

ST Series



Eaton's ST Series is a straight through coupling that is designed for use where minimum pressure drop is required and valving is not needed. These couplings are suited for various and versatile fluid transfer type systems.

FLUID TRANSFER
AND HYDRAULIC

PNEUMATIC

SPECIAL APPLICATIONS

DIAGNOSTIC

AGRICULTURE

REFRIGERANT

Product Features

- Ball latching mechanism
- Smooth bore permits free flow of liquid or gas
- Available in NPTF, BSPP and Hose stem end connections
- Standard seal material: Buna-N
- Standard body material: Brass, 303 stainless steel, steel

Physical Characteristics

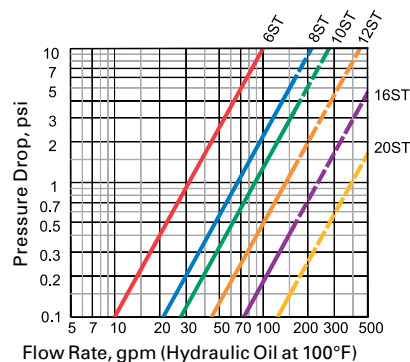
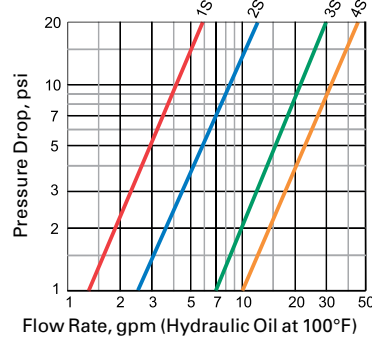
Series	Body Size (in)	Max. Operating Pressure Brass Socket & Plug		Max. Operating Pressure Brass Socket & Steel Plug		Max. Operating Pressure Stainless Socket & Plug		Min. Burst Pressure*		Rated Flow	
		(bar)	(psi)	(bar)	(psi)	(bar)	(psi)	(bar)	(psi)	(lpm)	(gpm)
1ST	1/8	193	2,800	234	3,400	290	4,200	772	11,200	10	2.7
2ST	1/4	359	5,200	379	5,500	517	7,500	1,436	20,800	21	5.6
3ST	3/8	193	2,800	290	4,200	434	6,300	772	11,200	57	15
4ST	1/2	152	2,200	241	3,500	248	3,600	608	8,800	83	22
6ST	3/4	117	1,700	145	2,100	207	3,000	468	6,800	250	66
8ST	1	90	1,300	138	2,000	138	2,000	360	5,200	530	140
10ST	1 1/4	117	1,700	186	2,700	152	2,200	468	6,800	697	184
12ST	1 1/2	97	1,400	152	2,200	172	2,500	388	5,600	1,124	297
16ST	2	97	1,400	152	2,200	103	1,500	388	5,600	1,855	490
20ST	2 1/2	62	900	103	1,500	—	—	248	3,600	3,131	827

*For brass socket and plug. Other materials have 4 to 1 safety factor

Applications & Markets

- Fluid Transfer
- Chemical
- Food and Beverage
- Injection Molding
- Marine
- Medical
- Pressure Washing
- Steam Cleaning

