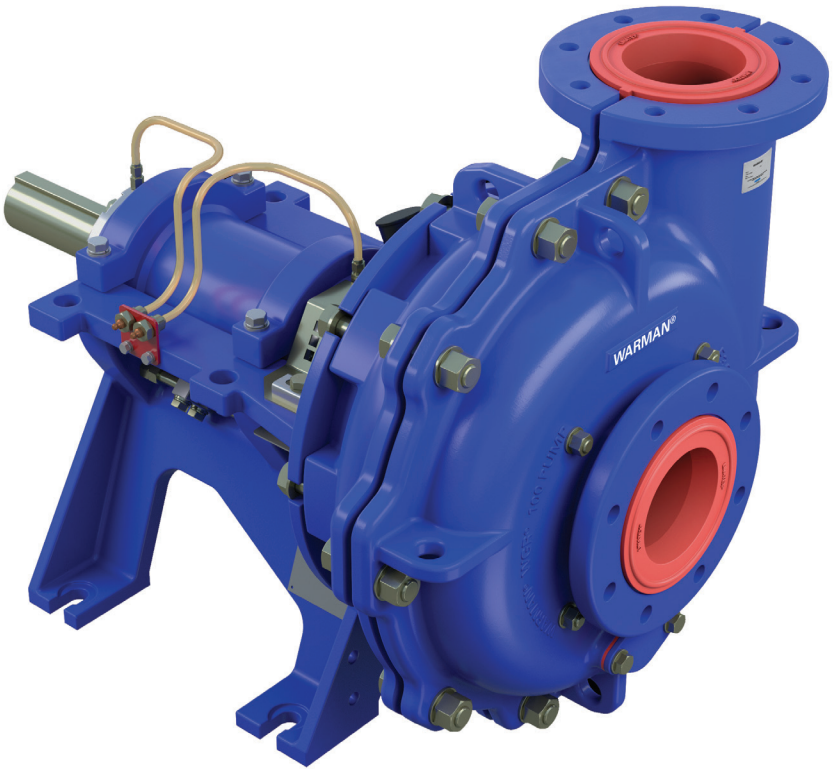
Minerals

WARMAN®
WGR® pump

Introducing the 2nd generation Warman® WGR® pump — the pump of choice for the sand and aggregate market



An ideal choice for sand and aggregate applications

Weir Minerals has made significant enhancements to the original Warman® WGR® pump and specifically designed and engineered it for sand and aggregate applications. Compared to its predecessor, the 2nd generation pump offers several innovative features including improved hydraulic design, enhanced gland options, simplified wet-end and added features for improved safety and reduced maintenance.

2nd generation Warman® WGR® pump design enhancements

- Improved volute hydraulics
- Improved impeller support frame
- Improved gland sealing with a remodelled expeller seal option
- Simplified wet-end design with fewer parts for reduced maintenance
- Additional lifting points for safe lifting
- Casing drain plug

The Warman® WGR® pump offers several innovative features including improved hydraulic design, enhanced gland options, simplified wet-end and added benefits for improved safety and reduced maintenance.

Replaceable Linatex® premium rubber wear components

All wear components of the Warman® WGR® pump are manufactured from natural Linatex® premium rubber. Our Linatex® premium rubber has a proven reputation for being extremely strong, tough and resilient. It provides unrivalled wear performance in wet sand applications.

Adjustable impeller for sustained high efficiencies

Impeller clearance can be adjusted externally to achieve optimum clearance between the impeller and the suction door for the full working life of the wear components. This maintains the efficiency of the pump.

Improved hydraulic design

The new hydraulic design focuses on reducing internal turbulence and minimising power draw. The large diameter impellers provide an ideal balance between efficiency and extended wear life.

Long bearing life

The high capacity bearings withstand high loads including thrust while still providing long bearing life. The bearings are mounted in a removable housing and fastened to a rigid base.

Enhanced gland seal options

The large diameter expeller seal design prevents slurry leakage and protects against high inlet pressures, reducing maintenance and adjustment frequency. Additional gland seal options are also available including a remote adjusting patented D-Gland seal, which provides parallel adjustment of the sealing faces (see Figure 1).

