

# 5100 Series Thread to Connect



Eaton's 5100 Series brass coupling with steel tubular valve offers minimum air inclusion and fluid loss. Thread together latch provides connect under pressure capability and vibration resistance. The 5100 Series is not rated for continuous hydraulic impulse applications. For hydraulic impulse applications, refer to the FD86 and FD96 Series thread to connect product lines.

### Product Features

- Tubular valve construction for virtually no fluid loss during disconnection, reduces environmental and worker safety hazards
- Low air inclusion during connection maintains system performance
- Available with wing or hex nut configurations
- Connect against pressure capability allows connecting of halves even when pressurized up to 500 psi
- Steel flange available for accessible bulkhead mounting
- Standard seal material: Buna-N
- Standard body material: Brass body with high resistance carbon steel with zinc trivalent plated valving components, hex and wing nuts

### Physical Characteristics

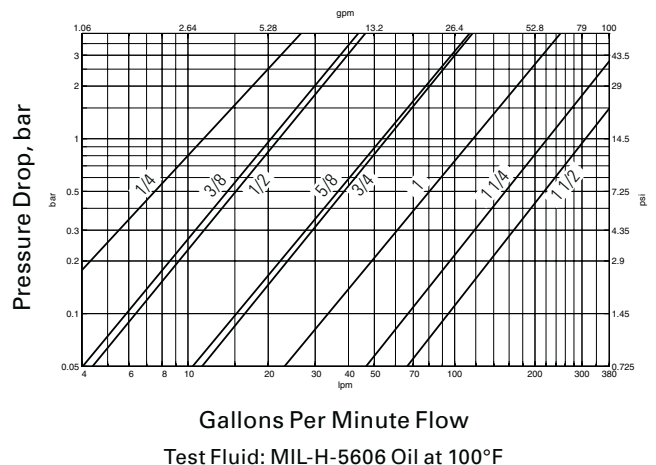
Body Dash Size	Body Interface Size	Max. Operating Pressure Connected		Max. Operating Pressure Disconnected		Rated Flow	Air Inclusion	Fluid Loss		
				Plug/Male Half S2 and S4					Socket/Female Half S5	
(in)	(in)	(bar)	(psi)	(bar)	(psi)	(in./Hg)	(lpm)	(gpm)	cc. max.	cc. max.
1/4	1/4	207	3,000	207	3,000	28	15	4	.03	.01
3/8	1/2	207	3,000	207	3,000	28	26	7	.05	.06
1/2	1/2	207	3,000	207	3,000	28	26	7	.05	.10
5/8	3/4	207	3,000	207	3,000	28	68	18	.14	.10
3/4	3/4	207	3,000	207	3,000	28	68	18	.34	.26
1	1	207	3,000	207	3,000	28	151	40	.50	.35
1 1/4	1 1/4	190	2,750	172	2,500	28	284	75	.68	.70
1 1/2	1 1/2	172	2,500	172	2,500	28	379	100	.60	.94

### Applications & Markets

- Hydraulics and fluid transfer
- On-highway hydraulic wet lines
- Dump and refuse vehicles
- Bulk liquid transfer

