

PROFESSIONAL SUPPORT

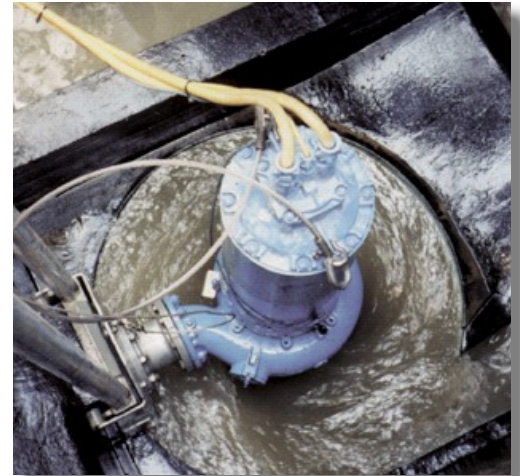
Technical and cost effective hints for busy Consulting and Contracting professionals

1. Clogged and Blocked Pumps - A more efficient solution

● THE PROBLEM:

Due to clogging and blocking from large quantities of items which include: rags, fibres, woven materials, plastic bags, wet wipes, nappies, plastic bottles, tin cans and much more, some sewage pumping stations are being considered as unreliable and expensive to operate.

Typical applications that suffer from these problems are: Nursing Homes, Schools, Court Houses, Prisons, Hospitals, Shopping Malls, Institutions, Casinos / Night Clubs, Resorts, Sport Stadiums and similar locations.



Pump in "Preroclean" Sump

● THE SOLUTION:

Inappropriate pump selection is often at the heart of these problems. Many pumps are just not designed to handle these types and sizes of potentially clogging materials, resulting in constant, expensive breakdowns. By selecting a more suitable pump, designed and engineered to easily (and cost effectively) operate under these conditions the problem can be easily solved.

Pump Technology's Specialist Team would recommend:

● Option 1: A Hidrostal Submersible/Immersable pump

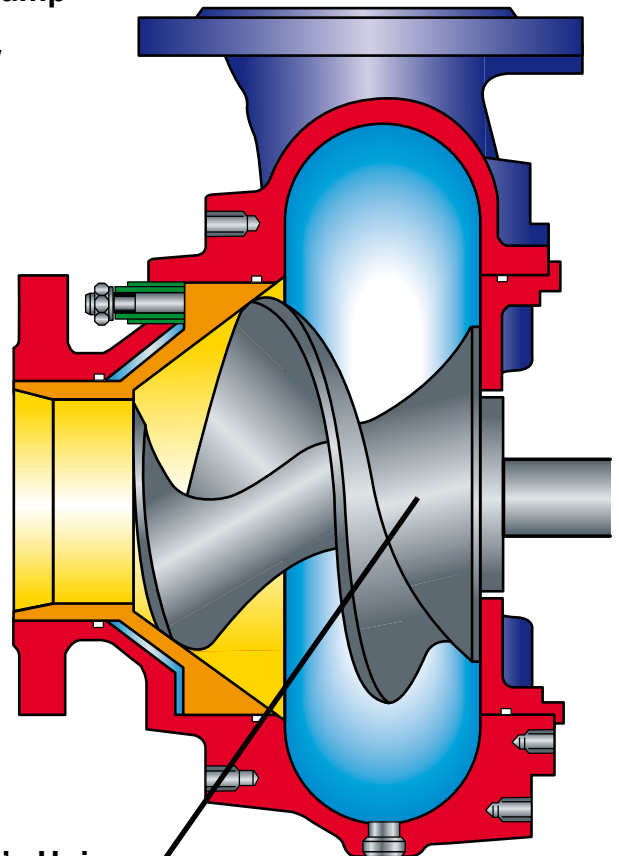
This range of pumps features Hidrostal's Unique Screw Centrifugal Impeller design which allows exceptional solids handling, including rags, fibrous materials and abrasive solids.

