



AUTO-COUPPLINGS

# Auto-Couplings

*For Multiple Connection Systems*







# Auto-Couplings

## FOR MULTIPLE CONNECTION SYSTEMS

### **Minimized Down-Time**

The automation process going on in most industries requires more sophisticated manufacturing equipment. Consequently the cost of downtime in connection with repairs, mold and tool changes continue to increase. Use of CEJN's automation couplings is key to reducing costly downtime.

### **Greater flexibility**

To maintain flexible production systems and still minimize downtime the requirement for speedy connection and disconnection of machine components has become a factor of great importance.

CEJN Auto-Couplings built in to manifolds allow simultaneous connection and disconnection of an unlimited number of lines for a wide variety of media. Multiple combinations of coupling/nipple sizes or materials are easy to implement.

### **Unlimited applications**

CEJN Auto-Couplings are suitable for a wide variety of applications, including:

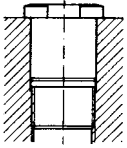
- Quick mold changing for injection and blow molding machines
- Clamping and palletizing machines
- Water cooling lines on welding and robotic equipment
- Automatic tool changing systems on machine tools
- Quick die changing on stamping presses
- Remote connection of quick couplings in hazardous environments
- Engine testing equipment

### **CEJN Auto-Coupling Features**

- Working pressure up to 300 bar
- Flush-face, non-drip design for leak-free performance
- A unique patented design will allow connection/disconnection under full working pressure
- A wide choice of thread connections in G, Rc and NPT available as standard
- Alternative ways of mounting by means of using separate thread connectors
- Special models using other materials available on request

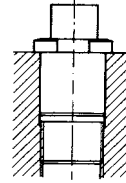
**Couplings** (Connectors have to be ordered separately if required)

Block mounting



**Nipples** (Connectors have to be ordered separately if required)

Block mounting



Nom. flow dia. mm	Ref. No. Steel version	Ref. No. Brass version	Nom. flow dia. mm	Ref. No. Steel version	Ref. No. Brass version
3	10 915 1550	–	3	10 915 6550	–
6	10 925 1552	10 924 1552	6	10 925 6552	10 924 6552
8	10 945 1554	10 944 1554	8	10 945 6554	10 944 6554
11	10 965 1556	10 964 1556	11	10 965 6556	10 964 6556
15	10 975 1558	10 974 1558	15	10 975 6558	10 974 6558
19	10 985 1559	10 984 1559	19	10 985 6559	10 984 6559

**Connectors with female thread** (For plate mounting)

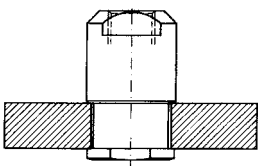
**Steel version**



Nom. flow dia. mm	Nom. size	Part No. G	Part No. Rc	Part No. NPT
3	1/4"	10 915 4322	10 915 4312	10 915 4342
6	1/4"	10 925 4322	10 925 4312	10 925 4342
8	3/8"	10 945 4324	10 945 4314	10 945 4344
11	1/2"	10 965 4325	10 965 4315	10 965 4345
15	3/4"	10 975 4327	10 975 4317	10 975 4347
19	1"	10 985 4329	10 985 4319	10 985 4349

**Brass version**

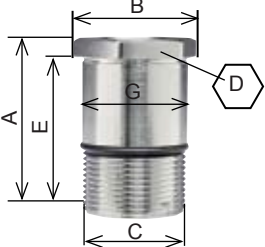
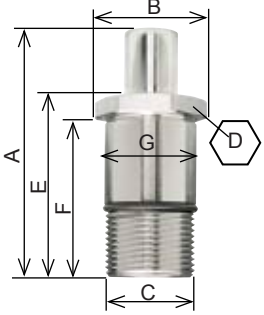
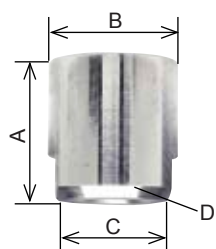
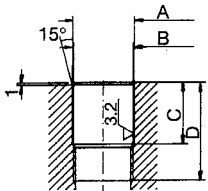
Plate mounting



Nom. flow dia. mm	Nom. size	Part No. G	Part No. Rc	Part No. NPT
6	1/4"	10 924 4322	10 924 4312	10 924 4342
8	3/8"	10 944 4324	10 944 4314	10 944 4344
11	1/2"	10 964 4325	10 964 4315	10 964 4345
15	3/4"	10 974 4327	10 974 4317	10 974 4347
19	1"	10 984 4329	10 984 4319	10 984 4349



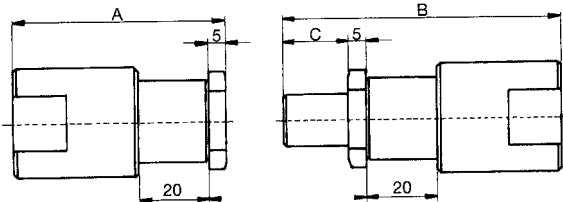
### Dimensions (mm)

