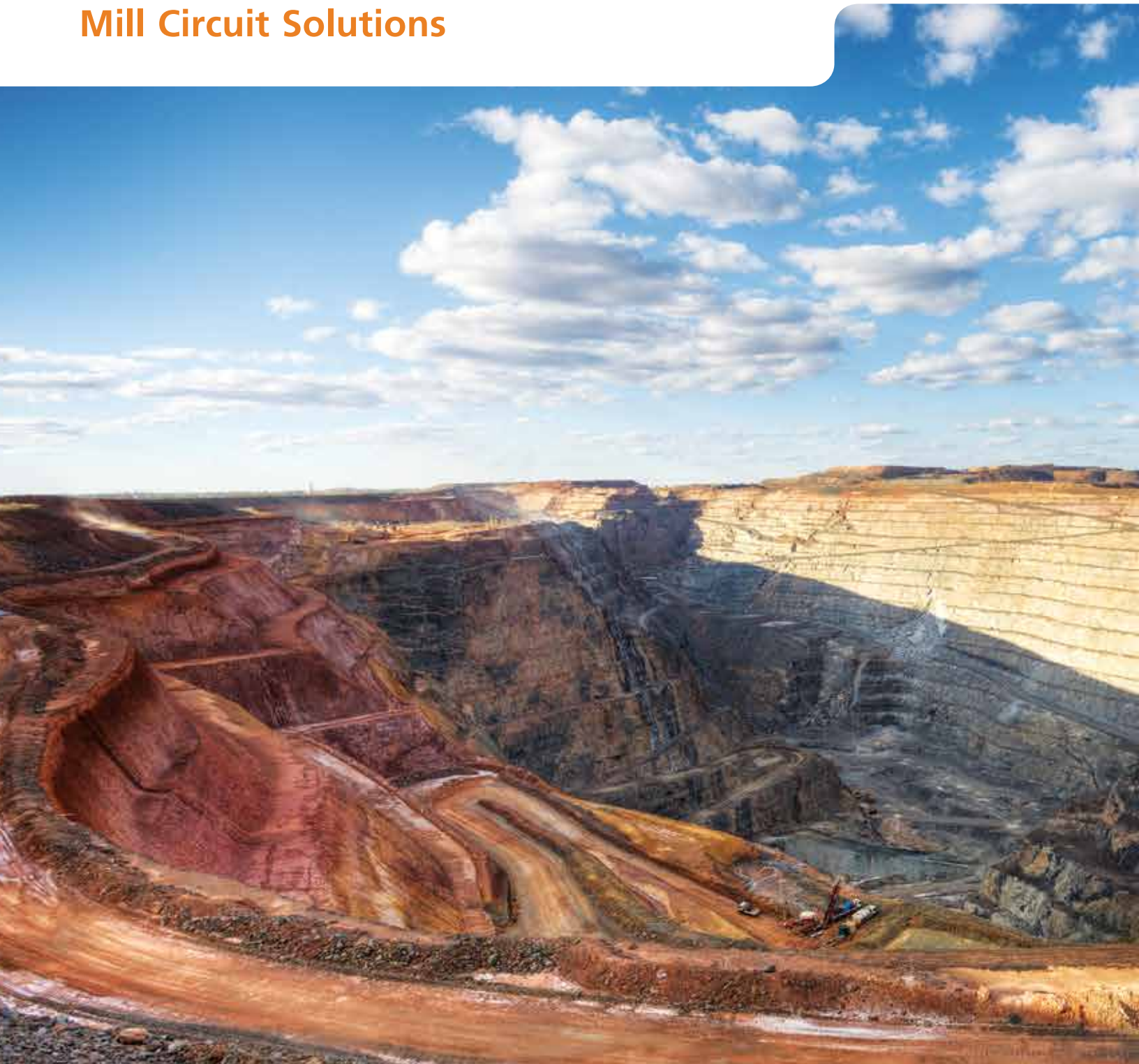


GIW® Minerals



Hard Rock Mining Pumps

Mill Circuit Solutions



Lower Costs; Increased Efficiencies

With its GIW® Minerals slurry products line, KSB has the know-how and experience to increase productivity and profits. GIW pumps and systems are designed to match your maintenance cycle. Let KSB's solutions improve your business and reduce unplanned outages.

