



Manecraft shaft seal  
designed specifically to meet the  
demanding requirements of today's  
pleasure and commercial craft



## HOW DOES MANECRAFT WORK?

The Manecraft seal comprises two main components: the stationary seat assembly and the rotating seal assembly, both moulded from tough, oil resistant chloroprene.

The stationary seat has a solid bronze ring bonded into it and is clamped onto the stern tube with two stainless clips, this part remains stationary.

Incorporated into the stationary seat is a red emergency sealing clip. This safety feature is for emergency only and is protected by a tamper proof tag.

The rotating seal assembly is clamped onto the shaft whilst being compressed against the seat. As the shaft rotates, so does the seal assembly.

The sealing face rotates against the stationary bronze seat, lubricated and cooled by the water inside the seal, aided by a water flush.

An air vent is incorporated in the flush system avoiding air locks preventing the water to cool the seat. This also means that if the boat dries out or is taken ashore no action is required on re-launch.

Manecraft seals are easy to fit and are direct replacements for old style propeller shaft packed glands. They do not require packing, adjusting, or maintaining and cannot wear a groove in the shaft. Following installation, all they need is a quick inspection in common with sea cocks, hoses, and other hull fittings situated under the water line.

On monitored test vessels, Manecraft seals have completed in excess of 10,000 hours of service, or 100,000 sea miles and are still in perfect condition. On most vessels, age will be the deciding factor rather than service hours when renewal is necessary. With the low cost involved, replacement of such an essential component every five years is recommended.

## A BRIEF HISTORY OF DEEP SEA SEALS

In 1938 the company Crane Packing Ltd was formed. During the next 40 years various acquisitions were made and divisions created to have a presence within the marine market, resulting in the creation of a separate company, Deep Sea Seals Ltd (DSS) in 1971.



Deep Sea Seals was based in Havant UK, specialising in Seal technology with the company's key market being Navies around the world. The field of expertise for DSS was 'face type' seals which were originally designed to meet the arduous needs of Naval ships and submarines. Using this technology and know-how, one of the face seal types created was the Manecraft Seal – a smaller seal designed specifically for the pleasure craft / commercial and leisure markets.

Various other company changes occurred within DSS over the following 30 years which culminated in their acquisition by Wärtsilä in 2002. The acquisition was a natural extension of a former strategic alliance and meant that the complete Wärtsilä engine range, in combination with the widest scope of propulsion and manoeuvring equipment, offered an unprecedented choice of solution for all types of marine and industrial applications.

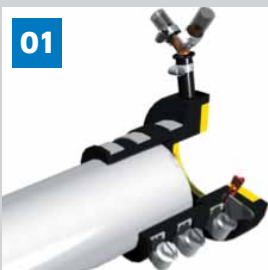
Having concentrated on other markets in more recent years, Wärtsilä decided it was time to reignite the world renowned brand Deep Sea Seals, with the creation of a specific website to promote and sell the well known and reliable product, Manecraft. Senior managers within Wärtsilä recognised that Deep Sea Seals itself was a well recognised and important brand in the smaller craft segment, forming part of the complete stern tube package range now manufactured and supplied by the company.

Manecraft incorporates the wealth of experience gained by Wärtsilä, leaders in the development and manufacture of seals for naval and commercial shipping in over 100 nations.



## DSS.MANECRAFT FITTING

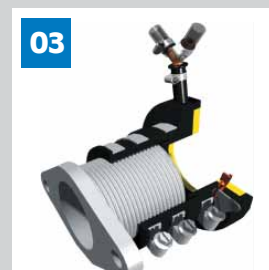
The Manecraft seal is simple to fit. Most vessels are easily converted to Manecraft and while there are many types of stern gland, they generally fall into three styles.



