



**MLF<sup>TM</sup> 3000**

**CRIMPED  
FITTINGS**



## SUMMARY

A wide range of SAE standards, a global offer of metric standards, a simplified ferrules range and concept, a superior design of end configurations (solid elbows, thrust wire and slip-on nuts) make MF3000 program the ideal solution for hydraulics.

Un amplio rango de conexiones estándar SAE, conexiones métricas, un rango mínimo de férulas, un superior diseño de configuraciones (Codos de una sola pieza, tuercas deslizables, tuercas giratoria) y la solución ideal en conexiones hidráulicas el programa MF3000.

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## FITTINGS PART NUMBERING SYSTEM

### Primary Fitting Series: MF3000

- OPS indicates the basic part number.
- 5 digit numbers represent the series or style.
- The first dash number represents the hose size.
- The second dash number represents the termination end size.
- Part number also contains the basic coupling description.

### EXAMPLE

OPS23311-24-20 Flange Straight Head Code 61

- OPS is the basic part number.
- 23311 is the series or style of coupling.
- -24 indicates the hose size.
- -20 indicates the termination end size.
- "Flange Straight Head Code 61" is the basic description of the part.

### NOTE:

- All coupling are one-piece design.
- All bent stems are made from solid stock (if indicated).
- All code 61 & code 62 flange couplings are made from a single piece of bar stock.

The range of hydraulic couplings conforms to English BS (British Standard), American JIC (Joint Industrial Council), and German DIN/EN (Deutsches Institut für Normung) norms.

Additional items conforming to Japanese norms JIS (Japanese Industrial Standard) are available too.

### Conexiones serie: MF3000

- OPS indica el número de parte básico
- Los 5 dígitos del número representan la serie o tipo
- El primer guión del número representa el tamaño de manguera
- El segundo guión del número representa el tamaño de la terminal
- El número también contiene la descripción básica de la conexión.

### EJEMPLO

OPS23311-24-20 Brida Recta Código 61

- OPS Indica el número de parte básico
- 23311 es la serie o tipo de conexión
- -24 indica el tamaño de manguera
- -20 Indica el tamaño de la terminal
- "Brida Recta Código 61" es la descripción básica

### NOTA:

- Todas las conexiones son de diseño de una sola pieza
- Todas las conexiones en codo o dobladas están fabricadas de una sola pieza
- Las bridas código 61 y código 62 están fabricadas de una sola pieza.

El rango que comprenden las conexiones hidráulicas son: Normas Británicas BS (British Standard), Americanas JIC (Joint Industrial Council) y Alemanas DIN/EN (Deutsches Institut für Normung).

Adicionalmente también comprende las normas Japonesas JIS (Japanese Industrial Standard).



## FITTINGS - PART NUMBERING SYSTEM

1 2 3 4 5

### FIRST DIGIT PRIMER DIGITO

The numbers stated in this position (from 0 to 8), refer respectively to the following descriptions:

Los números colocados en esta posición (de 0 a 8) se refieren respectivamente a las siguientes descripciones:

- 1 = Multifit Type Male / Espiga macho tipo Multifit
- 2 = Multifit Type Female / Espiga hembra tipo Multifit
- 8 = Split Flange or Bolt / Brida o perno

1 2 3 4 5

### SECOND AND THIRD DIGIT SECUNDO Y TERCER DIGITO

MULTIFIT	DESCRIPTION / DESCRIPCION
05	BSP Parallel Thread (60° cone) / BSP Rosca paralela (asiento a 60°)
06	BSP Parallel Thread (Flat face) / BSP Rosca paralela (cara plana)
07	BSP Male Tapered Thread - OPS BSP Female / BSP Rosca macho abocinada - OPS Hembra BSP
08	BSP Parallel Thread O-Ring (60° cone) / BSP Rosca paralela con O-Ring (asiento a 60°)
10	Metric Thread (60° cone superlight) / Macho Rosca métrica (asiento a 60° súper ligero)
11	Male Metric Thread (24° cone light type) / Macho Rosca métrica (asiento a 24° tipo ligero)
12	Male Metric Thread (24° cone heavy type) / Macho Rosca métrica (asiento a 24° tipo pesado)
13	Metric Thread (Multiseal cone) / Rosca métrica (asiento universal)
15	Female Metric Thread (24° cone O-Ring light type) / Hembra Rosca métrica (asiento a 24° con O-Ring serie ligera)
16	Female Metric Thread (24° cone O-Ring heavy type) / Hembra Rosca métrica (asiento a 24° con O-Ring serie pesada)
20	DIN Metric Standpipe L.T. / Tubo métrico DIN Serie Ligera (L.T.)
21	DIN Metric Standpipe H.T. / Tubo métrico DIN Serie Pesada (H.T.)
25	JIC Thread (37° cone) / JIC Rosca (asiento a 37°)
27	JIC Thread double exag. (37°) - OPS JIC Thread Range / JIC cuerda recta doble tuerca (asiento a 37°) - OPS rosca JIC
24	ORFS type / Tipo ORFS
26	SAE Thread (90° cone) / Rosca SAE (asiento a 90°)
28	NPTF/NPSM Thread / Rosca NPTF/NPSM
30	SAE O-Ring Thread / Rosca SAE con O-Ring
33	Code 61 SAE flange 3000 psi / Brida código 61 SAE 3000 psi
36	Code 62 SAE flange 6000 psi / Brida código 61 SAE 6000 psi
38	JIS (Toyota) Thread / Rosca JIS (Toyota)
40	JIS (Komatsu) Thread / Rosca JIS (Komatsu)
41	NPTF Swivel Male - Komatsu flange / NPTF macho giratorio - Brida Komatsu
44	Long drop ORFS Female / ORFS Embra codo largo
43	SAE O-Ring Boss Swivel Male / SAE Tipo O-Ring boss macho giratorio
46	Super Staple Lock Male / Macho Super Staple-Lock (Mineria)
47	JIC Thread (74° cone) Elbow Long Drop / JIC Cuerda recta, (asiento a 37°) codo largo
48	Staple Lock Connection / Conexión Staple-lock
49	Wash Cleaning Female / Hembra arandela de desgaste

When the first digit is 8, it denotes SAE split flange, namely:

Cuando el primer dígito es 8, denota tipo pasador o Semi brida SAE, respectivamente:

- SAE Split Flange 3000 psi / Semi brida código 61 (SAE 3000 psi) = 33
- SAE Split Flange 6000 psi / Semi brida código 61 (SAE 6000 psi) = 36

1 2 3 4 5

### FOURTH DIGIT CUARTO DIGITO

- |  |  |
|--|--|
| 1 = Straight / Conexión recta                | 7 = 67.5° Flange angle / Brida codo de 67.5° |
| 2 = 22.5° Flange angle / Brida codo de 22.5° | 8 = Compact type / Codo corto de 90°         |
| 3 = 30° Flange angle / Brida codo de 30°     | 9 = 90° Swept / Codo de 90°                  |
| 4 = 45° Swept / Codo de 45°                  | 0 = 101° Flange angle / Brida codo de 101°   |
| 6 = 60° Flange angle / Brida codo de 60°     |  |

1 2 3 4 5

### FIFTH DIGIT QUINTO DIGITO

- 3 = Slip-on Nut / Tuerca deslizable sobre la espiga (Libre)
- 2 = Thrust-wire Nut / Tuerca giratoria sobre la espiga (Con seguro)
- 1 = Crimped-back Nut-Flange / Crimpado detrás de la Tuerca
- 0 = Mal / Macho

# OPB TYPE

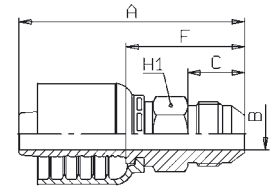


## JIC STANDARD CONNECTIONS

### OPB12510

JIC MALE 37° CONE - SAE J516/J514

JIC MACHO RECTO ASIENTO A 37° - SAE J516/J514



PART. REF.	HOSE BORE			THREAD	DIMENSIONS inch				
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	DN	inch	Size		B	A	C	F	H <sub>1</sub>
OPB12510-04-04	6	1/4"	- 04	7/16" - 20	0.16	2.19	0.55	1.10	0.47
OPB12510-04-05	6	1/4"	- 04	1/2" - 20	0.22	2.22	0.55	1.14	0.55
OPB12510-04-06	6	1/4"	- 04	9/16" - 18	0.28	2.22	0.55	1.14	0.67
OPB12510-05-05	8	5/16"	- 05	1/2" - 20	0.22	2.24	0.55	1.14	0.55
OPB12510-05-06	8	5/16"	- 05	9/16" - 18	0.28	2.24	0.55	1.14	0.67
OPB12510-06-06	10	3/8"	- 06	9/16" - 18	0.28	2.32	0.55	1.17	0.67
OPB12510-06-08	10	3/8"	- 06	3/4" - 16	0.37	2.50	0.65	1.34	0.75
OPB12510-06-10	10	3/8"	- 06	7/8" - 14	0.49	2.68	0.77	1.52	0.94
OPB12510-08-06	12	1/2"	- 08	9/16" - 18	0.28	2.48	0.55	1.26	0.75
OPB12510-08-08	12	1/2"	- 08	3/4" - 16	0.37	2.58	0.65	1.35	0.75
OPB12510-08-10	12	1/2"	- 08	7/8" - 14	0.49	2.76	0.77	1.53	0.94
OPB12510-08-12	12	1/2"	- 08	1.1/6" - 12	0.59	2.91	0.87	1.69	1.06
OPB12510-10-10	16	5/8"	- 10	7/8" - 14	0.49	2.89	0.77	1.54	0.94
OPB12510-10-12	16	5/8"	- 10	1.1/16" - 12	0.59	3.03	0.87	1.68	1.06
OPB12510-12-10	19	3/4"	- 12	7/8" - 14	0.49	3.07	0.77	1.63	1.06
OPB12510-12-12	19	3/4"	- 12	1.1/16" - 12	0.59	3.17	0.87	1.73	1.06
OPB12510-12-14	19	3/4"	- 12	1.3/16" - 12	0.63	3.19	0.89	1.75	1.26
OPB12510-12-16	19	3/4"	- 12	1.5/16" - 12	0.78	3.29	0.91	1.85	1.34
OPB12510-16-12	25	1"	- 16	1.1/16" - 12	0.59	3.66	0.87	1.76	1.26
OPB12510-16-16	25	1"	- 16	1.5/16" - 12	0.78	3.78	0.91	1.88	1.34
OPB12510-16-20	25	1"	- 16	1.5/8" - 12	1.02	3.98	0.96	2.08	1.65

## JIC STANDARD CONNECTIONS

**NEW**

### OPB22711

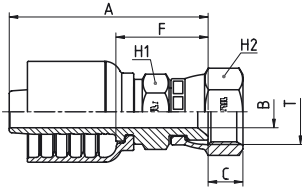
**JIC FEMALE 37° CONE SEAT DOUBLE EXAGON  
SAE J516/J514 (CRIMPED BACK NUT)**

JIC HEMBRA RECTA ASIENTO A 37° DOBLE HEXÁGONO SAE J516/J514  
(CRIMPADO DETRAS DE LA TUERCA)

### OPB22711...K

**JIC FEMALE 37° CONE SEAT DOUBLE EXAGON COMPACT  
SAE J516/J514 (CRIMPED BACK NUT)**

JIC HEMBRA RECTA ASIENTO A 37° DOBLE HEXÁGONO COMPACTO  
SAE J516/J514 (CRIMPADO DETRAS DE LA TUERCA)



PART. REF.	HOSE BORE			THREAD	DIMENSIONS inch					
	DN	inch	Size		B	A	C	F	H <sub>1</sub>	H <sub>2</sub>
OPB22711-03-04K	5	3/16"	- 03	7/16" - 20	0.16	1.63	0.35	0.79	0.47	0.59
OPB22711-04-04K	6	1/4"	- 04	7/16" - 20	0.16	1.89	0.35	0.81	0.47	0.59
OPB22711-04-06K	6	1/4"	- 04	9/16" - 18	0.28	1.93	0.37	0.85	0.55	0.67
OPB22711-06-06K	10	3/8"	- 06	9/16" - 18	0.28	2.03	0.37	0.87	0.67	0.67
OPB22711-06-08	10	3/8"	- 06	3/4" - 16	0.37	2.20	0.42	0.85	0.75	0.87
OPB22711-08-08	12	1/2"	- 08	3/4" - 16	0.37	2.28	0.42	1.06	0.75	0.87
OPB22711-08-10K	12	1/2"	- 08	7/8" - 14	0.37	2.39	0.49	1.17	0.87	0.98
OPB22711-10-10K	16	5/8"	- 10	7/8" - 14	0.37	2.51	0.49	1.16	0.87	0.98
OPB22711-12-12	19	3/4"	- 12	1.1/16" - 12	0.59	2.62	0.56	1.19	1.06	1.25



# OPB TYPE

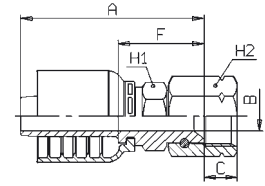


## JIC STANDARD CONNECTIONS

### OPB22712

JIC FEMALE 37° CONE SEAT - SAE J516/J514  
(THRUST-WIRE NUT)

JIC HEMBRA RECTA ASIENTO A 37° - SAE J516/J514  
(TUERCA GIRATORIA SOBRE LA ESPIGA)



PART. REF.	HOSE BORE			THREAD	DIMENSIONS inch					
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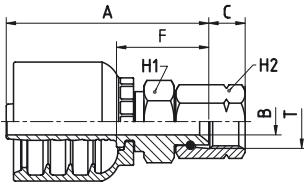
	DN	inch	Size		B	A	C	F	H <sub>1</sub>	H <sub>2</sub>
OPB22712-04-05	6	1/4"	- 04	1/2" - 20	0.16	1.92	0.36	0.85	0.47	0.67
OPB22712-05-05	8	5/16"	- 05	1/2" - 20	0.22	1.94	0.36	0.85	0.55	0.67
OPB22712-05-06	8	5/16"	- 05	9/16" - 18	0.28	2.03	0.36	0.95	0.55	0.75
<b>NEW</b> OPB22712-05-08	8	5/16"	- 05	3/4" - 16	0.37	2.13	0.42	1.02	0.75	0.87
OPB22712-06-04	10	3/8"	- 06	7/16" - 20	0.16	2.13	0.32	0.97	0.67	0.67
OPB22712-06-05	10	3/8"	- 06	1/2" - 20	0.22	2.13	0.36	0.98	0.67	0.67
OPB22712-06-08	10	3/8"	- 06	3/4" - 16	0.37	2.20	0.40	1.07	0.75	0.87
OPB22712-06-10	10	3/8"	- 06	7/8" - 14	0.49	2.24	0.48	1.10	0.87	1.06
OPB22712-08-06	12	1/2"	- 08	9/16" - 18	0.28	2.18	0.36	0.97	0.75	0.75
OPB22712-08-08	12	1/2"	- 08	3/4" - 16	0.37	2.28	0.40	1.08	0.75	0.87
OPB22712-08-12	12	1/2"	- 08	1.1/16" - 12	0.49	2.41	0.56	1.19	1.06	1.26
OPB22712-10-08	16	5/8"	- 10	3/4" - 16	0.37	2.44	0.40	1.11	0.87	0.87
OPB22712-10-12	16	5/8"	- 10	7/8" - 14	0.59	2.51	0.56	1.16	1.06	1.26
OPB22712-12-08	19	3/4"	- 12	3/4" - 16	0.37	2.61	0.40	1.19	1.06	0.87
OPB22712-12-10	19	3/4"	- 12	7/8" - 14	0.49	2.62	0.48	1.19	1.06	1.06
OPB22712-12-12	19	3/4"	- 12	1.1/16" - 12	0.59	2.68	0.56	1.24	1.06	1.26
OPB22712-12-14	19	3/4"	- 12	1.3/16" - 12	0.59	2.74	0.58	1.31	1.18	1.42
OPB22712-12-16	19	3/4"	- 12	1.5/16" - 12	0.78	2.72	0.60	1.28	1.26	1.50
OPB22712-16-12	25	1"	- 16	1.1/16" - 12	0.49	3.23	0.56	1.33	1.26	1.26
OPB22712-16-16	25	1"	- 16	1.5/16" - 12	0.78	3.25	0.60	1.35	1.26	1.50
OPB22712-16-20	25	1"	- 16	1.5/8" - 12	1.02	3.58	0.64	1.69	1.61	1.97

## JIC STANDARD CONNECTIONS

### OPB22712...K

JIC FEMALE 37° CONE SEAT COMPACT  
SAE J516/J514 (THRUST-WIRE NUT)

JIC HEMBRA RECTA ASIENTO A 37° COMPACTO  
SAE J516/J514 (TUERCA GIRATORIA SOBRE LA ESPIGA)



PART. REF.	HOSE BORE			THREAD	DIMENSIONS inch					
	DN	inch	Size		B	A	C	F	H <sub>1</sub>	H <sub>2</sub>
OPB22712-03-04K	5	3/16"	- 03	7/16" - 20	0.16	1.65	0.32	0.81	0.47	0.59
OPB22712-04-04K	6	1/4"	- 04	7/16" - 20	0.16	1.91	0.32	0.83	0.47	0.59
OPB22712-04-06K	6	1/4"	- 04	9/16" - 18	0.28	2.01	0.36	0.95	0.55	0.67
OPB22712-06-06K	10	3/8"	- 06	9/16" - 18	0.28	2.15	0.36	0.97	0.67	0.67
OPB22712-08-10K	12	1/2"	- 08	7/8" - 14	0.49	2.34	0.50	1.12	0.87	0.98
OPB22712-10-10K	16	5/8"	- 10	7/8" - 14	0.49	2.49	0.50	1.14	0.87	0.98

# OPB TYPE

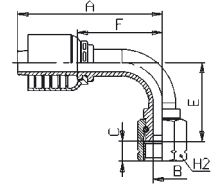


## JIC STANDARD CONNECTIONS

### OPB22592

90° JIC FEMALE 37° CONE SEAT - SAE J516/J514  
(THRUST-WIRE NUT)

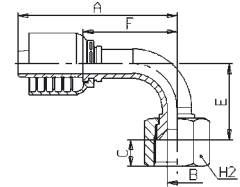
JIC HEMBRA CODO 90° ASIENTO A 37° - SAE J516/J514  
(TUERCA GIRATORIA SOBRE LA ESPIGA)



### OPB22593

90° JIC FEMALE 37° CONE SEAT - SAE J516/J514  
(SLIP-ON NUT)

JIC HEMBRA CODO 90° ASIENTO A 37° - SAE J516/J514  
(TUERCA DESLIZABLE SOBRE LA ESPIGA)

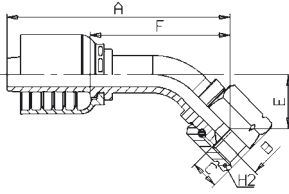


PART. REF.	HOSE BORE			THREAD	DIMENSIONS inch					
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	DN	inch	Size		B	A	C	E	F	H <sub>2</sub>
OPB22593-03-04	5	3/16"	- 03	7/16" - 20	0.12	1.86	0.35	0.93	1.02	0.59
OPB22592-04-04	6	1/4"	- 04	7/16" - 20	0.16	2.20	0.32	1.06	1.12	0.67
OPB22592-04-05	6	1/4"	- 04	1/2" - 20	0.16	2.20	0.36	1.08	1.12	0.67
OPB22593-04-06	6	1/4"	- 04	9/16" - 18	0.16	2.24	0.39	1.10	1.16	0.75
<b>NEW</b> OPB22593-04-08	6	1/4"	- 04	3/4" - 16	0.28	2.24	0.43	1.20	1.15	0.87
OPB22592-05-05	8	5/16"	- 05	1/2" - 20	0.22	2.27	0.36	1.06	1.17	0.67
OPB22592-05-06	8	5/16"	- 05	9/16" - 18	0.28	2.32	0.36	1.12	1.22	0.75
<b>NEW</b> OPB22592-06-05	10	3/8"	- 06	1/2" - 20	0.22	2.34	0.37	1.04	1.19	0.67
OPB22592-06-06	10	3/8"	- 06	9/16" - 18	0.28	2.56	0.36	1.28	1.40	0.75
OPB22593-06-08	10	3/8"	- 06	3/4" - 16	0.28	2.59	0.42	1.16	1.44	0.87
OPB22593-06-10	10	3/8"	- 06	7/8" - 14	0.37	2.60	0.49	1.24	1.44	1.06
OPB22592-08-06	12	1/2"	- 08	9/16" - 18	0.28	2.68	0.36	1.30	1.46	0.75
OPB22592-08-08	12	1/2"	- 08	3/4" - 16	0.37	2.96	0.40	1.61	1.73	0.87
OPB22593-08-10	12	1/2"	- 08	7/8" - 14	0.37	3.00	0.49	1.42	1.77	1.06
OPB22593-08-12	12	1/2"	- 08	1.1/16" - 12	0.49	2.99	0.54	1.42	1.77	1.26
OPB22592-10-10	16	5/8"	- 10	7/8" - 14	0.49	3.46	0.48	2.07	2.11	1.06
OPB22593-10-12	16	5/8"	- 10	1.1/16" - 12	0.49	3.38	0.54	1.97	2.03	1.26
OPB22592-12-10	19	3/4"	- 12	7/8" - 14	0.49	3.60	0.48	2.07	2.17	1.06
OPB22592-12-12	19	3/4"	- 12	1.1/16" - 12	0.59	3.88	0.56	2.28	2.44	1.26
OPB22592-12-14	19	3/4"	- 12	1.3/16" - 12	0.59	3.88	0.58	2.28	2.44	1.42
OPB22592-12-16	19	3/4"	- 12	1.5/16" - 12	0.78	3.88	0.60	2.26	2.44	1.50
OPB22592-16-16	25	1"	- 16	1.5/16" - 12	0.78	4.73	0.60	2.64	3.03	1.50
OPB22592-16-20	25	1"	- 16	1.5/8" - 12	1.02	4.94	0.64	2.93	3.04	1.97



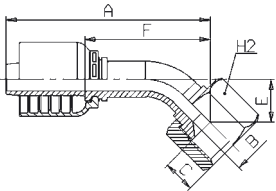
## JIC STANDARD CONNECTIONS



### OPB22542

**45° JIC FEMALE 37° CONE SEAT - SAE J516/J514  
(THRUST-WIRE NUT)**

JIC HEMBRA CODO 45° ASIENTO A 37° - SAE J516/J514  
(TUERCA GIRATORIA SOBRE LA ESPIGA)



### OPB22543

**45° JIC FEMALE 37° CONE SEAT - SAE J516/J514  
(SLIP-ON NUT)**

JIC HEMBRA CODO 45° ASIENTO A 37° - SAE J516/J514  
(TUERCA DESLIZABLE SOBRE LA ESPIGA)

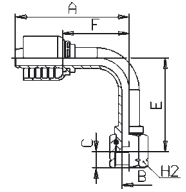
PART. REF.	HOSE BORE		THREAD	DIMENSIONS inch						
	DN	inch		B	A	C	E	F	H <sub>2</sub>	
OPB22542-04-04	6	1/4"	- 04	7/16" - 20	0.16	2.48	0.32	0.57	1.40	0.67
OPB22542-04-05	6	1/4"	- 04	1/2" - 20	0.16	2.49	0.37	0.57	1.41	0.67
OPB22543-04-06	6	1/4"	- 04	9/16" - 18	0.16	2.48	0.39	0.55	1.40	0.75
OPB22542-04-06	8	5/16"	- 05	1/2" - 20	0.22	2.54	0.37	0.57	1.43	0.67
OPB22542-05-05	8	5/16"	- 05	1/2" - 20	0.22	2.54	0.37	0.57	1.43	0.67
OPB22542-05-06	8	5/16"	- 05	9/16" - 18	0.28	2.60	0.38	0.57	1.50	0.75
OPB22542-06-06	10	3/8"	- 06	9/16" - 18	0.28	2.81	0.38	0.65	1.65	0.75
OPB22543-06-08	10	3/8"	- 06	3/4" - 16	0.28	2.77	0.43	0.55	1.61	0.87
OPB22543-06-10	10	3/8"	- 06	7/8" - 14	0.37	2.83	0.50	0.61	1.67	1.06
OPB22542-08-08	12	1/2"	- 08	3/4" - 16	0.37	3.27	0.42	0.79	2.05	0.87
OPB22543-08-10	12	1/2"	- 08	7/8" - 14	0.37	3.17	0.50	0.67	1.95	1.06
OPB22543-08-12	12	1/2"	- 08	1.1/6" - 12	0.49	3.19	0.56	0.67	1.97	1.26
OPB22542-10-10	16	5/8"	- 10	7/8" - 14	0.49	3.79	0.50	1.00	2.44	1.06
OPB22543-10-12	16	5/8"	- 10	1.1/16" - 12	0.49	3.71	0.56	0.94	2.36	1.26
OPB22542-12-12	19	3/4"	- 12	1.1/16" - 12	0.59	4.19	0.56	1.08	2.76	1.26
OPB22542-12-14	19	3/4"	- 12	1.3/16" - 12	0.59	4.15	0.58	1.08	2.72	1.42
OPB22542-12-16	19	3/4"	- 12	1.5/16" - 12	0.78	4.19	0.60	1.08	2.76	1.50
OPB22542-16-12	25	1"	- 16	1.1/16" - 12	0.59	4.75	0.56	1.08	2.85	1.26
OPB22542-16-16	25	1"	- 16	1.5/16" - 12	0.78	5.28	0.60	1.27	3.39	1.50
OPB22542-16-20	25	1"	- 16	1.5/8" - 12	1.02	5.44	0.64	1.42	3.54	1.97

## JIC STANDARD CONNECTIONS

### OPB24792

**LONG DROP 90° JIC FEMALE 37° CONE SEAT - SAE J516/J514 (THRUST-WIRE NUT)**

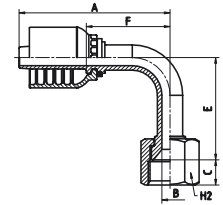
JIC HEMBRA CODO LARGO 90° ASIENTO A 37° - SAE J516/J514 (TUERCA GIRATORIA SOBRE LA ESPIGA)



### OPB24793

**LONG DROP 90° JIC FEMALE 37° CONE SEAT - SAE J516/J514 (SLIP-ON NUT)**

JIC HEMBRA CODO LARGO 90° ASIENTO A 37° - SAE J516/J514 (TUERCA DESLIZABLE SOBRE LA ESPIGA)

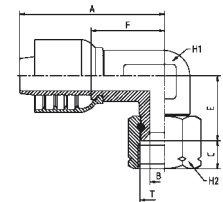


PART. REF.	HOSE BORE			THREAD	DIMENSIONS inch					
	DN	inch	Size		B	A	C	E	F	H <sub>2</sub>
OPB24792-04-04	6	1/4"	- 04	7/16" - 20	0.16	2.20	0.32	1.77	1.12	0.67
OPB24792-04-05	6	1/4"	- 04	1/2" - 20	0.16	2.20	0.37	1.77	1.12	0.67
OPB24793-04-06	6	1/4"	- 04	9/16" - 18	0.16	2.24	0.38	2.19	1.16	0.75
OPB24792-06-06	10	3/8"	- 06	9/16" - 18	0.28	2.56	0.38	2.17	1.40	0.75
OPB24793-06-08	10	3/8"	- 06	3/4" - 16	0.28	2.59	0.43	2.43	1.44	0.87
OPB24792-08-08	12	1/2"	- 08	3/4" - 16	0.37	2.88	0.43	2.43	1.65	0.87
OPB24793-08-10	12	1/2"	- 08	7/8" - 14	0.37	3.00	0.50	2.57	1.77	1.06
OPB24792-10-10	16	5/8"	- 10	7/8" - 14	0.49	3.46	0.50	2.58	2.11	1.06
OPB24792-12-12	19	3/4"	- 12	1.1/16" - 12	0.59	3.88	0.56	3.72	2.44	1.26
OPB24792-16-16	25	1"	- 16	1.5/16" - 12	0.78	5.01	0.60	4.33	3.11	1.50

### OPB22582F

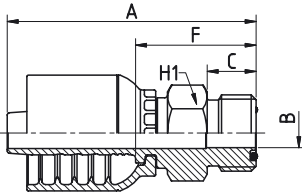
**90° JIC FEMALE COMPACT ELBOW 37° CONE SEAT - SAE J516/J514 (THRUST-WIRE NUT)**

JIC HEMBRA CODO CORTO 90° ASIENTO A 37° - SAE J516/514 (TUERCA GIRATORIA SOBRE LA ESPIGA)



PART. REF.	HOSE BORE			THREAD	DIMENSIONS inch						
	DN	inch	Size		B	A	C	E	F	H <sub>1</sub>	H <sub>2</sub>
OPB22582-04-04F	6	1/4"	- 04	7/16" - 20	0.16	1.89	0.32	0.81	0.79	0.55	0.67
OPB22582-04-06F	6	1/4"	- 04	9/16" - 18	0.28	1.93	0.35	0.85	0.79	0.55	0.75
OPB22582-06-06F	10	3/8"	- 06	9/16" - 18	0.28	2.10	0.36	0.94	0.91	0.75	0.75
OPB22582-06-08F	10	3/8"	- 06	3/4" - 16	0.37	2.26	0.40	1.10	1.05	0.87	0.87
OPB22582-08-08F	12	1/2"	- 08	3/4" - 16	0.37	2.33	0.40	1.10	0.98	0.87	0.87
OPB22582-08-10F	12	1/2"	- 08	7/8" - 14	0.49	2.37	0.48	1.14	0.98	0.87	1.06
OPB22582-12-12F	19	3/4"	- 12	1.1/16" - 12	0.59	2.74	0.56	1.30	1.48	1.06	1.26
OPB22582-16-16F	25	1"	- 16	1.5/16" - 12	0.79	3.47	0.60	1.57	2.04	1.42	1.50

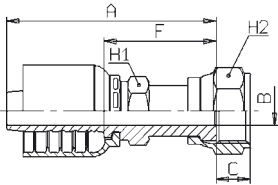
## ORFS STANDARD CONNECTIONS



### OPB12410

ORFS RIGID MALE - SAE J1453  
ORFS MACHO ASIEN TO PLANO - SAE J1453

PART. REF.	HOSE BORE			THREAD	DIMENSIONS inch				
	DN	inch	Size		B	A	C	F	H <sub>1</sub>
OPB12410-04-04	6	1/4"	- 04	9/16" - 18	0.16	2.03	0.39	0.94	0.63
OPB12410-04-06	6	1/4"	- 04	11/16" - 16	0.26	2.13	0.44	1.05	0.75
OPB12410-05-06	8	5/16"	- 05	11/16" - 16	0.26	2.17	0.44	1.06	0.75
OPB12410-06-06	10	3/8"	- 06	11/16" - 16	0.26	2.23	0.44	1.07	0.75
OPB12410-06-08	10	3/8"	- 06	13/16" - 16	0.37	2.34	0.50	1.18	0.87
OPB12410-08-08	12	1/2"	- 08	13/16" - 16	0.37	2.43	0.50	1.20	0.87
OPB12410-08-10	12	1/2"	- 08	1" - 14	0.49	2.60	0.61	1.38	1.06
OPB12410-10-10	16	5/8"	- 10	1" - 14	0.49	2.72	0.61	1.37	1.06
OPB12410-10-12	16	5/8"	- 10	1.3/16" - 12	0.59	2.83	0.67	1.48	1.26
OPB12410-12-12	19	3/4"	- 12	1.3/16" - 12	0.59	2.97	0.67	1.54	1.26
OPB12410-12-16	19	3/4"	- 12	1.7/16" - 12	0.78	3.03	0.69	1.59	1.50
OPB12410-16-16	25	1"	- 16	1.7/16" - 12	0.78	3.54	0.69	1.65	1.50



### OPB22411

ORFS FEMALE - SAE J516/J1453 (CRIMPED-BACK NUT)  
ORFS HEMBRA RECTA ASIEN TO PLANO - SAE J516/J1453  
(CRIMPADO DETRAS DE LA TUERCA)

PART. REF.	HOSE BORE			THREAD	DIMENSIONS inch					
	DN	inch	Size		B	A	C	F	H <sub>1</sub>	H <sub>2</sub>
OPB22411-04-04	6	1/4"	- 04	9/16" - 18	0.16	1.24	0.31	1.08	0.51	0.75
OPB22411-04-06	6	1/4"	- 04	11/16" - 16	0.28	1.34	0.37	1.18	0.63	0.87
OPB22411-05-06	8	5/16"	- 05	11/16" - 16	0.28	1.40	0.37	1.20	0.63	0.87
OPB22411-06-06	10	3/8"	- 06	11/16" - 16	0.28	1.46	0.37	1.22	0.63	0.87
OPB22411-06-08	10	3/8"	- 06	13/16" - 16	0.37	1.64	0.43	1.40	0.75	0.94
OPB22411-08-06	12	1/2"	- 08	11/16" - 16	0.28	1.57	0.37	1.26	0.63	0.87
OPB22411-08-08	12	1/2"	- 08	13/16" - 16	0.37	1.73	0.43	1.41	0.75	0.94
OPB22411-08-10	12	1/2"	- 08	1" - 14	0.45	1.83	0.53	1.51	0.94	1.18
OPB22411-08-12	12	1/2"	- 08	1.3/16" - 12	0.55	1.96	0.57	1.65	1.10	1.42
OPB22411-10-10	16	5/8"	- 10	1" - 14	0.45	1.92	0.53	1.52	0.94	1.18
OPB22411-10-12	16	5/8"	- 10	1.3/16" - 12	0.55	2.05	0.57	1.65	1.10	1.42
OPB22411-12-10	19	3/4"	- 12	1" - 14	0.45	2.09	0.53	1.61	1.10	1.18
OPB22411-12-12	19	3/4"	- 12	1.3/16" - 12	0.55	2.19	0.57	1.71	1.10	1.42
OPB22411-12-16	19	3/4"	- 12	1.7/16" - 12	0.78	2.26	0.59	1.79	1.42	1.61
OPB22411-16-12	25	1"	- 16	1.3/16" - 12	0.55	3.70	0.57	1.80	1.42	1.42
OPB22411-16-16	25	1"	- 16	1.7/16" - 12	0.78	2.45	0.59	1.82	1.42	1.61
OPB22411-16-20	25	1"	- 16	1.11/16" - 12	1.02	2.57	0.58	1.94	1.61	1.97



# OPB TYPE

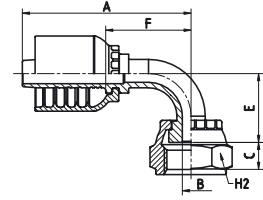


## ORFS STANDARD CONNECTIONS

### OPB22491

90° ORFS FEMALE - SAE J516/J1453  
(CRIMPED-BACK NUT)

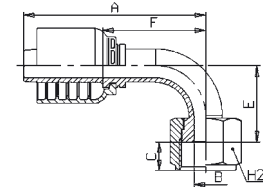
ORFS HEMBRA CODO 90° ASIENTO PLANO - SAE J516/J1453  
(CRIMPADO DETRAS DE LA TUERCA)



### OPB22493

90° ORFS FEMALE - SAE J516/J1453  
(SLIP-ON NUT)

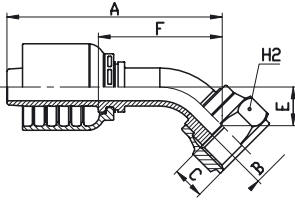
ORFS HEMBRA CODO 90° ASIENTO PLANO - SAE J516/J1453  
(TUERCA DESLIZABLE SOBRE LA ESPIGA)



PART. REF.	HOSE BORE			THREAD	DIMENSIONS inch					
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	DN	inch	Size		B	A	C	E	F	H <sub>2</sub>
OPB22493-04-04	6	1/4"	- 04	9/16" - 18	0.16	2.17	0.32	0.87	1.08	0.67
OPB22493-04-06	6	1/4"	- 04	11/16" - 16	0.28	2.17	0.37	0.87	1.08	0.87
OPB22493-05-06	10	5/16"	- 05	11/16" - 16	0.28	2.36	0.37	0.91	1.26	0.87
OPB22493-06-06	10	3/8"	- 06	11/16" - 16	0.28	2.34	0.37	0.94	1.18	0.87
OPB22493-06-08	10	3/8"	- 06	13/16" - 16	0.37	2.34	0.43	1.04	1.18	0.94
OPB22491-08-06	12	1/2"	- 08	11/16" - 16	0.28	2.44	0.37	0.96	1.22	0.87
OPB22493-08-08	12	1/2"	- 08	13/16" - 16	0.37	2.82	0.43	1.18	1.59	0.94
OPB22493-08-10	12	1/2"	- 08	1" - 14	0.45	2.82	0.53	1.18	1.59	1.18
OPB22493-08-12	12	1/2"	- 08	1.3/16" - 12	0.55	2.79	0.57	1.48	1.56	1.42
OPB22493-10-10	16	5/8"	- 10	1" - 14	0.45	3.24	0.53	1.48	1.89	1.18
OPB22493-10-12	16	5/8"	- 10	1.3/16" - 12	0.55	3.24	0.57	1.61	1.89	1.42
OPB22491-12-10	19	3/4"	- 12	1" - 14	0.45	3.37	0.53	1.50	1.93	1.18
OPB22493-12-12	19	3/4"	- 12	1.3/16" - 12	0.55	3.66	0.57	1.89	2.22	1.42
OPB22493-12-16	19	3/4"	- 12	1.7/16" - 12	0.78	3.66	0.58	1.87	2.22	1.61
OPB22491-16-12	25	1"	- 16	1.3/16" - 12	0.55	4.17	0.57	1.89	2.27	1.42
OPB22493-16-16	25	1"	- 16	1.7/16" - 12	0.78	4.71	0.58	2.20	2.81	1.61
OPB22493-16-20	25	1"	- 16	1.11/16" - 12	1.02	4.67	0.58	2.20	2.78	1.97

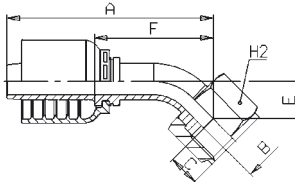
## ORFS STANDARD CONNECTIONS



### OPB22441

**45° ORFS FEMALE - SAE J516/J1453  
(CRIMPED-BACK NUT)**

ORFS HEMBRA CODO 45° ASIENTO PLANO - SAE J516/J1453  
(CRIMPADO DETRAS DE LA TUERCA)



### OPB22443

**45° ORFS FEMALE - SAE J516/J1453  
(SLIP-ON NUT)**

ORFS HEMBRA CODO 45° ASIENTO PLANO - SAE J516/J1453  
(TUERCA DESLIZABLE SOBRE LA ESPIGA)

PART. REF.	HOSE BORE	THREAD	DIMENSIONS inch							
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	DN	inch	Size		B	A	C	E	F	H <sub>2</sub>
OPB22443-04-04	6	1/4"	- 04	9/16" - 18	0.16	2.30	0.32	0.41	1.21	0.67
OPB22443-04-06	6	1/4"	- 04	11/16" - 16	0.28	2.30	0.37	0.41	1.22	0.87
OPB22443-05-06	8	5/16"	- 05	11/16" - 16	0.28	2.44	0.37	0.42	1.34	0.87
OPB22443-06-06	10	3/8"	- 06	11/16" - 16	0.28	2.44	0.37	0.43	1.28	0.87
OPB22443-06-08	10	3/8"	- 06	13/16" - 16	0.37	2.50	0.43	0.49	1.34	0.94
OPB22441-08-06	12	1/2"	- 08	11/16" - 16	0.28	2.52	0.37	0.43	1.30	0.87
OPB22443-08-08	12	1/2"	- 08	13/16" - 16	0.37	2.88	0.43	0.51	1.65	0.94
OPB22443-08-10	12	1/2"	- 08	1" - 14	0.44	2.88	0.53	0.53	1.65	1.18
OPB22443-08-12	12	1/2"	- 08	1.3/16" - 12	0.55	3.06	0.57	0.72	1.84	1.42
OPB22443-10-10	16	5/8"	- 10	1" - 14	0.45	3.28	0.53	0.63	1.93	1.18
OPB22443-10-12	16	5/8"	- 10	1.3/16" - 12	0.55	3.38	0.57	0.72	2.03	1.42
OPB22441-12-10	19	3/4"	- 12	1" - 14	0.45	3.43	0.53	0.65	1.99	1.18
OPB22443-12-12	19	3/4"	- 12	1.3/16" - 12	0.55	3.82	0.57	0.85	2.38	1.42
OPB22443-12-16	19	3/4"	- 12	1.7/16" - 12	0.78	3.80	0.58	0.83	2.37	1.61
OPB22443-16-16	25	1"	- 16	1.7/16" - 12	0.78	4.72	0.58	0.93	2.81	1.61
OPB22443-16-20	25	1"	- 16	1.11/16" - 12	1.02	4.69	0.58	0.92	2.81	1.97

