

MULTIFLO®

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ME Electric Pontoon Pump Units



Multiflo pit dewatering pump units are the highest quality range of products for mining applications. Pontoon mounted electric pump units can be custom-built to ensure the very best performance for your operation and survival under the toughest of operating conditions.



Over 30 years of mine dewatering experience makes Multiflo pumps the best choice for mine dewatering applications.

Multiflo Pump Units were first produced in 1976, designed and manufactured to provide purpose built solutions to reliably and efficiently manage mine de-watering.

The ME range of electric driven pontoon pump units is capable of pumping not only water against high head situations, but also large quantities of solids and slurries encountered with mine dewatering.

The ME range can be fully customised to suit mine specific applications.

A range of corrosion and wear resistant materials is available to suit aggressive mine water.

A wide combination of electric motors and wet-ends provide optimum pumping performance.

Customised options available including multiple pumpsets, single or multi-hulled, belt or direct drive, discharge pipework arrangements, instrumentation, auto start/stop function, customer colour scheme and more.

- Heavy duty construction
- Self priming arrangements
- Various pump types & configurations
- Safe stable design
- Compliant with mine specifications
- Wide range of applications

Above: Two ME electric pontoon units in tandem at a mine in Laos.

Left: A single ME unit with floating walkway operating at a process plant in Indonesia.

Right: ME unit fitted with twin pumpsets and hinged walkway at an Australian Mine Site.



Right: A pontoon in operation at a mine in Indonesia fitted with two directly driven pumpsets.



Every pumping application requires careful consideration of the type of pontoon pump unit required.

With varying types of mining processes and environmental conditions, Multiflo pump units can provide a solution.

The ME range has several configurations for the electric pontoon pumpsets:

- Single or multiple pumpsets
- Direct or belt drive
- Inclined or vertical pumpset mounting

So whatever the application, there is a Multiflo electric pontoon pump unit for the job.

Specific applications require specific drive arrangements.

The need for direct drive or belt drive is often a result of the pumping duty, customer preference or performance flexibility. Either way, consideration to the stability of the pontoon pump unit is foremost in the design. All Multiflo electric pontoon pump units are designed with the pumpset situated low in the pontoon to ensure stability with a very low centre of gravity.

Belt driven pumpsets provide the ability to change the pump duty by changing the pulley ratio. Direct drive units are fixed in their duty unless used with a Variable Frequency Drive or alternatively fitting a different diameter impeller.



Above top: Belt drive arrangement.

Above bottom: Direct drive arrangement.



Left: A pontoon fitted with two vertically mounted pumpsets.



Left: A double pontoon pump unit operating in high temperature, low pH, high solids content water at a mine in Papua New Guinea.

Far Left: A single and double pontoon pump unit operating in tandem, at an Australian Coal Mine.

Consideration of the pontoon component size for transport and handling is taken into account during the design process. This ensures the end user can easily handle and assemble the unit on site with minimal effort.

For smaller units where transport isn't an issue, the pontoons can be manufactured with a single hull.

Features:

- Minimal or no on-site assembly required
- Solid one piece construction
- Easily transported due to compact overall dimensions