Flow Data



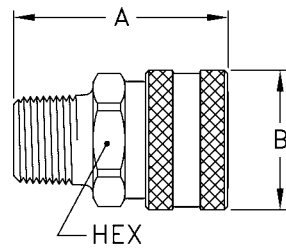


Figure 1

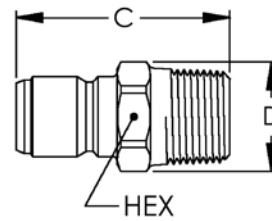


Figure 2

Male End Connections

Part Number	Brass	Steel	Stainless	Coupling Type	Body Size	Port Size	Thread	Type	Fig.	Dimensions						
										A	B	Hex	A	B	Hex	
											(in)	(in)	(in)	(mm)	(mm)	(mm)
1S10	—	—	LL1S10	Socket/Female	1/8	1/8	1/8-27	NPTF	1	1.06	0.72	0.56	26.9	18.3	14.2	
1S10BS	—	—	—	Socket/Female	1/8	1/8	1/8-28	BSPP	1	1.00	0.72	0.56	25.4	18.3	14.2	
2S15	—	—	LL2S15	Socket/Female	1/4	1/4	1/4-18	NPTF	1	1.72	0.97	0.81	43.7	24.6	20.6	
3S20	—	—	LL3S20	Socket/Female	3/8	3/8	3/8-18	NPTF	1	1.75	1.16	1.00	44.5	29.5	25.4	
3S20BS	—	—	LL3S20BS	Socket/Female	3/8	3/8	3/8-19	BSPP	1	1.71	1.16	1.00	43.4	29.5	25.4	
4S25	—	—	LL4S25	Socket/Female	1/2	1/2	1/2-14	NPTF	1	2.03	1.34	1.13	51.6	34.0	28.7	
4S25BS	—	—	LL4S25BS	Socket/Female	1/2	1/2	1/2-14	BSPP	1	1.80	1.34	1.13	45.7	34.0	28.7	
6S30	—	—	LL6S30	Socket/Female	3/4	3/4	3/4-14	NPTF	1	2.22	1.72	1.44	56.4	43.7	36.6	
6S30BS	—	—	—	Socket/Female	3/4	3/4	3/4-14	BSPP	1	2.03	1.72	1.44	51.6	43.7	36.6	
8S35	—	—	—	Socket/Female	1	1	1-11 1/2	NPTF	1	2.53	2.03	1.75	64.3	51.6	44.5	
8S35BS	—	—	—	Socket/Female	1	1	1-11	BSPP	1	2.37	2.03	1.75	60.2	51.6	44.5	

Part Number	Brass	Steel	Stainless	Coupling Type	Body Size	Port Size	Thread	Type	Fig.	Dimensions						
										C	D	Hex	C	D	Hex	
											(in)	(in)	(in)	(mm)	(mm)	(mm)
B1T10	1T10E	—	LL1T10	Plug/Male	1/8	1/8	1/8-27	NPTF	2	1.06	0.51	0.44	26.9	13.0	11.2	
B1T15	1T15	—	—	Plug/Male	1/8	1/4	1/4-18	NPTF	2	1.22	0.65	0.56	31.0	16.5	14.2	
B2T15	2T15	—	LL2T15	Plug/Male	1/4	1/4	1/4-18	NPTF	2	1.56	0.65	0.56	39.6	16.5	14.2	
—	—	—	HL2T15**	Plug/Male	1/4	1/4	1/4-18	NPTF	2	1.56	0.65	0.56	39.6	16.5	14.2	
B2T15BS	—	—	LL2T15BS	Plug/Male	1/4	1/4	1/4-19	BSPP	2	1.46	0.87	0.75	37.1	22.1	19.1	
B3T20	3T20	—	LL3T20	Plug/Male	3/8	3/8	3/8-18	NPTF	2	1.69	0.79	0.69	42.9	20.1	17.5	
—	—	—	HL3T20**	Plug/Male	3/8	3/8	3/8-18	NPTF	2	1.69	0.79	0.69	42.9	20.1	17.5	
B3T20BS	—	—	LL3T20BS	Plug/Male	3/8	3/8	3/8-19	BSPP	2	1.50	1.01	0.88	38.1	25.7	22.4	
B4T25	4T25	—	LL4T25	Plug/Male	1/2	1/2	1/2-14	NPTF	2	2.01	1.01	0.88	51.1	25.7	22.4	
B4T25BS	—	—	LL4T25BS	Plug/Male	1/2	1/2	1/2-14	BSPP	2	1.82	1.15	1.00	46.2	29.2	25.4	
B6T30	6T30	—	LL6T30	Plug/Male	3/4	3/4	3/4-14	NPTF	2	2.2	1.23	1.06	55.9	31.2	26.9	
B6T30BS	—	—	LL6T30BS	Plug/Male	3/4	3/4	3/4-14	BSPP	2	2.08	1.44	1.25	52.8	36.6	31.8	
B8T35	8T35	—	LL8T35	Plug/Male	1	1	1-11 1/2	NPTF	2	2.49	1.59	1.38	63.2	40.4	35.1	
B8T35BS	—	—	—	Plug/Male	1	1	1-11	BSPP	2	2.36	2.02	1.75	59.9	51.3	44.5	
B10T40	10T40	—	LL10T40	Plug/Male	1 1/4	1 1/4	1 1/4-11 1/2	NPTF	2	2.72	2.02	1.75	69.1	51.3	44.5	
B10T40BS	—	—	—	Plug/Male	1 1/4	1 1/4	1 1/4-11	BSPP	2	2.55	2.31	2.00	64.8	58.7	50.8	
B12T45	12T45	—	—	Plug/Male	1 1/2	1 1/2	1 1/2-11 1/2	NPTF	2	3.31	2.6	2.25	84.1	66.0	57.2	
B12T45BS	—	—	—	Plug/Male	1 1/2	1 1/2	1 1/2-11	BSPP	2	3.06	2.6	2.25	77.7	66.0	57.2	
B16T50	16T50	—	LL16T50	Plug/Male	2	2	2-11 1/2	NPTF	2	3.5	3.18	2.75	88.9	80.8	69.9	
B20T55	—	—	—	Plug/Male	2 1/2	2 1/2	2 1/2-8	NPTF	2	4.24	3.75	3.25	107.7	95.3	82.6	