# OPB TYPE



## ORFS STANDARD CONNECTIONS

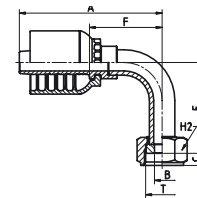
### OPB24493\*

LONG DROP 90° ORFS FEMALE - SAE J516/J1453

(SLIP-ON NUT)

ORFS HEMBRA CODO LARGO 90° ASIENTO PLANO - SAE J516/J1453

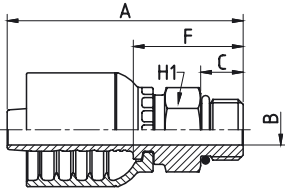
(TUERCA DESLIZABLE SOBRE LA ESPIGA)



PART. REF.	HOSE BORE			THREAD	DIMENSIONS inch					
	DN	inch	Size		B	A	C	E	F	H <sub>2</sub>
OPB24493-04-04	6	1/4"	- 04	9/16" - 18	0.17	2.05	0.32	1.79	0.96	0.67
OPB24493-06-06	10	3/8"	- 06	11/16" - 16	0.28	2.40	0.37	2.11	1.24	0.87
OPB24493-06-08	10	3/8"	- 06	13/16" - 16	0.26	2.40	0.43	2.09	1.24	0.94
OPB24493-08-08	12	1/2"	- 08	13/16" - 16	0.39	2.68	0.43	2.50	1.46	0.94
OPB24493-08-10	12	1/2"	- 08	1" - 14	0.38	2.67	0.53	2.50	1.44	1.18
OPB24493-10-10	16	5/8"	- 10	1" - 14	0.38	2.95	0.53	2.70	1.60	1.18
OPB24493-10-12	16	5/8"	- 10	1.3/16" - 12	0.50	2.95	0.57	2.85	1.60	1.42
OPB24493-12-12	19	3/4"	- 12	1.3/16" - 12	0.61	3.23	0.57	3.78	1.79	1.42
OPB24493-16-16	25	1"	- 16	1.7/16" - 12	0.81	4.20	0.58	4.47	2.30	1.61

\* NOT MADE FROM SOLID STOCK / CONSTRUIDOS CON SOLDADURA

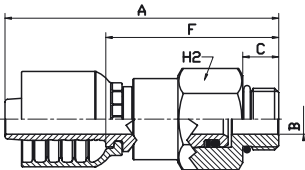
## SAE OR BOSS STANDARD CONNECTIONS



### OPB13010

SAE MALE O-RING BOSS TYPE - SAE J516/J514  
SAE MACHO TIPO O-RING BOSS - SAE J516/J514

PART. REF.	HOSE BORE			THREAD	DIMENSIONS inch				
	DN	inch	Size		B	A	C	F	H <sub>1</sub>
OPB13010-04-04	6	1/4"	- 04	7/16" - 20	0.16	2.03	0.36	0.94	0.55
OPB13010-04-06	6	1/4"	- 04	9/16" - 18	0.28	2.05	0.39	0.96	0.67
OPB13010-06-06	10	3/8"	- 06	9/16" - 18	0.28	2.17	0.39	1.01	0.67
OPB13010-06-08	10	3/8"	- 06	3/4" - 16	0.37	2.28	0.44	1.13	0.87
OPB13010-08-08	12	1/2"	- 08	3/4" - 16	0.37	2.36	0.44	1.14	0.87
OPB13010-08-10	12	1/2"	- 08	7/8" - 14	0.49	2.48	0.50	1.26	0.98
OPB13010-10-12	16	5/8"	- 10	1. 1/16" - 12	0.59	2.83	0.59	1.48	1.26
OPB13010-12-12	19	3/4"	- 12	1. 1/16" - 12	0.59	2.99	0.59	1.56	1.26
OPB13010-12-16	19	3/4"	- 12	1. 5/16" - 12	0.78	3.01	0.59	1.57	1.50
OPB13010-16-16	25	1"	- 16	1. 5/16" - 12	0.78	3.52	0.59	1.62	1.50



### OPB14310

SAE SWIVEL MALE O-RING BOSS TYPE - SAE J516/J514  
SAE MACHO GIRATORIO TIPO O-RING BOSS - SAE J516/J514

PART. REF.	HOSE BORE			THREAD	DIMENSIONS inch				
	DN	inch	Size		B	A	C	F	H <sub>2</sub>
OPB14310-04-04	6	1/4"	- 04	7/16" - 20	0.16	2.70	0.36	1.61	0.67
<b>NEW</b> OPB14310-04-06	6	1/4"	- 04	9/16" - 18	0.28	2.81	0.39	1.73	0.87
OPB14310-06-06	10	3/8"	- 06	9/16" - 18	0.28	2.96	0.39	1.81	0.87
OPB14310-06-08	10	3/8"	- 06	3/4" - 16	0.28	3.04	0.44	1.88	0.87
OPB14310-08-08	12	1/2"	- 08	3/4" - 16	0.37	3.26	0.44	2.00	1.06
OPB14310-08-10	12	1/2"	- 08	7/8" - 14	0.37	2.89	0.51	1.66	1.06
OPB14310-08-12	12	1/2"	- 08	1.1/16" - 12	0.59	3.47	0.59	2.24	1.26
OPB14310-10-10	16	5/8"	- 10	7/8" - 14	0.37	2.98	0.51	1.63	1.06
OPB14310-12-12	19	3/4"	- 12	1.1/16" - 12	0.49	3.32	0.59	1.88	1.26



# OPB TYPE



## SAE OR BOSS STANDARD CONNECTIONS

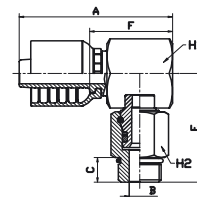
### OPB14390\*

90° SAE SWIVEL MALE O-RING BOSS TYPE

SAE J516/J514

SAE MACHO GIRATORIO CODO 90° TIPO O-RING BOSS

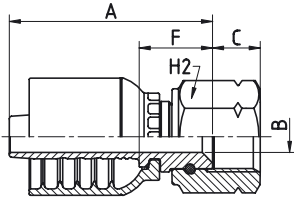
SAE J516/J514



PART. REF.	HOSE BORE			THREAD	DIMENSIONS inch						
	DN	inch	Size		B	A	C	E	F	H <sub>1</sub>	H <sub>2</sub>
OPB14390-06-06	10	3/8"	- 06	9/16" - 18	0.27	1.95	0.39	1.57	0.79	0.87	0.67
OPB14390-06-08	10	3/8"	- 06	3/4" - 16	0.27	1.95	0.44	1.80	0.79	0.87	0.87
OPB14390-08-08	12	1/2"	- 08	3/4" - 16	0.37	2.09	0.44	1.93	0.87	1.06	0.87
OPB14390-08-10	12	1/2"	- 08	7/8" - 14	0.37	2.31	0.51	1.87	1.08	1.06	1.06
OPB14390-10-10	16	5/8"	- 10	7/8" - 14	0.37	2.45	0.51	1.87	1.10	1.06	1.06
OPB14390-12-12	19	3/4"	- 12	1.1/16" - 12	0.49	2.52	0.59	2.19	1.08	1.26	1.26

\* NOT MADE FROM SOLID STOCK / CONSTRUIDOS CON SOLDADURA

## SAE 45° STANDARD CONNECTIONS



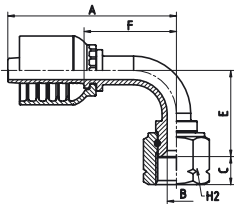
### OPB22612

SAE FEMALE 45° CONE SEAT - SAE J516/J512  
(THRUST-WIRE NUT)

SAE HEMBRA RECTA ASIENTO A 45° - SAE J516/J512  
(TUERCA GIRATORIA SOBRE LA ESPIGA)

PART. REF.	HOSE BORE	THREAD	DIMENSIONS inch							
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	DN	inch	Size		B	A	C	F	H <sub>i</sub>	
<b>NEW</b> OPB22612-04-04	6	1/4"	- 04	7/16" - 20	0.16	1.69	0.32	0.61	0.67	
OPB22612-06-06	10	3/8"	- 06	5/8" - 18	0.28	1.81	0.43	0.65	0.87	
OPB22612-12-12	19	3/4"	- 12	1.1/16" - 14	0.59	2.33	0.57	0.89	1.26	



### OPB22692

90° SAE FEMALE SWEPT ELBOW 45° CONE SEAT - SAE J516/J512  
(THRUST-WIRE NUT)

HEMBRA SAE CODO 90° ASIENTO A 45° - SAE J516/J512  
(TUERCA GIRATORIA SOBRE LA ESPIGA)

PART. REF.	HOSE BORE	THREAD	DIMENSIONS inch							
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	DN	inch	Size		B	A	C	E	F	H <sub>i</sub>
<b>NEW</b> OPB22692-04-04	6	1/4"	- 04	7/16" - 20	0.16	2.20	0.32	1.06	1.11	0.67
OPB22692-06-06	10	3/8"	- 06	5/8" - 18	0.28	2.56	0.43	1.30	1.40	0.87
OPB22692-12-12	19	3/4"	- 12	1.1/16" - 14	0.59	3.88	0.57	2.28	2.44	1.26

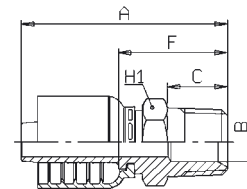
# OPB TYPE



## NPTF STANDARD CONNECTIONS

### OPB12810

NPTF MALE 30° CONE SEAT - SAE J516  
NPTF MACHO CUERDA CONICA ASIENTO A 30° - SAE J516

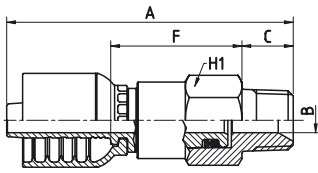


PART. REF.	HOSE BORE			THREAD	DIMENSIONS inch				
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	DN	inch	Size		B	A	C	F	H <sub>1</sub>
OPB12810-03-02	5	3/16"	- 03	1/8" - 27	0.16	1.77	0.39	0.93	0.47
OPB12810-03-04	5	3/16"	- 03	1/4" - 18	0.22	1.99	0.57	1.15	0.55
OPB12810-04-02	6	1/4"	- 04	1/8" - 27	0.16	2.03	0.39	0.95	0.47
OPB12810-04-04	6	1/4"	- 04	1/4" - 18	0.22	2.22	0.57	1.14	0.55
OPB12810-04-06	6	1/4"	- 04	3/8" - 18	0.37	2.32	0.57	1.24	0.75
OPB12810-04-08	6	1/4"	- 04	1/2" - 14	0.28	2.34	0.55	1.26	0.94
OPB12810-05-04	8	5/16"	- 05	1/4" - 18	0.22	2.28	0.57	1.18	0.55
OPB12810-05-06	8	5/16"	- 05	3/8" - 18	0.37	2.36	0.57	1.26	0.75
OPB12810-06-04	10	3/8"	- 06	1/4" - 18	0.22	2.34	0.57	1.19	0.55
OPB12810-06-06	10	3/8"	- 06	3/8" - 18	0.37	2.28	0.57	1.13	0.75
OPB12810-06-08	10	3/8"	- 06	1/2" - 14	0.49	2.52	0.76	1.36	0.94
OPB12810-08-06	12	1/2"	- 08	3/8" - 18	0.37	2.36	0.57	1.14	0.75
OPB12810-08-08	12	1/2"	- 08	1/2" - 14	0.49	2.60	0.76	1.37	0.94
OPB12810-08-12	12	1/2"	- 08	3/4" - 14	0.63	2.62	0.76	1.39	1.06
OPB12810-10-08	16	5/8"	- 10	1/2" - 14	0.49	2.87	0.76	1.52	0.94
OPB12810-10-12	16	5/8"	- 10	3/4" - 14	0.63	2.93	0.76	1.58	1.06
OPB12810-12-08	19	3/4"	- 12	1/2" - 14	0.49	2.87	0.76	1.44	1.06
OPB12810-12-12	19	3/4"	- 12	3/4" - 14	0.63	2.87	0.76	1.44	1.06
OPB12810-12-16	19	3/4"	- 12	1" - 11.5	0.78	3.25	0.95	1.81	1.42
OPB12810-16-12	25	1"	- 16	3/4" - 14	0.61	3.43	0.76	1.53	1.26
OPB12810-16-16	25	1"	- 16	1" - 11.5	0.78	3.62	0.95	1.72	1.42
OPB12810-16-20	25	1"	- 16	1.1/4" - 11.5	1.02	4.11	0.98	2.22	1.81

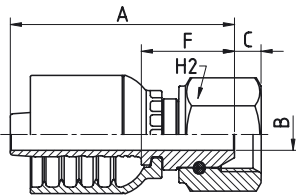
## NPTF STANDARD CONNECTIONS

### OPB14110



**NPTF SWIVEL MALE 30° CONE SEAT - SAE J516**  
**NPTF MACHO GIRATORIO CUERDA CONICA**  
**ASIENTO A 30° - SAE J516**

PART. REF.	HOSE BORE			THREAD	DIMENSIONS inch				
	DN	inch	Size		B	A	C	F	H <sub>2</sub>
OPB14110-04-02	6	1/4"	- 04	1/8" - 27	0.12	2.73	0.39	1.65	0.67
OPB14110-04-04	6	1/4"	- 04	1/4" - 18	0.16	2.91	0.57	1.83	0.67
OPB14110-04-06	6	1/4"	- 04	3/8" - 18	0.28	2.91	0.57	1.83	0.75
OPB14110-06-04	10	3/8"	- 06	1/4" - 18	0.16	3.15	0.57	1.99	0.87
OPB14110-06-06	10	3/8"	- 06	3/8" - 18	0.28	3.15	0.57	1.99	0.87
OPB14110-06-08	10	3/8"	- 06	1/2" - 14	0.37	3.33	0.76	2.17	0.94
OPB14110-08-08	12	1/2"	- 08	1/2" - 14	0.37	3.55	0.76	2.32	1.06
OPB14110-12-12	19	3/4"	- 12	3/4" - 14	0.63	3.72	0.76	2.28	1.26
OPB14110-16-16	25	1"	- 16	1" - 11.5	0.78	4.49	0.95	2.59	1.50



### OPB22812

**NPSM FEMALE 30° CONE - SAE J514 (THRUST-WIRE NUT)**  
**NPSM HEMBRA RECTA ASIEN TO A 30° CUERDA RECTA**  
**SAE J514 (TUERCA GIRATORIA SOBRE LA ESPIGA)**

PART. REF.	HOSE BORE			THREAD	DIMENSIONS inch				
	DN	inch	Size		B	A	C	F	H <sub>2</sub>
OPB22812-04-04	6	1/4"	- 04	1/4" - 18	0.16	1.77	0.17	0.69	0.75
OPB22812-06-06	10	3/8"	- 06	3/8" - 18	0.28	1.98	0.24	0.82	0.87
OPB22812-08-08	12	1/2"	- 08	1/2" - 14	0.37	2.12	0.26	0.90	1.06
OPB22812-12-12	19	3/4"	- 12	3/4" - 14	0.59	2.40	0.35	0.96	1.26
OPB22812-16-16	25	1"	- 16	1" - 11.5	0.78	2.97	0.41	1.07	1.50



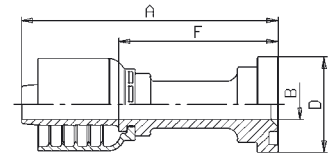
# OPB TYPE



## FLANGE CODE 61 STANDARD CONNECTIONS

### OPB23311

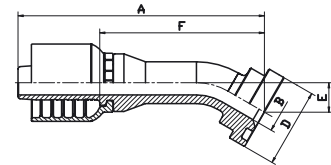
FLANGE STRAIGHT HEAD CODE 61 - SAE J516/J518  
BRIDA RECTA CODIGO 61 - SAE J516/J518



PART. REF.	HOSE BORE			FLANGE	DIMENSIONS inch				
	DN	inch	Size		B	A	D	F	
OPB23311-08-08	12	1/2"	- 08	1/2"	0.37	3.23	1.19	2.00	
OPB23311-08-12	12	1/2"	- 08	3/4"	0.59	3.50	1.50	2.27	
OPB23311-10-12	16	5/8"	- 10	3/4"	0.59	3.94	1.50	2.59	
OPB23311-12-12	19	3/4"	- 12	3/4"	0.59	3.72	1.50	2.28	
OPB23311-12-16	19	3/4"	- 12	1"	0.79	3.72	1.75	2.28	
OPB23311-16-16	25	1"	- 16	1"	0.78	4.43	1.75	2.53	
OPB23311-16-20	25	1"	- 16	1.1/4"	1.02	4.67	2.00	2.77	

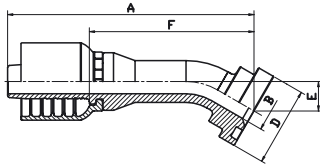
### OPB23321

FLANGE HEAD 22.5° CODE 61 - SAE J516/J518  
BRIDA CODO 22.5° CODIGO 61 - SAE J516/J518



PART. REF.	HOSE BORE			FLANGE	DIMENSIONS inch				
	DN	inch	Size		B	A	D	E	F
OPB23321-08-08	12	1/2"	- 08	1/2"	0.37	3.74	1.19	0.31	2.52
OPB23321-12-12	19	3/4"	- 12	3/4"	0.59	4.38	1.50	0.39	2.94
OPB23321-12-16	19	3/4"	- 12	1"	0.79	4.38	1.75	0.39	2.94
OPB23321-16-16	25	1"	- 16	1"	0.78	5.39	1.75	0.45	3.50

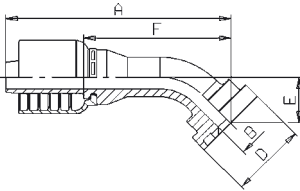
## FLANGE CODE 61 STANDARD CONNECTIONS



### OPB23331

FLANGE HEAD 30° CODE 61 - SAE J516/J518  
BRIDA CODO 30° CODIGO 61 - SAE J516/J518

PART. REF.	HOSE BORE			FLANGE	DIMENSIONS inch				
	DN	inch	Size		B	A	D	E	F
OPB23331-08-08	12	1/2"	- 08	1/2"	0.37	3.69	1.19	0.44	2.46
OPB23331-12-12	19	3/4"	- 12	3/4"	0.59	4.32	1.50	0.55	2.88
OPB23331-12-16	19	3/4"	- 12	1"	0.79	4.32	1.75	0.55	2.88
OPB23331-16-16	25	1"	- 16	1"	0.78	5.31	1.75	0.65	3.42



### OPB23341

FLANGE HEAD 45° CODE 61 - SAE J516/J518  
BRIDA CODO 45° CODIGO 61 - SAE J516/J518

PART. REF.	HOSE BORE			FLANGE	DIMENSIONS inch				
	DN	inch	Size		B	A	D	E	F
OPB23311-08-08	12	1/2"	- 08	1/2"	0.37	3.53	1.19	0.73	2.30
OPB23311-08-12	12	1/2"	- 08	3/4"	0.59	3.57	1.50	0.75	2.34
OPB23311-10-12	16	5/8"	- 10	3/4"	0.59	3.75	1.50	0.87	2.40
OPB23311-12-12	19	3/4"	- 12	3/4"	0.59	4.13	1.50	0.91	2.70
OPB23311-12-16	19	3/4"	- 12	1"	0.79	4.13	1.75	0.91	2.70
OPB23311-16-16	25	1"	- 16	1"	0.78	5.11	1.75	1.08	3.21
OPB23311-16-20	25	1"	- 16	1.1/4"	1.02	5.11	2.00	1.07	3.21

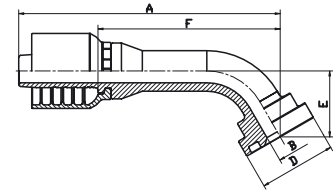
# OPB TYPE



## FLANGE CODE 61 STANDARD CONNECTIONS

### OPB23361

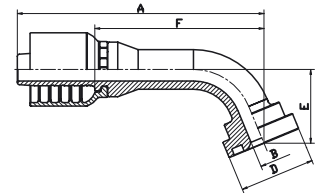
FLANGE HEAD 60° CODE 61 - SAE J516/J518  
BRIDA CODO 60° CODIGO 61 - SAE J516/J518



PART. REF.	HOSE BORE			FLANGE	DIMENSIONS inch				
	DN	inch	Size		B	A	D	E	F
OPB23361-08-08	12	1/2"	- 08	1/2"	0.37	4.04	1.19	1.02	2.81
OPB23361-12-12	19	3/4"	- 12	3/4"	0.59	4.86	1.50	1.30	3.42
OPB23361-12-16	25	1"	- 16	1"	0.78	5.98	1.75	1.54	4.09
OPB23361-16-16	25	1"	- 16	1.1/4"	1.02	5.98	2.00	1.54	4.09

### OPB23371

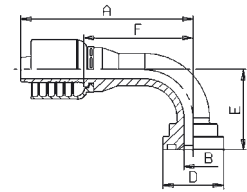
FLANGE HEAD 67.5° CODE 61 - SAE J516/J518  
BRIDA CODO 67.5° CODIGO 61 - SAE J516/J518



PART. REF.	HOSE BORE			FLANGE	DIMENSIONS inch				
	DN	inch	Size		B	A	D	E	F
OPB23371-08-08	12	1/2"	- 08	1/2"	0.37	3.90	1.19	1.17	2.67
OPB23371-12-12	19	3/4"	- 12	3/4"	0.59	4.67	1.50	1.50	3.24
OPB23371-12-16	19	3/4"	- 12	1"	0.79	4.67	1.75	1.50	3.24
OPB23371-16-16	25	1"	- 16	1"	0.78	5.78	1.75	1.77	3.88

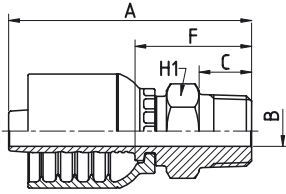
### OPB23391

FLANGE STRAIGHT HEAD CODE 61 - SAE J516/J518  
BRIDA RECTA CODIGO 61 - SAE J516/J518



PART. REF.	HOSE BORE			FLANGE	DIMENSIONS inch				
	DN	inch	Size		B	A	D	E	F
OPB23391-08-08	12	1/2"	- 08	1/2"	0.37	3.37	1.19	1.57	2.15
OPB23391-08-12	12	1/2"	- 08	3/4"	0.59	3.37	1.50	1.61	2.15
OPB23391-10-12	16	5/8"	- 10	3/4"	0.59	3.50	1.50	1.87	2.15
OPB23391-12-12	19	3/4"	- 12	3/4"	0.59	3.98	1.50	2.05	2.54
OPB23391-12-16	19	3/4"	- 12	1"	0.79	3.98	1.75	2.05	2.54
OPB23391-16-16	25	1"	- 16	1"	0.78	4.95	1.75	2.44	3.05
OPB23391-16-20	25	1"	- 16	1.1/4"	1.02	4.95	2.00	2.44	3.05

## BSPT STANDARD CONNECTIONS



### OPB10710

**BSP MALE TAPERED**  
**BSP MACHO CUERDA CONICA**

PART. REF.	HOSE BORE			THREAD	DIMENSIONS inch				
	DN	inch	Size		B	A	C	F	H <sub>1</sub>
OPB10710-03-02	5	3/16"	- 03	1/8" - 28	0.18	1.65	0.31	0.81	0.47
OPB10710-03-04	5	3/16"	- 03	1/4" - 19	0.18	1.81	0.47	0.96	0.55
OPB10710-04-02	6	1/4"	- 04	1/8" - 28	0.18	1.91	0.31	0.83	0.47
OPB10710-04-04	6	1/4"	- 04	1/4" - 19	0.18	2.07	0.47	0.98	0.55
OPB10710-04-06	6	1/4"	- 04	3/8" - 19	0.28	2.11	0.47	1.02	0.75
OPB10710-04-08	6	1/4"	- 04	1/2" - 14	0.39	2.24	0.59	1.16	0.87
OPB10710-05-06	8	5/16"	- 05	3/8" - 19	0.28	2.15	0.47	1.04	0.75
OPB10710-05-08	8	5/16"	- 05	1/2" - 14	0.39	2.28	0.59	1.18	0.87
OPB10710-06-06	10	3/8"	- 06	3/8" - 19	0.28	2.22	0.47	1.07	0.75
OPB10710-06-08	10	3/8"	- 06	1/2" - 14	0.39	2.36	0.59	1.20	0.87
OPB10710-08-04	12	1/2"	- 08	1/4" - 19	0.18	2.24	0.47	1.02	0.75
OPB10710-08-08	12	1/2"	- 08	1/2" - 14	0.39	2.45	0.59	1.22	0.87
OPB10710-10-08	16	5/8"	- 10	1/2" - 14	0.39	2.57	0.59	1.22	0.87
OPB10710-10-12	16	5/8"	- 10	3/4" - 14	0.67	2.81	0.67	1.46	1.06
OPB10710-12-12	19	3/4"	- 12	3/4" - 14	0.67	2.83	0.67	1.40	1.06
OPB10710-16-16	25	1"	- 16	1" - 11	0.89	3.54	0.83	1.65	1.42



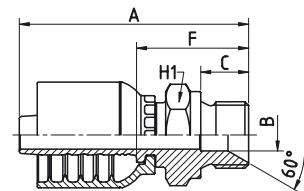
# OPB TYPE



## BSPT STANDARD CONNECTIONS

### OPB10510

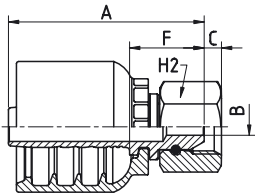
BSP MALE PARALLEL 60° CONE SEAT - BS5200  
 BSP MACHO CUERDA RECTA ASIENTO A 60° - BS5200



PART. REF.	HOSE BORE			THREAD	DIMENSIONS inch				
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	DN	inch	Size		B	A	C	F	H <sub>1</sub>	
OPB10510-03-02	5	3/16"	- 03	1/8" - 28	0.14	1.73	0.39	0.89	0.55	
OPB10510-04-02	6	1/4"	- 04	1/8" - 28	0.14	1.97	0.39	0.89	0.55	
OPB10510-04-04	6	1/4"	- 04	1/4" - 19	0.20	2.09	0.43	1.00	0.75	
OPB10510-04-06	6	1/4"	- 04	3/8" - 19	0.31	2.15	0.47	1.06	0.87	
OPB10510-05-04	8	5/16"	- 05	1/4" - 19	0.20	2.13	0.43	1.02	0.75	
OPB10510-05-06	8	5/16"	- 05	3/8" - 19	0.31	2.19	0.47	1.08	0.87	
<b>NEW</b> OPB10510-06-04	10	3/8"	- 06	1/4" - 19	0.20	2.18	0.43	1.02	0.75	
OPB10510-06-06	10	3/8"	- 06	3/8" - 19	0.31	2.26	0.47	1.11	0.87	
OPB10510-06-08	10	3/8"	- 06	1/2" - 14	0.43	2.36	0.55	1.20	1.06	
OPB10510-08-06	12	1/2"	- 08	3/8" - 19	0.31	2.33	0.47	1.11	0.87	
OPB10510-08-08	12	1/2"	- 08	1/2" - 14	0.43	2.45	0.55	1.22	1.06	
OPB10510-08-10	12	1/2"	- 08	5/8" - 14	0.57	2.53	0.63	1.30	1.18	
OPB10510-08-12	12	1/2"	- 08	3/4" - 14	0.67	2.57	0.63	1.34	1.26	
OPB10510-10-10	16	5/8"	- 10	5/8" - 14	0.57	2.65	0.63	1.30	1.18	
OPB10510-10-12	16	5/8"	- 10	3/4" - 14	0.67	2.69	0.63	1.34	1.26	
OPB10510-12-12	19	3/4"	- 12	3/4" - 14	0.67	2.83	0.63	1.40	1.26	
OPB10510-12-16	19	3/4"	- 12	1" - 11	0.89	2.99	0.75	1.56	1.61	
OPB10510-16-16	25	1"	- 16	1" - 11	0.89	3.50	0.75	1.61	1.61	
OPB10510-16-20	25	1"	- 16	1.1/4" - 11	1.12	3.66	0.79	1.76	1.97	

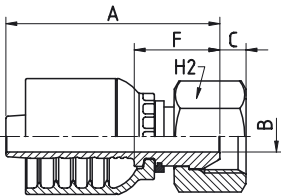
## BSP STANDARD CONNECTIONS



### OPB20512

**BSP FEMALE 60° CONE - BS5200  
(THRUST-WIRE NUT)**

BSP HEMBRA RECTA ASIENTO A 60° - BS5200  
(TUERCA GIRATORIA SOBRE LA ESPIGA)



### OPB20513

**BSP FEMALE 60° CONE - BS5200  
(SLIP-ON NUT)**

BSP HEMBRA RECTA ASIENTO A 60° - BS5200  
(TUERCA DESLIZABLE SOBRE LA ESPIGA)

PART. REF.	HOSE BORE	THREAD	DIMENSIONS inch
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	DN	inch	Size		B	A	C	F	H <sub>2</sub>	
OPB20512-03-02	5	3/16"	- 03	1/8" - 28	0.12	1.43	0.17	0.58	0.55	
OPB20513-03-04	5	3/16"	- 03	1/4" - 19	0.16	1.49	0.21	0.65	0.75	
OPB20512-04-02	6	1/4"	- 04	1/8" - 28	0.12	1.69	0.17	0.61	0.55	
OPB20513-04-04	6	1/4"	- 04	1/4" - 19	0.16	1.75	0.21	0.67	0.75	
OPB20513-04-06	6	1/4"	- 04	3/8" - 19	0.28	1.83	0.24	0.75	0.87	
OPB20512-05-04	8	5/16"	- 05	1/4" - 19	0.16	1.79	0.17	0.69	0.75	
OPB20513-05-06	8	5/16"	- 05	3/8" - 19	0.28	1.85	0.24	0.75	0.87	
OPB20512-06-04	10	3/8"	- 06	1/4" - 19	0.16	1.87	0.17	0.71	0.75	
OPB20513-06-06	10	3/8"	- 06	3/8" - 19	0.28	1.93	0.24	0.77	0.87	
OPB20513-06-08	10	3/8"	- 06	1/2" - 14	0.37	1.94	0.26	0.79	1.06	
OPB20512-08-06	12	1/2"	- 08	3/8" - 19	0.28	2.05	0.24	0.82	0.87	
OPB20513-08-08	12	1/2"	- 08	1/2" - 14	0.37	2.03	0.26	0.80	1.06	
OPB20512-08-10	12	1/2"	- 08	5/8" - 14	0.48	2.09	0.40	0.86	1.10	
OPB20512-08-12	12	1/2"	- 08	3/4" - 14	0.59	2.15	0.35	0.92	1.26	
OPB20512-10-10	16	5/8"	- 10	5/8" - 14	0.49	2.20	0.40	0.85	1.10	
OPB20512-10-12	16	5/8"	- 10	3/4" - 14	0.59	2.26	0.35	0.91	1.26	
OPB20512-12-12	19	3/4"	- 12	3/4" - 14	0.59	2.40	0.35	0.96	1.26	
OPB20512-12-16	19	3/4"	- 12	1" - 11	0.78	2.46	0.41	1.02	1.50	
OPB20512-16-16	25	1"	- 16	1" - 11	0.78	2.97	0.41	1.07	1.50	

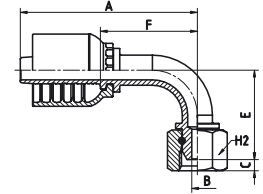
# OPB TYPE



## BSP STANDARD CONNECTIONS

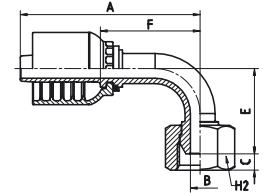
### OPB20592

90° BSP FEMALE SWEPT ELBOW 60° CONE - BS5200  
(THRUST-WIRE NUT)  
BSP HEMBRA CODO 90° ASIENTO A 60° - BS5200  
(TUERCA GIRATORIA SOBRE LA ESPIGA)



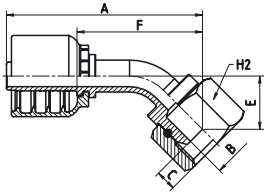
### OPB20593

90° BSP FEMALE SWEPT ELBOW 60° CONE - BS5200  
(SLIP-ON NUT)  
BSP HEMBRA CODO 90° ASIENTO A 60° - BS5200  
(TUERCA DESLIZABLE SOBRE LA ESPIGA)



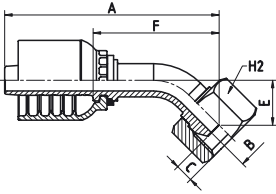
PART. REF.	HOSE BORE			THREAD	DIMENSIONS inch					
	DN	inch	Size		B	A	C	E	F	H <sub>2</sub>
OPB20592-03-02	5	3/16"	- 03	1/8" - 28	0.12	1.69	0.17	1.02	0.85	0.55
OPB20592-04-02	6	1/4"	- 04	1/8" - 28	0.12	2.20	0.17	1.06	1.12	0.55
OPB20593-04-04	6	1/4"	- 04	1/4" - 19	0.16	2.24	0.21	1.14	1.16	0.75
OPB20593-04-06	6	1/4"	- 04	3/8" - 19	0.28	2.24	0.24	1.22	1.16	0.87
OPB20592-05-04	8	5/16"	- 05	1/4" - 19	0.16	2.15	0.21	1.16	1.04	0.75
OPB20593-05-06	8	5/16"	- 05	3/8" - 19	0.28	2.36	0.24	1.08	1.26	0.87
OPB20593-06-06	10	3/8"	- 06	3/8" - 19	0.28	2.59	0.24	1.24	1.44	0.87
OPB20593-06-08	10	3/8"	- 06	1/2" - 14	0.37	2.59	0.26	1.26	1.44	1.06
OPB20593-08-06	12	1/2"	- 08	3/8" - 19	0.28	2.99	0.24	1.61	1.77	0.87
OPB20593-08-08	12	1/2"	- 08	1/2" - 14	0.37	3.00	0.26	1.44	1.77	1.06
OPB20592-08-10	12	1/2"	- 08	5/8" - 14	0.48	2.96	0.40	1.73	1.73	1.10
OPB20592-08-12	12	1/2"	- 08	3/4" - 14	0.59	2.96	0.35	1.79	1.73	1.26
OPB20592-10-10	16	5/8"	- 10	5/8" - 14	0.49	3.46	0.40	2.11	2.11	1.10
OPB20592-10-12	16	5/8"	- 10	3/4" - 14	0.59	3.46	0.35	2.17	2.11	1.26
OPB20592-12-12	19	3/4"	- 12	3/4" - 14	0.61	3.86	0.35	2.34	2.42	1.26
OPB20592-12-16	19	3/4"	- 12	1" - 11	0.78	3.86	0.41	2.44	2.42	1.50
OPB20592-16-16	25	1"	- 16	1" - 11	0.78	5.03	0.41	2.99	3.13	1.50

## BSP STANDARD CONNECTIONS



### OPB20542

**45° BSP FEMALE SWEPT ELBOW 60° CONE - BS5200  
(THRUST-WIRE NUT)**  
 BSP HEMBRA CODO 45° ASIENTO A 60° - BS5200  
 (TUERCA GIRATORIA SOBRE LA ESPIGA)



### OPB20543

**45° BSP FEMALE SWEPT ELBOW 60° CONE - BS5200  
(SLIP-ON NUT)**  
 BSP HEMBRA CODO 45° ASIENTO A 60° - BS5200  
 (TUERCA DESLIZABLE SOBRE LA ESPIGA)

PART. REF.	HOSE BORE			THREAD	DIMENSIONS inch					
	DN	inch	Size		B	A	C	E	F	H <sub>2</sub>
OPB20543-04-04	6	1/4"	- 04	1/4" - 19	0.16	2.50	0.21	0.59	1.42	0.75
OPB20543-04-06	6	1/4"	- 04	3/8" - 19	0.28	2.56	0.24	0.63	1.48	0.75
OPB20543-05-06	8	5/16"	- 05	3/8" - 19	0.28	2.60	0.24	0.53	1.50	0.87
OPB20543-06-06	10	3/8"	- 06	3/8" - 19	0.28	2.81	0.24	0.59	1.65	0.87
OPB20543-06-08	10	3/8"	- 06	1/2" - 14	0.37	2.83	0.26	0.63	1.67	1.06
OPB20543-08-08	12	1/2"	- 08	1/2" - 14	0.37	3.17	0.26	0.67	1.95	1.06
OPB20542-08-10	12	1/2"	- 08	5/8" - 14	0.48	3.37	0.40	0.89	2.15	1.10
OPB20542-10-10	16	5/8"	- 10	5/8" - 14	0.49	3.83	0.40	1.02	2.48	1.10
OPB20542-10-12	16	5/8"	- 10	3/4" - 14	0.59	3.87	0.35	1.06	2.52	1.26
OPB20542-12-12	19	3/4"	- 12	3/4" - 14	0.61	4.21	0.35	1.12	2.78	1.26
OPB20542-12-16	19	3/4"	- 12	1" - 11	0.78	4.29	0.41	1.18	2.85	1.50
OPB20542-16-16	25	1"	- 16	1" - 11	0.78	5.48	0.41	1.44	3.58	1.50



# OPB TYPE

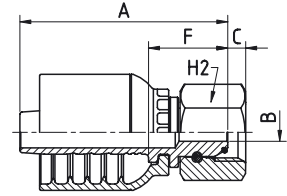


## BSP STANDARD CONNECTIONS

### OPB20812

**BSP O-RING FEMALE 60° CONE - BS5200  
(THRUST-WIRE NUT)**

BSP HEMBRA RECTA CON O-RING ASIENTO A 60° - BS5200  
(TUERCA GIRATORIA SOBRE LA ESPIGA)



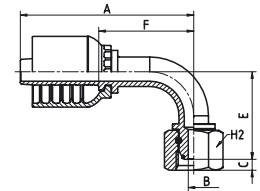
PART. REF.	HOSE BORE			THREAD	DIMENSIONS inch					
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	DN	inch	Size		B	A	C	F	H <sub>2</sub>	
OPB20812-04-04	6	1/4"	- 04	1/4" - 19	0.16	1.77	0.19	0.69	0.75	
OPB20812-06-04	10	3/8"	- 06	1/4" - 19	0.16	1.87	0.19	0.71	0.75	
OPB20812-06-06	10	3/8"	- 06	3/8" - 19	0.28	1.96	0.24	0.80	0.87	
OPB20812-08-08	12	1/2"	- 08	1/2" - 14	0.37	2.02	0.26	0.80	1.06	
OPB20812-10-10	16	5/8"	- 10	5/8" - 14	0.49	2.22	0.38	0.87	1.18	
OPB20812-12-12	19	3/4"	- 12	3/4" - 14	0.59	2.42	0.33	0.98	1.26	
OPB20812-16-16	25	1"	- 16	1" - 11	0.78	2.97	0.42	1.07	1.50	
OPB20812-16-20	25	1"	- 16	1.1/4" - 11	1.03	3.11	0.41	1.21	1.97	

