

# Hydraulic Couplings



Quick Connect Couplings and Nipples for Industrial and Mobile Hydraulics



# Customers in industrial and mo CEJN for high-performance



Series 415, Page 13



Series 705, Page 14



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bile hydraulic markets rely on quick connect couplings.

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Series X65 ISO 16028 flat-face couplings, Pages 6-9

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# **CEJN** – Your Responsive Source for Industrial and Mobile Hydraulic Couplings



For the past five decades, CEJN has been providing reliable, quick couplings styles to customer locations all over the world that need hydraulic and pneumatic couplings to function without failure.

CEJN coupling products in the high-pressure hydraulic market include quick connect couplings with operating pressures up to 300 MPa, porting blocks, pressure gauges, and adapters for a wide variety of fluid applications.

Our company's pneumatic product range includes quick connect couplings with operating pressures up to 3,5 MPa, hose, hose and cable reels, blowguns, and accessories.

Supported by global, ISO-certified assembly and testing operations and an ever-expanding network of distributors, CEJN products are designed to meet the challenges of high-pressure and pneumatic environments and are industry standards in their vitally important, fluid-system applications.

#### Selling Solutions, Not Substitutes

Our strong, longstanding presence in highpressure hydraulic and pneumatic markets is the result of focusing our attention on our customers and listening to their needs.

By doing so, CEJN is able to tailor its research and development activities to specific needs – and sell products that are regarded as solutions, not merely substitutes for problem products.

#### Listening to the Voice of the Customer

This focus on the voice of the customer has led to CEJN's expanding presence in low- and medium-pressure applications in industrial and mobile hydraulics, markets traditionally served by our quick connect coupling styles in <sup>1</sup>/<sub>4</sub>" through 2" sizes.

When customers asked us for a way to make hydraulic hose connections quicker and easier, we responded with WEO Plug-In hose fittings, our flagship product entry into mobile hydraulics.



As their name implies, WEO Plug-In threadless fittings simply "plug in" to mobile hydraulic systems, eliminating installation frustrations and the need for special tools.

CEJN's responsiveness to this customer need – and WEO's acceptance as a critical product development solution in agricultural, construction, logging, and mining machinery markets – has prompted more customers to come forward with requests for products to fill specific requirements in low- and medium-pressure applications in industrial and mobile hydraulics.

#### Series 525 – Popular Coupling for Mobile Hydraulics

Our popular coupling product for mobile hydraulics – Series 525 quick-release couplings – is a case in point. When customers approached CEJN with the need for a heavy-duty coupling, CEJN answered with a reliable product design featuring a hardened nipple, double O-rings, and a backup ring.

Another important product development is CEJN's new Series X65 couplings, a revolutionary breakthrough in terms of protecting hydraulic systems – and our environment – from the potential harmful effects of hydraulic fluid leaks.

The flat-face design of Series X65 couplings minimizes spillage during connection and disconnection. And the smooth, flat surfaces of the coupling are easily wiped clean, further reducing spillage and the threat of contamination.

#### **Checking Hydraulic Pressure in a Snap**

CEJN has taken the protection of hydraulic systems one step further with the development of its Snap-Check hydraulic pressure testing system. This monitoring system identifies operating pressure surges in a snap – without the need for a permanently installed gauge or transducer.

The growing popularity of our new developments in low-and medium-pressure applications in industrial and mobile hydraulics is proof that when customers ask for something better, CEJN responds with product solutions.

# **CEJN Series X65**

# *No-Spill, ISO 16028 Flat-Face Couplings*

## Protecting Systems and the Environment from Hydraulic Leaks

Our environment is an irreplaceable asset that needs to be protected now for future generations. Critical to its protection is instilling pollution prevention measures that prevent or reduce pollution at its source.

Pollution prevention means reducing, reusing, and recycling materials rather than putting them into the waste stream. It means implementing conservation techniques. It means promoting the use of non-toxic or less-toxic substances. It means reducing or eliminating waste by modifying production processes.



At CEJN, pollution prevention also means designing and manufacturing products that protect the environment from harm. Our new Series X65 no-spill hydraulic couplings do just that by minimizing hydraulic fluid leakage, which pollutes the atmosphere and hydraulic systems in which it infiltrates.

CEJN Series X65 couplings are "clean connections" for medium-pressure mobile hydraulics in applications such as construction equipment, agricultural machinery, and forestry equipment.

The flat-face design of the couplings mini-

mizes spillage during connection and disconnection – an important step in preventing fire and safety hazards and poor performance in hydraulic systems, and preventing pollution and its associated, costly cleanup measures.

By choosing CEJN's new Series X65 no-spill couplings, you will be contributing to overall improved system performance – and to improving our homeland now and in the years to come.

# Series X65 Couplings for Mobile Hydraulics

CEJN's Series X65 flat-face couplings and nipples are specially designed to minimize spillage in mobile hydraulic applications and offer added protection against involuntary disconnection.



Series X65 couplings meet design requirements for **ISO 16028**, an international standard that specifies interface dimensions for interchangeability and performance requirements for hydraulic, flat-face, quick-action couplings at pressures from 25 MPa to 31.5 MPa.

#### Low Spillage during Connection and Disconnection

The flat-face design of Series X65 couplings minimizes spillage during connection and disconnection. And the smooth, flat surfaces of the couplings are easily wiped clean, further reducing spillage and the threat of contamination entering hydraulic systems.

#### **One-Hand Operation for Easy Connection**

Series X65 couplings require only one hand for operation, making connection and disconnection fast and easy. During connection, the coupling and nipple automatically lock into place.

### Security Locking for Extra Protection Against Involuntary Disconnection

As added protection against involuntary disconnection, the coupling design includes a manual security-locking feature. It is engaged by manually turning the locking sleeve after connection. The lock is released by returning the sleeve to its original position during disconnection.

