

ST Series

Fluid transfer & Hydraulic application

Danfoss Hansen 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.



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: Nitrile (NBR)
- Standard body material: Brass, 303 stainless steel, steel

European Pressure Equipment Directive

Couplings with nominal diameters up to and including 25 mm are designed and manufactured under Article 4.3 of the European Pressure Equipment Directive PED 2014/68/EU. Couplings with nominal diameters greater than 25 mm are designed and manufactured in accordance with the stipulations of Module A of the European Pressure Equipment Directive PED 2014/68/EU. They should not be used to convey unstable gases.

Physical Characteristics

Series	Body Size (in)	Max. Operating Pressure Brass Socket & Plug** (bar) (psi)	Max. Operating Pressure Brass Socket & Steel Plug** (bar) (psi)	Max. Operating Pressure Stainless Socket & Plug** (bar) (psi)	Max. Operating pressure for Hazardous liquids and gases Group 1 (bar) (psi)	Min. Burst Pressure* (bar) (psi)	Rated Flow (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	33 480	388 5,600	1,124 297
16ST	2	97 1,400	152 2,200	103 1,500	27 390	388 5,600	1,855 490
20ST	2 1/2	62 900	103 1,500	— —	20 290	248 3,600	3,131 827

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

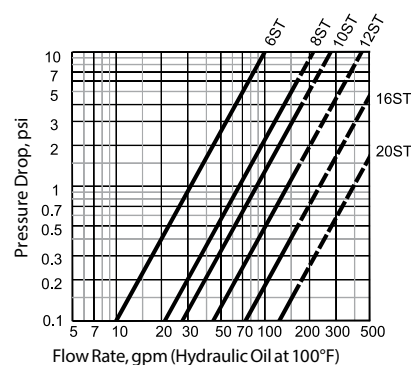
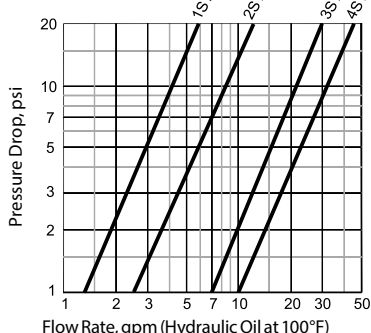
** Operating pressure for Non Hazardous liquids and gases from Group 2

*** Operating pressure is same as Non Hazardous liquids and gases from Group 2 for this size

Applications & Markets

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

Flow Data



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ST Series

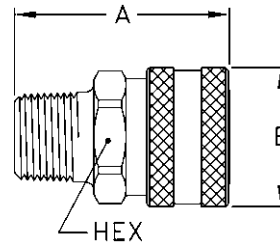


Figure 1

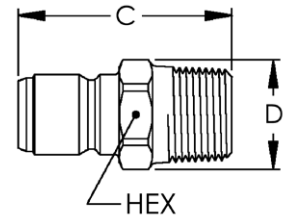


Figure 2

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	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

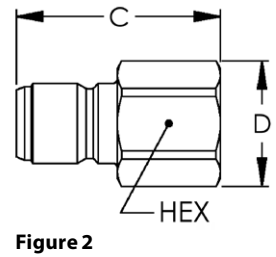
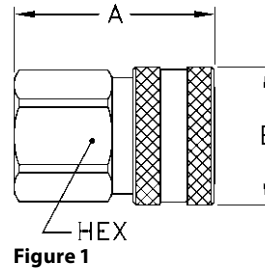


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NOTE: All technical information shown is correct at time of print and may be subject to change without notice. For specific applications, please consult Guyson Technical Sales Department.

