

**WARMAN®**  
Centrifugal Slurry Pumps

**WGR Slurry Pump**

Excellent  
Minerals  
Solutions



## The WARMAN® WG range

**Weir Minerals are specialists in delivering and supporting slurry equipment and mine dewatering solutions including pumps, hydrocyclones, valves, screen machines and screen media, rubber and wear resistant linings for global mining and mineral processing, the power sector and general industry.**

**We use our specialist slurry knowledge and experience from around the world to deliver reliable product and service solutions. Our global network ensures that we are close to our customer wherever they base their local operations.**

The strength of Weir Minerals products lies in the superiority of our hydraulic designs and wear and corrosion resistant materials.

The WARMAN WG Pump Range comprises of both Rubber (WGR) and Hard Metal (WGU) Pumps.

The WARMAN WGR Pump has been specifically designed for use in abrasive slurry and various chemical applications and a wide choice of pump sizes makes it well suited to a broad range of slurry pumping duties.

Our unique hydraulic designs and patented features are particularly focused on reducing internal turbulence and minimising power draw. The large diameter impellers strike the perfect balance between efficiency and extended wear life. If site requirements change, the interchangeable drive frame allows the WARMAN WGR Pump to be modified with only the wet end being replaced, making it simple to move from hard metal to rubber depending on the application. The streamlined design allows easy access to all parts of the pump and the internal components, making servicing easier and reducing downtime. When this is combined with the long service life of our parts and the proven long life of our proprietary LINATEX® Premium Rubber, we provide pumping solutions that demonstrate the lowest total cost of ownership in operation.



## WARMAN WGR Pump Features

The WARMAN WGR Pump incorporates new technology together with proven features that have earned our global range of lined pumps its respected reputation over several decades.

The introduction of new patented technology and new ergonomic designs has resulted in the creation of a safer and more user friendly pump. The impeller diameters are larger than many competitors' pumps and contribute to longer parts life for less downtime.

When this is combined with the new easy maintenance features and the best abrasion resistance to suit each application, we believe we have created a range of pumps that provides you with the lowest cost of ownership.

### Loose Swivel Flanges

Loose swivel flanges are offered to match required flange configurations suited to global standards and specific project requirements. This facilitates simple installation of the WARMAN WGR Pump.

### Easy Serviceability

The impeller and gland assembly can be accessed and adjusted via the suction side of the pump. The inclusion of an impeller quick release feature and a fully removable suction door allows for complete refurbishment of the pump. This can easily be done without disconnecting discharge pipe work. This in turn ensures minimal downtime, improves maintenance efficiencies and consequently lowers total operating costs.

### 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 and superior abrasion resistant performance in fine slurry applications.

The WARMAN WGR Pump's liners are simple to replace, significantly cutting down on maintenance time. The throatbush can be replaced separately.

### Matched Hydraulically for Even Wear

The thickness and profile of the various wear components has been engineered to ensure that, within reason, all mating 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.

### Flexible Discharge Adaptor

The discharge adaptor is the same size as the pump inlet. It is positioned so that the pump can be fully serviced without removing the discharge pipe work. Weir Minerals can supply up to three different size discharge adaptors. This allows it to be tailored to suit different pipe work configurations for individual site requirements.

### Wide Range of Impeller Options

The importance of selecting the most appropriate impeller in terms of size and type cannot be overstated. Various impeller designs are available to suit particular applications. The most popular design is the standard closed impeller. The WARMAN WGR Pump also includes a "knock off" collar for easy impeller removal.

### Adjustable Impellers 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.

### Reduced Internal Turbulence

With a design philosophy of balancing efficiency and wear life for maximum effect, the WARMAN WGR Pump focuses on reducing internal turbulence. The casing liner volute and the patented impeller design achieve this.

### Removable Suction Front Door

The incorporation of the removable suction door in the suction casing means that the throatbush can be replaced without incurring the cost of replacing the complete casing liner. This is one of the highest wearing parts of any pump and the new design gives increased durability, resulting in lower overall lifetime costs.

## Gland Sealing

The following gland options are available for the WARMAN WGR Pump

### Remote Adjusting D Gland Assembly

Unique to the WARMAN WG Pump Range, is the utilisation of a patented D gland with a single point adjustment, guaranteeing parallel adjustment of the silicon carbide face against the LINATEX rubber seal face from outside the guard.



### Mechanical Seal

A range of cartridge type single and double special slurry type mechanical seals are available subject to the specific requirements of the application.



