

DL

High-pressure annular BOP

DL BOP

The Cameron DL high-pressure annular BOP allows reliable performance in a shorter height and lighter weight than comparable annular BOPs.

The unique design of the DL BOP does not require wellbore assist. The annular can close on drillpipe or large tubulars without reducing operating pressure, which minimizes risk of indentation or damage to casing.

- Sizes: 7-1/16" to 21-1/4"
- Working Pressures: 2,000 to 10,000 psi
- Dual configurations available for certain sizes
- Each packer assembly has passed API 16A qualification testing

Functionality

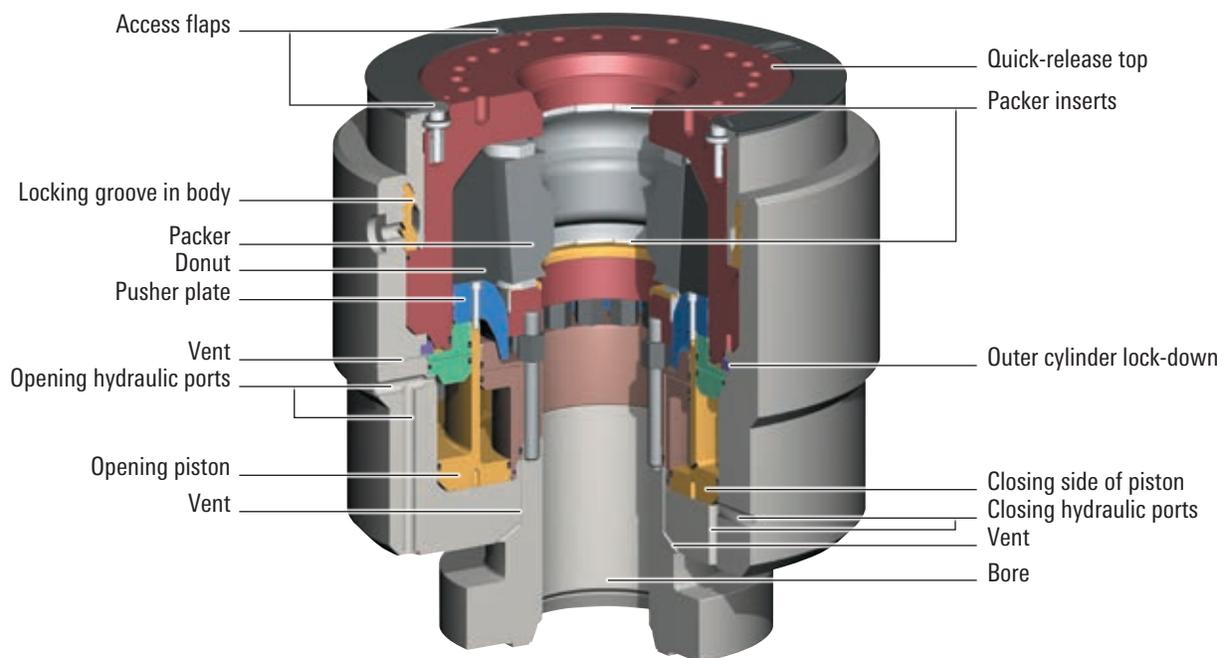
Closing pressure forces the operating piston and pusher plate upward to displace the solid elastomer donut and force the packer to close inward. As the packer closes, interlocking-steel reinforcing inserts rotate inward to form a continuous support ring of steel at the top and bottom of the packer. The inserts remain in contact with each other whether the packer is open, closed on pipe, or closed on open hole.

