"-12	3.11	1.31	3.34	0.50	0.62	1.00
FD57-1145-10-11	1-1/8"-12	3.15	1.31	3.34	0.50	0.62	1.00
FD57-1145-14-11	1-1/8"-12	3.81	1.31	2.97	0.75	0.88	1.00
FD57-1148-06-06	5/8"-18	2.55	0.81	2.16	0.31	0.38	0.62
FD57-1148-08-10	1-1/16"-12	3.06	1.31	2.94	0.38	0.50	1.00



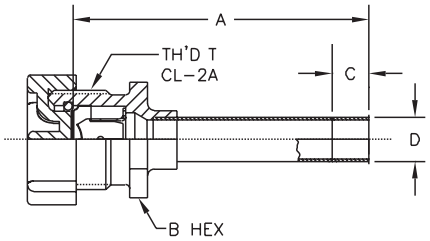
Dimensions

Style E

5782 Series Coupling with Straight/Belled Copper Configuration

Part Number	Thread T	Dimensions – Inches			
		A Ref.	B Ref.	C Ref.	D Ref.
FD57-1115-06-06	5/8"-18	7.08	0.75	0.75	0.375
FD57-1115-10-11	1-1/8"-12	7.54	1.12	0.75	0.625
FD57-1131-04-06	5/8"-18	4.00	0.75	0.31	0.25
FD57-1131-05-06	5/8"-18	4.00	0.75	0.31	0.31
FD57-1131-06-06	5/8"-18	4.00	0.75	0.31	0.38
FD57-1131-08-10	1-1/16"-12	5.09	1.06	0.38	0.50
FD57-1131-10-10	1-1/16"-12	5.55	1.06	0.50	0.62
FD57-1131-10-11	1-1/8"-12	5.66	1.12	0.50	0.62
FD57-1131-14-11	1-1/8"-12	5.72	1.12	0.75	0.88
FD57-1131-14-12	1-1/16"-12	5.89	1.44	0.75	0.88
FD57-1146-06-06	5/8"-18	3.14	0.75	0.38	0.38
FD57-1146-06-11*	1-1/8"-12	3.30	1.30	0.38	1.12
FD57-1146-08-10*	1-1/16"-12	3.37	1.06	0.50	0.50

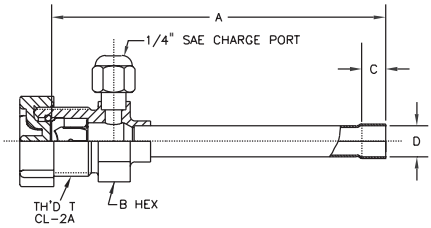
* No Bell.



Style G

5783 Series Coupling with Straight/Belled Copper Configuration

Part Number	Thread T	Dimensions – Inches			
		A Ref.	B Ref.	C Ref.	D Ref.
FD57-1133-06-06	5/8"-18	4.25	0.62	0.31	0.38
FD57-1133-10-11	1-1/8"-12	5.96	1.12	0.5	0.62
FD57-1133-12-11	1-1/8"-12	5.96	1.12	0.62	0.75
FD57-1133-14-11	1-1/8"-12	5.94	1.12	0.75	0.88



RC01C Series Automotive R134a Service Coupling

Parker's RC01C automotive service coupling provides easy evacuating and charging of R-134a mobile air conditioning systems.

Features and Benefits

- Safety feature prevents coupling from flowing unless connected to service port.
- Brass coupling, with or without plating, provides corrosion resistance.
- Red anodized knob on the high side and blue anodized knob on the low side, along with distinct sizes, assist in preventing cross-contamination between sections of the system.

Applications

- Evacuating and charging of R-134a air conditioning systems

Specifications

SAEJ639
Temp. Rating: -40°F to +250°F
-40°C to 121°C
Maximum Operating Pressure: 500 psig

Compatible Refrigerants and Lubricants

R-134a and POE oil

Base Product Part Number

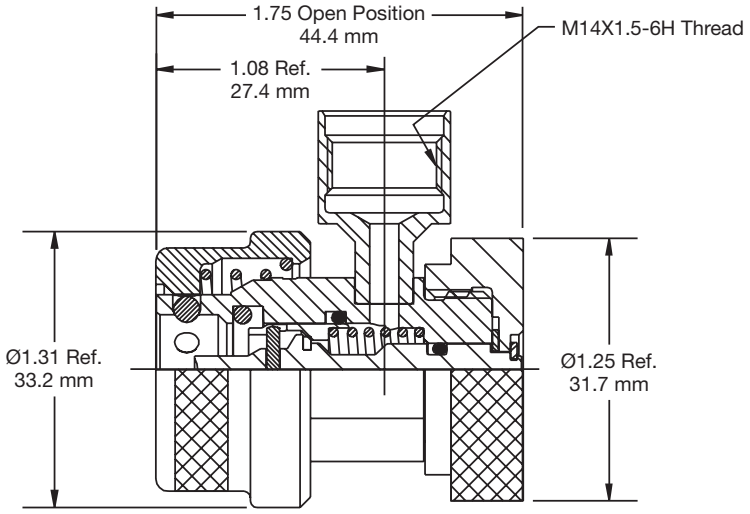
- **RC01C-002**
  Lowside field service coupling
- **RC01C-003**
  Highside field service coupling

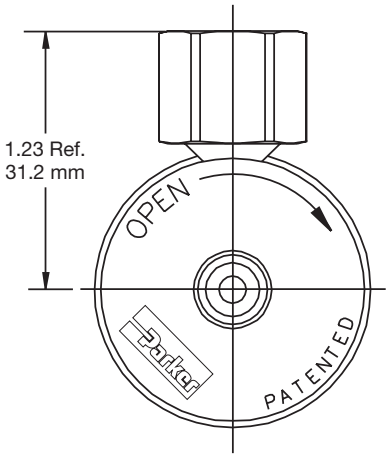
*See the following page for brass and plated part numbers and configurations.

