



# E3 Series Subsea Hose Fittings

Dual Seal Flange and JIC Connections for Subsea Applications



ENGINEERING YOUR SUCCESS.

## Improved System Performance, Simplified Hose Routing and the Elimination of Adapters



Parker's E3 series fittings are specifically designed for the rigors of subsea use and meets the performance requirements of API-17E. Hermetically sealed with an industry exclusive, patent-pending O-ring and Sea Water Ingression boss design for unmatched protection against moisture ingress.

E3 series hose fittings are offered in straight, 45° and 90° bent tube configurations, eliminating the need for adapters, which means less potential leak points, quicker installation, and lower cost.

E3 series Dual Seal Flange hose fittings incorporate both radial and face seal technologies, reducing the potential for system leakage and air or water ingress caused by side loading of traditional flange face seal connections. Dual Seal Flange provides superior reliability in subsea applications exposed to high-vibration & shock.

### Product Features:

- Available for 1/4", 1/2" and 1" hose sizes
- Available in straight, 45° and 90° configurations
- Available in standard JIC and Dual Seal Flange connections
- 5,000 psi (345 bar) working pressure rating with 4:1 design factor
- 316/316L stainless steel construction
- Heat Lot Code traceable
- Tested to API-17E (ISO-13628-5)
- Dual Seal fittings use SAE Code 62 bolt pattern which enables use of standard flange hardware
- For use with 2390N series hose

## Improved Reliability Through Sealing and Port Retention

Combination radial seal and face seal gives Dual Seal Flange Fittings superior leak-free port connections

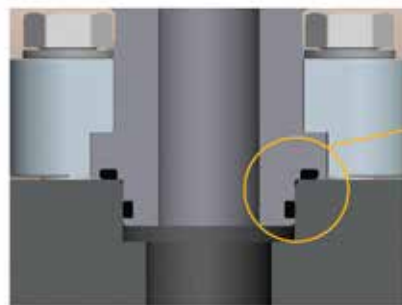
Parker's Dual Seal Flange Fittings use both a radial seal and face seal to achieve superior leak-free port connections. Illustrated at right, the primary radial seal reinforces the fitting's pressure capabilities while providing additional system integrity.

### Exclusive Design Advantages

The Parker Dual Seal design has been tested to 5,000 psi with a 4:1 design factor and validated by conducting impulse testing per API-17E (ISO-13628-5). Patterned after the SAE J518 / ISO 6162 flange design, the Dual Seal flange fittings use standard flange clamps and hardware for installation.

### Available Styles and Sizes

The Dual Seal fitting offering includes a wide range of hose connection styles to meet various hydraulic system design requirements. For Dual Seal flange, Parker offers straight, 45° and 90° configurations for 1/2", 1" and 1-1/2" I.D. hoses.



### Superior Materials

Dual Seal fittings are manufactured from 316/316L stainless steel for superior corrosion resistance and have Heat Lot Code Traceability. The face seal and radial seal O-rings are composed of 90 durometer Nitrile material meeting SAE J515 dimensions.

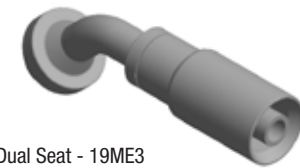
***polyflex***

E3 Series fittings are available for 1/4", 1/2" and 1" hose sizes with straight, 45° or 90° bent tube configurations

