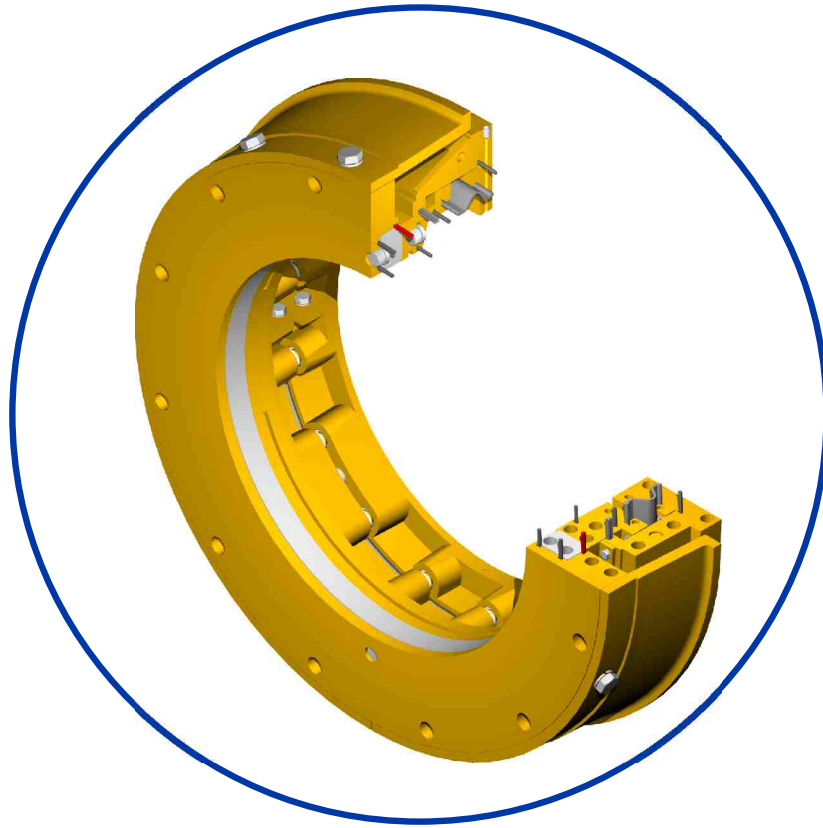


Cedervall aft split oil lubricated stern-tube seal type SeaQual



General

The **SeaQual** seal is an aft oil lubricated face seal for propeller shafts. In a face seal the sealing is achieved by combining two lapped rings, stator and rotor. To prevent oil from between the sealing faces pressure is added using pressure springs. The face seal principle offers a durable solupenetrating tion, suitable for the harsh working conditions of propeller shafts.

Execution

The **SeaQual** seal is available in two versions split and retrofit version for shaft diameters ranging from 200 to 1200mm. Both versions comply with requirements for 15 years propeller shaft survey.

The exploded view on page 2 represents the retrofit version where all parts are split to enable installation without removal of the propeller, propeller shaft or rudder. In the split version parts 1, 4 and 7 are manufactured non-split. Materials for **SeaQual** are selected to achieve maximum performance throughout the vessel lifetime.

Optional items:

SeaQual can be equipped with an inner rope guard which

provides extra protection against ropes and fishing nylon. **SeaQual** can also be equipped with IWS (in water survey). The IWS-system enables measurements of bearing status without dry-docking of the vessel.

Ratings:

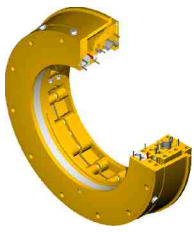
| | |
|------------------------|--------------------------|
| Shaft diameter: | 200-1200mm |
| Periphery speed: | max 10 m/s |
| Lubricant: | Oil (see recommendation) |
| Oil pressure: | max 2.5 Bar |
| Pressure gradient: | 0.1-0.3 Bar |
| Operating temperature: | -5 to 70 °C |
| Shaft elongation: | max 10 mm |

Maintenance:

The **SeaQual** seal is designed for a 5-year maintenance interval, which represents a normal docking period. During a scheduled maintenance parts marked with (1) in the part list are shifted out. This type of maintenance does not require removal of the propeller, propeller shaft or rudder.

Apart from the regular maintenance it is possible to carry out emergency repairs under water.

For technical specification, see back-cover of this leaflet.