### OPB20892

**90° BSP O-RING FEMALE 60° CONE - BS5200  
(THRUST-WIRE NUT)**

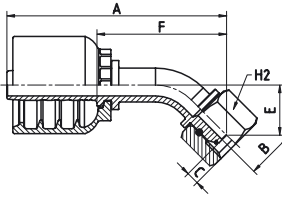
BSP HEMBRA CODO 90° CON O-RING ASIENTO A 60° - BS5200  
(TUERCA GIRATORIA SOBRE LA ESPIGA)



PART. REF.	HOSE BORE			THREAD	DIMENSIONS inch					
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	DN	inch	Size		B	A	C	e	F	H <sub>2</sub>
OPB20892-04-04	6	1/4"	- 04	1/4" - 19	0.16	2.20	0.19	1.12	1.12	0.75
OPB20892-06-04	10	3/8"	- 06	1/4" - 19	0.16	2.56	0.19	1.30	1.40	0.75
OPB20892-06-06	10	3/8"	- 06	3/8" - 19	0.28	2.56	0.24	1.42	1.40	0.87
OPB20892-08-08	12	1/2"	- 08	1/2" - 14	0.37	2.98	0.26	1.65	1.75	1.06
OPB20892-10-10	16	5/8"	- 10	5/8" - 14	0.49	3.44	0.38	2.17	2.09	1.18
OPB20892-12-12	19	3/4"	- 12	3/4" - 14	0.59	3.86	0.33	2.36	2.42	1.26
OPB20892-16-16	25	1"	- 16	1" - 11	0.78	5.03	0.42	2.99	3.13	1.50
OPB20892-16-20	25	1"	- 16	1.1/4" - 11	1.03	5.03	0.41	3.09	3.13	1.97

## BSP STANDARD CONNECTIONS

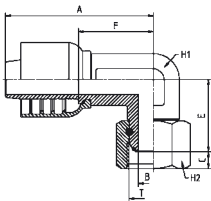


### OPB20842

**45° BSP O-RING FEMALE 60° CONE - BS5200  
(THRUST-WIRE NUT)**

**BSP HEMBRA CODO 45° CON O-RING ASIENTO A 60° - BS5200  
(TUERCA GIRATORIA SOBRE LA ESPIGA)**

PART. REF.	HOSE BORE			THREAD	DIMENSIONS inch					
	DN	inch	Size		B	A	C	F	H <sub>2</sub>	
OPB20842-04-04	6	1/4"	- 04	1/4" - 19	0.16	2.50	0.19	0.59	1.42	0.75
OPB20842-06-06	10	3/8"	- 06	3/8" - 19	0.28	2.91	0.24	0.73	1.75	0.87
OPB20842-08-08	12	1/2"	- 08	1/2" - 14	0.37	3.27	0.26	0.81	2.05	1.06
OPB20842-10-10	16	5/8"	- 10	5/8" - 14	0.49	3.85	0.38	1.08	2.50	1.18
OPB20842-12-12	19	3/4"	- 12	3/4" - 14	0.61	4.23	0.33	1.14	2.80	1.26
OPB20842-16-16	25	1"	- 16	1" - 11	0.78	5.46	0.42	1.40	3.56	1.50



### OPB20882F

**90° BSP O-RING FEMALE COMPACT ELBOW 60° CONE  
BS5200 (THRUST-WIRE NUT)**

**BSP HEMBRA CODO CORTO 90° CON O-RING ASIENTO A 60°  
BS5200 (TUERCA GIRATORIA SOBRE LA ESPIGA)**

PART. REF.	HOSE BORE			THREAD	DIMENSIONS inch						
	DN	inch	Size		B	A	C	E	F	H <sub>1</sub>	H <sub>2</sub>
OPB20882-04-04F	6	1/4"	- 04	1/4" - 19	0.16	1.95	0.19	0.87	0.79	0.55	0.75
OPB20882-06-06F	10	3/8"	- 06	3/8" - 19	0.28	2.24	0.24	1.08	0.91	0.75	0.87
OPB20882-08-08F	12	1/2"	- 08	1/2" - 14	0.37	2.45	0.26	1.22	0.98	0.87	1.06
OPB20882-10-10F	16	5/8"	- 10	5/8" - 14	0.49	2.63	0.38	1.28	0.97	0.94	1.10
OPB20882-12-12F	19	3/4"	- 12	3/4" - 14	0.59	2.85	0.33	1.42	1.48	1.06	1.26
OPB20882-16-16F	25	1"	- 16	1" - 11	0.79	3.63	0.42	1.73	2.04	1.42	1.50

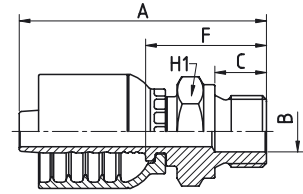
# OPB TYPE



## BSP STANDARD CONNECTIONS

### OPB10610

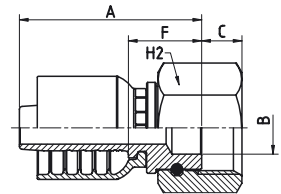
BSP MALE FLAT SEAT  
BSP MACHO ASIENTO PLANO



PART. REF.	HOSE BORE			THREAD	DIMENSIONS inch				
	DN	inch	Size		B	A	C	F	H <sub>1</sub>
OPB10610-06-06	10	3/8"	- 06	3/8" - 19	0.37	2.26	0.47	1.11	0.87
OPB10610-06-08	10	3/8"	- 06	1/2" - 14	0.51	2.36	0.55	1.20	1.06
OPB10610-08-08	12	1/2"	- 08	1/2" - 14	0.51	2.45	0.55	1.22	1.06
OPB10610-12-12	19	3/4"	- 12	3/4" - 14	0.71	2.83	0.63	1.40	1.26

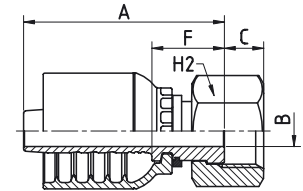
### OPB20612

BSP FEMALE FLAT SEAT (THRUST-WIRE NUT)  
BSP HEMBRA RECTA ASIENTO PLANO  
(TUERCA GIRATORIA SOBRE LA ESPIGA)



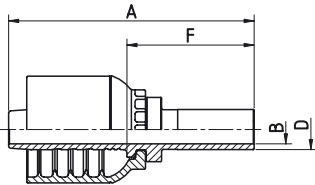
### OPB20613

BSP FEMALE FLAT SEAT (SLIP-ON NUT)  
BSP HEMBRA RECTA ASIENTO PLANO  
(TUERCA DESLIZABLE SOBRE LA ESPIGA)



PART. REF.	HOSE BORE			THREAD	DIMENSIONS inch				
	DN	inch	Size		B	A	C	F	H <sub>2</sub>
OPB20613-04-04	6	1/4"	- 04	1/4" - 19	0.16	1.65	0.31	0.57	0.75
OPB20613-06-06	10	3/8"	- 06	3/8" - 19	0.28	1.81	0.35	0.65	0.87
OPB20613-06-08	10	3/8"	- 06	1/2" - 14	0.37	1.85	0.39	0.69	1.06
OPB20613-08-08	12	1/2"	- 08	1/2" - 14	0.37	1.93	0.39	0.70	1.06
OPB20612-08-12	12	1/2"	- 08	3/4" - 14	0.59	2.05	0.45	0.82	1.26
OPB20612-10-12	16	5/8"	- 10	3/4" - 14	0.59	2.17	0.45	0.81	1.26
OPB20612-12-12	19	3/4"	- 12	3/4" - 14	0.59	2.30	0.45	0.87	1.26
OPB20612-12-16	19	3/4"	- 12	1" - 11	0.78	2.36	0.51	0.93	1.50
OPB20612-16-16	25	1"	- 16	1" - 11	0.78	2.87	0.51	0.98	1.50

## METRIC STANDPIPE STANDARD CONNECTIONS



### OPB22010

METRIC STANDPIPE STRAIGHT L.T. - DIN 2353  
TUBO LISO MILIMETRICO RECTO SERIE LIGERA L.T. - DIN 2353

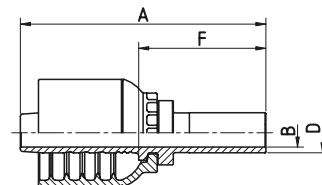
PART. REF.	HOSE BORE		PIPE	DIMENSIONS inch						
	DN	inch		Size	mm	B	A			C
<b>NEW</b> OPB22010-03-04	5	3/16"	- 03	4	0.08	2.01	0.87	1.17		
OPB22010-03-06	5	3/16"	- 03	6	0.12	1.97	0.87	1.13		
OPB22010-04-06	6	1/4"	- 04	6	0.12	2.24	0.87	1.16		
OPB22010-05-10	8	5/16"	- 05	10	0.28	2.30	0.91	1.20		
OPB22010-06-10	10	3/8"	- 06	10	0.28	2.36	0.91	1.20		
OPB22010-06-12	10	3/8"	- 06	12	0.31	2.36	0.91	1.20		
OPB22010-06-15	10	3/8"	- 06	15	0.41	2.44	0.98	1.28		
OPB22010-08-12	12	1/2"	- 08	12	0.31	2.44	0.91	1.22		
OPB22010-08-15	12	1/2"	- 08	15	0.41	2.52	0.98	1.30		
OPB22010-08-18	12	1/2"	- 08	18	0.49	2.56	1.02	1.33		
OPB22010-10-18	16	5/8"	- 10	18	0.49	2.70	1.02	1.35		
OPB22010-10-22	16	5/8"	- 10	22	0.59	2.78	1.10	1.43		
OPB22010-12-18	19	3/4"	- 12	18	0.59	2.86	1.02	1.43		
OPB22010-12-22	19	3/4"	- 12	22	0.59	2.93	1.10	1.50		
OPB22010-16-28	25	1"	- 16	28	0.81	3.52	1.18	1.63		

## METRIC STANDPIPE STANDARD CONNECTIONS

### OPB22110

METRIC STANDPIPE STRAIGHT H.T. - DIN 2353

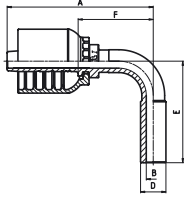
TUBO LISO MILIMETRICO RECTO SERIE PESADA H.T. - DIN 2353



PART. REF.	HOSE BORE			PIPE	DIMENSIONS inch					
	DN	inch	Size		mm	B	A	C		
OPB22110-03-08	5	3/16"	- 03	8	0.12	2.05	0.94	1.20		
OPB22110-04-08	6	1/4"	- 04	8	0.16	2.32	0.94	1.24		
OPB22110-04-10	6	1/4"	- 04	10	0.16	2.40	1.02	1.32		
OPB22110-04-12	6	1/4"	- 04	12	0.28	2.40	1.02	1.32		
OPB22110-05-12	8	5/16"	- 05	12	0.28	2.42	1.02	1.32		
OPB22110-06-14	10	3/8"	- 06	14	0.31	2.60	1.14	1.44		
OPB22110-08-14	12	1/2"	- 08	14	0.37	2.68	1.14	1.45		
OPB22110-08-16	12	1/2"	- 08	16	0.41	2.72	1.18	1.49		
OPB22110-10-20	16	5/8"	- 10	20	0.49	3.09	1.42	1.74		
OPB22110-12-20	19	3/4"	- 12	20	0.59	3.25	1.42	1.81		
OPB22110-12-25	19	3/4"	- 12	25	0.59	3.41	1.57	1.97		
OPB22110-16-25	25	1"	- 16	25	0.59	3.92	1.57	2.02		
OPB22110-16-30	25	1"	- 16	30	0.81	4.07	1.73	2.18		
OPB22110-16-38	25	1"	- 16	38	1.02	4.31	1.97	2.41		



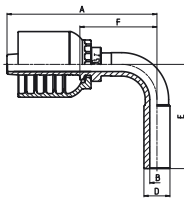
## METRIC STANDPIPE STANDARD CONNECTIONS



### OPB22090

90° METRIC STANDPIPE L.T. - DIN 2353  
TUBO LISO MILIMETRICO CODO 90° SERIE LIGERA L.T. - DIN 2353

PART. REF.	HOSE BORE			PIPE	DIMENSIONS inch					
	DN	inch	Size		mm	B	A	E		
OPB22090-03-06	5	3/16"	- 03	6	0.12	1.73	1.34	0.89		
OPB22090-04-06	6	1/4"	- 04	6	0.12	1.99	1.34	0.91		
OPB22090-05-10	8	5/16"	- 05	10	0.28	2.27	1.57	1.16		
OPB22090-06-10	10	3/8"	- 06	10	0.28	2.50	1.67	1.34		
OPB22090-06-12	10	3/8"	- 06	12	0.31	2.50	1.77	1.34		
OPB22090-08-15	12	1/2"	- 08	15	0.41	2.88	2.05	1.65		
OPB22090-08-18	12	1/2"	- 08	18	0.49	2.88	2.17	1.65		
OPB22090-10-18	16	5/8"	- 10	18	0.49	3.28	2.32	1.93		
OPB22090-12-22	19	3/4"	- 12	22	0.59	3.58	2.48	2.15		
OPB22090-16-28	25	1"	- 16	28	0.78	4.56	2.95	2.66		



### OPB22190

90° METRIC STANDPIPE H.T. - DIN 2353  
TUBO LISO MILIMETRICO CODO 90° SERIE PESADA H.T. - DIN 2353

PART. REF.	HOSE BORE			PIPE	DIMENSIONS inch					
	DN	inch	Size		mm	B	A	E		
OPB22190-04-08	6	1/4"	- 04	8	0.16	2.15	1.50	1.06		
OPB22190-04-10	6	1/4"	- 04	10	0.24	2.15	1.61	1.06		
OPB22190-04-12	6	1/4"	- 04	12	0.28	2.15	1.73	1.06		
OPB22190-05-12	8	5/16"	- 05	12	0.28	2.31	1.73	1.20		
OPB22190-06-14	10	3/8"	- 06	14	0.37	2.54	2.01	1.38		
OPB22190-08-14	12	1/2"	- 08	14	0.37	2.88	2.11	1.65		
OPB22190-08-16	12	1/2"	- 08	16	0.41	2.92	2.17	1.69		
OPB22190-10-20	16	5/8"	- 10	20	0.49	3.28	2.62	1.93		
OPB22190-12-20	19	3/4"	- 12	20	0.59	3.58	2.72	2.15		
OPB22190-12-25	19	3/4"	- 12	25	0.59	3.70	2.95	2.26		
OPB22190-16-25	25	1"	- 16	25	0.59	4.32	3.01	2.42		
OPB22190-16-30	25	1"	- 16	30	0.78	4.64	3.43	2.74		

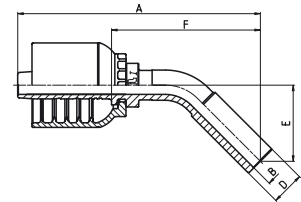
# OPB TYPE



## METRIC STANDPIPE STANDARD CONNECTIONS

### OPB22040

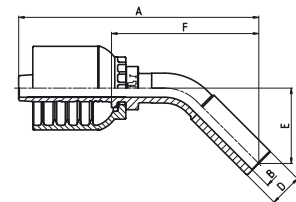
45° METRIC STANDPIPE L.T. - DIN 2353  
TUBO LISO MILIMETRICO CODO 45° SERIE LIGERA L.T. - DIN 2353



PART. REF.	HOSE BORE			PIPE	DIMENSIONS inch			
	DN	inch	Size		B	A	E	F
OPB22040-04-06	6	1/4"	- 04	6	0.12	2.58	0.81	1.50
OPB22040-05-10	8	5/16"	- 05	10	0.28	2.85	0.89	1.75
OPB22040-06-10	10	3/8"	- 06	10	0.28	3.03	0.91	1.87
OPB22040-06-12	10	3/8"	- 06	12	0.31	3.10	0.98	1.95
OPB22040-08-15	12	1/2"	- 08	15	0.41	3.50	1.10	2.28
OPB22040-10-18	16	5/8"	- 10	18	0.49	3.85	1.20	2.50
OPB22040-12-22	19	3/4"	- 12	22	0.59	4.15	1.26	2.72
OPB22040-16-28	25	1"	- 16	28	0.78	5.11	1.46	3.21

### OPB22140

45° METRIC STANDPIPE H.T. - DIN 2353  
TUBO LISO MILIMETRICO CODO 45° SERIE PESADA H.T. - DIN 2353



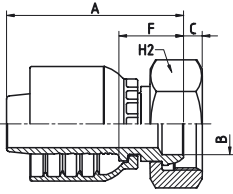
PART. REF.	HOSE BORE			PIPE	DIMENSIONS inch			
	DN	inch	Size		B	A	E	F
OPB22140-04-08	6	1/4"	- 04	8	0.16	2.74	0.87	1.65
OPB22140-04-10	6	1/4"	- 04	10	0.24	2.82	0.94	1.73
OPB22140-06-14	10	3/8"	- 06	14	0.37	3.31	1.14	2.15
OPB22140-08-16	12	1/2"	- 08	16	0.41	3.62	1.18	2.40
OPB22140-10-20	16	5/8"	- 10	20	0.49	4.06	1.42	2.72
OPB22140-12-25	19	3/4"	- 12	25	0.59	4.61	1.59	3.17
OPB22140-16-25	25	1"	- 16	25	0.59	5.13	1.61	3.23

## METRIC 60° STANDARD CONNECTIONS

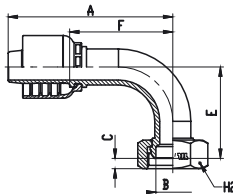
### OPB21013

**METRIC FEMALE 60° CONE - DIN 20078/3863  
(SLIP-ON NUT)**

HEMBRA RECTA MILIMETRICA CONO 60° - DIN 20078/3863  
(TUERCA DESLIZABLE SOBRE LA ESPIGA)



PART. REF.	HOSE BORE			THREAD	DIMENSIONS inch				
	DN	inch	Size		B	A	C	F	H <sub>2</sub>
<b>OPB21013-12-30</b>	19	3/4"	- 12	M 30x1.5	0.79	2.26	0.32	0.83	1.42
<b>OPB21013-16-38</b>	25	1"	- 16	M 38x1.5	1.02	2.80	0.30	0.90	1.81



### OPB21093

**90° METRIC FEMALE SWEPT ELBOW 60° CONE  
DIN 20078/3863 (SLIP-ON NUT)**

HEMBRA CODO 90° MILIMETRICA CONO 60°  
DIN 20078/3863 (TUERCA DESLIZABLE SOBRE LA ESPIGA)

PART. REF.	HOSE BORE			THREAD	DIMENSIONS inch					
	DN	inch	Size		B	A	C	E	F	H <sub>1</sub>
<b>OPB21093-12-30</b>	19	3/4"	- 12	M 30x1.5	0.79	3.86	0.32	2.15	2.42	1.42
<b>OPB21093-16-38</b>	25	1"	- 16	M 38x1.5	1.02	4.91	0.30	2.48	3.01	1.81

# OPB TYPE



## METRIC MULTISEAL STANDARD CONNECTIONS

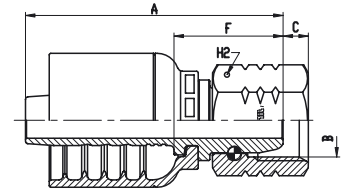
### OPB21312

**METRIC FEMALE MULTISEAL - DIN 20078/3868**

**(THRUST-WIRE NUT)**

HEMBRA RECTA MILIMETRICA MULTISELLO - DIN 20078/3868

(TUERCA GIRATORIA SOBRE LA ESPIGA)



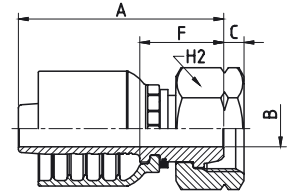
### OPB21313

**METRIC FEMALE MULTISEAL - DIN 20078/3868**

**(SLIP-ON NUT)**

HEMBRA RECTA MILIMETRICA MULTISELLO - DIN 20078/3868

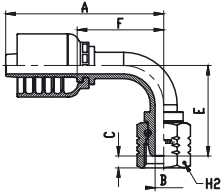
(TUERCA DESLIZABLE SOBRE LA ESPIGA)



PART. REF.	HOSE BORE	THREAD	PIPE	DIMENSIONS inch
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	DN	inch	Size		mm	B	A	C	F	H <sub>2</sub>	
OPB21313-03-12	5	3/16"	- 03	M 12x1.5	6	0.12	1.57	0.15	0.73	0.55	
OPB21313-04-14	6	1/4"	- 04	M 14x1.5	8	0.16	1.85	0.15	0.77	0.67	
OPB21313-04-16	6	1/4"	- 04	M 16x1.5	10	0.16	1.85	0.16	0.77	0.75	
OPB21313-05-16	8	5/16"	- 05	M 16x1.5	10	0.22	1.87	0.16	0.77	0.75	
OPB21313-05-18	8	5/16"	- 05	M 18x1.5	12	0.22	1.87	0.16	0.77	0.87	
OPB21312-06-16	10	3/8"	- 06	M 16x1.5	10	0.28	2.01	0.20	0.85	0.75	
OPB21313-06-18	10	3/8"	- 06	M 18x1.5	12	0.28	1.95	0.16	0.79	0.87	
OPB21313-06-22	10	3/8"	- 06	M 22x1.5	15	0.28	1.99	0.20	0.83	1.06	
OPB21313-08-22	12	1/2"	- 08	M 22x1.5	15	0.37	2.07	0.20	0.85	1.06	
OPB21313-10-26	16	5/8"	- 10	M 26x1.5	18	0.49	2.22	0.22	0.87	1.26	

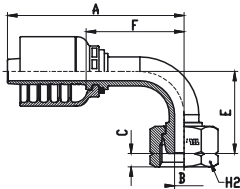
## METRIC MULTISEAL STANDARD CONNECTIONS



### OPB21392

**90° METRIC FEMALE SWEPT ELBOW MULTISEAL  
DIN 20078/3868 (THRUST-WIRE NUT)**

HEMBRA CODO 90° MILIMETRICA MULTISELLO - DIN 20078/3868  
(TUERCA GIRATORIA CON PASADOR DE SEGURIDAD)



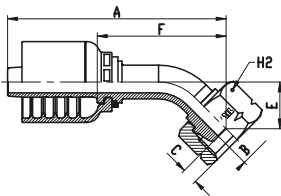
### OPB21393

**90° METRIC FEMALE SWEPT ELBOW MULTISEAL  
DIN 20078/3868 (SLIP-ON NUT)**

HEMBRA CODO 90° MILIMETRICA MULTISELLO - DIN 20078/3868  
(TUERCA DESLIZABLE SOBRE LA ESPIGA)

PART. REF.	HOSE BORE	THREAD	PIPE	DIMENSIONS inch							
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	DN	inch	Size		mm	B	A	C	E	F	H <sub>2</sub>
OPB21393-04-14	6	1/4"	- 04	M 14x1.5	8	0.16	2.24	0.15	1.16	1.16	0.67
OPB21393-04-16	6	1/4"	- 04	M 16x1.5	10	0.16	2.24	0.16	1.16	1.16	0.75
OPB21393-05-16	8	5/16"	- 05	M 16x1.5	10	0.22	2.36	0.16	1.14	1.26	0.75
OPB21392-06-16	10	3/8"	- 06	M 16x1.5	10	0.28	2.56	0.20	1.50	1.40	0.75
OPB21393-06-18	10	3/8"	- 06	M 18x1.5	12	0.28	2.59	0.16	1.24	1.44	0.87
OPB21393-06-22	10	3/8"	- 06	M 22x1.5	15	0.28	2.59	0.20	1.26	1.44	1.06
OPB21393-08-22	12	1/2"	- 08	M 22x1.5	15	0.37	3.00	0.20	1.44	1.77	1.06
OPB21393-10-26	16	5/8"	- 10	M 26x1.5	18	0.49	3.38	0.22	1.97	2.03	1.26



### OPB21343

**45° METRIC FEMALE SWEPT ELBOW MULTISEAL  
DIN 20078/3868 (SLIP-ON NUT)**

HEMBRA CODO 45° MILIMETRICA MULTISELLO  
DIN 20078/3868 (TUERCA DESLIZABLE SOBRE LA ESPIGA)

PART. REF.	HOSE BORE	THREAD	PIPE	DIMENSIONS inch							
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	DN	inch	Size		mm	B	A	C	E	F	H <sub>2</sub>
OPB21343-04-14	6	1/4"	- 04	M 14x1.5	8	0.16	2.52	0.15	0.59	1.44	0.67
OPB21343-04-16	6	1/4"	- 04	M 16x1.5	10	0.16	2.52	0.16	0.59	1.44	0.75
OPB21343-05-16	8	5/16"	- 05	M 16x1.5	10	0.22	2.64	0.16	0.59	1.54	0.75
OPB21343-06-18	10	3/8"	- 06	M 18x1.5	12	0.28	2.81	0.16	0.61	1.65	0.87
OPB21343-06-22	10	3/8"	- 06	M 22x1.5	15	0.28	2.83	0.20	0.61	1.67	1.06
OPB21343-08-22	12	1/2"	- 08	M 22x1.5	15	0.37	3.17	0.20	0.67	1.95	1.06
OPB21343-10-26	16	5/8"	- 10	M 26x1.5	18	0.49	3.71	0.22	0.94	2.36	1.26



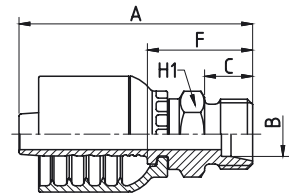
# OPB TYPE



## METRIC 24° O-RING STANDARD CONNECTIONS

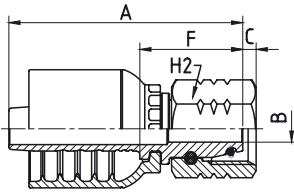
### OPB11110

METRIC MALE 24° CONE SEAT L.T. - DIN 20066/3861  
 MACHO MILIMETRICO CONO 24° SERIE LIGERA L.T. - DIN 20066/3861



PART. REF.	HOSE BORE			THREAD	PIPE	DIMENSIONS				
	DN	inch	Size			mm	B	A	C	F
OPB11110-04-12	6	1/4"	- 04	M 12x1.5	6	0.16	1.93	0.39	0.85	0.55
OPB11110-04-14	6	1/4"	- 04	M 14x1.5	8	0.16	1.93	0.39	0.85	0.55
OPB11110-04-16	6	1/4"	- 04	M 16x1.5	10	0.28	2.01	0.43	0.93	0.67
<b>NEW</b> OPB11110-04-18	6	1/4"	- 04	M 18x1.5	12	0.35	2.01	0.43	0.93	0.75
OPB11110-05-16	8	5/16"	- 05	M 16x1.5	10	0.28	2.05	0.43	0.94	0.67
OPB11110-05-18	8	5/16"	- 05	M 18x1.5	12	0.35	2.05	0.43	0.94	0.75
OPB11110-06-16	10	3/8"	- 06	M 16x1.5	10	0.28	2.11	0.43	0.95	0.67
OPB11110-06-18	10	3/8"	- 06	M 18x1.5	12	0.35	2.13	0.43	0.97	0.75
OPB11110-06-22	10	3/8"	- 06	M 22x1.5	15	0.39	2.17	0.47	1.01	0.87
OPB11110-08-22	12	1/2"	- 08	M 22x1.5	15	0.39	2.23	0.47	1.01	0.87
OPB11110-08-26	12	1/2"	- 08	M 26x1.5	18	0.49	2.26	0.47	1.04	1.06
OPB11110-10-22	16	5/8"	- 10	M 22x1.5	15	0.39	2.35	0.47	1.00	0.87
OPB11110-10-26	16	5/8"	- 10	M 26x1.5	18	0.49	2.40	0.47	1.05	1.06
OPB11110-12-30	19	3/4"	- 12	M 30x2	22	0.59	2.62	0.55	1.18	1.18
OPB11110-16-36	25	1"	- 16	M 36x2	28	0.79	3.17	0.55	1.27	1.42

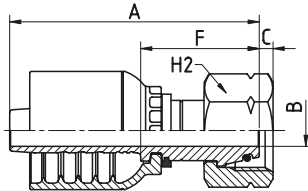
## METRIC 24° O-RING STANDARD CONNECTIONS



### OPB21512

**O-RING METRIC FEMALE 24° CONE L.T.  
DIN 20066/3865 (THRUST-WIRE NUT)**

HEMBRA RECTA MILIMETRICA O-RING CON CONO 24° SERIE LIGERA L.T.  
DIN 20066/3865 (TUERCA GIRATORIA SOBRE LA ESPIGA)



### OPB21513

**O-RING METRIC FEMALE 24° CONE L.T.  
DIN 20066/3865 (SLIP-ON NUT)**

HEMBRA RECTA MILIMETRICA CON O-RING CONO 24° SERIE LIGERA L.T.  
DIN 20066/3865 (TUERCA DESLIZABLE SOBRE LA ESPIGA)

PART. REF.	HOSE BORE	THREAD	PIPE	DIMENSIONS inch						
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	DN	inch	Size		mm	B	A	C	F	H <sub>2</sub>	
OPB21513-03-12	5	3/16"	- 03	M 12x1.5	6	0.12	1.70	0.07	0.86	0.55	
OPB21512-04-12	6	1/4"	- 04	M 12x1.5	6	0.12	1.91	0.09	0.83	0.67	
OPB21513-04-14	6	1/4"	- 04	M 14x1.5	8	0.16	1.96	0.07	0.87	0.67	
OPB21513-04-16	6	1/4"	- 04	M 16x1.5	10	0.24	1.98	0.08	0.89	0.75	
OPB21513-04-18	6	1/4"	- 04	M 18x1.5	12	0.28	1.94	0.09	0.86	0.87	
OPB21512-05-14	8	5/16"	- 05	M 14x1.5	8	0.16	1.89	0.07	0.79	0.67	
OPB21513-05-16	8	5/16"	- 05	M 16x1.5	10	0.24	2.00	0.08	0.89	0.75	
OPB21513-05-18	8	5/16"	- 05	M 18x1.5	12	0.28	1.96	0.09	0.86	0.87	
OPB21512-06-16	10	3/8"	- 06	M 16x1.5	10	0.24	2.07	0.12	0.91	0.75	
OPB21513-06-18	10	3/8"	- 06	M 18x1.5	12	0.28	2.03	0.09	0.88	0.87	
OPB21513-06-22	10	3/8"	- 06	M 22x1.5	15	0.37	2.14	0.09	0.98	1.06	
<b>NEW</b> OPB21512-08-18	12	1/2"	- 08	M 18x1.5	12	0.28	2.37	0.11	1.14	0.87	
OPB21513-08-22	12	1/2"	- 08	M 22x1.5	15	0.37	2.22	0.09	1.00	1.06	
OPB21513-08-26	12	1/2"	- 08	M 26x1.5	18	0.49	2.26	0.10	1.03	1.26	
OPB21513-10-26	16	5/8"	- 10	M 26x1.5	18	0.49	2.37	0.10	1.02	1.26	
<b>NEW</b> OPB21513-10-30	16	5/8"	- 10	M 30x2	22	0.59	2.69	0.14	1.34	1.42	
<b>NEW</b> OPB21512-12-26	19	3/4"	- 12	M 26x1.5	18	0.49	2.66	0.14	1.22	1.26	
OPB21513-12-30	19	3/4"	- 12	M 30x2	22	0.59	2.55	0.14	1.11	1.42	
OPB21513-12-36	19	3/4"	- 12	M 36x2	28	0.79	2.54	0.15	1.11	1.61	

# OPB TYPE



## METRIC 24° O-RING STANDARD CONNECTIONS

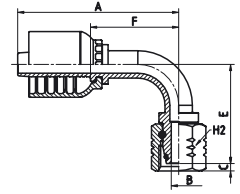
### OPB21592

90° O-RING METRIC FEMALE SWEEP ELBOW 24° CONE L.T.

DIN 20066/3865 (THRUST-WIRE NUT)

HEMBRA CODO 90° MILIMETRICA CON O-RING CONO 24° SERIE LIGERA L.T.

DIN 20066/3865 (TUERCA GIRATORIA SOBRE LA ESPIGA)



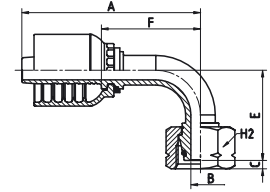
### OPB21593

90° O-RING METRIC FEMALE SWEEP ELBOW 24° CONE L.T.

DIN 20066/3865 (SLIP-ON NUT)

HEMBRA CODO 90° MILIMETRICA CON O-RING CONO 24° SERIE LIGERA L.T.

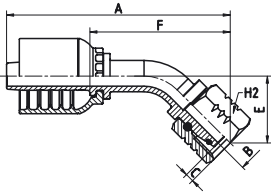
DIN 20066/3865 (TUERCA DESLIZABLE SOBRE LA ESPIGA)



PART. REF.	HOSE BORE	THREAD	PIPE	DIMENSIONS inch							
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	DN	inch	Size		mm	B	A	C	E	F	H <sub>2</sub>
OPB21593-03-12	5	3/16"	- 03	M 12x1.5	6	0.12	1.87	0.07	1.18	1.02	0.55
OPB21592-04-12	6	1/4"	- 04	M 12x1.5	6	0.12	2.20	0.09	1.28	1.12	0.67
OPB21593-04-14	6	1/4"	- 04	M 14x1.5	8	0.16	2.24	0.07	1.24	1.16	0.67
OPB21593-04-16	6	1/4"	- 04	M 16x1.5	10	0.24	2.24	0.08	1.26	1.16	0.75
OPB21593-04-18	6	1/4"	- 04	M 18x1.5	12	0.28	2.24	0.09	1.30	1.16	0.87
OPB21593-05-16	8	5/16"	- 05	M 16x1.5	10	0.24	2.36	0.08	1.28	1.26	0.75
OPB21593-05-18	8	5/16"	- 05	M 18x1.5	12	0.28	2.36	0.09	1.38	1.26	1.06
OPB21592-06-16	10	3/8"	- 06	M 16x1.5	10	0.24	2.56	0.12	1.57	1.40	0.75
OPB21593-06-18	10	3/8"	- 06	M 18x1.5	12	0.28	2.59	0.09	1.32	1.44	0.87
OPB21593-06-22	10	3/8"	- 06	M 22x1.5	15	0.37	2.59	0.09	1.38	1.44	1.06
<b>NEW</b> OPB21592-08-18	12	1/2"	- 08	M 18x1.5	12	0.28	2.95	0.11	1.89	1.73	0.87
OPB21593-08-22	12	1/2"	- 08	M 22x1.5	15	0.37	3.00	0.09	1.56	1.77	1.06
<b>NEW</b> OPB21593-08-26	12	1/2"	- 08	M 26x1.5	18	0.49	2.99	0.10	1.57	1.77	1.26
OPB21593-10-26	16	5/8"	- 10	M 26x1.5	18	0.49	3.38	0.10	2.09	2.03	1.26
OPB21593-10-30	16	5/8"	- 10	M 30x2	22	0.59	3.38	0.14	2.13	2.03	1.42
OPB21593-12-30	19	3/4"	- 12	M 30x2	22	0.59	3.86	0.14	2.32	2.42	1.42
OPB21593-16-36	25	1"	- 16	M 36x2	28	0.78	4.91	0.15	2.74	3.01	1.61

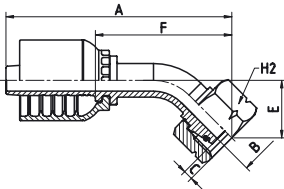
## METRIC 24° O-RING STANDARD CONNECTIONS



### OPB21542

**45° O-RING METRIC FEMALE SWEPT ELBOW 24° CONE L.T.  
DIN 20066/3865 (THRUST-WIRE NUT)**

HEMBRA CODO 45° MILIMETRICA CON O-RING CONO 24°  
SERIE LIGERA L.T. - DIN 20066/3865 (TUERCA GIRATORIA SOBRE LA ESPIGA)



### OPB21543

**45° O-RING METRIC FEMALE SWEPT ELBOW 24° CONE L.T.  
DIN 20066/3865 (SLIP-ON NUT)**

HEMBRA CODO 45° MILIMETRICA CON O-RING CONO 24°  
SERIE LIGERA L.T. - DIN 20066/3865 (TUERCA DESLIZABLE SOBRE LA ESPIGA)

PART. REF.	HOSE BORE		THREAD	PIPE	DIMENSIONS inch						
	DN	inch			B	A	C	E	F	H <sub>2</sub>	
OPB21543-04-14	6	1/4"	- 04	M 14x1.5	8	0.16	2.58	0.07	0.65	1.50	0.67
OPB21543-04-16	6	1/4"	- 04	M 16x1.5	10	0.24	2.58	0.08	0.67	1.50	0.75
OPB21543-05-16	8	5/16"	- 05	M 16x1.5	10	0.24	2.74	0.08	0.69	1.63	0.75
OPB21543-05-18	8	5/16"	- 05	M 18x1.5	12	0.28	2.74	0.09	0.67	1.63	0.87
OPB21542-06-16	10	3/8"	- 06	M 16x1.5	10	0.24	3.03	0.12	0.85	1.87	0.75
OPB21543-06-18	10	3/8"	- 06	M 18x1.5	12	0.28	2.87	0.09	0.65	1.71	0.87
OPB21543-06-22	10	3/8"	- 06	M 22x1.5	15	0.37	2.93	0.09	0.71	1.77	1.06
OPB21543-08-22	12	1/2"	- 08	M 22x1.5	15	0.37	3.27	0.09	0.75	2.05	1.06
OPB21543-10-26	16	5/8"	- 10	M 26x1.5	18	0.49	3.79	0.10	1.04	2.44	1.26
OPB21543-12-30	19	3/4"	- 12	M 30x2	22	0.59	4.23	0.14	1.12	2.80	1.42
OPB21543-16-36	25	1"	- 16	M 36x2	28	0.78	5.24	0.15	1.26	3.35	1.61

# OPB TYPE

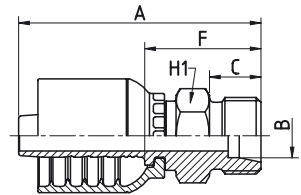


## METRIC 24° O-RING STANDARD CONNECTIONS

### OPB11210

METRIC MALE 24° CONE SEAT H.T. - DIN 20066/3861

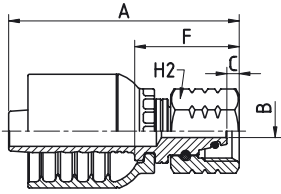
MACHO MILIMETRICO CONO 24° SERIE PESADA H.T. - DIN 20066/3861



PART. REF.	HOSE BORE			THREAD	PIPE	DIMENSIONS inch				
	DN	inch	Size			mm	B	A	C	F
OPB11210-04-16	6	1/4"	- 04	M 16x1.5	8	0.16	2.09	0.47	1.00	0.67
OPB11210-04-18	6	1/4"	- 04	M 18x1.5	10	0.24	2.13	0.47	1.04	0.75
<b>NEW</b> OPB11210-04-20	6	1/4"	- 04	M 20x1.5	12	0.28	2.22	0.47	1.14	0.87
OPB11210-05-20	8	5/16"	- 05	M 20x1.5	12	0.28	2.24	0.47	1.14	0.87
OPB11210-06-18	10	3/8"	- 06	M 18x1.5	10	0.28	2.22	0.47	1.07	0.75
OPB11210-06-20	10	3/8"	- 06	M 20x1.5	12	0.28	2.30	0.47	1.15	0.87
OPB11210-06-22	10	3/8"	- 06	M 22x1.5	14	0.31	2.38	0.55	1.22	0.87
OPB11210-08-24	12	1/2"	- 08	M 24x1.5	16	0.37	2.47	0.55	1.24	0.94
OPB11210-10-30	16	5/8"	- 10	M 30x2	20	0.59	2.76	0.63	1.41	1.18
OPB11210-12-30	19	3/4"	- 12	M 30x2	20	0.59	2.89	0.63	1.46	1.18
OPB11210-12-36	19	3/4"	- 12	M 36x2	25	0.78	3.05	0.71	1.61	1.42
OPB11210-16-36	25	1"	- 16	M 36x2	25	0.78	3.56	0.71	1.67	1.42
OPB11210-16-42	25	1"	- 16	M 42x2	30	0.98	3.64	0.79	1.74	1.81



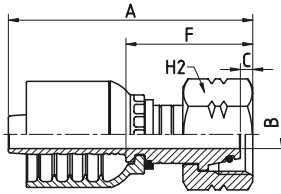
## METRIC 24° O-RING STANDARD CONNECTIONS



### OPB21612

**O-RING METRIC FEMALE 24° CONE H.T.  
DIN 20066/3865 (THRUST-WIRE NUT)**

HEMBRA RECTA MILIMETRICA CON O-RING CONO 24° SERIE PESADA H.T.  
DIN 20066/3865 (TUERCA GIRATORIA SOBRE LA ESPIGA)



### OPB21613

**O-RING METRIC FEMALE 24° CONE H.T.  
DIN 20066/3865 (SLIP-ON NUT)**

HEMBRA RECTA MILIMETRICA CON O-RING CONO 24° SERIE PESADA H.T.  
DIN 20066/3865 (TUERCA DESLIZABLE SOBRE LA ESPIGA)

PART. REF.	HOSE BORE		THREAD	PIPE	DIMENSIONS inch					
	DN	inch			B	A	C	F	H <sub>2</sub>	
OPB21613-03-16	5	3/16"	- 03	M 16x1.5	8	0.13	1.69	0.13	0.85	0.75
OPB21613-04-14	6	1/4"	- 04	M 14x1.5	6	0.12	2.01	0.14	0.93	0.67
OPB21613-04-16	6	1/4"	- 04	M 16x1.5	8	0.16	1.95	0.13	0.87	0.75
OPB21613-04-18	6	1/4"	- 04	M 18x1.5	10	0.16	2.19	0.12	1.10	0.87
OPB21613-04-20	6	1/4"	- 04	M 20x1.5	12	0.28	2.10	0.10	1.01	0.94
OPB21613-05-18	8	5/16"	- 05	M 18x1.5	10	0.22	2.20	0.12	1.10	0.87
OPB21613-05-20	8	5/16"	- 05	M 20x1.5	12	0.22	2.08	0.10	0.98	0.94
OPB21613-06-20	10	3/8"	- 06	M 20x1.5	12	0.28	2.15	0.10	1.00	0.94
OPB21613-06-22	10	3/8"	- 06	M 22x1.5	14	0.28	2.44	0.12	1.28	1.06
OPB21613-08-24	12	1/2"	- 08	M 24x1.5	16	0.37	2.28	0.12	1.05	1.18
OPB21613-10-30	16	5/8"	- 10	M 30x2	20	0.49	2.55	0.14	1.20	1.42
OPB21612-12-30	19	3/4"	- 12	M 30x2	20	0.49	2.76	0.09	1.32	1.42
OPB21613-12-36	19	3/4"	- 12	M 36x2	25	0.59	2.78	0.18	1.34	1.61
OPB21612-16-36	25	1"	- 16	M 36x2	25	0.59	3.29	0.07	1.39	1.61
OPB21613-16-42	25	1"	- 16	M 42x2	30	0.78	3.29	0.25	1.39	1.97

# OPB TYPE



## METRIC 24° O-RING STANDARD CONNECTIONS

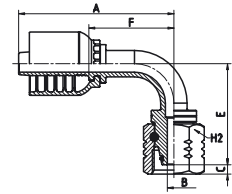
### OPB21692

90° O-RING METRIC FEMALE SWEEP ELBOW 24° CONE H.T.