#### **Optional Dust Caps Available**

To prevent dust and debris from entering the system, dust caps are recommended for use on both the coupling and nipple when they are connected and disconnected. They are available for all sizes and connections (see part numbers on the following page).

#### DN 6.3 (1/4") to DN 19 (3/4") Sizes

Series X65 couplings are offered in the following size ranges, making them suitable for a wide variety of applications: Series  $265 - DN \ 6.3 \ (1/4")$ , Series  $365 - DN \ 10 \ (3/8")$ , Series  $565 - DN \ 12.5 \ (1/2")$ , Series  $665 - DN \ 16 \ (5/8")$  and Series  $765 - DN \ 19 \ (3/4")$ .

#### **Two-Part Design**

Since the two-part couplings feature separate front and back sections, standard line products are available with custom rear sections or threads to meet specific application requirements.

#### Security-Locking Feature



#### **Connection:**

After the nipple is pushed into the coupling and locked into place, turn the locking sleeve manually away from the ball to engage the extra locking feature.

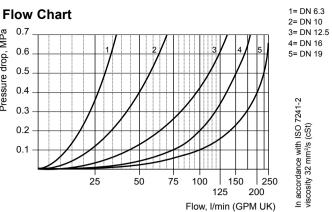


#### Disconnection:

To unlock the coupling, turn the locking sleeve so that the ball is in line with the mark. The locking sleeve can then be pushed backward to release the nipple.

#### **Technical Data**

Material	Coupling: Nipple:	Steel (yellow zinc chromate plating), hardened locking sleeve Hardened steel (yellow zinc chromate plating)	Pressure drop, MPa	0.7 _ 0.6 _	
Seal material:		Nitrile (PUR for DN 19)	Ire o	0.5 _	
Flow capacity		DN 6.3–12 l/min (2.6 GPM UK)	ISSe	0.4 _	
pressure drop 0,1 MPa		DN 10–23 l/min (5.1 GPM UK) DN 12.5–45 l/min (9.9 GPM UK)	Pre	0.3 –	
o, i iii u		DN 16–74 I/min (16.3 GPM UK) DN 19–100 I/min (22.0 GPM UK)		0.2 –	/
Max. working	pressure:	25 MPa (31.5 MPa DN 6.3)		0.1 –	
Min. burst pre	ssure:	100 MPa (126 MPa DN 6.3)			
Temperature I	range:	-30° C to +100° C (-22° F to +212° F)			



			Size DN	Part No.	Connection	Length	Diameter	Hexagon
	gs	Female thread	6.3	10 265 1102	Rc 1/4"	58.1	27.2	20
	Ĩ		6.3	10 265 1202	G 1/4"	58.1	27.2	20
	Couplings		6.3	10 265 1402	NPT 1/4"	58.1	27.2	20
	ပိ		6.3	10 265 1602	7/16"-20 ORB		27.2	20
			10	10 365 1104	Rc 3/8"	67.5	31.2	24
			10	10 365 1204	G 3/8"	67.5	31.2	24
			10	10 365 1205	G 1/2"	70.9	31.2	27
			10	10 365 1404	NPT 3/8"	67.5	31.2	24
			10	10 365 1604	9/16"–18 ORB		31.2	24
			12.5	10 565 1105	Rc 1/2"	76.1	38.2	32
			12.5	10 565 1205	G 1/2"	74.8	38.2	32
			12.5	10 565 1207	G 3/4"	76.3	38.2	33
			12.5	10 565 1405	NPT 1/2"	74.8	38.2	32
			12.5	10 565 1605	3/4"-16 ORB *		38.2	32
			16	10 665 1101	Rc 3/4"	79.8	41.2	36
			16	10 665 1201	G 3/4"	79.8	41.2	36
			16	10 665 1401	NPT 3/4"	79.8	41.2	36
			16 19	10 665 1601 10 765 1103	1 1/16"–12 ORB Rc 1"	^ 79.8 99.8	41.2 46.2	38 41
				10 765 1103				
			19 19	10 765 1203	G 1" NPT 1"	99.0 98.8	46.2 46.2	41 41
			19	10 765 1603	1 5/16"–12 ORB		40.2 50.2	41
	es	Female thread	6.3	10 265 6102	Rc 1/4"	48.7	25.4	20
	Nipples		6.3	10 265 6202	G 1/4"	48.7	25.4	20
	ī		6.3	10 265 6402	NPT 1/4"	48.7	25.4	20
			6.3	10 265 6602	7/16"-20 ORB		25.4	20
			10 10	10 365 6104	Rc 3/8" G 3/8"	55.1	28.5	24
			10	10 365 6204 10 365 6205		55.1 58.5	28.5 30.4	24 27
			10	10 365 6205	G 1/2" NPT 3/8"	56.5 55.1	28.5	27
			10	10 365 6604	9/16"–18 ORB		28.5	24
			12.5	10 565 6105	Rc 1/2"	72.7	35.9	32
			12.5	10 565 6205	G 1/2"	71.4	35.9	32
			12.5	10 565 6207	G 3/4"	72.9	36.9	33
			12.5	10 565 6405	NPT 1/2"	71.4	35.9	32
			12.5	10 565 6605	3/4"–16 ORB *		35.9	32
			16	10 665 6101	Rc 3/4"	74.9	39.2	36
			16	10 665 6201	G 3/4"	74.9	39.2	36
			16	10 665 6401	NPT 3/4"	74.9	39.2	36
			16	10 665 6601	1 1/16"–12 ORB		41.2	38
			19	10 765 6103	Rc 1"	93.9	46.2	41
			19	10 765 6203	G 1"	93.1	46.2	41
			19	10 765 6403	NPT 1"	92.9	46.2	41
			19	10 765 6603	1 5/16"–12 ORB	* 93.9	50.2	45
No. of Lot, House, etc., in such states, which we have a state of the lot of								
	(0	Duet conc	For co	uplings:		For nip	nles:	
	Accessories	Dust caps	DN	Part No.		DN	Part No.	
10	So	Dust caps for couplings	6.3	09 265 1000		6.3	09 265 1050	)
	Sec	and nipples can be	10	09 365 1000		10	09 365 1050	
	Acc	joined together.	12.5	09 565 1000		12.5	09 565 1050	
		j	16	09 665 1000		16	09 665 1050	
			10	00 705 4000		10	00 705 405	



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(\*= SAE O-ring boss). Thread connections are listed according to ISO Standards (see Page 21 for more information). See Page 18 for pressure conversion information. All measurements are in mm. Check with an authorized CEJN distributor for availability and prices. See Page 20 for general maintenance tips.

