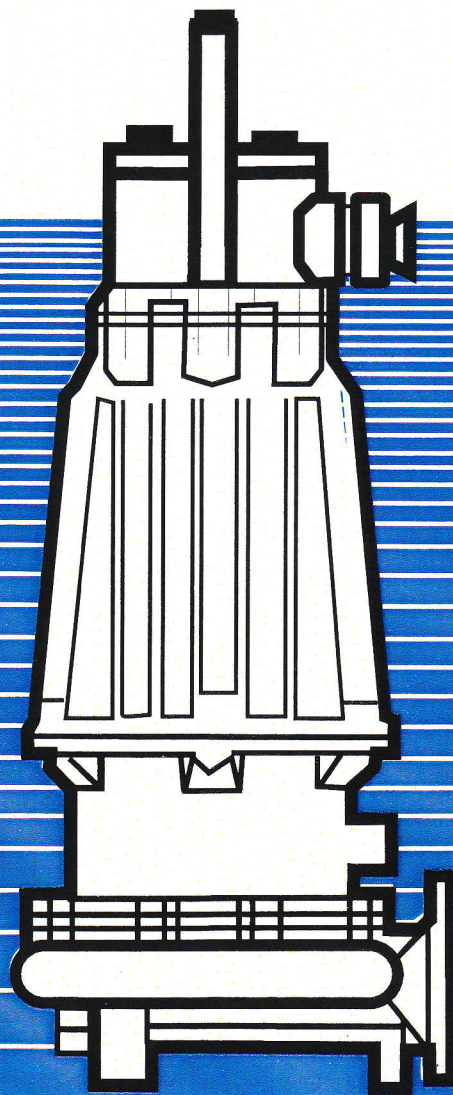




Submersible sludge pump
with disintegrator

GFZP / GFZF

050 - 03



APPLICATION

Pumps in explosion proof version (GFZP/GFZF-050-03-LU-E) are intended for explosion hazard environments of the Zone 1, according to the Czech Standard CSN 33 2320. Motor unit has been executed in flameproof enclosures, according to the CSN EN 50 018, with inexplisiveness designation EEx d II BT4.

Pumps are produced also in their basic version (model GFZP/GFZF-050-03-LU-N) and may be used in explosion-proof environments.

Pumps are provided with a disintegrator, which allows pumping water containing scraps up to 50x50 mm size, condoms, napkins, fragmental, short-fibrous and long-fibrous stuffs, as grass, straw, peels of fruit and vegetable, and so on. These solids may reach even 5 percent of volume of a pumped liquid.

Pumps are not intended for pumping liquids containing abrasive solids (sand, etc.), cords, synthetic fibres and textiles, and so on.

Max. density 1,050 kg.m⁻³
 Max. temperature of a pumped liquid and environment . . 40 °C
 Permissible pH ranging from 5 to 9

Design

Pumps are of a single stage centrifugal submersible close-coupled version, with a three-phase asynchronous motor, intended for operation in their vertical position. In the motor compartment, a float is installed that is able to put the pump out of operation when penetrating water or oil into this space.

In motor winding, bimetallic thermal receptors are built-in disconnecting the electric motor from the mains while exceeding a permissible temperature.

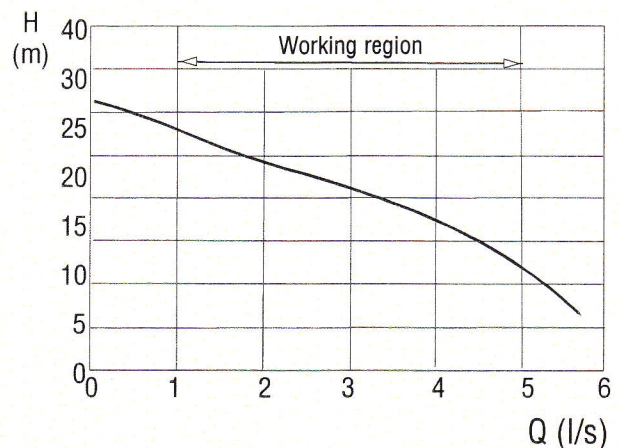
Material options

Impeller, suction cover cast chrome steel 42 2906
 Most of stator parts..... grey cast iron 42 2415
 Disintegrator tool steel 19 733
 Shaft stainless steel 17 022
 Bolts stainless steel

Accessories

Pump is supplied together with a connected supply cable in length of 10, 15, 20, 25, 30 or 35 m, according to the customer wish. Further, according to the customer wish, a lowering equipment or an elbow with a half coupling for a hose connection may be supplied too.

