

JUNG PUMPEN MULTICUT SEWAGE PUMPS

APPLICATION

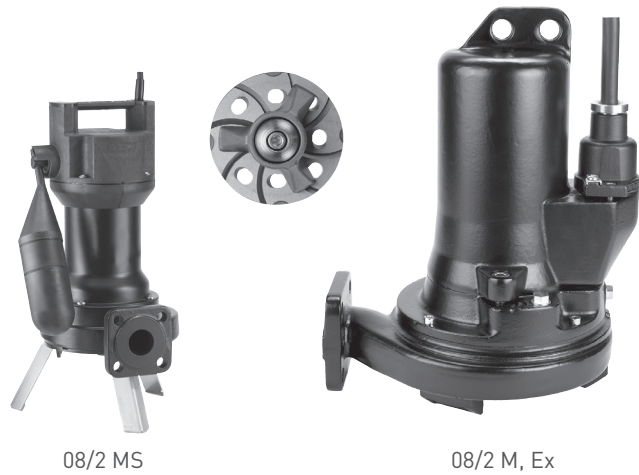
Centrifugal submersible sewage pumps fitted with the MultiCut cutting system are used as stationary appliances for backpressure protection of detached houses. They are suitable for pumping domestic wastewater with the usual additions (as specified in German standard DIN 1986, Part 3).

For pumping from ducts which are connected to the public sewer system, explosion-proof submersible pumps of have to be used. On account of the upstream cutting system, the pressurised line as from DN 32 - as from DN 80 minimum without cutting system - may be routed parallel to the terrain.

Operating conditions up to a temperature of the material to be transported of 40° Celsius
 Submerged motor:
 Continuous operation (S1)
 Emerged motor:
 Intermittent operation (S3)
 (e.g. 35% = 3.5 min. operation, 6.5 min. break)

MULTICUT CUTTING SYSTEM

The unique MultiCut cutting system ensures a maximum of operational safety at outstanding delivery characteristics. Fitted with a cutter plate made of hardened stainless steel and a three-bladed knife, it disintegrates coarse additions in the wastewater with more than 62,000 cutting processes per minute before they can get into the pump hydraulics. Solids which cannot be transported are rejected outside of the pump by the cutting rotor as the cutting system is located upstream from the pump hydraulics. Specifically arranged grooves on the cutter plate ensure additional safety as the cutting unit is permanently cleaned automatically during the delivery.

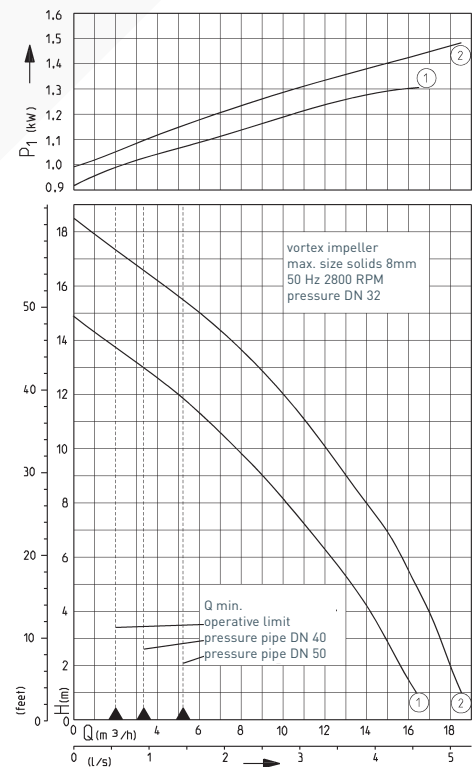


- Cutting rotor with stirring effect
- Plug-in cable connection
- External adjustable cutting mechanism
- Controllable oil chamber
- SiC mechanical seal independent of sense of rotation
- Moisture-sealed cable inlet
- Installed motor protection
- Ex version: Impeller and replaceable wear plate made from fibre-glass reinforced plastic

PERFORMANCE



- ① 08/2ME
- ② 08/2M



41863-02

We reserve the right to change specifications without notice

Pump performance is subject to ISO 9906 tolerances

The minimum flow velocity in the pressure piping must be 0.7 m/s according to EN 12056.
 This data is represented in the performance curve as a limit of application.