09 765 1000

19

09 765 1050

19

# **Series 525 Couplings for Mobile Hydraulics**

CEJN's Series 525 couplings offer a heavy-duty design for mobile hydraulic applications, plus added protection against involuntary disconnection.

#### Chrome-Plated Steel Couplings in a Standard, Heavy-Duty Design

Series 525 features a heavy-duty design with chromeplated steel as standard. All parts exposed to extreme strain and stress, such as the locking sleeve and nipple, are made of hardened steel for extra protection. These materials ensure that the couplings offer rugged use and a long service life.

#### **Extra Sealing Capacity**

Double O-rings and a backup ring give Series 525 improved sealing performance.

#### **Optional Dust Caps Available**

To prevent dust and debris from entering the system, dust caps are recommended for use on both the coupling and nipple when they are disconnected. They are available for all sizes and connections (see part numbers on the following page).

#### DN 6.3 (1/4") to DN 25 (1") Sizes

CEJN 525 couplings are offered in sizes from 1/4" to 1", making them suitable for a wide variety of applications.

#### **Optional Pressure Eliminator**

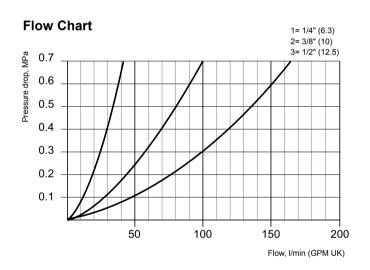
Both the nipple and coupling are designed with a built-in pressure eliminator, allowing a low-force-to-connect operation, even when either half is under residual pressure.

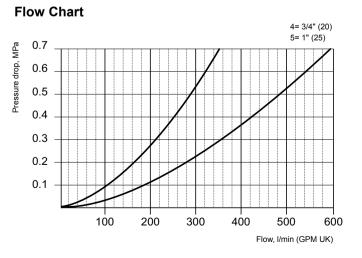
#### Security Locking for Extra Protection Against Involuntary Disconnection

As added protection against involuntary disconnection, the coupling design includes a manual security-locking feature. It is engaged by manually turning the black locking ring after connection. The lock is released by returning the ring to its original position prior to disconnection.









In accordance with ISO 7241-2 viscosity 32 mm<sup>2</sup>/s (cSt)

#### **Technical Data**

Material Coupling:	Steel (yellow zinc chromate plating)							
Material Nipple:	Hardened	steel (yellow	zinc chromate	plating)				
Seal material:	Nitrile	Nitrile						
Nominal flow diameter:	DN 6.3	DN 6.3   DN 10   DN 12.5   DN 20   DN 25 mm						
Flow capacity at pressure drop 0,4 MPa	29 l/min 6.4 GPM UK	69 l/min 15.2 GPM UK	122 l/min 26.8 GPM UK	250 l/min 54.9 GPM UK	425 I/min <sup>93.5</sup> GPM UK			
Max. working pressure: Connected: Disconnected:	45 MPa 30 MPa	35 MPa 28 MPa	30 MPa 25 MPa	28 MPa 20 MPa	25 MPa 25 MPa			
Min. burst pressure: Connected: Disconnected:	180 MPa 120 MPa	130 MPa 110 MPa	110 MPa 100 MPa	100 MPa 80 MPa	93 MPa 100 MPa			
Temperature range:	30° C to +	100° C (-22°	F to +212° F)					

#### Security-Locking Feature





#### Connection:

Pull the locking sleeve backwards and push the nipple into the coupling. Secure the unit against involuntary disconnection by pushing the black locking ring forward and turn approx. 90°.



#### Disconnection:

Turn the black locking ring until it pops out. Pull the locking sleeve backwards and simply remove the nipple.