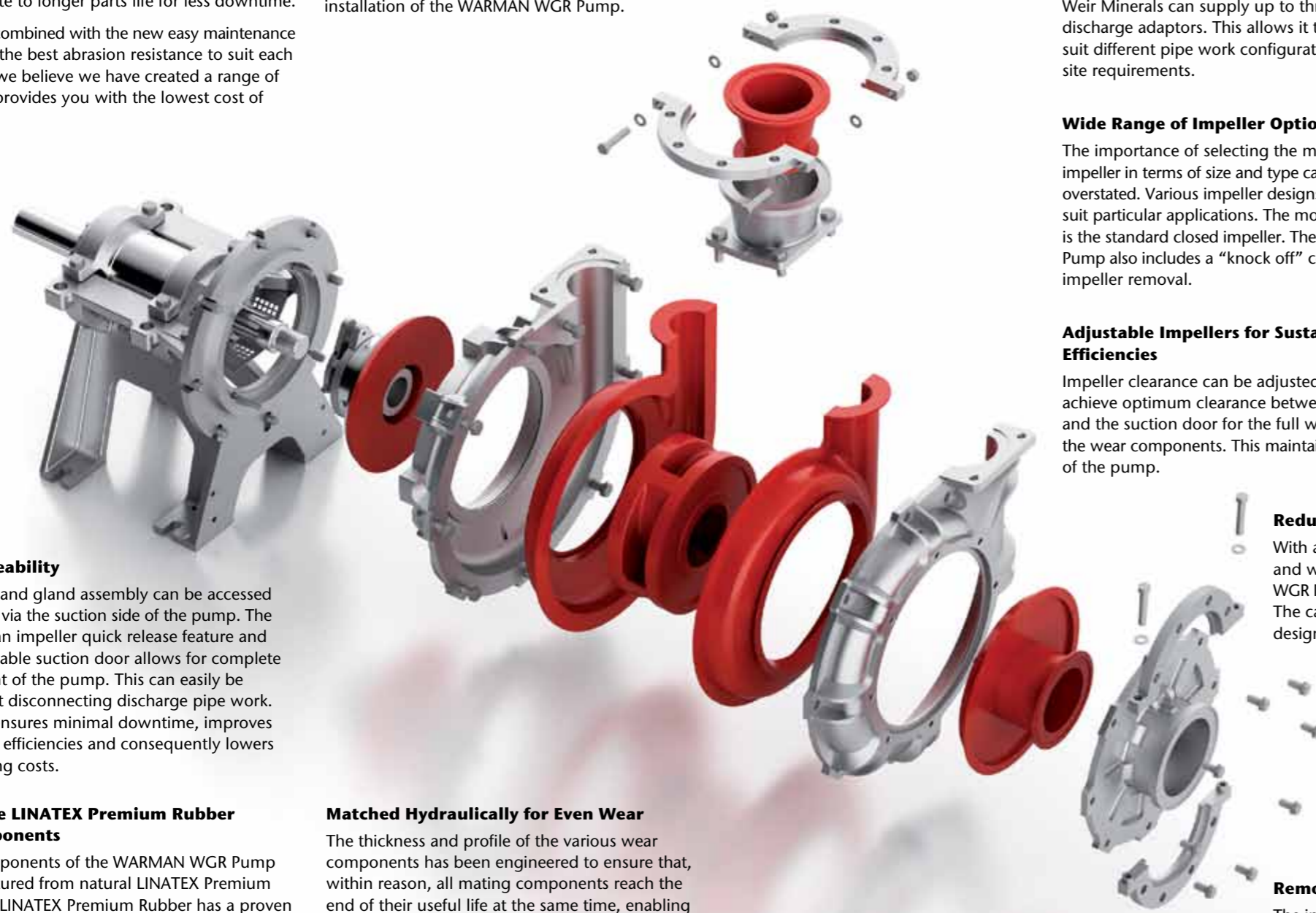
### Centrifugal Expeller Seal

A patented expeller is used to create a dry shaft seal, with no water requirements, whilst the pump is running subject to the inlet head and duty conditions.