JUNG PUMPEN MULTICUT

SEWAGE PUMPS

SEWAGE PUMPS

| Type | | Largest height x width | Cable length | Pressure connection | Weight approx. | Code No. |
|------------|--------------------------------|------------------------|--------------|---------------------|----------------|----------------|
| 08/2 M | Pumps with control unit | 370 x 235 mm | 10 m | DN 32 | 16.5 kg | JP09945 |
| 08/2 ME | | 370 x 235 mm | 10 m | DN 32 | 16.2 kg | JP09312 |
| 08/2 MS | Pumps with aut. switch control | 370 x 340 mm | 10 m | DN 32 | 17.2 kg | JP09946 |
| 08/2 MES | | 370 x 340 mm | 10 m | DN 32 | 16.6 kg | JP09313 |
| 08/2 M, Ex | with ex-proof | 350 x 290 mm | 10 m | DN 32 | 28.0 kg | JP42768 |

PERFORMANCE

| Typ | H [m] | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
|----------------------|-----------------------|------|------|------|----|------|------|----|----|----|-----|-----|----|-----|-----|----|-----|
| 08/2 ME+MES | Q [m ³ /h] | 16.5 | 15.5 | 15 | 14 | 13 | 12 | 11 | 10 | 9 | 7.5 | 6.5 | 5 | 3.5 | 1.5 | | |
| 08/2 M+MS+ 08/2M, Ex | | 18.5 | 18 | 17.5 | 17 | 16.5 | 15.5 | 15 | 14 | 13 | 12 | 11 | 10 | 9 | 7.5 | 6 | 4.5 |


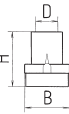






ELECTRICAL DATA

| Type | Voltage Volt | Motor rating kW | | S3 % | Current Ampere | Motor protection | RPM min-1 | Cable | Plug |
|-------------|--------------|-----------------|------|------|----------------|------------------|-----------|---------------|----------|
| | | P1 | P2 | | | | | | |
| 08/2 M+MS | 3/PE~400 | 1.65 | 1.24 | 10 | 2.8 | in the motor | 2674 | H07RN-F-4G1 | CEE-16 A |
| 08/2 ME+MES | 1/N/PE~230 | 1.37 | 0.98 | 10 | 6.0 | in the motor | 2705 | H07RN-F-3G1 | Safety- |
| 08/2 M, Ex | 3/PE~400 | 1.65 | 1.24 | 35 | 2.8 | with control | 2674 | H07RN-F-6G1.5 | without |