The impeller comprises a single spiral vane, with large open passages, which makes a long slow turn from the axial inlet to the radial outlet. This enables-

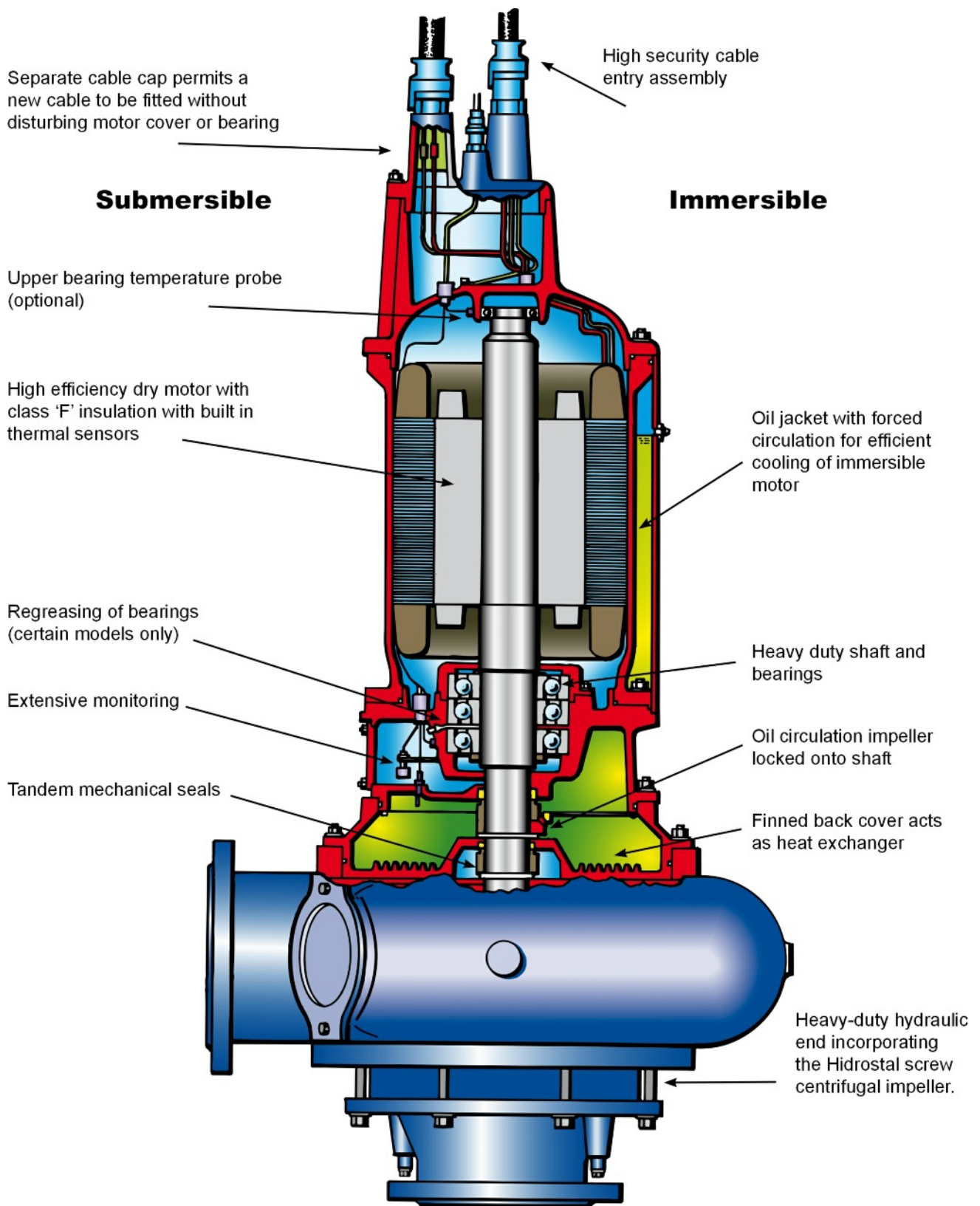
- High efficiencies
- Steep and stable hydraulic curve
- Low NPSH
- Non-clog pumping

The pumps are of heavy duty construction, standard materials being grey cast iron, with a nodular iron impeller. The pump shaft is stainless steel.

Alternative materials are available for increased wear and corrosion resistance.



Hidrostal's Unique Screw Centrifugal Impeller



Hidrostral pumps can be supplied as freestanding pumps, dry well, floating, submersible or pre-packaged pumping station, the later incorporating Hidrostral Preroclean. Preroclean combines the Hidrostal screw centrifugal impeller with a special basin arrangement moulded into the bottom of the pump station by Pump Technology Ltd.

