

Dresser-Rand BDC-12H

Reciprocating Process Compressor

The BDC reciprocating process compressor has earned a reputation for long-lasting performance. During the past 70 years, advancements in design and material technologies have allowed continuous improvement to the BDC's design and manufacture. With more than 1,200 units shipped worldwide, the BDC process compressor is an excellent choice for a variety of process gas applications.

Rugged Performer

The BDC-12H offers a sizeable solution to many process requirements. Designed to API-618 specifications, the BDC-12H is available in standard stroke sizes of 8.5 to 12 inches (216 to 305 mm) with two, four, or six throws.

For long-lasting reliability, the BDC-12H frame is engineered to our highest standards. The fine-grain, cast iron frame provides maximum stability through the use of heavily ribbed walls and bearing saddles. The frame's rigid design is further enhanced with precision spacer blocks and tie rods above each bearing saddle. This greatly reduces distortion caused by gas and inertia forces. To ensure precise bearing alignment, the bearing saddles are bored in a single set-up.

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Designed and Built with Precision

Every BDC is built with a fixed crank design, which reduces couples. The balanced-opposed design provides for as many as six cylinders, requiring a relatively small foundation. The crankshaft is forged from high tensile strength steel alloy, which is fully stress-relieved and heat-treated. All journals and crankpins are precision ground and polished to exacting tolerances.

Rugged, precision-machined tri-metal main and crankpin bearings are generously sized and micro-babbit coated for best run-in and long-lasting service. Bearings are located on both sides of each pair of crankthrows. All bearings are forced-lubricated to API-618 specifications. Connecting rods are die-forged steel with rifle-drilled passages for positive lubrication of the crosshead pin and bearings.

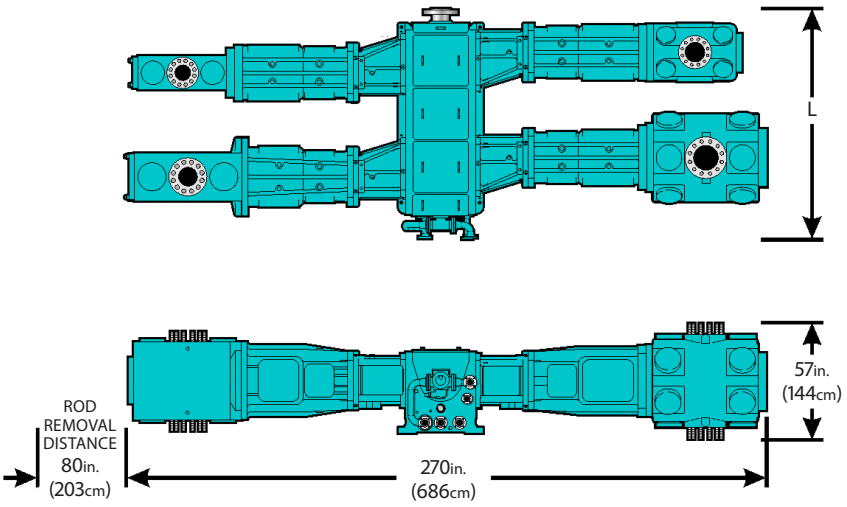
The standard crossheads are nodular iron, equipped with adjustable aluminum shoes at both the top and bottom. Cast steel crossheads are also available.

All frame and distance piece inspection and service openings are large enough to permit easy access. The frame-toframe extension, frame-extension-to-distance piece, and distance-piece-tocylinder bolting are external, making bolt tensioning easy and accurate.

Outstanding Cylinder Design and Selection

Each cylinder is designed with the capability of loading to the frame's maximum allowable continuous rod load. All cylinder bolting, piston nut, and valve differential pressures meet these design criteria. This permits future flexibility if process conditions change or the compressor is reapplied for another application.

Specifications	
Maximum HP	8,225 (6,133 kW)
Standard strokes	8.5 to 12 inch (216 to 305 mm)
Number of throws	2, 4, or 6
Cylinder bore range	5 to 38.5 inch (127 to 978 mm)



BDC-12H Typical Length (L) Dimension			
Throws	2	4	6
Inches	77	132	187
Centimeters	196	335	475

Our engineering expertise ensures that each cylinder built for your application will provide maximum performance and reliability with minimum maintenance cost. Cylinder materials include cast iron, nodular iron, cast steel, fabricated carbon steel, stainless steel, and forged steel. Most cylinders are available for either lubricated or non-lubricated service.

Dimensions

Dimensions provided are typical, basis API Type B distance pieces. For API Type C & D distance pieces add 34 inches (86 cm) to the width dimension and 17 inches (43 cm) to the rod removal distance.

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