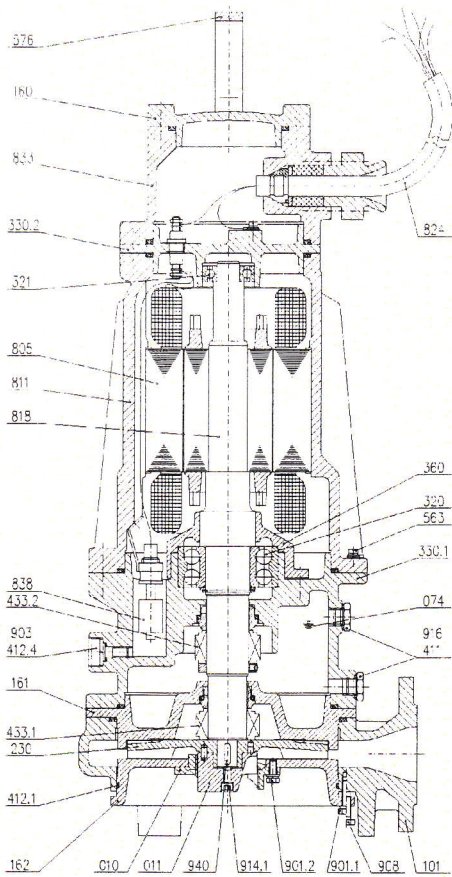
Pump characteristic



PERFORMANCE DATA

| Pump model | | GFZP/GFZF-050-03-LU-E (explosion-proof version) | GFZP/GFZF-050-03-LU-N (basic version) |
|--|-------------------|--|--|
| Volume flow Q | l.s ⁻¹ | | 3 |
| Delivery head H | m | | 20 |
| Pump-set power input P _{1max} | kW | | 5 |
| Impeller throughlet | mm | | ∅ 7 |
| Electric motor | | | single purpose |
| Stator connection | | | Y |
| Speed n | min ⁻¹ | | 2800 |
| Voltage U | V | | 400 |
| Frequency f | Hz | | 50 |
| Cut-out current I | A | | 9 |
| Class of insulation | | | F |
| Motor covering | | | IP 68 |
| Max. submersion | m | | 10 |
| Cable | | NSSHöu J7x1,5 | H07 RN-F7G1,5 |
| Weight of 1m cable | kg | | 0,39 |
| Pump weight without cable | kg | 84 | 83 |

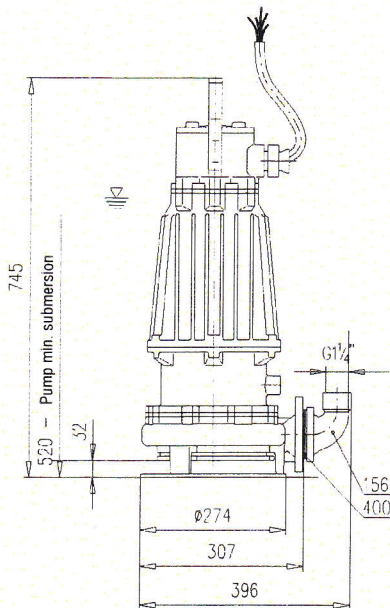
Section through pump



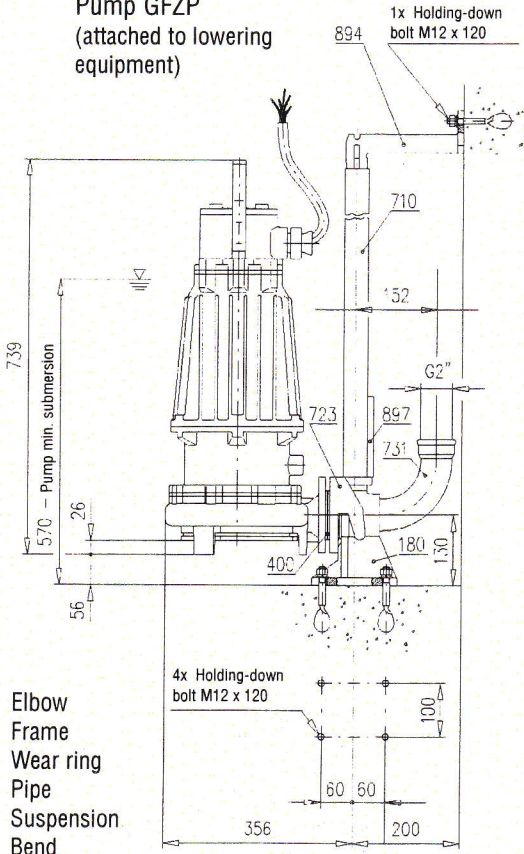
- 010 Cutting disc
- 011 Tool
- 074 Oil
- 101 Pump casing
- 160 Cover of terminal board compartment
- 161 Bush
- 162 Suction cover
- 230 Impeller
- 320 Bearing
- 320 Bearing
- 330.1 Lower bearing housing
- 330.2 Upper bearing housing
- 360 Throttle cover
- 411 Wear ring
- 412.1 o-ring
- 412.2 o-ring
- 433.1 Mechanical seal
- 433.2 Mechanical seal
- 563 Outer protective clamp
- 576 Lifting hook
- 805 Electric motor
- 811 Stator jacket
- 818 Rotor
- 824 Cable
- 833 Casing of terminal board compartment
- 838 Float
- 901.1 Bolt
- 901.2 Bolt
- 908 Bolt
- 903 Checking screw
- 908 Screw
- 914.1 Impeller screw
- 916 Plug
- 940 Key

Pump dimensions

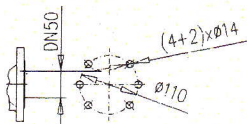
Pump GFZP (standing free at pit bottom)



Pump GFZP (attached to lowering equipment)



Pump discharge branch



- 156 - Elbow
- 180 - Frame
- 400 - Wear ring
- 710 - Pipe
- 723 - Suspension
- 731 - Bend
- 894 - Bracket

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