JUNG PUMPEN MULTICUT

SEWAGE PUMPS

ACCESSORIES

| | | Code No. | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|-----|------|-----|--------|-----|----------------------------------|--------|-----|----------------------------------|-----|-----|----|-----|-----|-----|--|---|---|---|---|---|
| | | M | ME | MS | MES | Ex M | | | | | | | | | | | | | | | | | | | |
|  | 1 Chain certified, stainless steel, (EN 818 mod.) 2,5 m, 5 rings 5,0 m, 8 rings 7,5 m, 8 rings Shackle , certified, stainless steel Webbing with shackle for attaching the chain to the pump Pump hanging | Load-bearing cap. 160 kg 160 kg 160 kg 500 kg 500 kg | JP45901 JP45902 JP47365 JP45904 JP45168 JP45925 | • | • | • | • | • | | | | | | | | | | | | | | | | | |
| | 2 Guide rail system GR 35 Guide rail system GR 35 for pumps without Ex-proof | 1½" Female thread (see mounting arrang.) 1½" Female thread (see mounting arrang.) | JP14094 JP29953 | • | • | • | • | • | | | | | | | | | | | | | | | | | |
| |  | 3 Swing-type check valve DIN EN 12050-4 Ball check valve DIN EN 12050-4 (without illustr.) Elbow ball check valve DIN EN 12050-4 (without illustr.) Duplex swing-type check valve for duplex pump stations, DIN EN 12050-4 (without illustr.) | 1½" (DN 40), PN 4 2" (DN 50), PN 4 2" (DN 50), PN 6 1½" (DN 40), PN 6 1½" (DN 40), PN 6 | <table border="1"> <tr> <th>H</th> <th>W</th> <th>D</th> </tr> <tr> <td>150</td> <td>120</td> <td>1½"</td> </tr> <tr> <td>150</td> <td>120</td> <td>2"</td> </tr> <tr> <td>185</td> <td>155</td> <td>2"</td> </tr> <tr> <td>200</td> <td>280</td> <td>1½"</td> </tr> </table> | H | W | D | 150 | 120 | 1½" | 150 | 120 | 2" | 185 | 155 | 2" | 200 | 280 | 1½" | JP00317 JP00326 JP44782 JP44783 JP09155 | • | • | • | • | • |
| | | H | W | D | | | | | | | | | | | | | | | | | | | | | |
| | | 150 | 120 | 1½" | | | | | | | | | | | | | | | | | | | | | |
| | | 150 | 120 | 2" | | | | | | | | | | | | | | | | | | | | | |
| 185 | | 155 | 2" | | | | | | | | | | | | | | | | | | | | | | |
| 200 | 280 | 1½" | | | | | | | | | | | | | | | | | | | | | | | |
|  | 4 Stop valve | 1½" (DN 40), PN 16 2" (DN 50), PN 16 | <table border="1"> <tr> <th>H</th> <th>W</th> <th>D</th> </tr> <tr> <td>125</td> <td>max.60</td> <td>1½"</td> </tr> <tr> <td>140</td> <td>max.67</td> <td>2"</td> </tr> </table> | H | W | D | 125 | max.60 | 1½" | 140 | max.67 | 2" | JP44786 JP44787 | • | • | • | • | • | | | | | | | |
| | H | W | D | | | | | | | | | | | | | | | | | | | | | | |
| 125 | max.60 | 1½" | | | | | | | | | | | | | | | | | | | | | | | |
| 140 | max.67 | 2" | | | | | | | | | | | | | | | | | | | | | | | |
|  | 5 Elastic connection | 1½" (DN 40), PN 4 2" (DN 50), PN 4 | <table border="1"> <tr> <th>H</th> <th>D</th> </tr> <tr> <td>120</td> <td>50</td> </tr> <tr> <td>150</td> <td>63</td> </tr> </table> | H | D | 120 | 50 | 150 | 63 | JP44777 JP44775 | • | • | • | • | • | | | | | | | | | | |
| | H | D | | | | | | | | | | | | | | | | | | | | | | | |
| 120 | 50 | | | | | | | | | | | | | | | | | | | | | | | | |
| 150 | 63 | | | | | | | | | | | | | | | | | | | | | | | | |
|  | 6 Hose band clamp | 1½" 2" | | JP44763 JP44764 | • | • | • | • | | | | | | | | | | | | | | | | | |
| | 7 Bases (contained in the scope of supply of 08/2 MS + MES without Ex-proof) Retaining plate in connection with static air level control | | | JP44759 JP23100 | • | • | • | • | | | | | | | | | | | | | | | | | |
|  | 8 Reducing socket | 1½"-2" for Guide rail GR 35 1¼"-1½" for Pipe connection 1¼"-2" for Pipe connection | | JP44776 JP44769 JP44772 | • | • | • | • | | | | | | | | | | | | | | | | | |
| |  | 9 Pipe connection Coupling connection Hose connection | 1¼" (inside thread) for transp. application size C, for transportable application Ø 42, for transportable application | JP16870 JP14076 JP14077 | • | • | • | • | | | | | | | | | | | | | | | | | |
| | | 10 Flushing tube - type I M stainless steel with connection flang* Flushing tube - stainless steel type 0 | | JP40333 JP45408 | • | • | • | • | | | | | | | | | | | | | | | | | |
|  | | 11 Alarm unit AG3 , separate, mains-dependant, 3 m Alarm unit AG10 , separate, mains-dependant, 9,5 m Electrical connection Single units Duplex units * Control panels for pumps in explosion hazardous locations require a dry run protection Accessories for AD/BD: Retaining plate (scope of supply of GR 35) Rechargeable battery for mains-independent alarm (for MP SM controls, order article No. JP 44851) | AD 00 E + pressure switches AD 8 ExME, DRP AD 25 ExM, DRP AD 25 MP SM* BD 00 E + pressure switches BD 25 ExM, DRP BD 25 MP SM* Special control unit on request | JP44891 JP44892 JP00289 JP17101 JP43162 JP43159 JP27118 JP45735 JP17101 JP43165 JP27152 JP41463 JP23100 JP44850 | • | • | • | • | • | | | | | | | | | | | | | | | | |
| | 12 Seal leak detector DKG Seal leak detector DKG-Ex (pumps with Ex-proof) | | JP44900 JP00249 | • | • | • | • | | | | | | | | | | | | | | | | | | |

