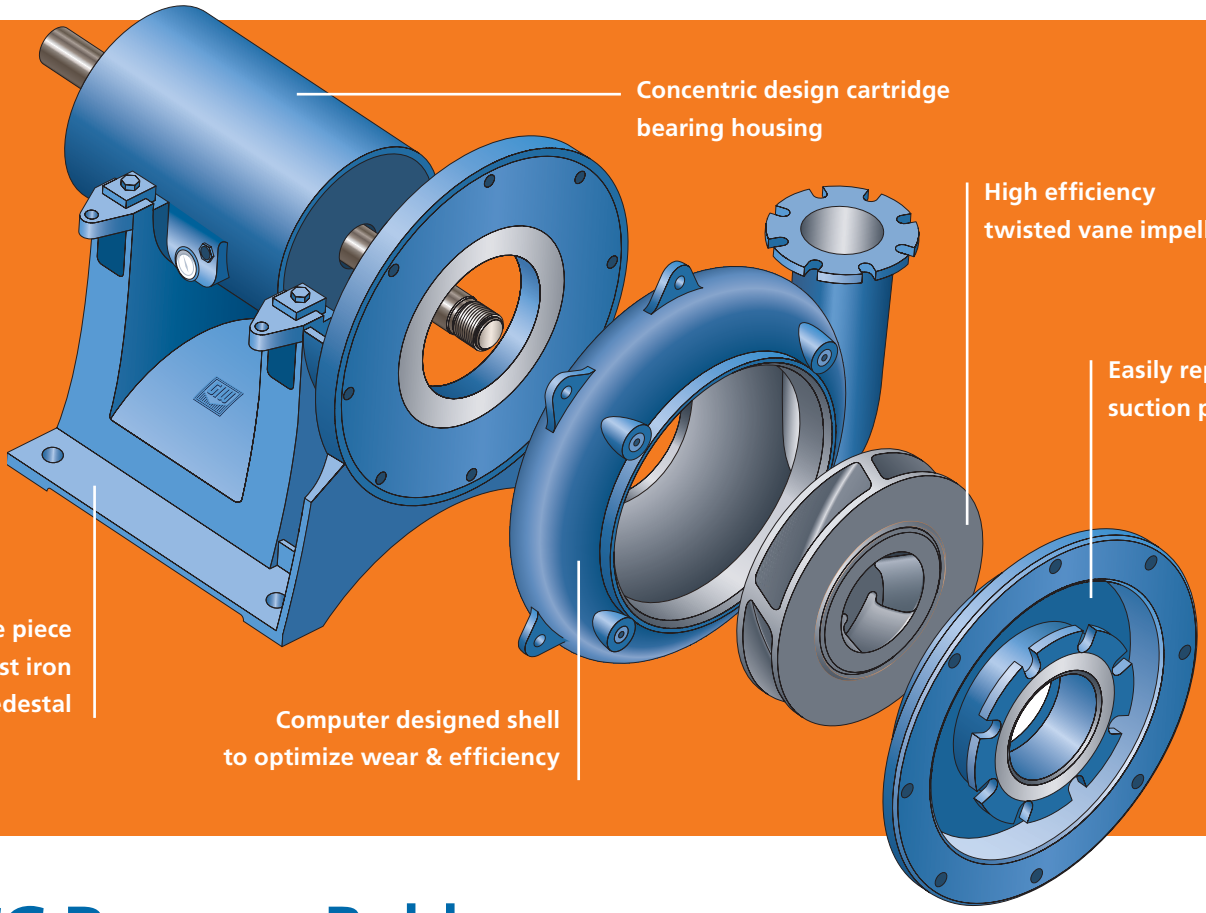
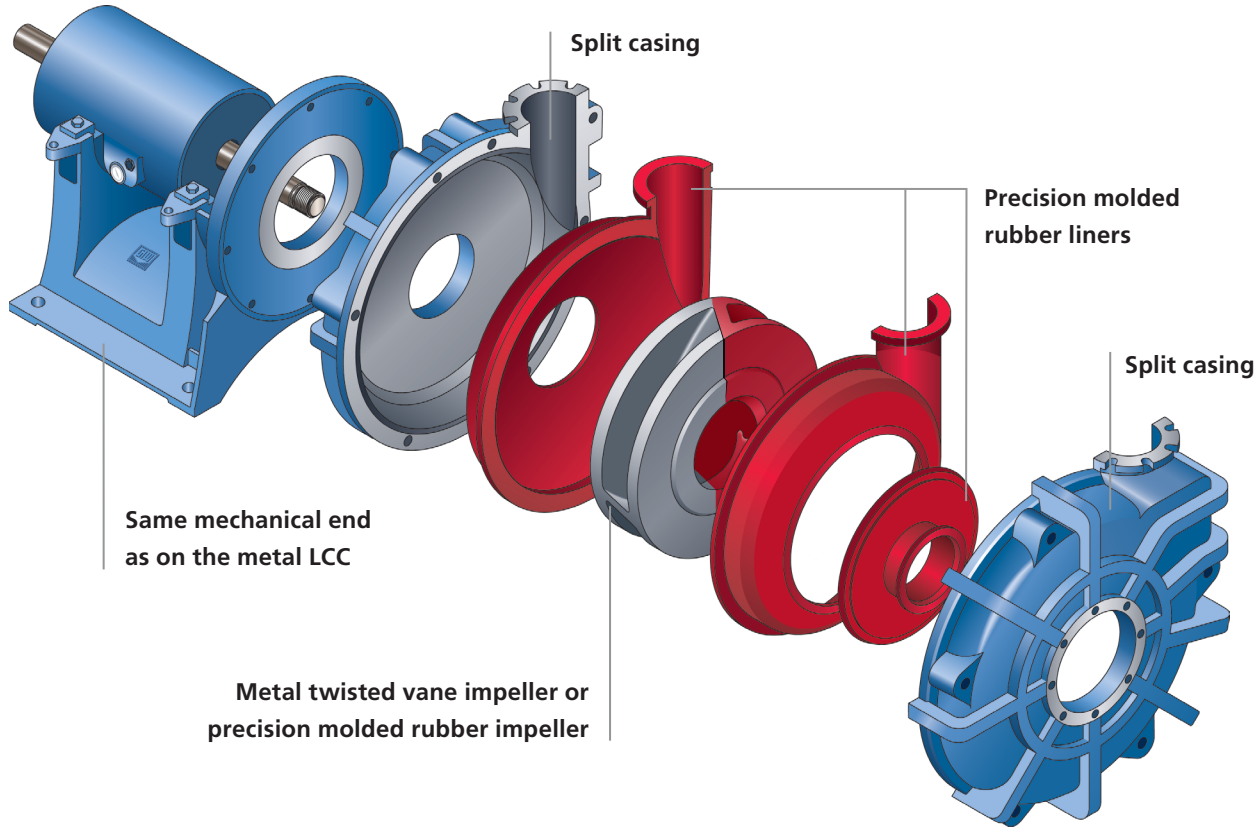
# LCC Corbrasion™ Resistant, High Performance Slurry Pumps