### Flow Data

Pressure Drop Versus Flow Graph



FLUID TRANSFER AND HYDRAULIC

PNEUMATIC

SPECIAL APPLICATIONS

DIAGNOSTIC

AGRICULTURE

REFRIGERANT

# 5100 Series Thread to Connect

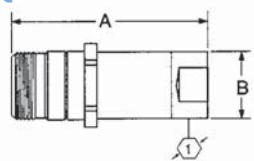


Figure 1

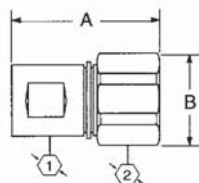


Figure 2

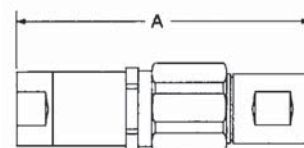


Figure 3

## Dimensions (Female NPT, Valved without Flange)

Part Number	Buna-N Type	Coupling Size	Body Size	Port Thread	Type	Fig.	Dimensions A		B		Hex ①		Hex ②	
							mm	(in)	mm	(in)	mm	(in)	mm	(in)
5100-S2-4B	Plug/Male	1/4	1/8	1/8-27	Female NPT	1	47.8	(1.88)	22.9	(.90)	17.5	(.69)	-	-
5110-S5-4B	Socket/Female	1/4	1/8	1/8-27	Female NPT	2	53.3	(2.10)	33.5	(1.32)	14.2	(.56)	30.2	(1.19)
5111-4B	Complete	1/4	1/8	1/8-27	Female NPT	3	81.3	(3.20)	-	-	-	-	-	-
5100-S2-6B	Plug/Male	3/8	1/4	1/4-18	Female NPT	1	65.5	(2.58)	26.7	(1.05)	23.9	(.94)	-	-
5110-S5-6B	Socket/Female	3/8	1/4	1/4-18	Female NPT	2	61.0	(2.40)	38.9	(1.53)	19.3	(.76)	35.1	(1.38)
5111-6B	Complete	3/8	1/4	1/4-18	Female NPT	3	104.4	(4.11)	-	-	-	-	-	-
5100-S2-8B	Plug/Male	1/2	3/8	3/8-18	Female NPT	1	65.5	(2.58)	26.7	(1.05)	23.9	(.94)	-	-
5110-S5-8B	Socket/Female	1/2	3/8	3/8-18	Female NPT	2	61.0	(2.40)	38.9	(1.53)	19.3	(.76)	35.1	(1.38)
5111-8B	Complete	1/2	3/8	3/8-18	Female NPT	3	104.4	(4.11)	-	-	-	-	-	-
5100-S2-10B	Plug/Male	5/8	1/2	1/2-14	Female NPT	1	79.0	(3.11)	35.1	(1.38)	30.2	(1.19)	-	-
5110-S5-10B	Socket/Female	5/8	1/2	1/2-14	Female NPT	2	78.0	(3.07)	50.3	(1.98)	29.5	(1.16)	44.5	(1.75)
5111-10B	Complete	5/8	1/2	1/2-14	Female NPT	3	132.3	(5.21)	-	-	-	-	-	-
5100-S2-12B	Plug/Male	3/4	3/4	3/4-14	Female NPT	1	79.0	(3.11)	35.1	(1.38)	30.2	(1.19)	-	-
5110-S5-12B	Socket/Female	3/4	3/4	3/4-14	Female NPT	2	78.0	(3.07)	50.3	(1.98)	29.5	(1.16)	44.5	(1.75)
5111-12B	Complete	3/4	3/4	3/4-14	Female NPT	3	132.3	(5.21)	-	-	-	-	-	-
5100-S2-16B	Plug/Male	1	1	1-11 1/2	Female NPT	1	90.2	(3.55)	44.2	(1.74)	39.6	(1.56)	-	-
5110-S5-16B	Socket/Female	1	1	1-11 1/2	Female NPT	2	93.5	(3.68)	61.2	(2.41)	36.6	(1.44)	53.8	(2.12)
5111-16B	Complete	1	1	1-11 1/2	Female NPT	3	151.9	(5.98)	-	-	-	-	-	-
5100-S2-20B	Plug/Male	1 1/4	1 1/4	1 1/4 - 11 1/2	Female NPT	1	94.2	(3.71)	52.8	(2.08)	47.8	(1.88)	-	-
5110-S5-20B	Socket/Female	1 1/4	1 1/4	1 1/4 - 11 1/2	Female NPT	2	101.6	(4.00)	58.7	(2.31)	45.2	(1.78)	63.5	(2.50)
5111-20B	Complete	1 1/4	1 1/4	1 1/4 - 11 1/2	Female NPT	3	160.3	(6.31)	-	-	-	-	-	-
5100-S2-24B	Plug/Male	1 1/2	1 1/2	1 1/2 - 11 1/2	Female NPT	1	104.6	(4.12)	62.5	(2.46)	55.6	(2.19)	55.6	(2.19)
5110-S5-24B	Socket/Female	1 1/2	1 1/2	1 1/2 - 11 1/2	Female NPT	2	104.1	(4.10)	78.7	(3.10)	50.8	(2.00)	-	-
5111-24B	Complete	1 1/2	1 1/2	1 1/2 - 11 1/2	Female NPT	3	165.6	(6.52)	-	-	-	-	-	-