Dimensions

RC01C-002 Service Coupling Assembly

Low Side, R134a

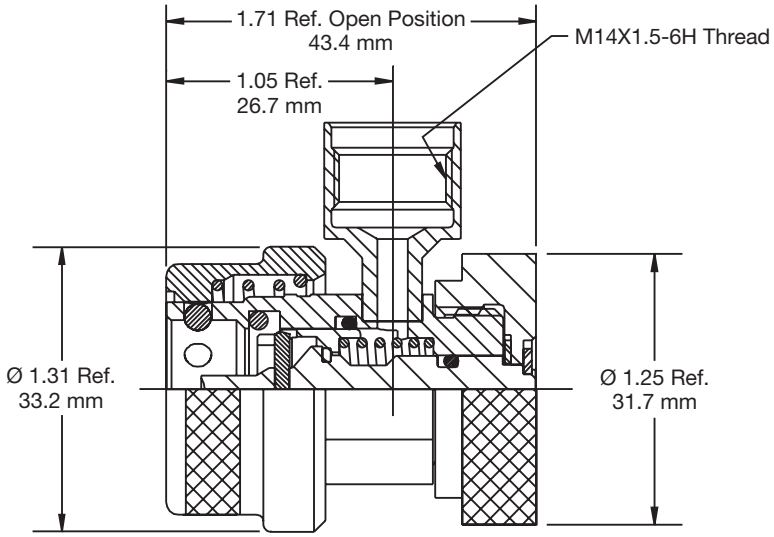


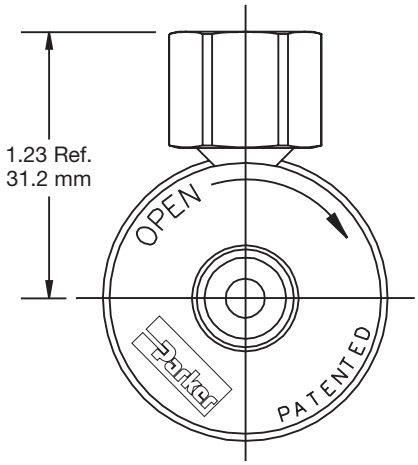


Dimensions

RC01C-003 Service Coupling Assembly

High Side, R134a





Finish	Side Port	System Side	Part Number
Plated	14 mm Female	Low Side	RC01C-002
Plated	14 mm Female	High Side	RC01C-003
Plated	5/8" - 18 Male	Low Side	RC01C-006
Plated	5/8" - 18 Male	High Side	RC01C-007
Plated	7/16" - 20 Male	Low Side	RC01C-011
Plated	7/16" - 20 Male	High Side	RC01C-012

Finish	Side Port	System Side	Part Number
Brass	14 mm Female	Low Side	RC01C-021
Brass	14 mm Female	High Side	RC01C-022
Brass	7/16" - 20 Male	Low Side	RC01C-023
Brass	7/16" - 20 Male	High Side	RC01C-024

Repair Kits

- Nose Seal Repair Kit, Part Number RAØ122-ØØ1
- RCØ1BØØ1-Ø8-Ø1 Process Coupling, Part Number RAØ2Ø3-ØØ1

RC01YF Series Automotive 1234YF Service Coupling

Parker's RC01YF automotive service coupling provides easy evacuating and charging of R-1234yf mobile air conditioning systems.

Features and Benefits

- Safety feature prevents coupling from flowing unless connected to service port.
- Brass coupling with plating, provides corrosion resistance.
- Red anodized knob and sleeve on the high side and blue anodized knob and sleeve on the low side assist in preventing cross-contamination between sections of the system.
- Lock-out feature that prevents actuation until the coupler is securely locked into place on the charge port.

Applications

- Evacuating and charging of R-1234yf air conditioning systems

Specifications

SAEJ2888 and SAEJ639

Temp. Rating: -40°F to +250°F
-40°C to 121°C

Maximum Operating Pressure: 500 psig

Compatible Refrigerants and Lubricants

R-1234yf and POE oil

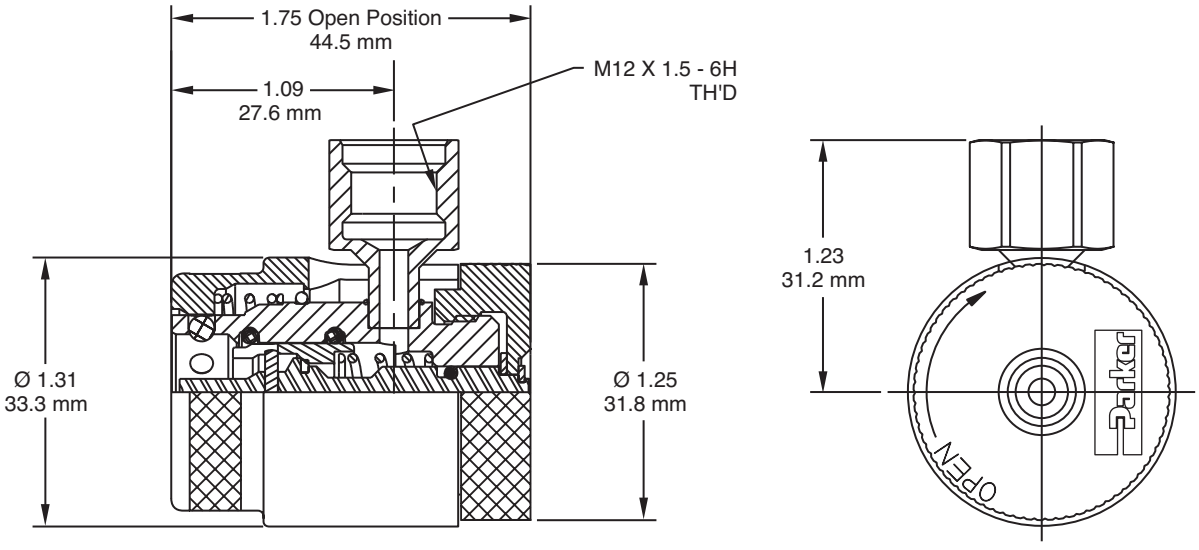
Base Product Part Number

- **RC01YF-012**
  Lowside field service coupling
- **RC01YF-013**
  Highside field service coupling

*See the following page for brass and plated part numbers and configurations.

