

# QUICK OPENING CLOSURE

## The Bandlock Closure

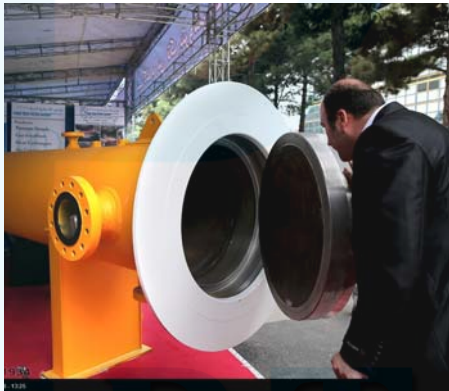
Provides horizontal or vertical access to pipeline Pig Traps, Filters, Coalescers, Separators, or any pressure vessel in seconds. Compared with other quick opening closures it can be operated at remarkable speed.

Computer-aided techniques have been figured into the design. The main pressure-loaded section are sized for economy in weight by employing finites element analytical techniques and proof testing by strain gauges, with reference to primary pressure vessel codes.

## Safety Devices

A hand operated pressure warning screw - integrated into the mechanism - prevents the door from being unlocked until confirmation is available that the vessel's internal pressure has been relieved.

A non-bleed type pressure warning device can be provided in toxic or sour service. Secondary safety features including key and valve interlocks can also be fitted to customers' specification. Safety is therefore inherent in the BANDLOCK. The complete visibility of the locking band at all times satisfies design code requirements and the operator can actually see that the door is securely closed.

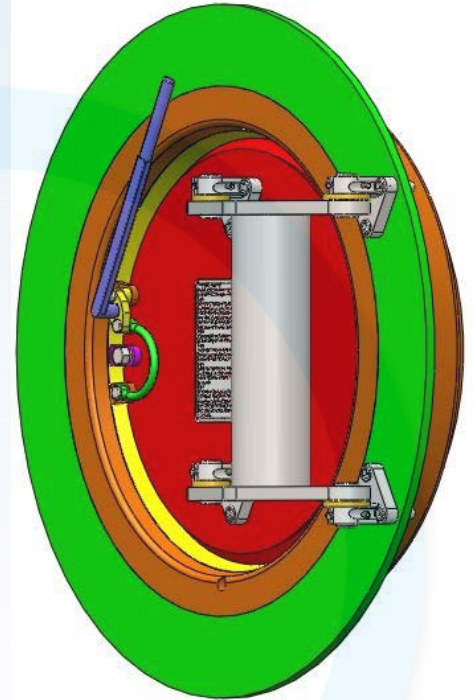


## Door Hinge

For Horizontal use the door is double pivoted on investment cast hinges with self-lubricating bearings.

Bolted fitment permits adjustment for wear and can be specified for right or left swing. A handwheel operated gearbox can be fitted as an additional cost feature to facilitate controlled easy opening of larger diameter doors.

Vertical installation includes a davit which enables the BANDLOCK door to be lifted and swung clear of the neck. Above 32" diameter lifting eye bolts are normally fitted in lieu of the davit.



## PARS TECHNIC CO. (PTC)

- PTC provides advanced design innovation, performance, reliability and cost effectiveness in order to create solutions for tomorrows needs.
- PTC also design, manufacture & erection of equipment for Oil, Gas, Petrochemical & Power Plant Industries.
- Our equipment adheres to respected industry standards including API, ASME, BS, DIN and ISO.

## Sealing

### Unique Seal

The purpose designed servo acting double edged lip seal energizes at zero pressure. It is housed in the door face for protection and long life and is easily fitted without tools. The one piece moulding is available in a range of elastomers and at the highest pressure, incorporates a stainless steel spring to prevent extrusion and provides a full vacuum capability. The one piece seal design aids in function in both horizontal and vertical applications.

### Hydrostatic Testing

Normally carried out as part of the final vessel test but individual closure hydrotest can be provided at extra cost.