Couplings		Nom. flow dia. mm	A	B	C	D	E	F	G
		3	40.6	-	M20 x 1.0	24	35.6	-	∅ 22.0
		6	47.0	∅ 30	M24 x 1.5	27	42.0	-	∅ 24.5
		8	47.0	∅ 34	M28 x 1.5	30	42.0	-	∅ 28.5
		11	50.0	∅ 40	M33 x 1.5	35	45.0	-	∅ 33.5
		15	60.0	∅ 54	M45 x 1.5	47	55.0	-	∅ 45.5
		19	65.0	∅ 64	M52 x 1.5	56	60.0	-	∅ 54.0
Nipples		Nom. flow dia. mm	A	B	C	D	E	F	G
		3	47.3	-	M20 x 1.0	24	40.6	35.6	∅ 22.0
		6	65.2	∅ 30	M24 x 1.5	27	47.0	42.0	∅ 24.5
		8	65.8	∅ 34	M28 x 1.5	30	47.0	42.0	∅ 28.5
		11	68.8	∅ 40	M33 x 1.5	35	50.0	45.0	∅ 33.5
		15	80.5	∅ 54	M45 x 1.5	47	60.0	55.0	∅ 45.5
		19	87.0	∅ 64	M42 x 1.5	56	65.0	60.0	∅ 54.0
Connectors		Nom. flow dia. mm	A	B	C	D			
		3	26.3	∅ 27	G 1/4"	24			
		6	32.7	∅ 30	G 1/4"	26			
		8	33.7	∅ 34	G 3/8"	29			
		11	40.7	∅ 40	G 1/2"	30			
		15	51.7	∅ 54	G 3/4"	41			
		19	58.7	∅ 64	G 1"	46			
Mounting recommendation		Nom. flow dia. mm	A	B	C	D			
	Block mounting	3	∅ 22.00 <sup>+0.05</sup>	M20 x 1.0	25.6 <sup>+0.2</sup>	Min. 37			
		6	∅ 24.55 <sup>+0.05</sup>	M24 x 1.5	27.0 <sup>+0.2</sup>	Min. 43			
		8	∅ 28.55 <sup>+0.05</sup>	M28 x 1.5	27.0 <sup>+0.2</sup>	Min. 43			
		11	∅ 33.55 <sup>+0.05</sup>	M33 x 1.5	27.0 <sup>+0.2</sup>	Min. 46			
		15	∅ 45.55 <sup>+0.05</sup>	M45 x 1.5	28.0 <sup>+0.2</sup>	Min. 56			
		19	∅ 54.05 <sup>+0.05</sup>	M52 x 1.5	28.0 <sup>+0.2</sup>	Min. 61			