The basin/sump geometry means as the fluid level drops to the pump stop a strong rotating flow which entrains all floating and suspended material, including oils, grease and fats, enters the pump and is discharged.

This means there is no build-up of solids or fats within the pump station, pump performance and reliability is maintained significantly longer. Additionally potential odour is eliminated.

● Option 2: A Torqueflow Sydex “Defender” grinder:

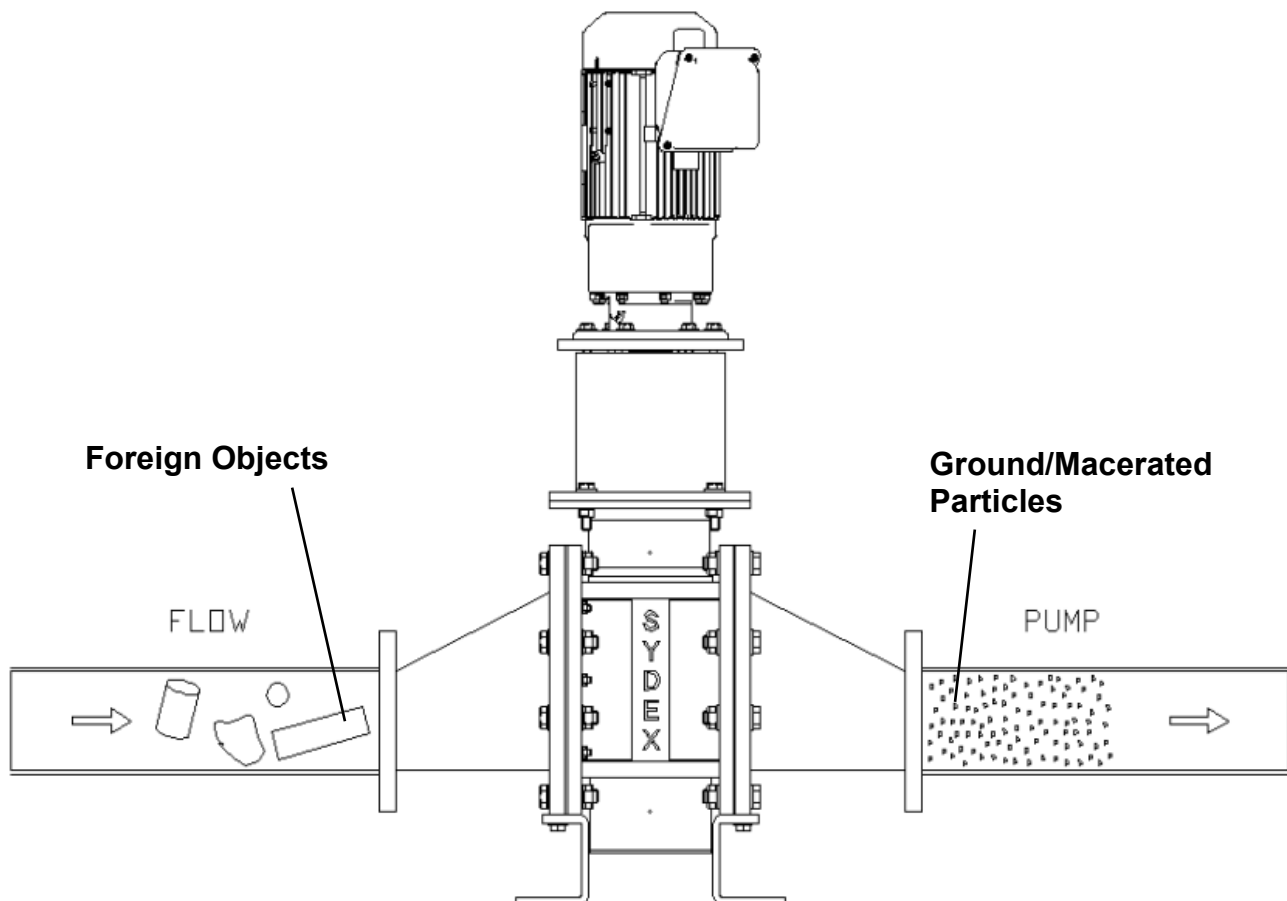
When items entering the sewage pumping station become too large for even the biggest free flow pumps, nappies, incontinent pants, clothing, shoes, bags, blankets / sheets, plastic bottles, wood, toys, tin cans... then a “Defender” macerator / grinder can be installed on the inlet of the pumping station.