PNEUMATIC

SPECIAL APPLICATIONS

DIAGNOSTIC

AGRICULTURE

REFRIGERANT

# 5100 Series Thread to Connect

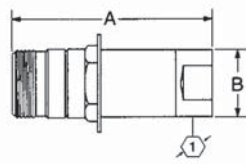


Figure 4

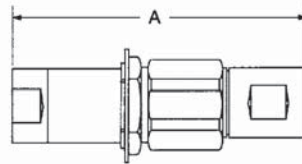


Figure 5

## Dimensions (Female NPT, Valved WITH Flange)

Part Number Buna-N	Coupling Type	Body Size	Port Size	Thread	Type	Fig.	Dimensions		B		Hex Ⓛ	
							A		mm	(in)	mm	(in)
5100-S4-4B	Plug/Male	1/4	1/8	1/8-27	Female NPT	4	47.8	(1.88)	22.4	(.88)	23.3	(.96)
5110-4B	Complete	1/4	1/8	1/8-27	Female NPT	5	81.3	(3.20)	-	-	-	-
5100-S4-6B	Plug/Male	3/8	1/4	1/4-18	Female NPT	4	65.5	(2.58)	26.7	(1.05)	28.5	(1.12)
5110-6B	Complete	3/8	1/4	1/4-18	Female NPT	5	104.4	(4.11)	-	-	-	-
5100-S4-8B	Plug/Male	1/2	3/8	3/8-18	Female NPT	4	65.5	(2.58)	26.7	(1.05)	28.5	(1.12)
5110-8B	Complete	1/2	3/8	3/8-18	Female NPT	5	104.4	(4.11)	-	-	-	-
5100-S4-10B	Plug/Male	5/8	1/2	1/2-14	Female NPT	4	79.0	(3.11)	35.2	(1.35)	41.2	(1.62)
5110-10B	Complete	5/8	1/2	1/2-14	Female NPT	5	132.3	(5.21)	-	-	-	-
5100-S4-12B	Plug/Male	3/4	3/4	3/4-14	Female NPT	4	79.0	(3.11)	35.2	(1.35)	41.2	(1.62)
5110-12B	Complete	3/4	3/4	3/4-14	Female NPT	5	132.3	(5.21)	-	-	-	-
5100-S4-16B	Plug/Male	1	1	1-11 1/2	Female NPT	4	90.2	(3.55)	44.2	(1.74)	47.8	(1.88)
5100-S4-20B	Plug/Male	1 1/4	1 1/4	1 1/4 - 11 1/2	Female NPT	4	94.2	(3.71)	52.8	(2.08)	53.9	(2.12)
5110-20B	Complete	1 1/4	1 1/4	1 1/4 - 11 1/2	Female NPT	5	160.3	(6.31)	-	-	-	-
5100-S4-24B	Plug/Male	1 1/2	1 1/2	1 1/2 - 11 1/2	Female NPT	4	104.6	(4.12)	62.5	(2.46)	63.5	(2.50)

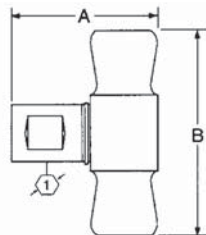


Figure 6

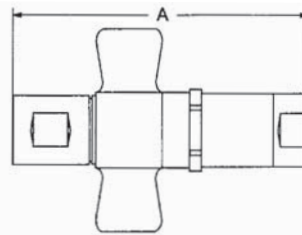


Figure 7

## Dimensions (Female NPT, Valved WITH Wing Nut Less Flange)

Part Number Buna-N	Coupling Type	Body Size	Port Size	Thread	Type	Fig.	Dimensions		B		Hex Ⓛ	
							A		mm	(in)	mm	(in)
5100-S5-4B	Socket/Female	1/4	1/8	1/8-27	Female NPT	6	53.3	(2.10)	77.0	(3.03)	14.2	(.56)
5101-4B	Complete	1/4	1/8	1/8-27	Female NPT	7	81.3	(3.20)	-	-	-	-
5100-S5-6B	Socket/Female	3/8	1/4	1/4-18	Female NPT	6	61.0	(2.40)	87.4	(3.44)	19.3	(.76)
5101-6B	Complete	3/8	1/4	1/4-18	Female NPT	7	104.4	(4.11)	-	-	-	-
5100-S5-8B	Socket/Female	1/2	3/8	3/8-18	Female NPT	6	61.0	(2.40)	87.4	(3.44)	19.3	(.76)
5101-8B	Complete	1/2	3/8	3/8-18	Female NPT	7	104.4	(4.11)	-	-	-	-
5100-S5-10B	Socket/Female	5/8	1/2	1/2-14	Female NPT	6	78.0	(3.07)	104.9	(4.13)	29.5	(1.16)
5101-10B	Complete	5/8	1/2	1/2-14	Female NPT	7	132.3	(5.21)	-	-	-	-
5100-S5-12B	Socket/Female	3/4	3/4	3/4-14	Female NPT	6	78.0	(3.07)	104.9	(4.13)	29.5	(1.16)
5101-12B	Complete	3/4	3/4	3/4-14	Female NPT	7	132.3	(5.21)	-	-	-	-
5100-S5-16B	Socket/Female	1	1	1-11 1/2	Female NPT	6	93.5	(3.68)	111.3	(4.38)	36.6	(1.44)
5101-16B	Complete	1	1	1-11 1/2	Female NPT	7	151.9	(5.98)	-	-	-	-
5100-S5-20B	Socket/Female	1 1/4	1 1/4	1 1/4 - 11 1/2	Female Pipe	6	101.6	(4.00)	133.9	(5.27)	45.2	(1.78)
5101-20B	Complete	1 1/4	1 1/4	1 1/4 - 11 1/2	Female NPT	7	160.3	(6.31)	-	-	-	-
5100-S5-24B	Socket/Female	1 1/2	1 1/2	1 1/2 - 11 1/2	Female NPT	6	104.1	(4.10)	136.7	(5.38)	50.8	(2.00)
5101-24B	Complete	1 1/2	1 1/2	1 1/2 - 11 1/2	Female NPT	7	165.6	(6.52)	-	-	-	-