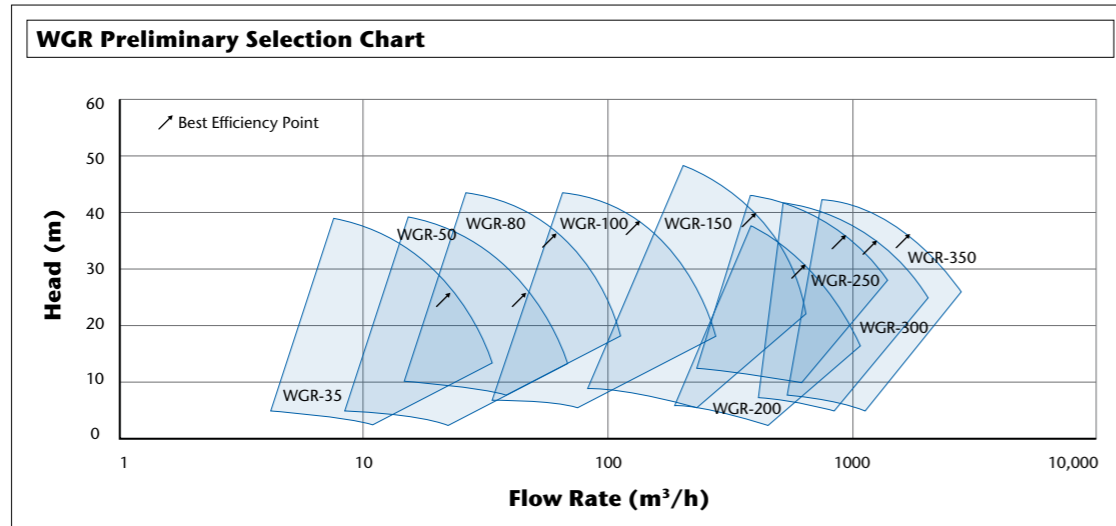


### Flushed Water Glands

A conventional multi-ring packed gland is also available.



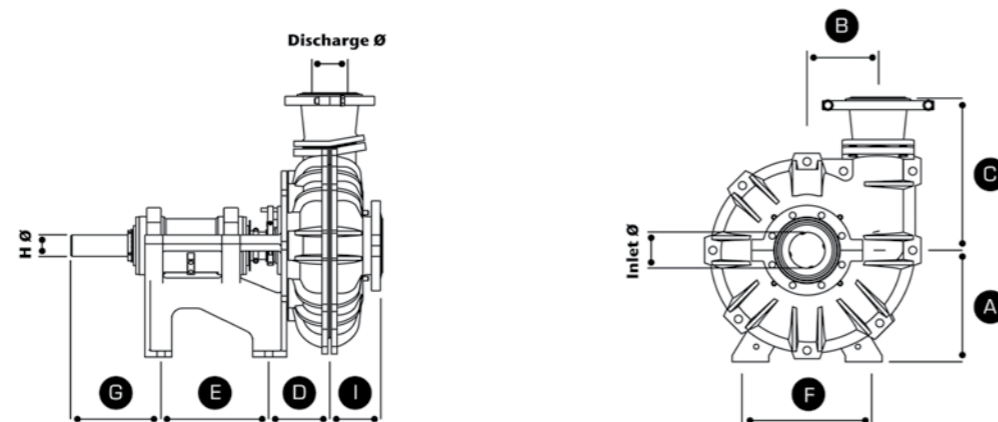
## WARMAN WGR Pump Information



**WGR Outline Dimensions**

Pump Size (mm)	A	B	C	D	E	F	G	H	I
WGR-35	260	145	320	120	270	300	182	48	90
WGR-50	260	150	340	134	270	300	182	48	100
WGR-80	260	163	360	144.5	270	300	182	48	118.5
WGR-100	310	198	421	173	300	360	240	60	143
WGR-150	470	260	473	237	332	480	302	70	205
WGR-200	470	325	613	241	332	480	302	70	256
WGR-250	540	380	635	251	390	604	314	85	309
WGR-300	720	475	700	314	494	730	360	100	338
WGR-350	720	530	730	314	494	730	360	100	388

Dimensions, sizes and performance indicated in this brochure are for preliminary selection only



## Products and geographical presence to service all the major minerals markets around the world



### Geographical footprint

We have the geographical presence to service all the major minerals markets around the world. This global supply capability provides a competitive advantage in this disparate market.

Weir Minerals global operations :

- North America
- South America
- Africa
- Europe
- Australia
- Asia
- Russia

We support customer operations worldwide with consistent products and local engineering expertise.

As part of the Weir Group, we have the reach and resource to build close, long term relationships with all our customers, helping them to ...

**achieve the lowest cost of ownership.**

### Customer profile

Our customers range from the world's largest multinationals to single pumpset operators.

Our capability supports a wide range of customer specifications with products easily adaptable to meet specific process requirements.

Weir Minerals customers include:

- Alcoa
- Barrick
- Codelco
- De Beers
- Newmont
- Anglo-American
- BHP-Billiton
- CVRD
- Grupo Mexico
- Rio Tinto

We build close, long term partnerships to enable us to help our customers ...

**optimise their critical slurry applications.**



**WARMAN®** Centrifugal Slurry Pumps  
**GEHO®** PD Slurry Pumps  
**LINATEX®** Rubber Products  
**VULCO®** Wear Resistant Linings  
**CAVEX®** Hydrocyclones  
**FLOWAY® PUMPS** Vertical Turbine Pumps  
**ISOGATE®** Slurry Valves  
**MULTIFLO®** Mine Dewatering Pumps  
**HAZLETON®** Specialty Slurry Pumps  
**LEWIS®PUMPS** Vertical Chemical Pumps  
**WEIR MINERALS SERVICES**

For further information on any of these products or our support services contact your nearest sales office or visit:

[www.weirminerals.com](http://www.weirminerals.com)

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