

Product Introduction

WBC

Series Overview

WBC Slurry Pumps are a patented design for severe duties with operating flows up to 70,000 gpm (16,000 m³/h). Total dynamic head is up to 260 ft. (80m) per stage and power rating is up to 8,000 hp (5960kW). The design is based on the proved GIW LSA-S slurry pump series. WBC's may be required when customer specifications exceed the LSA-S limitations.

Fields of Application

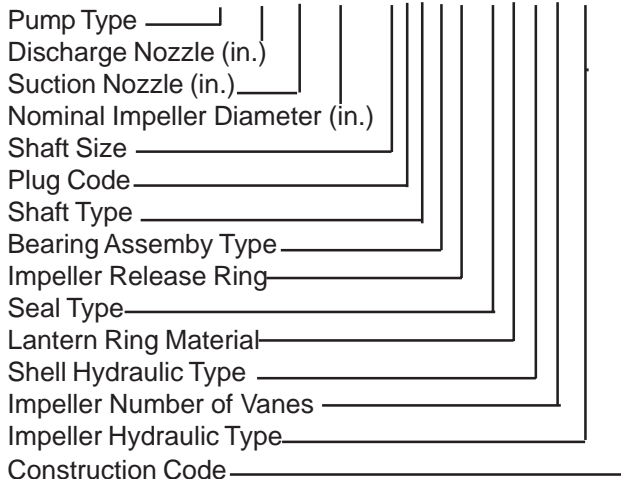
Ideal for ore and tailings transport to minimize the effect of sudden pressure spikes.



WBC shells are designed to virtually eliminate bending moments and stresses that can cause a structural failure during a pressure surge. Shell, impeller and suction liner are made of GIW Gasite alloys that are recognized for superior abrasion resistance. The pump is equipped with GIW's proven heavy-duty mechanical end with spherical roller radial bearings and separate steep-angle thrust bearing. The standard fused carbide-coated shaft sleeve provides a smooth, extremely hard surface for long packing life. Optional sleeve materials are available.

Designation

WBC-18X20-54.10LWLR FM C/4ME L



Pump Type

WBC - Wide Bolt Design

Shaft Size

(Standard options)

- 5 5-7/16
- 6 6-7/16
- 7 7-3/16
- 9 9
- 10 10-1/4
- 11 11-1/2

Plug Code

(Standard options)

- G 2C4.5
- J 6.5
- K 7.75
- L 9.0
- M 11.5
- N 13.0

Shaft Type

- S Stiffened
- W Straight

Bearing Assembly Type

- L Limited End Float
- C Conventional

Impeller Release Ring

- R Impeller Release Ring
- N No Impeller Release Ring

Seal Type

- F Packing, Forward Flush
- K Packing, Low Flow
- M Mechanical Seal
- B Throat Bushing