Note: Uses the 5100-S2 series plug/male half shown on page 50.

# 5100 Series Thread to Connect

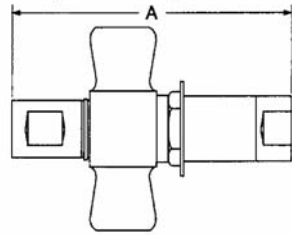


Figure 8

## Dimensions (Female NPT, Valved WITH Wing Nut and Flange)

Part Number Buna-N	Coupling Type	Body Size	Port Size	Thread	Type	Fig. A	Dimensions	
							mm	(in)
5100-4B	Complete	1/4	1/8	1/8-27	Female NPT	8	81.3	(3.24)
5100-6B	Complete	3/8	1/4	1/4-18	Female NPT	8	104.4	(4.11)
5100-8B	Complete	1/2	3/8	3/8-18	Female NPT	8	104.4	(4.11)
5100-10B	Complete	5/8	1/2	1/2-14	Female NPT	8	132.3	(5.21)
5100-12B	Complete	3/4	3/4	3/4-14	Female NPT	8	132.3	(5.21)
5100-16B	Complete	1	1	1-11 1/2	Female NPT	8	151.9	(5.89)
5100-20B	Complete	1 1/4	1 1/4	1 1/4 - 11 1/2	Female NPT	8	160.3	(6.33)
5100-24B	Complete	1 1/2	1 1/2	1 1/2 - 11 1/2	Female NPT	8	165.6	(6.54)

Note: Uses the 5100-S2 series plug/male half shown on page 50.

## Repair Kits

Part Number Buna-N	Body Size
FF098-04	1/4
FF098-08	3/8 & 1/2
FF098-12	5/8 & 3/4
FF098-16	1
FF098-20	1 1/4
FF098-24	1 1/2

Note: Each kit will repair both plug/male and socket/female halves.

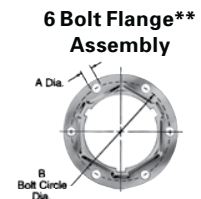
## Dust Caps and Dust Plugs

Part Number Dust Cap with Chain	Dust Plug with Chain	Body Size
5100-S7-5	5100-S9-5	1/4
5100-S7-8	5100-S9-8	3/8 & 1/2
5100-S7-12	5100-S9-12	5/8 & 3/4
5100-S7-16	5100-S9-16	1
5100-S7-20	5100-S9-20	1 1/4
5100-S7-24	5100-S9-24	1 1/2



## 6-Bolt Flange Assembly

Part Number 6-Bolt Flange Assembly	Body Size	Dimensions A		B	
		mm	(in)	mm	(in)
150-22-5	1/4	5.11	(.201)	33.6	(1.44)
150-22-8	3/8 & 1/2	5.11	(.201)	42.9	(1.69)
150-22-12	5/8 & 3/4	5.11	(.201)	53.8	(2.12)
150-22-16	1	5.11	(.201)	60.5	(2.38)
150-22-20	1 1/4	5.11	(.201)	66.5	(2.62)
5100-22-245	1 1/2	5.11	(.201)	82.6	(3.25)



\*To order caps and plugs without chain, order cap by part number 5100-32-(size) and plug by part number 5100-41-(size).

\*\*6 Bolt Flange-holes equally spaced. (See "A" for bolt hole diameter, and "B" for bolt circle diameter).

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