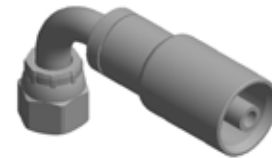
Parker Part Number	Description
19WE3-24-16C	1" Hose -24 Dual Seal 90° Fitting
19ME3-24-16C	1" Hose -24 Dual Seal 45° Fitting
19GE3-24-16C	1" Hose -24 Dual Seal Straight Fitting
19WE3-16-16C	1" Hose -16 Dual Seal 90° Fitting
19ME3-16-16C	1" Hose -16 Dual Seal 45° Fitting
19GE3-16-16C	1" Hose -16 Dual Seal Straight Fitting
19WE3-16-8C	1/2" Hose -16 Dual Seal 90° Fitting
19ME3-16-8C	1/2" Hose -16 Dual Seal 45° Fitting
19GE3-16-8C	1/2" Hose -16 Dual Seal Straight Fitting
19WE3-8-8C	1/2" Hose -8 Dual Seal 90° Fitting
19ME3-8-8C	1/2" Hose -8 Dual Seal 45° Fitting
19GE3-8-8C	1/2" Hose -8 Dual Seal Straight Fitting
139E3-16-16C-411	1" Hose -16 JIC Female 90° Fitting
137E3-16-16C	1" Hose -16 JIC Female 45° Fitting
139E3-8-8C-411	1/2" Hose -8 JIC Female 90° Fitting
137E3-8-8C	1/2" Hose -8 JIC Female 45° Fitting
139E3-4-4C	1/4" Hose -4 JIC Female 90° Fitting
137E3-4-4C	1/4" Hose -4 JIC Female 45° Fitting
139E3-6-4C	1/4" Hose -6 JIC Female 90° Fitting
137E3-6-4C	1/4" Hose -6 JIC Female 45° Fitting
106E3-16-16C	1" Hose -16 JIC Female Swivel Straight Fitting
106E3-8-8C	1/2" Hose -8 JIC Female Swivel Straight Fitting
106E3-6-4C	1/4" Hose -6 JIC Female Swivel Straight Fitting
106E3-4-4C	1/4" Hose -4 JIC Female Swivel Straight Fitting



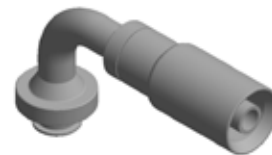
45° JIC - 137E3



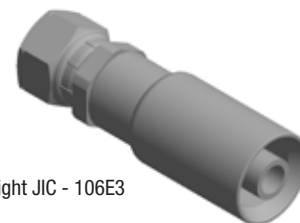
45° Dual Seat - 19ME3



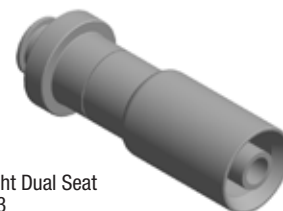
90° JIC - 139E3



90° Dual Seat - 19WE3



Straight JIC - 106E3



Straight Dual Seat  
19GE3

# 2390N - High Pressure Hose

Parker's 2390N BOP stack hoses have a flexible, compact design with a low minimum bend radius which makes them the ideal choice for efficient plumbing of BOP stack hydraulic lines.

## Features



- Available with blue, yellow or green jacket colors for POD identification
- Low volumetric expansion
- Smooth bore for low pressure drop
- Sea-water resistant polyurethane jacket
- For use with E3 Series Subsea Fittings designed for unmatched protection against moisture ingress
- Dual Seal Flange and JIC connections
- Offered in 45° and 90° bent tube configurations, as well as, straight fittings



## Markets

- Oil & Gas
- Hydraulic

Part Number	Color	Nominal I.D.		Maximum O.D.		Max. Working Pressure**		Minimum Bend Radius		Weight	
		inch	mm	inch	mm	psi	MPa	inch	mm	lbs/ft	kg/m
2390N-04V12	Blue	0.25	6.3	0.52	13.3	7,100	49.0	6.3	160	0.17	0.25
2390N-04V16	Yellow	0.25	6.3	0.52	13.3	7,100	49.0	6.3	160	0.17	0.25
2390N-08V12	Blue	0.5	12.8	0.80	21.3	6,017	41.5	5.9	150	0.36	0.54
2390N-08V16	Yellow	0.5	12.8	0.80	21.3	6,017	41.5	5.9	150	0.36	0.54
2390N-16V12	Blue	1.0	25.2	1.38	35.0	4,060	28.0	11.0	280	0.79	1.17
2390N-16V16	Yellow	1.0	25.2	1.38	35.0	4,060	28.0	11.0	280	0.79	1.17

\*Typical value is ≥ value shown in table at minimum bend radius acc. to ISO 13628-5.