Cedervall aft split oil lubricated stern-tube seal Type SeaQual

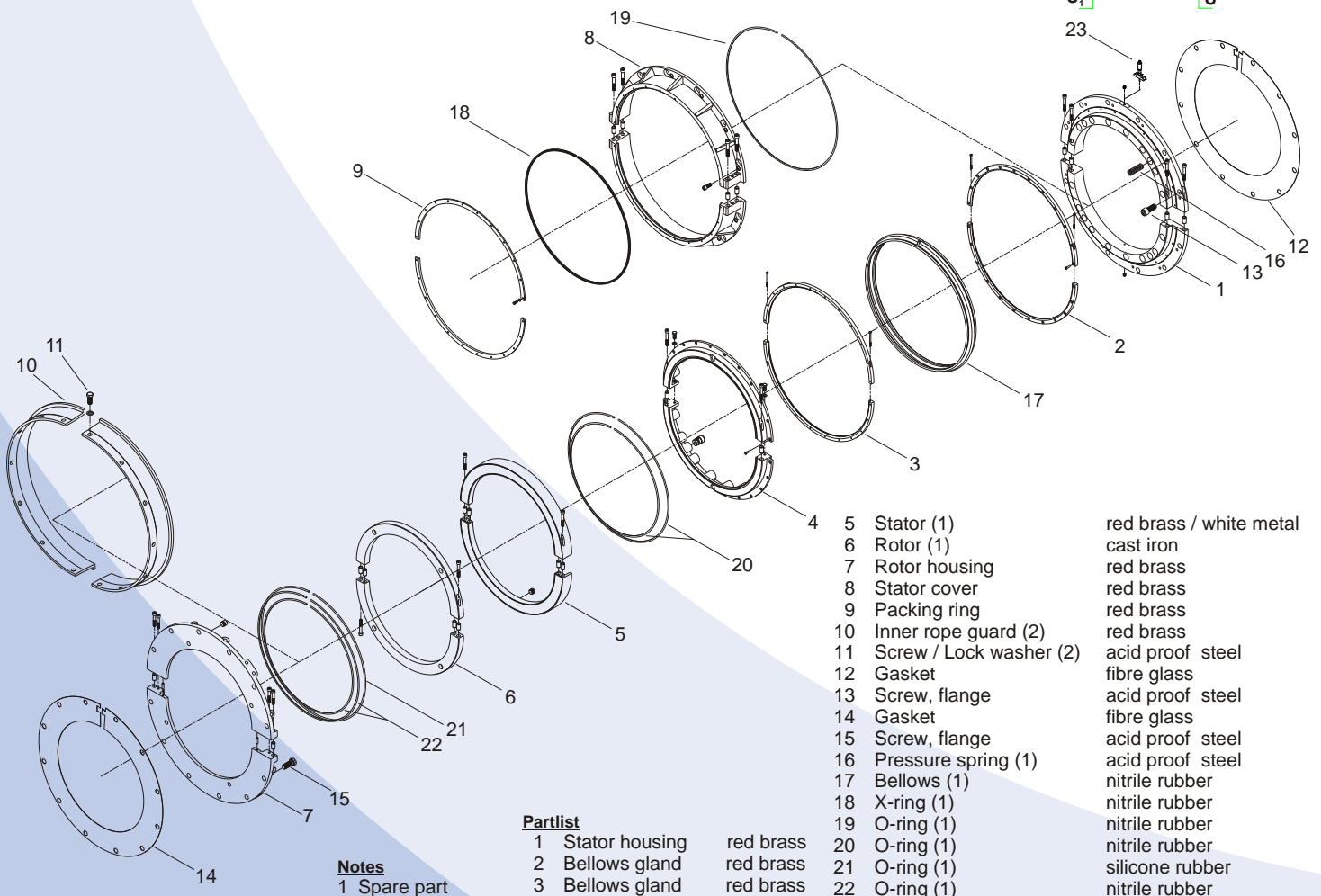
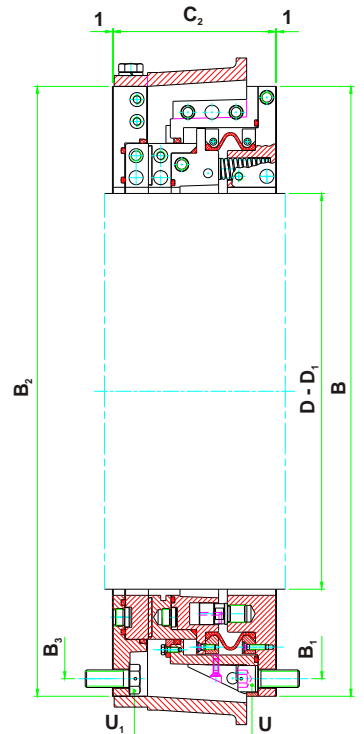
| Size | D | D ₁ | B, B ₂ | B ₁ , B ₃ | C ₂ | U, U ₁ | Size | D | D ₁ | B, B ₂ | B ₁ , B ₃ | C ₂ | U, U ₁ |
|------|-----|----------------|-------------------|---------------------------------|----------------|-------------------|------|-----|----------------|-------------------|---------------------------------|----------------|-------------------|
| 7 | 205 | 228 | 442 | 414 | 170 | 8 x M12 | 25 | 555 | 573 | 820 | 780 | 190 | 12 x M20 |
| 8 | 229 | 246 | 460 | 432 | 170 | 8 x M12 | 26 | 574 | 592 | 840 | 800 | 195 | 12 x M20 |
| 9 | 247 | 264 | 478 | 450 | 170 | 8 x M12 | 27 | 593 | 611 | 860 | 820 | 195 | 12 x M20 |
| 10 | 265 | 283 | 510 | 475 | 170 | 8 x M16 | 28 | 612 | 630 | 875 | 835 | 195 | 12 x M20 |
| 11 | 284 | 302 | 530 | 495 | 170 | 8 x M16 | 29 | 631 | 649 | 895 | 855 | 195 | 12 x M20 |
| 12 | 303 | 321 | 565 | 525 | 185 | 8 x M20 | 30 | 650 | 668 | 915 | 875 | 195 | 12 x M20 |
| 13 | 322 | 339 | 580 | 540 | 185 | 8 x M20 | 31 | 669 | 687 | 935 | 895 | 195 | 16 x M20 |
| 14 | 340 | 358 | 600 | 560 | 185 | 10 x M20 | 32 | 688 | 706 | 955 | 915 | 195 | 16 x M20 |
| 15 | 359 | 377 | 620 | 580 | 185 | 10 x M20 | 33 | 707 | 734 | 1010 | 970 | -- | 16 x M20 |
| 16 | 378 | 396 | 640 | 600 | 185 | 10 x M20 | 34 | 735 | 764 | 1060 | 1015 | -- | 16 x M24 |
| 17 | 397 | 415 | 655 | 615 | 185 | 10 x M20 | 35 | 765 | 794 | 1090 | 1045 | -- | 16 x M24 |
| 18 | 416 | 432 | 675 | 635 | 185 | 10 x M20 | 36 | 795 | 824 | 1120 | 1075 | -- | 16 x M24 |
| 19 | 433 | 451 | 695 | 655 | 185 | 10 x M20 | 37 | 825 | 854 | 1150 | 1105 | -- | 16 x M24 |
| 20 | 452 | 470 | 715 | 675 | 190 | 12 x M20 | 38 | 855 | 884 | 1180 | 1135 | -- | 16 x M24 |
| 21 | 471 | 491 | 735 | 695 | 190 | 12 x M20 | 39 | 885 | 914 | 1210 | 1165 | -- | 16 x M24 |
| 22 | 492 | 510 | 755 | 715 | 190 | 12 x M20 | 40 | 915 | 944 | 1240 | 1195 | -- | 18 x M24 |
| 23 | 511 | 535 | 780 | 740 | 190 | 12 x M20 | 41 | 945 | 974 | 1270 | 1225 | -- | 18 x M24 |
| 24 | 536 | 554 | 800 | 760 | 190 | 12 x M20 | 42 | 975 | 1004 | 1300 | 1255 | -- | 18 x M24 |