# LCC Pump – Metal




# LCC Pump – Rubber



# LCC Metal and Rubber Design Features:

With High Performance Corbrasion™ Resistance, the GIW LCC Pump family withstands the most severe slurry applications. Whatever the duty, it's no challenge for the pump tailored to take on any slurry pumping condition.

### Corbrasive™ Resistant Wet End Parts

- Advanced GIW metallurgy provides Corbrasive™ (corrosion and abrasive wear resistant) alloys tailored to meet virtually any slurry pumping condition.

### Advanced Hydraulic Design

- Uses the latest technology tried and tested in GIW's Hydraulic Laboratory and in the field.

### Single Wall Hard Metal shell

- CAD designed shell and replaceable suction plate/liner
- Interchangeable sizes with 2 pedestals and 5 mechanical ends
- GIW alloys available for difficult chemical applications

### Rubber Lined

- Precision molded rubber parts
- Bolt in liners for easy maintenance
- CNC machined ductile iron casings
- Two-stage pressure capacity up to 230 psi (16 bar) operating pressure

### Extra Heavy Hard Metal

- Heavier metal sections and hydraulics suited to the most severe slurry duties
- Two-stage pressure up to 230 psi (16 bar) operating pressure
- Separate suction liner and non-wearing plate (lower replacement cost)
- Available in sizes 150-500 (6" x 20") and above

### Impellers (metal or rubber)

- Twisted three vane design provides high efficiency and low net positive suction head requirements
- Maximum sphere passage
- Available in GIW alloys, polyurethane and extreme duty versions

### Also available in rubber:

- completely interchangeable with existing metal impellers used in earlier LCC-R pumps
- best wear resistant rubber on the market
- uses proven advanced hydraulics
- thickened shrouds and vanes provide maximum wear resistance in heavier slurries

### Cartridge Bearing Assembly

- CNC machined cast iron cylindrical housing
- Double row tapered roller bearings handle mechanical and thrust forces
- INPRO® Bearing Isolators are standard
- Oil or grease lubrication

### Pedestal

- CNC machined cast iron
- Self-aligning concentric bearing supports
- Integrated impeller gap adjustment screw
- Two pedestal sizes for entire LCC range

## Applications:

The LCC Pump is a high performance, low maintenance slurry pump recommended for coarse or fine particles from solids-laden waste to aggressive slurries of an abrasive and/or corrosive nature.

