



PARKER SUBSEA HYDRAULIC HOSE

Blowout Preventer Umbilical (BOP Hose), Hotlines and Stack Hoses

PARKER SUBSEA HYDRAULIC HOSE

Blowout Preventer Umbilical (BOP Hose), Hotlines and Stack Hoses



From topside connections, to plumbing the stack, Parker offers premier hose solutions for every aspect of hydraulic Blowout Preventer (BOP) controls.

Parker's BOP umbilicals are used on offshore drilling rigs to control the subsea BOP stack. It is critical for the operators to have control over the BOP at all times, and Parker's BOP umbilicals with Velocity Hose allow for precise control and faster response times when activating subsea valves on the BOP pod.

Parker also manufactures hotline hoses for BOP control. The hotline is the primary emergency hydraulic control line of the BOP system. If the BOP umbilical fails, the hotline would shut down the well valve and trigger the Emergency Disconnect System.

Parker's stack hoses have a flexible and compact design making them ideal for efficient plumbing of the BOP stack's hydraulic lines. Our stack hoses are available in blue, yellow and green for identification between primary and secondary systems.

Why Parker?

- **Dependability and Experience**

Over 30 years of Oil & Gas thermoplastic hose design and engineering experience.

- **Field Tested**

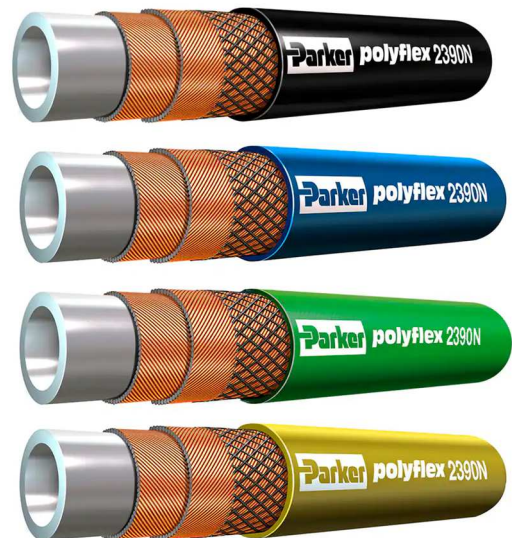
Over 750,000 feet of bundles and over 40 million feet of pilot hose produced for rigs.

- **Capabilities**

BOP umbilical lengths up to 7,000ft and 90+ pilot hoses within 1 umbilical.

- **Extended Service Life**

Lighter weight pilot line hoses with a smaller O.D. provide the possibility for more available spares and longer drilling in-service life.



Hotline Hoses - 2390N



2390N/2380N — For applications requiring high tensile strength and improved mechanical resistance:

- Steel wire reinforcement
- Available with two core tube options — PA12 or methanol-washed PA11
- Low dimensional change under pressure and a smooth bore for low pressure drop service life

Part Number	Nominal I.D.		Maximum O.D.		Maximum Working Pressure		Minimum Bend Radius		Typical Volume Exp. @ 5000 psi		Weight		Maximum Length	
	inch	mm	inch	mm	psi	MPa	inch	mm	cc/ft	cc/m	lbs/ft	kg/m	ft	m
#	⊙		⊙				↷				lb	kg		
2390N-16Vxx	1.0	25.2	1.38	35.0	4,060	28.0	11.0	280	2.5%	0.79	1.17	16,400	5,000	4,267
2380N-16Vxx	1.0	25.2	1.46	37.0	5,510	38.0	11.4	290	4.6%	1.00	1.49	13,200	4,000	4,267

Construction

Core tube: Polyamide

Reinforcement: 575X - Braided aramid fiber 2440N- High strength wire Jacket: Polyurethane Optional secondary reinforcement jacket (also Polyurethane); 2440N PA12

Colors: Black

Operating Parameters

Temperature Range:

-40°F to +212°F (-40°C to +100°C)

Minimum Burst Pressure is 4 x Max.

Working Pressure

Max.Elongation @ W.P.: 575X ±2%

2440N +2% / -1.5%

Certifications

575X

SAE J343

DNV 2.9 No. 5-791.70

2440N

ISO 13628-5

Subsea Blowout Preventer Stack Hoses



Parker's 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.