Notes

Dimension table above represents basic version of SeaQual. Rotor housing is available in various executions adapted to specific propeller types. If fastening configuration or build in measure does not apply, contact Cedervall in Sweden for consultation.

Disclaimer

We reserve the right to change dimensions without prior notice.



Partlist

| | | | | | |
|----|-------------------------|-------------------------|----|---------------------|-----------|
| 1 | Stator housing | red brass | 20 | O-ring (1) | red brass |
| 2 | Bellows gland | red brass | 21 | O-ring (1) | red brass |
| 3 | Bellows gland | red brass | 22 | O-ring (1) | red brass |
| 4 | Support ring | red brass | 23 | Wear down gauge (2) | red brass |
| 5 | Stator (1) | red brass / white metal | | | |
| 6 | Rotor (1) | cast iron | | | |
| 7 | Rotor housing | red brass | | | |
| 8 | Stator cover | red brass | | | |
| 9 | Packing ring | red brass | | | |
| 10 | Inner rope guard (2) | red brass | | | |
| 11 | Screw / Lock washer (2) | acid proof steel | | | |
| 12 | Gasket | fibre glass | | | |
| 13 | Screw, flange | acid proof steel | | | |
| 14 | Gasket | fibre glass | | | |
| 15 | Screw, flange | acid proof steel | | | |
| 16 | Pressure spring (1) | acid proof steel | | | |
| 17 | Bellows (1) | nitrile rubber | | | |
| 18 | X-ring (1) | nitrile rubber | | | |
| 19 | O-ring (1) | nitrile rubber | | | |
| 20 | O-ring (1) | nitrile rubber | | | |
| 21 | O-ring (1) | nitrile rubber | | | |
| 22 | O-ring (1) | silicone rubber | | | |
| 23 | Wear down gauge (2) | nitrile rubber | | | |

Notes

- 1 Spare part
- 2 Optional item

www.cedervall.com

