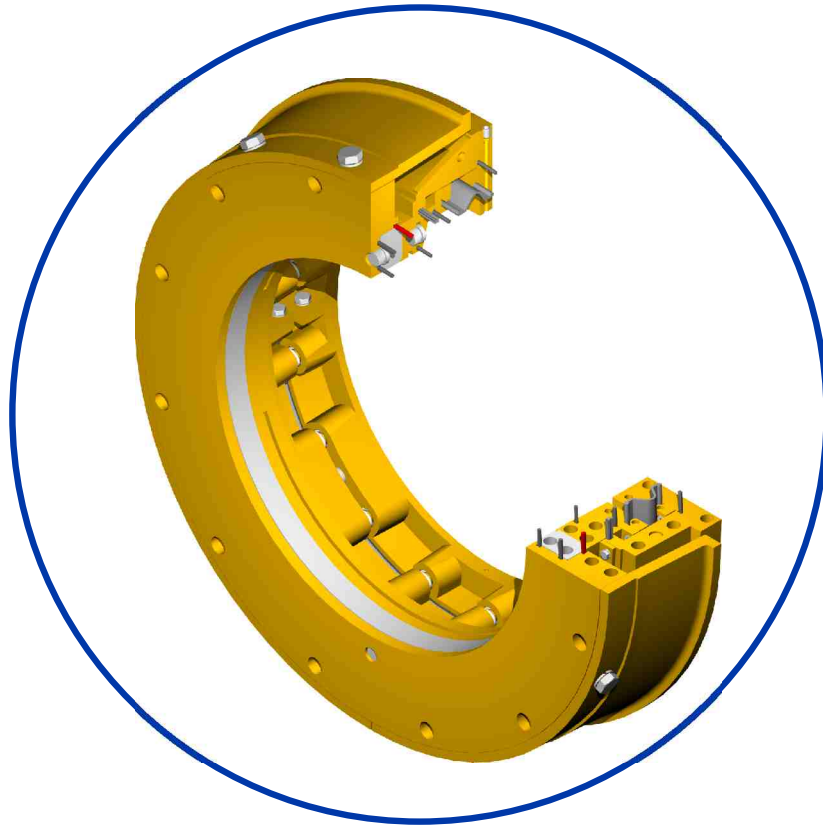


# Cedervall aft split oil lubricated stern-tube seal type SeaQual



## 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 penetrating between the sealing faces pressure is added using pressure springs.

The face seal principle offers a durable solution, 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:

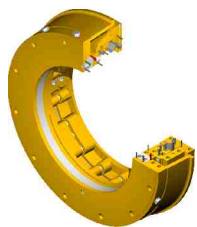
Shaft diameter:	200-1200mm
Periphery speed:	max 10 m/s
Lubricant:	Oil (see recommendation)
Oil pressure:	max 2.5 Bar
Pressure gradient:	0.1-0.3 Bar
Operating temperature:	-5 to 70 °C
Shaft elongation:	max 10 mm