## Size Range:

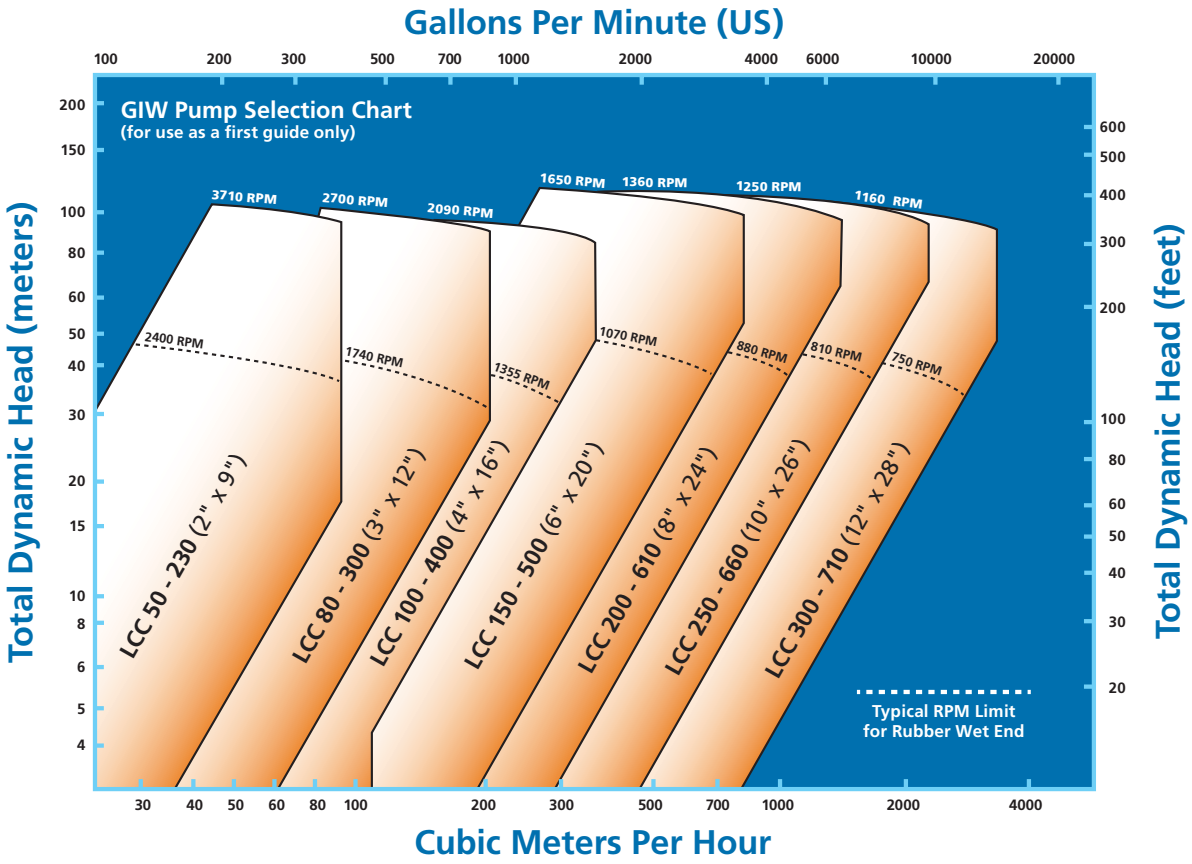
**Discharge diameters:**
**2 in to 12 in (50 mm to 300 mm)**

**Flows: to 17,000 gpm (3200 m³/h)**

**Total head: up to 300 ft (90 m)**

**Power rating: to 750 HP (560 kW)**

# LCC Offers Wide Selection Range




# LCC Seal Arrangements

### Mechanical Seal

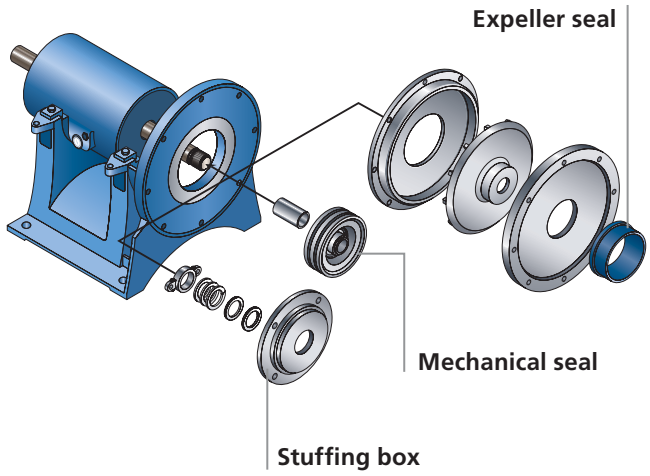
- Use when gland water cannot be added to process
- Available for standard and chemical duty
- Dry design or optional back flush