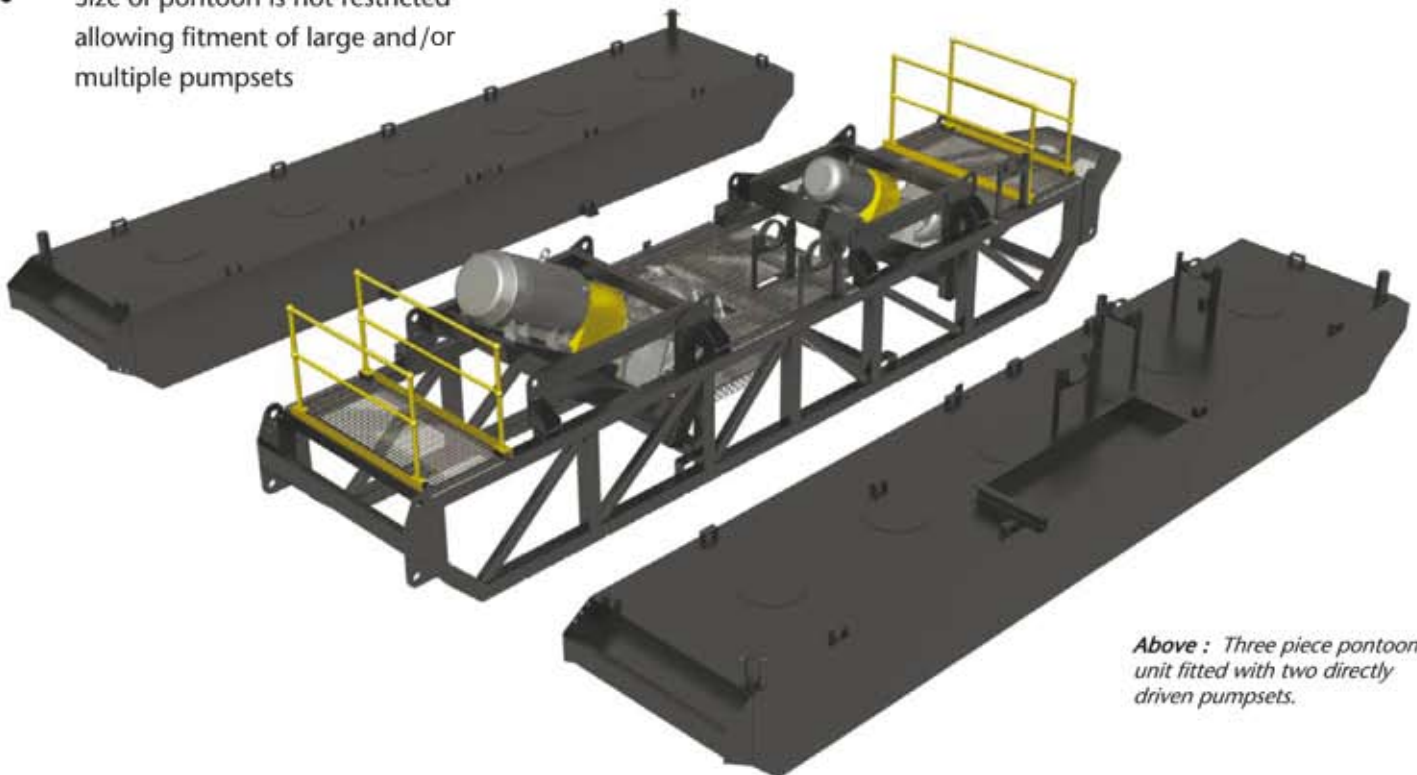


Above: Single piece pontoon fitted with a vertically mounted pumpset.

Larger units are designed as three piece pontoons. This simplifies the logistics of transport. The two outer sections are the floatation units while the centre section houses the pumps set/s.

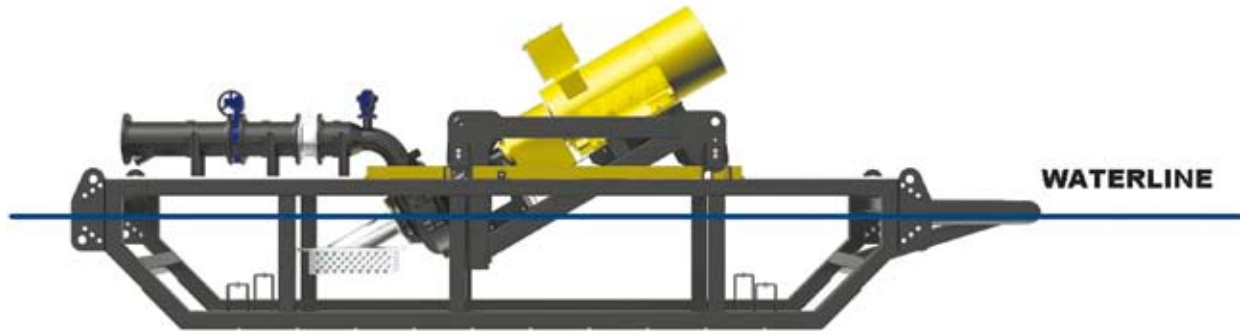
Features:

- Designed to fit into shipping containers
- Easy on-site handling during assembly as component sizes are manageable
- Size of pontoon is not restricted allowing fitment of large and/or multiple pumpsets



Above : Three piece pontoon unit fitted with two directly driven pumpsets.

Positive pump priming is critical to the reliability of a pump unit. Multiflo ME pump units are designed with this in mind ensuring the pump is always able to self prime within moments of starting.



There are several self priming configurations to ensure the ME pump units always prime.

Above: Sectional view of pontoon framework showing the flooded pump suction inlet that provides a self priming arrangement

By mounting the pumps with the volute semi-submerged, the impeller is always flooded with water and therefore able to self prime upon start-up. Depending on the type and size of the pump, generally two configurations are used:

- Pumpset mounted at thirty degrees to horizontal with the water level set to intersect the eye of the impeller
- Vertically mounted with the impeller fully submersed below the water line.



Right: Directly driven pumpset showing positioning of angled pump relative to the waterline.

ME Pump Units are specifically designed for ease of installation and re-location in difficult mining applications.



Above: Using a dozer to launch the pontoon pump unit down an access ramp.

The ability to move a pump unit around a minesite is a key feature of the ME Pump Units.

Installation and relocating the ME Pump Units is easily performed on a mine site. The solid structure of the pontoon permits towing and / or pushing the units into place. The pontoons are built with skid runners including wear plates (where required), towing points, lifting points and dozer pushbars as standard.