Lantern Ring Material

- T Teflon
- M Metal
- N Not Applicable

Shell Hydraulic Type

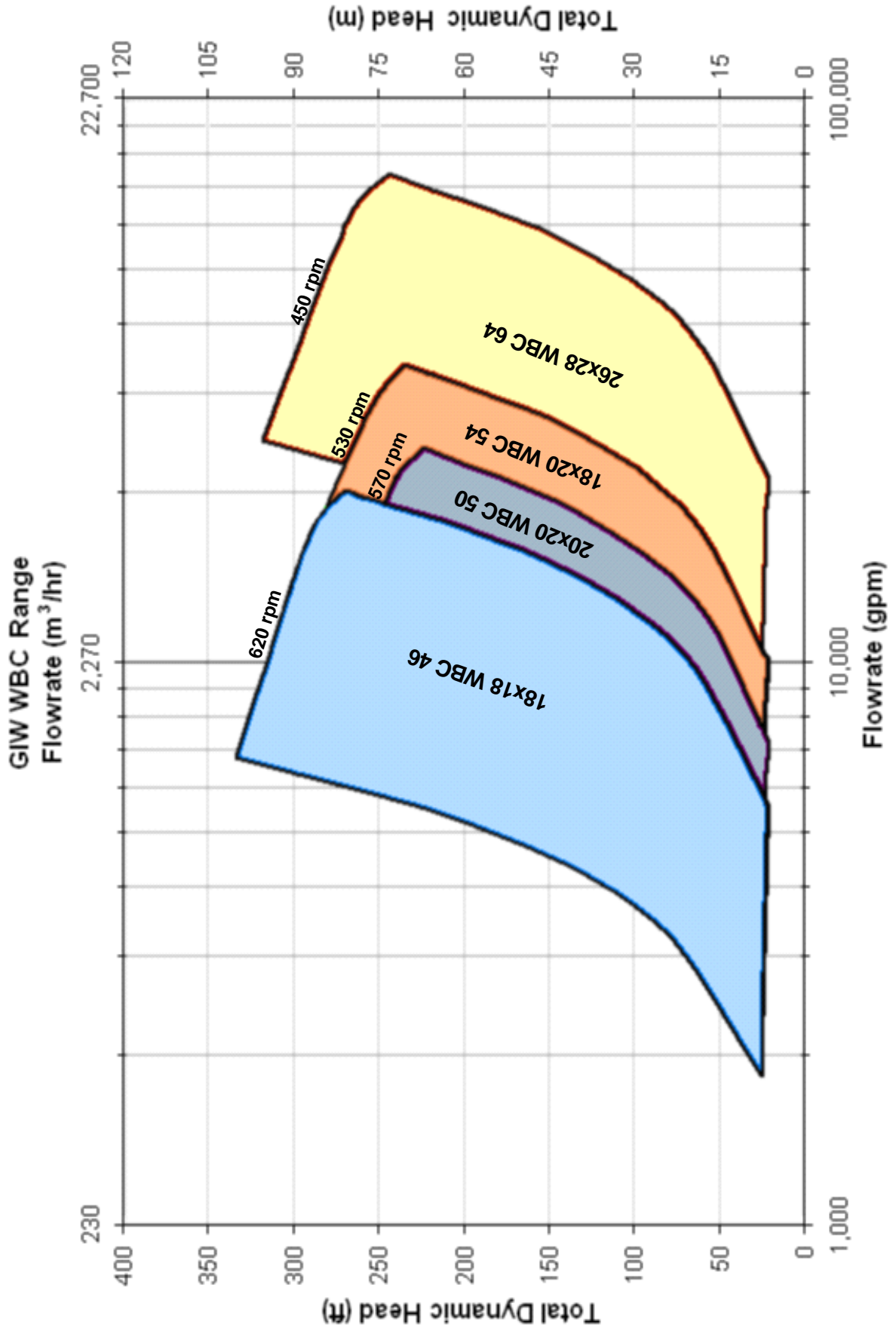
- C Semi-Volute

Impeller Hydraulic Type

- ME Conventional Warped Vane

Construction Code

- H Integral Hub Liner
- L Separate Hub Liner
- OD TOD Type Suction Liner
- HP High Pressure
- VHP Very High Pressure
- GL Gathane Lined
- RL Rubber Lined

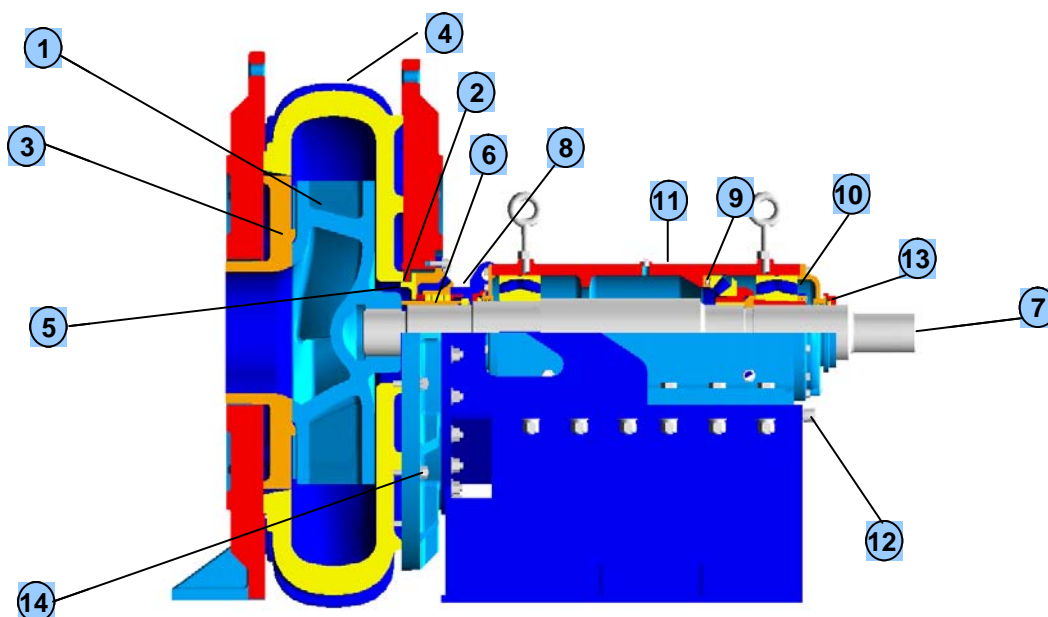


RPM SHOWN IS MAXIMUM AT CLASS TWO DUTY



GIW Model WBC Pumps

Low Maintenance, Severe Duty, Abrasion Resistant



Wear Parts

- ① Impeller is designed for wear-resistant operation in highly abrasive slurries using GIW's flow simulation computer program.
- ② Two aramid gaskets aid in the removal of the impeller.
- ③ Replaceable suction liner facilitates pump internal inspection and minimizes wear part usage cost. Liner can be rotated at intervals to increase wear life.
- ④ Pump shell is computer designed to optimize wear and efficiency.

Pump Seal

- ⑤ Replaceable wear plate maximizes stuffing box life.
- ⑥ Shaft sleeve with fused carbide hard coating to maximize packing life.

Mechanical End

- ⑦ Robust stiffened shaft to improve the wear life of the mechanical end and stuffing box.

- ⑧ Impeller release ring for easy impeller removal. Standard on all larger pumps.
- ⑨ Spring retainer ring locates the thrust bearing preload springs for correct axial thrust load.
- ⑩ Radial bearings are a heavy duty, self-aligning, double-row, spherical roller-type design. Limited end float is available for high pressure applications.
- ⑪ Split-cartridge bearing assembly offers ease of inspection and maintenance.
- ⑫ Accurate impeller clearance adjustments are easily made with the adjusting screw.
- ⑬ Labyrinth seals protect bearings.

Quick Alignment

- ⑭ Rabbet fits machined into the pedestal support the hub plate and shell to provide component alignment.

Interchangeability

To optimize wear life and efficiency, various hydraulic design and material options can be used on the same mechanical end.