### Stuffing Box

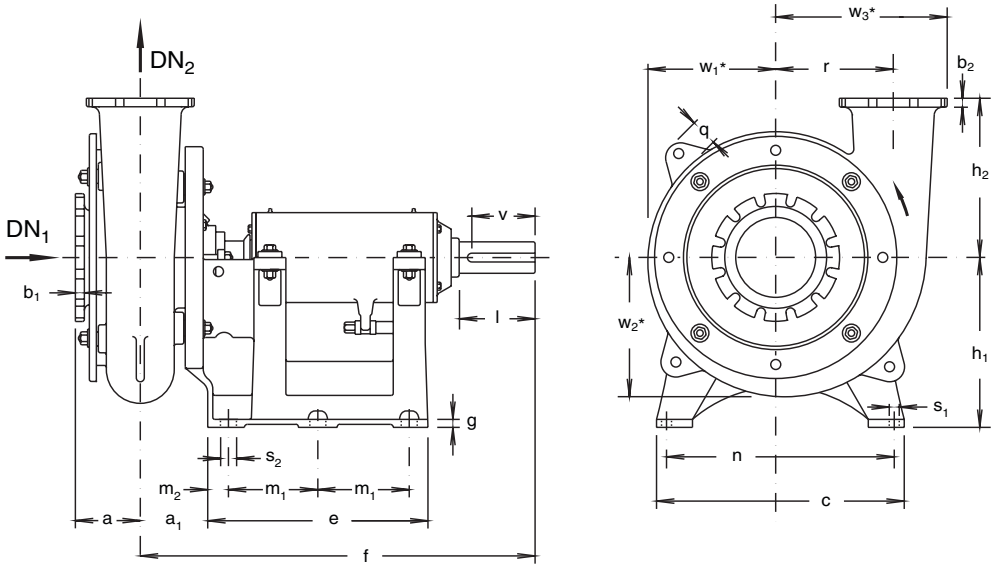
- Standard KE design with lantern ring and packing
- Throttle bushing design for special applications

### Expeller Seal

- Use when process dilution must be minimized
- Expeller rotor and chamber balance pressures at gland packing for zero leakage
- Exclusive internal diverter provides additional efficiency
- Stuffing box includes port for maintenance flushing



# LCC Metal Dimensions




## PUMP DIMENSIONS

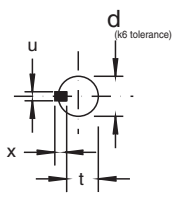
| PUMP AND SHAFT SIZE | | PUMP * May exceed h1 | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | $DN_1$ | $DN_2$ | a | $a_1$ | $b_1$ | $b_2$ | f | $h_1$ | $h_2$ | r | $w_1$ (ref.) | $w_2$ (ref.) | $w_3$ (ref.) | q (ref.) |
| 50-230 | 1 | 3 | 2 | 4.53 | 4.61 [1] | 0.87 | 0.79 | 29.84 [1] | 14.57 | 9.06 | 5.71 | 6.69 | 6.89 | 8.71 | 1.56 |
| (2" x 9") | 2 | 3 | 2 | 4.53 | 4.61 [1] | 0.87 | 0.79 | 32.09 [1] | 14.57 | 9.06 | 5.71 | 6.69 | 6.89 | 8.71 | 1.56 |
| 80-300 | 1 | 4 | 3 | 4.72 | 4.96 [1] | 0.87 | 0.87 | 30.16 [1] | 14.57 | 10.63 | 7.87 | 8.86 | 9.45 | 11.62 | 1.88 |
| (3" x 12") | 2 | 4 | 3 | 4.72 | 4.96 [1] | 0.87 | 0.87 | 32.40 [1] | 14.57 | 10.63 | 7.87 | 8.86 | 9.45 | 11.62 | 1.88 |
| 100-400 | 1 | 6 | 4 | 5.32 | 5.43 [1] | 0.94 | 0.94 | 30.63 [1] | 14.57 | 12.80 | 9.84 | 11.22 | 11.81 | 14.34 | 2.19 |
| (4" x 16") | 2 | 6 | 4 | 5.32 | 5.43 [1] | 0.94 | 0.94 | 32.87 [1] | 14.57 | 12.80 | 9.84 | 11.22 | 11.81 | 14.34 | 2.19 |
| | 3 | 6 | 4 | 5.32 | 7.91 [3] | 0.94 | 0.94 | 43.19 [3] | 21.26 | 12.80 | 9.84 | 11.22 | 11.81 | 14.34 | 2.19 |
| 150-500 | 3 | 8 | 6 | 6.89 | 7.44 [2] | 1.26 | 1.06 | 42.72 [2] | 21.26 | 16.14 | 12.21 | 14.17 | 14.76 | 17.71 | 2.63 |
| (6" x 20") | 4 | 8 | 6 | 6.89 | 7.44 [2] | 1.26 | 1.06 | 48.23 [2] | 21.26 | 16.14 | 12.21 | 14.17 | 14.76 | 17.71 | 2.63 |
| 200-610 | 3 | 10 | 8 | 8.27 | 8.62 [2] | 1.26 | 1.26 | 43.90 [2] | 21.26 | 20.08 | 14.17 | 16.54 | 17.32 | 20.92 | 3.38 |
| (8" x 24") | 4 | 10 | 8 | 8.27 | 8.62 [2] | 1.26 | 1.26 | 49.41 [2] | 21.26 | 20.08 | 14.17 | 16.54 | 17.32 | 20.92 | 3.38 |
| | 5 | 10 | 8 | 8.27 | 8.62 [2] | 1.26 | 1.26 | 52.56 [2] | 21.26 | 20.08 | 14.17 | 16.54 | 17.32 | 20.92 | 3.38 |
| 250-660 | 3 | 12 | 10 | 9.65 | 9.80 [2] | 1.26 | 1.26 | 45.08 [2] | 21.26 | 22.05 | 15.95 | 18.90 | 20.08 | 23.95 | 3.94 |
| (10" x 26") | 4 | 12 | 10 | 9.65 | 9.80 [2] | 1.26 | 1.26 | 50.59 [2] | 21.26 | 22.05 | 15.95 | 18.90 | 20.08 | 23.95 | 3.94 |
| | 5 | 12 | 10 | 9.65 | 9.80 [2] | 1.26 | 1.26 | 53.74 [2] | 21.26 | 22.05 | 15.95 | 18.90 | 20.08 | 23.95 | 3.94 |
| 300-710 | 3 | 14 | 12 | 11.42 | 11.38 [2] | 1.46 | 1.26 | 46.65 [2] | 21.26 | 25.20 | 18.11 | 22.05 | 24.02 | 27.61 | 3.94 |
| (12" x 28") | 4 | 14 | 12 | 11.42 | 11.38 [2] | 1.46 | 1.26 | 52.17 [2] | 21.26 | 25.20 | 18.11 | 22.05 | 24.02 | 27.61 | 3.94 |
| | 5 | 14 | 12 | 11.42 | 11.38 [2] | 1.46 | 1.26 | 55.32 [2] | 21.26 | 25.20 | 18.11 | 22.05 | 24.02 | 27.61 | 3.94 |

