



**Process Pumps
Wastewater Pumps
Aeration
DAF Systems**

HYDRO
INNOVATIONS

Food & Beverage Pumping Equipment

**GORMAN-RUPP
PUMPS**

**Venturi
eration, Inc.**

ragazzini

EDUR

Hydro Innovations

Hydro Innovations provide Australia with the best and most innovative pump and aeration solutions, delivered by the best technical support team in the country.

Hydro Innovations was formed in 2008 to be the Gorman-Rupp pump distributor for Australia. We have collaborated with the most dynamic and effective brands globally, and our range has expanded to include EDUR (Germany), Ragazzini (Italy), Euromacchine (Italy), RamParts (USA), and JS Propotec (Denmark). We have also added an Aerator to our product offering, Venturi-Aeration Inc (USA).

The Hydro Innovations team is small, but dedicated to delivering excellent products and services to our customers. Our main market areas are municipal and industrial wastewater, food process, utilities pumps and paper manufacturing.

Water Re-Use (High Head Transfer)

Using self-priming pumps for water reuse applications can reduce capital costs, reduce maintenance costs and improve safety.

- No need for a dry well
- No lifting chains or guide rails to replace or maintain
- Reduced infrastructure costs
- Easier access

Ideal pumps are either Gorman-Rupp’s Super U Series, or EDUR’s SU Series.

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Testimonials

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"Placing the pump and motor at the surface and using the excellent self-priming Gorman Rupp T Series pump, no blockages have occurred since its installation.

"We couldn't be happier with this pump and it's become the standard that we will use going forward - One of the best things we have done".

Mr Matt Leach, Maintenance Supervisor, OneHarvest.

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"The information supplied to select the correct pump for our application was great, as was the communication for the actual purchase. A reliable pump to transfer sludge from the covered methane gas dam was selected. The installation of the Ragazzini hose pump went well and we have not had any issues".

Mark Schulz, Maintenance Manager at Blantyre Farms.

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"Inghams Enterprises Pty Ltd have used Gorman-Rupp pumps for over 20 years.

Gorman-Rupp pumps have provided reliable, dependable wastewater pumping service for our waste treatment processing plants in this time. Based on this experience we had no hesitation selecting Gorman-Rupp Pumps for a new trade waste treatment plant at one of our NSW plants."

David Jessup, Group Executive General Manager, Inghams Enterprises Pty Ltd.

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Gorman-Rupp Super U Series

- Self-prime to 7.6 metres
- Hydraulic Efficiencies to 78%
- Easy and safe for operators to access and maintain
- No confined spaces
- Complete service without disconnecting pump from piping
- Large removable inspection cover-plate
- Adjust clearances in under 5 minutes [not hours]
- Keep pumps in peak operating efficiency
- Flows to 85 L/s



EDUR SU Series

- Self-prime to 7.6 metres
- Hydraulic Efficiencies to 70%
- Easy and safe for operators to access and maintain
- No confined spaces
- Flows to 60 L/s
- Pressure to 160m



Superior Wastewater Pumps

- Mounted at ground level for convenience and safety
- No need for cranes
- No need for confined spaces entry
- Pump solids laden water [including plastic bags, gloves, ear tags etc]
- Corrosion and/or abrasion resistant options
- Keep at peak efficiency with fast and easy clearance adjustments
- Self priming to 7.6 metres
- Wearing parts last up to 3 times longer than submersible pumps
- Clean-out cover makes removing large blockages quick, safe and easy
- Flows from 4 litres/ second to 200 litres/ second.