			Size DN	Part No.	Cor	nection	Length	Diameter	Hexagon
	gs	Female thread	6.3	10 525 1202	(	G 1/4"	60.0	26.0	21
Statement of the local division of the local	li		10	10 525 1204	(	G 3/8"	61.6	35.0	24
and the second	Couplings		10	10 525 1234	* (	G 3/8"	61.6	35.0	24
AND DESCRIPTION OF A DE	õ		12.5	10 525 1205	(	G 1/2"	67.6	41.0	33
			12.5	10 525 1235		G 1/2"	67.6	41.0	33
			20	10 525 1207		G 3/4"	76.2	52.0	38
A CONTRACTOR AND A CONT			20	10 525 1237		G 3/4"	76.2	52.0	38
General Gene (11)			25	10 525 1209		G 1"	92.0	62.0	48
			25	10 525 1239	* (	G 1"	92.0	62.0	48
	Nipples	Female thread	6.3	10 525 6202	(	G 1/4"	48.2	21.0	19
A DECEMBER OF A	lipg		10	10 525 6204	(	G 3/8"	38.0	24.0	22
- Internet a strength	Z		10	10 525 6234	* (	G 3/8"	38.0	24.0	22
And a state of the second seco			12.5	10 525 6205	(	G 1/2"	42.5	29.0	27
			12.5	10 525 6235		G 1/2"	42.5	29.0	27
			20	10 525 6207		G 3/4"	47.0	39.0	36
			20	10 525 6237		G 3/4"	47.0	39.0	36
			25	10 525 6209		G 1"	56.5	48.0	45
			25	10 525 6239	* (	G 1"	56.5	48.0	45
	Accessories	Dust caps for		09 395 1001					
	sso	couplings	10	09 475 1001	<b></b>		lings / Nip		
	ö		12.5	09 595 1001	**	^ Cou elimin		e with pressu	ire
	Ă		20	09 675 1001		CIIIIII	ator		
			25	09 775 1001		Dust	Caps		
		Dust caps for	6.3	09 375 1051				e joined toge	
		nipples	10	09 475 1051				ng and nipple	
		піррієз		09 575 1051	**		and dust.	ler to keep th	iem free
			20	09 675 1051		orunt	anu uusi.		
			25	09 775 1051		** Dus	st cap for c	oupling and	nipple
						canno	ot be joined	together.	
$\cap \cap \cap$		Seal kits for couplings	6.3	10 525 4900		Seal I	Kite		
			10	10 525 4901				n two O-ring	s and
$\bigcirc \bigcirc \bigcirc \bigcirc$			12.5	10 525 4902			kup ring.		
			20	10 525 4903					
			25	10 525 4904					

Thread connections are listed according to ISO Standards (see Page 21 for more information). See Page 18 for pressure conversion information. All measurements are in mm. Check with an authorized CEJN distributor for availability and prices. See Page 20 for general maintenance tips.

# **CEJN's Classic Couplings** for Industrial Hydraulics

Hydraulic quick connect couplings for a variety of medium-pressure applications.



CEJN's range of hydraulic couplings offers numerous advantages and is popular in demanding medium-pressure applications in which conventional couplings do not meet requirements. The couplings' automatic connection and disconnection feature, combined with high flow and small external dimensions, provides convenient and trouble-free service.

#### Wide Choice of Sizes and Materials

The couplings and nipples are available in 1/4" through 1" sizes, with a wide choice of thread standards, such as G, R, NPT, and SAE. The standard series features high-grade steel constructions, and the complete range is also available in brass and stainless steel AISI 316. In addition, one-way shutoff and straight-through versions are also available upon request.

#### Low Connection Force

The low connection force required for CEJN hydraulic couplings offers wide appeal to operators by minimizing physical stress. Connection and disconnection is by that done very easily for the benefit of the operators.

#### **One-Hand Operation for Easy Connection**

CEJN hydraulic couplings require only one hand for operation, making connection and disconnection fast and easy. When connected, the coupling and nipple automatically lock into place.

#### **High Working Pressures**

The heavy-duty design of CEJN's series of hydraulic couplings makes them compatible with working pressures up to 32 MPa.

#### **Dust Caps Are Standard**

To prevent dust and debris from entering the system and thereby ensuring cleanliness, dust caps are standard on all couplings and nipples in the hydraulic range. They can also be joined together when the coupling and nipple are connected in order to keep them free of dirt and dust.

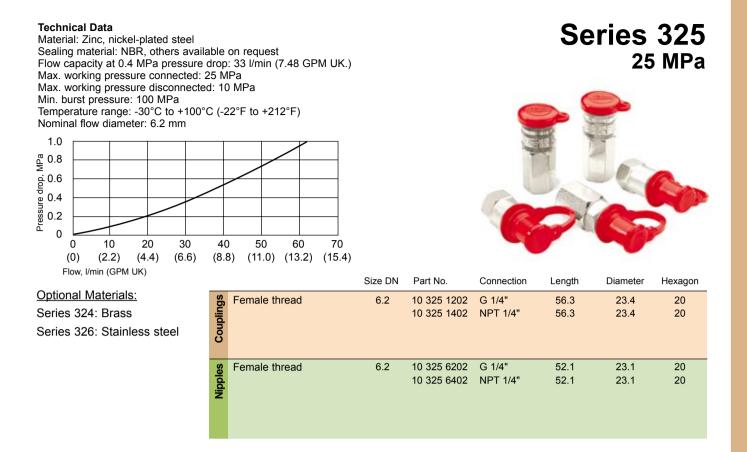
#### DN 6.2 (1/4") to DN 19 (3/4") Size

CEJN hydraulic couplings are offered in the following size ranges, making them suitable for a wide variety of applications:

- Series 325 DN 6.2
- Series 415 DN 8.9
- Series 605 DN 14.5
- Series 705 DN 19

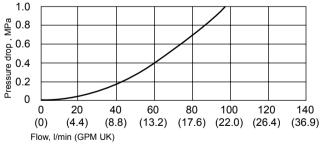
#### **Small External Dimensions**

The slim profile of CEJN hydraulic couplings makes them the ideal choice in applications in which space is restricted and confined.