RC01YF-012 Service Coupling Assembly

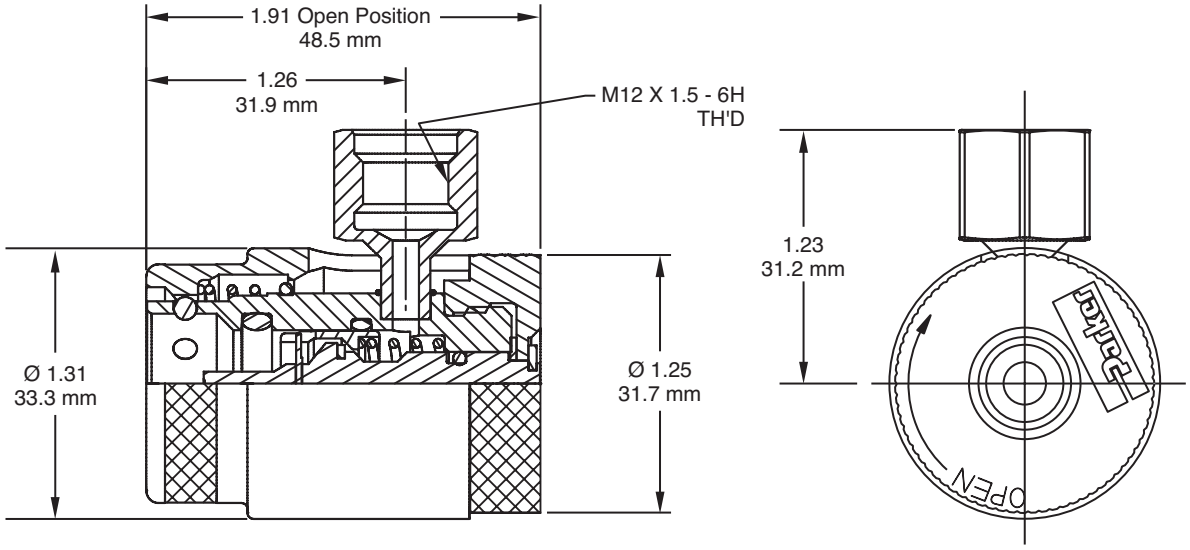
Low Side, R1234yf



Dimensions

RC01YF-013 Service Coupling Assembly

High Side, R1234yf



Finish	Side Port	System Side	Part Number
Plated	12 mm Female	Low Side	RC01YF-012
Plated	12 mm Female	High Side	RC01YF-013

Repair Kits

- Nose Seal Repair Kit, Part Number RAØ575-ØØ1

ZoomLock® MAX

Press-to-Connect Refrigerant Fittings

ZoomLock® MAX press-to-connect refrigerant fittings, designed for the air conditioning and refrigeration markets, allow contractors to make secure leak-free connections in seconds. It means less time on the job and more money in the contractor's pocket.

ZoomLock MAX fittings provide clean, leak-proof connections for refrigerant lines up to 700 psi. By eliminating concerns about gas and flames, ZoomLock MAX fittings offer more flexibility in where and when you can work, plus there's no need to nitrogen-purge the lines.

ZoomLock MAX fittings are available in a wide range of types including caps, couplings, elbows, tees, reducers, SAE flares, and more.

Applications

- Refrigeration
- Air Conditioning
- Heat Pump (Refrigeration side)
- VRF and VRV

Features and Benefits

- Hard, robust fittings made from refrigerant grade copper
- Proven three-point press technology providing a leak-free and secure joint
- Rated for pressures up to 700 psi, 48 bar
- 15-year warranty
- Hermetically sealed packaging for debris-free fittings
- No crimp gauge needed—connect the fitting with one complete cycle
- Jaws available for most professional brand crimping tools, both large and compact

Specifications

Refrigerant Fitting File: SA7511

U.L. Listed: Approved use for field and factory installations with A1 refrigerants.

UL Recognized: Approved use for factory installations with A2, A2L, and A3 refrigerants.

Refer to Catalog K-3 for the full list of agency approvals and certifications.

Standard Material:
Fitting Body – Refrigerant Grade Copper (UNS C12200 min 99.9% pure)
O-Ring – HNBR

Continuous Operating Temperature:
-40°F to 250°F
-40°C to 121°C

O-Ring Temperature Rating:
-40°F to 284°F
-40°C to 140°C

Maximum Rated Operating and Abnormal Pressure:
870 psig / 60 bar

Minimum Burst Pressure (UL 207):
4,355 psig / 300 bar / 4800 kPa

Burst Pressure:
>3X Maximum operating and abnormal pressure
>2,100 psig / >14400 kPa / >144 bar

Vacuum Pressure Capability:
200 Microns

Leak Tightness:
Helium ≤ 7.5×10^{-7} Pa.m³/s at +20°C, 10 bar

Size Availability (Inches):
1/4, 3/8, 1/2, 5/8, 3/4, 7/8, 1-1/8, 1-3/8

Compatibility

Approved Connections:
Copper to Copper

Approved Tube:
Copper tube conforming to* ASTM B280, ASTM-B88, or ASTM B743

Approved Copper Tubing:
Hard Copper (Drawn)
- Type ACR, L, K

Soft Copper (Annealed)
- Type ACR, L, K

Fitting Warranty

15-year warranty. Refer to Catalog K-3 for more details.

Learn More

Point and scan with your phone's camera.

Catalog K-3 ZoomLock MAX

Compatible Refrigerants and Lubricants

Approved Lubricants:
POE, PAO, PVE, AB and MO

Approved Refrigerants

32**	422D	454A**
125	427A	454B**
134a	438A	454C**
290**	444A**	457A**
404A	447A**	459A**
407A	447B**	507A
407C	448A	513A
407F	449A	513B
407H	450A	600A**
410A	452A	718
417A	452B**	1234yf**
421A	452C	1234ze**
422B	HYCOOL 20	

* Please refer to ZoomLock MAX Tube Compatibility table, Catalog K-3.

** When using refrigerants classified A2L (lower flammability), A2 (flammable) and A3 (higher flammability) additional/specific standards, local rules and regulations, codes of practice and by-laws may be applicable.

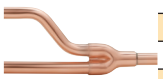
ZoomLock MAX fittings are NOT suitable for R-717, R-723, R-764, R-744 refrigerants. Refer to ZoomLockMAX.com for the latest approved refrigerants list.

ZoomLock MAX

FIttings and Jaw Sets

WARNING: ZoomLock MAX fittings can only be connected with jaws/tools designed for use with ZoomLock MAX products.