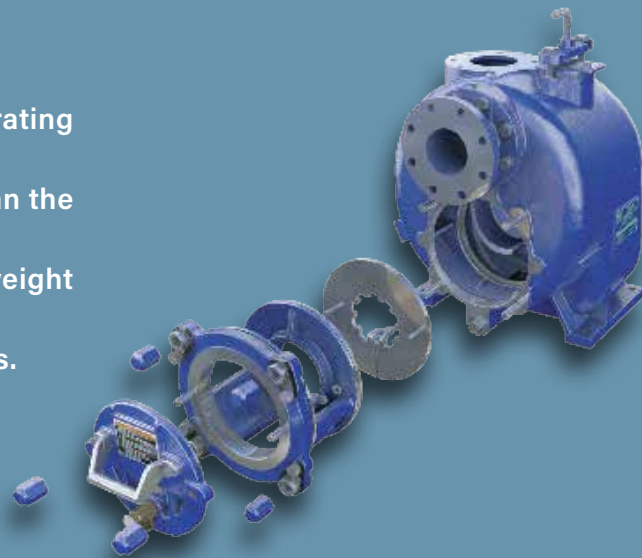
Improved Solids Handling - Eradicator

Deal With Tough Solids Applications

- Superior pumping of rags, plastic bags, rope
- Pump solids to 76.3mm [think cricket ball]
- Pump abrasive fluids using G-R Hard Iron internals.

Design Features

- Aggressive self-cleaning wear-plate incorporating notches and grooves
- A patent-pending lacerating tooth to help clean the impeller vanes and break up stringy materials
- A special cover-plate featuring a small lightweight inspection hatch
- Increased opening for easier passage of solids.



System Benefits

- Easier access to impeller
- More uptime and less downtime
- Reduced maintenance costs
- Lower life-cycle costs
- No expensive chopper blades
- Available in steel, hardened steel and stainless steel
- Available as a retrofit kit on all Gorman-Rupp Super T Series pumps.

ERADICATOR™
Solids Management System

GORMAN-RUPP
PUMPS

Economical Pump Operation and Service

Gorman-Rupp's patented external shimless adjustment design doubles the life of the impeller and wear plate.

Gorman-Rupp's Ultra V and Super T Series pumps offer a shimless system for adjusting the clearance between the impeller and wearplate. The unique collar and adjusting screw allow for incremental adjustments of the wearplate clearance to allow operators to keep the pump at peak operating efficiency for the life of the installation.



1. Easily Removable Coverplate

The removable coverplate with easy-grip handle and pusher bolt capability provides quick and easy access to the pump interior [except T10].



2. Easy to Remove Check Valve

The flap valve is a breeze to change in Gorman-Rupp's Ultra V series pumps. It also has a "blowout" centre that limits excessive volute pressure, protecting the pump.



3. Removable Rotating Assembly

The entire rotating assembly can be removed without disturbing pump volute or piping. Pusher bolt holes are provided to assist with removal.

A spare rotating assembly can be easily installed, resulting in less downtime.



4. Solids-Handling Impeller

Two-vane, ductile iron, semi-open solids handling impeller handles up to 76mm diameter solids, depending on model. Pump-out vanes on the impeller shroud reduce foreign material build-up behind the impeller and reduces pressure on the seal and bearings.



5. Dual Bearing Protection

Atmospheric barrier along with two lip seals provide additional protection of bearings. This unique design also allows external monitoring.

Safer, More Cost Effective, Efficient Aeration



A Venturi-Aerator is a bank mounted aeration system that uses Gorman-Rupp self-priming pumps to draw water from the source, then discharge it at pressure through the Venturi-Aerator that conditions the flow and charges it with dissolved oxygen.

Advantages include:-

- Ease of access to operators for monitoring and maintenance
- No boats, cranes or tethers required to access equipment
- Ideal for odour control, sludge digestion and wastewater aeration
- Easy to install with low operating costs
- Reduce BOD, COD and nitrogen ammonia
- Conditions, mixes and aerates wastewater.