DIN 20066/3865 (THRUST-WIRE NUT)

HEMBRA CODO 90° MILIMETRICA CON O-RING CONO 24° SERIE PESADA H.T.

DIN 20066/3865 (TUERCA GIRATORIA SOBRE LA ESPIGA)



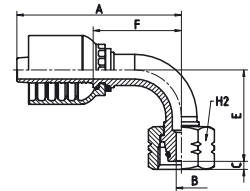
### OPB21693

90° O-RING METRIC FEMALE SWEEP ELBOW 24° CONE H.T.

DIN 20066/3865 (SLIP-ON NUT)

HEMBRA CODO 90° MILIMETRICA CON O-RING CONO 24° SERIE PESADA H.T.

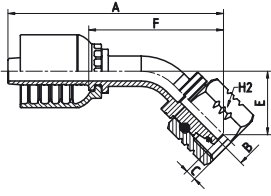
DIN 20066/3865 (TUERCA DESLIZABLE SOBRE LA ESPIGA)



PART. REF.	HOSE BORE	THREAD	PIPE	DIMENSIONS inch							
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	DN	inch	Size		mm	B	A	C	E	F	H <sub>2</sub>
OPB21693-04-16	6	1/4"	- 04	M 16x1.5	8	0.16	2.24	0.13	1.16	1.16	0.75
OPB21693-04-18	6	1/4"	- 04	M 18x1.5	10	0.16	2.24	0.12	1.22	1.16	0.87
<b>NEW</b> OPB21693-04-20	6	1/4"	- 04	M 20x1.5	12	0.22	2.24	0.10	1.36	1.16	0.94
OPB21693-05-20	8	5/16"	- 05	M 20x1.5	12	0.22	2.36	0.10	1.34	1.26	0.94
OPB21693-06-20	10	3/8"	- 06	M 20x1.5	12	0.28	2.59	0.10	1.38	1.44	0.94
OPB21693-06-22	10	3/8"	- 06	M 22x1.5	14	0.28	2.59	0.12	1.46	1.44	1.06
<b>NEW</b> OPB21693-06-24	10	3/8"	- 06	M 24x1.5	16	0.37	2.60	0.12	1.42	1.44	1.18
OPB21693-08-24	12	1/2"	- 08	M 24x1.5	16	0.37	3.00	0.12	1.59	1.77	1.18
OPB21693-10-30	16	5/8"	- 10	M 30x2	20	0.49	3.38	0.14	2.26	2.03	1.42
OPB21692-12-30	19	3/4"	- 12	M 30x2	20	0.49	3.86	0.09	2.66	2.42	1.42
OPB21693-12-36	19	3/4"	- 12	M 36x2	25	0.59	3.86	0.18	2.54	2.42	1.61
OPB21692-16-36	25	1"	- 16	M 36x2	25	0.59	5.03	0.07	3.39	3.13	1.61
OPB21693-16-42	25	1"	- 16	M 42x2	30	0.78	5.01	0.25	2.93	3.11	1.97

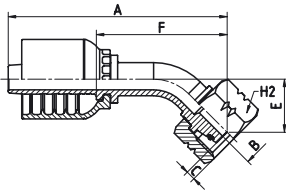
## METRIC 24° O-RING STANDARD CONNECTIONS



### OPB21642

**45° O-RING METRIC FEMALE SWEEP ELBOW 24° CONE H.T.  
DIN 20066/3865 (THRUST-WIRE NUT)**

**HEMBRA CODO 45° MILIMETRICA CON O-RING CONO 24° SERIE PESADA H.T.  
DIN 20066/3865 (TUERCA GIRATORIA SOBRE LA ESPIGA)**



### OPB21643

**45° O-RING METRIC FEMALE SWEEP ELBOW 24° CONE H.T.  
DIN 20066/3865 (SLIP-ON NUT)**

**HEMBRA CODO 45° MILIMETRICA CON O-RING CONO 24° SERIE PESADA H.T.  
DIN 20066/3865 (TUERCA DESLIZABLE SOBRE LA ESPIGA)**

PART. REF.	HOSE BORE	THREAD	PIPE	DIMENSIONS inch							
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	DN	inch	Size		mm	B	A	C	F	H <sub>2</sub>	
OPB21643-04-16	6	1/4"	- 04	M 16x1.5	8	0.16	2.50	0.13	0.59	1.42	0.75
OPB21643-04-18	6	1/4"	- 04	M 18x1.5	10	0.16	2.56	0.12	0.65	1.48	0.87
OPB21643-05-20	8	5/16"	- 05	M 20x1.5	12	0.22	2.78	0.10	0.73	1.67	0.94
OPB21643-06-20	10	3/8"	- 06	M 20x1.5	12	0.28	2.93	0.10	0.71	1.77	0.94
OPB21643-06-22	10	3/8"	- 06	M 22x1.5	14	0.28	2.99	0.12	0.77	1.83	1.06
OPB21643-08-24	12	1/2"	- 08	M 24x1.5	16	0.37	3.29	0.12	0.79	2.07	1.18
OPB21643-10-30	16	5/8"	- 10	M 30x2	20	0.49	3.93	0.14	1.16	2.58	1.42
OPB21642-12-30	19	3/4"	- 12	M 30x2	20	0.49	4.45	0.09	1.34	3.01	1.42
OPB21643-12-36	19	3/4"	- 12	M 36x2	25	0.59	4.39	0.18	1.28	2.95	1.61
OPB21643-16-42	25	1"	- 16	M 42x2	30	0.78	5.44	0.25	1.40	3.54	1.97

# OPB TYPE

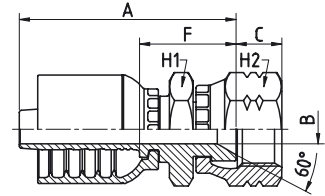


## JIS STANDARD CONNECTIONS

### OPB24011

JIS METRIC FEMALE 60° CONE SEAT (KOMATSU) JIS B 8363  
(CRIMPED-BACK NUT)

JIS HEMBRA RECTA, ASIENTO A 60° (KOMATSU) JIS B 8363  
(CRIMPADO DETRAS DE LA TUERCA)

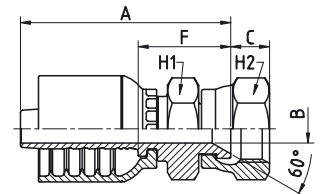


PART. REF.	HOSE BORE			THREAD	DIMENSIONS inch					
	DN	inch	Size		B	A	C	F	H <sub>1</sub>	H <sub>2</sub>
OPB24011-04-14	6	1/4"	- 04	M 14x1.5	0.16	1.99	0.41	0.91	0.75	0.75
OPB24011-04-18	6	1/4"	- 04	M 18x1.5	0.16	1.97	0.45	0.89	0.94	0.94
OPB24011-05-16	8	5/16"	- 05	M 16x1.5	0.22	1.99	0.37	0.89	0.83	0.83
OPB24011-06-14	10	3/8"	- 06	M 14x1.5	0.16	2.09	0.41	0.93	0.75	0.75
OPB24011-06-18	10	3/8"	- 06	M 18x1.5	0.28	2.09	0.45	0.93	0.94	0.94
OPB24011-08-22	12	1/2"	- 08	M 22x1.5	0.37	2.20	0.55	0.98	1.06	1.06
OPB24011-10-24	16	5/8"	- 10	M 24x1.5	0.49	2.40	0.59	1.05	1.26	1.26
OPB24011-12-30	19	3/4"	- 12	M 30x1.5	0.59	2.68	0.72	1.24	1.42	1.42
OPB24011-16-33	25	1"	- 16	M 33x1.5	0.78	3.21	0.84	1.31	1.61	1.61

### OPB23811

JIS BSP FEMALE 60° CONE SEAT (TOYOTA) JIS B 8363

JIS BSP HEMBRA RECTA ASIENTO A 60° (TOYOTA) JIS B 8363



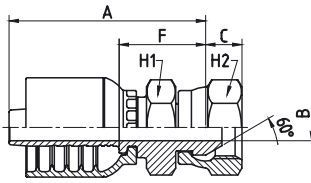
PART. REF.	HOSE BORE			THREAD	DIMENSIONS inch					
	DN	inch	Size		B	A	C	F	H <sub>1</sub>	H <sub>2</sub>
OPB23811-04-04	6	1/4"	- 04	1/4" - 19	0.16	1.81	0.33	0.73	0.75	0.75
OPB23811-06-06	10	3/8"	- 06	3/8" - 19	0.28	2.07	0.39	0.91	0.87	0.87
OPB23811-08-08	12	1/2"	- 08	1/2" - 14	0.37	2.13	0.45	0.91	1.06	1.06
OPB23811-12-12	19	3/4"	- 12	3/4" - 14	0.59	2.46	0.53	1.02	1.26	1.26
OPB23811-16-16	25	1"	- 16	1" - 11	0.78	3.09	0.57	1.19	1.50	1.50

## JIS STANDARD CONNECTIONS

### OPB20711

**JIS BSP FEMALE 60° CONE (NISSAN) JIS B 8363  
(CRIMPED-BACK NUT)**

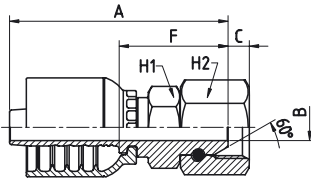
JIS BSP HEMBRA RECTA ASIENTO A 60° (NISSAN) JIS B 8363  
(CRIMPADO DETRAS DE LA TUERCA)



### OPB20712

**JIS BSP FEMALE 60° CONE (NISSAN) JIS B 8363  
(THRUST-WIRE NUT)**

JIS BSP HEMBRA RECTA ASIENTO A 60° (NISSAN) JIS B 8363  
(TUERCA GIRATORIA SOBRE LA ESPIGA)



PART. REF.	HOSE BORE	THREAD	DIMENSIONS inch							
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	DN	inch	Size		B	A	C	F	H <sub>1</sub>	H <sub>2</sub>
OPB20711-04-04	6	1/4"	- 04	1/4" - 19	0.16	1.97	0.18	0.89	0.75	0.75
OPB20711-06-06	10	3/8"	- 06	3/8" - 19	0.28	2.13	0.25	0.97	0.87	0.87
OPB20711-08-08	12	1/2"	- 08	1/2" - 14	0.37	2.26	0.26	1.04	1.06	1.06
OPB20712-10-12	16	5/8"	- 10	3/4" - 14	0.59	2.56	0.35	1.21	1.26	1.26
OPB20711-12-12	19	3/4"	- 12	3/4" - 14	0.59	2.62	0.35	1.18	1.26	1.26



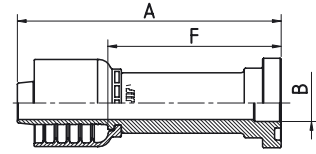
# OPB TYPE



## KOMATSU FLANGE STANDARD CONNECTIONS

### OPB24111

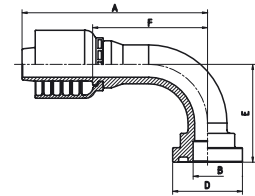
STRAIGHT KOMATSU FLANGE  
BRIDA RECTA KOMATSU



PART. REF.	HOSE BORE			FLANGE	DIMENSIONS inch					
	DN	inch	Size		B	A	D	F		
OPB24111-10-10	16	5/8"	- 10	5/8"	0.55	3.94	1.34	2.59		

### OPB24191

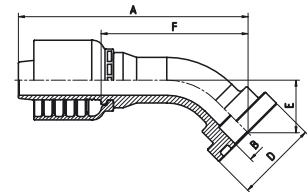
90° KOMATSU FLANGE  
BRIDA CODO 90° KOMATSU



PART. REF.	HOSE BORE			FLANGE	DIMENSIONS inch					
	DN	inch	Size		B	A	D	E	F	
OPB24191-10-10	16	5/8"	- 10	5/8"	0.55	3.56	1.34	1.87	2.20	

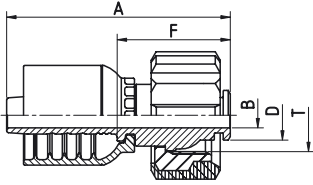
### OPB24141

45° KOMATSU FLANGE  
BRIDA CODO 45° KOMATSU



PART. REF.	HOSE BORE			FLANGE	DIMENSIONS inch					
	DN	inch	Size		B	A	D	E	F	
OPB24141-10-10	16	5/8"	- 10	5/8"	0.55	3.75	1.34	0.87	2.40	

## WASH CLEANING STANDARD CONNECTIONS



### OPB24913

**WASH CLEANER FEMALE (SLIP-ON NUT)**  
**HEMBRA RECTA ARANDELA DE DESGASTE**  
**(TUERCA DESLIZABLE SOBRE LA ESPIGA)**

PART. REF.	HOSE BORE			THREAD	DIMENSIONS inch				
	DN	inch	Size		B	A	C	F	H <sub>2</sub>
OPB24913-04-22	6	1/4"	- 04	M 22x1.5	0.16	2.42	0.55	1.34	1.06
OPB24913-05-22	8	5/16"	- 05	M 22x1.5	0.22	2.44	0.55	1.34	1.06
OPB24913-06-22	10	3/8"	- 06	M 22x1.5	0.28	2.50	0.55	1.34	1.06

# OPB TYPE

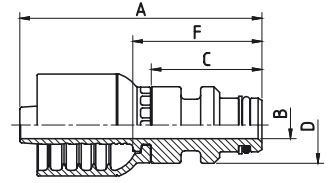


## MINING CONNECTIONS

### OPB14810

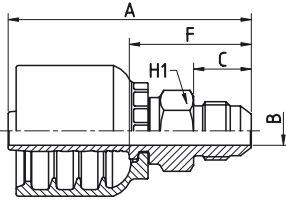
STAPLE LOCK MALE - SAE J1467

MACHO RECTO STAPLE-LOCK (MINERIA) - SAE J1467



PART. REF.	HOSE BORE			FLANGE	DIMENSIONS inch				
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	DN	inch	Size		B	A	C	D	F
OPB14810-04-04	6	1/4"	- 04		0.16	2.38	1.13	0.59	1.30
OPB14810-06-06	10	3/8"	- 06		0.28	2.48	1.13	0.79	1.32
OPB14810-08-08	12	1/2"	- 08		0.37	2.56	1.13	0.94	1.33
OPB14810-12-12	19	3/4"	- 12		0.59	2.81	1.14	1.14	1.38
OPB14810-16-16	25	1"	- 16		0.78	3.56	1.38	1.54	1.67



### OPNS12510

JIC MALE 37° CONE - SAE J516/J514  
 JIC MACHO RECTO ASIENTO A 37° - SAE J516/J514

PART. REF.	HOSE BORE			THREAD	DIMENSIONS inch				
	DN	inch	Size		B	A	C	F	H <sub>i</sub>
OPNS12510-06-06	10	3/8"	- 06	9/16" - 18	0.28	2.32	0.55	1.17	0.67
OPNS12510-06-08	10	3/8"	- 06	3/4" - 16	0.37	2.50	0.65	1.34	0.75
OPNS12510-06-10	10	3/8"	- 06	7/8"-14	0.49	2.68	0.77	1.52	0.94
OPNS12510-08-06	12	1/2"	- 08	9/16" -18	0.28	2.48	0.55	1.26	0.75
OPNS12510-08-08	12	1/2"	- 08	3/4" - 16	0.37	2.58	0.65	1.35	0.75
OPNS12510-08-10	12	1/2"	- 08	7/8" - 14	0.49	2.76	0.77	1.53	0.94
OPNS12510-08-12	12	1/2"	- 08	1.1/16" - 12	0.59	2.91	0.87	1.69	1.06
OPNS12510-10-10	16	5/8"	- 10	7/8" - 14	0.49	2.89	0.77	1.54	0.94
OPNS12510-10-12	16	5/8"	- 10	1.1/16" - 12	0.59	3.03	0.87	1.68	1.06
OPNS12510-12-10	19	3/4"	- 12	7/8" -14	0.49	3.07	0.77	1.63	1.06
OPNS12510-12-12	19	3/4"	- 12	1.1/16" - 12	0.59	3.17	0.87	1.73	1.06
OPNS12510-12-14	19	3/4"	- 12	1.3/16" - 12	0.63	3.19	0.89	1.75	1.26
OPNS12510-12-16	19	3/4"	- 12	1.5/16" - 12	0.78	3.29	0.91	1.85	1.34
OPNS12510-16-12	25	1"	- 16	1.1/16" - 12	0.59	3.66	0.87	1.76	1.26
OPNS12510-16-16	25	1"	- 16	1.5/16" - 12	0.78	3.78	0.91	1.88	1.34
OPNS12510-16-20	25	1"	- 16	1.5/8" - 12	1.02	3.98	0.96	2.08	1.65
OPNS12510-20-20	31	1.1/4"	- 20	1.5/8" - 12	1.02	3.09	0.96	1.02	1.65
OPNS12510-20-24	31	1.1/4"	- 20	1.7/8" - 12	1.26	3.33	1.08	1.26	1.97
OPNS12510-24-24	38	1.1/2"	- 24	1.7/8" - 12	1.26	3.70	1.08	1.26	1.97
OPNS12510-32-32	51	2"	- 32	2.1/2" - 12	1.65	4.25	1.34	1.65	2.56

# OPNS TYPE



## JIC STANDARD CONNECTIONS

### OPNS22711



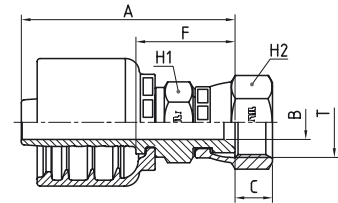
JIC FEMALE 37° CONE SEAT DOUBLE EXAGON  
SAE J516/J514 (CRIMPED BACK NUT)

JIC HEMBRA RECTA ASIENTO A 37° DOBLE HEXÁGONO SAE J516/J514  
(CRIMPADO DETRAS DE LA TUERCA)

### OPNS22711...K

JIC FEMALE 37° CONE SEAT DOUBLE EXAGON COMPACT  
SAE J516/J514 (CRIMPED BACK NUT)

JIC HEMBRA RECTA ASIENTO A 37° DOBLE HEXÁGONO COMPACTO  
SAE J516/J514 (CRIMPADO DETRAS DE LA TUERCA)



PART. REF.	HOSE BORE			THREAD	DIMENSIONS inch					
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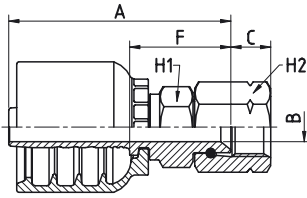
	DN	inch	Size		B	A	C	F	H <sub>1</sub>	H <sub>2</sub>
OPNS22711-06-06K	10	3/8"	- 06	9/16" - 18	0.28	2.03	0.37	0.87	0.67	0.67
OPNS22711-06-08	10	3/8"	- 06	3/4" - 16	0.37	2.20	0.42	0.85	0.75	0.87
OPNS22711-08-08	12	1/2"	- 08	3/4" - 16	0.37	2.28	0.42	1.06	0.75	0.87
OPNS22711-08-10K	12	1/2"	- 08	7/8" - 14	0.37	2.39	0.49	1.17	0.87	0.98
OPNS22711-12-12	19	3/4"	- 12	1.1/16" - 12	0.59	2.62	0.56	1.19	1.06	1.25

## JIC STANDARD CONNECTIONS

### OPNS22712

JIC FEMALE 37° CONE SEAT - SAE J516/J514  
(THRUST-WIRE NUT)

JIC HEMBRA RECTA ASIENTO A 37° - SAE J516/J514  
(TUERCA GIRATORIA SOBRE LA ESPIGA)



PART. REF.	HOSE BORE			THREAD	DIMENSIONS inch					
	DN	inch	Size		B	A	C	F	H <sub>1</sub>	H <sub>2</sub>
OPNS22712-06-04	10	3/8"	- 06	7/16" - 20	0.16	2.13	0.32	0.97	0.67	0.67
OPNS22712-06-05	10	3/8"	- 06	1/2" - 20	0.22	2.13	0.36	0.98	0.67	0.67
OPNS22712-06-08	10	3/8"	- 06	3/4" - 16	0.37	2.20	0.40	1.07	0.75	0.87
OPNS22712-06-10	10	3/8"	- 06	7/8" - 14	0.49	2.24	0.48	1.10	0.87	1.06
OPNS22712-08-06	12	1/2"	- 08	9/16" - 18	0.28	2.18	0.36	0.97	0.75	0.75
OPNS22712-08-08	12	1/2"	- 08	3/4" - 16	0.37	2.28	0.40	1.08	0.75	0.87
OPNS22712-08-12	12	1/2"	- 08	1.1/16" - 12	0.49	2.41	0.56	1.19	1.06	1.26
OPNS22712-10-08	16	5/8"	- 10	3/4" - 16	0.37	2.44	0.40	1.11	0.87	0.87
OPNS22712-10-12	16	5/8"	- 10	7/8" - 14	0.59	2.51	0.56	1.16	1.06	1.26
OPNS22712-12-08	19	3/4"	- 12	3/4" - 16	0.37	2.61	0.40	1.19	1.06	0.87
OPNS22712-12-10	19	3/4"	- 12	7/8" - 14	0.49	2.61	0.48	1.19	1.06	1.06
OPNS22712-12-12	19	3/4"	- 12	1.1/16" - 12	0.59	2.68	0.56	1.24	1.06	1.26
OPNS22712-12-14	19	3/4"	- 12	1.3/16" - 12	0.59	2.74	0.58	1.31	1.18	1.42
OPNS22712-12-16	19	3/4"	- 12	1.5/16" - 12	0.78	2.72	0.60	1.28	1.26	1.50
OPNS22712-16-12	25	1"	- 16	1.1/16" - 12	0.49	3.23	0.56	1.33	1.26	1.26
OPNS22712-16-16	25	1"	- 16	1.5/16" - 12	0.78	3.25	0.60	1.35	1.26	1.50
OPNS22712-16-20	25	1"	- 16	1.5/8" - 12	1.02	3.58	0.64	1.69	1.61	1.97
OPNS22712-20-20	31	1.1/4"	- 20	1.5/8" - 12	1.02	3.78	0.64	1.71	1.61	1.97
OPNS22712-24-24	38	1.1/2"	- 24	1.7/8" - 12	1.26	4.45	0.74	2.01	1.97	2.36
OPNS22712-32-32	51	2"	- 32	2.1/2" - 12	1.65	4.79	0.94	2.19	2.56	2.95



# OPNS TYPE

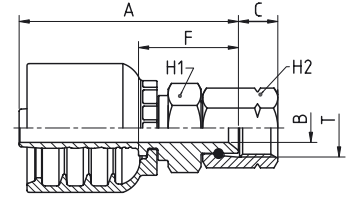


## JIC STANDARD CONNECTIONS

### OPNS22712...K

JIC FEMALE 37° CONE SEAT COMPACT - SAE J516/J514  
(THRUST-WIRE NUT)

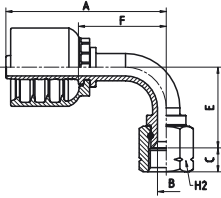
JIC HEMBRA RECTA ASIENTO A 37° COMPACTO - SAE J516/J514  
(TUERCA GIRATORIA SOBRE LA ESPIGA)



PART. REF.	HOSE BORE			THREAD	DIMENSIONS inch					
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	DN	inch	Size		B	A	C	F	H <sub>1</sub>	H <sub>2</sub>
OPNS22712-06-06K	10	3/8"	- 06	9/16" - 18	0.28	2.11	0.36	0.97	0.67	0.67
OPNS22712-08-10K	12	1/2"	- 08	7/8" - 14	0.49	2.34	0.50	1.12	0.87	0.98
OPNS22712-10-10K	16	5/8"	- 10	7/8" - 14	0.49	2.49	0.50	1.14	0.87	0.98

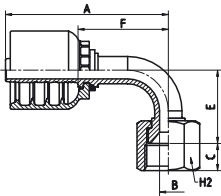
## JIC STANDARD CONNECTIONS



### OPNS22592

90° JIC FEMALE 37° CONE SEAT - SAE J516/J514  
(THRUST-WIRE NUT)

JIC HEMBRA CODO 90° ASIENTO A 37° - SAE J516/J514  
(TUERCA GIRATORIA SOBRE LA ESPIGA)



### OPNS22593

90° JIC FEMALE 37° CONE SEAT - SAE J516/J514  
(SLIP-ON NUT)

JIC HEMBRA CODO 90° ASIENTO A 37° - SAE J516/J514  
(TUERCA DESLIZABLE SOBRE LA ESPIGA)

PART. REF.	HOSE BORE	THREAD	DIMENSIONS inch							
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	DN	inch	Size		B	A	C	E	F	H <sub>2</sub>
<b>NEW</b> OPNS22592-06-05	10	3/8"	- 06	1/2" - 20	0.22	2.34	0.37	1.04	1.19	0.67
OPNS22592-06-06	10	3/8"	- 06	9/16" - 18	0.28	2.56	0.36	1.28	1.40	0.75
OPNS22593-06-08	10	3/8"	- 06	3/4" - 16	0.28	2.59	0.42	1.16	1.44	0.87
OPNS22593-06-10	10	3/8"	- 06	7/8"-14	0.37	2.60	0.49	1.24	1.44	1.06
OPNS22592-08-06	12	1/2"	- 08	9/16" - 18	0.28	2.68	0.36	1.30	1.46	0.75
OPNS22592-08-08	12	1/2"	- 08	3/4" - 16	0.37	2.96	0.40	1.61	1.73	0.87
OPNS22593-08-10	12	1/2"	- 08	7/8" - 14	0.37	3.00	0.49	1.42	1.77	1.06
OPNS22593-08-12	12	1/2"	- 08	1.1/16" - 12	0.49	2.99	0.54	1.42	1.77	1.26
OPNS22592-10-10	16	5/8"	- 10	7/8" - 14	0.49	3.46	0.48	2.07	2.11	1.06
OPNS22593-10-12	16	5/8"	- 10	1.1/16" - 12	0.49	3.38	0.54	1.97	2.03	1.26
OPNS22592-12-10	19	3/4"	- 12	7/8" - 14	0.49	3.60	0.48	2.07	2.17	1.06
OPNS22592-12-12	19	3/4"	- 12	1.1/16" - 12	0.59	3.88	0.56	2.28	2.44	1.26
OPNS22592-12-14	19	3/4"	- 12	1.3/16" - 12	0.59	3.88	0.58	2.28	2.44	1.42
OPNS22592-12-16	19	3/4"	- 12	1.5/16" - 12	0.78	3.88	0.60	2.26	2.44	1.50
OPNS22592-16-16	25	1"	- 16	1.5/16" - 12	0.78	4.73	0.60	2.64	3.03	1.50
OPNS22592-16-20	25	1"	- 16	1.5/8" - 12	1.02	4.94	0.64	2.93	3.04	1.97
OPNS22592-20-20	31	1.1/4"	- 20	1.5/8" - 12	1.02	5.63	0.64	3.41	3.56	1.97
OPNS22592-20-24	31	1.1/4"	- 20	1.7/8" - 12	1.26	5.63	0.74	3.58	3.56	2.36
OPNS22592-24-24	38	1.1/2"	- 24	1.7/8" - 12	1.26	6.69	0.74	3.96	4.25	2.36
OPNS22592-32-32	51	2"	- 32	2.1/2"-12	1.73	8.19	0.94	5.39	5.59	2.95

# OPNS TYPE

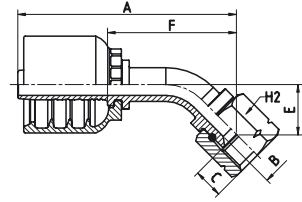


## JIC STANDARD CONNECTIONS

### OPNS22542

45° JIC FEMALE 37° CONE SEAT - SAE J516/J514  
(THRUST-WIRE NUT)

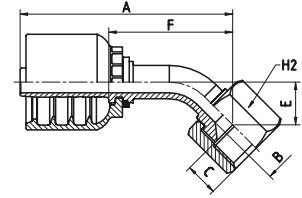
JIC HEMBRA CODO 45° ASIENTO A 37° - SAE J516/J514  
(TUERCA GIRATORIA SOBRE LA ESPIGA)



### OPNS22543

45° JIC FEMALE 37° CONE SEAT - SAE J516/J514  
(SLIP-ON NUT)

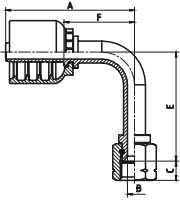
JIC HEMBRA CODO 45° ASIENTO A 37° - SAE J516/J514  
(TUERCA DESLIZABLE SOBRE LA ESPIGA)



PART. REF.	HOSE BORE			THREAD	DIMENSIONS inch					
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	DN	inch	Size		B	A	C	E	F	H <sub>2</sub>
OPNS22542-06-06	10	3/8"	- 06	9/16" - 18	0.28	2.81	0.36	0.65	1.65	0.75
OPNS22543-06-08	10	3/8"	- 06	3/4" - 16	0.28	2.77	0.42	0.55	1.61	0.87
OPNS22543-06-10	10	3/8"	- 06	7/8" - 14	0.37	2.83	0.49	0.61	1.67	1.06
OPNS22542-08-08	12	1/2"	- 08	3/4" - 16	0.37	3.27	0.40	0.79	2.05	0.87
OPNS22543-08-10	12	1/2"	- 08	7/8" - 14	0.37	3.17	0.49	0.67	1.95	1.06
OPNS22543-08-12	12	1/2"	- 08	1.1/16" - 12	0.49	3.19	0.54	0.67	1.97	1.26
OPNS22542-10-10	16	5/8"	- 10	7/8" - 14	0.49	3.79	0.48	1.00	2.44	1.06
OPNS22543-10-12	16	5/8"	- 10	1.1/16" - 12	0.49	3.71	0.54	0.94	2.36	1.26
OPNS22542-12-12	19	3/4"	- 12	1.1/16" - 12	0.59	4.19	0.56	1.08	2.76	1.26
OPNS22542-12-14	19	3/4"	- 12	1.3/16" - 12	0.59	4.15	0.58	1.08	2.72	1.42
OPNS22542-12-16	19	3/4"	- 12	1.5/16" - 12	0.78	4.19	0.60	1.08	2.76	1.50
OPNS22542-16-12	25	1"	- 16	1.1/16" - 12	0.59	4.75	0.56	1.08	2.85	1.26
OPNS22542-16-16	25	1"	- 16	1.5/16" - 12	0.78	5.28	0.60	1.27	3.39	1.50
OPNS22542-16-20	25	1"	- 16	1.5/8" - 12	1.02	5.44	0.64	1.42	3.54	1.97
OPNS22542-20-20	31	1.1/4"	- 20	1.5/8" - 12	1.02	6.14	0.64	1.63	4.07	1.97
OPNS22542-20-24	31	1.1/4"	- 20	1.7/8" - 12	1.26	6.26	0.74	1.75	4.19	2.36
OPNS22542-24-24	38	1.1/2"	- 24	1.7/8" - 12	1.26	7.13	0.74	1.83	4.69	2.36
OPNS22542-32-32	51	2"	- 32	2.1/2" - 12	1.73	9.02	0.94	2.68	6.42	2.95

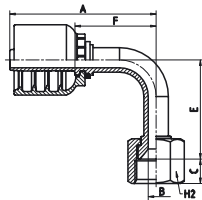
## JIC STANDARD CONNECTIONS



### OPNS24792

90° LONG DROP JIC FEMALE 37° CONE SEAT - SAE J516/J514  
(THRUST-WIRE NUT)

JIC HEMBRA CODO LARGO 90° ASIENTO A 37° - SAE J516/J514  
(TUERCA GIRATORIA SOBRE LA ESPIGA)



### OPNS24793

90° LONG DROP JIC FEMALE 37° CONE SEAT - SAE J516/J514  
(SLIP-ON NUT)

JIC HEMBRA CODO LARGO 90° ASIENTO A 37° - SAE J516/J514  
(TUERCA DESLIZABLE SOBRE LA ESPIGA)

PART. REF.	HOSE BORE		THREAD	DIMENSIONS inch						
	DN	inch		B	A	C	F	H <sub>1</sub>	H <sub>2</sub>	
OPNS24792-06-06	10	3/8"	- 06	9/16" - 18	0.28	2.56	0.38	2.17	1.40	0.75
OPNS24793-06-08	10	3/8"	- 06	3/4" - 16	0.28	2.59	0.43	2.43	1.44	0.87
OPNS24792-08-08	12	1/2"	- 08	3/4" - 16	0.37	2.88	0.43	2.43	1.65	0.87
OPNS24793-08-10	12	1/2"	- 08	7/8" - 14	0.37	3.00	0.50	2.57	1.77	1.06
OPNS24792-10-10	16	5/8"	- 10	7/8" - 14	0.49	3.46	0.50	2.58	2.11	1.06
OPNS24792-12-12	19	3/4"	- 12	1.1/16" - 12	0.59	3.88	0.56	3.72	2.44	1.26
OPNS24792-16-16	25	1"	- 16	1.5/16" - 12	0.78	5.01	0.60	4.33	3.11	1.50

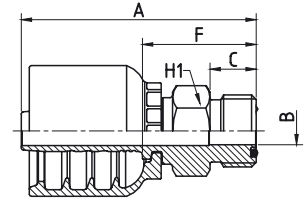
# OPNS TYPE



## ORFS STANDARD CONNECTIONS

### OPNS12410

ORFS RIGID MALE - SAE J1453  
ORFS MACHO ASIEN TO PLANO - SAE J1453



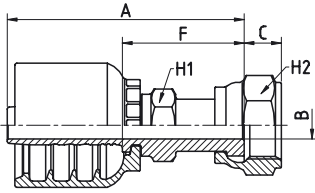
PART. REF.	HOSE BORE			THREAD	DIMENSIONS inch					
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	DN	inch	Size		B	A	C	F	H <sub>1</sub>	
OPNS12410-06-06	10	3/8"	- 06	11/16" -16	0.26	2.23	0.44	1.07	0.75	
OPNS12410-06-08	10	3/8"	- 06	13/16" -16	0.37	2.34	0.50	1.18	0.87	
OPNS12410-08-08	12	1/2"	- 08	13/16" -16	0.37	2.43	0.50	1.20	0.87	
OPNS12410-08-10	12	1/2"	- 08	1" -14	0.49	2.60	0.61	1.38	1.06	
OPNS12410-10-10	16	5/8"	- 10	1" -14	0.49	2.72	0.61	1.37	1.06	
OPNS12410-10-12	16	5/8"	- 10	1.3/16" -12	0.59	2.83	0.67	1.48	1.26	
OPNS12410-12-12	19	3/4"	- 12	1.3/16" -12	0.59	2.97	0.67	1.54	1.26	
OPNS12410-12-16	19	3/4"	- 12	1.7/16" -12	0.78	3.03	0.69	1.59	1.50	
OPNS12410-16-16	25	1"	- 16	1.7/16" -12	0.78	3.54	0.69	1.65	1.50	
OPNS12410-20-20	31	1.1/4"	- 20	1.11/16" -12	1.02	3.89	0.69	1.82	1.81	
OPNS12410-24-24	38	1.1/2"	- 24	2" - 12	1.26	4.35	0.69	1.91	2.17	

## ORFS STANDARD CONNECTIONS

### OPNS22411

**ORFS FEMALE - SAE J516/J1453 (CRIMPED-BACK NUT)**  
**ORFS HEMBRA RECTA ASIENTO PLANO - SAE J516/J1453**  
**(CRIMPADO DETRAS DE LA TUERCA)**