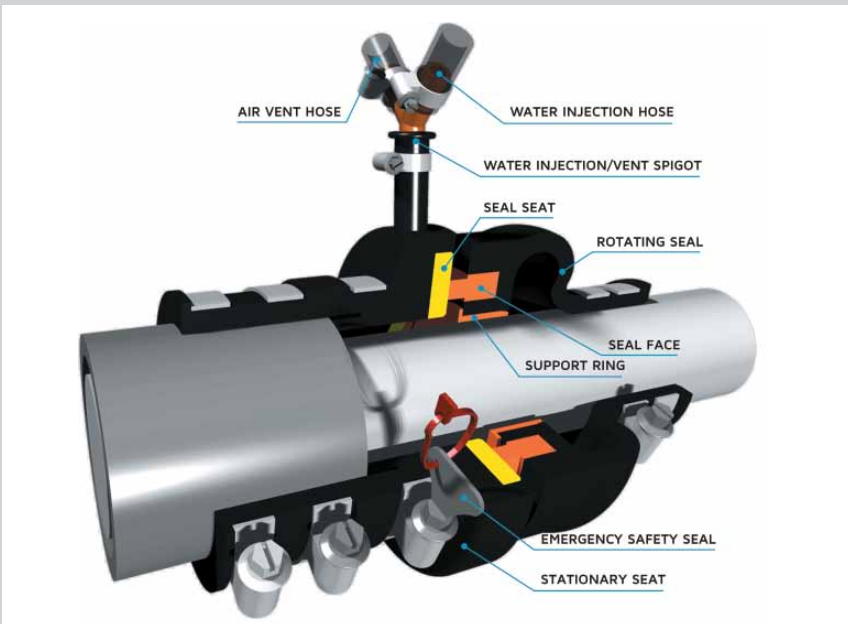
01 FLEXIBLE STERN GLAND



02 RIGID STERN GLAND



03 THREADED STERN GLAND



### Applications

Sealing propeller shafts and rudderstocks for the following marine uses; boat building, boat repair, charter fleets, fishing boats, hire craft and owner retrofits.

### Self Adjusting

These seals automatically compensate for face wear, and unlike gland packing, do not require any adjustment.

### No Shaft Wear

The Manecraft seal rotates with the propeller shaft, and therefore cannot cause wear of the shaft surface.

### Maintenance Free

Once fitted, the seal does not require any maintenance, although a regular inspection should be made in common with other hull fittings below the waterline.

### Emergency Safety Seal

Should for any reason the seal fail it can be quickly resolved by tightening the emergency clamp.

### Retro-fit

Ideal replacement for packed glands where the shaft has worn. There is no need to change the shaft.



**SMALL** DSS.ManeCraft shaft seal



**LARGE** DSS.ManeCraft shaft seal



**MANECRAFT SMALL** Metric Range Dimensions (mm)

Seal Size Reference	Shaft Diameter	Stern tube Outside Dia.	Maximum Overall Length	Std Set Maximum Shaft Speed	High Speed Set Max Shaft Speed	Support Ring req'd for Shaft Sizes
Set 2	25-30	35-43	131	1800	2950	25-27
Set 3	25-30	43-51	131	1800	2950	25-27
Set 4	30-35	43-51	131	1740	2850	30-32
Set 5	30-35	51-60	131	1740	2850	30-32
Set 6	35-41	51-60	131	1670	2750	35-38
Set 7	35-41	60-70	131	1670	2750	35-38
Set 10	41-43	70-80	131	1560	2600	All Sizes
Set 8	43-46	70-80	131	1560	2600	All Sizes
Set 9	46-51	70-80	131	1560	2600	46-49

**MANECRAFT LARGE** Imperial Range Dimensions (inches)

Set 11	2 <sup>1</sup> / <sub>4</sub>	3 <sup>1</sup> / <sub>2</sub>	5 <sup>13</sup> / <sub>32</sub>	1550	-	-
Set 12	2 <sup>1</sup> / <sub>2</sub>	3 <sup>1</sup> / <sub>2</sub>	5 <sup>13</sup> / <sub>32</sub>	1500	-	-
Set 13	2 <sup>3</sup> / <sub>4</sub>	4	5 <sup>13</sup> / <sub>32</sub>	1500	-	-

**MANECRAFT LARGE** Metric Range Dimensions (mm)

Set 14	55	70-80	137.5	1550	-	-
Set 15	60	80-90	137.5	1500	-	-
Set 16	65	90-100	137.5	1500	-	-

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