Efficient

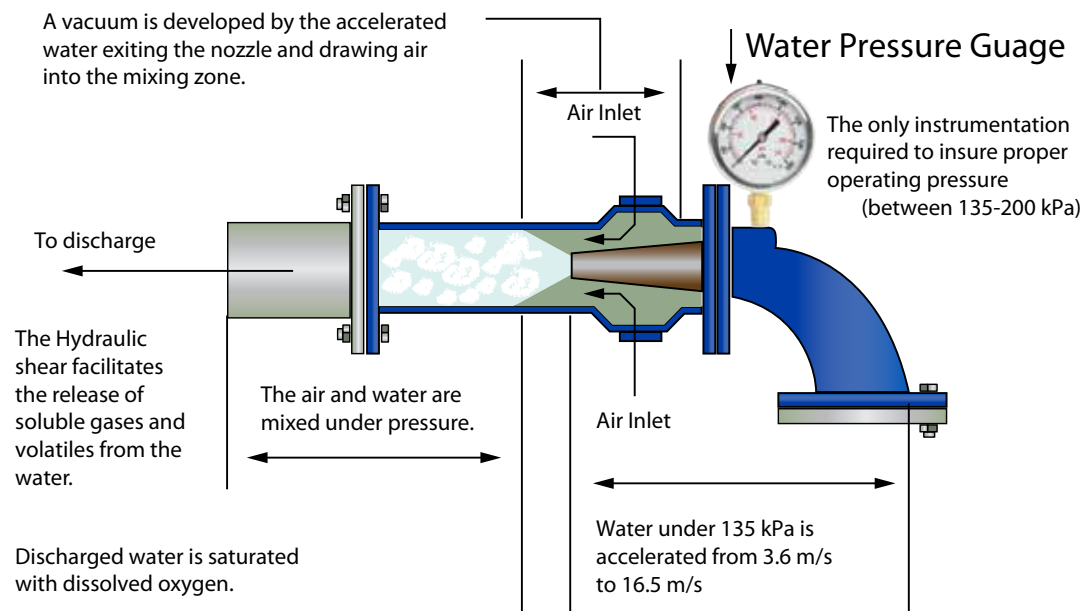
Venturi-Aerators are more convenient to access and safer for operators. They can also produce a S.O.T.E. [standard oxygen transfer efficiency] of up to 1.86kgO₂/kWh]

Dissolved Oxygen Transfer Rates

Model	Flow Range (L/s)	Max. Dissolved Oxygen/Hr
VA-100	4-11	1.55kg
VA-250	12-22	4.8kg
VA-500	25-47	6.8kg
VA-800	50-88	16.2kg

Applications for the Venturi-Aeration systems are many, and include:

- Treat lagoons, tanks [circular or rectangular] lakes and oxidation ditches
- Mixing and equalisation
- Oil and grease recovery
- Increase oxygen levels in lakes and streams
- Stripping CO₂ to raise pH, allowing for nitrification to begin
- Oxidise H₂S to reduce odours and prevent corrosion.



Process Liquid / Product Pumping

Hydro Innovations is in an excellent position to supply the right process pump because of our access to Gorman-Rupp’s G Series Rotary Gear Pump, and Ragazzini’s Rotho Peristaltic Pump.

Pumps are able to handle most liquids or pastes required by the food industry, including:

- Food oils
- Syrups
- Emulsions
- Liquid sugars
- Honey
- Concentrates
- Chocolate
- Shortening
- Pastes
- Chemicals
- Fats
- Refrigeration liquids
- Brewers yeast
- Brine
- Many more.

Gorman-Rupp Rotary Gear Pumps Deliver Reliable, Long-Lasting Performance

The quality manufacturing and testing that go into every G Series pump guarantee long-lasting, trouble-free operation. If you need a replacement part for any of our products, you’ll have it fast.

Gorman-Rupp Rotary Gear Pumps

- Flows to 2200 LPM
- Pressure to 20 Bar
- Viscosities 1 to 440,000 centistokes
- Temperatures -51°C to 358°C.

Gorman-Rupp pumps can be relied on 24/7



Internal Seal Vent

The Internal seal Cavity Vent system maintains a low pressure, reducing seal face load and increasing seal life.



Deep End Feed Area

The deep end feed area on a Gorman-Rupp rotary gear pump offers superior priming performance under low inlet pressure conditions or when pumping high viscosity liquids.



Automatic Idler Pin Lubrication System

An automatic internal idler pin lubrication reduces wear by continuously cooling and lubricating the idler pin and bushing.



Flexible Sealing

Gorman-Rupp rotary gear pumps offer the broadest range of sealing options available in the industry. Single, double, Tandem, Hard Faced, Cartridge, Quench, Flush, Metal Bellows, High Temperature, Packing, and “after-market” cartridge options with numerous materials are available.

Ragazzini Peristaltic Pump

The Ragazzini peristaltic [hose] pump uses the "roller on bearings" design to minimise friction and allow the pump to operate without filling the casing with [expensive and messy] lubricating fluid. Its slow speed operation is ideal for viscous fluids, liquid food products, fluids with solids, or sensitive products.