PART. REF.	HOSE BORE			THREAD	DIMENSIONS inch					
	DN	inch	Size		B	A	C	F	H <sub>1</sub>	H <sub>2</sub>
OPNS22411-06-06	10	3/8"	- 06	11/16" - 16	0.28	1.46	0.37	1.22	0.63	0.87
OPNS22411-06-08	10	3/8"	- 06	13/16" - 16	0.37	1.64	0.43	1.40	0.75	0.94
OPNS22411-08-06	12	1/2"	- 08	11/16" - 16	0.28	1.57	0.37	1.26	0.63	0.87
OPNS22411-08-08	12	1/2"	- 08	13/16" - 16	0.37	1.73	0.43	1.41	0.75	0.94
OPNS22411-08-10	12	1/2"	- 08	1" - 14	0.45	1.83	0.53	1.51	0.94	1.18
OPNS22411-08-12	12	1/2"	- 08	1.3/16" - 12	0.55	1.96	0.57	1.65	1.10	1.42
OPNS22411-10-10	16	5/8"	- 10	1" - 14	0.45	1.92	0.53	1.52	0.94	1.18
OPNS22411-10-12	16	5/8"	- 10	1.3/16" - 12	0.55	2.05	0.57	1.65	1.10	1.42
OPNS22411-12-10	19	3/4"	- 12	1" - 14	0.45	2.09	0.53	1.61	1.10	1.18
OPNS22411-12-12	19	3/4"	- 12	1.3/16" - 12	0.55	2.19	0.57	1.71	1.10	1.42
OPNS22411-12-16	19	3/4"	- 12	1.7/16" - 12	0.78	2.26	0.59	1.79	1.42	1.61
OPNS22411-16-12	25	1"	- 16	1.3/16" - 12	0.55	3.70	0.57	1.80	1.42	1.42
OPNS22411-16-16	25	1"	- 16	1.7/16" - 12	0.78	2.45	0.59	1.82	1.42	1.61
OPNS22411-16-20	25	1"	- 16	1.11/16" - 12	1.02	2.57	0.58	1.94	1.61	1.97
OPNS22411-20-20	31	1.1/4"	- 20	1.11/16" - 12	1.02	3.68	0.58	1.93	1.61	1.97
OPNS22411-24-24	38	1.1/2"	- 24	2" - 12	1.26	4.41	0.62	2.13	1.97	2.36



# OPNS TYPE

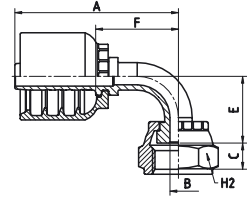


## ORFS STANDARD CONNECTIONS

### OPNS22491

90° ORFS FEMALE - SAE J516/J1453  
(CRIMPED-BACK NUT)

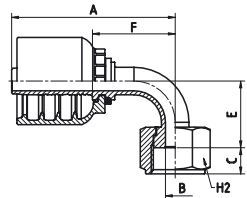
ORFS HEMBRA CODO 90° ASIENTO PLANO - SAE J516/J1453  
(CRIMPADO DETRAS DE LA TUERCA)



### OPNS22493

90° ORFS FEMALE - SAE J516/J1453  
(SLIP-ON NUT)

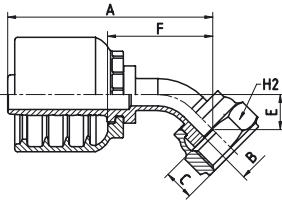
ORFS HEMBRA CODO 90° ASIENTO PLANO - SAE J516/J1453  
(TUERCA DESLIZABLE SOBRE LA ESPIGA)



PART. REF.	HOSE BORE			THREAD	DIMENSIONS inch					
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	DN	inch	Size		B	A	C	E	F	H <sub>2</sub>
OPNS22493-06-06	10	3/8"	- 06	11/16" - 16	0.28	2.34	0.37	0.94	1.18	0.87
OPNS22493-06-08	10	3/8"	- 06	13/16" - 16	0.37	2.34	0.43	1.04	1.18	0.94
OPNS22491-08-06	12	1/2"	- 08	11/16" - 16	0.28	2.44	0.37	0.96	1.22	0.87
OPNS22493-08-08	12	1/2"	- 08	13/16" - 16	0.37	2.82	0.43	1.18	1.59	0.94
OPNS22493-08-10	12	1/2"	- 08	1" - 14	0.45	2.82	0.53	1.18	1.59	1.18
OPNS22493-08-12	12	1/2"	- 08	1.3/16" - 12	0.55	2.79	0.57	1.48	1.56	1.42
OPNS22493-10-10	16	5/8"	- 10	1" - 14	0.45	3.24	0.53	1.48	1.89	1.18
OPNS22493-10-12	16	5/8"	- 10	1.3/16" - 12	0.55	3.24	0.57	1.61	1.89	1.42
OPNS22491-12-10	19	3/4"	- 12	1" - 14	0.45	3.37	0.53	1.50	1.93	1.18
OPNS22493-12-12	19	3/4"	- 12	1.3/16" - 12	0.55	3.66	0.57	1.89	2.22	1.42
OPNS22493-12-16	19	3/4"	- 12	1.7/16" - 12	0.78	3.66	0.58	1.87	2.22	1.61
OPNS22491-16-12	25	1"	- 16	1.3/16" - 12	0.55	4.17	0.57	1.89	2.27	1.42
OPNS22493-16-16	25	1"	- 16	1.7/16" - 12	0.78	4.71	0.58	2.20	2.81	1.61
OPNS22493-16-20	25	1"	- 16	1.11/16" - 12	1.02	4.67	0.58	2.20	2.78	1.97
OPNS22493-20-20	31	1.1/4"	- 20	1.11/16" - 12	1.02	5.34	0.58	2.60	3.27	1.97
OPNS22493-24-24	38	1.1/2"	- 24	2" - 12	1.26	6.46	0.58	3.13	4.02	2.36

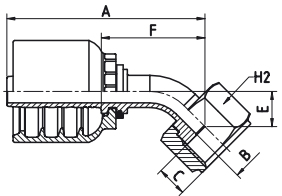
## ORFS STANDARD CONNECTIONS



### OPNS22441

**45° ORFS FEMALE - SAE J516/J1453  
(CRIMPED-BACK NUT)**

ORFS HEMBRA CODO 45° ASIENTO PLANO - SAE J516/J1453  
(CRIMPADO DETRAS DE LA TUERCA)



### OPNS22443

**45° ORFS FEMALE - SAE J516/J1453  
(SLIP-ON NUT)**

ORFS HEMBRA CODO 45° ASIENTO PLANO - SAE J516/J1453  
(TUERCA DESLIZABLE SOBRE LA ESPIGA)

PART. REF.	HOSE BORE	THREAD	DIMENSIONS inch							
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	DN	inch	Size		B	A	C	E	F	H <sub>2</sub>
OPNS22443-06-06	10	3/8"	- 06	11/16" - 16	0.28	2.44	0.37	0.43	1.28	0.87
OPNS22443-06-08	10	3/8"	- 06	13/16" - 16	0.37	2.50	0.43	0.49	1.34	0.94
OPNS22441-08-06	12	1/2"	- 08	11/16" - 16	0.28	2.52	0.37	0.43	1.30	0.87
OPNS22443-08-08	12	1/2"	- 08	13/16" - 16	0.37	2.88	0.43	0.51	1.65	0.94
OPNS22443-08-10	12	1/2"	- 08	1" - 14	0.44	2.88	0.53	0.53	1.65	1.18
OPNS22443-08-12	12	1/2"	- 08	1.3/16" - 12	0.55	3.06	0.57	0.72	1.84	1.42
OPNS22443-10-10	16	5/8"	- 10	1" - 14	0.45	3.28	0.53	0.63	1.93	1.18
OPNS22443-10-12	16	5/8"	- 10	1.3/16" - 12	0.55	3.38	0.57	0.72	2.03	1.42
OPNS22441-12-10	19	3/4"	- 12	1" - 14	0.45	3.43	0.53	0.65	1.99	1.18
OPNS22443-12-12	19	3/4"	- 12	1.3/16" - 12	0.55	3.82	0.57	0.85	2.38	1.42
OPNS22443-12-16	19	3/4"	- 12	1.7/16" - 12	0.78	3.80	0.58	0.83	2.37	1.61
OPNS22443-16-16	25	1"	- 16	1.7/16" - 12	0.78	4.72	0.58	0.93	2.81	1.61
OPNS22443-16-20	25	1"	- 16	1.11/16" - 12	1.02	4.69	0.58	0.92	2.81	1.97
OPNS22443-20-20	31	1.1/4"	- 20	1.11/16" - 12	1.02	5.30	0.58	1.06	3.23	1.97
OPNS22443-24-24	38	1.1/2"	- 24	2" - 12	1.26	6.30	0.58	1.24	3.86	2.36

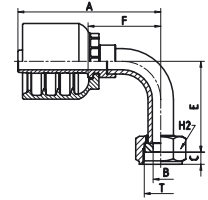
# OPNS TYPE



## ORFS STANDARD CONNECTIONS

### OPNS24493\*

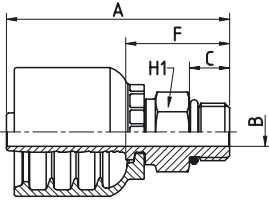
**LONG DROP 90° ORFS FEMALE - SAE J516/J1453 (SLIP-ON NUT)**  
**ORFS HEMBRA CODO LARGO 90° ASIENTO PLANO - SAE J516/J1453**  
**(CRIMPADO DETRAS DE LA TUERCA)**



PART. REF.	HOSE BORE			THREAD	DIMENSIONS inch					
	DN	inch	Size		B	A	C	E	F	H <sub>1</sub>
OPNS24493-06-06	10	3/8"	- 06	11/16" - 16	0.28	2.40	0.37	2.11	1.24	0.87
OPNS24493-06-08	10	3/8"	- 06	13/16" - 16	0.26	2.40	0.43	2.09	1.24	0.94
OPNS24493-08-08	12	1/2"	- 08	13/16" - 16	0.39	2.68	0.43	2.50	1.46	0.94
OPNS24493-08-10	12	1/2"	- 08	1" - 14	0.38	2.67	0.53	2.50	1.44	1.18
OPNS24493-10-10	16	5/8"	- 10	1" - 14	0.38	2.95	0.53	2.70	1.60	1.18
OPNS24493-10-12	16	5/8"	- 10	1.3/16" - 12	0.50	2.95	0.57	2.85	1.60	1.42
OPNS24493-12-12	19	3/4"	- 12	1.3/16" - 12	0.61	3.23	0.57	3.78	1.79	1.42
OPNS24493-16-16	25	1"	- 16	1.7/16" - 12	0.81	4.20	0.58	4.47	2.30	1.61

\* NOT MADE FROM SOLID STOCK / CONSTRUIDOS CON SOLDADURA

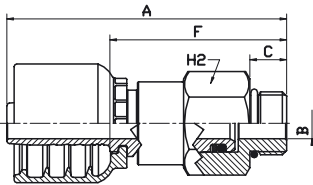
## SAE OR BOSS STANDARD CONNECTIONS



### OPNS13010

SAE MALE O-RING BOSS TYPE - SAE J516/J514  
SAE MACHO TIPO O-RING BOSS - SAE J516/J514

PART. REF.	HOSE BORE			THREAD	DIMENSIONS inch				
	DN	inch	Size		B	A	C	F	H <sub>1</sub>
OPNS13010-06-06	10	3/8"	- 06	9/16" - 18	0.28	2.17	0.39	1.01	0.67
OPNS13010-06-08	10	3/8"	- 06	3/4" - 16	0.37	2.28	0.44	1.13	0.87
OPNS13010-08-08	12	1/2"	- 08	3/4" - 16	0.37	2.36	0.44	1.14	0.87
OPNS13010-08-10	12	1/2"	- 08	7/8" - 14	0.49	2.48	0.50	1.26	0.98
OPNS13010-10-12	16	5/8"	- 10	1. 1/16" - 12	0.59	2.83	0.59	1.48	1.26
OPNS13010-12-12	19	3/4"	- 12	1. 1/16" - 12	0.59	2.99	0.59	1.56	1.26
OPNS13010-12-16	19	3/4"	- 12	1. 5/16" - 12	0.78	3.01	0.59	1.57	1.50
OPNS13010-16-16	25	1"	- 16	1. 5/16" - 12	0.78	3.52	0.59	1.62	1.50



### OPNS14310

SAE SWIVEL MALE O-RING BOSS TYPE - SAE J516/J514  
SAE MACHO GIRATORIO TIPO O-RING BOSS - SAE J516/J514

PART. REF.	HOSE BORE			THREAD	DIMENSIONS inch				
	DN	inch	Size		B	A	C	F	H <sub>1</sub>
OPNS14310-06-06	10	3/8"	- 06	9/16" - 18	0.28	2.96	0.39	1.81	0.87
OPNS14310-08-08	12	1/2"	- 08	3/4" - 16	0.37	3.23	0.44	2.00	1.06

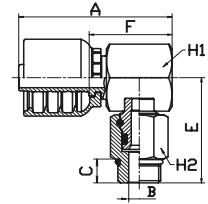
# OPNS TYPE



## SAE OR BOSS STANDARD CONNECTIONS

### OPNS14390\*

90° SAE SWIVEL MALE O-RING BOSS TYPE - SAE J516/J514  
 SAE MACHO GIRATORIO CODO 90° TIPO O-RING BOSS  
 SAE J516/J514

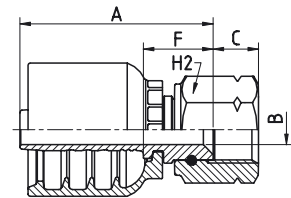


PART. REF.	HOSE BORE			THREAD	DIMENSIONS inch						
	DN	inch	Size		B	A	C	E	F	H <sub>1</sub>	H <sub>2</sub>
OPNS14390-06-06	10	3/8"	- 06	9/16" - 18	0.27	1.95	0.39	1.57	0.79	0.87	0.67
OPNS14390-06-08	10	3/8"	- 06	3/4" - 16	0.27	1.95	0.44	1.80	0.79	0.87	
OPNS14390-08-08	12	1/2"	- 08	3/4" - 16	0.37	2.09	0.44	1.93	0.87	1.06	0.87

\* NOT MADE FROM SOLID STOCK / CONSTRUIDOS CON SOLDADURA

### OPNS22612

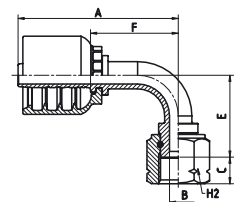
SAE FEMALE 45° CONE SEAT - SAE J516/J512  
 (THRUST-WIRE NUT)  
 SAE 45 HEMBRA RECTA ASIEN TO A 45° - SAE J516/J512  
 (TUERCA GIRATORIA SOBRE LA ESPIGA)



PART. REF.	HOSE BORE			THREAD	DIMENSIONS inch					
	DN	inch	Size		B	A	C	F	H <sub>2</sub>	
OPNS22612-06-06	10	3/8"	- 06	5/8" - 18	0.28	1.81	0.43	0.65	0.87	
OPNS22612-12-12	19	3/4"	- 12	1.1/16" - 14	0.59	2.33	0.57	0.89	1.26	

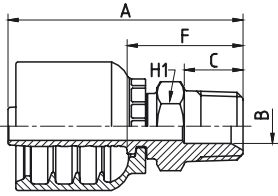
### OPNS22692

90° SAE FEMALE SWEEP ELBOW 45° CONE SEAT  
 SAE J516/J512 (THRUST-WIRE NUT)  
 HEMBRA SAE CODO 90° ASIEN TO A 45° - SAE J516/512  
 (TUERCA GIRATORIA SOBRE LA ESPIGA)



PART. REF.	HOSE BORE			THREAD	DIMENSIONS inch					
	DN	inch	Size		B	A	C	E	F	H <sub>2</sub>
OPNS22692-06-06	10	3/8"	- 06	5/8" - 18	0.28	2.56	0.43	1.30	1.40	0.87
OPNS22692-12-12	19	3/4"	- 12	1.1/6" - 14	0.59	3.88	0.57	2.28	2.44	1.26

## NPTF STANDARD CONNECTIONS



### OPNS12810

NPTF MALE 30° CONE SEAT - SAE J516  
NPTF MACHO CUERDA CONICA ASIENTO A 30° - SAE J516

PART. REF.	HOSE BORE			THREAD	DIMENSIONS inch				
	DN	inch	Size		B	A	C	F	Hi
OPNS12810-06-04	10	3/8"	- 06	1/4" - 18	0.22	2.34	0.57	1.19	0.55
OPNS12810-06-06	10	3/8"	- 06	3/8" - 18	0.37	2.28	0.57	1.13	0.75
OPNS12810-06-08	10	3/8"	- 06	1/2" - 14	0.49	2.52	0.76	1.36	0.94
OPNS12810-08-06	12	1/2"	- 08	3/8" - 18	0.37	2.36	0.57	1.14	0.75
OPNS12810-08-08	12	1/2"	- 08	1/2" - 14	0.49	2.60	0.76	1.37	0.94
OPNS12810-08-12	12	1/2"	- 08	3/4" - 14	0.63	2.62	0.76	1.39	1.06
OPNS12810-10-08	16	5/8"	- 10	1/2" - 14	0.49	2.87	0.76	1.52	0.94
OPNS12810-10-12	16	5/8"	- 10	3/4" - 14	0.63	2.93	0.76	1.58	1.06
OPNS12810-12-08	19	3/4"	- 12	1/2" - 14	0.49	2.87	0.76	1.44	1.06
OPNS12810-12-12	19	3/4"	- 12	3/4" - 14	0.63	2.87	0.76	1.44	1.06
OPNS12810-12-16	19	3/4"	- 12	1" - 11.5	0.78	3.25	0.95	1.81	1.42
OPNS12810-16-12	25	1"	- 16	3/4" - 14	0.61	3.43	0.76	1.53	1.26
OPNS12810-16-16	25	1"	- 16	1" - 11.5	0.78	3.62	0.95	1.72	1.42
OPNS12810-16-20	25	1"	- 16	1.1/4" - 11.5	1.02	4.11	0.98	2.22	1.81
OPNS12810-20-20	31	1.1/4"	- 20	1.1/4" - 11.5	1.02	4.29	0.98	2.22	1.81
OPNS12810-24-24	38	1.1/2"	- 24	1.1/2" - 11.5	1.26	4.71	1.02	2.27	1.97
OPNS12810-32-32	51	2"	- 32	2" - 11.5	1.77	5.13	1.04	2.53	2.56



# OPNS TYPE

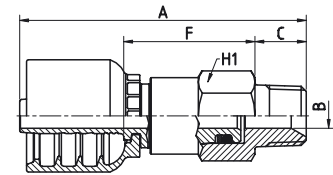


## NPTF STANDARD CONNECTIONS

### OPNS14110

NPTF SWIVEL MALE 30° CONE SEAT - SAE J516

NPTF MACHO GIRATORIO CUERDA CONICA ASIENTO A 30° - SAE J516



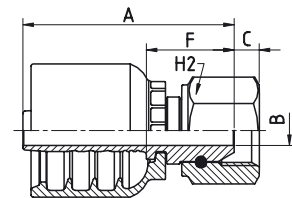
PART. REF.	HOSE BORE			THREAD	DIMENSIONS inch					
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	DN	inch	Size		B	A	C	F		H <sub>2</sub>
OPNS14110-06-06	10	3/8"	- 06	3/8" - 18	0.28	3.15	0.57	1.99		0.87
OPNS14110-06-08	10	3/8"	- 06	1/2" - 14	0.37	3.33	0.76	2.17		0.94
OPNS14110-08-08	12	1/2"	- 08	1/2" - 14	0.37	3.55	0.76	2.32		1.06
OPNS14110-12-12	19	3/4"	- 12	3/4" - 14	0.63	3.72	0.76	2.28		1.26
OPNS14110-16-16	25	1"	- 16	1" - 11.5	0.78	4.49	0.95	2.59		1.50

### OPNS22812

NPSM FEMALE 30° CONE - SAE J514 (THRUST-WIRE NUT)

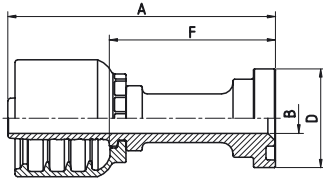
NPSM HEMBRA RECTA ASIENTO A 30° CUERDA RECTA - SAE J514  
(TUERCA GIRATORIA SOBRE LA ESPIGA)



PART. REF.	HOSE BORE			THREAD	DIMENSIONS inch					
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	DN	inch	Size		B	A	C	F		H <sub>2</sub>
OPNS22812-06-06	10	3/8"	- 06	3/8" - 18	0.28	1.98	0.24	0.82		0.87
OPNS22812-08-08	12	1/2"	- 08	1/2" - 14	0.37	2.12	0.26	0.90		1.06
OPNS22812-12-12	19	3/4"	- 12	3/4" - 14	0.59	2.40	0.35	0.96		1.26
OPNS22812-16-16	25	1"	- 16	1" - 11.5	0.78	2.97	0.41	1.07		1.50

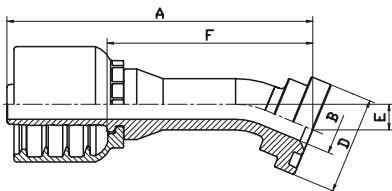
## FLANGE CODE 61 STANDARD CONNECTIONS



### OPNS23311

FLANGE STRAIGHT HEAD CODE 61 - SAE J516/J518  
BRIDA RECTA CODIGO 61 - SAE J516/J518

PART. REF.	HOSE BORE			FLANGE	DIMENSIONS inch				
	DN	inch	Size		B	A	D	F	
OPNS23311-08-08	12	1/2"	- 08	1/2"	0.37	3.23	1.19	2.00	
OPNS23311-08-12	12	1/2"	- 08	3/4"	0.59	3.50	1.50	2.27	
OPNS23311-10-12	16	5/8"	- 10	3/4"	0.59	3.94	1.50	2.59	
OPNS23311-12-12	19	3/4"	- 12	3/4"	0.59	3.72	1.50	2.28	
OPNS23311-12-16	19	3/4"	- 12	1"	0.79	3.72	1.75	2.28	
OPNS23311-16-16	25	1"	- 16	1"	0.78	4.43	1.75	2.53	
OPNS23311-16-20	25	1"	- 16	1.1/4"	1.02	4.67	2.00	2.77	
OPNS23311-20-20	31	1.1/4"	- 20	1.1/4"	1.02	4.85	2.00	2.78	
OPNS23311-20-24	31	1.1/4"	- 20	1.1/2"	1.26	4.92	2.38	2.85	
OPNS23311-24-24	38	1.1/2"	- 24	1.1/2"	1.26	5.42	2.38	2.98	
OPNS23311-24-32	38	1.1/2"	- 24	2"	1.65	5.42	2.81	2.98	
OPNS23311-32-32	51	2"	- 32	2"	1.65	5.71	2.81	3.11	
OPNS23311-32-40	51	2"	- 32	2.1/2"	2.20	5.79	3.32	3.19	



### OPNS23321

FLANGE HEAD 22.5° CODE 61 - SAE J516/J518  
BRIDA CODO 22.5° CODIGO 61 - SAE J516/J518

PART. REF.	HOSE BORE			FLANGE	DIMENSIONS inch				
	DN	inch	Size		B	A	D	E	F
OPNS23321-08-08	12	1/2"	- 08	1/2"	0.37	3.74	1.19	0.31	2.52
OPNS23321-12-12	19	3/4"	- 12	3/4"	0.59	4.38	1.50	0.39	2.94
OPNS23321-12-16	19	3/4"	- 12	1"	0.79	4.38	1.75	0.39	2.94
OPNS23321-16-16	25	1"	- 16	1"	0.78	5.39	1.75	0.45	3.50
OPNS23321-20-20	31	1.1/4"	- 20	1.1/4"	1.02	6.00	2.00	0.47	3.94
OPNS23321-20-24	31	1.1/4"	- 20	1.1/2"	1.26	6.07	2.38	0.50	4.01

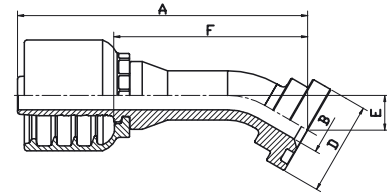
# OPNS TYPE



## FLANGE CODE 61 STANDARD CONNECTIONS

### OPNS23331

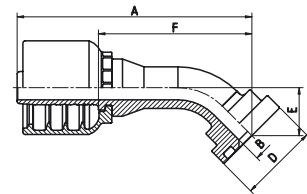
FLANGE HEAD 30° CODE 61 - SAE J516/J518  
BRIDA CODO 30° CODIGO 61 - SAE J516/J518



PART. REF.	HOSE BORE			FLANGE	DIMENSIONS inch				
	DN	inch	Size		B	A	D	E	F
OPNS23331-08-08	12	1/2"	-08	1/2"	0.37	3.69	1.19	0.44	2.46
OPNS23331-12-12	19	3/4"	-12	3/4"	0.59	4.32	1.50	0.55	2.88
OPNS23331-12-16	19	3/4"	-12	1"	0.79	4.32	1.75	0.55	2.88
OPNS23331-16-16	25	1"	-16	1"	0.78	5.31	1.75	0.65	3.42
OPNS23331-20-20	31	1.1/4"	-20	1.1/4"	1.02	5.93	2.00	0.69	3.86
OPNS23331-24-24	38	1.1/2"	-24	1.1/2"	1.26	6.94	2.38	0.79	4.50

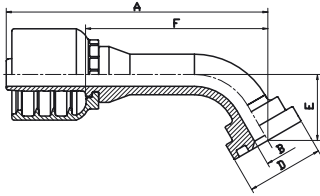
### OPNS23341

FLANGE HEAD 45° CODE 61 - SAE J516/J518  
BRIDA CODO 45° CODIGO 61 - SAE J516/J518



PART. REF.	HOSE BORE			FLANGE	DIMENSIONS inch				
	DN	inch	Size		B	A	D	E	F
OPNS23341-08-08	12	1/2"	-08	1/2"	0.37	3.53	1.19	0.73	2.30
OPNS23341-08-12	12	1/2"	-08	3/4"	0.59	3.57	1.50	0.75	2.34
OPNS23341-10-12	16	5/8"	-10	3/4"	0.59	3.75	1.50	0.87	2.40
OPNS23341-12-12	19	3/4"	-12	3/4"	0.59	4.13	1.50	0.91	2.70
OPNS23341-12-16	19	3/4"	-12	1"	0.79	4.13	1.75	0.91	2.70
OPNS23341-16-16	25	1"	-16	1"	0.78	5.11	1.75	1.08	3.21
OPNS23341-16-20	25	1"	-16	1.1/4"	1.02	5.11	2.00	1.07	3.21
OPNS23341-20-20	31	1.1/4"	-20	1.1/4"	1.02	5.69	2.00	1.16	3.62
OPNS23341-20-24	31	1.1/4"	-20	1.1/2"	1.26	5.75	2.38	1.22	3.68
OPNS23341-24-24	38	1.1/2"	-24	1.1/2"	1.26	6.67	2.38	1.36	4.23
OPNS23341-24-32	38	1.1/2"	-24	2"	1.65	6.67	2.81	1.36	4.23
OPNS23341-32-32	51	2"	-32	2"	1.65	7.48	2.81	1.54	4.88

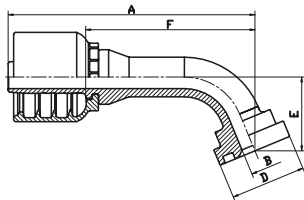
## FLANGE CODE 61 STANDARD CONNECTIONS



### OPNS23361

FLANGE HEAD 60° CODE 61 - SAE J516/J518  
BRIDA CODO 60° CODIGO 61 - SAE J516/J518

PART. REF.	HOSE BORE			FLANGE	DIMENSIONS inch				
	DN	inch	Size		B	A	D	E	F
OPNS23361-08-08	12	1/2"	- 08	1/2"	0.37	4.04	1.19	1.02	2.81
OPNS23361-12-12	19	3/4"	- 12	3/4"	0.59	4.86	1.50	1.30	3.42
OPNS23361-16-16	25	1"	- 16	1"	0.78	5.98	1.75	1.54	4.09
OPNS23361-16-20	25	1"	- 16	1.1/4"	1.02	5.98	2.00	1.54	4.09
OPNS23361-20-20	31	1.1/4"	- 20	1.1/4"	1.02	6.79	2.00	1.69	4.72
OPNS23361-20-24	31	1.1/4"	- 20	1.1/2"	1.26	6.83	2.38	1.76	4.76
OPNS23361-24-24	38	1.1/2"	- 24	1.1/2"	1.26	8.09	2.38	2.00	5.65



### OPNS23371

FLANGE HEAD 67.5° CODE 61 - SAE J516/J518  
BRIDA CODO 67.5° CODIGO 61 - SAE J516/J518

PART. REF.	HOSE BORE			FLANGE	DIMENSIONS inch				
	DN	inch	Size		B	A	D	E	F
OPNS23371-08-08	12	1/2"	- 08	1/2"	0.37	3.90	1.19	1.17	2.67
OPNS23371-12-12	19	3/4"	- 12	3/4"	0.59	4.67	1.50	1.50	3.24
OPNS23371-12-16	19	3/4"	- 12	1"	0.79	4.67	1.75	1.50	3.24
OPNS23371-16-16	25	1"	- 16	1"	0.78	5.78	1.75	1.77	3.88
OPNS23371-20-20	31	1.1/4"	- 20	1.1/4"	1.02	6.56	2.00	1.97	4.49
OPNS23371-24-24	38	1.1/2"	- 24	1.1/2"	1.26	7.81	2.38	2.33	5.37

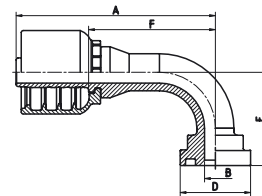
# OPNS TYPE



## FLANGE CODE 61 STANDARD CONNECTIONS

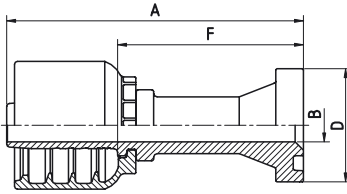
### OPNS23391

FLANGE HEAD 90° CODE 61 - SAE J516/J518  
BRIDA CODO 90° CODIGO 61 - SAE J516/J518



PART. REF.	HOSE BORE			FLANGE	DIMENSIONS inch				
	DN	inch	Size		B	A	D	E	F
OPNS23391-08-08	12	1/2"	- 08	1/2"	0.37	3.37	1.19	1.57	2.15
OPNS23391-08-12	12	1/2"	- 08	3/4"	0.59	3.37	1.50	1.61	2.15
OPNS23391-10-12	16	5/8"	- 10	3/4"	0.59	3.50	1.50	1.87	2.15
OPNS23391-12-12	19	3/4"	- 12	3/4"	0.59	3.98	1.50	2.05	2.54
OPNS23391-12-16	19	3/4"	- 12	1"	0.79	3.98	1.75	2.05	2.54
OPNS23391-16-16	25	1"	- 16	1"	0.78	4.95	1.75	2.44	3.05
OPNS23391-16-20	25	1"	- 16	1.1/4"	1.02	4.95	2.00	2.44	3.05
OPNS23391-20-20	31	1.1/4"	- 20	1.1/4"	1.02	5.63	2.00	2.76	3.56
OPNS23391-20-24	31	1.1/4"	- 20	1.1/2"	1.26	5.63	2.38	2.83	3.56
OPNS23391-24-24	38	1.1/2"	- 24	1.1/2"	1.26	6.69	2.38	3.31	4.25
OPNS23391-24-32	38	1.1/2"	- 24	2"	1.65	6.85	2.81	3.31	4.25
OPNS23391-32-32	51	2"	- 32	2"	1.65	7.68	2.81	3.90	5.08

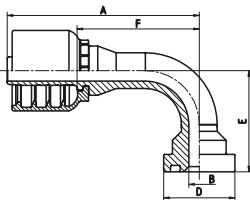
## FLANGE CODE 62 STANDARD CONNECTIONS



### OPNS23611

STRAIGHT SAE FLANGE CODE 62 - SAE J516/J518  
BRIDA RECTA CODIGO 62 - SAE J516/J518

PART. REF.	HOSE BORE			FLANGE	DIMENSIONS inch					
	DN	inch	Size		B	A	D	F		
OPNS23611-08-08	12	1/2"	- 08	1/2"	0.37	3.28	1.25	2.05		
OPNS23611-08-12	12	1/2"	- 08	3/4"	0.59	3.92	1.63	2.69		
OPNS23611-10-08	16	5/8"	- 10	1/2"	0.37	3.40	1.25	2.05		
OPNS23611-10-12	16	5/8"	- 10	3/4"	0.59	4.11	1.63	2.76		
OPNS23611-12-12	19	3/4"	- 12	3/4"	0.59	4.15	1.63	2.72		
OPNS23611-12-16	19	3/4"	- 12	1"	0.79	4.63	1.88	3.19		
OPNS23611-16-16	25	1"	- 16	1"	0.78	5.14	1.88	3.24		
OPNS23611-16-20	25	1"	- 16	1.1/4"	1.02	5.43	2.13	3.54		
OPNS23611-20-20	31	1.1/4"	- 20	1.1/4"	1.02	5.40	2.13	3.33		
OPNS23611-20-24	31	1.1/4"	- 20	1.1/2"	1.26	5.63	2.50	3.56		
OPNS23611-24-24	38	1.1/2"	- 24	1.1/2"	1.26	6.06	2.50	3.65		
OPNS23611-32-32	51	2"	- 32	2"	1.65	6.85	3.13	4.25		



### OPNS23691

90° SAE FLANGE CODE 62 - SAE J516/J518  
BRIDA CODO 90° CODIGO 62 - SAE J516/J518

PART. REF.	HOSE BORE			FLANGE	DIMENSIONS inch					
	DN	inch	Size		B	A	D	E	F	
OPNS23691-08-08	12	1/2"	- 08	1/2"	0.37	3.37	1.25	1.77	2.15	
OPNS23691-08-12	12	1/2"	- 08	3/4"	0.59	3.37	1.63	2.09	2.15	
OPNS23691-10-12	16	5/8"	- 10	3/4"	0.59	3.56	1.63	2.28	2.20	
OPNS23691-10-16	16	5/8"	- 10	1"	0.78	3.54	1.88	2.56	2.19	
OPNS23691-12-12	19	3/4"	- 12	3/4"	0.59	3.96	1.63	2.40	2.52	
OPNS23691-12-16	19	3/4"	- 12	1"	0.79	3.98	1.88	2.64	2.54	
OPNS23691-16-16	25	1"	- 16	1"	0.78	4.79	1.88	2.68	2.89	
OPNS23691-16-20	25	1"	- 16	1.1/4"	1.02	4.79	2.13	2.95	2.89	
OPNS23691-20-20	31	1.1/4"	- 20	1.1/4"	1.02	5.44	2.13	3.19	3.37	
OPNS23691-20-24	31	1.1/4"	- 20	1.1/2"	1.26	5.44	2.50	3.60	3.37	
OPNS23691-24-24	38	1.1/2"	- 24	1.1/2"	1.26	6.61	2.50	3.72	4.17	
OPNS23691-32-32	51	2"	- 32	2"	1.65	8.03	3.13	5.20	5.43	



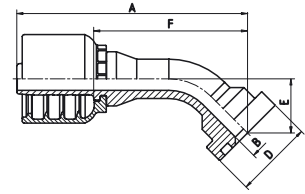
# OPNS TYPE



## FLANGE CODE 62 STANDARD CONNECTIONS

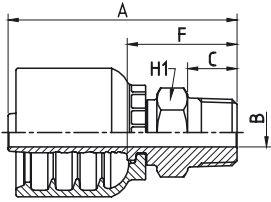
### OPNS23641

45° SAE FLANGE CODE 62 - SAE J516/J518  
BRIDA CODO 45° CODIGO 62 - SAE J516/J518



PART. REF.	HOSE BORE			FLANGE	DIMENSIONS inch				
	DN	inch	Size		B	A	D	E	F
OPNS23641-08-08	12	1/2"	- 08	1/2"	0.37	3.67	1.25	0.87	2.44
OPNS23641-08-12	12	1/2"	- 08	3/4"	0.59	3.90	1.63	1.08	2.68
OPNS23641-10-12	16	5/8"	- 10	3/4"	0.59	4.01	1.63	1.22	2.66
OPNS23641-12-12	19	3/4"	- 12	3/4"	0.59	4.35	1.63	1.16	2.91
OPNS23641-12-16	19	3/4"	- 12	1"	0.79	4.55	1.88	1.32	3.11
<b>NEW</b> OPNS23641-16-12	25	1"	- 16	3/4"	0.59	5.04	1.63	1.18	3.15
OPNS23641-16-16	25	1"	- 16	1"	0.78	5.18	1.88	1.28	3.29
OPNS23641-16-20	25	1"	- 16	1.1/4"	1.02	5.38	2.13	1.47	3.48
OPNS23641-20-20	31	1.1/4"	- 20	1.1/4"	1.02	5.83	2.13	1.47	3.76
OPNS23641-20-24	31	1.1/4"	- 20	1.1/2"	1.26	6.11	2.50	1.77	4.04
OPNS23641-24-24	38	1.1/2"	- 24	1.1/2"	1.26	7.09	2.50	1.73	4.65
OPNS23641-32-32	51	2"	- 32	2"	1.65	8.56	3.13	2.38	5.96

## BSPT STANDARD CONNECTIONS



### OPNS10710

**BSP MALE TAPERED**  
BSP MACHO CUERDA CONICA

PART. REF.	HOSE BORE	THREAD	DIMENSIONS inch
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	DN	inch	Size		B	A	C	F	Hi	
OPNS10710-06-06	10	3/8"	- 06	3/8" - 19	0.28	2.22	0.47	1.07	0.75	
OPNS10710-06-08	10	3/8"	- 06	1/2" - 14	0.39	2.36	0.59	1.20	0.87	
OPNS10710-08-04	12	1/2"	- 08	1/4" - 19	0.18	2.24	0.47	1.02	0.75	
OPNS10710-08-08	12	1/2"	- 08	1/2" - 14	0.39	2.45	0.59	1.22	0.87	
OPNS10710-10-08	16	5/8"	- 10	1/2" - 14	0.39	2.57	0.59	1.22	0.87	
OPNS10710-10-12	16	5/8"	- 10	3/4" - 14	0.67	2.81	0.67	1.46	1.06	
OPNS10710-12-12	19	3/4"	- 12	3/4" - 14	0.67	2.83	0.67	1.40	1.06	
OPNS10710-16-16	25	1"	- 16	1" - 11	0.89	3.54	0.83	1.65	1.42	
OPNS10710-20-20	31	1.1/4"	- 20	1.1/4" - 11	1.12	3.94	0.91	1.87	1.81	
OPNS10710-24-24	38	1.1/2"	- 24	1.1/2" - 11	1.26	4.41	0.91	1.97	1.97	
OPNS10710-32-32	51	2"	- 32	2" - 11	1.73	4.78	1.06	2.18	2.56	

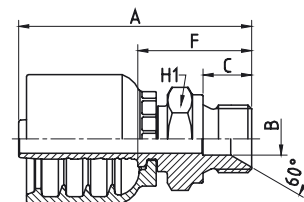
# OPNS TYPE



## BSP STANDARD CONNECTIONS

### OPNS10510

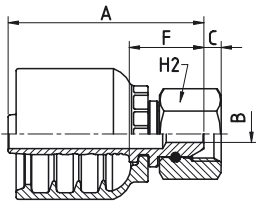
BSP MALE PARALLEL 60° CONE SEAT - BS5200  
 BSP MACHO CUERDA RECTA ASIENTO A 60° - BS5200