We're here to meet your specific needs, wherever and whenever you need us.

Choose GIW® Minerals products and spend more time running your business.

- Installation and startup support
- Onsite technical support
- Requirements check list for all units
- REGEN Service Centers renew your rotating equipment back to OEM standards
- On and off-site repair services
- Timely equipment inspections, reports and repairs
- Predictive maintenance and repair services
- System analysis and process optimization

GIW MDX Design Features

Optimal Wear Life with "Slurry Diverter"

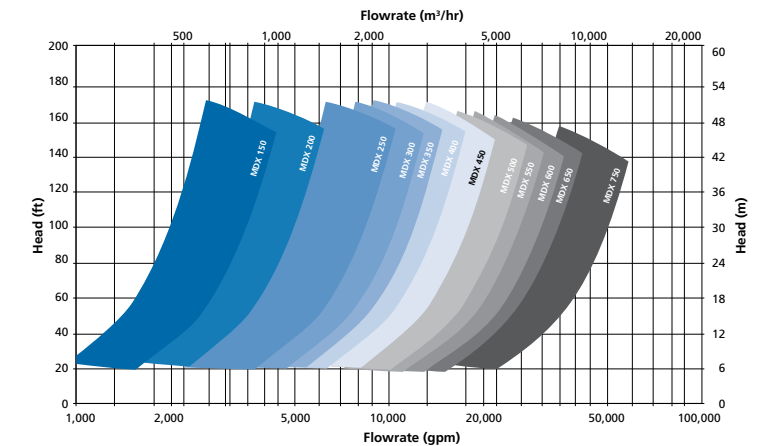
- Lower Specific Speed Design: A large diameter impeller results in slower pump operation leading to extended parts wear life. In addition, the lower specific speed allows the pump to meet the variable flow conditions confronted in modern mill circuits.
- Longer Wearing Materials: Thicker cross sections and advanced materials translate into long, predictable pump service life.
- Deep Base Circle: Minimizes aggressive particle impingement and promotes "sliding" wear action. Typical abrasive wear drops dramatically.
- Oversize Shrouds: Enhances clearing vane performance – minimizing recirculation and wear between the impeller and suction liner.
- Patented Inlet 5V Impeller: Designed to handle both liquid and solid phases within the slurry. This maximizes pump performance and wear life.



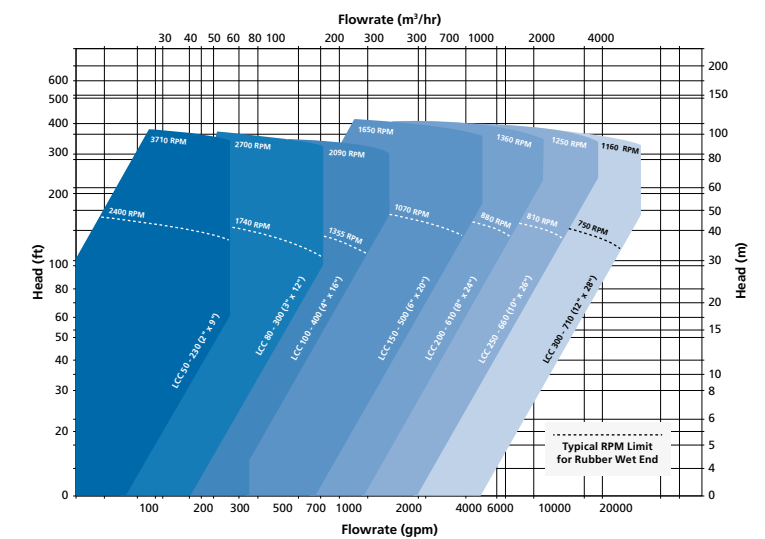
- Slurry Diverter: GIW's latest technology dramatically increases suction liner life by reducing particle recirculation and slurry concentration between the impeller and liner.
- Adjustable Suction Liner: Extended suction liner wear life maximizes productivity and minimizes cost by matching operating cycle times with scheduled mill outages.