#### **Technical Data**

Material: Steel (yellow zinc chromate plating) Sealing material: NBR, others available on request Flow capacity at 0.4 MPa pressure drop: 61 l/min (13.4 GPM UK) Max. working pressure connected: 25 MPa Max. working pressure disconnected: 10 MPa Min. burst pressure: 100 MPa Temperature range: -30°C to +100°C (-22°F to +212°F) Nominal flow diameter: 8.9 mm



Series 415 25 MPa



Optional Materials:

Series 414: Brass

Series 416: Stainless steel

		Size DN	Part No.	Connection	Length	Diameter	Hexagon
Couplings	Female thread	8.9	10 415 1204 10 415 1205 10 415 1404 10 415 1405	G 3/8" G 1/2" NPT 3/8" NPT 1/2"	66.2 68.7 66.2 68.7	28.4 31.2 28.4 31.2	24 27 24 27
	Male thread	8.9	10 415 1254 10 415 1255	G 3/8" G 1/2"	69.7 68.7	28.4 31.2	24 27
Nipples	Female thread	8.9	10 415 6204 10 415 6205 10 415 6404 10 415 6405	G 3/8" G 1/2" NPT 3/8" NPT 1/2"	58.6 62.5 58.6 61.5	31.2 31.2 31.2 31.2 31.2	27 27 27 27 27
	Male thread	8.9	10 415 6254 10 415 6255	G 3/8" G 1/2"	61.1 63.1	31.2 31.2	27 27

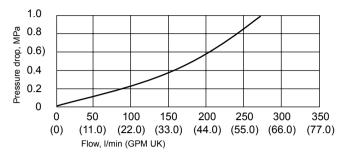
All measurements are in mm. Check with an authorized CEJN distributor for availability and prices. See Page 20 for general maintenance advice.

### Series 605 32 MPa



#### **Technical Data**

Material: Steel (yellow zinc chromate plating) Sealing material: NBR, others available on request Flow capacity at 0.4 MPa pressure drop: 167 l/min(36.7 GPM UK) Max. working pressure connected: 32 MPa Max. working pressure disconnected: 10 MPa Min. burst pressure: 100 MPa Temperature range: -30°C to +100°C (-22°F to +212°F) Nominal flow diameter: 14.5 mm



		Size DN	Part No.	Connection	Length	Diameter	Hexagon
	Female thread	14.5	10 605 1201 10 605 1401		85.4 85.4	47.4 47.4	41 41
Minutes	Female thread	14.5	10 605 6201 10 605 6401		80.0 80.0	45.0 45.0	36 36

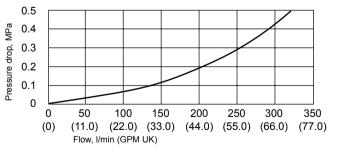
#### <u>Optional Materials:</u> Series 604: Brass Series 606: Stainless steel

### Series 705 32 MPa



#### Technical Data

Material: Steel (yellow zinc chromate plating) Sealing material: NBR, others available on request Flow capacity at 0.4 MPa pressure drop: 290 l/min (63.8 GPM UK) Max. working pressure connected: 32 MPa Max. working pressure disconnected: 10 MPa Min. bursting pressure: 100 MPa Temperature range: -30°C to +100°C (-22°F to +212°F) Nominal flow diameter: 19.0 mm



		Size DN	Part No.	Connection	Length	Diameter	Hexagon
Couplings	Female thread	19	10 705 1203 10 705 1403		95.0 95.0	53.1 53.1	46 46
Nipples	Female thread	19	10 705 6203 10 705 6403		86.0 87.5	53.1 53.1	46 46

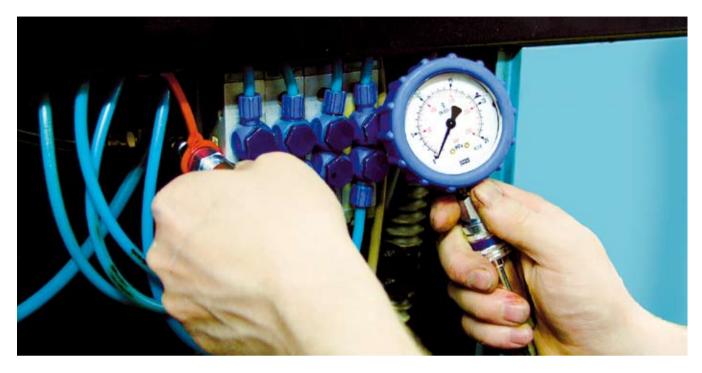
#### <u>Optional Materials:</u> Series 704: Brass Series 706: Stainless steel

See Page 18 for pressure conversion information. All measurements are in mm. Check wih an authorized CEJN distributor for availability and prices. See Page 20 for general maintenance tips.

# **CEJN Snap-Check Hydraulic Pressure Testing System**



## **Monitoring Hydraulic System Pressure in a Snap**



CEJN's Series 358 Snap-Check pressure testing system monitors and diagnoses fluid systems in a snap. This monitoring system identifies operating pressure surges without the need for a permanently installed gauge. Applications include mobile equipment, injection molding machines, oil and gas equipment, marine vessels, and production machinery.

#### **Pressure Gauges**

Encased in stainless steel AISI 304, the Snap-Check standard range generates a combined bar/PSI reading within an accuracy of  $\pm 1.6$  percent of full scale.

#### **High-Pressure Capability**

The maximum working pressure of 60 MPa (600 bar) ensures extra long, leak-free service and unsurpassed reliability. The system can also be connected under pressure up to 30 MPa (300 bar) on the nipple side.

#### **Thermoplastic High-Pressure Hose**

Extremely flexible, thermoplastic, high-pressure hose assemblies enable users to monitor pressures from remote locations and easily connect gauges in confined areas.

#### **Complete Thread Range**

The Snap-Check system is available with G, R, NPT, UNF, or metric threads.

#### **Custom Systems Available**

For specific requirements, customized systems are available that include a wide range of gauges.

#### **Dust Caps Are Standard**

Standard red plastic (or optional metal screw-on) dust caps keep nipples clean and prevent dirt from entering the system.

#### **Durable Carrying Case**

An optional plastic carrying case is handy for transporting the Snap-Check unit to jobsites and keeping system components secure.