- 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 specially designed subsea fittings that prevent water ingress
- Dual Seal Flange and JIC connections
- Offered in 45° and 90° bent tube configurations, as well as, straight fittings

Part Number	Color	Nominal I.D.		Maximum O.D.		Maximum Working Pressure		Minimum Bend Radius		Typical Volume Exp. @ W.P.	External Pressure Resistance*		Weight		Design Factor
		inch	mm	inch	mm	psi	MPa	inch	mm		psi	MPa	lbs/ft	kg/m	
#		⊙	⊙					↷					lb	kg	
2390N-08V12	Blue	0.5	12.8	0.80	21.3	5,000	34.5	5.9	150	5%	1,377	9.5	0.36	0.54	4
2390N-08V13	Green	0.5	12.8	0.80	21.3	5,000	34.5	5.9	150	5%	1,377	9.5	0.36	0.54	4
2390N-08V16	Yellow	0.5	12.8	0.80	21.3	5,000	34.5	5.9	150	5%	1,377	9.5	0.36	0.54	4
2390N-16V12	Blue	1.0	25.2	1.38	35.0	4060/5002*	28/34.5*	11.0	280	2.5%	420	2.9	0.79	1.17	4/3.24*
2390N-16V16	Yellow	1.0	25.2	1.38	35.0	4060/5002*	28/34.5*	11.0	280	2.5%	420	2.9	0.79	1.17	4/3.24*
2380N-16V12	Blue	1.0	25.2	1.46	37.0	5,510	38.0	11.4	290	4.6%	696	4.8	1.00	1.49	4
2380N-16V16	Yellow	1.0	25.2	1.46	37.0	5,510	38.0	11.4	290	4.6%	696	4.8	1.00	1.49	4

* Design Factor 4 = 4060; 3.24 = 5002

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

Construction

Core tube: Thermoplastic polyamide

Reinforcement: 2 closed spiral layers and 2 open spiral layers of high strength wire

Jacket: Sea water resistant Polyurethane

Colors: Blue, Green or Yellow

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

Max.Elongation @ W.P.: +2% / -1.5%

Minimum Burst Pressure is 4 x Max. Working Pressure

Parflex HCR Hose

High Collapse Resistant Subsea Hose for the Oil & Gas Market

Parker Parflex HCR hose is specifically designed to serve the oil & gas market in subsea hydraulic applications. Its state of the art construction provides a minimum crush resistance of 6,600 psi external pressure. The seamless, extruded Polyamide core tube has a wide range of media compatibility.

The core tube is reinforced with a stainless steel inner carcass, providing the collapse strength needed in deep water applications. More strength is provided in the high tensile strength aramid reinforcement to create a full, 5,000 psi working pressure with a 4:1 design factor. The seawater resistant, perforated Polyurethane cover, provides additional protection.

Parker high collapse resistant hose is an industry leader for demanding environments with an extreme bend radius to allow for tighter routing. These features combine to offer a collapse resistant solution to withstand the rigors of the oil & gas industry.



Product Features:

Validated to ISO13628-5:2009 / API 17E

Collapse resistant to 10,000 ft seawater at 1.5 design factor per API 17E
(Contact the Parflex Division for installation depths greater than 10,000 ft.)

5,000 psi working pressure at 4:1 design factor

Seawater-resistant perforated polyurethane jacket



HCRV – High Collapse Resistant Hose



Features

- Collapse resistant to 10,000 ft seawater at 1.5 design factor per API 17E
- Flexible 316L stainless steel interlocking carcass
- Available in long continuous lengths
- Seamless polyamide core tube
- Abrasion and seawater resistant perforated polyurethane cover
- Compact bend radius

Applications

- Subsea Hydraulics
- BOP Stack
- Well Stimulation

Series HCR

Part Number	Nominal I.D.		Maximum O.D.		Maximum Working Pressure 73°F/ 23°C		Minimum Bend Radius		Weight		Minimum Collapse Pressure		Collapse Pressure Rating per ISO13628-5 ^{1,2}		
	DN	inch	mm	inch	mm	psi	bar	inch	mm	lbs/ft	kg/mtr	psi	bar	psi	bar
HCRV-8	12	1/2	12.7	1.04	26.4	5,000	345	4	102	0.45	0.67	6,600	456	4,400	303
HCRV-16	25	1	25	1.83	46.4	5,000	345	11.8	300	1.44	2.15	6,600	456	4,400	303

Construction

- Carcass: 316L SS • Core tube: Polyamide
- Reinforcement: Aramid Fiber Braid
- Cover: Perforated Polyurethane

Operating Parameters

- Temperature Range:
 - 40°F to +131°F (-40°C to +55°C)
- Min. Burst Pressure is 4x Max. Working Pressure

Fittings

- HV Series - constructed of 316L stainless steel
- 106HV - JIC 37° Female Flare
- 19GHV - Straight Dual Seal
- 1GXHV - Grayloc Hub Connection

Colors

- Standard Yellow (-YEL) 
- Blue (-BLU) 
- Green (-GRN) 
- Non-Standard Black (-BLK) 

Notes

1.5 design factor for collapse pressure per API 17E.