Whatever you need, it's here; GIW slurry pumps are targeted to improve your unique applications

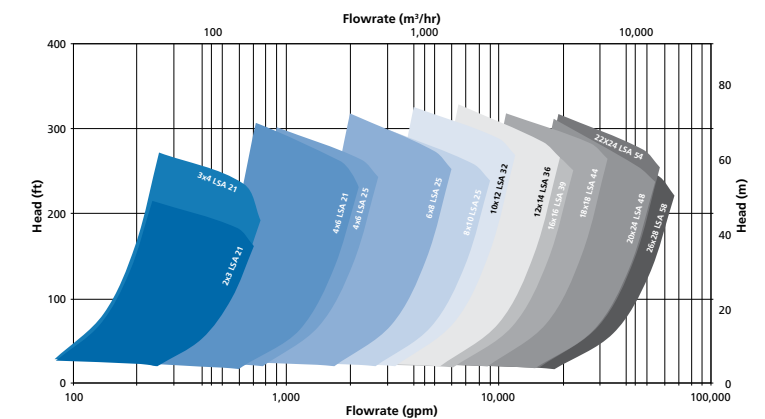
MDX Pump Range



LCC Pump Range



LSA S Pump Range



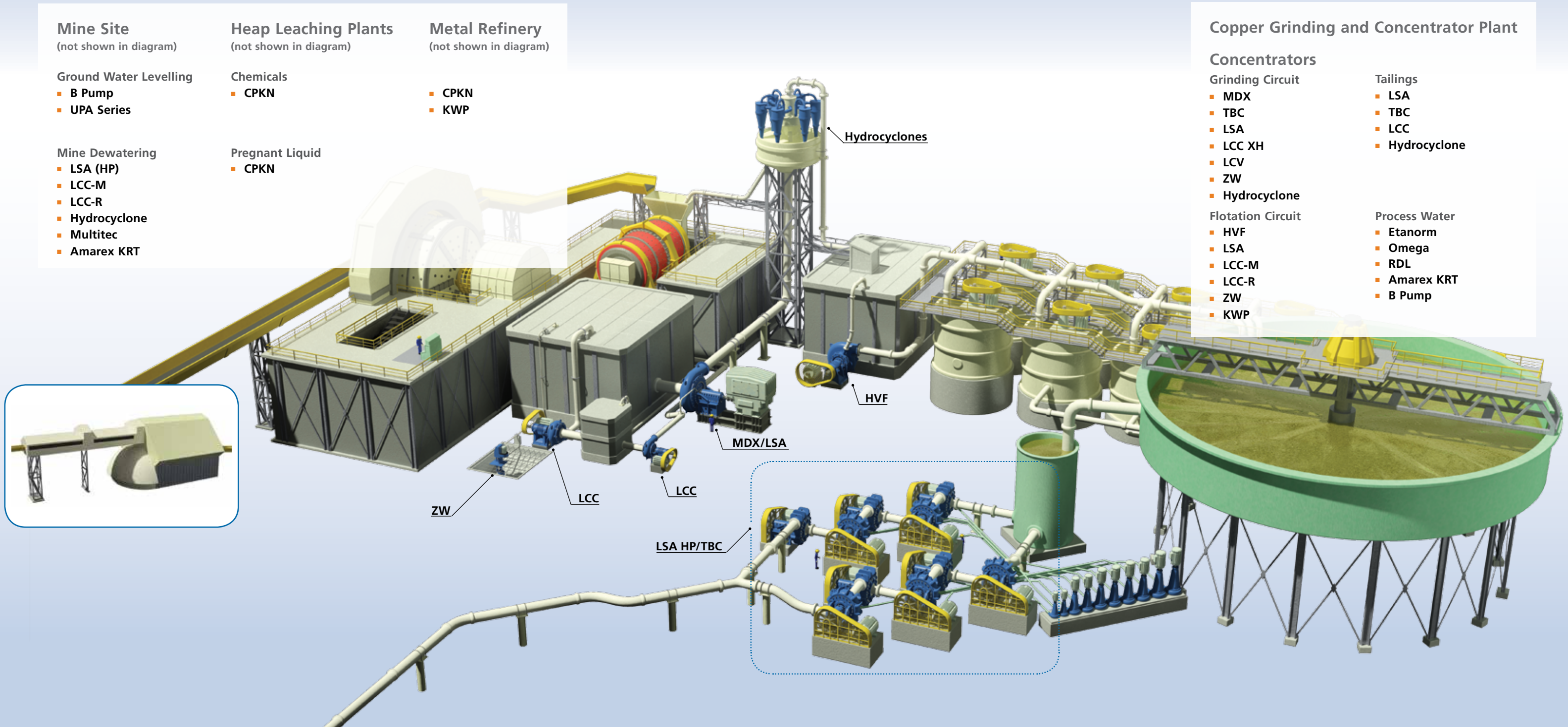
Mill Duty Solutions

GIW® Minerals pumps and hydrocyclones are designed to work at the heart of the mill circuit tackling the most extreme duty conditions. GIW expertly combines advanced

materials, patented designs and extensive real world experience to maximize productivity and minimize cost by matching operating cycle times with scheduled mill outages.

Process Solutions

Our extensive knowledge, along with a global support network, ensures effective mineral processing solutions specific to your operation. From slurry to waste water we have every step of the pumping process covered.



Mine Site (not shown in diagram)

- Ground Water Levelling
- B Pump
 - UPA Series

- Mine Dewatering
- LSA (HP)
 - LCC-M
 - LCC-R
 - Hydrocyclone
 - Multitec
 - Amarex KRT

Heap Leaching Plants (not shown in diagram)

- Chemicals
- CPKN

- Pregnant Liquid
- CPKN

Metal Refinery (not shown in diagram)

- CPKN
- KWP

Copper Grinding and Concentrator Plant

Concentrators

Grinding Circuit

- MDX
- TBC
- LSA
- LCC XH
- LCV
- ZW
- Hydrocyclone

Flotation Circuit

- HVF
- LSA
- LCC-M
- LCC-R
- ZW
- KWP

Tailings

- LSA
- TBC
- LCC
- Hydrocyclone

Process Water

- Etanorm
- Omega
- RDJ
- Amarex KRT
- B Pump

Most Severe Solutions

MDX



Q [m3/h]	max. 14,000
H [m]	max. 90