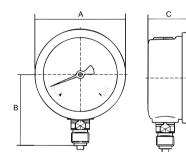
#### Technical data

Nominal flow diameter: Coupling/nipple - 1.5 mm

Hose – 2.0 mm **Max working pressure:** 60 MPa (600 bar) **Connection under pressure:** 30 MPa (300 bar) **Minimum burst pressure connected:** – 130 MPa (1300 bar) **Minimum burst pressure disconnected:** – 240 MPa (2400 bar) nipple **Temperature range:** -30°C to +100°C / -22°F to +212°F

			Part No.	Connection	Length	Diameter	Hexagon
		Female thread connection	10 358 0202 10 358 0402	G 1/4" NPT 1/4"	46.8 46.3	23.4 23.4	20 20
	Coupling without valve	Female, 90° angle thread connection	10 358 0232 10 358 0432	G 1/4" NPT 1/4"	56.3 56.3	23.4 23.4	22 22
			Part No.	Connection	Length	Diameter	Hexagon
	Nipple with valve	Male thread connection	$\begin{array}{c} 10 \ 358 \ 6151 \\ 10 \ 358 \ 6152 \\ 10 \ 358 \ 6251 \\ 10 \ 358 \ 6251 \\ 10 \ 358 \ 6254 \\ 10 \ 358 \ 6452 \\ 10 \ 358 \ 6451 \\ 10 \ 358 \ 6454 \\ 10 \ 358 \ 6551 \\ 10 \ 358 \ 6552 \\ 10 \ 358 \ 6554 \\ 10 \ 358 \ 6752 \\ 10 \ 358 \ 6755 \end{array}$	R 1/8" R 1/4" R 3/8" G 1/8" G 1/4" G 3/8" NPT 1/8" NPT 1/4" NPT 3/8" M10 x 1.25 M12 x 1.5 M14 x 1.5 UNF 7/16"- 20 UNF 7/8"- 14	49.8 53.8 53.8 53.8 53.8 48.8 52.8 52.8 50.8 53.8 53.8 53.8 54.8 55.3	19.6 19.6 19.6 21.9 27.7 19.6 19.6 19.6 19.6 23.1 19.6 34.6	17 17 17 19 24 17 17 17 17 17 17 20 17 30
			Part No.	Connection	Length	Diameter	Hexagon
	ø		19.356.0021	G 1/4" x G 1/4"	850	4 9	19

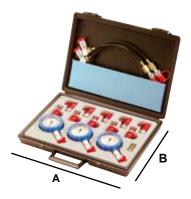
		i altito.	00111000001	Longar	Biamotor	rionagon	
Loeo L	Including adapters Male x Female	19 356 0021 19 356 0041	G 1/4" x G 1/4" G 1/4" x G 1/4"	850 1650	4.9 4.9	19 19	
-		19 356 0061	G 1/4" x G 1/4"	2500	4.9	19	
		19 356 0081	G 1/4" x G 1/4"	4000	4.9	19	



		Part No.	Connection	А	В	С	Pressure Rating
Pressure Gauge	Male bottom connection	19 356 0107 19 356 0126 19 356 0141 19 356 0146 19 940 2120 rload, a 40% margi	G 1/4" G 1/4" G 1/4" G 1/4" G 1/4" n is recommend	68 68 68 68 68 68	54 54 54 54 55 ween tl	32 32 32 32 28	0 - 60 bar / 870 PSI 0 - 250 bar / 3 600 PSI 0 - 400 bar / 5 800 PSI 0 - 600 bar / 8700 PSI 0 - 1000 bar / 14 500 PSI kimum system

In order to avoid gauge overload, a 40% margin is recommended between the maximum system pressure of the application and the maximum pressure rating of the gauge.

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		Part No.		
ies	Protective rubber cover	19 942 2500	Blue rubber	cover, fits all gauges above
Accessories	Metal dust cap	19 950 0095		be, metal dust cap with wire strap, tandard nipples
	Copper seal	Copper seal, ens	ures leak-free	gauge connections
		19 356 0210	A B 9.3 5.5	C 3.2
	Rubber/metal seal	Rubber/metal sea Part No. 19 950 0061 19 950 0062 19 950 0064 19 950 0071 19 950 0072 19 950 0073 19 950 0081 19 950 0082	al for parallel m Thread G 1/8" G 3/8" M10 M12 M14 7/16" UNF 7/8" UNF	ale threaded nipples
	Case	Carrying case, wi Part No. 19 356 0292	ithout compone A 375	ents B 270

Thread connections are listed according to ISO Standards (see Page 21 for more information). See Page 18 for pressure conversion information. All measurements are in mm. Check with an authorized CEJN distributor for availability and prices. See Page 20 for general maintenance tips.