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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	⅜	⅜	⅜-27	NPTF	1	1.06	0.72	0.56	26.9	18.3	14.2
1S11BS	—	LL1S11BS	Socket/Female	⅜	⅜	⅜-28	BSPP	1	1.03	0.72	0.56	26.2	18.3	14.2
2S16	—	LL2S16	Socket/Female	¼	¼	¼-18	NPTF	1	1.5	0.97	0.81	38.1	24.6	20.6
2S16BS	—	LL2S16BS	Socket/Female	¼	¼	¼-19	BSPP	1	1.5	0.97	0.81	38.1	24.6	20.6
3S21	—	LL3S21	Socket/Female	⅜	⅜	⅜-18	NPTF	1	1.59	1.16	1.00	40.4	29.5	25.4
3S21BS	—	LL3S21BS	Socket/Female	⅜	⅜	⅜-19	BSPP	1	1.59	1.16	1.00	40.4	29.5	25.4
4S26	—	LL4S26	Socket/Female	½	½	½-14	NPTF	1	1.91	1.34	1.13	48.5	34.0	28.7
4S26BS	—	LL4S26BS	Socket/Female	½	½	½-14	BSPP	1	1.91	1.34	1.13	48.5	34.0	28.7
6S31	—	LL6S31	Socket/Female	¾	¾	¾-14	NPTF	1	2.06	1.72	1.44	52.3	43.7	36.6
6S31BS	—	LL6S31BS	Socket/Female	¾	¾	¾-14	BSPP	1	2.06	1.72	1.44	52.3	43.7	36.6
8S36	—	LL8S36	Socket/Female	1	1	1-11½	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	1¼	1¼	1¼-11½	NPTF	1	2.44	2.5	2.00	62.0	63.5	50.8
10S41BS*	—	—	Socket/Female	1¼	1¼	1¼-11	BSPP	1	2.51	2.5	2.00	63.8	63.5	50.8
12S46*	—	LL12S46	Socket/Female	1½	1½	1½-11½	NPTF	1	2.88	3.13	2.60	73.2	79.5	66.0
12S46BS*	—	LL12S46BS	Socket/Female	1½	1½	1½-11	BSPP	1	2.88	3.13	2.63	73.2	79.5	66.8
16S51*	—	LL16S51	Socket/Female	2	2	2-11½	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	2½	2½	2½-8	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	⅜	⅜	⅜-27	NPTF	2	0.97	0.58	0.50	24.6	14.7	12.7
B1T11BS	—	LL1T11BS	Plug/Male	⅜	⅜	⅜-28	BSPP	2	0.97	0.65	0.56	24.6	16.5	14.2
B2T16	2T16	LL2T16	Plug/Male	¼	¼	¼-18	NPTF	2	1.45	0.79	0.69	36.8	20.1	17.5
—	—	HL2T16**	Plug/Male	¼	¼	¼-18	NPTF	2	1.45	0.79	0.69	36.8	20.1	17.5
B2T16BS	—	LL2T16BS	Plug/Male	¼	¼	¼-19	BSPP	2	1.45	0.87	0.75	36.8	22.1	19.1
B3T21	3T21	LL3T21	Plug/Male	⅜	⅜	⅜-18	NPTF	2	1.63	0.94	0.81	41.4	23.9	20.6
—	—	HL3T21**	Plug/Male	⅜	⅜	⅜-18	NPTF	2	1.63	0.94	0.81	41.4	23.9	20.6
B3T21BS	—	LL3T21BS	Plug/Male	⅜	⅜	⅜-19	BSPP	2	1.63	1.01	0.88	41.4	25.7	22.4
B4T26	4T26	LL4T26	Plug/Male	½	½	½-14	NPTF	2	1.92	1.15	1.00	48.8	29.2	25.4
B4T26BS	—	LL4T26BS	Plug/Male	½	½	½-14	BSPP	2	1.92	1.23	1.06	48.8	31.2	26.9
B6T31	6T31	LL6T31	Plug/Male	¾	¾	¾-14	NPTF	2	2.01	1.37	1.19	51.1	34.8	30.2
B6T31BS	—	LL6T31BS	Plug/Male	¾	¾	¾-14	BSPP	2	2.01	1.51	1.31	51.1	38.4	33.3
B8T36	8T36	LL8T36	Plug/Male	1	1	1-11½	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	1¼	1¼	1¼-11½	NPTF	2	2.34	2.31	2.00	59.4	58.7	50.8
B10T41BS	—	LL10T41BS	Plug/Male	1¼	1¼	1¼-11	BSPP	2	2.53	2.31	2.00	64.3	58.7	50.8
B12T46	12T46	LL12T46	Plug/Male	1½	1½	1½-11½	NPTF	2	2.88	2.6	2.25	73.2	66.0	57.2
B12T46BS	—	LL12T46BS	Plug/Male	1½	1½	1½-11	BSPP	2	2.88	2.6	2.25	73.2	66.0	57.2
B16T51	16T51	—	Plug/Male	2	2	2-11½	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	2½	2½	2 ½-8	NPTF	2	3.37	3.75	3.25	85.6	95.3	82.6

*With Steel Sleeve

** High impulse heat treated 416 stainless steel

ST Series

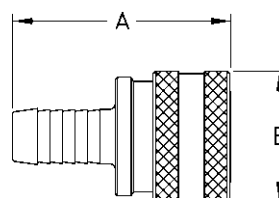


Figure 1

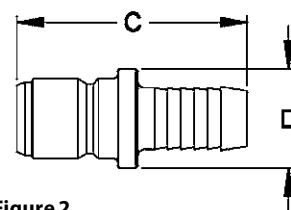


Figure 2

Hose Stem End Connections

Part Number	Brass	Stainless	Steel	Coupling Type	Body Size	Hose I.D.	Fig.	Dimensions A	Dimensions 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	Dimensions 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	—	XPSPDC1HK
3ST	—	XPSPDC2HK
6ST	XPPDC4HK	XPSPDC4HK
8ST	XPPDC6HK	—
10ST	XPPDC8HK	—



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