p [bar]	max. 16
T [°C]	max. + 120

The latest technology from GIW® Minerals provides superior wear life and increased uptime handling your most aggressive slurry applications. Ideal for grinding circuits, SAG and Ball Mill discharge and cyclone feed.

LSA-S



Q [m3/h]	max. 14,000
H [m]	max. 90
p [bar]	max. 16
T [°C]	max. + 120

Premium design, hard iron pumps for long wear life while handling severe slurries. The basic, single-wall construction and heavy suction, hard metal wet end combined with the cartridge bearing assembly provides maximum reliability and easy maintenance.

TBC



Q [m3/h]	max. 18,200
H [m]	max. 90
p [bar]	max. 37
T [°C]	max. + 120

A high-pressure design, these pumps are constructed as horizontal, end suction centrifugal pumps to give maximum resistance to wear while simplifying maintenance. The conventional single-wall design transfers stress loads to non-wearing side plates in high-pressure applications.

LCV



Q [m3/h]	max. 2,045
H [m]	max. 38
p [bar]	max. 10
T [°C]	max. + 120

Vertical cantilever, rugged hard metal sump pump with bottom suction and no submerged bearings. Includes replaceable wet end parts in metal alloys with a durable mechanical end. Ideal for industrial process pumping, tailings disposal in mining and pit use.

Hydrocyclone



T [°C]	max. + 120
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GIW® Minerals' line of hydrocyclones features a patented long wearing design that can reduce rebuild time by up to 75%. Diameters available up to 840 mm.