1) When assembled with expeller + 2.76 in
2) When assembled with expeller + 3.94 in
3) No expeller

Dimensions in inches (US)
[Shaft in mm]

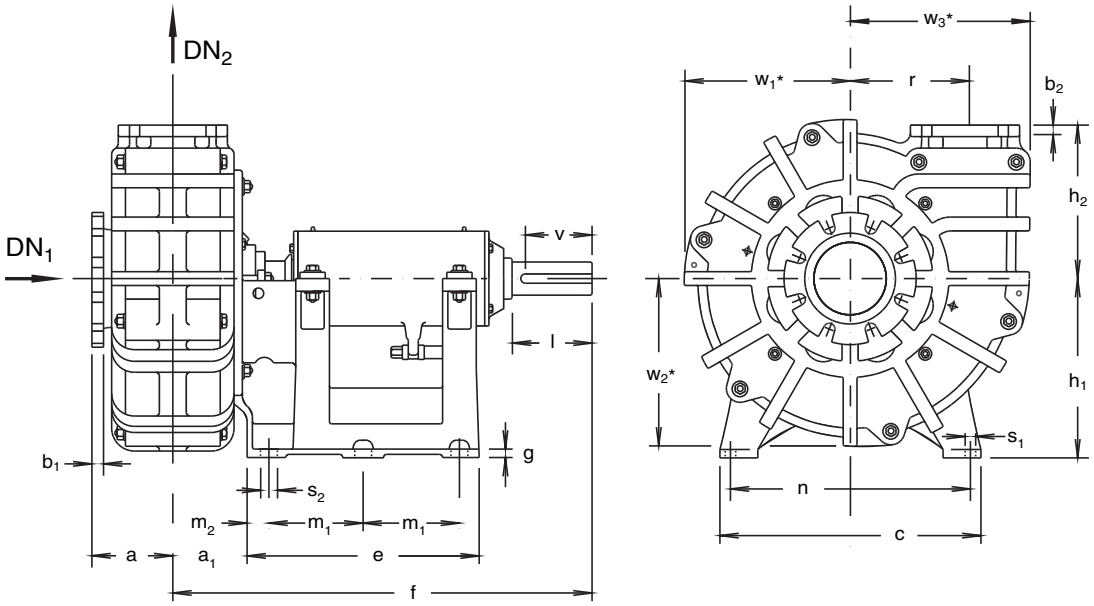
| SHAFT SIZE | | PEDESTAL | | | | | | | | | | SHAFT END | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | c | e | g | $m_1$ | $m_2$ | n | $s_1$ | $s_2$ | d (mm) | l | t (mm) | u (mm) | v (mm) | x (mm) |
| 1 | 20.87 | 19.53 | 0.79 | 7.78 | 1.85 | 18.90 | 1.00 | 1.56 | 35 | 4.09 | 30.3 | 10 | 90 | 8 |
| 2 | 20.87 | 19.53 | 0.79 | 7.78 | 1.85 | 18.90 | 1.00 | 1.56 | 50 | 5.98 | 44.5 | 14 | 100 | 9 |
| 3 | 31.50 | 27.40 | 1.00 | 11.32 | 2.60 | 28.54 | 1.38 | 2.00 | 70 | 6.77 | 62.5 | 20 | 140 | 12 |
| 4 | 31.50 | 27.40 | 1.00 | 11.32 | 2.60 | 28.54 | 1.38 | 2.00 | 100 | 10.04 | 90.0 | 28 | 200 | 16 |
| 5 | 31.50 | 27.40 | 1.00 | 11.32 | 2.60 | 28.54 | 1.38 | 2.00 | 125 | 10.43 | 113.9 | 32 | 200 | 18 |