### Units, Conversion Tables, and Formulas

#### Pressure

riessuie			
From	То	Multiply by	Example
MPa (Megapascal) *	bar	10	10 MPa x 10 = 100 bar
MPa	kp/cm <sup>2</sup>	10.197	10 MPa x 10.197 = 101.97 kp/cm <sup>2</sup>
MPa	PSI	145.0	10 MPa x 145.0 = 1450 PSI
bar (Bar)	kp/cm <sup>2</sup>	1.020	10 bar x 1.020 = $10.2 \text{ kp/cm}^2$
bar	MPa	0.1	10 bar x 0.1 = 1.0 MPa
bar	PSI	14.504	10 bar x 14.504 = 145 PSI
kp/cm² (kilopound / cm²)	bar	0.981	10 kp/cm <sup>2</sup> x 0.981 = 9.81 bar
kp/cm <sup>2</sup>	MPa	0.0981	10 kp/cm² x 0.0981 = 0.981 MPa
kp/cm <sup>2</sup>	PSI	14.223	10 kp/cm² x 14.223 = 142.2 PSI
PSI (Pounds / square inch)	bar	0.0689	100 PSI x 0.0689 = 6.89 bar
PSI	kp/cm <sup>2</sup>	0.0703	100 PSI x 0.0703 = 7.03 kp/cm <sup>2</sup>
PSI	MPa	0.00689	100 PSI x 0.00689 = 0.689 MPa
atm (Atmosphere)	bar	1.01325	1.1 atm x 1.01325 = 1.115 bar
atm	kp/cm <sup>2</sup>	1.0332	1.1 atm x 1.0322 = 1.137 kp/cm <sup>2</sup>
atm	PSI	14.696	1.1 atm x 14.695 = 16.166 PSI
atm	MPa	0.10132	1.1 atm x 0.10132 = 0.111 MPa
Flow			
From	То	Multiply by	Example
I/s (liter / second) *	l/min	60	10 l/s x 60 = 600 l/min
I/min (litre / minute)	l/s	0.0167	100 l/min x 0.0167 = 1.7 l/s
l/min	GPM (US)	0.26417	10 l/min x 0.26417= 2.6417 US gallon/min
l/min	GPM (UK)	0.22	10 l/min x 0.22 = 2.2 UK gallon/min
GPM (US)	l/min	3.7854	10 US gallon/min x 3.7854 = 37.854 l/min
GPM (UK)	l/min	4.5461	10 UK gallon x 4.5461 = 45.461 l/min
Volume			
From	То	Multiply by	Example
m <sup>3</sup> (cubic meter) *	liter	1000	10 m <sup>3</sup> x 1000 = 10 000 liter
m <sup>3</sup>	ft <sup>3</sup>	35.3	$10 \text{ m}^3 \text{ x } 35.3 = 353 \text{ ft}^3$
liter (liter)	m <sup>3</sup>	0.001	$100 \text{ liter x } 0.001 = 0.1 \text{ m}^3$
liter	ft <sup>3</sup>	0.0353	100 liter x 0.0353 = 3.53 ft <sup>3</sup>
liter	gallon (US)	0.264	100 liter x 0.264 = 26.4 gallon (US)

liter	IL <sup>o</sup>	0.0353	100  liter x  0.0353 = 3.53  liter x	
liter	gallon (US)	0.264	100 liter x 0.264 = 26.4 gallon (US)	
liter	gallon (UK)	0.220	100 liter x 0.220 = 22.0 gallon (UK)	
ft <sup>3</sup> (cubic feet)	m <sup>3</sup>	0.0283	10 ft <sup>3</sup> x 0.0283 = 0.283 m <sup>3</sup>	
ft <sup>3</sup>	liter	28.32	10 ft <sup>3</sup> x 28.32 = 283.2 liter	
gallon (US)	liter	3.785	10 gallon (US) x 3.785 = 37.85 liter	
gallon (UK)	liter	4.546	10 gallon (UK) x 4.546 = 45.46 liter	
in <sup>3</sup> (cubic inch)	CM <sup>3</sup>	16.387	10 in <sup>3</sup> x 16.387 = 163.87 cm <sup>3</sup>	
cm <sup>3</sup> (cubic centimeter)	in <sup>3</sup>	0.0610	10 cm <sup>3</sup> x 0.0610 = 0.610 in <sup>3</sup>	

То	Multiply by	Example
ft	3.28083	10 m x 3.28083 = 32.8083 feet
m	0.3048	10 feet x 0.3048 = 3.048 m
Inch	0.0393	10 mm x 0.0393 = 0.393 inch
mm	25.4	10 inch x 25.4 = 254 mm
	ft m Inch	ft 3.28083 m 0.3048 Inch 0.0393

\* SI-unit, international unit according to "Systèm International d'Unités."

Force From	То	Multiply by	Example
N (Newton) * N kp (kilogram force) kp lbf (pound force) lbf	kp Ibf N Ibf kp N	0.1020 0.2248 9.806 2.205 0.454 4.448	10 N x 0.1020 = 1.02 kp 10 N x 0.2248 = 2.25 lbf 10 kp x 9.806 = 98.06 N 10 kp x 2.204 = 22.05 lbf 10 lbf x 0.454 = 4.54 kp 10 lbf x 4.448 = 44.48 N
<b>Mass</b> From kg (kilogram) * lb (pound)	To Ib kg	Multiply by 2.205 0.454	Example 10 kg x 2.205 = 22.05 lb 10 lb x 0.454 = 4.54 kg
Torque From Nm (Newton meter) Nm kpm (Kilo pound meter)	To kpm Ibfft Nm Ibfft	Multiply by 0.1020 0.7376 9.81 7.233	Example 10 Nm x 0.1020 = 1.02 kpm 10 Nm x 0.7376 = 7.38 lbfft 10 kpm x 9.81 = 98.1 Nm 10 kpm x 7.233 = 72.33 lbfft
kpm ibfft (pound force foot) ibfft	Nm kpm	1.356 0.1383	10 kpm x $7.233 = 72.33$ lbft 10 lbfft x $1.356 = 13.56$ Nm 10 lbfft x $0.1383 = 1.38$ kpm

\* SI-unit, international unit according to "Systèm International d'Unités."

### Technical Data – Measurement and Units

All technincal data are measured according to CEJN standards. Contact CEJN for more detailed information.

Oil flow: Measured within an accuracy of ±5%. The flow rate is valid at viscosity 30 cSt. (30 mm²/s).

**Working pressure:** Specified in MPa and often stipulated in varying national and international standards for quick connect couplings.

Burst pressure: Specified in MPa and measured within an accuracy of ±3%.

Temperature range: Measured in Celsius degrees within an accuracy of ±2°C (±3.6°F).

### Sealing Material - Overview

Material	Features	Temperature Range	Media
NBR Nitril Rubber "Buna-N"	Resistant to water, gasoline, grease mineral oil and alkalis. Sensitive to ozone.	, -30°C– +100°C (-22°F– +212°F)	Compressed air Oil, water
FPM Fluorocarbon Rubber "Viton"	It's recommended for gasoline, oils, and acids. Weather-proof. Not recommended for hot steam.	-15°C– +205°C (-5°F– +401°F)	Chemicals Hot air
EPDM Etylene Propylene Rubber "EPDM"/ "EPM"	Good qualities for hot water, alkalines, and acids. Not re- commended for mineral oil.	-40°C– +150°C (-40°F– +302°F)	Water

Contact CEJN for more detailed information regarding sealing material and chemical compatibility with CEJN couplings.