Heavy Duty Solutions

LCC-M/LCC-R



Q [m3/h]	max. 3,405
H [m]	max. 90
p [bar]	max. 16
T [°C]	max. + 120

The hydraulic wet end consists of three components: a shell or casing, an impeller and a suction plate/liner to permit easy removal for maintenance and inspections. Reliable pumps for high discharge head, mildly corrosive slurries and a wide range of particle sizes.

HVF (High Volume Froth) Pump



Q [m3/h]	max. 8,175
H [m]	max. 35
p [bar]	max. 10
T [°C]	max. + 120

GIW® Minerals' 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 retrofitted into any existing application. It is environmentally friendly and cost effective.

ZW



Q [m3/h]	max. 400
H [m]	max. 35
p [bar]	max. 10
T [°C]	max. + 120

Vertical cantilever, rugged hard metal sump pumps with top and bottom suction and no submerged bearings. Replaceable wet end parts in metal alloys with a durable mechanical end.

Process Solutions

UPA 100-250C



Q [m3/h]	max. 840
H [m]	max. 460
T [°C]	max. + 50

Multistage submersible borehole pump with a non-return valve integrated in the discharge nozzle. Ideal for maintaining/lowering of ground water levels in mines.

Multitec



Q [m3/h]	max. 850
H [m]	max. 630
p [bar]	max. 63
T [°C]	max. + 200

High-pressure pump in ring-section design, with axial or radial suction nozzle and cast radial impellers. Design to ATEX. Ideal for water supply systems and general industry.

KWP



Q [m3/h]	max. 1,300
H [m]	max. 100
p [bar]	max. 10
T [°C]	max. + 280

Horizontal, radially split volute casing pump in back pull out or close coupled design, single-stage, single-entry, available with various impeller types: non-clogging impeller, free flow impeller. Designed to ATEX. Ideal for all types of slurries without stringy substances and pulps up to 5% bone dry with a maximum density of 1.1 kg/dm³.

Amarex KRT



Q [m3/h]	max. 10,800
H [m]	max. 100
p [bar]	max. 120
T [°C]	max. + 60

Vertical, single-stage, submersible motor pump in close coupled design, various impeller types, for wet or dry installation, stationary and transportable version. Design to ATEX. Can handle all types of abrasive or aggressive waste water.

CPKN



Q [m3/h]	max. 4150
H [m]	max. 185
p [bar]	max. 25
T [°C]	max. + 400

Horizontal, radially split volute casing pump in back pull out design to EN 22 858 / ISO 2858 / ISO 5199, single-stage, single-entry, with radial impeller. Also available as variant with "wet" shaft, conical seal chamber, heatable volute casing (CPKNO-CHs) and/or semi open impeller (CPKNO). Design to ATEX. Suitable for heap leaching applications.

Etanorm/Etanorm R



Q [m3/h]	max. 1900
H [m]	max. 170
p [bar]	max. 25
T [°C]	max. + 105

Horizontal, long coupled, single-/two-stage volute casing pump in back pull out design. Replaceable shaft sleeves/shaft protecting sleeves and wear rings. Design to ATEX. Ideal for water supply systems.

Omega/RDLO



Q [m3/h]	max. 10,000
H [m]	max. 240
p [bar]	max. 25
T [°C]	max. + 70

Single-stage, axially split volute casing pump for horizontal or vertical installation with double-entry radial impeller, mating flanges to DIN, ISO, BS or ANSI.

B Pump



Q [m3/h]	max. 2000
H [m]	max. 300
p [bar]	max. 20
T [°C]	max. + 80

The assembly is formed by turbine assembly, discharge column and drive stand (for solid shaft driver) or distributor (for hollow shaft driver). Ideal for raw water applications.

Serving You at these GIW REGEN Locations

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Technical Services

Tel. +1 706-434-0683
Fax +1 706-210-5967
warrantyclaims@giwindustries.com

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(For emergencies only)

GIW Newsletter

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