PART. REF.	HOSE BORE			THREAD	DIMENSIONS inch					
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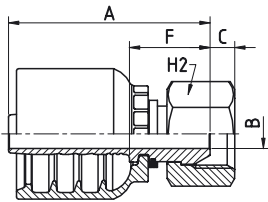
	DN	inch	Size		B	A	D	F	H <sub>1</sub>	
<b>NEW</b> OPNS10510-06-04	10	3/8"	- 06	1/4" - 19	0.20	2.18	0.43	1.02	0.75	
OPNS10510-06-06	10	3/8"	- 06	3/8" - 19	0.31	2.26	0.47	1.11	0.87	
OPNS10510-06-08	10	3/8"	- 06	1/2" - 14	0.43	2.36	0.55	1.20	1.06	
OPNS10510-08-06	12	1/2"	- 08	3/8" - 19	0.31	2.33	0.47	1.11	0.87	
OPNS10510-08-08	12	1/2"	- 08	1/2" - 14	0.43	2.45	0.55	1.22	1.06	
OPNS10510-08-10	12	1/2"	- 08	5/8" - 14	0.57	2.53	0.63	1.30	1.18	
OPNS10510-08-12	12	1/2"	- 08	3/4" - 14	0.67	2.57	0.63	1.34	1.26	
OPNS10510-10-10	16	5/8"	- 10	5/8" - 14	0.57	2.65	0.63	1.30	1.18	
OPNS10510-10-12	16	5/8"	- 10	3/4" - 14	0.67	2.69	0.63	1.34	1.26	
OPNS10510-12-12	19	3/4"	- 12	3/4" - 14	0.67	2.83	0.63	1.40	1.26	
OPNS10510-12-16	19	3/4"	- 12	1" - 11	0.89	2.99	0.75	1.56	1.61	
OPNS10510-16-16	25	1"	- 16	1" - 11	0.89	3.50	0.75	1.61	1.61	
OPNS10510-16-20	25	1"	- 16	1.1/4" - 11	1.12	3.66	0.79	1.76	1.97	
OPNS10510-20-20	31	1.1/4"	- 20	1.1/4" - 11	1.12	3.90	0.79	1.83	1.97	
OPNS10510-24-24	38	1.1/2"	- 24	1.1/2" - 11	1.32	4.39	0.87	1.95	2.17	
OPNS10510-32-32	51	2"	- 32	2" - 11	1.81	4.72	0.98	2.12	2.76	

## BSP STANDARD CONNECTIONS



### OPNS20512

**BSP FEMALE 60° CONE - BS5200 (THRUST-WIRE NUT)**  
 BSP HEMBRA RECTA ASIENTO A 60° - BS5200  
 (TUERCA GIRATORIA SOBRE LA ESPIGA)



### OPNS20513

**BSP FEMALE 60° CONE - BS5200 (SLIP-ON NUT)**  
 BSP HEMBRA RECTA ASIENTO A 60° - BS5200  
 (TUERCA DESLIZABLE SOBRE LA ESPIGA)

PART. REF.	HOSE BORE	THREAD	DIMENSIONS inch
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	DN	inch	Size		B	A	C	F	H <sub>2</sub>	
OPNS20512-06-04	10	3/8"	- 06	1/4" - 19	0.16	1.87	0.17	0.71	0.75	
OPNS20513-06-06	10	3/8"	- 06	3/8" - 19	0.28	1.93	0.24	0.77	0.87	
OPNS20513-06-08	10	3/8"	- 06	1/2" - 14	0.37	1.98	0.26	0.79	1.06	
OPNS20512-08-06	12	1/2"	- 08	3/8" - 19	0.28	2.05	0.24	0.82	0.87	
OPNS20513-08-08	12	1/2"	- 08	1/2" - 14	0.37	2.07	0.26	0.80	1.06	
OPNS20512-08-10	12	1/2"	- 08	5/8" - 14	0.48	2.09	0.40	0.86	1.10	
OPNS20512-08-12	12	1/2"	- 08	3/4" - 14	0.59	2.15	0.35	0.92	1.26	
OPNS20512-10-10	16	5/8"	- 10	5/8" - 14	0.49	2.20	0.40	0.85	1.10	
OPNS20512-10-12	16	5/8"	- 10	3/4" - 14	0.59	2.26	0.35	0.91	1.26	
OPNS20512-12-12	19	3/4"	- 12	3/4" - 14	0.59	2.40	0.35	0.96	1.26	
OPNS20512-12-16	19	3/4"	- 12	1" - 11	0.78	2.46	0.41	1.02	1.50	
OPNS20512-16-16	25	1"	- 16	1" - 11	0.78	2.97	0.41	1.07	1.50	

# OPNS TYPE

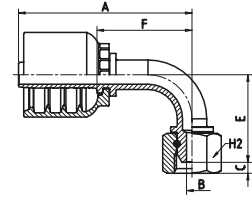


## BSP STANDARD CONNECTIONS

### OPNS20592

90° BSP FEMALE SWEPT ELBOW 60° CONE - BS5200  
(THRUST-WIRE NUT)

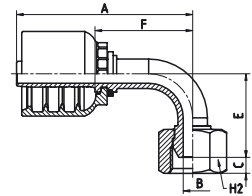
BSP HEMBRA CODO 90° ASIENTO A 60° - BS5200  
(TUERCA GIRATORIA SOBRE LA ESPIGA)



### OPNS20593

90° BSP FEMALE SWEPT ELBOW 60° CONE - BS5200  
(SLIP-ON NUT)

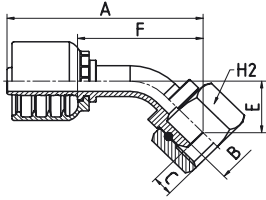
BSP HEMBRA CODO 90° ASIENTO A 60° - BS5200  
(TUERCA DESLIZABLE SOBRE LA ESPIGA)



PART. REF.	HOSE BORE			THREAD	DIMENSIONS inch					
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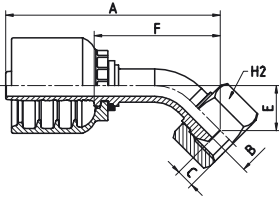
	DN	inch	Size		B	A	C	E	F	H <sub>2</sub>
OPNS20593-06-06	10	3/8"	- 06	3/8" - 19	0.28	2.59	0.24	1.24	1.44	0.87
OPNS20593-06-08	10	3/8"	- 06	1/2" - 14	0.37	2.59	0.26	1.26	1.44	1.06
OPNS20593-08-06	12	1/2"	- 08	3/8" - 19	0.28	2.99	0.24	1.61	1.77	0.87
OPNS20593-08-08	12	1/2"	- 08	1/2" - 14	0.37	3.00	0.26	1.44	1.77	1.06
OPNS20592-08-10	12	1/2"	- 08	5/8" - 14	0.48	2.96	0.40	1.73	1.73	1.10
OPNS20592-08-12	12	1/2"	- 08	3/4" - 14	0.59	2.96	0.35	1.79	1.73	1.26
OPNS20592-10-10	16	5/8"	- 10	5/8" - 14	0.49	3.46	0.40	2.11	2.11	1.10
OPNS20592-10-12	16	5/8"	- 10	3/4" - 14	0.59	3.46	0.35	2.17	2.11	1.26
OPNS20592-12-12	19	3/4"	- 12	3/4" - 14	0.61	3.86	0.35	2.34	2.42	1.26
OPNS20592-12-16	19	3/4"	- 12	1" - 11	0.78	3.86	0.41	2.44	2.42	1.50
OPNS20592-16-16	25	1"	- 16	1" - 11	0.78	5.03	0.41	2.99	3.13	1.50

## BSP STANDARD CONNECTIONS



### OPNS20542

**45° BSP FEMALE SWEPT ELBOW 60° CONE - BS5200  
(THRUST-WIRE NUT)**  
BSP HEMBRA CODO 45° ASIENTO A 60° - BS5200  
(TUERCA GIRATORIA SOBRE LA ESPIGA)



### OPNS20543

**45° BSP FEMALE SWEPT ELBOW 60° CONE - BS5200  
(SLIP-ON NUT)**  
BSP HEMBRA CODO 45° ASIENTO A 60° - BS5200  
(TUERCA DESLIZABLE SOBRE LA ESPIGA)

PART. REF.	HOSE BORE	THREAD	DIMENSIONS inch							
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	DN	inch	Size		B	A	C	E	F	H <sub>2</sub>
OPNS20543-06-06	10	3/8"	- 06	3/8" - 19	0.28	2.81	0.24	0.59	1.65	0.87
OPNS20543-06-08	10	3/8"	- 06	1/2" - 14	0.37	2.83	0.26	0.63	1.67	1.06
OPNS20543-08-08	12	1/2"	- 08	1/2" - 14	0.37	3.17	0.26	0.67	1.95	1.06
OPNS20542-08-10	12	1/2"	- 08	5/8" - 14	0.48	3.37	0.40	0.89	2.15	1.10
OPNS20542-10-10	16	5/8"	- 10	5/8" - 14	0.49	3.83	0.40	1.02	2.48	1.10
OPNS20542-10-12	16	5/8"	- 10	3/4" - 14	0.59	3.87	0.35	1.06	2.52	1.26
OPNS20542-12-12	19	3/4"	- 12	3/4" - 14	0.61	4.21	0.35	1.12	2.78	1.26
OPNS20542-12-16	19	3/4"	- 12	1" - 11	0.78	4.29	0.41	1.18	2.85	1.50
OPNS20542-16-16	25	1"	- 16	1" - 11	0.78	5.48	0.41	1.44	3.58	1.50

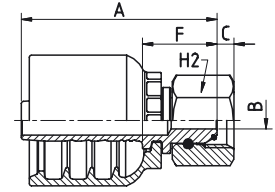
# OPNS TYPE



## BSP STANDARD CONNECTIONS

### OPNS20812

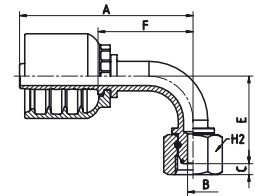
**BSP O-RING FEMALE 60° CONE - BS5200 (THRUST-WIRE NUT)**  
**BSP HEMBRA RECTA CON O-RING ASIENTO A 60° - BS5200**  
**(TUERCA GIRATORIA SOBRE LA ESPIGA)**



PART. REF.	HOSE BORE			THREAD	DIMENSIONS inch				
	DN	inch	Size		B	A	C	F	H <sub>2</sub>
OPNS20812-06-04	10	3/8"	- 06	1/4" - 19	0.16	1.87	0.19	0.71	0.75
OPNS20812-06-06	10	3/8"	- 06	3/8" - 19	0.28	1.96	0.24	0.80	0.87
OPNS20812-08-08	12	1/2"	- 08	1/2" - 14	0.37	2.02	0.26	0.80	1.06
OPNS20812-10-10	16	5/8"	- 10	5/8" - 14	0.49	2.22	0.38	0.87	1.18
OPNS20812-12-12	19	3/4"	- 12	3/4" - 14	0.59	2.42	0.33	0.98	1.26
OPNS20812-16-16	25	1"	- 16	1" - 11	0.78	2.97	0.42	1.07	1.50
OPNS20812-16-20	25	1"	- 16	1.1/4" - 11	1.03	3.11	0.41	1.21	1.97
OPNS20812-20-20	31	1.1/4"	- 20	1.1/4" - 11	1.02	3.31	0.41	1.24	1.97
OPNS20812-20-24	31	1.1/4"	- 20	1.1/2" - 11	1.26	3.23	0.49	1.16	2.36
OPNS20812-24-24	38	1.1/2"	- 24	1.1/2" - 11	1.26	3.64	0.49	1.20	2.36
OPNS20812-24-32	38	1.1/2"	- 24	2" - 11	1.66	3.62	0.63	1.18	2.76
OPNS20812-32-32	51	2"	- 32	2" - 11	1.65	3.86	0.63	1.26	2.76

### OPNS20892

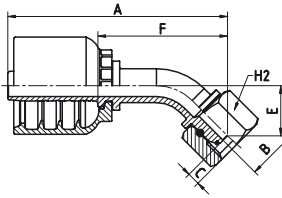
**90° BSP O-RING FEMALE 60° CONE - BS5200 (THRUST-WIRE NUT)**  
**BSP HEMBRA CODO 90° CON O-RING ASIENTO A 60° - BS5200**  
**(TUERCA GIRATORIA SOBRE LA ESPIGA)**



PART. REF.	HOSE BORE			THREAD	DIMENSIONS inch					
	DN	inch	Size		B	A	C	E	F	H <sub>2</sub>
OPNS20892-06-04	10	3/8"	-06	1/4" - 19	0.16	2.56	0.19	1.30	1.40	0.75
OPNS20892-06-06	10	3/8"	-06	3/8" - 19	0.28	2.56	0.24	1.42	1.40	0.87
OPNS20892-08-08	12	1/2"	-08	1/2" - 14	0.37	2.98	0.26	1.65	1.75	1.06
OPNS20892-10-10	16	5/8"	-10	5/8" - 14	0.49	3.44	0.38	2.17	2.09	1.18
OPNS20892-12-12	19	3/4"	-12	3/4" - 14	0.59	3.86	0.33	2.36	2.42	1.26
OPNS20892-16-16	25	1"	-16	1" - 11	0.78	5.03	0.42	2.99	3.13	1.50
OPNS20892-16-20	25	1"	-16	1.1/4" - 11	1.03	5.03	0.41	3.09	3.13	1.97
OPNS20892-20-20	31	1.1/4"	-20	1.1/4" - 11	1.02	5.63	0.41	3.29	3.56	1.97
OPNS20892-20-24	31	1.1/4"	-20	1.1/2" - 11	1.26	5.63	0.49	3.33	3.56	2.36
OPNS20892-24-24	38	1.1/2"	-24	1.1/2" - 11	1.26	6.69	0.49	3.88	4.25	2.36
OPNS20892-32-32	51	2"	32	2" - 11	1.65	7.76	0.63	4.35	5.16	2.76



## BSP STANDARD CONNECTIONS



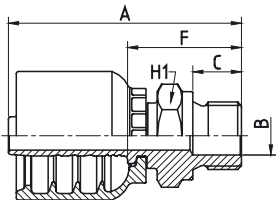
### OPNS20842

**45° BSP O-RING FEMALE 60° CONE - BS5200  
(THRUST-WIRE NUT)**

**BSP HEMBRA CODO 45° CON O-RING ASIENTO A 60° - BS5200  
(TUERCA GIRATORIA SOBRE LA ESPIGA)**

PART. REF.	HOSE BORE	THREAD	DIMENSIONS inch						
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	DN	inch	Size		B	A	C	E	F	H <sub>2</sub>
OPNS20842-04-04	6	1/4"	- 04	1/4" - 19	0.16	2.50	0.19	0.59	1.42	0.75
OPNS20842-06-06	10	3/8"	- 06	3/8" - 19	0.28	2.91	0.24	0.73	1.75	0.87
OPNS20842-08-08	12	1/2"	- 08	1/2" - 14	0.37	3.27	0.26	0.81	2.05	1.06
OPNS20842-10-10	16	5/8"	- 10	5/8" - 14	0.49	3.85	0.38	1.08	2.50	1.18
OPNS20842-12-12	19	3/4"	- 12	3/4" - 14	0.61	4.23	0.33	1.14	2.80	1.26
OPNS20842-16-16	25	1"	- 16	1" - 11	0.78	5.46	0.42	1.40	3.56	1.50
OPNS20842-20-20	31	1.1/4"	- 20	1.1/4" - 11	1.02	6.06	0.41	1.54	4.00	1.97
OPNS20842-24-24	38	1.1/2"	- 24	1.1/2" - 11	1.26	7.09	0.49	1.77	4.65	2.36
OPNS20842-32-32	51	2"	- 32	2" - 11	1.65	7.88	0.63	1.85	5.28	2.76



### OPNS10610

**BSP MALE FLAT SEAT  
BSP MACHO ASIENTO PLANO**

PART. REF.	HOSE BORE	THREAD	DIMENSIONS inch						
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	DN	inch	Size		B	A	C	F	H <sub>1</sub>
OPNS10610-06-06	10	3/8"	- 06	3/8" - 19	0.37	2.26	0.47	1.11	0.87
OPNS10610-06-08	10	3/8"	- 06	1/2" - 14	0.51	2.36	0.55	1.20	1.06
OPNS10610-08-08	12	1/2"	- 08	1/2" - 14	0.51	2.45	0.55	1.22	1.06
OPNS10610-12-12	19	3/4"	- 12	3/4" - 14	0.71	2.83	0.63	1.40	1.26

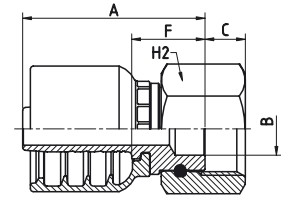
# OPNS TYPE



## BSP STANDARD CONNECTIONS

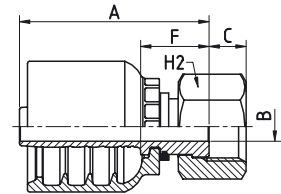
### OPNS20612

**BSP FEMALE FLAT SEAT (THRUST-WIRE NUT)**  
 BSP HEMBRA RECTA ASIENTO PLANO  
 (TUERCA GIRATORIA SOBRE LA ESPIGA)



### OPNS20613

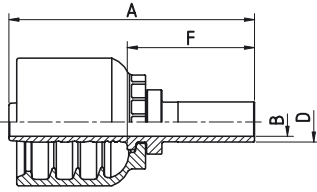
**BSP FEMALE FLAT SEAT (SLIP-ON NUT)**  
 BSP HEMBRA RECTA ASIENTO PLANO  
 (TUERCA DESLIZABLE SOBRE LA ESPIGA)



PART. REF.	HOSE BORE			THREAD	DIMENSIONS inch					
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	DN	inch	Size		B	A	C	F	H <sub>2</sub>	
OPNS20613-06-06	10	3/8"	- 06	3/8" - 19	0.28	1.81	0.35	0.65	0.87	
OPNS20613-06-08	10	3/8"	- 06	1/2" - 14	0.37	1.85	0.39	0.69	1.06	
OPNS20613-08-08	12	1/2"	- 08	1/2" - 14	0.37	1.93	0.39	0.70	1.06	
OPNS20612-08-12	12	1/2"	- 08	3/4" - 14	0.59	2.05	0.45	0.82	1.26	
OPNS20612-10-12	16	5/8"	- 10	3/4" - 14	0.59	2.17	0.45	0.81	1.26	
OPNS20612-12-12	19	3/4"	- 12	3/4" - 14	0.59	2.30	0.45	0.87	1.26	
OPNS20612-12-16	19	3/4"	- 12	1" - 11	0.78	2.36	0.51	0.93	1.50	
OPNS20612-16-16	25	1"	- 16	1" - 11	0.78	2.87	0.51	0.98	1.50	

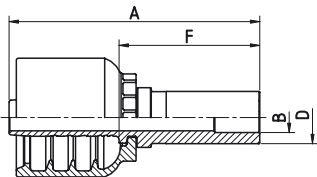
## METRIC STANDPIPE STANDARD CONNECTIONS



### OPNS22010

METRIC STANDPIPE STRAIGHT L.T. - DIN 2353  
TUBO LISO MILIMETRICO RECTO SERIE LIGERA L.T. - DIN 2353

PART. REF.	HOSE BORE			PIPE	DIMENSIONS inch			
	DN	inch	Size	mm	B	A	C	F
OPNS22010-06-10	10	3/8"	- 06	10	0.28	2.36	0.91	1.20
OPNS22010-06-12	10	3/8"	- 06	12	0.31	2.36	0.91	1.20
OPNS22010-06-15	10	3/8"	- 06	15	0.41	2.44	0.98	1.28
OPNS22010-08-12	12	1/2"	- 08	12	0.31	2.44	0.91	1.22
OPNS22010-08-15	12	1/2"	- 08	15	0.41	2.52	0.98	1.30
OPNS22010-08-18	12	1/2"	- 08	18	0.49	2.56	1.02	1.33
OPNS22010-10-18	16	5/8"	- 10	18	0.49	2.70	1.02	1.35
OPNS22010-10-22	16	5/8"	- 10	22	0.59	2.78	1.10	1.43
OPNS22010-12-18	19	3/4"	- 12	18	0.59	2.86	1.02	1.43
OPNS22010-12-22	19	3/4"	- 12	22	0.59	2.93	1.10	1.50
OPNS22010-16-28	25	1"	- 16	28	0.81	3.52	1.18	1.63
OPNS22010-20-35	31	1.1/4"	- 20	35	1.02	3.98	1.42	1.91
OPNS22010-24-42	38	1.1/2"	- 24	42	1.26	4.51	1.57	2.07



### OPNS22110

METRIC STANDPIPE STRAIGHT H.T. - DIN 2353  
TUBO LISO MILIMETRICO RECTO SERIE PESADA H.T. - DIN 2353

PART. REF.	HOSE BORE			PIPE	DIMENSIONS inch			
	DN	inch	Size	mm	B	A	C	F
OPNS22110-06-14	10	3/8"	- 06	14	0.31	2.60	1.14	1.44
OPNS22110-08-14	12	1/2"	- 08	14	0.37	2.68	1.14	1.45
OPNS22110-08-16	12	1/2"	- 08	16	0.41	2.72	1.18	1.49
OPNS22110-10-20	16	5/8"	- 10	20	0.49	3.09	1.42	1.74
OPNS22110-12-20	19	3/4"	- 12	20	0.59	3.25	1.42	1.81
OPNS22110-12-25	19	3/4"	- 12	25	0.59	3.41	1.57	1.97
OPNS22110-16-25	25	1"	- 16	25	0.59	3.92	1.57	2.02
OPNS22110-16-30	25	1"	- 16	30	0.81	4.07	1.73	2.18
OPNS22110-16-38	25	1"	- 16	38	1.02	4.31	1.97	2.41
OPNS22110-20-30	31	1.1/4"	- 20	30	0.81	4.29	1.73	2.22
OPNS22110-20-38	31	1.1/4"	- 20	38	1.02	4.53	1.97	2.46
OPNS22110-24-38	38	1.1/2"	- 24	38	1.02	4.91	1.97	2.46

# OPNS TYPE

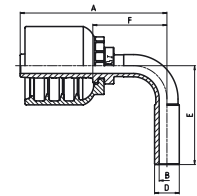


## METRIC STANDPIPE STANDARD CONNECTIONS

### OPNS22090

90° METRIC STANDPIPE L.T. - DIN 2353

TUBO LISO MILIMETRICO CODO 90° SERIE LIGERA L.T. - DIN 2353

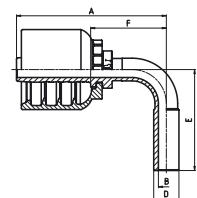


PART. REF.	HOSE BORE			PIPE	DIMENSIONS				inch	
	DN	inch	Size		mm	B	A	E	F	
OPNS22090-06-10	10	3/8"	- 06	10	0.28	2.50	1.67	1.34		
OPNS22090-06-12	10	3/8"	- 06	12	0.31	2.50	1.77	1.34		
OPNS22090-08-15	12	1/2"	- 08	15	0.41	2.88	2.05	1.65		
OPNS22090-08-18	12	1/2"	- 08	18	0.49	2.88	2.17	1.65		
OPNS22090-10-18	16	5/8"	- 10	18	0.49	3.28	2.32	1.93		
OPNS22090-12-22	19	3/4"	- 12	22	0.59	3.58	2.48	2.15		
OPNS22090-16-28	25	1"	- 16	28	0.78	4.56	2.95	2.66		
OPNS22090-20-35	31	1.1/4"	- 20	35	1.02	5.23	3.70	3.17		

### OPNS22190

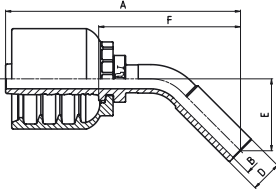
90° METRIC STANDPIPE H.T. - DIN 2353

TUBO LISO MILIMETRICO CODO 90° SERIE PESADA H.T. - DIN 2353



PART. REF.	HOSE BORE			PIPE	DIMENSIONS				inch	
	DN	inch	Size		mm	B	A	E	F	
OPNS22190-06-14	10	3/8"	- 06	14	0.37	2.54	2.01	1.38		
OPNS22190-08-14	12	1/2"	- 08	14	0.37	2.88	2.11	1.65		
OPNS22190-08-16	12	1/2"	- 08	16	0.41	2.92	2.17	1.69		
OPNS22190-10-20	16	5/8"	- 10	20	0.49	3.28	2.62	1.93		
OPNS22190-12-20	19	3/4"	- 12	20	0.59	3.58	2.72	2.15		
OPNS22190-12-25	19	3/4"	- 12	25	0.59	3.70	2.95	2.26		
OPNS22190-16-25	25	1"	- 16	25	0.59	4.32	3.01	2.42		
OPNS22190-16-30	25	1"	- 16	30	0.78	4.64	3.43	2.74		

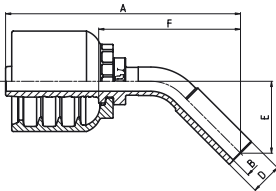
## METRIC STANDPIPE STANDARD CONNECTIONS



### OPNS22040

**45° METRIC STANDPIPE L.T. - DIN 2353**  
**TUBO LISO MILIMETRICO CODO 45° SERIE LIGERA L.T. - DIN 2353**

PART. REF.	HOSE BORE			PIPE	DIMENSIONS inch			
	DN	inch	Size		B	A	E	F
OPNS22040-06-10	10	3/8"	- 06	10	0.28	3.03	0.91	1.87
OPNS22040-06-12	10	3/8"	- 06	12	0.31	3.10	0.98	1.95
OPNS22040-08-15	12	1/2"	- 08	15	0.41	3.50	1.10	2.28
OPNS22040-10-18	16	5/8"	- 10	18	0.49	3.85	1.20	2.50
OPNS22040-12-22	19	3/4"	- 12	22	0.59	4.15	1.26	2.72
OPNS22040-16-28	25	1"	- 16	28	0.78	5.11	1.46	3.21



### OPNS22140

**45° METRIC STANDPIPE H.T. - DIN 2353**  
**TUBO LISO MILIMETRICO CODO 45° SERIE PESADA H.T. - DIN 2353**

PART. REF.	HOSE BORE			PIPE	DIMENSIONS inch			
	DN	inch	Size		B	A	E	F
OPNS22140-06-14	10	3/8"	- 06	14	0.37	3.31	1.14	2.15
OPNS22140-08-16	12	1/2"	- 08	16	0.41	3.62	1.18	2.40
OPNS22140-10-20	16	5/8"	- 10	20	0.49	4.06	1.42	2.72
OPNS22140-12-25	19	3/4"	- 12	25	0.59	4.61	1.59	3.17
OPNS22140-16-25	25	1"	- 16	25	0.59	5.13	1.61	3.23

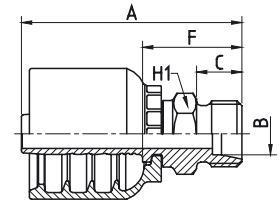
# OPNS TYPE



## METRIC 24° O-RING STANDARD CONNECTIONS

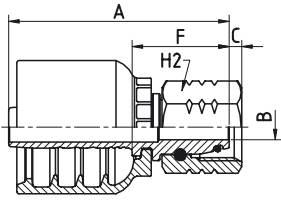
### OPNS11110

METRIC MALE 24° CONE SEAT L.T. - DIN 20066/3861  
 MACHO MILIMETRICO CONO 24° SERIE LIGERA L.T. - DIN 20066/3861



PART. REF.	HOSE BORE			THREAD	PIPE	DIMENSIONS inch				
	DN	inch	Size			mm	B	A	C	F
OPNS11110-06-16	10	3/8"	- 06	M 16x1.5	10	0.28	2.11	0.43	0.95	0.67
OPNS11110-06-18	10	3/8"	- 06	M 18x1.5	12	0.35	2.13	0.43	0.97	0.75
OPNS11110-06-22	10	3/8"	- 06	M 22x1.5	15	0.39	2.17	0.47	1.01	0.87
OPNS11110-08-22	12	1/2"	- 08	M 22x1.5	15	0.39	2.23	0.47	1.01	0.87
OPNS11110-08-26	12	1/2"	- 08	M 26x1.5	18	0.49	2.26	0.47	1.04	1.06
OPNS11110-10-22	16	5/8"	- 10	M 22x1.5	15	0.39	2.35	0.47	1.00	0.87
OPNS11110-10-26	16	5/8"	- 10	M 26x1.5	18	0.49	2.40	0.47	1.05	1.06
OPNS11110-12-30	19	3/4"	- 12	M 30x2	22	0.59	2.62	0.55	1.18	1.18
OPNS11110-16-36	25	1"	- 16	M 36x2	28	0.79	3.17	0.55	1.27	1.42
OPNS11110-20-45	31	1.1/4"	- 20	M 45x2	35	1.02	3.66	0.63	1.59	1.81
OPNS11110-24-52	38	1.1/2"	- 24	M 52x2	42	1.26	4.12	0.63	1.68	2.17

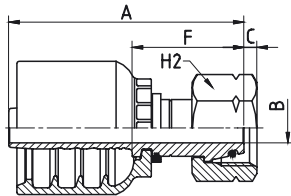
## METRIC 24° O-RING STANDARD CONNECTIONS



### OPNS21512

**O-RING METRIC FEMALE 24° CONE L.T. - DIN 20066/3865  
(THRUST-WIRE NUT)**

HEMBRA RECTA MILIMETRICA CON O-RING CONO 24° SERIE LIGERA L.T.  
DIN 20066/3865 (TUERCA GIRATORIA SOBRE LA ESPIGA)



### OPNS21513

**O-RING METRIC FEMALE 24° CONE L.T. - DIN 20066/3865  
(SLIP-ON NUT)**

HEMBRA RECTA MILIMETRICA CON O-RING CONO 24° SERIE LIGERA L.T.  
DIN 20066/3865 (TUERCA DESLIZABLE SOBRE LA ESPIGA)

PART. REF.	HOSE BORE	THREAD	PIPE	DIMENSIONS inch						
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	DN	inch	Size		mm	B	A	C	F	H <sub>i</sub>	
OPNS21512-06-16	10	3/8"	- 06	M 16x1.5	10	0.24	2.07	0.12	0.91	0.75	
OPNS21513-06-18	10	3/8"	- 06	M 18x1.5	12	0.28	2.03	0.09	0.88	0.87	
OPNS21513-06-22	10	3/8"	- 06	M 22x1.5	15	0.37	2.14	0.09	0.98	1.06	
<b>NEW</b> OPNS21512-08-18	12	1/2"	- 08	M 18x1.5	12	0.28	2.37	0.11	1.14	0.87	
OPNS21513-08-22	12	1/2"	- 08	M 22x1.5	15	0.37	2.22	0.09	1.00	1.06	
OPNS21513-08-26	12	1/2"	- 08	M 26x1.5	18	0.49	2.26	0.10	1.03	1.26	
OPNS21513-10-26	16	5/8"	- 10	M 26x1.5	18	0.49	2.37	0.10	1.02	1.26	
<b>NEW</b> OPNS21513-10-30	16	5/8"	- 10	M 30x2	22	0.59	2.69	0.14	1.34	1.42	
<b>NEW</b> OPNS21512-12-26	19	3/4"	- 12	M 26x1.5	18	0.49	2.66	0.14	1.22	1.26	
OPNS21513-12-30	19	3/4"	- 12	M 30x2	22	0.59	2.55	0.14	1.11	1.42	
OPNS21513-12-36	19	3/4"	- 12	M 36x2	28	0.79	2.54	0.15	1.11	1.61	
OPNS21513-16-36	25	1"	- 16	M 36x2	28	0.78	3.06	0.15	1.16	1.61	
OPNS21513-20-45	31	1.1/4"	- 20	M 45x2	35	1.02	3.36	0.20	1.30	1.97	
OPNS21513-24-52	38	1.1/2"	- 24	M 52x2	42	1.26	3.74	0.20	1.29	2.36	



# OPNS TYPE

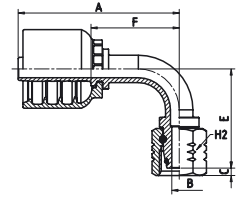


## METRIC 24° O-RING STANDARD CONNECTIONS

### OPNS21592

90° O-RING METRIC FEMALE SWEEP ELBOW 24° CONE L.T.  
DIN 20066/3865 (THRUST-WIRE NUT)

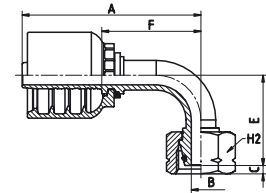
HEMBRA CODO 90° MILIMETRICA CON O-RING CONO 24° SERIE LIGERA L.T.  
DIN 20066/3865 (TUERCA GIRATORIA SOBRE LA ESPIGA)



### OPNS21593

90° O-RING METRIC FEMALE SWEEP ELBOW 24° CONE L.T.  
DIN 20066/3865 (SLIP-ON NUT)

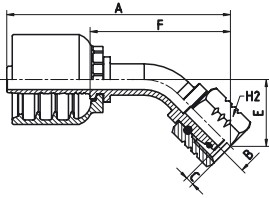
HEMBRA CODO 90° MILIMETRICA CON O-RING CONO 24° SERIE LIGERA L.T.  
DIN 20066/3865 (TUERCA DESLIZABLE SOBRE LA ESPIGA)



PART. REF.	HOSE BORE	THREAD	PIPE	DIMENSIONS inch							
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	DN	inch	Size		mm	B	A	C	E	F	H <sub>2</sub>
OPNS21592-06-16	10	3/8"	- 06	M 16x1.5	10	0.24	2.56	0.12	1.57	1.40	0.75
OPNS21593-06-18	10	3/8"	- 06	M 18x1.5	12	0.28	2.59	0.09	1.32	1.44	0.87
OPNS21593-06-22	10	3/8"	- 06	M 22x1.5	15	0.37	2.59	0.09	1.38	1.44	1.06
OPNS21593-06-24	10	3/8"	- 06	M 24x1.5	16	0.37	2.60	0.12	1.42	1.44	1.18
<b>NEW</b> OPNS21592-08-18	12	1/2"	- 08	M 18x1.5	12	0.28	2.95	0.11	1.89	1.73	0.87
OPNS21593-08-22	12	1/2"	- 08	M 22x1.5	15	0.37	3.00	0.09	1.56	1.77	1.06
<b>NEW</b> OPNS21593-08-26	12	1/2"	- 08	M 26x1.5	18	0.49	2.99	0.10	1.57	1.77	1.26
OPNS21593-10-26	16	5/8"	- 10	M 26x1.5	18	0.49	3.38	0.10	2.09	2.03	1.26
OPNS21593-10-30	16	5/8"	- 10	M 30x2	22	0.59	3.38	0.14	2.13	2.03	1.42
OPNS21593-12-30	19	3/4"	- 12	M 30x2	22	0.59	3.86	0.14	2.32	2.42	1.42
OPNS21593-16-36	25	1"	- 16	M 36x2	28	0.78	4.91	0.15	2.74	3.01	1.61
OPNS21593-20-45	31	1.1/4"	- 20	M 45x2	35	1.02	5.75	0.20	3.19	3.68	1.97
OPNS21543-24-52	38	1.1/2"	- 24	M 52x2	42	1.26	6.67	0.20	3.86	4.23	2.36

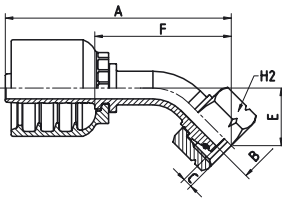
## METRIC 24° O-RING STANDARD CONNECTIONS



### OPNS21542

**45° O-RING METRIC FEMALE SWEPT ELBOW 24° CONE L.T.  
DIN 20066/3865 (THRUST-WIRE NUT)**

HEMBRA CODO 45° MILIMETRICA CON O-RING CONO 24° SERIE LIGERA L.T.  
DIN 20066/3865 (TUERCA GIRATORIA SOBRE LA ESPIGA)



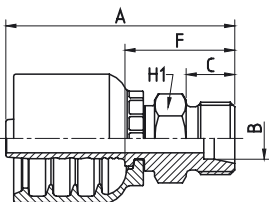
### OPNS21543

**45° O-RING METRIC FEMALE SWEPT ELBOW 24° CONE L.T.  
DIN 20066/3865 (SLIP-ON NUT)**

HEMBRA CODO 45° MILIMETRICA CON O-RING CONO 24° SERIE LIGERA L.T.  
DIN 20066/3865 (TUERCA DESLIZABLE SOBRE LA ESPIGA)

PART. REF.	HOSE BORE	THREAD	PIPE	DIMENSIONS inch							
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	DN	inch	Size		mm	B	A	C	E	F	H <sub>2</sub>
OPNS21542-06-16	10	3/8"	- 06	M 16x1.5	10	0.24	3.03	0.12	0.85	1.87	0.75
OPNS21543-06-18	10	3/8"	- 06	M 18x1.5	12	0.28	2.87	0.09	0.65	1.71	0.87
OPNS21543-06-22	10	3/8"	- 06	M 22x1.5	15	0.37	2.93	0.09	0.71	1.77	1.06
OPNS21543-08-22	12	1/2"	- 08	M 22x1.5	15	0.37	3.27	0.09	0.75	2.05	1.06
OPNS21543-10-26	16	5/8"	- 10	M 26x1.5	18	0.49	3.79	0.10	1.04	2.44	1.26
OPNS21543-12-30	19	3/4"	- 12	M 30x2	22	0.59	4.23	0.14	1.12	2.80	1.42
OPNS21543-16-36	25	1"	- 16	M 36x2	28	0.78	5.24	0.15	1.26	3.35	1.61
OPNS21543-20-45	31	1.1/4"	- 20	M 45x2	35	1.02	5.98	0.20	1.42	3.92	1.97
OPNS21543-24-52	38	1.1/2"	- 24	M 52x2	42	1.26	7.05	0.20	1.75	4.61	2.36



### OPNS11210

**METRIC MALE 24° CONE SEAT H.T. - DIN 20066/3861**

MACHO MILIMETRICO CONO 24° SERIE PESADA H.T. - DIN 20066/3861

PART. REF.	HOSE BORE	THREAD	PIPE	DIMENSIONS inch						
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	DN	inch	Size		mm	B	A	C	F	H <sub>1</sub>
OPNS11210-06-18	10	3/8"	- 06	M 18x1.5	10	0.28	2.22	0.47	1.07	0.75
OPNS11210-06-20	10	3/8"	- 06	M 20x1.5	12	0.28	2.30	0.47	1.15	0.87
OPNS11210-06-22	10	3/8"	- 06	M 22x1.5	14	0.31	2.38	0.55	1.22	0.87
OPNS11210-08-24	12	1/2"	- 08	M 24x1.5	16	0.37	2.47	0.55	1.24	0.94
OPNS11210-10-30	16	5/8"	- 10	M 30x2	20	0.59	2.76	0.63	1.41	1.18
OPNS11210-12-30	19	3/4"	- 12	M 30x2	20	0.59	2.89	0.63	1.46	1.18
OPNS11210-12-36	19	3/4"	- 12	M 36x2	25	0.78	3.05	0.71	1.61	1.42
OPNS11210-16-36	25	1"	- 16	M 36x2	25	0.78	3.56	0.71	1.67	1.42
OPNS11210-16-42	25	1"	- 16	M 42x2	30	0.98	3.64	0.79	1.74	1.81
OPNS11210-20-52	31	1.1/4"	- 20	M 52x2	38	1.18	4.06	0.87	1.99	2.17

# OPNS TYPE

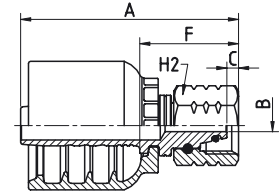


## METRIC 24° O-RING STANDARD CONNECTIONS

### OPNS21612

O-RING METRIC FEMALE 24° CONE H.T.  
DIN 20066/3865 (THRUST-WIRE NUT)

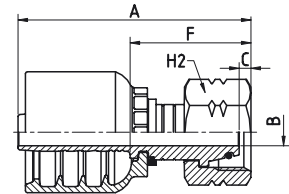
HEMBRA RECTA MILIMETRICA CON O-RING CONO 24° SERIE PESADA H.T.  
DIN 20066/3865 (TUERCA GIRATORIA SOBRE LA ESPIGA)



### OPNS21613

O-RING METRIC FEMALE 24° CONE H.T.  
DIN 20066/3865 (SLIP-ON NUT)

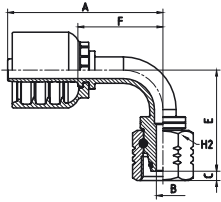
HEMBRA RECTA MILIMETRICA CON O-RING CONO 24° SERIE PESADA H.T.  
DIN 20066/3865 (TUERCA DESLIZABLE SOBRE LA ESPIGA)



PART. REF.	HOSE BORE	THREAD	PIPE	DIMENSIONS inch
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	DN	inch	Size		mm	B	A	C	F	H <sub>2</sub>	
OPNS21613-06-20	10	3/8"	- 06	M 20x1.5	12	0.28	2.15	0.10	1.00	0.94	
OPNS21613-06-22	10	3/8"	- 06	M 22x1.5	14	0.28	2.44	0.12	1.28	1.06	
OPNS21613-08-24	12	1/2"	- 08	M 24x1.5	16	0.37	2.28	0.12	1.05	1.18	
OPNS21613-10-30	16	5/8"	- 10	M 30x2	20	0.49	2.55	0.14	1.20	1.42	
OPNS21612-12-30	19	3/4"	- 12	M 30x2	20	0.49	2.76	0.09	1.32	1.42	
OPNS21613-12-36	19	3/4"	- 12	M 36x2	25	0.59	2.78	0.18	1.34	1.61	
OPNS21612-16-36	25	1"	- 16	M 36x2	25	0.59	3.29	0.07	1.39	1.61	
OPNS21613-16-42	25	1"	- 16	M 42x2	30	0.78	3.29	0.25	1.39	1.97	
OPNS21613-20-52	31	1.1/4"	- 20	M 52x2	38	1.02	3.55	0.31	1.48	2.36	
OPNS21613-24-52	38	1.1/2"	- 24	M 52x2	38	1.02	4.39	0.31	1.95	2.36	

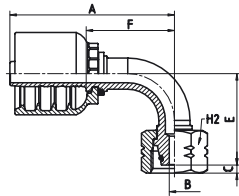
## METRIC 24° O-RING STANDARD CONNECTIONS



### OPNS21692

**90° O-RING METRIC FEMALE SWEPT ELBOW 24° CONE H.T.  
DIN 20066/3865 (THRUST-WIRE NUT)**

HEMBRA CODO 90° MILIMETRICA CON O-RING CONO 24° SERIE PESADA H.T.  
DIN 20066/3865 (TUERCA GIRATORIA SOBRE LA ESPIGA)



### OPNS21693

**90° O-RING METRIC FEMALE SWEPT ELBOW 24° CONE H.T.  
DIN 20066/3865 (SLIP-ON NUT)**

HEMBRA CODO 90° MILIMETRICA CON O-RING CONO 24° SERIE PESADA H.T.  
DIN 20066/3865 (TUERCA DESLIZABLE SOBRE LA ESPIGA)

PART. REF.	HOSE BORE		THREAD	PIPE	DIMENSIONS inch						
	DN	inch			B	A	C	E	F	H <sub>2</sub>	
OPNS21693-06-20	10	3/8"	- 06	M 20x1.5	12	0.28	2.59	0.10	1.38	1.44	0.94
OPNS21693-06-22	10	3/8"	- 06	M 22x1.5	14	0.28	2.59	0.12	1.46	1.44	1.06
<b>NEW</b> OPNS21693-06-24	10	3/8"	- 06	M 24x1.5	16	0.37	2.60	0.12	1.42	1.44	1.18
OPNS21693-10-30	16	5/8"	- 10	M 30x2	20	0.49	3.38	0.14	2.26	2.03	1.42
OPNS21692-12-30	19	3/4"	- 12	M 30x2	20	0.49	3.86	0.09	2.66	2.42	1.42
OPNS21693-12-36	19	3/4"	- 12	M 36x2	25	0.59	3.86	0.18	2.54	2.42	1.61
OPNS21692-16-36	25	1"	- 16	M 36x2	25	0.59	5.03	0.07	3.39	3.13	1.61
OPNS21693-16-42	25	1"	- 16	M 42x2	30	0.78	5.01	0.25	2.93	3.11	1.97
OPNS21693-20-52	31	1.1/4"	- 20	M 52x2	38	1.02	5.75	0.31	3.37	3.68	2.36

# OPNS TYPE



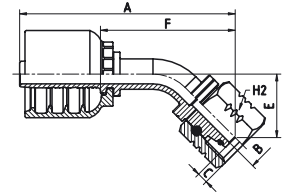
## METRIC 24° O-RING STANDARD CONNECTIONS

### OPNS21642

45° O-RING METRIC FEMALE SWEEP ELBOW 24° CONE H.T.