**High impulse heat treated 416 stainless steel

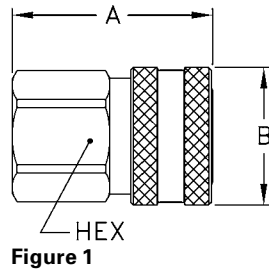


Figure 1

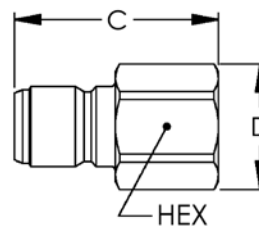


Figure 2

Female End Connections

Part Number	Brass	Steel	Stainless	Coupling Type	Body Size	Port Size	Thread	Type	Fig.	Dimensions						
										A	B	Hex	A	B	Hex	
											(in)	(in)	(in)	(mm)	(mm)	(mm)
1S11	—	LL1S11	Socket/Female	1/8	1/8	1/8-27	NPTF	1	1.06	0.72	0.56	26.9	18.3	14.2		
1S11BS	—	LL1S11BS	Socket/Female	1/8	1/8	1/8-28	BSPP	1	1.03	0.72	0.56	26.2	18.3	14.2		
2S16	—	LL2S16	Socket/Female	1/4	1/4	1/4-18	NPTF	1	1.5	0.97	0.81	38.1	24.6	20.6		
2S16BS	—	LL2S16BS	Socket/Female	1/4	1/4	1/4-19	BSPP	1	1.5	0.97	0.81	38.1	24.6	20.6		
3S21	—	LL3S21	Socket/Female	3/8	3/8	3/8-18	NPTF	1	1.59	1.16	1.00	40.4	29.5	25.4		
3S21BS	—	LL3S21BS	Socket/Female	3/8	3/8	3/8-19	BSPP	1	1.59	1.16	1.00	40.4	29.5	25.4		
4S26	—	LL4S26	Socket/Female	1/2	1/2	1/2-14	NPTF	1	1.91	1.34	1.13	48.5	34.0	28.7		
4S26BS	—	LL4S26BS	Socket/Female	1/2	1/2	1/2-14	BSPP	1	1.91	1.34	1.13	48.5	34.0	28.7		
6S31	—	LL6S31	Socket/Female	3/4	3/4	3/4-14	NPTF	1	2.06	1.72	1.44	52.3	43.7	36.6		
6S31BS	—	LL6S31BS	Socket/Female	3/4	3/4	3/4-14	BSPP	1	2.06	1.72	1.44	52.3	43.7	36.6		
8S36	—	LL8S36	Socket/Female	1	1	1-11 1/2	NPTF	1	2.33	2.03	1.75	59.2	51.6	44.5		
8S36BS	—	LL8S36BS	Socket/Female	1	1	1-11	BSPP	1	2.33	2.03	1.75	59.2	51.6	44.5		
10S41*	—	LL10S41	Socket/Female	1 1/4	1 1/4	1 1/4-11 1/2	NPTF	1	2.44	2.5	2.00	62.0	63.5	50.8		
10S41BS*	—	—	Socket/Female	1 1/4	1 1/4	1 1/4-11	BSPP	1	2.51	2.5	2.00	63.8	63.5	50.8		
12S46*	—	LL12S46	Socket/Female	1 1/2	1 1/2	1 1/2-11 1/2	NPTF	1	2.88	3.13	2.60	73.2	79.5	66.0		
12S46BS*	—	LL12S46BS	Socket/Female	1 1/2	1 1/2	1 1/2-11	BSPP	1	2.88	3.13	2.63	73.2	79.5	66.8		
16S51*	—	LL16S51	Socket/Female	2	2	2-11 1/2	NPTF	1	3.09	3.75	3.00	78.5	95.3	76.2		
16S51BS*	—	LL16S51BS	Socket/Female	2	2	2-11	BSPP	1	3.3	3.75	3.00	83.8	95.3	76.2		
20S56*	—	—	Socket/Female	2 1/2	2 1/2	2 1/2-8	NPTF	1	3.44	4.5	3.50	87.4	114.3	88.9		