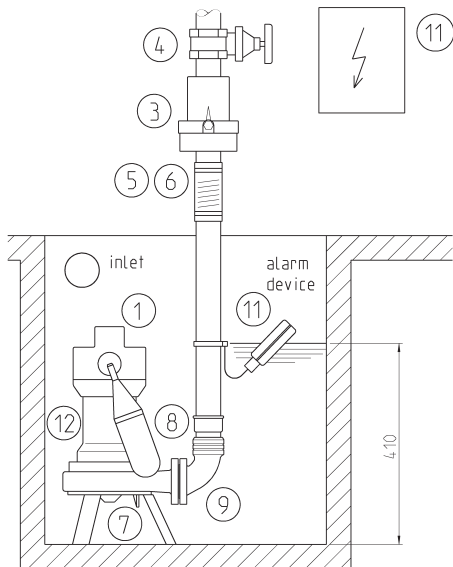
JUNG PUMPEN MULTICUT SEWAGE PUMPS

Mounting arrangement without ex-proof

Dimensions of chamber

- Single pump system min. 40 x 40 cm
- Duplex pump system min. 60 x 60 cm with swing-type check valve, duplex check valve or ball-type check valve (without ill.)
- Duplex pump system min. 80 x 60 cm with elbow ball check valve (without illustration)

When a cover plate is used, the elastic connection has to be attached outside of the chamber and a ventilation system has to be provided.

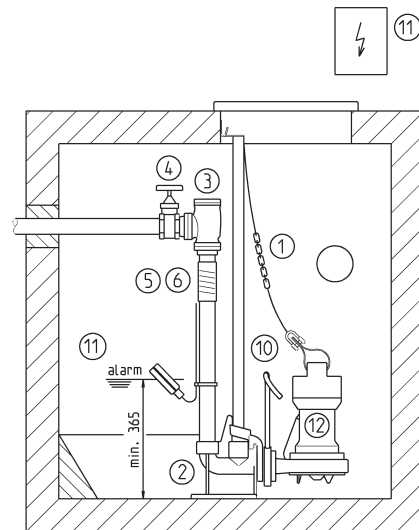


25911-05

Mounting arrangement with guide rail system without ex-proof

Dimensions of chamber

- Single pump system min. 40 x 65 cm with elbow ball check valve, ball-type check valve or swing-type check valve
- Duplex pump system min. 85 x 65 cm with elbow ball check valve, ball-type check valve or swing-type check valve (without ill.)
- Single pump system min. 40 x 60 cm with swing-type check valve
- Duplex pump system min. 60 x 60 cm with duplex check valve (without illustr.)



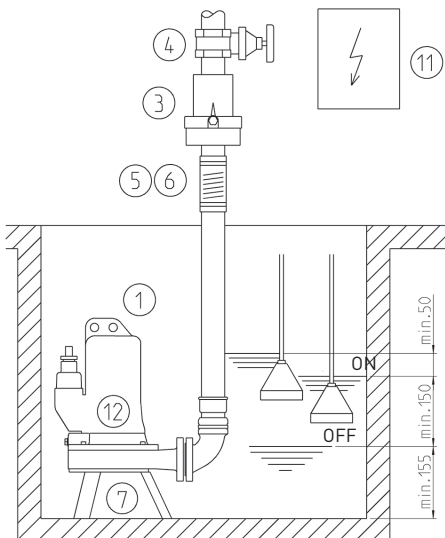
25982-04

Mounting arrangement with ex-proof

Dimensions of chamber

- Single pump system min. 40 x 40 cm
- Duplex pump system min. 60 x 60 cm with swing-type check valve, duplex check valve or ball-type check valve (without illustration)
- Duplex pump system min. 80 x 60 cm with elbow ball check valve (without illustration)

When a cover plate is used, the elastic connection has to be attached outside of the chamber and a ventilation system has to be provided.