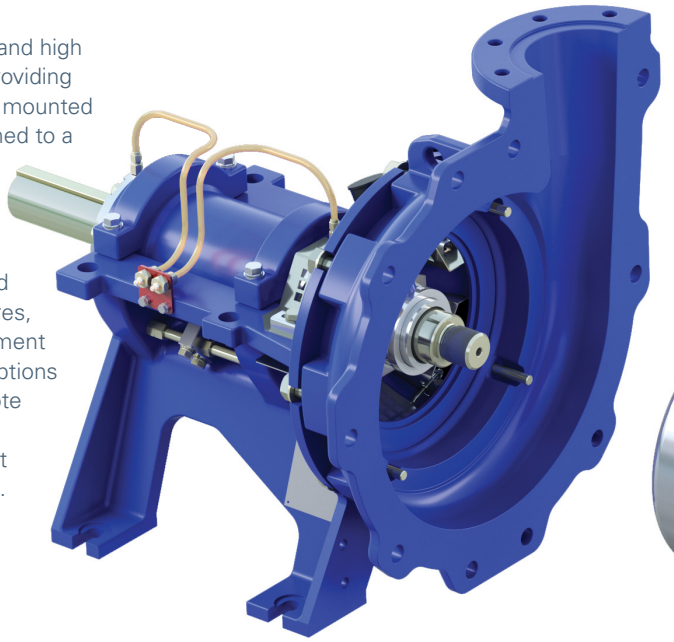


Figure 1. Gland Seal Options

Expeller seal gland | Flushed water gland | D-Gland

Centrifugal expeller seal
A high sealing expeller is used to create a dry shaft seal with no additional water requirements.

Flushed water gland
A conventional multi-ring packed gland is also available.

Remote adjusting D-Gland assembly
Unique to the Warman® WGR® pump range, is the utilisation of a patented D-Gland with a single point adjustment, maintaining parallel adjustment of the silicon carbide face against the Linatex® rubber seal face from outside the guard.

Equalised wear of pump components

The thickness and profile of the various wear components has been engineered to ensure that all components reach the end of their useful life at the same time, enabling maintenance overhauls to be undertaken to a predictable and cost effective schedule.

Ease of maintenance features

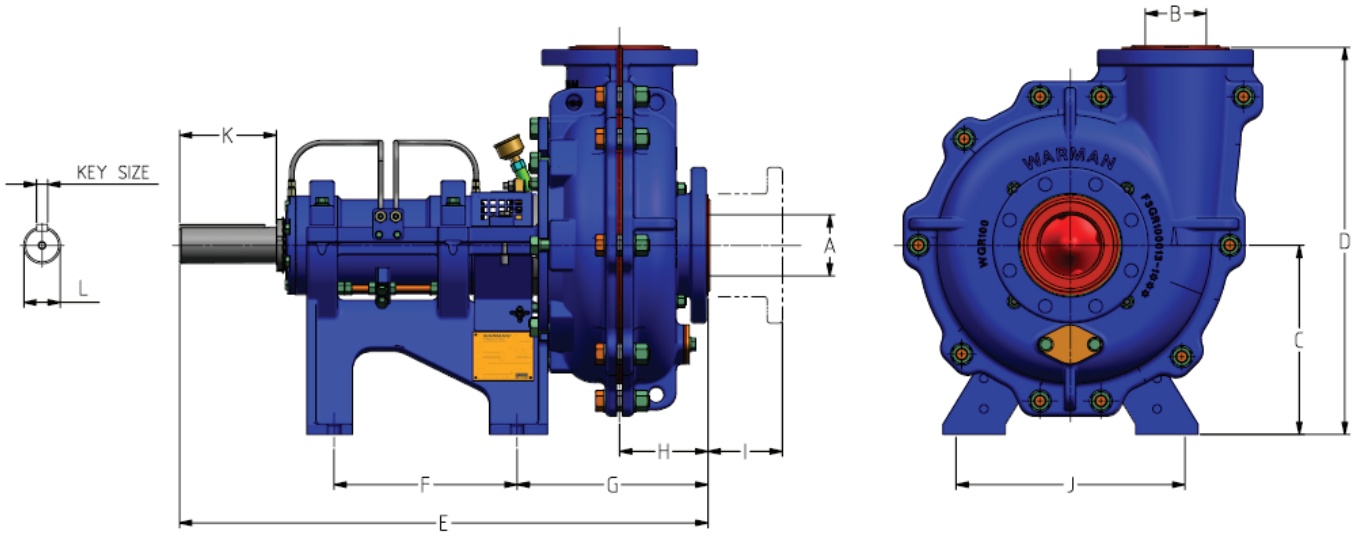
The WGR® pump design allows for easy access to all internal components. This makes servicing easy and minimises downtime.