	Size	Part Number	Bag Qty.	Description
COUPLINGS				
	1/4	870508	5	MZK-C4-HNBR
	3/8	870509	5	MZK-C6-HNBR
	1/2	870503	5	MZK-C8-HNBR
	5/8	870510	5	MZK-C10-HNBR
	3/4	870505	2	MZK-C12-HNBR
	7/8	870506	2	MZK-C14-HNBR
	1-1/8	870507	2	MZK-C18-HNBR
	1-3/8	870511	2	MZK-C22-HNBR
SLIP COUPLINGS				
	1/4	870550	5	MZK-RC4-HNBR
	3/8	870552	5	MZK-RC6-HNBR
	1/2	870553	5	MZK-RC8-HNBR
	5/8	870554	3	MZK-RC10-HNBR
	3/4	870555	2	MZK-RC12-HNBR
	7/8	870556	2	MZK-RC14-HNBR
	1-1/8	870557	1	MZK-RC18-HNBR
	1-3/8	870559	1	MZK-RC22-HNBR
ELBOWS - 90°				
	1/4	870600	5	MZK-90E4-HNBR
	3/8	870602	5	MZK-90E6-HNBR
	1/2	870603	3	MZK-90E8-HNBR
	5/8	870604	3	MZK-90E10-HNBR
	3/4	870605	3	MZK-90E12-HNBR
	7/8	870606	3	MZK-90E14-HNBR
	1-1/8	870607	2	MZK-90E18-HNBR
	1-3/8	870608	1	MZK-90E22-HNBR
ELBOWS - 90° LONG RADIUS				
	1/2	871613	3	MZK-90E8-LR-HNBR
	5/8	871614	3	MZK-90E10-LR-HNBR
	3/4	871610	2	MZK-90E12-LR-HNBR
	7/8	871611	2	MZK-90E14-LR-HNBR
	1-1/8	871612	1	MZK-90E18-LR-HNBR
	1-3/8	871615	1	MZK-90E22-LR-HNBR
ELBOWS - 90° STREET				
	3/8	871302	3	MZK-90SE6-HNBR
	1/2	871303	3	MZK-90SE8-HNBR
	5/8	871304	3	MZK-90SE10-HNBR
	3/4	871305	3	MZK-90SE12-HNBR
	7/8	871306	3	MZK-90SE14-HNBR
	1-1/8	871307	2	MZK-90SE18-HNBR
	1-3/8	871308	1	MZK-90SE22-HNBR
ELBOWS - 45°				
	1/4	871401	3	MZK-45E4-HNBR
	3/8	871402	3	MZK-45E6-HNBR
	1/2	871403	3	MZK-45E8-HNBR
	5/8	871404	3	MZK-45E10-HNBR
	3/4	871405	3	MZK-45E12-HNBR
	7/8	871406	3	MZK-45E14-HNBR
	1-1/8	871407	2	MZK-45E18-HNBR
	1-3/8	871399	2	MZK-45E22-HNBR
SAE FLARES				
	1/4	871000	4	MZK-F4-HNBR
	3/8	871002	4	MZK-F6-HNBR
	1/2	871003	2	MZK-F8-HNBR
	5/8	871004	2	MZK-F10-HNBR
	3/4	871005	2	MZK-F12-HNBR

	Size	Part Number	Bag Qty.	Description
CAPS				
	1/4	870900	3	MZK-CP4-HNBR
	3/8	870902	3	MZK-CP6-HNBR
	1/2	870903	3	MZK-CP8-HNBR
	5/8	870904	2	MZK-CP10-HNBR
	3/4	870905	2	MZK-CP12-HNBR
	7/8	870906	2	MZK-CP14-HNBR
	1-1/8	870907	1	MZK-CP18-HNBR
	1-3/8	870908	1	MZK-CP22-HNBR
REDUCERS				
	3/8 x 1/4	870800	2	MZK-R64-HNBR
	1/2 x 1/4	870808	2	MZK-R84-HNBR
	1/2 x 3/8	870801	2	MZK-R86-HNBR
	5/8 x 1/4	870809	2	MZK-R104-HNBR
	5/8 x 3/8	870810	2	MZK-R106-HNBR
	5/8 x 1/2	870802	2	MZK-R108-HNBR
	3/4 x 1/2	870811	2	MZK-R128-HNBR
	3/4 x 5/8	870803	2	MZK-R1210-HNBR
	7/8 x 1/2	870812	2	MZK-R148-HNBR
	7/8 x 5/8	870804	2	MZK-R1410-HNBR
	7/8 x 3/4	870805	2	MZK-R1412-HNBR
	1-1/8 x 5/8	870814	1	MZK-R1810-HNBR
	1-1/8 x 3/4	870806	1	MZK-R1812-HNBR
	1-1/8 x 7/8	870807	1	MZK-R1814-HNBR
	1-3/8 x 7/8	870815	1	MZK-R2214-HNBR
	1-3/8 x 1-1/8	870816	1	MZK-R2218-HNBR
TEES				
	1/4	870701	3	MZK-T4-HNBR
	3/8	870702	3	MZK-T6-HNBR
	1/2	870703	3	MZK-T8-HNBR
	5/8	870704	2	MZK-T10-HNBR
	3/4	870705	2	MZK-T12-HNBR
	7/8	870706	2	MZK-T14-HNBR
	1-1/8	870707	1	MZK-T18-HNBR
	1-3/8	870708	1	MZK-T22-HNBR
P-TRAPS				
	1/2	771203	N/A	MZK-PT8-NA
	5/8	771204	N/A	MZK-PT10-NA
	3/4	771205	N/A	MZK-PT12-NA
	7/8	771206	N/A	MZK-PT14-NA
	1-1/8	771207	N/A	MZK-PT18-NA
	1-3/8	771208	N/A	MZK-PT22-NA
Y-JOINTS				
	3/8	771102	N/A	MZK-Y6-NA
	1/2	771103	N/A	MZK-Y8-NA
	5/8	771104	N/A	MZK-Y10-NA
	3/4	771105	N/A	MZK-Y12-NA
Includes foam insulation.	7/8	771106	N/A	MZK-Y14-NA
	1-1/8	771107	N/A	MZK-Y18-NA
JAW SETS - 7 PIECE*				
	19 kN	871410	N/A	MZK-19KN JAW KIT
	24 kN	871409	N/A	MZK-24KN JAW KIT
	32 kN	871408	N/A	MZK-32KN JAW KIT

*7 piece ROTHENBERGER jaw set contains a 1/4", 3/8", 1/2", 5/8", 3/4", 7/8", and 1-1/8" size jaw. 1-3/8" jaw sold separately.

1-3/8" JAW – For use with 32 kN press tools only. Includes depth gauge. **Part Number: 871436, Description: MZK-32KN JAW-1-3/8"**

ZoomLock MAX

Press Tools

ZoomLock MAX fittings can only be connected with ZoomLock MAX jaws.

