

# Type 4600 with Shut Down Seal

Mechanical seals | Marine seals | Stern tube seals



#### Features

The water-lubricated stern tube seals type 4600 from EagleBurgmann are not alone an environment-friendly solution. They meet all technical requirements of modern sealing technology: modular design, convenient installation, little maintenance, no adjustments. Applying a shut down seal eliminates costly and time-consuming drydocking. Maintenance and repairs can be performed with vessel afloat.

Type 4600 water-lubricated stern tube seals are virtually leak-free and are leaving no oil or grease residues in the waterway. And because they prevent getting water into the bilge, no elaborate actions are required for its disposal. Please ask us for references.

## Advantages

- With shut down seal
- Water-lubricted
- No oil or grease emissions to the environment
- Low power consumption
- Carbon seal face unsplit for first installation, split for repairs
- Version with split mating ring available

## Operating range

Shaft diameter:  $d1 = 50 \dots 320 \text{ mm} (1.97" \dots 12.60")$ Pressure:  $p = 2 \dots 7 \text{ bar} (29 \dots 102 \text{ PSI})$ Temperature:  $t = -5 ^{\circ}C \dots 40 ^{\circ}C (23 ^{\circ}F \dots 104 ^{\circ}F)$ Speed range: n = see diagram

Allowed shaft movements Axial: ±5 mm, Radial: Shaft diameter (d1) up to 200 mm: ±2 mm, >200 mm: ±3 mm

Flushing: approx. 1 l/h per Millimeter of shaft diameter (d1)

#### Materials

Seal face: Carbon graphite antimony impregnated (A), Carbon graphite resin impregnated (B) Mating ring: Special cast CrNiMo steel (S) / 1.4462 Collar, shut down seal: Nitrile-butadiene rubber (P) Springs: Hastelloy® C-4 (M) /1.4401 Gasket: Burasil® (Y) Metal parts: 1.4571 / Bronze

#### Notes

Special designs available:

- Split mating ring
- Amagnetic properties
- Shock resistance

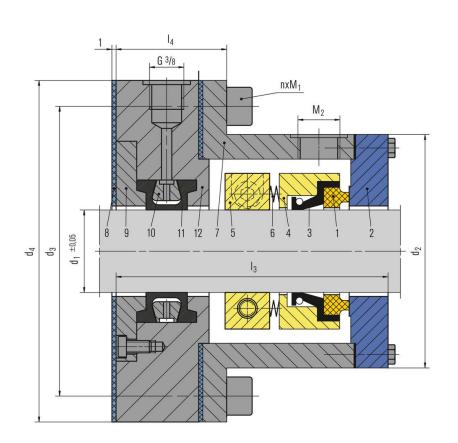
#### **Recommended applications**

- Shipbuilding
- Sea water
- Fresh water

eagleburgmann.com info@eagleburgmann.com

We must be notified of the exact conditions of application before we can provide any guarantee for a specific case. This is subject to change.





#### **Item Description**

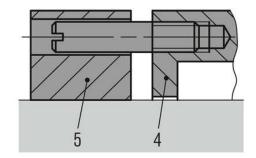
- 1 Seal face
- 2 Mating ring
- 3 Collar
- 4 Face housing
- 5 Clamping ring
- 6 Springs
- 7 Housing
- 8 Gasket
- 9 Cover
- 10 Back-up ring
- 11 Shut down seal
- 12 Flange

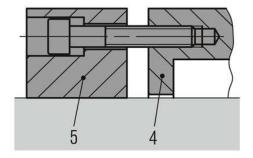
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Clamp ring





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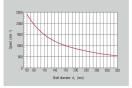
All technical specifications are based on extensive tests and our many years of experience. The diversity of possible applications, however, means that they can serve only as guide values.

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## Charts

**Speed Characteristics** 



# **Dimensions**

d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	d4	I <sub>3</sub>	14	M <sub>1</sub>	M <sub>2</sub>	n
50	125	142	165	150	55	M10	G1/2"	4
60	135	152	175	150	55	M10	G1/2"	4
70	145	185	215	150	55	M16	G1/2"	4
80	155	195	225	155	55	M16	G1/2"	4
90	165	205	235	155	55	M16	G1/2"	4
100	175	215	245	155	55	M16	G1/2"	4
110	192	230	260	160	55	M16	G1/2"	6
120	202	240	270	160	55	M16	G1/2"	6
130	212	250	280	160	55	M16	G1/2"	6
140	222	260	290	160	55	M16	G1/2"	6
150	232	270	300	160	55	M16	G1/2"	6
160	242	280	310	160	55	M16	G1/2"	6
170	252	290	320	160	55	M16	G1/2"	6
180	262	300	330	170	55	M16	G1/2"	6
190	272	310	340	170	55	M16	G1/2"	8
200	282	320	350	170	55	M16	G1/2"	8
210	292	330	360	170	55	M16	G1/2"	8
220	302	340	370	170	55	M16	G1/2"	8
230	312	350	380	170	55	M16	G1/2"	8
240	340	365	405	180	60	M20	G1/2"	8
250	350	375	415	180	60	M20	G1/2"	8
260	360	385	425	180	60	M20	G3/4"	8
270	370	395	435	180	60	M20	G3/4"	8
280	380	405	445	180	60	M20	G3/4"	8
290	390	415	455	180	60	M20	G3/4"	8
300	400	425	465	180	60	M20	G3/4"	8
310	420	445	485	180	60	M20	G3/4"	8
320	430	455	495	180	60	M20	G3/4"	8

Dimensions in millimeter

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