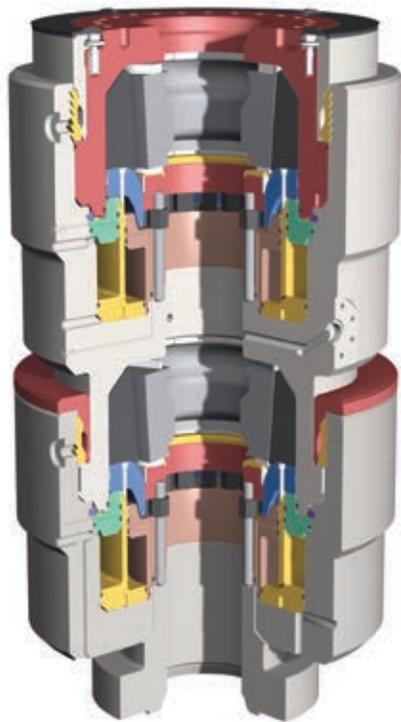


Packer with interlocking segments



Packer, stripping





DL BOP—dual configuration

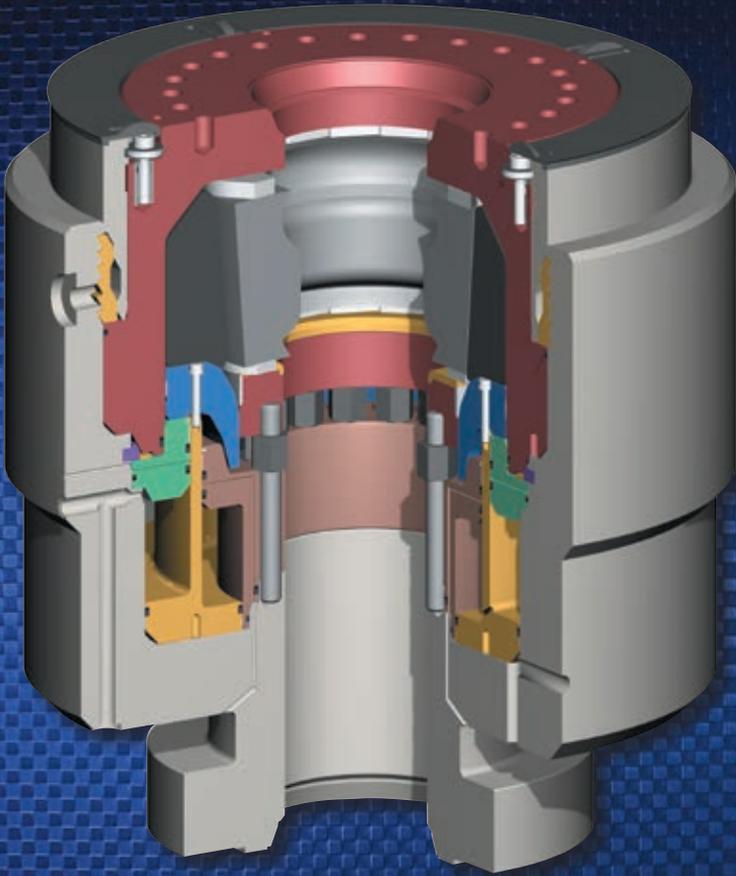
Features

- A quick-release top with a one-piece split lock ring permits quick packer changeout with no loose parts involved. The design also provides visual indication of whether the top is locked or unlocked
- Components subject to wear are field-replaceable and the entire operating system may be removed in the field for immediate changeout, without removing the BOP from the stack
- Twin seals separated by a vented chamber positively isolate the BOP operating system from wellbore pressure. High-strength polymer bearing rings prevent metal-to-metal contact and reduce wear between all moving parts of the operating system
- Available with a three-inch gas bleed port that runs from the inner diameter to the outer diameter
- Packers for DL BOPs have the capacity to strip pipe as well as close and seal on any size object that fits in the wellbore. These packers will also close and seal on open hole at half working pressure
- Stripping packers are available and reference information is available in TC9609 E-24
- Popular sizes of the DL BOP are available with high-performance CAMULAR* elastomer technology annular packer subassemblies
- Manufactured to comply with NACE specification MR-01-75 for H₂S service

DL BOP Dimensional Information

Size and working pressure	Height, in/mm	Diameter, in/mm	Weight, lb/kg	Gal/L to close	Gal/L to open
7-1/16" 3,000 psi	23.94/557	27.88/708	2,738/1,241	1.69/6	1.39/5
7-1/16" 5,000 psi	25.50/647	27.88/708	2,778/1,260	1.69/6	1.39/5
7-1/16" 10,000 psi	34.22/869	37.38/949	7,255/3,290	2.94/11	2.55/9
7-1/16" 15,000 psi	44.75/1,136	43.25/1,098	12,000/5,443	6.94/26	6.12/23
7-1/16" 20,000 psi	50.75/1,289	48/1,219	17,716/8,035	8.38/31	7.56/28
11" 3,000 psi	32.50/825	41.25/1,047	8,255/3,744	5.65/21	4.69/17
11" 5,000 psi	34.94/887	41.25/1,047	8,447/3,831	5.65/21	4.69/17
11" 10,000 psi	41.06/1,042	48.50/1,231	13,954/6,239	10.15/38	9.05/34
11" 15,000 psi	62.50/1,587	61/1,549	36,500/16,556	23.50/88	21.3/80
13-5/8" 3,000 psi	36.69/931	52.38/1,330	12,855/5,830	12.12/45	10.34/39
13-5/8" 5,000 psi	40.19/1,020	52.38/1,330	16,215/7,355	12.12/45	10.34/39
13-5/8" 10,000 psi	49.09/1,246	61/1,549	27,262/12,365	18.10/68	16.15/61
16-3/4" 3,000 psi	47/1,193	60.50/1,536	25,950/11,770	22.30/84	19.00/71
16-3/4" 5,000 psi	49/1,244	60.50/1,536	26,300/11,929	22.30/84	19.00/71
18-3/4" 5,000 psi	60.81/1,544	62/1,574	29,560/13,408	35.60/134	29.00/109
18-3/4" 10,000 psi	70.50/1,790	67/1,701	40,940/18,570	51.00/193	45.10/170
20-3/4" 3,000 psi	54.75/1,390	66/1,676	29,500/13,380	40.50/153	28.40/107
21-1/4" 2,000 psi	53.31/1,354	66/1,676	29,000/13,154	40.50/153	28.40/107
21-1/4" 5,000 psi	64.84/1,646	71.69/1,820	36,000/16,329	40.50/153	28.40/107

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