The design offers low head loss in the inlet pipe.

The Defender will reduce solids to particle sizes of 5 to 6mm, this means your submersible pumps are able to operate without clogging or blocking and the serviceable life of your pumps is long and predictable.

The cutters are hardened heat treated steel, they operate at low speed, 110rpm max and are powered by a high torque heavy duty Sumitomo Cyclo geared motor.

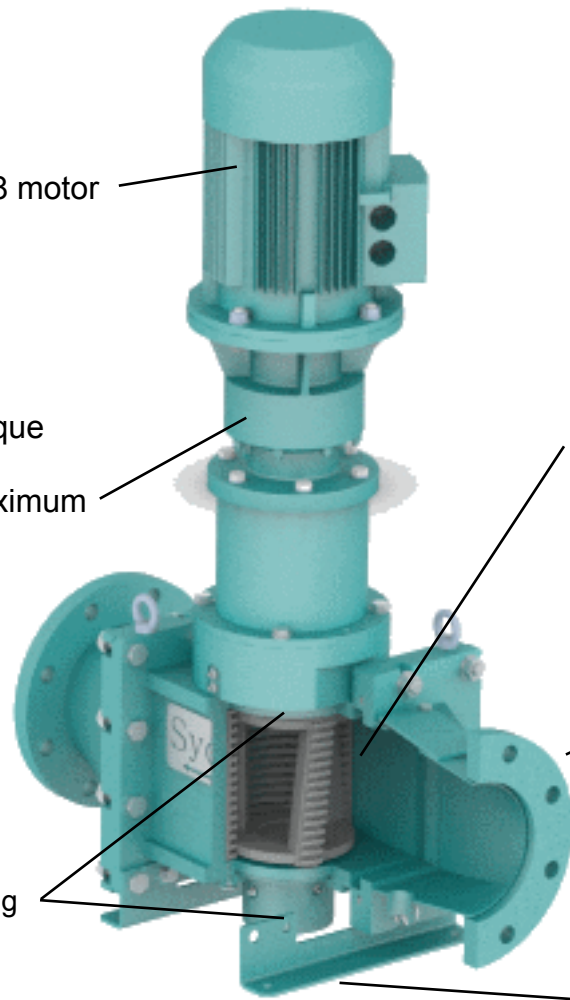
The rotating cutter element is of a single piece design requiring no adjustment, whilst the static blades employ an efficient pullout cartridge construction for easy maintenance or replacement.



The Defender can be installed in an inline pipe configuration - 100mm, 150mm, or 200mm diameter or channel design.

For installations liable to submersion / flooding an IP68 version is available as is an explosion rated option.

Sydex Defender Grinder



TEFC or IP68 motor available.

Low-speed, high-torque Sumitomo cycloidal gearbox ensures maximum reliability

Cutting elements in AISI 431 alloy 431 vacuum tempering giving superior performance and efficiency

Ductile cast-iron removeable housing with PN16 flanges

Special hybrid mechanical seal with grease ring for long leak-free service life, combined with grease-lubricated double bearing arrangement. Provides independent shaft support offering better performance & reliability.

Support feet with bolt-holes for secure installation

Connection Fittings

- PN16 DN100
- PN16 DN150
- PN16 DN200
- 4" ANSI 150#
- 6" ANSI 150#
- 8" ANSI 150#

Motor Options:

- IP55
- IP68 ATEX
- 2.2kW, 3.0kW, 4.0 kW
- NEMA

Optional Control Panel:

Fitted with PLC controller and current sensors, the automatic control will put the grinder into a reverse cycle function in the event of material causing a jam such as a high-tensile bolt. The system can be programmed to stop the pumps to provide further safety protection



Pump Technology Ltd and its Pumping Partners offer nationally:

- The best pump selection for each specific commercial requirement
- Full Installation & commissioning support
- Maintenance & repair contracts nationally.
- CPD's / Product reviews / training



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