Additional ease of maintenance and improved safety features include:

- A simplified wet-end with fewer parts
- Lifting points added to aide in safe handling/lifting
- A drainage plug added to the casing can be pulled in cold months so that the pump does not freeze or clog when stopped

Ease of Maintenance Features

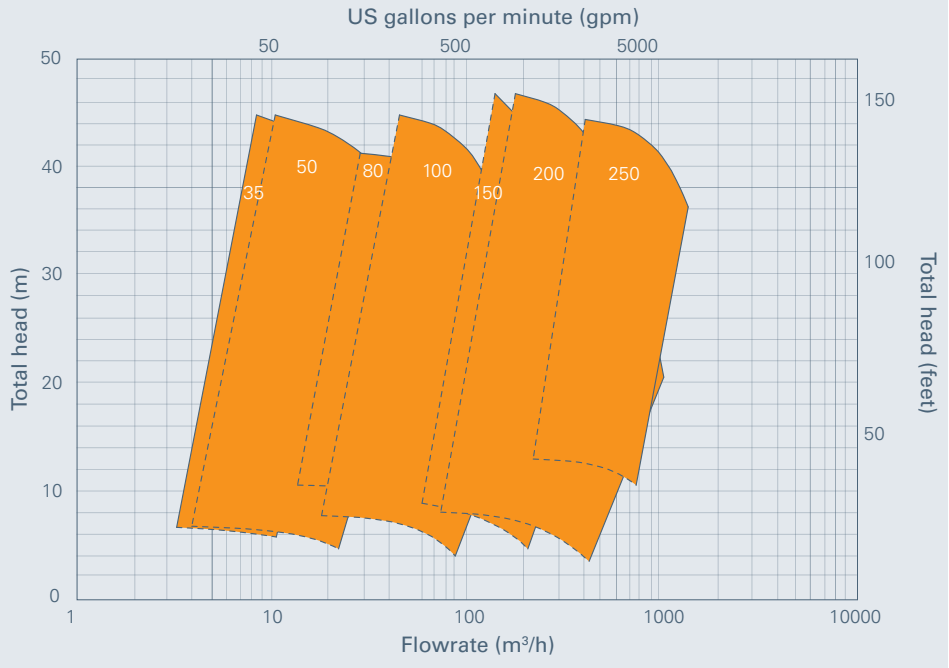
1. one-piece Linatex® premium rubber liner
2. fixed flanges
3. drain plug
4. one-piece suction cover
5. lifting points



Warman® WGR® Pump Range

PUMP SIZE	FRAME	A mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm	I mm	J mm	K mm	L mm	KEY SIZE in
35 WGR®	F2	35	35	273	533	731	270	284	138.5	150	310	105	48	14x9
50 WGR®	F2	50	50	273	533	731	270	283	138.5	150	310	105	48	14x9
80 WGR®	F2	80	80	273	533	739	270	292	141	186	310	105	48	14x9
100 WGR®	F3	100	100	310	634	867	300	313	145	230	375	159	60	18x11
150 WGR®	F4	150	150	470	923	1078	332	444	211.5	290	495	198	70	20x12
200 WGR®	F4	200	200	470	923	1129	332	497	260	350	495	198	70	20x12
250 WGR®	F5	250	250	540	1034	1270	390	578	315	400	630	189	85	22x14

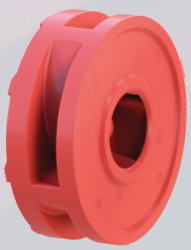
Warman® WGR® Pump Preliminary Selection Chart



The Warman® WGR® pump's replaceable impeller and liners are manufactured using Linatex® premium rubber, proven to deliver the best wear performance and lengthen maintenance intervals for wet sand applications.

Linatex® rubber is made in a unique liquid phase manufacturing method providing it with exceptional wear properties that allow it to last longer in service, lower operators' total ownership costs, and simplify change-outs.

The Linatex® wet-end components are designed specifically for the WGR® pump and are precision moulded to ensure they always fit.



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