Dimensions in inches (US)
[Shaft in mm]




ISO R773

# LCC Rubber Dimensions




## PUMP DIMENSIONS

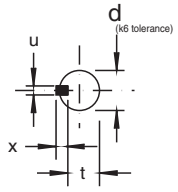
| PUMP AND SHAFT SIZE | | PUMP * May exceed h1 | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | $DN_1$ | $DN_2$ | a | $a_1$ | $b_1$ | $b_2$ | f | $h_1$ | $h_2$ | r | $w_1$ (ref.) | $w_2$ (ref.) | $w_3$ (ref.) |
| 50-230 | 1 | 3 | 2 | 4.53 | 4.61 [1] | 0.87 | 0.79 | 29.84 [1] | 14.57 | 9.06 | 5.71 | 8.82 | 9.17 | 9.49 |
| (2" x 9") | 2 | 3 | 2 | 4.53 | 4.61 [1] | 0.87 | 0.79 | 32.09 [1] | 14.57 | 9.06 | 5.71 | 8.82 | 9.17 | 9.49 |
| 80-300 | 1 | 4 | 3 | 4.72 | 4.96 [1] | 0.87 | 0.87 | 30.16 [1] | 14.57 | 10.63 | 7.87 | 11.38 | 11.81 | 12.28 |
| (3" x 12") | 2 | 4 | 3 | 4.72 | 4.96 [1] | 0.87 | 0.87 | 32.40 [1] | 14.57 | 10.63 | 7.87 | 11.38 | 11.81 | 12.28 |
| 100-400 | 1 | 6 | 4 | 5.32 | 5.43 [1] | 0.94 | 0.94 | 30.63 [1] | 14.57 | 12.80 | 9.84 | 14.29 | 14.84 | 15.43 |
| (4" x 16") | 2 | 6 | 4 | 5.32 | 5.43 [1] | 0.94 | 0.94 | 32.87 [1] | 14.57 | 12.80 | 9.84 | 14.29 | 14.84 | 15.43 |
| 150-500 | 3 | 8 | 6 | 6.89 | 7.44 [2] | 1.26 | 1.06 | 42.72 [2] | 21.26 | 16.14 | 12.21 | 17.95 | 18.70 | 19.41 |
| (6" x 20") | 4 | 8 | 6 | 6.89 | 7.44 [2] | 1.26 | 1.06 | 48.23 [2] | 21.26 | 16.14 | 12.21 | 17.95 | 18.70 | 19.41 |
| 200-610 | 3 | 10 | 8 | 8.27 | 8.62 [2] | 1.26 | 1.26 | 43.90 [2] | 21.26 | 20.08 | 14.17 | 21.14 | 21.97 | 22.80 |
| (8" x 24") | 4 | 10 | 8 | 8.27 | 8.62 [2] | 1.26 | 1.26 | 49.41 [2] | 21.26 | 20.08 | 14.17 | 21.14 | 21.97 | 22.80 |
| | 5 | 10 | 8 | 8.27 | 8.62 [2] | 1.26 | 1.26 | 52.56 [2] | 21.26 | 20.08 | 14.17 | 21.14 | 21.97 | 22.80 |
| 250-660 | 3 | 12 | 10 | 9.65 | 9.80 [2] | 1.26 | 1.26 | 45.08 [2] | 21.26 | 22.05 | 15.95 | 23.82 | 25.00 | 26.18 |
| (10" x 26") | 4 | 12 | 10 | 9.65 | 9.80 [2] | 1.26 | 1.26 | 50.59 [2] | 21.26 | 22.05 | 15.95 | 23.82 | 25.00 | 26.18 |
| | 5 | 12 | 10 | 9.65 | 9.80 [2] | 1.26 | 1.26 | 53.74 [2] | 21.26 | 22.05 | 15.95 | 23.82 | 25.00 | 26.18 |
| 300-710 | 3 | 14 | 12 | 11.42 | 11.38 [2] | 1.46 | 1.26 | 46.65 [2] | 21.26 | 25.20 | 18.11 | 27.24 | 28.98 | 30.75 |
| (12" x 28") | 4 | 14 | 12 | 11.42 | 11.38 [2] | 1.46 | 1.26 | 52.17 [2] | 21.26 | 25.20 | 18.11 | 27.24 | 28.98 | 30.75 |
| | 5 | 14 | 12 | 11.42 | 11.38 [2] | 1.46 | 1.26 | 55.32 [2] | 21.26 | 25.20 | 18.11 | 27.24 | 28.98 | 30.75 |