Parker Hannifin recommends the use of ROTHENBERGER press tools in combination with ZoomLock MAX ROTHENBERGER jaws. However other press tools may be used in combination with ZoomLock MAX ROTHENBERGER jaws. See table below for tool compatibility.

ROTHENBERGER ROMAX 4000

ROTHENBERGER Twin Turbo US

ROTHENBERGER ROMAX 4000

Includes the ROTHENBERGER ROMAX® 32 kN press tool,
2 batteries and battery charger.

- **Description:** MZK-TK-R4000
- **Part Number:** 871441

ROTHENBERGER Twin Turbo US

Includes the ROTHENBERGER Twin Turbo US 24 kN press tool,
2 batteries and battery charger.

- **Description:** MZK-TK-RCTT
- **Part Number:** 871439

COMPATIBLE PRESS TOOLS		32 kN	24 kN	19 kN
ROTHENBERGER	ROMAX® 3000	✔	—	—
	ROMAX® 3000 AC	✔	—	—
	ROMAX® 4000	✔	—	—
	ROMAX® AC ECO	✔	—	—
	Twin Turbo US (TT US)	—	✔	—
	ROMAX® Compact TT	—	—	✔
	ROMAX® Compact	—	—	✔
DEWALT	DCE200	✔	—	—
KLAUKE	UAP2/UNP2	✔	—	—
	UAP3L/UAP4L	✔	—	—
	UP2EL14	✔	—	—
	MAP2L19	—	—	✔
	MAP219	—	—	✔
MILWAUKEE	M12 Force Logic	—	✔	—
	M18 Force Logic	✔	—	—
HILTI	NPR 019	—	—	✔
NIBCO	PC-100	✔	—	—
	PC-280	✔	—	—
REMS	Power-Press	✔	—	—
	Akku-Press	✔	—	—
RIDGID	320-E	✔	—	—
	CT400	✔	—	—
	RP 241	—	✔	—
	RP 240	—	✔	—
	RP 210-B	—	✔	—
	RP 200-B	—	✔	—
	RP 330-B	✔	—	—
	RP 330-C	✔	—	—
	RP 340	✔	—	—
	RP 350	✔	—	—
VIRAX	Viper® P25+	✔	—	—
	Viper® P25+	✔	—	—

ZoomLock® PUSH

Push-to-Connect Refrigerant Fittings

ZoomLock PUSH fittings are an excellent option for the air conditioning contractor looking to make leak-free copper connections in seconds, without the use of a brazing torch or press tool and jaw.

ZoomLock PUSH, made of a robust, durable brass body, features a multiple O-ring design.

Applications

- High Pressure HVAC/R

Features and Benefits

- No press tool or jaws needed
- Fast and easy install
- Cleaner system installs
- Secure, leak-free connections
- Safer conditions, no fire hazards
- No hot-work permits
- No need to nitrogen-purge
- Flexible access to job sites
- Sealed, individual packaging to assure a clean system install
- Available in couplings, elbows, SAE flare adapters, as well as bi-directional ball valve
- Size Availability (Inches)
  Couplings and Elbows
  1/4", 3/8", 1/2", 5/8", 3/4", 7/8", 1-1/8
  SAE Flare Adapters
  1/4", 3/8", 1/2", 5/8"
  Ball Valves
  1/4", 3/8", 1/2", 5/8", 3/4", 7/8"

Specifications

U.L. listed; File No: SA7511

Approved use for field and factory installations.

ASHRAE-15, ANSI 15, ASME B31.5, ANSI 31.5

Standard Material:
Fitting Body – Brass
O-Ring – R410A Optimized: HNBR
Removable: Chloroprene

Continuous Operating Temperature:
-250°F / 121°C

O-Ring Temperature Rating:
-40°F to +300°F
-40°C to +149°C

Maximum Rated Pressure (MRP):
870 psig / 60 bar

Minimum Burst Pressure (UL 207):
4,355 psig / 300 bar

Vacuum Pressure Capability:
200 Microns

External Leak Rate:
<0.1 Ounces of Helium per Year at Operating Pressure Range

Vibration Resistance:
Conforms to UL109

Size Availability (Inches):
1/4, 3/8, 1/2, 5/8, 3/4, 7/8, 1-1/8

Compatible Refrigerants and Lubricants

Approved Lubricants:
R-22 (Removable fittings only), R32, R134a, R290, R404A, R407A, R407C, R407F, R410A, R448A, R449A, R454B, R500, R507, R600a

Refer to ZoomLockPUSH.com for the latest approved refrigerants list.

Approved Lubricants:
POE, PVE

Compatibility

Approved Tubing Materials:
Copper to Copper Connections

Approved Tubing Tolerance:
ASTM B280, UNI EN 12735

Approved Copper Tubing Types:
Hard Copper (Drawn)
1/4" – 1-1/8" Type ACR, M, L, K
Soft Copper (Annealed)
1/4" – 7/8" Type ACR, L, K

Fitting Warranty

Refer to Catalog K-2

Learn More

Point and scan with your phone's camera.

Catalog K-2 ZoomLock PUSH

ZoomLock PUSH - R410A Optimized

Couplings

Size (Inches)	Part Number	Description
1/4	777100	PZKP-C4-HNBR
3/8	777101	PZKP-C6-HNBR
1/2	777102	PZKP-C8-HNBR
5/8	777103	PZKP-C10-HNBR
3/4	777104	PZKP-C12-HNBR
7/8	777105	PZKP-C14-HNBR
1-1/8	777156	PZKP-C18-HNBR

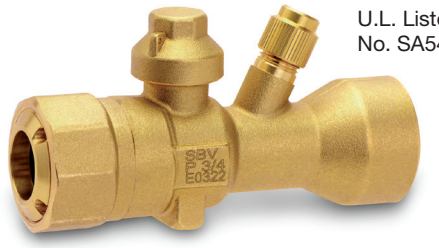
Elbows - 90 degree

Size (Inches)	Part Number	Description
1/4	777110	PZKP-90E4-HNBR
3/8	777111	PZKP-90E6-HNBR
1/2	777112	PZKP-90E8-HNBR
5/8	777113	PZKP-90E10-HNBR
3/4	777114	PZKP-90E12-HNBR
7/8	777115	PZKP-90E14-HNBR
1-1/8	777158	PZKP-90E18-HNBR

SAE Flare Adapters

Size Inches	Part Number	Description
1/4	777106	PZKP-F4-HNBR
3/8	777107	PZKP-F6-HNBR
1/2	777108	PZKP-F8-HNBR
5/8	777109	PZKP-F10-HNBR

Ball Valves



U.L. Listed
No. SA5460

Size (Inches)	Part Number	Description (With Access Port)
1/4	777170	PZKP-BV4-HNBR
3/8	777171	PZKP-BV6-HNBR
1/2	777172	PZKP-BV8-HNBR
5/8	777173	PZKP-BV10-HNBR
3/4	777174	PZKP-BV12-HNBR
7/8	777175	PZKP-BV14-HNBR

The **Type PZKP-BV** ball valve with forged brass body construction, integrated ZoomLock PUSH connections, and an access fitting, has full size ports to allow for unrestricted flow on all sizes. All PZKP-BV ball valves are bi-directional and may be installed in any position.

