



## SHAFT SEAL ARRANGEMENTS

### Mill Master Horizontal Slurry Pump

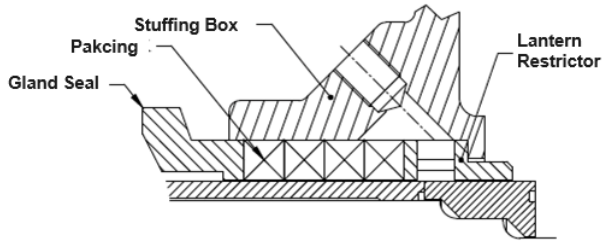
2022

- **Gland flow rates indicated are suitable for new and used installations.**
- **In doubt contact your ICS Wear Group representative.**

### Gland Seal – Full Flow

- In a full flow gland seal arrangement, a stuffing box replaces the expeller ring. A lantern restrictor and packing are used. This seal arrangement is used when the interior conditions cannot accommodate a centrifugal expeller seal arrangement. Clean water with a pressure of 35 to 50 kPa above discharge pressure is required.
- Below are the gland water requirements for a Full Flow Gland:

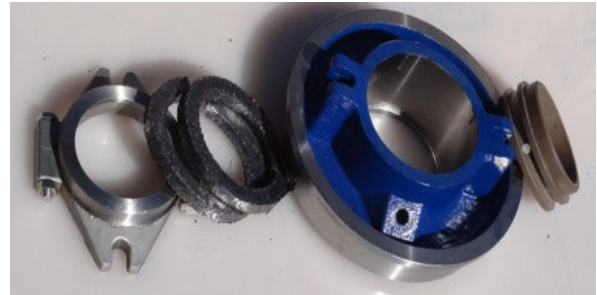
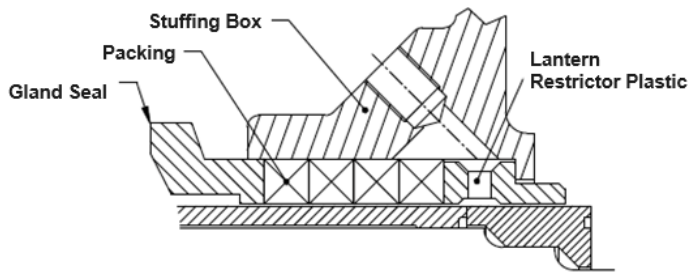
Frame Size	B	C, CC & CM	D, DD & DM	E, EE & EM	F, FF & FM	G & GM	H
LITERS/SEC	0.25	0.35	0.55	.070	1.20	1.60	2.10



## Gland Seal – Low Flow

- A low flow gland seal arrangement is used when only very small quantities of gland water are allowed to dilute and mix with the fluid being pumped. Clean water with a pressure of 35 to 50 kPa above discharge pressure is required.
- Below are the gland water requirements for a Low Flow Gland:

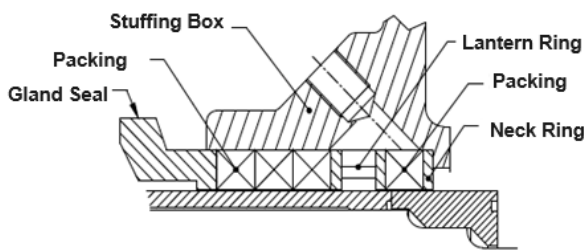
Frame Size	B	C, CC & CM	D, DD & DM	E, EE & EM	F, FF & FM	G & GM	H
LITERS/SEC	0.09	0.11	0.15	0.20	0.26	0.40	0.60



## Gland Seal – Ultra Low Flow

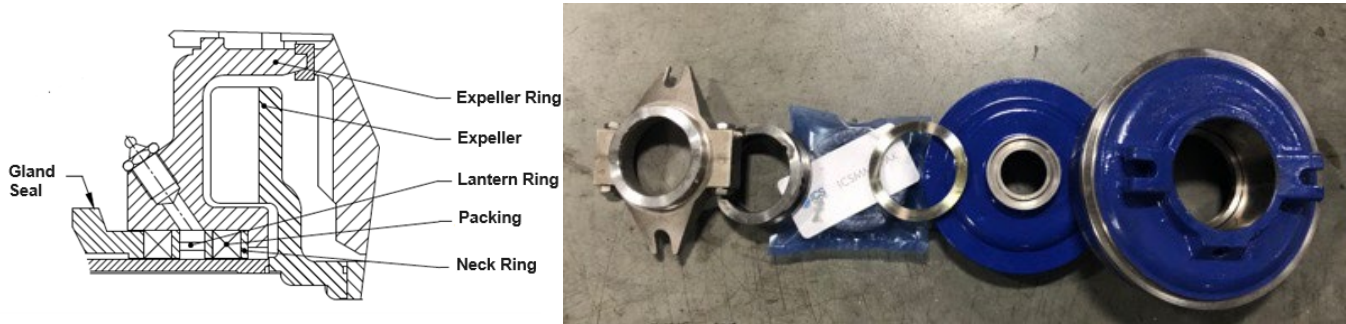
- An ultra low flow gland seal arrangement is used when adding additional water to the product is undesirable. Clean water with a pressure 35 to 50 kPa above discharge pressure is required. This seal arrangement is not suitable or recommended for high pressure pump applications.
- Below are the gland water requirements for an Ultra Low Flow Gland:

Frame Size	B	C, CC & CM	D, DD & DM	E, EE & EM	F, FF & FM	G & GM	H
LITERS/SEC	0.03	0.04	0.05	0.06	0.09	0.14	0.20



## Centrifugal Seal

- A metal centrifugal seal provides the major advantage that no gland water is required, making it suitable for most slurry pumping applications. A leak-proof system is achieved with the expeller ring working with the back of the impeller. Grease packed gland with a neck ring and lantern ring prevents leakage with a stationary pump. Under normal operating conditions, this seal arrangement is leak proof.
- This sealing system is available in rubber when the expeller ring is made from molded rubber.



## Mechanical Seals

Mechanical Seals come in various styles. The most common are the double and single cartridge mechanical seal.

Photos below left of a single cartridge mechanical seal.

Mechanical Seals are available for ICS Mill Master Pumps, they can be fitted upon client request.