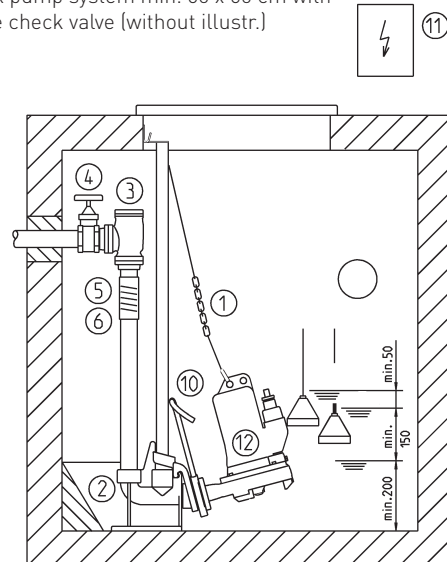


25910-05

Mounting arrangement with guide rail system with ex-proof

Dimensions of chamber

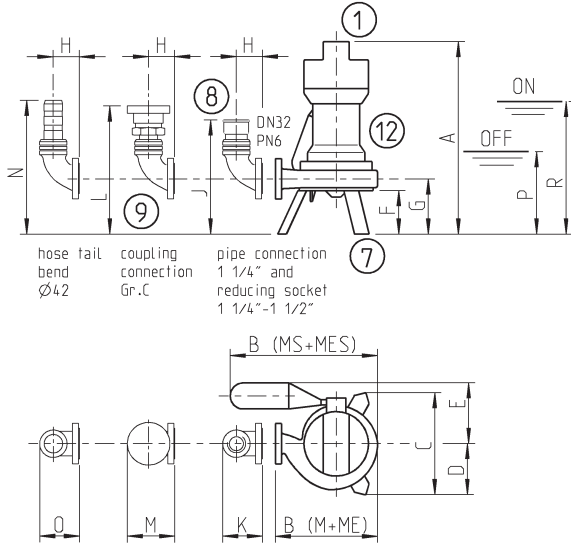
- Single pump system min. 40 x 65 cm with elbow ball check valve, ball-type check valve or swing-type check valve
- Duplex pump system min. 85 x 65 cm with elbow ball check valve, ball-type check valve or swing-type check valve (without ill.)
- Single pump system min. 40 x 60 cm with swing-type check valve
- Duplex pump system min. 60 x 60 cm with double check valve (without illustr.)



25912-05

JUNG PUMPEN MULTICUT SEWAGE PUMPS

Main dimensions without ex-proof (mm)



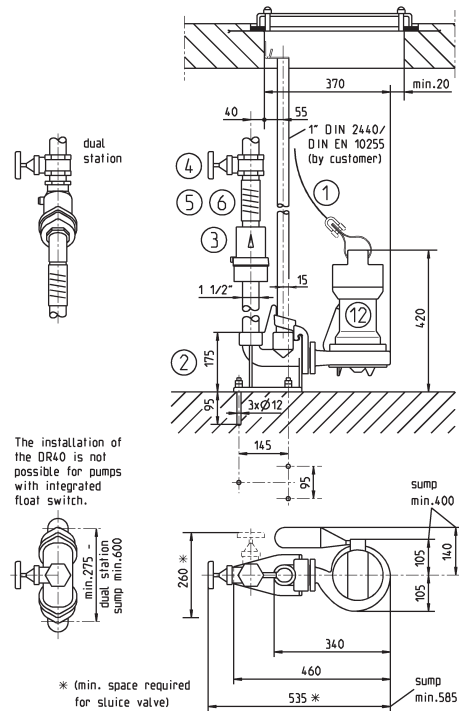
hose tail bend $\varnothing 42$
coupling connection Gr.C
pipe connection 1 1/4" and reducing socket 1 1/4"-1 1/2"

| Typ | A | B | C | D | E | F | G | H | J | K | L | M | N | O | P | R |
|------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|-----|-----|
| 08/2M +ME | 445 | 235 | 230 | - | 100 | 128 | 60 | 265 | 90 | 300 | 110 | 310 | 90 | - | - | - |
| 08/2MS+MES | 445 | 340 | 255 | 115 | 140 | 100 | 128 | 60 | 265 | 90 | 300 | 110 | 310 | 90 | 190 | 305 |

When used downstream of the backpressure level, German / European standard DIN EN 12056 requires the pressure pipe to be connected elastically and to be passed over the locally defined backpressure level in a loop. Moreover, the installation of a non-return valve is prescribed, which has been tested in keeping with German / European standard DIN EN 12050-4. In addition, we recommend an alarm system for monitoring.