DIN 20066/3865 (THRUST-WIRE NUT)

HEMBRA CODO 45° MILIMETRICA CON O-RING CONO 24° SERIE PESADA H.T.  
DIN 20066/3865 (TUERCA GIRATORIA SOBRE LA ESPIGA)

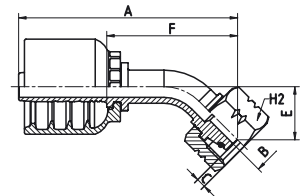


### OPNS21643

45° O-RING METRIC FEMALE SWEEP ELBOW 24° CONE H.T.

DIN 20066/3865 (SLIP-ON NUT)

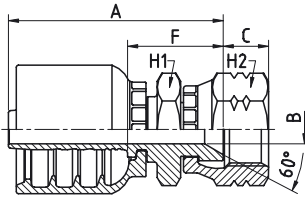
HEMBRA CODO 45° MILIMETRICA CON O-RING CONO 24° SERIE PESADA H.T.  
DIN 20066/3865 (TUERCA DESLIZABLE SOBRE LA ESPIGA)



PART. REF.	HOSE BORE			THREAD	PIPE	DIMENSIONS inch					
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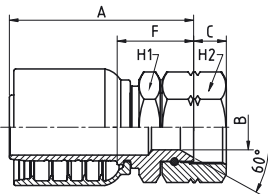
	DN	inch	Size		mm	B	A	C	E	F	H <sub>2</sub>
OPNS21643-06-20	10	3/8"	- 06	M 20x1.5	12	0.28	2.93	0.10	0.71	1.77	0.94
OPNS21643-06-22	10	3/8"	- 06	M 22x1.5	14	0.28	2.99	0.12	0.77	1.83	1.06
OPNS21643-08-24	12	1/2"	- 08	M 24x1.5	16	0.37	3.29	0.12	0.79	2.07	1.18
OPNS21643-10-30	16	5/8"	- 10	M 30x2	20	0.49	3.93	0.14	1.16	2.58	1.42
OPNS21642-12-30	19	3/4"	- 12	M 30x2	20	0.49	4.45	0.09	1.34	3.01	1.42
OPNS21643-12-36	19	3/4"	- 12	M 36x2	25	0.59	4.39	0.18	1.28	2.95	1.61
OPNS21643-16-42	25	1"	- 16	M 42x2	30	0.78	5.44	0.25	1.40	3.54	1.97
OPNS21643-20-52	31	1.1/4"	- 20	M 52x2	38	1.02	6.12	0.31	1.56	4.06	2.36

## JIS STANDARD CONNECTIONS



### OPNS24011

**JIS METRIC FEMALE 60° CONE SEAT (KOMATSU)  
JIS B 8363 (CRIMPED-BACK NUT)  
JIS HEMBRA RECTA ASIEN TO A 60° (KOMATSU)  
JIS B 8363 (CRIMPADO DETRAS DE LA TUERCA)**

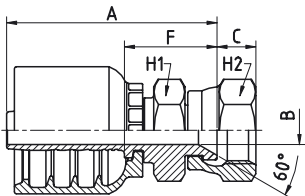


### OPNS24012

**JIS METRIC FEMALE 60° CONE SEAT (KOMATSU)  
JIS B 8363 (THRUST-WIRE NUT)  
JIS HEMBRA RECTA MILIMETRICA ASIEN TO A 60° (KOMATSU)  
JIS B 8363 (TUERCA GIRATORIA SOBRE LA ESPIGA)**

PART. REF.	HOSE BORE	THREAD	DIMENSIONS inch							
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	DN	inch	Size		B	A	C	F	H <sub>1</sub>	H <sub>2</sub>
OPNS24011-06-14	10	3/8"	- 06	M 14x1.5	0.16	2.09	0.41	0.93	0.75	0.75
OPNS24011-06-18	10	3/8"	- 06	M 18x1.5	0.28	2.09	0.45	0.93	0.94	0.94
OPNS24011-08-22	12	1/2"	- 08	M 22x1.5	0.37	2.20	0.55	0.98	1.06	1.06
OPNS24011-10-24	16	5/8"	- 10	M 24x1.5	0.49	2.40	0.59	1.05	1.26	1.26
OPNS24011-12-30	19	3/4"	- 12	M 30x1.5	0.59	2.68	0.72	1.24	1.42	1.42
OPNS24011-16-33	25	1"	- 16	M 33x1.5	0.78	3.21	0.84	1.31	1.61	1.61
OPNS24011-20-36	31	1.1/4"	- 20	M 36x1.5	0.78	3.68	0.79	1.61	1.81	1.81
OPNS24012-24-42	38	1.1/2"	- 24	M 42x1.5	1.02	4.17	0.74	1.73	2.17	2.17



### OPNS23811

**JIS BSP FEMALE 60° CONE SEAT (TOYOTA) JIS B 8363  
JIS BSP HEMBRA RECTA ASIEN TO A 60° (TOYOTA) JIS B 8363**

PART. REF.	HOSE BORE	THREAD	DIMENSIONS inch							
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	DN	inch	Size		B	A	C	F	H <sub>1</sub>	
OPNS23811-06-06	10	3/8"	- 06	3/8" - 19	0.28	2.07	0.39	0.91	0.87	0.87
OPNS23811-08-08	12	1/2"	- 08	1/2" - 14	0.37	2.13	0.45	0.91	1.06	1.06
OPNS23811-12-12	19	3/4"	- 12	3/4" - 14	0.59	2.46	0.53	1.02	1.26	1.26
OPNS23811-16-16	25	1"	- 16	1" - 11	0.78	3.09	0.57	1.19	1.50	1.50

# OPNS TYPE

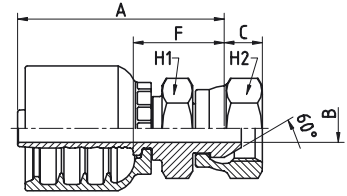


## JIS STANDARD CONNECTIONS

### OPNS20711

JIS BSP FEMALE 60° CONE SEAT (NISSAN) JIS B 8363  
(CRIMPED-BACK NUT)

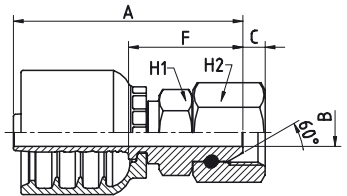
JIS BSP HEMBRA RECTA ASIENTO A 60° (NISSAN) JIS B 8363  
(CRIMPADO DETRAS DE LA TUERCA)



### OPNS20712

JIS BSP FEMALE 60° CONE SEAT (NISSAN) JIS B 8363  
(THRUST-WIRE NUT)

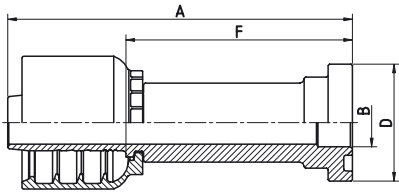
JIS BSP HEMBRA RECTA ASIENTO A 60° (NISSAN) JIS B 8363  
(TUERCA GIRATORIA SOBRE LA ESPIGA)



PART. REF.	HOSE BORE			THREAD	DIMENSIONS inch					
	DN	inch	Size		B	A	C	F	H <sub>1</sub>	H <sub>2</sub>
OPNS20711-06-06	10	3/8"	- 06	3/8" - 19	0.28	2.13	0.25	0.97	0.87	0.87
OPNS20711-08-08	12	1/2"	- 08	1/2" - 14	0.37	2.26	0.26	1.04	1.06	1.06
OPNS20712-10-12	16	5/8"	- 10	3/4" - 14	0.59	2.56	0.35	1.21	1.26	1.26
OPNS20711-12-12	19	3/4"	- 12	3/4" - 14	0.59	2.62	0.35	1.18	1.26	1.26



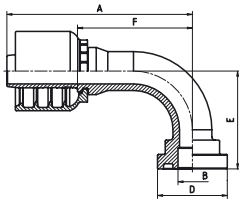
## KOMATSU FLANGE STANDARD CONNECTIONS



### OPNS24111

STRAIGHT KOMATSU FLANGE  
BRIDA RECTA KOMATSU

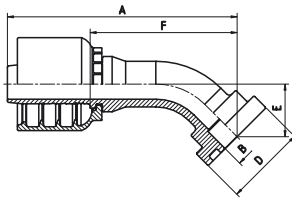
PART. REF.	HOSE BORE			FLANGE	DIMENSIONS inch					
	DN	inch	Size		B	A	D	F		
OPNS24111-10-10	16	5/8"	- 10	5/8"	0.55	3.94	1.34	2.59		



### OPNS24191

90° KOMATSU FLANGE  
BRIDA CODO 90° KOMATSU

PART. REF.	HOSE BORE			FLANGE	DIMENSIONS inch					
	DN	inch	Size		B	A	C	E	F	
OPNS24191-10-10	16	5/8"	- 10	5/8"	0.55	3.56	1.34	1.87	2.20	



### OPNS24141

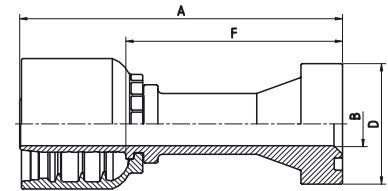
45° KOMATSU FLANGE  
BRIDA CODO 45° KOMATSU

PART. REF.	HOSE BORE			FLANGE	DIMENSIONS inch					
	DN	inch	Size		B	A	C	E	F	
OPNS24141-10-10	16	5/8"	- 10	5/8"	0.55	3.75	1.34	0.87	2.40	

## SUPERCAT FLANGE STANDARD CONNECTIONS

### OPNS23911

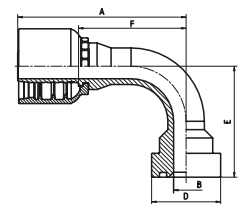
STRAIGHT SUPERCAT FLANGE  
BRIDA RECTA SUPERCAT



PART. REF.	HOSE BORE			FLANGE	DIMENSIONS inch				
	DN	inch	Size		B	A	D	F	S
OPNS23911-12-12	19	3/4"	- 12	3/4"	0.59	4.37	1.63	2.93	0.56
OPNS23911-16-16	25	1"	- 16	1"	0.78	5.31	1.88	3.42	0.56
OPNS23911-16-20	25	1"	- 16	1.1/4"	1.02	5.53	2.13	3.63	0.56
OPNS23911-20-20	31	1.1/4"	- 20	1.1/4"	1.02	5.45	2.13	3.39	0.56
OPNS23911-24-24	38	1.1/2"	- 24	1.1/2"	1.26	6.14	2.50	3.70	0.56

### OPNS23991

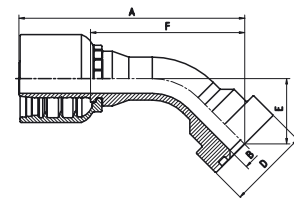
90° SUPERCAT FLANGE  
BRIDA CODO 90° SUPERCAT



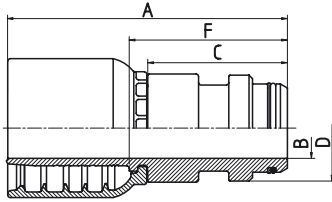
PART. REF.	HOSE BORE			FLANGE	DIMENSIONS inch					
	DN	inch	Size		B	A	D	E	F	S
OPNS23991-12-12	19	3/4"	- 12	3/4"	0.59	3.98	1.63	2.62	2.54	0.56
OPNS23991-16-16	25	1"	- 16	1"	0.78	4.95	1.88	3.01	3.05	0.56
OPNS23991-16-20	25	1"	- 16	1"	1.02	4.87	2.13	3.17	2.97	0.56
OPNS23991-20-20	31	1.1/4"	- 20	1.1/4"	1.02	5.43	2.13	3.43	3.37	0.56

### OPNS23941

45° SUPERCAT FLANGE  
BRIDA CODO 45° SUPERCAT



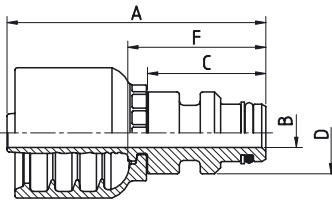
PART. REF.	HOSE BORE			FLANGE	DIMENSIONS inch					
	DN	inch	Size		B	A	D	E	F	S
OPNS23941-12-12	19	3/4"	- 12	3/4"	0.59	4.53	1.63	1.32	3.09	0.56
OPNS23941-16-16	25	1"	- 16	1"	0.78	5.42	1.88	1.44	3.53	0.56
OPNS23941-16-20	25	1"	- 16	1.1/4"	1.02	5.54	2.13	1.59	3.64	0.56
OPNS23941-20-20	31	1.1/4"	- 20	1.1/4"	1.02	5.96	2.13	1.63	3.90	0.56



### OPNS14610

**SUPER STAPLE LOCK MALE**  
MACHO RECTO SUPER STAPLE-LOCK (MINERIA)

PART. REF.	HOSE BORE			DIMENSIONS inch					
	DN	inch	Size	B	A	C	D	F	
OPNS14610-12-12	19	3/4"	- 12	0.59	3.17	1.50	1.13	1.74	
OPNS14610-16-16	25	1"	- 16	0.87	4.35	2.17	1.52	2.45	
OPNS14610-20-20	31	1.1/4"	- 20	1.02	4.74	2.36	1.79	2.68	



### OPNS14810

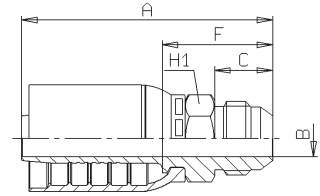
**SUPER STAPLE LOCK MALE**  
MACHO RECTO SUPER STAPLE-LOCK (MINERIA)

PART. REF.	HOSE BORE			DIMENSIONS inch					
	DN	inch	Size	B	A	C	D	F	
OPNS14810-06-06	10	3/8"	- 06	0.28	2.48	1.13	0.79	1.32	
OPNS14810-08-08	12	1/2"	- 08	0.37	2.56	1.13	0.94	1.33	
OPNS14810-12-12	19	3/4"	- 12	0.59	2.81	1.14	1.14	1.38	
OPNS14810-16-16	25	1"	- 16	0.78	3.56	1.38	1.54	1.67	
OPNS14810-20-20	31	1.1/4"	- 20	1.02	3.74	1.38	1.81	1.67	
OPNS14810-24-24	38	1.1/2"	- 24	1.26	4.47	1.57	2.16	2.03	
OPNS14810-32-32	51	2"	- 32	1.65	4.53	1.57	2.52	1.93	

## JIC STANDARD CONNECTIONS

### OPS12510

JIC MALE 37° CONE - SAE J516/J514  
 JIC MACHO RECTO ASIEN TO A 37° - SAE J516/514



PART. REF.	HOSE BORE			THREAD	DIMENSIONS inch				
	DN	inch	Size		B	A	C	F	H <sub>1</sub>
OPS12510-06-06	10	3/8"	- 06	9/16" - 18	0.28	2.61	0.55	1.13	0.67
OPS12510-08-08	12	1/2"	- 08	3/4" - 16	0.37	2.58	0.65	1.35	0.75
OPS12510-08-10	12	1/2"	- 08	7/8" - 14	0.49	2.76	0.77	1.53	0.94
OPS12510-10-10	16	5/8"	- 10	7/8" - 14	0.49	2.89	0.77	1.54	0.94
OPS12510-12-12	19	3/4"	- 12	1.1/16" - 12	0.59	3.74	0.87	1.65	1.06
OPS12510-16-16	25	1"	- 16	1.5/16" - 12	0.78	4.17	0.91	1.84	1.37
OPS12510-20-20	31	1.1/4"	- 20	1.5/8" - 12	1.02	4.64	0.96	2.04	1.81
OPS12510-24-24	38	1.1/2"	- 24	1.7/8" - 12	1.26	4.98	1.08	2.30	1.97
OPS12510-32-32	51	2"	- 32	2.1/2" - 12	1.65	6.52	1.34	2.78	2.56

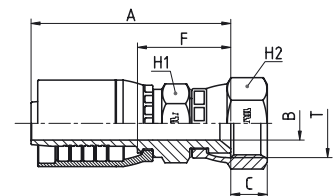
### OPS22711

JIC FEMALE 37° CONE SEAT DOUBLE EXAGON  
 SAE J516/J514 (CRIMPED BACK NUT)  
 JIC HEMBRA RECTA ASIEN TO A 37° DOBLE HEXÁGONO SAE J516/J514  
 (CRIMPADO DETRAS DE LA TUERCA)



### OPS22711...K

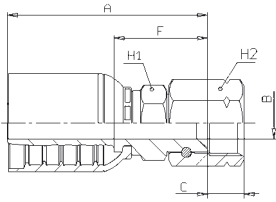
JIC FEMALE 37° CONE SEAT DOUBLE EXAGON COMPACT  
 SAE J516/J514 (CRIMPED BACK NUT)  
 JIC HEMBRA RECTA ASIEN TO A 37° DOBLE HEXÁGONO COMPACTO  
 SAE J516/J514 (CRIMPADO DETRAS DE LA TUERCA)



PART. REF.	HOSE BORE			THREAD	DIMENSIONS inch					
	DN	inch	Size		B	A	C	F	H <sub>1</sub>	H <sub>2</sub>
OPS22711-06-06K	10	3/8"	- 06	9/16" - 18	0.28	2.03	0.37	0.87	0.67	0.67
OPS22711-08-08	12	1/2"	- 08	3/4" - 16	0.37	2.28	0.42	1.06	0.75	0.87
OPS22711-12-12	19	3/4"	- 12	1.1/16" - 12	0.55	3.26	0.56	1.17	1.06	1.25

## JIC STANDARD CONNECTIONS

### OPS22712



**JIC FEMALE 37° CONE SEAT - SAE J516/J514 (THRUST-WIRE NUT)**  
**JIC HEMBRA RECTA ASIENTO A 37° - SAE J516/J514**  
**(TUERCA GIRATORIA SOBRE LA ESPIGA)**

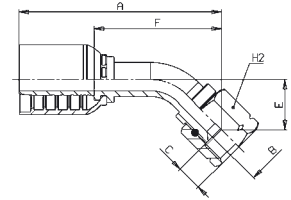
PART. REF.	HOSE BORE			THREAD	DIMENSIONS inch					
	DN	inch	Size		B	A	C	F	H <sub>1</sub>	H <sub>2</sub>
OPS22712-06-06	10	3/8"	- 06	9/16" - 18	0.28	2.11	0.36	0.97	0.67	0.75
OPS22712-06-08	10	3/8"	- 06	3/4" - 16	0.37	2.20	0.40	1.07	0.75	0.87
OPS22712-08-08	12	1/2"	- 08	3/4" - 16	0.37	2.28	0.40	1.08	0.75	0.87
OPS22712-08-10	12	1/2"	- 08	7/8" - 14	0.49	2.32	0.48	1.12	0.87	1.06
OPS22712-10-10	16	5/8"	- 10	7/8" - 14	0.49	2.44	0.48	1.11	0.87	1.06
OPS22712-10-12	16	5/8"	- 10	1.1/16" - 12	0.59	2.53	0.56	1.18	1.06	1.25
OPS22712-12-12	19	3/4"	- 12	1.1/16" - 12	0.55	3.35	0.56	1.26	1.06	1.25
OPS22712-12-14	19	3/4"	- 14	1.3/16" - 12	0.55	3.38	0.54	1.28	1.25	1.42
OPS22712-12-16	19	3/4"	- 12	1.5/16" - 12	0.75	3.43	0.6	1.34	1.25	1.62
OPS22712-16-16	25	1"	- 16	1.5/16" - 12	0.75	3.68	0.6	1.35	1.25	1.62
OPS22712-16-20	25	1"	- 16	1.5/8" - 12	1.02	4.07	0.64	1.74	1.62	1.97
OPS22712-20-16	31	1.1/4"	- 20	1.5/16" - 12	0.75	4.19	0.6	1.59	1.81	1.62
OPS22712-20-20	31	1.1/4"	- 20	1.5/8" - 12	0.97	4.35	0.64	1.75	1.62	1.97
OPS22712-20-24	31	1.1/4"	- 20	1.7/8" - 12	1.26	4.51	0.73	1.91	1.97	2.36
OPS22712-24-24	38	1.1/2"	- 24	1.7/8" - 12	1.19	4.65	0.73	1.98	1.97	2.36
OPS22712-32-32	51	2"	- 32	2.1/2" - 12	1.53	5.87	0.93	2.13	2.56	2.95

## JIC STANDARD CONNECTIONS

### OPS22742

45° JIC FEMALE 37° CONE SEAT - SAE J516/J514  
(THRUST-WIRE NUT)

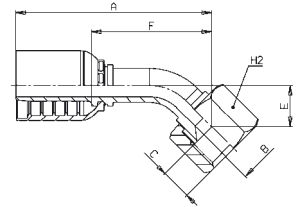
JIC HEMBRA CODO 45° ASIENTO A 37° - SAE J516/J514  
(TUERCA GIRATORIA SOBRE LA ESPIGA)



### OPS22743

45° JIC FEMALE 37° CONE SEAT - SAE J516/J514  
(SLIP-ON NUT)

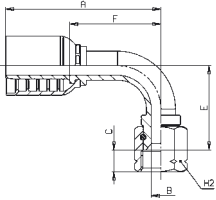
JIC HEMBRA CODO 45° ASIENTO A 37° - SAE J516/J514  
(TUERCA DESLIZABLE SOBRE LA ESPIGA)



PART. REF.	HOSE BORE			THREAD	DIMENSIONS inch					
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	DN	inch	Size		B	A	C	E	F	H <sub>2</sub>
OPS22742-06-06	10	3/8"	- 06	9/16" - 18	0.28	2.81	0.38	0.65	1.65	0.75
OPS22742-08-08	12	1/2"	- 08	3/4" - 16	0.37	3.27	0.42	0.79	2.05	0.87
OPS22743-08-10	12	1/2"	- 08	7/8" - 14	0.37	3.17	0.50	0.67	1.95	1.06
OPS22742-10-10	16	5/8"	- 10	7/8" - 14	0.49	3.79	0.50	1.01	2.44	1.06
OPS22742-12-12	19	3/4"	- 12	1.1/16" - 12	0.55	4.40	0.56	0.88	2.32	1.25
OPS22742-16-16	25	1"	- 16	1.5/16" - 12	0.75	5.00	0.60	1.02	2.68	1.62
OPS22742-20-20	31	1.1/4"	- 20	1.5/8" - 12	0.97	6.94	0.64	1.63	4.35	1.97
OPS22742-24-24	38	1.1/2"	- 24	1.7/8" - 12	1.19	7.85	0.73	2.15	5.18	2.36

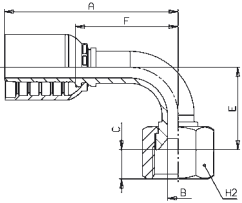
## JIC STANDARD CONNECTIONS



### OPS22792

90° JIC FEMALE 37° CONE SEAT - SAE J516/J514  
(THRUST-WIRE NUT)

JIC HEMBRA CODO 90° ASIENTO A 37° - SAE J516/J514  
(TUERCA GIRATORIA SOBRE LA ESPIGA)



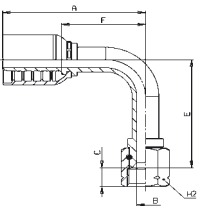
### OPS22793

90° JIC FEMALE 37° CONE SEAT - SAE J516/J514  
(SLIP-ON NUT)

JIC HEMBRA CODO 90° ASIENTO A 37° - SAE J516/J514  
(TUERCA DESLIZABLE SOBRE LA ESPIGA)

PART. REF.	HOSE BORE	THREAD	DIMENSIONS inch							
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	DN	inch	Size		B	A	C	E	F	H <sub>2</sub>
<b>NEW</b> OPS22792-06-05	10	3/8"	- 06	1/2" - 20	0.22	2.34	0.37	1.04	1.19	0.67
OPS22792-06-06	10	3/8"	- 06	9/16" - 18	0.28	2.55	0.38	1.28	1.39	0.75
OPS22792-08-08	12	1/2"	- 08	3/4" - 16	0.37	2.95	0.42	1.61	1.73	0.87
OPS22793-08-10	12	1/2"	- 08	7/8" - 14	0.37	2.99	0.50	1.42	1.77	1.06
OPS22792-10-10	16	5/8"	- 10	7/8" - 14	0.49	3.47	0.50	2.07	2.11	1.06
OPS22793-10-12	16	5/8"	- 10	1.1/16" - 12	0.49	3.39	0.56	1.97	2.03	1.25
OPS22792-12-12	19	3/4"	- 12	1.1/16" - 12	0.55	4.13	0.56	1.86	2.03	1.25
OPS22792-12-16	19	3/4"	- 12	1.5/16" - 12	0.78	4.13	0.60	2.11	2.03	1.62
OPS22792-16-16	25	1"	- 16	1.5/16" - 12	0.75	4.72	0.60	2.19	2.40	1.62
OPS22792-20-20	31	1.1/4"	- 20	1.5/8" - 12	0.97	6.38	0.64	3.43	3.78	1.97
OPS22792-24-24	38	1.1/2"	- 24	1.7/8" - 12	1.19	7.17	0.73	4.09	4.49	2.36



### OPS24792

90° LONG DROP JIC FEMALE 37° CONE SEAT - SAE J516/J514  
(THRUST-WIRE NUT)

JIC HEMBRA CODO LARGO 90° ASIENTO A 37° - SAE J516/J514  
(TUERCA GIRATORIA SOBRE LA ESPIGA)

PART. REF.	HOSE BORE	THREAD	DIMENSIONS inch							
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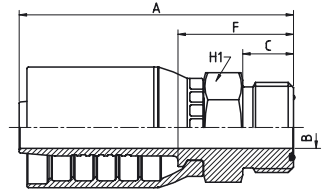
	DN	inch	Size		B	A	C	E	F	H <sub>2</sub>
OPS24792-08-08	12	1/2"	- 08	3/4" - 16	0.37	2.80	0.42	2.43	1.57	0.87
OPS24792-12-12	19	3/4"	- 12	1.1/16" - 12	0.55	4.13	0.56	3.73	2.03	1.25
OPS24792-16-16	25	1"	- 16	1.5/16" - 12	0.75	4.72	0.60	4.34	2.40	1.62



## ORFS STANDARD CONNECTIONS

### OPS12410

ORFS RIGID MALE - SAE J516/J1453  
ORFS MACHO ASIENTO PLANO - SAE J1453

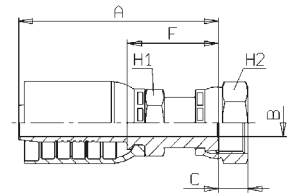


PART. REF.	HOSE BORE			THREAD	DIMENSIONS inch					
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	DN	inch	Size		B	A	C	F	H <sub>1</sub>	
OPS12410-08-08	12	1/2"	- 08	13/16" - 16	0.37	2.43	0.50	1.20	0.87	
OPS12410-12-12	19	3/4"	- 12	1.3/16" - 12	0.55	3.62	0.67	1.52	1.25	
OPS12410-16-16	25	1"	- 16	1.7/16" - 12	0.75	3.93	0.69	1.60	1.50	
OPS12410-20-20	31	1.1/4"	- 20	1.11/16" - 12	0.97	4.43	0.69	1.83	1.81	
OPS12410-24-24	38	1.1/2"	- 24	2" - 12	1.19	4.59	0.69	1.91	2.17	

### OPS22411

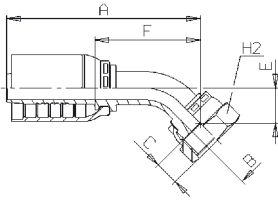
ORFS FEMALE - SAE J516/J1453 (CRIMPED-BACK NUT)  
ORFS HEMBRA RECTA ASIENTO PLANO - SAE J516/J1453  
(CRIMPADO DETRAS DE LA TUERCA)



PART. REF.	HOSE BORE			THREAD	DIMENSIONS inch					
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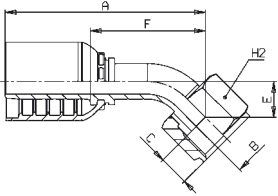
	DN	inch	Size		B	A	C	F	H <sub>1</sub>	H <sub>2</sub>
OPS22411-06-06	10	3/8"	- 06	11/16" - 16	0.28	2.38	0.37	1.22	0.63	0.87
OPS22411-08-08	12	1/2"	- 08	13/16" - 16	0.37	2.64	0.43	1.41	1.75	0.94
OPS22411-10-10	16	5/8"	- 10	1" - 14	0.45	2.87	0.53	1.52	0.94	1.18
OPS22411-12-12	19	3/4"	- 12	1.3/16" - 12	0.55	3.85	0.57	1.76	1.10	1.42
OPS22411-12-16	19	3/4"	- 12	1.7/16" - 12	0.75	4.03	0.60	1.93	1.37	1.62
OPS22411-16-16	25	1"	- 16	1.7/16" - 12	0.75	4.27	0.60	1.94	1.37	1.62
OPS22411-20-20	31	1.1/4"	- 20	1.11/16" - 12	0.97	4.84	0.60	2.24	1.81	1.97
OPS22411-24-24	38	1.1/2"	- 24	2" - 12	1.19	5.00	0.58	2.32	1.97	2.36

## ORFS STANDARD CONNECTIONS



### OPS22441

**45° ORFS FEMALE - SAE J516/J1453 (CRIMPED-BACK NUT)**  
 ORFS HEMBRA CODO 45° ASIENTO PLANO - SAE J516/J1453  
 (CRIMPADO DETRAS DE LA TUERCA)



### OPS22443

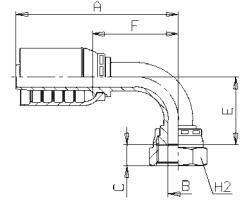
**45° ORFS FEMALE - SAE J516/J1453 (SLIP-ON NUT)**  
 ORFS HEMBRA CODO 45° ASIENTO PLANO - SAE J516/J1453  
 (TUERCA DESLIZABLE SOBRE LA ESPIGA)

PART. REF.	HOSE BORE			THREAD	DIMENSIONS inch					
	DN	inch	Size		B	A	C	E	F	H <sub>2</sub>
OPS22443-06-06	10	3/8"	- 06	11/16" - 16	0.28	2.42	0.37	0.43	1.28	0.87
OPS22443-08-08	12	1/2"	- 08	13/16" - 16	0.37	2.87	0.43	0.51	1.65	0.94
OPS22443-10-10	16	5/8"	- 10	1" - 14	0.45	3.28	0.53	0.62	1.93	1.18
OPS22441-12-12	19	3/4"	- 12	1.3/16" - 12	0.55	4.59	0.57	0.83	2.50	1.42
OPS22441-12-16	19	3/4"	- 12	1.7/16" - 12	0.78	4.70	0.60	0.94	2.62	1.62
OPS22441-16-16	25	1"	- 16	1.7/16" - 12	0.75	5.26	0.60	0.87	2.93	1.62
OPS22441-20-20	31	1.1/4"	- 20	1.11/16" - 12	0.97	5.89	0.60	1.00	3.29	1.97
OPS22441-20-24	31	1.1/4"	- 20	2" - 12	1.19	5.94	0.58	1.04	3.35	2.36
OPS22441-24-24	38	1.1/2"	- 24	2" - 12	1.19	6.32	0.58	1.10	3.64	2.36

## ORFS STANDARD CONNECTIONS

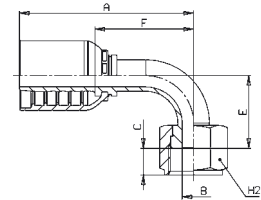
### OPS22491

90° ORFS FEMALE - SAE J516/J1453 (CRIMPED-BACK NUT)  
 ORFS HEMBRA CODO 90° ASIENTO PLANO - SAE J516/J1453  
 (CRIMPADO DETRAS DE LA TUERCA)



### OPS22493

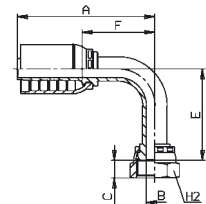
90° ORFS FEMALE - SAE J516/J1453 (SLIP-ON NUT)  
 ORFS HEMBRA CODO 90° ASIENTO PLANO - SAE J516/J1453  
 (TUERCA DESLIZABLE SOBRE LA ESPIGA)



PART. REF.	HOSE BORE			THREAD	DIMENSIONS inch					
	DN	inch	Size		B	A	C	F	H <sub>1</sub>	H <sub>2</sub>
OPS22493-06-06	10	3/8"	- 06	11/16" - 16	0.28	2.34	0.37	0.94	1.18	0.87
OPS22493-08-08	12	1/2"	- 08	13/16" - 16	0.37	2.81	0.43	1.18	1.59	0.94
OPS22493-10-10	16	5/8"	- 10	1" - 14	0.45	3.24	0.53	1.48	1.89	1.18
OPS22491-12-12	19	3/4"	- 12	1.3/16" - 12	0.55	4.45	0.57	1.87	2.36	1.42
OPS22491-12-16	19	3/4"	- 12	1.7/16" - 12	0.78	4.45	0.60	2.20	2.36	1.62
OPS22491-16-16	25	1"	- 16	1.7/16" - 12	0.75	5.24	0.60	2.13	2.91	1.62
OPS22491-20-20	31	1.1/4"	- 20	1.11/16" - 12	0.97	6.00	0.60	2.52	3.41	1.97
OPS22491-24-24	38	1.1/2"	- 24	2" - 12	1.19	6.40	0.58	2.72	3.72	2.36

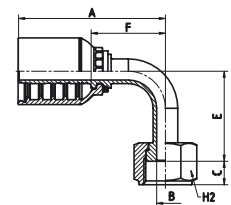
### OPS24491

LONG DROP 90° ORFS FEMALE - SAE J516/J1453 (CRIMPED-BACK NUT)  
 ORFS HEMBRA CODO LARGO 90° ASIENTO PLANO  
 SAE J516/J1453 (CRIMPADO DETRAS DE LA TUERCA)



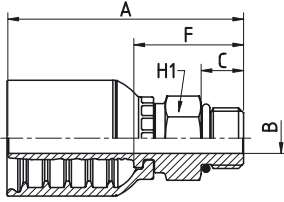
### OPS24493

LONG DROP 90° ORFS FEMALE - SAE J516/J1453 (SLIP-ON NUT)  
 ORFS HEMBRA CODO LARGO 90° ASIENTO PLANO  
 SAE J516/J1453 (TUERCA DESLIZABLE SOBRE LA ESPIGA)



PART. REF.	HOSE BORE			THREAD	DIMENSIONS inch					
	DN	inch	Size		B	A	C	F	H <sub>1</sub>	H <sub>2</sub>
OPS24493-10-10	16	5/8"	- 10	1" - 14	0.45	2.97	0.53	2.72	1.61	1.18
OPS24491-12-12	19	3/4"	- 12	1.3/16" - 12	0.55	4.45	0.57	3.78	2.36	1.42
OPS24491-16-16	25	1"	- 16	1.7/16" - 12	0.75	5.24	0.60	4.51	2.91	1.62
OPS24491-20-20	31	1.1/4"	- 20	1.11/16" - 12	0.97	6.00	0.60	5.08	3.41	1.97

## SAE OR BOSS STANDARD CONNECTIONS



### OPS13010

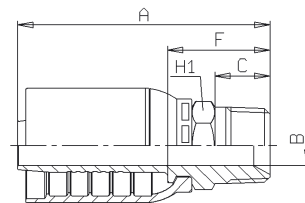
SAE O-RING RIGID MALE - SAE J516/J514  
 SAE MACHO GIRATORIO TIPO O-RING BOSS - SAE J516/J514

PART. REF.	HOSE BORE			THREAD	DIMENSIONS inch				
	DN	inch	Size		B	A	C	F	H <sub>i</sub>
OPS13010-06-06	10	3/8"	- 06	9/16" - 18	0.28	2.17	0.39	1.01	0.67
OPS13010-08-08	12	1/2"	- 08	3/4" - 16	0.37	2.36	0.44	1.14	0.87
OPS13010-08-10	12	1/2"	- 08	7/8" - 14	0.49	2.48	0.50	1.26	1.00
OPS13010-12-12	19	3/4"	- 12	1.1/16" - 12	0.55	3.63	0.59	1.54	1.25
OPS13010-12-16	19	3/4"	- 12	1.5/16" - 12	0.78	3.65	0.59	1.56	1.50
OPS13010-16-16	25	1"	- 16	1.5/16" - 12	0.75	3.89	0.59	1.56	1.50
OPS13010-20-20	31	1.1/4"	- 20	1.5/8" - 12	0.97	4.25	0.59	1.65	1.81