### Design Code

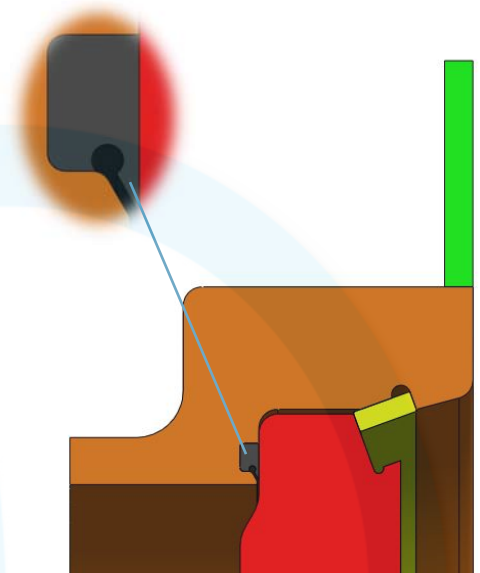
Standard units are designed to ASME VIII Div I, not code stamped and fully meet the requirements of Part UG-35.2. We offer as an option to supply the closure with ASME "U" Stamp and Form U-2A Partial Data Report.

### Size and Pressure Range

Our standard range covers diameters from 6 in to 100 in and pressure classes from ANSI 150 to ANSI 2500 (425 bar working pressure). Special closures outside the standard range are also available.

### Seal Material

Standard seal material is Nitrile with 75o shore hardness. Viton and explosive decompression resistant Fluorocarbon and HNBR seals are available. Temperature range: -58o to +392oF according to the elastomer specified.



### None Destructive Examination

Ultrasonic examinations are conducted with acceptance levels to ASME VIII Div 2 Para AM 203-2 (C) to (F) on blank forgings and plate (expect necks greater than 24" in diameter).

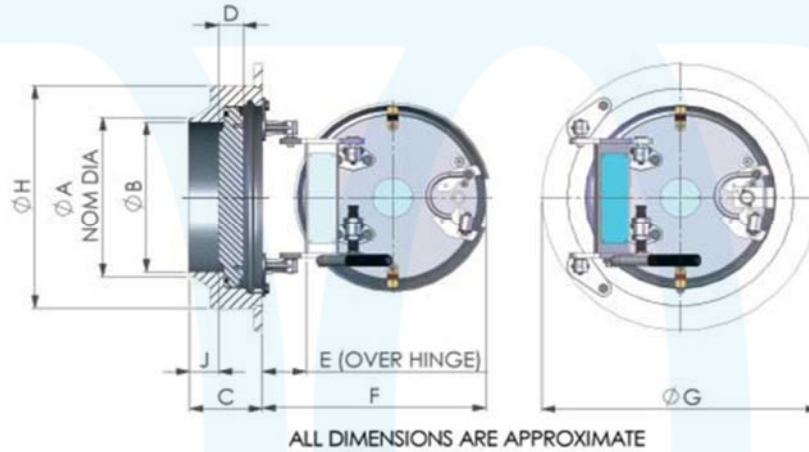
### Materials

Forged steel necks possess either forged or plate doors to meet international material specifications. Material meeting the latest NACE requirement standard MR-01-75 can also be supplied.

P.T.P.S.