- Continuous temperature range: -40°F to +248°F (-40°C to +120°C)
- Installation temperature (15 minutes max) limit: 300°F (149°C)
- Design working pressure: 870 psig (60 bar)

ZoomLock PUSH - Removable

Couplings

Size (Inches)	Part Number	Description
1/4	777133	PZKPR-C4
3/8	777134	PZKPR-C6
1/2	777135	PZKPR-C8
5/8	777136	PZKPR-C10
3/4	777137	PZKPR-C12
7/8	777138	PZKPR-C14
1-1/8	777157	PZKPR-C18

Elbows - 90 degree

Size (Inches)	Part Number	Description
1/4	777143	PZKPR-90E4
3/8	777144	PZKPR-90E6
1/2	777145	PZKPR-90E8
5/8	777146	PZKPR-90E10
3/4	777147	PZKPR-90E12
7/8	777148	PZKPR-90E14
1-1/8	777159	PZKPR-90E18

SAE Flare Adapters

Size Inches	Part Number	Description
1/4	777139	PZKPR-F4
3/8	777140	PZKPR-F6
1/2	777141	PZKPR-F8
5/8	777142	PZKPR-F10

Installation Parts and Accessories

INSTALLATION KIT

3 piece ZoomLock PUSH installation kit includes depth gauge, permanent marker, and Scotch-Brite® general purpose hand pad. Tubing cutter and deburring tool sold separately.

Description: PZKP-IK, **Part Number:** 777091

1-1/8" DEPTH GAUGE

Plastic depth gauge confirms the proper insertion depth of the tubing. For use with 1-1/8" size fittings only.

Description: PZKP-DG18, **Part Number:** 777180

REMOVAL TOOLS

Removal tools for 1/4" - 7/8" sizes of ZoomLock PUSH removable fittings.

Description: PZKPR-RT, **Part Number:** 777090

PARKER-HANNIFIN CORPORATION
OFFER OF SALE

1. Definitions. As used herein, the following terms have the meanings indicated.

Buyer: means any customer receiving a Quote for Products.

Goods: means any tangible part, system or component to be supplied by Seller.

Products: means the Goods, Services and/or Software as described in a Quote.

Quote: means the offer or proposal made by Seller to Buyer for the supply of Products.

Seller: means Parker-Hannifin Corporation, including all divisions and businesses thereof.

Services: means any services to be provided by Seller.

Software: means any software related to the Goods, whether embedded or separately downloaded.

Terms: means the terms and conditions of this Offer of Sale.

2. Terms. All sales of Products by Seller are expressly conditioned upon, and will be governed by the acceptance of, these Terms. These Terms are incorporated into any Quote provided by Seller to Buyer. Buyer's order for any Products whether communicated to Seller verbally, in writing, by electronic data interface or other electronic commerce, shall constitute acceptance of these Terms. Seller objects to any contrary or additional terms or conditions of Buyer. Reference in Seller's order acknowledgement to Buyer's purchase order or purchase order number shall in no way constitute an acceptance of any of Buyer's terms or conditions of purchase. No modification to these Terms will be binding on Seller unless agreed to in writing and signed by an authorized representative of Seller.

3. Price; Payment. The Products set forth in the Quote are offered for sale at the prices indicated in the Quote. Unless otherwise specifically stated in the Quote, prices are valid for thirty (30) days and do not include any sales, use, or other taxes or duties. Seller reserves the right to modify prices at any time to adjust for any raw material price fluctuations. Unless otherwise specified by Seller, all prices are F.C.A. Seller's facility (INCOTERMS 2020). All sales are contingent upon credit approval and full payment for all purchases is due thirty (30) days from the date of invoice (or such date as may be specified in the Quote). Unpaid invoices beyond the specified payment date incur interest at the rate of 1.5% per month or the maximum allowable rate under applicable law.

4. Shipment; Delivery; Title and Risk of Loss. All delivery dates are approximate, and Seller is not responsible for damages resulting from any delay. Regardless of the manner of shipment, delivery occurs and title and risk of loss or damage pass to Buyer, upon placement of the Products with the carrier at Seller's facility. Unless otherwise agreed prior to shipment and for domestic delivery locations only, Seller will select and arrange, at Buyer's sole expense, the carrier and means of delivery. When Seller selects and arranges the carrier and means of delivery, freight and insurance costs for shipment to the designated delivery location will be prepaid by Seller and added as a separate line item to the invoice. Buyer shall be responsible for any additional shipping charges incurred by Seller due to Buyer's acts or omissions. Buyer shall not return or repackage any Products without the prior written authorization from Seller, and any return shall be at the sole cost and expense of Buyer.