A Ragazzini “Rotho” is a good choice because:-

- Hoses are available in food grade [FDA approved], chemical resistant and/or abrasion resistant
- Because they use rollers, the casing does not need to be filled with [expensive] lubricant
- Easy to service
- Fast leak detection
- Low contamination and product loss risk
- Pump sensitive products
- Non emulsifying
- Pump products with solid particles
- Flows from 0.2 litres per hour to 180 cubic metres per hour
- Pressures to 15 Bar.



A Ragazzini at work at a food process plant.



Roller on Bearing Design = No messy casing lubricant and lower friction.



Leak Detector System reduces product loss and reduces cleaning.



Retractable Roller System increases hose life, allows easier C.I.P and easier hose replacement.

DAF System



EDUR has been manufacturing high quality centrifugal pumps in Germany since 1927. Each pump is manufactured to exacting standards and subject to a computer controlled final inspection and 100% testing to DIN EN 9906.

The EDUR DAF pump can replace all of the equipment in the "conventional" pump/air system, reducing capital cost and maintenance cost.

The EDUR system:

- Replaces the conventional pump
- Eliminates the need for a compressor
- Eliminates the need for an air saturation vessel
- Eliminates complicated controls.

The advantages to the asset owner are many:

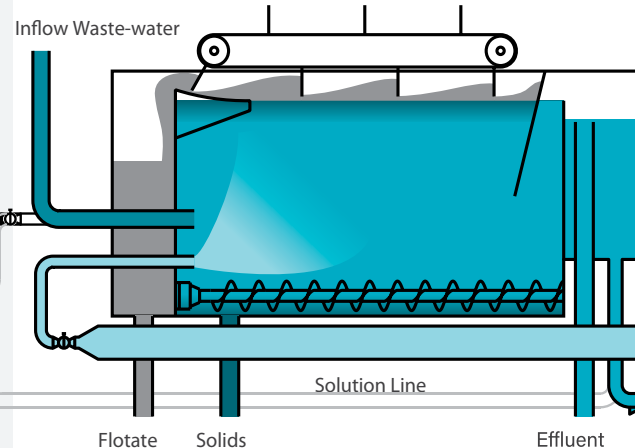
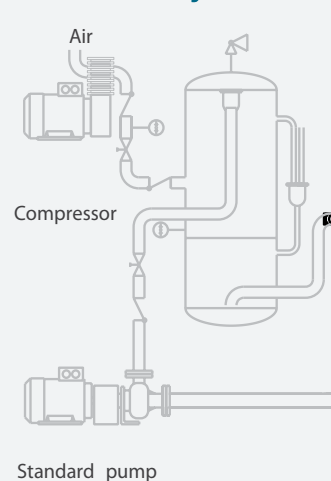
- Less components in the system
- No maintenance on a compressor
- No maintenance on the air saturation [pressure] vessel
- No on-going re-certification of the pressure vessel.

The EDUR DAF pump is specifically designed to handle air. A valve on the suction line creates a negative pressure so that the pump can draw atmospheric air through an air valve.

A valve in the discharge line allows the pump to develop maximum pressure [up to 10 Bar] to "force" the air into solution. When the water enters the lower pressure of the DAF tank, the air comes out of solution, forming 30-70µm micro bubbles that float the fats, oils and grease to the surface.



Conventional System



Improved EDUR System

Advantages:

- Reduce energy costs
- Reduce maintenance costs
- No compressor
- No air saturation vessel
- No complicated controls

EDUR Multiphase Pump



Many solutions in one single machine

The multifunctional trailer unit, Lampo Emergency, stems from our desire to package 4 fundamental instruments ready for fast action in a single machine: power generator, light tower, self-priming pump and air compressor - all mounted on a trailer and soundproofed. Rugged and ready to be mobilised wherever the emergency or natural disaster strikes!

Light Tower with up to 6 LED lights. (61,000 lumens and 6m height extension)

Control panel with variable speed drive



Gorman-Rupp self-priming wastewater pump



Diesel driven power generator in soundproof canopy 70dB(A) @ 7m

Euromachine
GROUP FORCE



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