1) When assembled with expeller + 2.76 in
2) When assembled with expeller + 3.94 in

Dimensions in inches (US)
[Shaft in mm]

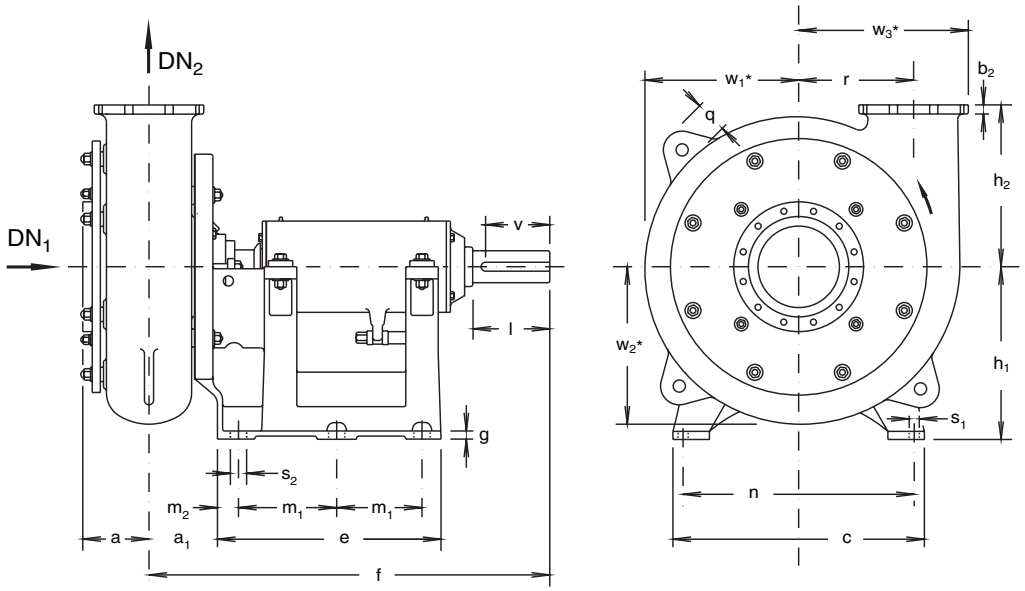
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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | c | e | g | $m_1$ | $m_2$ | n | $s_1$ | $s_2$ | d (mm) | l | t (mm) | u (mm) | v (mm) | x (mm) |
| 1 | 20.87 | 19.53 | 0.79 | 7.78 | 1.85 | 18.90 | 1.00 | 1.56 | 35 | 4.09 | 30.3 | 10 | 90 | 8 |
| 2 | 20.87 | 19.53 | 0.79 | 7.78 | 1.85 | 18.90 | 1.00 | 1.56 | 50 | 5.98 | 44.5 | 14 | 100 | 9 |
| 3 | 31.50 | 27.40 | 1.00 | 11.32 | 2.60 | 28.54 | 1.38 | 2.00 | 70 | 6.77 | 62.5 | 20 | 140 | 12 |
| 4 | 31.50 | 27.40 | 1.00 | 11.32 | 2.60 | 28.54 | 1.38 | 2.00 | 100 | 10.04 | 90.0 | 28 | 200 | 16 |
| 5 | 31.50 | 27.40 | 1.00 | 11.32 | 2.60 | 28.54 | 1.38 | 2.00 | 125 | 10.43 | 113.9 | 32 | 200 | 18 |

Dimensions in inches (US)
[Shaft in mm]