Black Eagle Oilfield Service Hose

Viable alternative to welded pipe

Parker BLACK EAGLE high pressure hoses are a viable alternative to welded piping that requires costly labor & inspection. It is also the only 1-1/2" API and DNV certified hose available to replace industrial grades of R13 rubber hydraulic hose that are not designed or certified for subsea service. And with lengths up to 1,000 meters without splicing (depending on hose size), multiple potential leak points are eliminated.

Polyflex Black Eagle hose is available in 1-1/2", 2" and 3" I.D. hoses with pressures operating up to 15,000 psi (1035 bar). Parker also incorporates ColorGard™ technology into each hose, featuring an extra thick, dual color cover which significantly reduces the risk of exposing the reinforcing wires. If the outer black cover has been abraded to the point that the "early warning" red inner cover can be seen, the hose needs to be changed out.

Other applications include fracing, cementing, water and gas injection, acidizing and well stimulation.



Product Features:

Up to 30% weight reduction in comparison to R13 rubber hoses - more than 70% in comparison to flexible pipe -reduces operator fatigue -reduces freight costs -reduces equipment weight

Lower bend radius when compared to composite hose

Compact design - smaller O.D. than flexible pipe

Long continuous lengths up to 1,000m without splicing (depending on hose type)

DNV Type Approval P 14038 according to API 7K and API 17J

Features ColorGard™ technology to provide early warning of hose wear

Black Eagle™ Oilfield Service Hose



Features

Up to 30% weight reduction in comparison to R13 rubber hoses - more than 70% in comparison to flexible pipe

Long continuous lengths up to 1,000m without splicing (depending on hose type)

Lower bend radius when compared to composite hose

Compact design - smaller O.D. than flexible pipe

Inner core has superior chemical resistance

ColorGard™ allows for quick recognition of abrasion issues

Certifications

DNV Type Approval P 14038 according to API 7K and API 17J

Applications

• Cementing • Acidizing • Mud circulation • Water and gas injection

Series Black Eagle

Part Number	Nominal I.D.			Maximum O.D.		Max. Working Pressure 73°F/ 23°C		Minimum Bend Radius		Weight		Permanent Fitting Series
	DN	inch	mm	inch	mm	psi	MPa	inch	mm	lbs/ft	kg/mtr	
Reinforcement: 1 layers												
2240N-48V80	78	3	76	4.49	114	5,000	345	39.9	1000	7.73	11.5	TX
Reinforcement: 4 layers												
2448N-32V80	50	2	50.8	3.17	80.5	5,000	345	20	508	5.71	8.5	5X
2580N-32V80	50	2	50.8	3.33	84.5	10,000	690	32	813	6.32	9.4	5X
2440N-48V80*	78	3	76	4.8	122	10,000	690	43.3	1100	12.57	18.7	LX
Reinforcement: 6 layers												
2640N-24V80-15K*	40	1-1/2	38.1	2.60	66	15,000	1,035	19.7	500	4.37	6.5	5X
2648N-32V80	50	2	50.8	3.39	86	15,000	1,035	31	787	8.13	12.1	CX
2640N-48V80	78	3	76	5.13	130.3	15,000	1,035	47.3	1200	18.48	27.5	5X

Construction

- Tube: Polyamide 11, methanol washed
- Reinforcement: Multiple layers of high strength steel wire and open spirals depending on part number. See CAT 4900.
- Cover: Extra thick dual layer polyurethane

Operating Parameters

Temperature Range: +14°F to +158°F (-10°C to +70°C) *hose can be used intermittently at +212°F (+100°C)

Design Factor

2.25/1	2.5/1	4.1
2640N-48V80 2648N-32V80 2640N-24V80-15K	2580N-32V80 2240N-48V80 2440N-48V80	2448N-32V80

Fittings

- 5X Series
- CX Series
- LX Series
- TX Series

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.

Polyflex ColorGard™ extra thick, dual color cover significantly reduces the risk of exposing the reinforcing wires. If the outer black cover has been abraded to the point that the “early warning” red inner cover can be seen, the hose needs to be changed out.