Above: View of skid runners, lifting and towing points fitted to the ME pontoon pump unit.

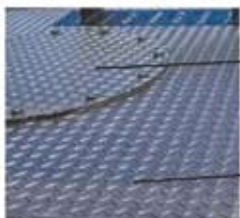


Above: 'A' frame dozer pushbar.

Safety is always at the forefront of the Multiflo Pump Unit design process.



Hand railing including kick rails



Multiple water tight flotation cells with inspection hatches

Non slip decking



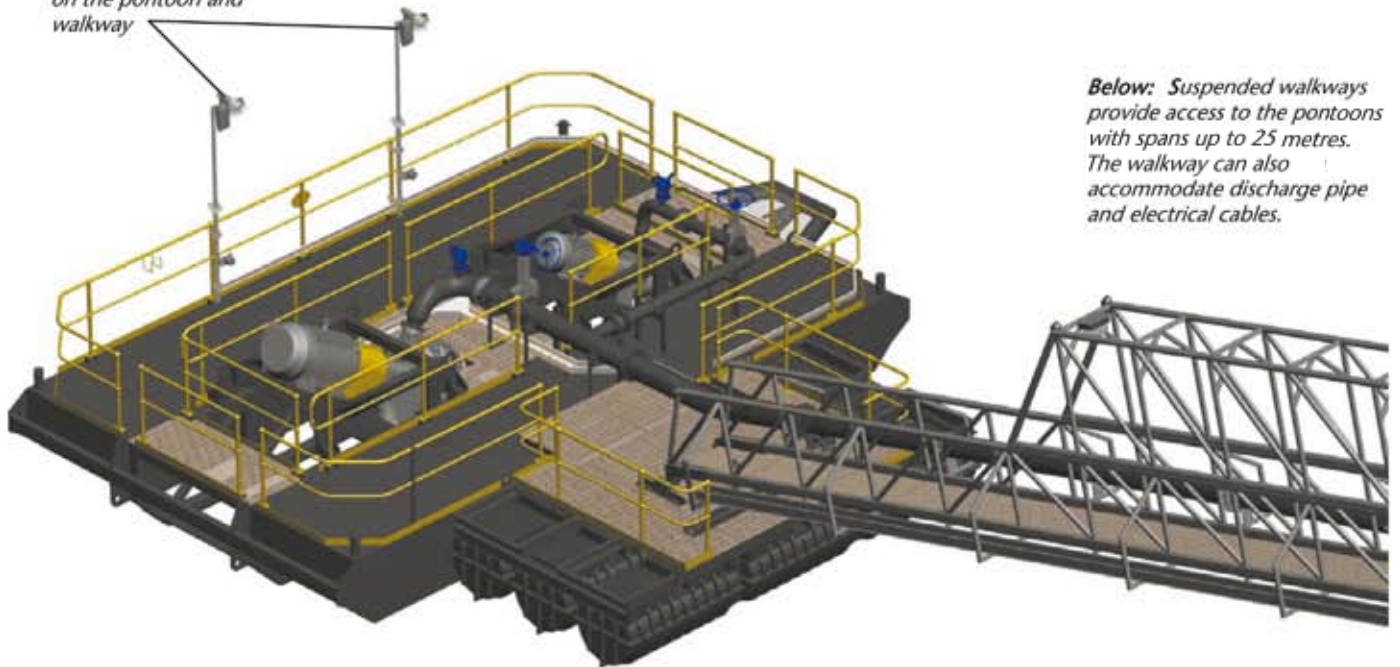
Life Rings



Wide pontoon with low centre of gravity

ME Pump Units are available with a wide range of accessories and custom options.

Lighting can be installed on the pontoon and walkway

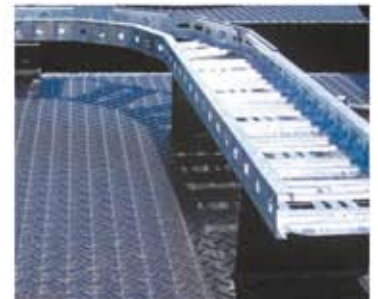


Below: Suspended walkways provide access to the pontoons with spans up to 25 metres. The walkway can also accommodate discharge pipe and electrical cables.



Above: Floating walkways are the solution for pontoon access over long distances.

Right: Cable tray to customer specification.



Right: A range of different types of walkway mesh is available.



These are just a few of the many options available. For more details and customised options, please contact the Weir Minerals representative in your area.

Weir Minerals Offices



The Weir Group PLC, founded in Scotland in 1871, is a leading global engineering company with more than 8000 employees worldwide and is listed on the London Stock Exchange.

Weir Minerals Multiflo is part of the Weir Minerals Division and has primary global design responsibility for the Multiflo self-prime dewatering pump product range and Hydra-Flo® fuel filler valve.

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