### Dimensions

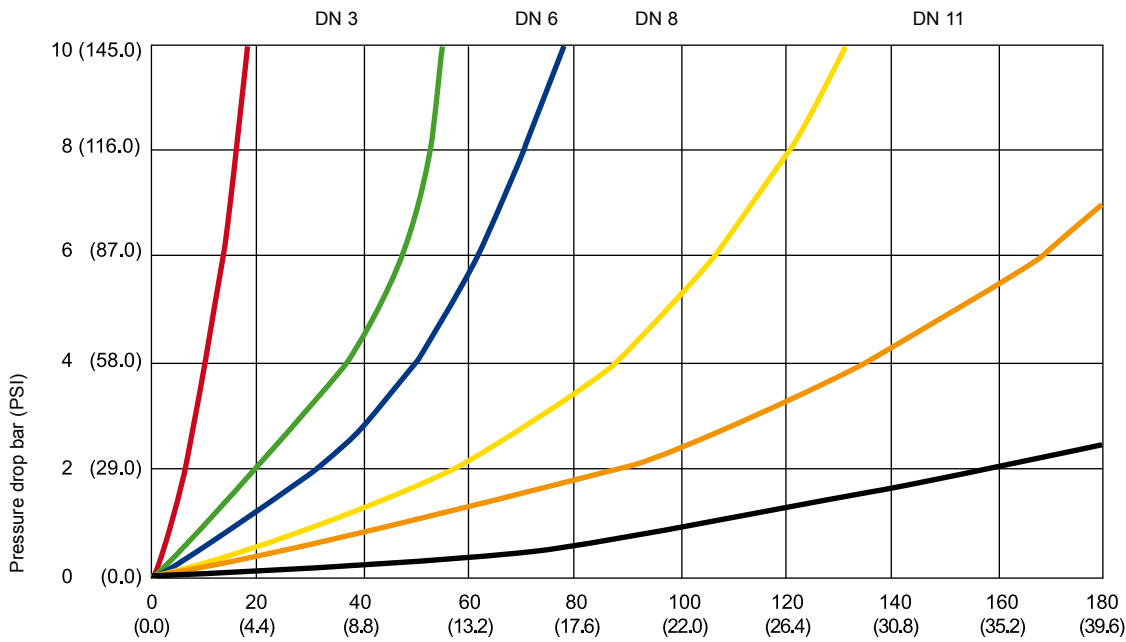
Plate mounting



Recommended plate thickness 20<sup>-0.1</sup> mm

Nom. flow dia. mm	A	B	C	For Coupling	For Nipple
3	51.6	58.3	6.7	∅22.3 <sup>+0.1</sup>	∅22.05 <sup>+0.1</sup>
6	58.0	76.2	18.2	∅24.8 <sup>+0.1</sup>	∅24.55 <sup>+0.1</sup>
8	59.0	77.8	18.8	∅28.8 <sup>+0.1</sup>	∅28.55 <sup>+0.1</sup>
11	66.0	84.8	18.8	∅33.8 <sup>+0.1</sup>	∅33.55 <sup>+0.1</sup>
15	77.0	97.5	20.5	∅45.8 <sup>+0.1</sup>	∅45.55 <sup>+0.1</sup>
19	84.0	106.0	22.0	∅54.3 <sup>+0.1</sup>	∅54.05 <sup>+0.1</sup>

### Flow diagram



Litres/min. (G.P.M.). Hydraulic fluid 30 cSt. Temperature 122° F (50° C)

### Technical specification

### Steel

### Brass

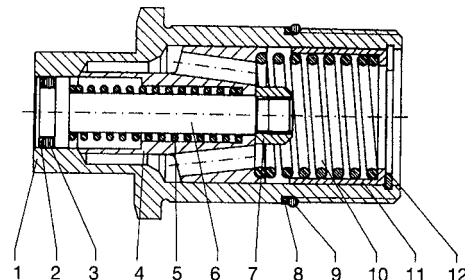
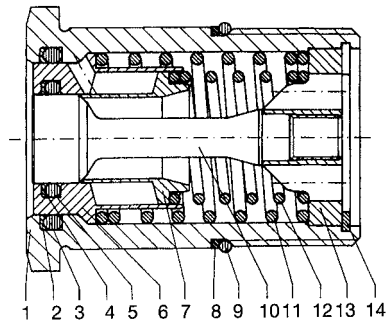
Working pressure	300 bar/4350 PSI	35 bar / 507 PSI
Connection under pressure	Sizes 6 - 19 mm, max. 300 bar/4350 PSI****	35 bar / 507 PSI
Min. burst pressure	970 bar / 14065 PSI	140 bar / 2030 PSI
Temperature range	-4° F to 212° F (-20° C to +100° C)	140 bar / 2030 PSI
		-4° F to 212° F (-20° C to +100° C)

\*\*\*\* Important! Coupling and nipple displacement to be considered.

### Calculated connection forces

Nom. flow dia. mm	Spring force (N)	Nom. area (cm <sup>2</sup> x10 <sup>-1</sup> )	System press. (bar)	Connection force (N)	Nom. flow dia. mm	Spring force (lbf)	Nom. area (sq.in)	System press. (PSI)	Connection force (lbf)		
3	67	+ ( 13,3	x .....)	=	.....	3	15.4	+ ( 0.206	x .....)	=	.....
6	108	+ ( 16,3	x .....)	=	.....	6	24.3	+ ( 0.252	x .....)	=	.....
8	216	+ ( 26,0	x .....)	=	.....	8	48.5	+ ( 0.403	x .....)	=	.....
11	275	+ ( 42,0	x .....)	=	.....	11	61.7	+ ( 0.651	x .....)	=	.....
15	343	+ ( 71,0	x .....)	=	.....	15	77.2	+ ( 1.100	x .....)	=	.....
19	490	+ ( 130,0	x .....)	=	.....	19	110.2	+ ( 2.015	x .....)	=	.....

### Material



	Steel version	Brass version
1 Coupling body	Steel*	Brass***
2 Back-up-ring	PTFE	-
3 O-ring	Nitrile rubber	Nitrile rubber
4 Back-up-ring	PTFE	-
5 O-ring	Nitrile rubber	Nitrile rubber
6 Valve	Steel**	Brass***
7 Valve sleeve	Steel	Brass
8 Back-up-ring	PUR	-
9 O-ring	Nitrile rubber	Nitrile rubber
10 Valve opener	Steel*	Brass***
11 Spring	Stainless steel	Stainless steel
12 Spring	Stainless steel	Stainless steel
13 Valve stop	Steel	Brass
14 Locking ring	Steel	Stainless steel

	Steel version	Brass version
1 Nipple body	Steel*	Brass***
2 Back-up-ring	PTFE	-
3 O-ring	Nitrile rubber	Nitrile rubber
4 Valve sleeve	Steel	Brass
5 Spring	Stainless steel	Stainless steel
6 Valve	Steel**	Brass***
7 Nut	Steel	Brass
8 Back-up-ring	PUR	-
9 O-ring	Nitrile rubber	Nitrile rubber
10 Spring	Stainless steel	Stainless steel
11 Valve stop	Steel	Brass
12 Locking ring	Steel	Stainless steel

\* Hardened and black-finished      \*\* Black-finished  
Above design does not apply to 3 mm version

\*\*\* Nickel plated



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