### **Maintenance Tips**

To guarantee a coupling's function, quality, and lifetime, be sure to:

- Avoid dynamic load on the nipple while it is disconnected. Such dynamic load may lead to seal damage, causing leakage in the disconnected mode. The minimum burst pressure on the disconnected nipple is always the same as that of the corresponding coupling.
- Never overload coupling products. Be sure to check the catalog for maximum working pressures. Stated minimum burst pressures are only valid for products unexposed to overload, impacts, corrosion, etc. Improper use of coupling products can result in human injury or death and property damage.
- Keep the coupling and nipple clean and dry. Wipe them off before connection.
- Place the dust caps on the coupling and nipple when they are in the disconnected position.
- In order to keep the dust caps clean, connect them together when coupling and nipple are in connected position.
- Avoid front-end impacts to the coupling and nipple.
- Check the sealing of the coupling and its moving parts regularly. If necessary, replace the coupling.
- Check the nipples on a regular basis. If they are heavily worn or marked, replace them. Worn nipples lead to greater wear on the couplings.
- Choose the proper connection for the application. Oversized connections cause unnecessary wear to the coupling.
- Dust caps can be joined together when the coupling and nipple are connected in order to keep them free of dirt and dust.

### **Connections and Thread Standards**

	Connection	Ømm	L mm
UNF Thread Connection Unified threads according to ISO 68, ANSI B1.1	Male thread 7/16"–20 UNF 7/8"–14 UNF	11.0 22.0	13.3 15.5
Male: ie. 9/16"–18 UNF Female: ie. 7/16"–20 UNF	Female thread 7/16"–20 UNF	9.8	11.5
Female, SAE O-ring Boss	9/16"–18 UNF 3/4"–16 UNF 1 1/16"–16 UNF 1 5/16"–12 UNF	12.9 17.5 26.8 33.1	12.7 14.3 19.0 19.0
Metric Thread Connection Metric threads according to ISO 68/ISO 724 Male and female: ie. M16x1.5	Male thread M10x1.25 M12x1.5 M14x1.5	9.8 11.85 13.85	9.0 13.0 13.0
<b>BSPT Thread Connection</b> Conical pipe thread according to ISO 7/1 Male: ie. R 1/4"	Male thread R 1/8" R 1/4" R 3/8"	10.2 13.6 17.2	7.4 11.0 11.4
Female: ie. Rc 1/4" (taper)	Female thread Rc 1/4" Rc 3/8" Rc 1/2" Rc 3/4" Rc 1"	11.0 14.5 18.0 23.5 29.5	11.0 11.4 15.0 16.3 19.1
<b>BSP Thread Connection</b> Cylindrical pipe thread according to ISO 228/1 Male: ie. G 1/4"	Male thread G 1/4" G 3/8" G 1/2"	13.0 16.5 20.8	12.0 12.0 12.0
Female (ISO 1179): ie. G 1/4"	Female thread G 1/4" G 3/8" G 1/2" G 3/4" G 1"	11.8 15.3 19.0 24.5 30.8	11.0 11.4 15.0 16.3 19.1
NPT Thread Connection National Pipe Thread American Standard according to ANSI/ASME B 1.20.1	Male thread 1/8" NPT 1/4" NPT 3/8" NPT	10.5 14.0 17.5	6.7 10.2 10.4
Male and female: ie. 1/4" NPT	Female thread 1/8" NPT 1/4" NPT 3/8" NPT 1/2" NPT 3/4" NPT 1" NPT	8.5 11.0 14.5 18.0 23.0 29.0	6.9 10.0 10.3 13.6 14.1 16.8

# CEJN Plugs Innovation into Hydraulic Systems with WEO Plug-In Hose Fittings



WEO Plug-In hose fittings – CEJN's flagship product entry into mobile hydraulics – are helping OEMs simply their hydraulic systems.

#### "Plugging in" to Hydraulic Systems

CEJN's WEO hose fittings are designed with an innovative click-to-connect feature that eliminates the need for tools or wrenches for connection or disconnection. As the name implies, they simply "plug in" to hydraulic systems.

The product is especially suited for confined or difficult-to-reach locations. Since access for hand-tool clearance is not a requirement, WEO hose fittings are good news for designers, fitters, and operators.

WEO hose fittings make it easier to build compact, reliable hydraulic systems that include hose and tubes. They also slash downtime for field maintenance, since only a common screwdriver is needed to remove hose assemblies.

#### Additional Benefits

Additional benefits of the patented hose fittings include:

- Increase production throughput upon initial installation
- Self-aligning eliminating twisted hose that can arise during connection, adding to hose life
- · No need for special tools for disassembly

WEO hose fittings are available in single- and double-wire braided hose styles in -4 through -16. The fittings are rated up to 35 MPa (350 bar) in most sizes.

The product's availability in numerous connection options, such as British Standard Pipe and SAEJ514 straight-thread O-ring boss, also add to its widespread appeal.

#### **Product Literature Available**

Full details on CEJN's WEO Plug-In hose fittings are available in a comprehensive product brochure and catalog. Copies are available by contacting your nearest CEJN office or representative or visiting www.cejn.com.

### **Other Products Available from CEJN**

To obtain product information or product brochures, contact your nearest CEJN office or representative, or visit us on the Internet at **www.cejn.com** 







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Traditions and Innovations. Quick connect couplings and systems for compressed air, low- and high-pressure hydraulics, fluids, gases, and breathing air applications.

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