## Construction

Core tube: Polyamide

Reinforcement: Two open spiral layers and two open spiral layers of "High Strength Wire"

Jacket: Sea water resistant Polyurethane

Color: Blue, Yellow or Green

## Operating Parameters

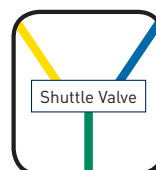
Temperature Range: -40°F to +212°F (-40°C to +100°C) at a 4:1 design factor; Max of +158°F (+70°C) for water, glycol or methanol-based fluids

Minimum Burst Pressure is 4 x Max. Working Pressure

## Notes

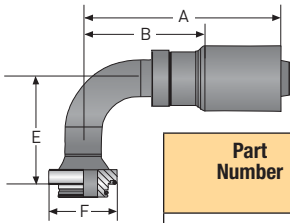
\*\*Assembly working pressure is dependent on the lowest rated component. Therefore, if fittings have a lower pressure rating than the hose, the working pressure of the fittings is the working pressure of the assembly.

Blue and yellow hoses come from the corresponding pod to the shuttle valve; green hose goes from the shuttle valve to the function.



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## 19WE3 - 90° Dual Seal

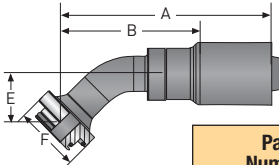


Part Number	Nominal I.D.				Flange Size	A Overall Length		B Cutoff Allowance		F		E		Maximum Working Pressure	
	DN	Size	inch	mm		inch	mm	inch	mm	inch	mm	inch	mm	psi	MPa
#	⊙													↗	
19WE3-8-8C	12	-08	1/2	12.7	1/2	4.11	104	2.44	62	1.25	32	2.11	54	5,000	34
19WE3-16-8C	12	-08	1/2	12.7	1	4.11	104	2.44	62	1.88	48	2.17	55	5,000	34
19WE3-16-16C	25	-16	1	25.4	1	5.45	138	3.13	80	1.88	48	3.27	83	5,000	34
19WE3-24-16C	25	-16	1	25.4	1-1/2	5.88	149	3.38	86	2.50	64	3.52	89	5,000	34

Material: Nipple - Stainless Steel

Shell: Stainless Steel

## 19ME3 - 45° Dual Seal

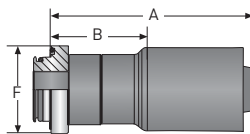


Part Number	Nominal I.D.				Flange Size	A Overall Length		B Cutoff Allowance		F		E		Maximum Working Pressure	
	DN	Size	inch	mm		inch	mm	inch	mm	inch	mm	inch	mm	psi	MPa
#	⊙													↗	
19ME3-8-8C	12	-08	1/2	12.7	1/2	4.49	114	2.68	68	1.25	32	0.87	22	5,000	34
19ME3-16-8C	12	-08	1/2	12.7	1	4.53	115	2.68	68	1.88	48	0.92	23	5,000	34
19ME3-16-16C	25	-16	1	25.4	1	6.24	158	3.88	99	1.88	48	1.42	36	5,000	34
19ME3-24-16C	25	-16	1	25.4	1-1/2	6.32	161	3.93	100	2.50	64	1.86	47	5,000	34

Material: Nipple - Stainless Steel

Shell: Stainless Steel

## 19GE3 - Straight Dual Seal



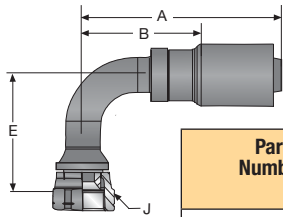
Part Number	Nominal I.D.				Flange Size	A Overall Length		B Cutoff Allowance		F		Maximum Working Pressure		
	DN	Size	inch	mm		inch	mm	inch	mm	inch	mm	psi	MPa	
#	⊙												↗	
19GE3-8-8C	12	-08	1/2	12.7	1/2	3.26	83	1.56	40	1.25	32	5,000	34	
19GE3-16-8C	12	-08	1/2	12.7	1	3.26	83	1.56	40	1.25	32	5,000	34	
19GE3-16-16C	25	-16	1	25.4	1	4.35	110	2.00	51	1.88	48	5,000	34	
19GE3-24-16C	25	-16	1	25.4	1-1/2	4.48	114	2.13	54	2.50	64	5,000	34	