# QUICK OPENING CLOSURE FOR PRESSURE VESSELS

## BANDLOCK CLOSURE ANSI 600# RATING DIMENSIONS AND WEIGHT DATA



A	B	C	D	E	F	G	H	J	Weight (lbs)	
Nom Size	l/Dia (ins) Range	Neck Length (ins)	Nom Door Thickness (ins)	Dim O/Hinge (ins)	Swing Radius (ins)	Max Dia (ins)	O/Dia (ins)	Nom l/Door to neck (ins)	Door (approx.)	Assembly (approx.)
6"	5 <sup>5</sup> / <sub>8</sub> " - 7 <sup>9</sup> / <sub>16</sub> "	5 <sup>3</sup> / <sub>8</sub> "	1 <sup>3</sup> / <sub>8</sub> "	7 <sup>1</sup> / <sub>4</sub> "	12 <sup>7</sup> / <sub>16</sub> "	16 <sup>3</sup> / <sub>4</sub> "	11 <sup>15</sup> / <sub>16</sub> "	2 <sup>11</sup> / <sub>16</sub> "	29	161
8"	7 <sup>9</sup> / <sub>16</sub> " - 8 <sup>1</sup> / <sub>8</sub> "	4 <sup>1</sup> / <sub>2</sub> "	1 <sup>3</sup> / <sub>8</sub> "	7 <sup>1</sup> / <sub>4</sub> "	12 <sup>7</sup> / <sub>16</sub> "	16 <sup>3</sup> / <sub>4</sub> "	11 <sup>15</sup> / <sub>16</sub> "	1 <sup>7</sup> / <sub>8</sub> "	29	115
10"	9 <sup>1</sup> / <sub>2</sub> " - 10 <sup>1</sup> / <sub>8</sub> "	4 <sup>3</sup> / <sub>4</sub> "	1 <sup>1</sup> / <sub>2</sub> "	7 <sup>1</sup> / <sub>4</sub> "	14 <sup>3</sup> / <sub>8</sub> "	18 <sup>1</sup> / <sub>2</sub> "	14 <sup>1</sup> / <sub>4</sub> "	2"	49	154
12"	11 <sup>3</sup> / <sub>8</sub> " - 12"	5 <sup>3</sup> / <sub>8</sub> "	1 <sup>3</sup> / <sub>4</sub> "	7 <sup>1</sup> / <sub>4</sub> "	16 <sup>5</sup> / <sub>16</sub> "	20"	16 <sup>5</sup> / <sub>8</sub> "	2 <sup>1</sup> / <sub>4</sub> "	75	254
14"	12 <sup>1</sup> / <sub>2</sub> " - 13 <sup>1</sup> / <sub>2</sub> "	5 <sup>7</sup> / <sub>8</sub> "	2"	8"	18 <sup>1</sup> / <sub>8</sub> "	23 <sup>7</sup> / <sub>16</sub> "	18 <sup>1</sup> / <sub>4</sub> "	2 <sup>1</sup> / <sub>2</sub> "	100	331
16"	14 <sup>1</sup> / <sub>4</sub> " - 15 <sup>1</sup> / <sub>4</sub> "	6 <sup>1</sup> / <sub>2</sub> "	2 <sup>3</sup> / <sub>16</sub> "	8"	20 <sup>1</sup> / <sub>16</sub> "	25 <sup>3</sup> / <sub>16</sub> "	20 <sup>1</sup> / <sub>2</sub> "	2 <sup>7</sup> / <sub>8</sub> "	137	385
18"	16 <sup>1</sup> / <sub>8</sub> " - 17 <sup>7</sup> / <sub>16</sub> "	7"	2 <sup>3</sup> / <sub>4</sub> "	8"	22 <sup>1</sup> / <sub>4</sub> "	27"	22 <sup>7</sup> / <sub>8</sub> "	2 <sup>5</sup> / <sub>8</sub> "	221	528
20"	18" - 19 <sup>1</sup> / <sub>4</sub> "	7 <sup>1</sup> / <sub>2</sub> "	2 <sup>3</sup> / <sub>4</sub> "	8 <sup>7</sup> / <sub>8</sub> "	25 <sup>3</sup> / <sub>8</sub> "	31 <sup>1</sup> / <sub>2</sub> "	24 <sup>13</sup> / <sub>16</sub> "	3"	265	660
22"	20" - 21 <sup>1</sup> / <sub>8</sub> "	7 <sup>3</sup> / <sub>4</sub> "	3"	8 <sup>7</sup> / <sub>8</sub> "	27 <sup>5</sup> / <sub>8</sub> "	33"	27 <sup>5</sup> / <sub>16</sub> "	3 <sup>1</sup> / <sub>8</sub> "	340	836
24"	22" - 23 <sup>1</sup> / <sub>8</sub> "	8 <sup>7</sup> / <sub>16</sub> "	3 <sup>1</sup> / <sub>8</sub> "	8 <sup>7</sup> / <sub>8</sub> "	29 <sup>5</sup> / <sub>16</sub> "	34 <sup>5</sup> / <sub>8</sub> "	29 <sup>1</sup> / <sub>2</sub> "	3 <sup>3</sup> / <sub>16</sub> "	428	957
28"	25 <sup>1</sup> / <sub>4</sub> " - 27 <sup>1</sup> / <sub>4</sub> "	11 <sup>5</sup> / <sub>8</sub> "	3 <sup>15</sup> / <sub>16</sub> "	9 <sup>5</sup> / <sub>8</sub> "	35 <sup>5</sup> / <sub>8</sub> "	N/A	36 <sup>1</sup> / <sub>16</sub> "	5 <sup>1</sup> / <sub>4</sub> "	747	1980
30"	27 <sup>1</sup> / <sub>4</sub> " - 29 <sup>1</sup> / <sub>4</sub> "	12"	4 <sup>1</sup> / <sub>8</sub> "	9 <sup>1</sup> / <sub>2</sub> "	37 <sup>3</sup> / <sub>4</sub> "	N/A	38 <sup>1</sup> / <sub>4</sub> "	5 <sup>5</sup> / <sub>16</sub> "	914	2243
36"	33 <sup>5</sup> / <sub>16</sub> " - 35 <sup>1</sup> / <sub>16</sub> "	14"	4 <sup>15</sup> / <sub>16</sub> "	9 <sup>13</sup> / <sub>16</sub> "	43 <sup>1</sup> / <sub>2</sub> "	N/A	45 <sup>1</sup> / <sub>4</sub> "	5 <sup>3</sup> / <sub>4</sub> "	1430	3256
42"	38 <sup>7</sup> / <sub>16</sub> " - 40 <sup>7</sup> / <sub>16</sub> "	15 <sup>3</sup> / <sub>8</sub> "	5 <sup>5</sup> / <sub>16</sub> "	11 <sup>5</sup> / <sub>8</sub> "	50 <sup>5</sup> / <sub>8</sub> "	N/A	50 <sup>9</sup> / <sub>16</sub> "	6 <sup>7</sup> / <sub>16</sub> "	2090	4928
48"	45 <sup>1</sup> / <sub>4</sub> " - 46 <sup>7</sup> / <sub>16</sub> "	16 <sup>11</sup> / <sub>16</sub> "	6 <sup>1</sup> / <sub>8</sub> "	11 <sup>5</sup> / <sub>8</sub> "	56 <sup>11</sup> / <sub>16</sub> "	N/A	59 <sup>9</sup> / <sub>16</sub> "	6 <sup>3</sup> / <sub>4</sub> "	3190	7106
54"	50 <sup>7</sup> / <sub>16</sub> " - 52 <sup>3</sup> / <sub>8</sub> "	19 <sup>1</sup> / <sub>2</sub> "	6 <sup>1</sup> / <sub>2</sub> "	13 <sup>3</sup> / <sub>4</sub> "	65 <sup>3</sup> / <sub>16</sub> "	N/A	65 <sup>9</sup> / <sub>16</sub> "	8 <sup>7</sup> / <sub>8</sub> "	4334	9427