## NPTF STANDARD CONNECTIONS

### OPS12810

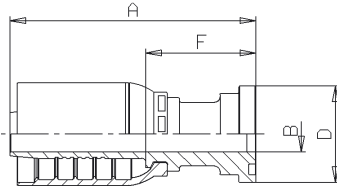
**NPTF MALE 30° CONE SEAT - SAE J516**  
**NPTF MACHO CUERDA CONICA ASIENTO A 30° - SAE J516**



PART. REF.	HOSE BORE			THREAD	DIMENSIONS inch				
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	DN	inch	Size		B	A	C	F	H <sub>1</sub>
OPS12810-06-06	10	3/8"	- 06	3/8" - 18	0.37	2.28	0.57	1.13	0.75
OPS12810-08-08	12	1/2"	- 08	1/2" - 14	0.49	2.60	0.76	1.37	0.94
OPS12810-10-12	16	5/8"	- 10	3/4" - 14	0.63	2.93	0.76	1.58	1.06
OPS12810-12-12	19	3/4"	- 12	3/4" - 14	0.59	3.52	0.77	1.43	1.06
OPS12810-12-16	19	3/4"	- 12	1" - 11.5	0.78	3.74	0.96	1.65	1.37
OPS12810-16-16	25	1"	- 16	1" - 11.5	0.78	4.02	0.96	1.69	1.37
OPS12810-16-20	25	1"	- 16	1.1/4" - 11.5	1.02	4.61	0.98	2.28	1.81
OPS12810-20-20	31	1.1/4"	- 20	1.1/4" - 11.5	1.02	4.92	0.98	2.32	1.81
OPS12810-24-24	38	1.1/2"	- 24	1.1/2" - 11.5	1.26	5.06	1.02	2.38	1.97
OPS12810-32-32	51	2"	- 32	2" - 11.5	1.77	6.42	1.04	2.68	2.56

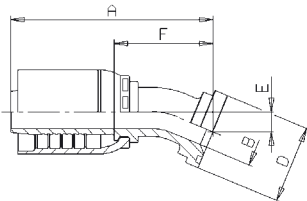
## FLANGE CODE 61 STANDARD CONNECTIONS



### OPS23311

STRAIGHT FLANGE HEAD CODE 61 - SAE J516/J518  
BRIDA RECTA CODIGO 61 - SAE J516/J518

PART. REF.	HOSE BORE			FLANGE	DIMENSIONS inch					
	DN	inch	Size		B	A	D	F		
OPS23311-08-08	12	1/2"	- 08	1/2"	0.37	3.23	1.19	2.00		
OPS23311-12-12	19	3/4"	- 12	3/4"	0.59	3.80	1.50	1.70		
OPS23311-12-16	19	3/4"	- 12	1"	0.78	4.07	1.75	1.98		
OPS23311-16-16	25	1"	- 16	1"	0.78	4.31	1.75	1.98		
OPS23311-16-20	25	1"	- 16	1.1/4"	1.02	4.33	2.00	2.00		
OPS23311-20-20	31	1.1/4"	- 20	1.1/4"	1.02	4.67	2.00	2.07		
OPS23311-20-24	31	1.1/4"	- 20	1.1/2"	1.26	4.80	2.38	2.20		
OPS23311-24-24	38	1.1/2"	- 24	1.1/2"	1.26	4.98	2.38	2.30		
OPS23311-24-32	38	1.1/2"	- 24	2"	1.65	4.98	2.81	2.30		
OPS23311-32-32	51	2"	- 32	2"	1.65	6.44	2.81	2.70		
OPS23311-32-40	51	2"	- 32	2.1/2"	2.20	6.44	2.81	2.70		



### OPS23321

FLANGE HEAD 22.5° CODE 61 - SAE J516/J518  
BRIDA CODO 22.5° CODIGO 61 - SAE J516/J518

PART. REF.	HOSE BORE			FLANGE	DIMENSIONS inch					
	DN	inch	Size		B	A	D	E	F	
OPS23321-12-12	19	3/4"	- 12	3/4"	0.59	4.37	1.50	0.41	2.26	
OPS23321-12-16	19	3/4"	- 12	1"	0.78	4.37	1.75	0.41	2.26	
OPS23321-16-16	25	1"	- 16	1"	0.75	4.84	1.75	0.45	2.50	
OPS23321-20-20	31	1.1/4"	- 20	1.1/4"	1.02	5.67	2.00	0.47	3.07	
OPS23321-24-24	38	1.1/2"	- 24	1.1/2"	1.26	6.34	2.38	0.53	3.66	
OPS23321-32-32	51	2"	- 32	2"	1.65	8.84	2.81	0.77	5.10	

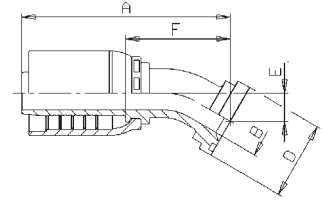
# OPS TYPE



## FLANGE CODE 61 STANDARD CONNECTIONS

### OPS23331

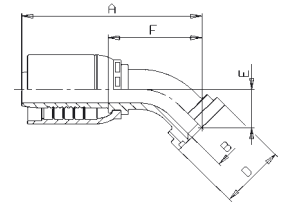
FLANGE HEAD 30° CODE 61 - SAE J516/J518  
BRIDA CODO 30° CODIGO 61 - SAE J516/J518



PART. REF.	HOSE BORE			FLANGE	DIMENSIONS inch				
	DN	inch	Size		B	A	D	E	F
OPS23331-12-12	19	3/4"	- 12	3/4"	0.59	4.47	1.50	0.59	2.38
OPS23331-16-16	25	1"	- 16	1"	0.75	4.96	1.75	0.63	2.64
OPS23331-20-20	31	1.1/4"	- 20	1.1/4"	1.02	5.67	2.00	0.67	3.07
OPS23331-24-24	38	1.1/2"	- 24	1.1/2"	1.26	6.54	2.38	0.77	3.86
OPS23331-32-24	51	2"	- 32	1.1/2"	1.26	7.99	2.38	0.77	4.25
OPS23331-32-32	51	2"	- 32	2"	1.65	9.11	2.81	1.20	5.35

### OPS23341

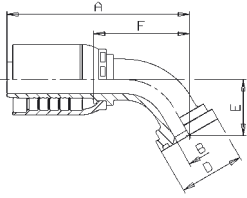
FLANGE HEAD 45° CODE 61 - SAE J516/J518  
BRIDA CODO 45° CODIGO 61 - SAE J516/J518



PART. REF.	HOSE BORE			FLANGE	DIMENSIONS inch				
	DN	inch	Size		B	A	D	E	F
OPS23341-08-08	12	1/2"	- 08	1/2"	0.37	3.54	1.19	0.73	2.30
OPS23341-12-12	19	3/4"	- 12	3/4"	0.59	4.61	1.50	0.98	2.52
OPS23341-12-16	19	3/4"	- 12	1"	0.78	4.61	1.75	0.96	2.52
OPS23341-16-16	25	1"	- 16	1"	0.75	5.14	1.75	1.04	2.80
OPS23341-16-20	25	1"	- 16	1.1/4"	1.02	5.14	2.00	1.04	2.80
OPS23341-20-20	31	1.1/4"	- 20	1.1/4"	1.02	5.91	2.00	1.14	3.31
OPS23341-20-24	31	1.1/4"	- 20	1.1/2"	1.26	5.96	2.38	1.18	3.37
OPS23341-24-24	38	1.1/2"	- 24	1.1/2"	1.26	6.83	2.38	1.30	4.15
OPS23341-24-32	38	1.1/2"	- 24	2"	1.65	6.75	2.81	1.50	4.07
OPS23341-32-32	51	2"	- 32	2"	1.65	9.53	2.81	1.91	5.79



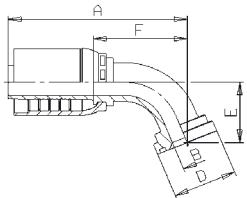
## FLANGE CODE 61 STANDARD CONNECTIONS



### OPS23361

FLANGE HEAD 60° CODE 61 - SAE J516/J518  
BRIDA CODO 60° CODIGO 61 - SAE J516/J518

PART. REF.	HOSE BORE			FLANGE	DIMENSIONS inch				
	DN	inch	Size		B	A	D	E	F
OPS23361-12-12	19	3/4"	- 12	3/4"	0.59	4.65	1.50	1.36	2.54
OPS23361-12-16	19	3/4"	- 12	1"	0.78	4.65	1.75	1.36	2.54
OPS23361-16-16	25	1"	- 16	1"	0.75	5.20	1.75	1.50	2.85
OPS23361-20-20	31	1.1/4"	- 20	1.1/4"	1.02	6.00	2.00	1.63	3.41
OPS23361-24-24	38	1.1/2"	- 24	1.1/2"	1.26	6.67	2.38	1.91	4.00
OPS23361-32-32	51	2"	- 32	2"	1.65	9.41	2.81	2.76	5.67



### OPS23371

FLANGE HEAD 67.5° CODE 61 - SAE J516/J518  
BRIDA CODO 67.5° CODIGO 61 - SAE J516/J518

PART. REF.	HOSE BORE			FLANGE	DIMENSIONS inch				
	DN	inch	Size		B	A	D	E	F
OPS23371-12-12	19	3/4"	- 12	3/4"	0.59	4.63	1.50	1.56	2.52
OPS23371-12-16	19	3/4"	- 12	1"	0.78	4.63	1.75	1.56	2.52
OPS23371-16-16	25	1"	- 16	1"	0.75	5.18	1.75	1.73	2.85
OPS23371-20-20	31	1.1/4"	- 20	1.1/4"	1.02	6.00	2.00	1.89	3.41
OPS23371-24-24	38	1.1/2"	- 24	1.1/2"	1.26	6.69	2.38	2.20	4.02
OPS23371-32-32	51	2"	- 32	2"	1.65	9.43	2.81	3.21	5.69

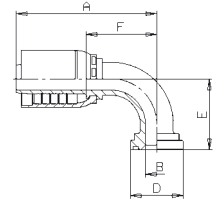
# OPS TYPE



## FLANGE CODE 61 STANDARD CONNECTIONS

### OPS23391

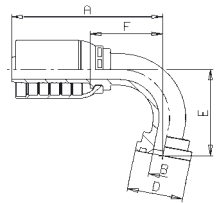
FLANGE HEAD 90° CODE 61 - SAE J516/J518  
BRIDA CODO 90° CODIGO 61 - SAE J516/J518



PART. REF.	HOSE BORE			FLANGE	DIMENSIONS inch				
	DN	inch	Size		B	A	D	E	F
OPS23391-08-08	12	1/2"	- 08	1/2"	0.37	3.37	1.19	1.57	2.15
OPS23391-12-12	19	3/4"	- 12	3/4"	0.59	4.41	1.50	2.13	2.30
OPS23391-12-16	19	3/4"	- 12	1"	0.78	4.41	1.75	2.13	2.30
OPS23391-16-16	25	1"	- 16	1"	0.75	4.96	1.75	2.36	2.64
OPS23391-16-20	25	1"	- 16	1.1/4"	1.02	4.96	2.00	2.36	2.64
OPS23391-20-20	31	1.1/4"	- 20	1.1/4"	1.02	5.81	2.00	2.64	3.21
OPS23391-20-24	31	1.1/4"	- 20	1.1/2"	1.26	5.81	2.38	2.72	3.21
OPS23391-24-20	38	1.1/2"	- 24	1.1/4"	1.02	6.48	2.00	2.64	3.80
OPS23391-24-24	38	1.1/2"	- 24	1.1/2"	1.26	6.50	2.38	3.11	3.82
OPS23391-24-32	38	1.1/2"	- 24	2"	1.65	6.50	2.81	3.39	3.82
OPS23391-32-32	51	2"	- 32	2"	1.65	9.11	2.81	4.49	5.37
OPS23391-32-40	51	2"	- 32	2.1/2"	2.20	9.11	2.81	4.57	5.37

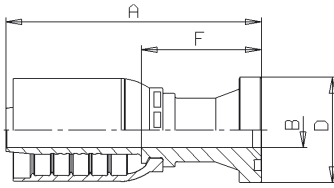
### OPS23301

FLANGE HEAD 101° CODE 61 - SAE J516/J518  
BRIDA CODO 101° CODIGO 61 - SAE J516/J518



PART. REF.	HOSE BORE			FLANGE	DIMENSIONS inch				
	DN	inch	Size		B	A	D	E	F
OPS23301-12-12	19	3/4"	- 12	3/4"	0.59	4.21	1.50	2.36	2.13
OPS23301-20-20	31	1.1/4"	- 20	1.1/4"	1.02	5.61	2.00	2.95	3.01

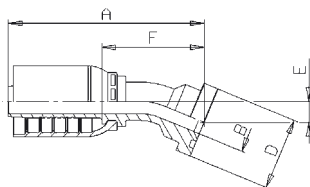
## FLANGE CODE 62 STANDARD CONNECTIONS



### OPS23611

STRAIGHT FLANGE HEAD CODE 62 - SAE J516/J518  
BRIDA RECTA CODIGO 62 - SAE J516/J518

PART. REF.	HOSE BORE			FLANGE	DIMENSIONS inch					
	DN	inch	Size		B	A	D	F		
OPS23611-08-08	12	1/2"	- 08	1/2"	0.37	3.28	1.25	2.05		
OPS23611-10-12	16	5/8"	- 10	3/4"	0.59	4.11	1.63	2.76		
OPS23611-12-12	19	3/4"	- 12	3/4"	0.59	3.96	1.63	1.86		
OPS23611-12-16	19	3/4"	- 12	1"	0.78	4.35	1.88	2.26		
OPS23611-16-16	25	1"	- 16	1"	0.75	4.59	1.88	2.26		
OPS23611-16-20	25	1"	- 16	1.1/4"	1.02	4.75	2.13	2.42		
OPS23611-20-16	31	1.1/4"	- 20	1"	0.75	4.94	1.88	2.34		
OPS23611-20-20	31	1.1/4"	- 20	1.1/4"	0.97	5.10	2.13	2.50		
OPS23611-20-24	31	1.1/4"	- 20	1.1/2"	1.26	5.41	2.50	2.81		
OPS23611-24-24	38	1.1/2"	- 24	1.1/2"	1.19	5.53	2.50	2.85		
OPS23611-24-32	38	1.1/2"	- 24	2"	1.53	6.08	3.13	3.41		
OPS23611-32-32	51	2"	- 32	2"	1.53	7.30	3.13	3.56		



### OPS23621

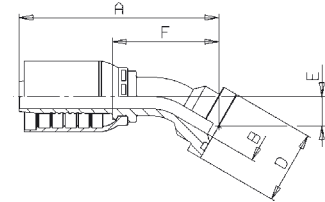
FLANGE HEAD 22.5° CODE 62 - SAE J516/J518  
BRIDA CODO 22.5° CODIGO 62 - SAE J516/J518

PART. REF.	HOSE BORE			FLANGE	DIMENSIONS inch					
	DN	inch	Size		B	A	D	E	F	
OPS23621-16-16	25	1"	- 16	1"	0.75	5.08	1.88	0.55	2.76	
OPS23621-20-20	31	1.1/4"	- 20	1.1/4"	0.97	5.93	2.13	0.63	3.33	
OPS23621-24-24	38	1.1/2"	- 24	1.1/2"	1.19	6.85	2.50	0.77	4.17	
OPS23621-32-32	51	2"	- 32	2"	1.53	9.41	3.13	1.02	5.67	

## FLANGE CODE 62 STANDARD CONNECTIONS

### OPS23631

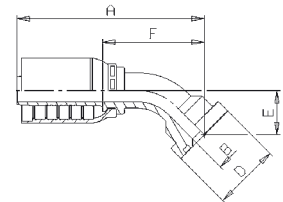
FLANGE HEAD 30° CODE 62 - SAE J516/J518  
BRIDA CODO 30° CODIGO 62 - SAE J516/J518



PART. REF.	HOSE BORE			FLANGE	DIMENSIONS inch				
	DN	inch	Size		B	A	D	E	F
OPS23631-12-12	19	3/4"	- 12	3/4"	0.55	4.61	1.62	0.67	2.52
OPS23631-16-16	25	1"	- 16	1"	0.75	5.20	1.88	0.77	2.87
OPS23631-20-20	31	1.1/4"	- 20	1.1/4"	0.97	6.04	2.13	0.89	3.44
OPS23631-24-24	38	1.1/2"	- 24	1.1/2"	1.19	7.01	2.50	1.06	4.33
OPS23631-32-32	51	2"	- 32	2"	1.53	9.57	3.13	1.46	5.83

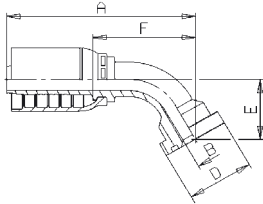
### OPS23641

FLANGE HEAD 45° CODE 62 - SAE J516/J518  
BRIDA CODO 45° CODIGO 62 - SAE J516/J518



PART. REF.	HOSE BORE			FLANGE	DIMENSIONS inch				
	DN	inch	Size		B	A	D	E	F
OPS23641-08-08	12	1/2"	- 08	1/2"	0.37	3.59	1.25	0.83	2.37
OPS23641-12-12	19	3/4"	- 12	3/4"	0.55	4.72	1.63	1.10	2.62
OPS23641-12-16	19	3/4"	- 12	1"	0.79	4.88	1.88	1.24	2.80
OPS23641-16-16	25	1"	- 16	1"	0.75	5.33	1.88	1.26	2.99
OPS23641-16-20	25	1"	- 16	1.1/4"	1.02	5.55	2.13	1.46	3.23
OPS23641-20-20	31	1.1/4"	- 20	1.1/4"	0.97	6.22	2.13	1.46	3.62
OPS23641-20-24	31	1.1/4"	- 20	1.1/2"	1.26	6.91	2.50	1.81	4.31
OPS23641-24-24	38	1.1/2"	- 24	1.1/2"	1.19	7.20	2.50	1.73	4.53
OPS23641-32-32	51	2"	- 32	2"	1.53	10.18	3.13	2.52	6.44

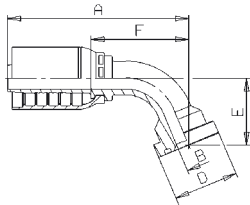
## FLANGE CODE 62 STANDARD CONNECTIONS



### OPS23661

**FLANGE HEAD 60° CODE 62 - SAE J516/J518**  
**BRIDA CODO 60° CODIGO 62 - SAE J516/J518**

PART. REF.	HOSE BORE			FLANGE	DIMENSIONS inch				
	DN	inch	Size		B	A	D	E	F
<b>OPS23661-12-12</b>	19	3/4"	- 12	3/4"	0.55	4.72	1.63	1.50	2.62
<b>OPS23661-16-16</b>	25	1"	- 16	1"	0.75	5.33	1.88	1.73	2.99
<b>OPS23661-20-20</b>	31	1.1/4"	- 20	1.1/4"	0.97	6.22	2.13	2.01	3.62
<b>OPS23661-32-32</b>	51	2"	- 32	2"	1.53	9.80	3.13	3.35	6.06



### OPS23671

**FLANGE HEAD 67.5° CODE 62 - SAE J516/J518**  
**BRIDA CODO 67.5° CODIGO 62 - SAE J516/J518**

PART. REF.	HOSE BORE			FLANGE	DIMENSIONS inch				
	DN	inch	Size		B	A	D	E	F
<b>OPS23671-12-12</b>	19	3/4"	- 12	3/4"	0.55	4.69	1.63	1.69	2.58
<b>OPS23671-16-16</b>	25	1"	- 16	1"	0.75	5.30	1.88	1.97	2.95
<b>OPS23671-20-20</b>	31	1.1/4"	- 20	1.1/4"	0.97	6.18	2.13	2.28	3.58
<b>OPS23671-24-24</b>	38	1.1/2"	- 24	1.1/2"	1.19	6.93	2.50	2.76	4.25
<b>OPS23671-32-32</b>	51	2"	- 32	2"	1.53	9.61	3.13	3.58	5.87

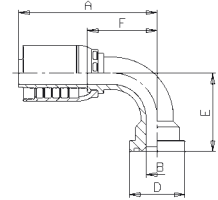
# OPS TYPE



## FLANGE CODE 62 STANDARD CONNECTIONS

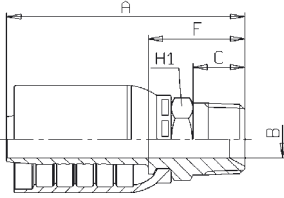
### OPS23691

FLANGE HEAD 90° CODE 62 - SAE J516/J518  
BRIDA CODO 90° CODIGO 62 - SAE J516/J518



PART. REF.	HOSE BORE			FLANGE	DIMENSIONS inch					
	DN	inch	Size		B	A	D	E	F	
OPS23691-08-08	12	1/2"	- 08	1/2"	0.37	3.37	1.25	1.77	2.15	
OPS23691-10-12	16	5/8"	- 10	3/4"	0.59	3.44	1.63	2.38	2.11	
OPS23691-10-16	16	5/8"	- 10	1"	0.78	3.54	1.88	2.56	2.19	
OPS23691-12-12	19	3/4"	- 12	3/4"	0.55	4.41	1.63	2.28	2.30	
OPS23691-12-16	19	3/4"	- 12	1"	0.79	4.41	1.88	2.52	2.30	
OPS23691-16-16	25	1"	- 16	1"	0.75	4.96	1.88	2.64	2.64	
OPS23691-16-20	25	1"	- 16	1.1/4"	1.02	4.96	2.13	2.95	2.64	
OPS23691-20-16	31	1.1/4"	- 20	1"	0.75	5.49	1.88	2.64	2.89	
OPS23691-20-20	31	1.1/4"	- 20	1.1/4"	0.97	5.81	2.13	3.07	3.21	
OPS23691-20-24	31	1.1/4"	- 20	1.1/2"	1.26	6.28	2.50	3.56	3.68	
OPS23691-24-24	38	1.1/2"	- 24	1.1/2"	1.19	6.50	2.50	3.72	3.82	
OPS23691-24-32	38	1.1/2"	- 24	2"	1.65	6.50	3.13	4.43	3.82	
OPS23691-32-32	51	2"	- 32	2"	1.53	9.11	3.13	5.35	5.37	

## BSPT STANDARD CONNECTIONS



### OPS10710

**BSP MALE TAPERED**  
BSP MACHO CUERDA CONICA

PART. REF.	HOSE BORE			FLANGE	DIMENSIONS inch				
	DN	inch	Size		B	A	C	F	H <sub>1</sub>
<b>OPS10710-06-06</b>	10	3/8"	- 06	3/8" - 18	0.28	2.22	0.47	1.07	0.75
<b>OPS10710-08-08</b>	12	1/2"	- 08	1/2" - 14	0.39	2.45	0.59	1.22	0.87
<b>OPS10710-12-12</b>	19	3/4"	- 12	3/4" - 14	0.67	3.46	0.67	1.37	1.06
<b>OPS10710-16-16</b>	25	1"	- 16	1" - 11	0.89	3.92	0.83	1.59	1.42



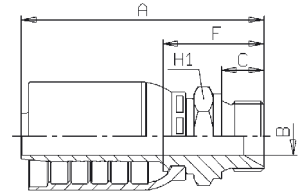
# OPS TYPE



## BSP STANDARD CONNECTIONS

### OPS10510

**BSP MALE PARALLEL 60° CONE SEAT - BS5200**  
**BSP MACHO CUERDA RECTA ASIENTO A 60° - BS5200**

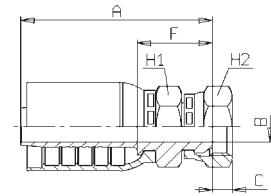


PART. REF.	HOSE BORE			THREAD	DIMENSIONS inch					
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	DN	inch	Size		B	A	C	F	H <sub>1</sub>	
<b>NEW</b> OPS10510-06-04	10	3/8"	- 06	1/4" - 19	0.20	2.18	0.43	1.02	0.75	
OPS10510-06-06	10	3/8"	- 06	3/8" - 19	0.31	2.26	0.47	1.11	0.87	
OPS10510-06-08	10	3/8"	- 06	1/2" - 14	0.43	2.36	0.55	1.20	1.06	
OPS10510-08-06	12	1/2"	- 08	3/8" - 19	0.31	2.33	0.47	1.11	0.87	
OPS10510-08-08	12	1/2"	- 08	1/2" - 14	0.43	2.45	0.55	1.22	1.06	
OPS10510-10-12	16	5/8"	- 10	3/4" - 14	0.67	2.70	0.63	1.35	1.26	
OPS10510-12-12	19	3/4"	- 12	3/4" - 14	0.67	3.59	0.63	1.50	1.26	
OPS10510-16-16	25	1"	- 16	1" - 11	0.89	4.00	0.75	1.67	1.61	

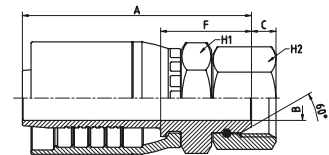
### OPS20711

**BSP FEMALE 60° CONE - BS5200 (CRIMPED-BACK NUT)**  
**BSP HEMBRA RECTA ASIENTO A 60° - BS5200**  
**(CRIMPADO DETRAS DE LA TUERCA)**



### OPS20712

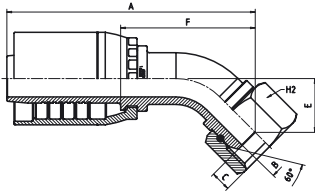
**BSP FEMALE 60° CONE - BS5200 (THRUST-WIRE NUT)**  
**BSP HEMBRA RECTA ASIENTO A 60° - BS5200**  
**(TUERCA GIRATORIA SOBRE LA ESPIGA)**



PART. REF.	HOSE BORE			THREAD	DIMENSIONS inch					
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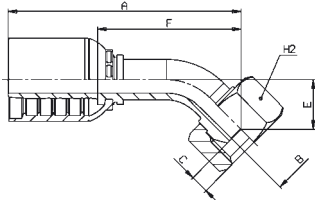
	DN	inch	Size		B	A	C	F	H <sub>1</sub>	H <sub>2</sub>
OPS20711-06-06	10	3/8"	- 06	3/8" - 19	0.28	2.13	0.25	0.97	0.87	0.87
OPS20711-08-08	12	1/2"	- 08	1/2" - 14	0.37	2.26	0.26	1.04	1.06	1.06
OPS20712-12-12	19	3/4"	- 12	3/4" - 14	0.55	3.46	0.35	1.37	1.25	1.25
OPS20712-16-16	25	1"	- 16	1" - 11	0.75	3.86	0.42	1.53	1.62	1.62
OPS20712-20-20	31	1.1/4"	- 20	1.1/4" - 11	0.97	4.56	0.39	1.96	1.97	1.97

## BSP STANDARD CONNECTIONS



### OPS20742

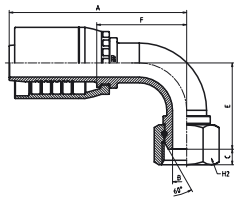
**45° BSP FEMALE 60° CONE - BS5200 (THRUST-WIRE NUT)**  
 BSP HEMBRA CODO 45° ASIENTO A 60° - BS5200  
 (TUERCA GIRATORIA SOBRE LA ESPIGA)



### OPS20743

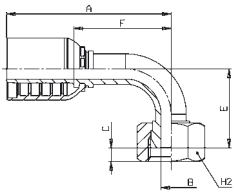
**45° BSP FEMALE 60° CONE - BS5200 (SLIP-ON NUT)**  
 BSP HEMBRA CODO 45° ASIENTO A 60° - BS5200  
 (TUERCA DESLIZABLE SOBRE LA ESPIGA)

PART. REF.	HOSE BORE			THREAD	DIMENSIONS inch					
	DN	inch	Size		B	A	C	E	F	H <sub>2</sub>
OPS20743-06-06	10	3/8"	- 06	3/8" - 19	0.28	2.81	0.24	0.59	1.65	0.87
OPS20743-08-08	12	1/2"	- 08	1/2" - 14	0.37	3.19	0.25	0.67	1.95	1.06
OPS20742-12-12	19	3/4"	- 12	3/4" - 14	0.55	4.49	0.35	0.96	2.40	1.25
OPS20742-16-16	25	1"	- 16	1" - 11	0.75	5.09	0.42	1.11	2.77	1.62



### OPS20792

**45° BSP FEMALE 60° CONE - BS5200 (THRUST-WIRE NUT)**  
 BSP HEMBRA CODO 45° ASIENTO A 60° - BS5200  
 (TUERCA GIRATORIA SOBRE LA ESPIGA)



### OPS20793

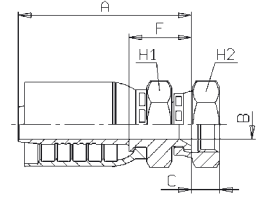
**45° BSP FEMALE 60° CONE - BS5200 (SLIP-ON NUT)**  
 BSP HEMBRA CODO 45° ASIENTO A 60° - BS5200  
 (TUERCA DESLIZABLE SOBRE LA ESPIGA)

PART. REF.	HOSE BORE			THREAD	DIMENSIONS inch					
	DN	inch	Size		B	A	C	E	F	H <sub>2</sub>
OPS20793-06-06	10	3/8"	- 06	3/8" - 19	0.28	2.60	0.24	1.24	1.44	0.87
OPS20793-08-08	12	1/2"	- 08	1/2" - 14	0.37	2.99	0.25	1.44	1.77	1.06
OPS20792-12-12	19	3/4"	- 12	3/4" - 14	0.55	4.13	0.35	1.94	2.03	1.25
OPS20792-16-16	25	1"	- 16	1" - 11	0.75	4.72	0.42	2.30	2.40	1.62

## JIS STANDARD CONNECTIONS

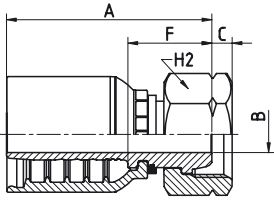
### OPS23811

**JIS BSP FEMALE 60° CONE SEAT JIS B 8363 (CRIMPED-BACK NUT)**  
**JIS BSP HEMBRA RECTA ASIENTO A 60° (NISSAN) JIS B 8363**  
**(CRIMPADO DETRAS DE LA TUERCA)**



PART. REF.	HOSE BORE			THREAD	DIMENSIONS inch					
	DN	inch	Size		B	A	C	F	H <sub>1</sub>	H <sub>2</sub>
OPS23811-12-12	19	3/4"	- 12	3/4" - 14	0.55	3.28	0.53	1.19	1.42	1.42

## METRIC MULTISEAL STANDARD CONNECTIONS



### OPS21313

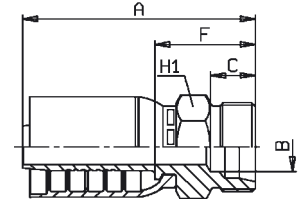
**METRIC FEMALE MULTISEAL - DIN 20078/3868 (SLIP-ON NUT)**  
**HEMBRA RECTA MILIMETRICA MULTISELLO - DIN 20078/3868**  
**(TUERCA DESLIZABLE SOBRE LA ESPIGA)**

PART. REF.	HOSE BORE		THREAD	PIPE	DIMENSIONS inch						
	DN	inch			B	A	C	F	H <sub>2</sub>		
<b>OPS21313-08-22</b>	112	1/2"	- 08	M 22x1.5	15	0.37	2.37	0.22	1.14		1.06
<b>OPS21313-10-26</b>	16	5/8"	- 10	M 26x1.5	18	0.49	2.52	0.22	1.17		1.25

## METRIC 24° O-RING STANDARD CONNECTIONS

### OPS11210

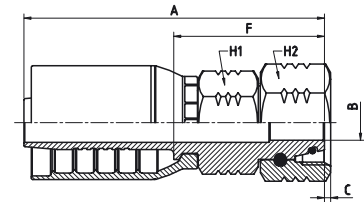
**METRIC MALE 24° CONE SEAT H.T. - DIN 20066/3861**  
**MACHO MILIMETRICO CONO 24° SERIE PESADA H.T. - DIN 20066/3861**



PART. REF.	HOSE BORE			THREAD	PIPE	DIMENSIONS inch				
	DN	inch	Size			mm	B	A	C	F
OPS11210-10-30	16	5/8"	- 10	M 30x2	20	0.59	2.76	0.63	1.41	1.18
OPS11210-12-36	19	3/4"	- 12	M 36x2	25	0.78	3.69	0.71	1.59	1.42
OPS11210-16-42	25	1"	- 16	M 42x2	30	0.98	4.02	0.79	1.69	1.81
OPS11210-20-52	31	1.1/4"	- 20	M 52x2	38	1.18	4.52	0.87	1.93	2.17

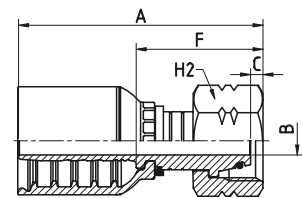
### OPS21612

**O-RING METRIC FEMALE 24° CONE H.T.**  
**DIN 20066/3865 (THRUST-WIRE NUT)**  
**HEMBRA RECTA MILIMETRICA CON O-RING CONO 24° SERIE**  
**PESADA H.T. - DIN 20066/3865 (TUERCA GIRATORIA SOBRE LA ESPIGA)**



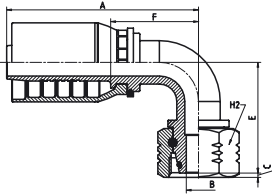
### OPS21613

**O-RING METRIC FEMALE 24° CONE H.T.**  
**DIN 20066/3865 (SLIP-ON NUT)**  
**HEMBRA RECTA MILIMETRICA CON O-RING CONO 24° SERIE**  
**PESADA H.T. - DIN 20066/3865 (TUERCA DESLIZABLE SOBRE LA ESPIGA)**



PART. REF.	HOSE BORE			THREAD	PIPE	DIMENSIONS inch					
	DN	inch	Size			mm	B	A	C	F	H <sub>1</sub>
OPS21613-10-30	16	5/8"	- 10	M 30x2	20	0.49	2.89	0.17	1.54	-	1.42
OPS21612-12-36	19	3/4"	- 12	M 36x2	25	0.55	3.85	0.23	1.58	1.42	1.81
OPS21612-16-42	25	1"	- 16	M 42x2	30	0.75	4.15	0.34	1.82	1.62	1.97
OPS21612-20-52	31	1.1/4"	- 20	M 52x2	38	0.97	4.53	0.38	1.93	1.97	2.36

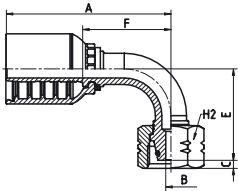
## METRIC 24° O-RING STANDARD CONNECTIONS



### OPS21692

**90° O-RING METRIC FEMALE 24° CONE H.T.  
DIN 20066/3865 (THRUST-WIRE NUT)**

HEMBRA CODO 90° MILIMETRICA CON O-RING CONO 24° SERIE PESADA H.T. - DIN 20066/3865 (TUERCA GIRATORIA SOBRE LA ESPIGA)

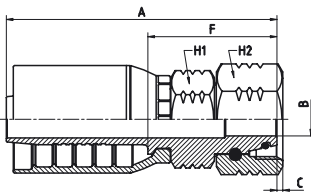


### OPS21693

**90° O-RING METRIC FEMALE 24° CONE H.T.  
DIN 20066/3865 (SLIP-ON NUT)**

HEMBRA CODO 90° MILIMETRICA CON O-RING CONO 24° SERIE PESADA H.T. - DIN 20066/3865 (TUERCA DESLIZABLE SOBRE LA ESPIGA)

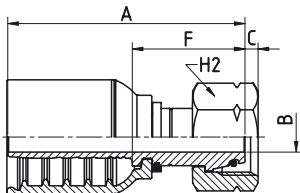
PART. REF.	HOSE BORE		THREAD	PIPE	DIMENSIONS inch						
	DN	inch	Size	mm	B	A	C	E	F	H <sub>2</sub>	
OPS21693-10-30	16	5/8"	- 10	M 30x2	20	0.49	3.39	0.14	2.26	2.03	1.42
OPS21692-12-36	19	3/4"	- 12	M 36x2	25	0.55	4.06	0.23	2.58	1.95	1.81
OPS21692-16-42	25	1"	- 16	M 42x2	30	0.75	4.72	0.34	2.61	2.40	1.97



### OPS21512

**O-RING METRIC FEMALE 24° CONE L.T.  
DIN 20066/3865 (THRUST-WIRE NUT)**

HEMBRA RECTA MILIMETRICA CON O-RING CONO 24° SERIE PESADA L.T. - DIN 20066/3865 (TUERCA GIRATORIA SOBRE LA ESPIGA)



### OPS21513

**O-RING METRIC FEMALE 24° CONE L.T.  
DIN 20066/3865 (SLIP-ON NUT)**

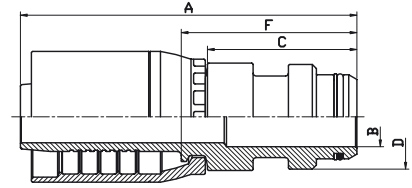
HEMBRA RECTA MILIMETRICA CON O-RING CONO 24° SERIE PESADA L.T. - DIN 20066/3865 (TUERCA DESLIZABLE SOBRE LA ESPIGA)

PART. REF.	HOSE BORE		THREAD	PIPE	DIMENSIONS inch						
	DN	inch	Size	mm	B	A	C	F	H <sub>1</sub>	H <sub>2</sub>	
OPS21513-08-22	12	1/2"	- 08	M 22x1.5	15	0.37	2.49	0.09	1.27	-	1.06
OPS21513-10-26	16	5/8"	- 10	M 26x1.5	18	0.49	2.64	0.10	1.29	-	1.25
OPS21512-12-30	19	3/4"	- 12	M 30x2	22	0.55	3.71	0.17	1.49	1.26	1.42
OPS21512-16-36	25	1"	- 16	M 36x2	28	0.75	3.97	0.18	1.74	1.41	1.81

## MINING CONNECTIONS

### OPS14610

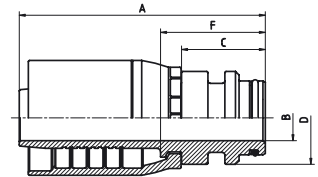
**SUPER STAPLE-LOCK MALE**  
MACHO RECTO SUPER STAPLE-LOCK (MINERIA)



PART. REF.	HOSE BORE				DIMENSIONS inch				
	DN	inch	Size		B	A	C	D	F
OPS14610-12-12	19	3/4"	- 12		0.55	3.93	1.50	1.13	1.83
OPS14610-16-16	25	1"	- 16		0.75	4.87	2.20	1.52	2.54
OPS14610-20-20	31	1 1/4"	- 20		0.97	5.38	2.39	1.79	2.78
OPS14610-24-24	38	1 1/2"	- 24		1.19	5.55	2.44	2.15	2.87
OPS14610-32-32	51	2"	- 32		1.53	7.08	2.84	2.50	3.34

### OPS14810

**STAPLE-LOCK MALE - SAE J1467**  
MACHO RECTO STAPLE-LOCK (MINERIA) - SAE J1467



PART. REF.	HOSE BORE				DIMENSIONS inch				
	DN	inch	Size		B	A	C	D	F
OPS14810-12-12	19	3/4"	- 12	0.55	3.57	1.14	1.14	1.48	
OPS14810-16-16	25	1"	- 16	0.75	4.06	1.38	1.54	1.73	
OPS14810-20-20	31	1.1/4"	- 20	0.97	4.37	1.38	1.81	1.77	