Part Number	Brass	Steel	Stainless	Coupling Type	Body Size	Port Size	Thread	Type	Fig.	Dimensions						
										C	D	Hex	C	D	Hex	
											(in)	(in)	(in)	(mm)	(mm)	(mm)
B1T11	1T11	LL1T11	Plug/Male	1/8	1/8	1/8-27	NPTF	2	0.97	0.58	0.50	24.6	14.7	12.7		
B1T11BS	—	LL1T11BS	Plug/Male	1/8	1/8	1/8-28	BSPP	2	0.97	0.65	0.56	24.6	16.5	14.2		
B2T16	2T16	LL2T16	Plug/Male	1/4	1/4	1/4-18	NPTF	2	1.45	0.79	0.69	36.8	20.1	17.5		
—	—	HL2T16**	Plug/Male	1/4	1/4	1/4-18	NPTF	2	1.45	0.79	0.69	36.8	20.1	17.5		
B2T16BS	—	LL2T16BS	Plug/Male	1/4	1/4	1/4-19	BSPP	2	1.45	0.87	0.75	36.8	22.1	19.1		
B3T21	3T21	LL3T21	Plug/Male	3/8	3/8	3/8-18	NPTF	2	1.63	0.94	0.81	41.4	23.9	20.6		
—	—	HL3T21**	Plug/Male	3/8	3/8	3/8-18	NPTF	2	1.63	0.94	0.81	41.4	23.9	20.6		
B3T21BS	—	LL3T21BS	Plug/Male	3/8	3/8	3/8-19	BSPP	2	1.63	1.01	0.88	41.4	25.7	22.4		
B4T26	4T26	LL4T26	Plug/Male	1/2	1/2	1/2-14	NPTF	2	1.92	1.15	1.00	48.8	29.2	25.4		
B4T26BS	—	LL4T26BS	Plug/Male	1/2	1/2	1/2-14	BSPP	2	1.92	1.23	1.06	48.8	31.2	26.9		
B6T31	6T31	LL6T31	Plug/Male	3/4	3/4	3/4-14	NPTF	2	2.01	1.37	1.19	51.1	34.8	30.2		
B6T31BS	—	LL6T31BS	Plug/Male	3/4	3/4	3/4-14	BSPP	2	2.01	1.51	1.31	51.1	38.4	33.3		
B8T36	8T36	LL8T36	Plug/Male	1	1	1-11 1/2	NPTF	2	2.21	1.8	1.56	56.1	45.7	39.6		
B8T36BS	—	LL8T36BS	Plug/Male	1	1	1-11	BSPP	2	2.23	1.8	1.56	56.6	45.7	39.6		
B10T41	10T41	LL10T41	Plug/Male	1 1/4	1 1/4	1 1/4-11 1/2	NPTF	2	2.34	2.31	2.00	59.4	58.7	50.8		
B10T41BS	—	LL10T41BS	Plug/Male	1 1/4	1 1/4	1 1/4-11	BSPP	2	2.53	2.31	2.00	64.3	58.7	50.8		
B12T46	12T46	LL12T46	Plug/Male	1 1/2	1 1/2	1 1/2-11 1/2	NPTF	2	2.88	2.6	2.25	73.2	66.0	57.2		
B12T46BS	—	LL12T46BS	Plug/Male	1 1/2	1 1/2	1 1/2-11	BSPP	2	2.88	2.6	2.25	73.2	66.0	57.2		
B16T51	16T51	—	Plug/Male	2	2	2-11 1/2	NPTF	2	3.03	3.18	2.75	77.0	80.8	69.9		
B16T51BS	—	—	Plug/Male	2	2	2-11	BSPP	2	3.25	3.18	2.75	82.6	80.8	69.9		
B20T56	20T56	—	Plug/Male	2 1/2	2 1/2	2 1/2-8	NPTF	2	3.37	3.75	3.25	85.6	95.3	82.6		