For more information about our approvals and certifications, please visit our web site.

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Design features, materials of construction and dimensional data, as described in this bulletin, are provided for your information only and should not be relied upon unless confirmed in writing. Certified drawings are available upon request.

## PARS TECHNIC CO.

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PTC's Closures provide both horizontal or vertical access to any pressure vessels. Compared to any other quick-opening closures they can be operated safely at remarkable speed, any size of unit can be opened or closed in less than a minute, with no special tools required.

In-house designed software technology has played a large role in the design of QOC. We design QOCs with state-of-the-art analytical software meeting primary pressure vessel code requirements.

Our knowledge and experience to provide the correct products for your needs.

## About us

PARS TECHNIC CO. Founded in 1990 as the design and manufacture of pressure vessels, filter separators, pig launcher & receivers and pipeline pigging solutions to the oil, gas and process industries worldwide. We manufacture a range of Quick Opening Closure products and associated equipment.

Our strategy is to create market advantage through technology, service and product leadership, by expanding our market focus to offer full customer solutions. From this dedication has come advancements in equipment development and applications; advancements that have changed the way industry experts solve problems.

- Innovation – Proven state-of-the-art & design solutions.
- Know-how – Unsurpassed experience and process knowledge.
- Quality – Trusted genuine OEM parts competitively priced, and an after-sales commitment to excellent service support.
- Synergies – Our cooperative interaction strengthens our commitment to more than design, manufacturing and selling equipment. It is to provide effective solutions to problems encountered by today's industries. Naturally, we support our existing range of products with a fully committed after-sales support facility, offering a comprehensive onshore/offshore inspection and service program, specifically designed to suit client requirements.

All Pars Technic's products are designed and manufactured to recognized industry specifications, we can further demonstrate our commitment to provide clients with quality product combined with a comprehensive document action support program.

Pars Technic Co. is dedicated to providing the highest quality work and prompt service, 24 hours a day. We are committed to continually improving our international quality programs, and to satisfying the stringent needs of our customers, many of whom are multinational firms.

## PARS TECHNIC CO.

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