Material: Nipple - Stainless Steel

Shell: Stainless Steel



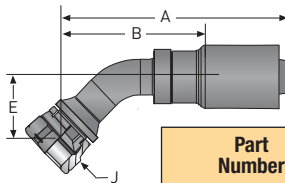
139E3 - 90° JIC



Part Number	Nominal I.D.				Thread Size	A Overall Length		B Cutoff Allowance		J Hex		E		Maximum Working Pressure	
	DN	Size	inch	mm		inch	mm	inch	mm	inch	mm	inch	mm	psi	MPa
#															
139E3-4-4C	6	-04	1/4	6.4	7/16" x 20	2.41	61	1.38	35	5/8	16	0.83	21	5,000	34
139E3-6-4C	6	-04	1/4	6.4	9/16" x 18	2.41	61	1.38	35	3/4	19	0.91	23	5,000	34
139E3-8-8C-411	12	-08	1/2	12.7	3/4" x 16	4.11	104	2.44	62	15/16	24	2.11	54	5,000	34
139E3-16-16C-411	25	-16	1	25.4	1-5/16" x 12	5.69	145	3.32	84	1-5/8	41	3.27	83	5,000	34

Material: Nipple - Stainless Steel      Shell: Stainless Steel      Nut: Stainless Steel

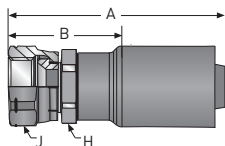
137E3 - 45° JIC



Part Number	Nominal I.D.				Thread Size	A Overall Length		B Cutoff Allowance		J Hex		E		Maximum Working Pressure	
	DN	Size	inch	mm		inch	mm	inch	mm	inch	mm	inch	mm	psi	MPa
#															
137E3-4-4C	6	-04	1/4	6.4	7/16" x 20	2.51	64	1.50	38	5/8	16	0.39	10	5,000	34
137E3-6-4C	6	-04	1/4	6.4	9/16" x 18	2.70	69	1.68	43	3/4	19	0.43	11	5,000	34
137E3-8-8C-411	12	-08	1/2	12.7	3/4" x 16	4.75	121	3.06	78	15/16	24	1.14	29	5,000	34
137E3-16-16C-411	25	-16	1	25.4	1-5/16" x 12	6.50	165	4.13	105	1-5/8	41	1.69	43	5,000	34

Material: Nipple - Stainless Steel      Shell: Stainless Steel      Nut: Stainless Steel

106E3 - Straight JIC



Part Number	Nominal I.D.				Thread Size	A Overall Length		B Cutoff Allowance		J Hex		H Hex		Maximum Working Pressure	
	DN	Size	inch	mm		inch	mm	inch	mm	inch	mm	inch	mm	psi	MPa
#															
106E3-4-4C	6	-04	1/4	6.4	7/16" x 20	2.46	62	1.44	37	5/8	16	5/8	16	5,000	34
106E3-6-4C	6	-04	1/4	6.4	9/16" x 18	2.55	65	1.50	38	3/4	19	5/8	16	5,000	34
106E3-8-8C	12	-08	1/2	12.7	3/4" x 16	3.55	90	1.88	48	1	25	15/16	24	5,000	34
106E3-16-16C	25	-16	1	25.4	1-5/16" x 12	4.76	121	2.38	60	1-5/8	41	1-1/2	41	5,000	34

Material: Nipple - Stainless Steel      Shell: Stainless Steel      Nut: Stainless Steel



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