5. Warranty. The warranty for the Products is as follows: (i) ZoomLock MAX Press-to-Connect Refrigerant Fittings are warranted against defects in material or workmanship for a period of fifteen (15) years from the date of delivery. Rothenberger Press Tools are warranted against defects in material or workmanship for a period of three (3) years from date of delivery or 40,000 cycles, whichever comes first. Rothenberger Press Jaws for ZoomLock MAX are warranted against defects in material or workmanship for their lifetime; (ii) Services shall be performed in accordance with generally accepted practices and using the degree of care and skill that is ordinarily exercised and customary in the field to which the Services pertain and are warranted for a period of six (6) months from the date of completion of the Services; and (iii) Software is only warranted to perform in accordance with applicable specifications provided by Seller to Buyer for ninety (90) days from the date of delivery or, when downloaded by a Buyer or end-user, from the date of the initial download. All prices are based upon the exclusive limited warranty stated above, and upon the following disclaimer: **EXEMPTION CLAUSE; DISCLAIMER OF WARRANTY, CONDITIONS, REPRESENTATIONS: THIS WARRANTY IS THE SOLE AND ENTIRE WARRANTY, CONDITION, AND REPRESENTATION, PERTAINING TO PRODUCTS. SELLER DISCLAIMS ALL OTHER WARRANTIES, CONDITIONS, AND REPRESENTATIONS, WHETHER STATUTORY, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THOSE RELATING TO DESIGN, NONINFRINGEMENT, MERCHANTABILITY, AND FITNESS FOR A PARTICULAR PURPOSE. SELLER DOES NOT WARRANT THAT THE SOFTWARE IS ERROR-FREE OR FAULT-TOLERANT, OR THAT BUYER'S USE THEREOF WILL BE SECURE OR UNINTERRUPTED. UNLESS OTHERWISE AUTHORIZED IN WRITING BY SELLER, THE SOFTWARE SHALL NOT BE USED IN CONNECTION WITH HAZARDOUS OR HIGH RISK ACTIVITIES OR ENVIRONMENTS. EXCEPT AS EXPRESSLY STATED HEREIN, ALL PRODUCTS ARE PROVIDED "AS IS".**

6. Claims; Commencement of Actions. Buyer shall promptly inspect all Products upon receipt. No claims for shortages will be allowed unless reported to Seller within ten (10) days of delivery. Buyer shall notify Seller of any alleged breach of warranty within thirty (30) days after the date the non-conformance is or should have been discovered by Buyer. Any claim or action against Seller based upon breach of contract or any other theory, including tort, negligence, or otherwise must be commenced within twelve (12) months from the date of the alleged breach or other alleged event, without regard to the date of discovery.

7. LIMITATION OF LIABILITY. IN THE EVENT OF A BREACH OF WARRANTY, SELLER WILL, AT ITS OPTION, REPAIR OR REPLACE THE NON-CONFORMING PRODUCT, RE-PERFORM THE SERVICES, OR REFUND THE PURCHASE PRICE PAID WITHIN A REASONABLE PERIOD OF TIME. **IN NO EVENT IS SELLER LIABLE FOR ANY SPECIAL, INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES INCLUDING ANY LOSS OF REVENUE OR PROFITS, WHETHER BASED IN CONTRACT, TORT OR OTHER LEGAL THEORY. IN NO EVENT SHALL SELLER'S LIABILITY UNDER ANY CLAIM MADE BY BUYER EXCEED THE PURCHASE PRICE PAID FOR THE PRODUCTS.**

8. Confidential Information. Buyer acknowledges and agrees that any technical, commercial, or other confidential information of Seller, including, without limitation, pricing, technical drawings or prints and/or part lists, which has been or will be disclosed, delivered or made available, whether directly or indirectly, to Buyer ("Confidential Information"), has been and will be received in confidence and will remain the property of Seller. Buyer further agrees that it will not use Seller's Confidential Information for any purpose other than for the benefit of Seller.

9. Loss to Buyer's Property. Any tools, patterns, materials, equipment or information furnished by Buyer or which are or become Buyer's property ("Buyer's Property"), will be considered obsolete and may be destroyed by Seller after two (2) consecutive years have elapsed without Buyer ordering the Products manufactured using Buyer's Property. Furthermore, Seller shall not be responsible for any loss or damage to Buyer's Property while it is in Seller's possession or control.

10. Special Tooling. "Special Tooling" includes but is not limited to tools, jigs, fixtures and associated manufacturing equipment acquired or necessary to manufacture Goods. Seller may impose a tooling charge for any Special Tooling. Such Special Tooling shall be and remain Seller's property notwithstanding payment of any charges by Buyer. In no event will Buyer acquire any interest in the Special Tooling, even if such Special Tooling has been specially converted or adapted for manufacture of Goods for Buyer and notwithstanding any charges paid by Buyer. Unless otherwise agreed, Seller has the right to alter, discard or otherwise dispose of any Special Tooling or other property owned by Seller in its sole discretion at any time.

11. Security Interest. To secure payment of all sums due from Buyer, Seller retains a security interest in all Products delivered to Buyer and, Buyer's acceptance of these Terms is deemed to be a Security Agreement under the Uniform Commercial Code. Buyer authorizes Seller as its attorney to execute and file on Buyer's behalf all documents Seller deems necessary to perfect Seller's security interest.

12. User Responsibility. Buyer, through its own analysis and testing, is solely responsible for making the final selection of the Products and assuring that all performance, endurance, maintenance, safety and warning requirements of the application of the Products are met. Buyer must analyze all aspects of the application and follow applicable industry standards, specifications, and any technical information provided with the Quote or the Products, such as Seller's instructions, guides and specifications. If Seller provides options of or for Products based upon data or specifications provided by Buyer, Buyer is responsible for determining that such data and specifications are suitable and sufficient for all applications and reasonably foreseeable uses of the Products. In the event Buyer is not the end-user of the Products, Buyer will ensure such end-user complies with this paragraph.

13. Use of Products, Indemnity by Buyer. Buyer shall comply with all instructions, guides and specifications proviwded by Seller with the Quote or the Products. **Unauthorized Uses.** If Buyer uses or resells the Products in any way prohibited by Seller's instructions, guides or specifications, or Buyer otherwise fails to comply with Seller's instructions, guides and specifications, Buyer acknowledges that any such use, resale, or non-compliance is at Buyer's sole risk. Further, Buyer shall indemnify, defend, and hold Seller harmless from any losses, claims, liabilities, damages, lawsuits, judgments and costs (including attorney fees and defense costs), whether for personal injury,

property damage, intellectual property infringement or any other claim, arising out of or in connection with: (a) improper selection, design, specification, application, or any misuse of Products; (b) any act or omission, negligent or otherwise, of Buyer; (c) Seller's use of patterns, tools, equipment, plans, drawings, designs, specifications or other information or things furnished by Buyer; (d) damage to the Products from an external cause, repair or attempted repair by anyone other than Seller, failure to follow instructions, guides and specifications provided by Seller, use with goods not provided by Seller, or opening, modifying, deconstructing, tampering with or repackaging the Products; or (e) Buyer's failure to comply with these Terms. Seller shall not indemnify Buyer under any circumstance except as otherwise provided in these Terms.