*With Steel Sleeve

** High impulse heat treated 416 stainless steel

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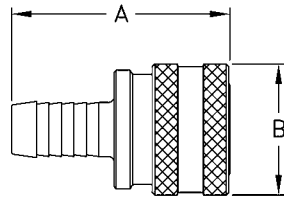


Figure 1

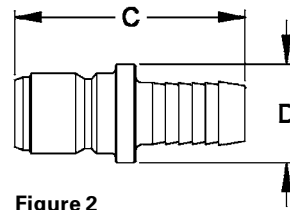


Figure 2

Hose Stem End Connections

Part Number	Brass	Stainless	Steel	Coupling Type	Body Size	Hose I.D.	Fig.	Dimensions		A	B
								A	B		
								(in)	(in)	(mm)	(mm)
1S12	LL1S12	—	—	Socket/Female	1/8	3/16	1	1.41	0.72	35.8	18.3
1S17	LL1S17	—	—	Socket/Female	1/8	1/4	1	1.41	0.72	35.8	18.3
2S17	LL2S17	—	—	Socket/Female	1/4	1/4	1	2.10	0.97	53.3	24.6
3S22	LL3S22	—	—	Socket/Female	3/8	3/8	1	2.09	1.16	53.1	29.5
4S27	LL4S27	—	—	Socket/Female	1/2	1/2	1	2.19	1.34	55.6	34.0
6S32	LL6S32	—	—	Socket/Female	3/4	3/4	1	3.19	1.72	81.0	43.7
8S37	LL8S37	—	—	Socket/Female	1	1	1	3.32	2.03	84.3	51.6

Part Number	Brass	Stainless	Steel	Coupling Type	Body Size	Hose I.D.	Fig.	Dimensions		C	D
								C	D		
								(in)	(in)	(mm)	(mm)
B1T12	LL1T12	—	—	Plug/Male	1/8	3/16	2	1.28	0.44	32.5	11.2
B1T17	LL1T17	—	—	Plug/Male	1/8	1/4	2	1.28	0.44	32.5	11.2
B2T17	LL2T17	—	—	Plug/Male	1/4	1/4	2	1.93	0.56	49.0	14.2
B3T22	LL3T22	—	—	Plug/Male	3/8	3/8	2	2.09	0.69	53.1	17.5
B4T27	LL4T27	—	—	Plug/Male	1/2	1/2	2	2.17	0.88	55.1	22.4
B6T32	LL6T32	—	—	Plug/Male	3/4	3/4	2	3.17	1.19	80.5	30.2
B8T37	—	—	8T37	Plug/Male	1	1	2	3.28	1.5	83.3	38.1

Dust Caps and Dust Plugs

Series	Dust Cap	Dust Plug
2ST	—	PSDC1HK
3ST	—	PSDC2HK
6ST	PPDC4HK	PSDC4HK
8ST	PPDC6HK	—
10ST	PPDC8HK	—