## Maintenance:

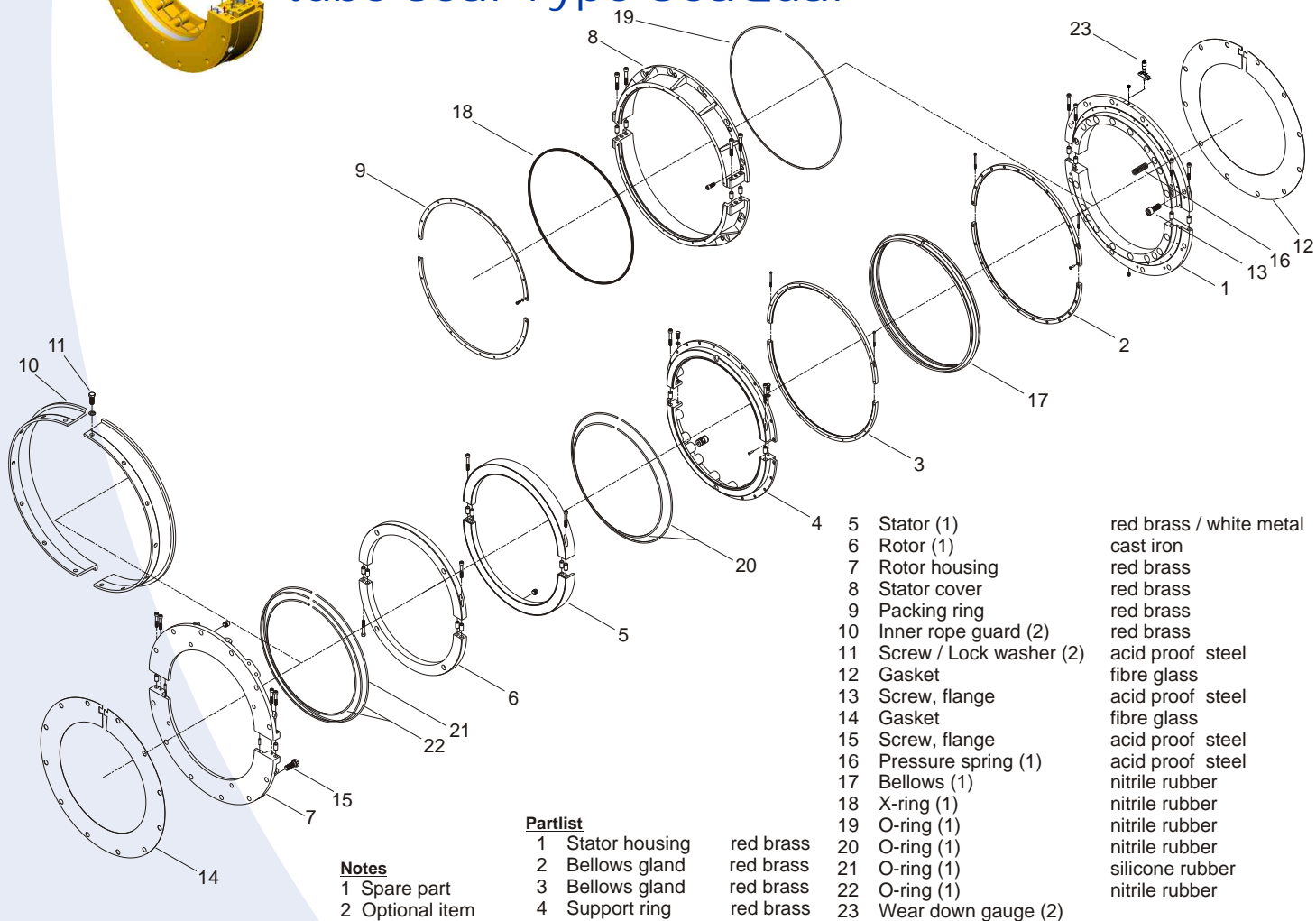
The **SeaQual** seal is designed for a 5-year maintenance interval, which represents a normal docking period. During a scheduled maintenance parts marked with (1) in the part list are shifted out. This type of maintenance does not require removal of the propeller, propeller shaft or rudder.

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



### Partlist

1	Stator housing	red brass	red brass / white metal
2	Bellows gland	red brass	cast iron
3	Bellows gland	red brass	red brass
4	Support ring	red brass	red brass
5	Stator (1)		red brass
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)		silicone rubber
22	O-ring (1)		nitrile rubber
23	Wear down gauge (2)		

### Notes

- 1 Spare part
- 2 Optional item

Size	D	D <sub>1</sub>	B, B <sub>2</sub>	B <sub>1</sub> , B <sub>3</sub>	C <sub>2</sub>	U, U <sub>1</sub>	Size	D	D <sub>1</sub>	B, B <sub>2</sub>	B <sub>1</sub> , B <sub>3</sub>	C <sub>2</sub>	U, U <sub>1</sub>
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.