14. Cancellations and Changes. Buyer may not cancel or modify, including but not limited to movement of delivery dates for the Products, any order for any reason except with Seller's written consent and upon terms that will indemnify, defend and hold Seller harmless against all direct, incidental and consequential loss or damage and any additional expense. Seller, at any time, may change features, specifications, designs and availability of Products.

15. Limitation on Assignment. Buyer may not assign its rights or obligations without the prior written consent of Seller.

16. Force Majeure. Seller is not liable for delay or failure to perform any of its obligations by reason of events or circumstances beyond its reasonable control. Such circumstances include without limitation: accidents, labor disputes or stoppages, government acts or orders, acts of nature, pandemics, epidemics, other widespread illness, or public health emergency, delays or failures in delivery from carriers or suppliers, shortages of materials, war (whether declared or not) or the serious threat of same, riots, rebellions, acts of terrorism, fire or any reason whether similar to the foregoing or otherwise. Seller will resume performance as soon as practicable after the event of force majeure has been removed. All delivery dates affected by force majeure shall be tolled for the duration of such force majeure and rescheduled for mutually agreed dates as soon as practicable after the force majeure condition ceases to exist. Force majeure shall not include financial distress, insolvency, bankruptcy, or other similar conditions affecting one of the parties, affiliates and/or sub-contractors.

17. Waiver and Severability. Failure to enforce any provision of these Terms will not invalidate that provision; nor will any such failure prejudice either party's right to enforce that provision in the future. Invalidation of any provision of these Terms shall not invalidate any other provision herein and, the remaining provisions will remain in full force and effect.

18. Termination. Seller may terminate any agreement governed by or arising from these Terms for any reason and at any time by giving Buyer thirty (30) days prior written notice. Seller may immediately terminate, in writing, if Buyer: (a) breaches any provision of these Terms, (b) becomes or is deemed insolvent, (c) appoints or has appointed a trustee, receiver or custodian for all or any part of Buyer's property, (d) files a petition for relief in bankruptcy on its own behalf, or one is filed against Buyer by a third party, (e) makes an assignment for the benefit of creditors; or (f) dissolves its business or liquidates all or a majority of its assets.

19. Ownership of Software. Seller retains ownership of all Software supplied to Buyer hereunder. In no event shall Buyer obtain any greater right in and to the Software than a right in the nature of a license limited to the use thereof and subject to compliance with any other terms provided with the Software.

20. Indemnity for Infringement of Intellectual Property Rights. Seller is not liable for infringement of any patents, trademarks, copyrights, trade dress, trade secrets or similar rights ("Intellectual Property Rights") except as provided in this Section. Seller will defend at its expense and will pay the cost of any settlement or damages awarded in an action brought against Buyer based on a third party claim that one or more of the Products sold hereunder infringes the Intellectual Property Rights of a third party in the country of delivery of the Products by Seller to Buyer. Seller's obligation to defend and indemnify Buyer is contingent on Buyer notifying Seller within ten (10) days after Buyer becomes aware of any such claim, and Seller having sole control over the defense of the claim including all negotiations for settlement or compromise. If one or more Products sold hereunder is subject to such a claim, Seller may, at its sole expense and option, procure for Buyer the right to continue using the Products, replace or modify the Products so as to render them non-infringing, or offer to accept return of the Products and refund the purchase price less a reasonable allowance for depreciation. Seller has no obligation or liability for any claim of infringement: (i) arising from information provided by Buyer; or (ii) directed to any Products provided hereunder for which the designs are specified in whole or part by Buyer; or (iii) resulting from the modification, combination or use in a system of any Products provided hereunder. The foregoing provisions of this Section constitute Seller's sole and exclusive liability and Buyer's sole and exclusive remedy for claims of infringement of Intellectual Property Rights.

21. Governing Law. These Terms and the sale and delivery of all Products are deemed to have taken place in, and shall be governed and construed in accordance with, the laws of the State of Ohio, as applicable to contracts executed and wholly performed therein and without regard to conflicts of laws principles. Buyer irrevocably agrees and consents to the exclusive jurisdiction and venue of the courts of Cuyahoga County, Ohio with respect to any dispute, controversy or claim arising out of or relating to the sale and delivery of the Products.

22. Entire Agreement. These Terms, along with the terms set forth in the main body of any Quote, forms the entire agreement between the Buyer and Seller and constitutes the final, complete and exclusive expression of the terms of sale and purchase. In the event of a conflict between any term set forth in the main body of a Quote and these Terms, the terms set forth in the main body of the Quote shall prevail. All prior or contemporaneous written or oral agreements or negotiations with respect to the subject matter shall have no effect. These Terms may not be modified unless in writing and signed by an authorized representative of Seller.

23. Compliance with Laws. Buyer agrees to comply with all applicable laws, regulations, and industry and professional standards, including those of the United States of America, and the country or countries in which Buyer may operate, including without limitation the U.S. Foreign Corrupt Practices Act ("FCPA"), the U.S. Anti-Kickback Act ("Anti-Kickback Act"), U.S. and E.U. export control and sanctions laws ("Export Laws"), the U.S. Food Drug and Cosmetic Act ("FDCA"), and the rules and regulations promulgated by the U.S. Food and Drug Administration ("FDA"), each as currently amended. Buyer agrees to indemnify, defend, and hold harmless Seller from the consequences of any violation of such laws, regulations and standards by Buyer, its employees or agents. Buyer acknowledges that it is familiar with all applicable provisions of the FCPA, the Anti-Kickback Act, Export Laws, the FDCA and the FDA and certifies that Buyer will adhere to the requirements thereof and not take any action that would make Seller violate such requirements. Buyer represents and agrees that Buyer will not make any payment or give anything of value, directly or indirectly, to any governmental official, foreign political party or official thereof, candidate for foreign political office, or commercial entity or person, for any improper purpose, including the purpose of influencing such person to purchase Products or otherwise benefit the business of Seller. Buyer further represents and agrees that it will not receive, use, service, transfer or ship any Products from Seller in a manner or for a purpose that violates Export Laws or would cause Seller to be in violation of Export Laws. Buyer agrees to promptly and reliably provide Seller all requested information or documents, including end-user statements and other written assurances, concerning Buyer's ongoing compliance with Export Laws.

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北京朝阳区望京 SOHO-T1-C 座 2115 室 邮编:100102
手机: 139 1096 2635 电子邮件: sales@cnmec.biz