ISO R773
shaft end

# LCC Extra Heavy Dimensions




## PUMP DIMENSIONS

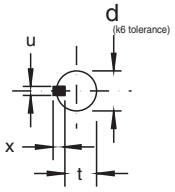
| PUMP AND SHAFT SIZE | | PUMP * May exceed h1 | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | $DN_1$ | $DN_2$ | a | $a_1$ | $b_2$ | f | $h_1$ | $h_2$ | r | $w_1$ (ref.) | $w_2$ (ref.) | $w_3$ (ref.) | q (ref.) |
| 150-500 | 3 | 8 | 6 | 6.89 | 7.44 [2] | 1.06 | 42.72 [2] | 21.26 | 16.14 | 12.21 | 16.34 | 16.73 | 17.71 | 2.63 |
| (6" x 20") | 4 | 8 | 6 | 6.89 | 7.44 [2] | 1.06 | 48.23 [2] | 21.26 | 16.14 | 12.21 | 16.34 | 16.73 | 17.71 | 2.63 |
| 200-610 | 3 | 10 | 8 | 8.27 | 8.62 [2] | 1.26 | 43.90 [2] | 21.26 | 20.08 | 14.17 | 18.90 | 19.49 | 20.92 | 3.94 |
| (8" x 24") | 4 | 10 | 8 | 8.27 | 8.62 [2] | 1.26 | 49.41 [2] | 21.26 | 20.08 | 14.17 | 18.90 | 19.49 | 20.92 | 3.94 |
| | 5 | 10 | 8 | 8.27 | 8.62 [2] | 1.26 | 52.56 [2] | 21.26 | 20.08 | 14.17 | 18.90 | 19.49 | 20.92 | 3.94 |
| 250-660 | 3 | 12 | 10 | 9.65 | 9.80 [2] | 1.26 | 45.08 [2] | 21.26 | 22.05 | 15.95 | 21.65 | 22.44 | 23.95 | 3.94 |
| (10" x 26") | 4 | 12 | 10 | 9.65 | 9.80 [2] | 1.26 | 50.59 [2] | 21.26 | 22.05 | 15.95 | 21.65 | 22.44 | 23.95 | 3.94 |
| | 5 | 12 | 10 | 9.65 | 9.80 [2] | 1.26 | 53.74 [2] | 21.26 | 22.05 | 15.95 | 21.65 | 22.44 | 23.95 | 3.94 |
| 300-710 | 3 | 14 | 12 | 11.42 | 11.38 [2] | 1.26 | 46.65 [2] | 21.26 | 25.20 | 18.11 | 25.59 | 26.97 | 27.61 | 3.94 |
| (12" x 28") | 4 | 14 | 12 | 11.42 | 11.38 [2] | 1.26 | 52.17 [2] | 21.26 | 25.20 | 18.11 | 25.59 | 26.97 | 27.61 | 3.94 |
| | 5 | 14 | 12 | 11.42 | 11.38 [2] | 1.26 | 55.32 [2] | 21.26 | 25.20 | 18.11 | 25.59 | 26.97 | 27.61 | 3.94 |

1) When assembled with expeller + 2.76 in
2) When assembled with expeller + 3.94 in

Dimensions in inches (US)
[Shaft in mm]

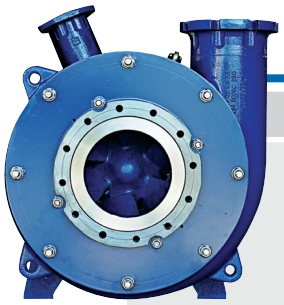
| SHAFT SIZE | | PEDESTAL | | | | | | | | | | SHAFT END | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | c | e | g | $m_1$ | $m_2$ | n | $s_1$ | $s_2$ | d (mm) | l | t (mm) | u (mm) | v (mm) | x (mm) |
| 3 | 31.50 | 27.40 | 1.00 | 11.32 | 2.60 | 28.54 | 1.38 | 2.00 | 70 | 6.77 | 62.5 | 20 | 140 | 12 |
| 4 | 31.50 | 27.40 | 1.00 | 11.32 | 2.60 | 28.54 | 1.38 | 2.00 | 100 | 10.04 | 90.0 | 28 | 200 | 16 |
| 5 | 31.50 | 27.40 | 1.00 | 11.32 | 2.60 | 28.54 | 1.38 | 2.00 | 125 | 10.43 | 113.9 | 32 | 200 | 18 |

Dimensions in inches (US)
[Shaft in mm]




ISO R773
shaft end

# Ancillary Products



## HVF Pumps

### HVF (High Volume Froth) Pump

GIW's HVF pump provides continuous operation without shutdown or operator intervention. The new hydraulic design removes air from the impeller eye while the pump is running, and the pump can be retrofit into any existing application. It is environmentally-friendly and cost effective.

- Eliminate sump overflow due to pump airlock
- Reduce downtime
- Allow water use to be restricted to the bare minimum

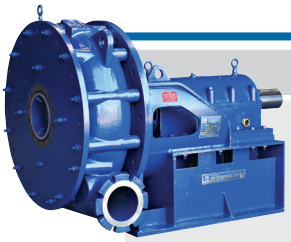


## ZW Pumps

### ZW Double-Suction Vertical Pump

GIW's ZW Pump is a vertical cantilever, rugged hard metal sump pump with top and bottom suction and no submerged bearings. It yields an economical answer for abrasive slurries, dewatering, floor clean up and process transfer. Heavy-duty bearing arrangement delivers increased service life.

- High chrome material configuration
- Maximum wear resistance
- Wide variety of motor size options



## LSA Pumps

### LSA-S Pump

Premium designed Corbrasion™ pumps for long wear life in severe slurry duties. To speed up pump and parts orders, GIW has standardized the LSA pump range. The entire line of pumps has been redesigned to achieve peak performance in its applicable range of operations. In addition, the GIW Hydraulic Lab has tested each size and verified their performance.

- Superior abrasion resistance
- Material options include elastomer lined wet end parts and ceramic suction liners

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Fax +1-706-860-5897
www.giwindustries.com

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