25981-08

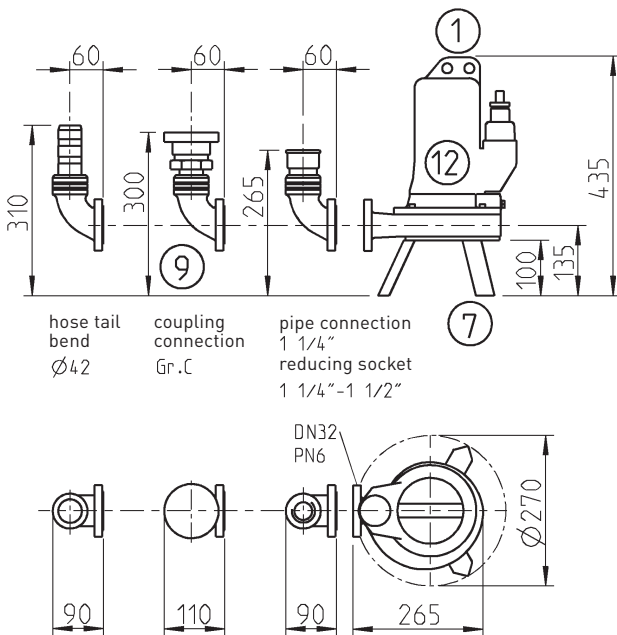
Mounting arrangement with guide rail system without ex-proof



Observe the mounting instructions in case of modifications!

29999-03

Main dimensions with ex-proof (mm)

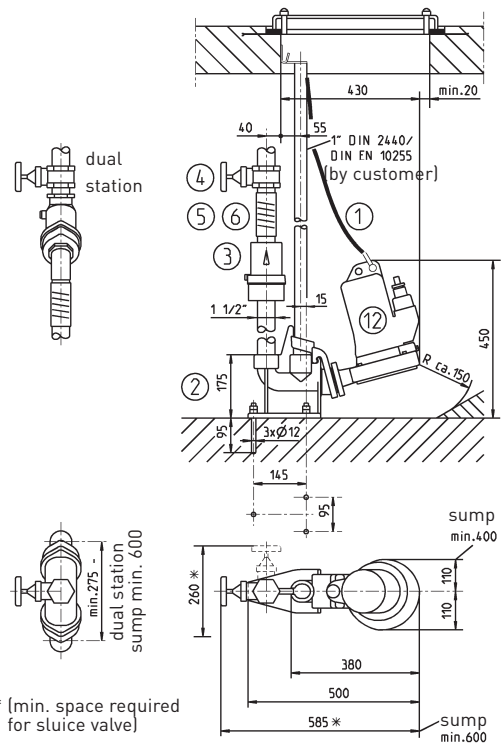


hose tail bend $\varnothing 42$
coupling connection Gr.C
pipe connection 1 1/4" reducing socket 1 1/4"-1 1/2"

When used downstream of the backpressure level, German / European standard DIN EN 12056 requires the pressure pipe to be connected elastically and to be passed over the locally defined backpressure level in a loop. Moreover, the installation of a non-return valve is prescribed, which has been tested in keeping with German / European standard DIN EN 12050-4. In addition, we recommend an alarm system for monitoring.

43067-00

Mounting arrangement with guide rail system with ex-proof



Observe the mounting instructions in case of modifications!

26122-10

JUNG PUMPEN MULTICUT

SEWAGE PUMPS

TECHNICAL DATA

Pump

Vertical, single-stage, submersible, spiral casing with horizontal discharge flange, open impeller MultiCut cutting system - adjustable.


Bearing

Common shaft for pump and motor, grease-packed ball bearing.

Seal

Silicon-carbide mechanical seal independent of the sense of rotation, oil chamber and duplex radial shaft seal towards the motor compartment, safe to run dry.

Motor

Submersible, type of protection IP 68, protected by winding thermostats. Ex-proof types tested by the German PTB Federal Agency for Ex designation  II 2 G Ex d IIB T4, automatic activation through control unit only.

Flushing tube

The type I M flush pipe is fitted between the pressure drainage of the pump and the pressure pipe. It vents the pump and at the same time cleans the chamber with a jet of water. This bypass causes a loss of performance of abt. 10 %.

Materials

Motor housing made of stainless steel, wear plate made of spheroidal ductile cast iron, UAK terminal board hood made of glass-fibre reinforced plastic, pump base (type MS + MES) made of stainless steel. Shaft made of stainless steel, cutting device made of hardened stainless steel (57 HRC), special flexible rubber cable.

Explosion-proof pumps: Motor housing made of grey cast iron, impeller made of glass-fibre reinforced plastic (corrosion-resistant).

Installation

Install the pump vertically (hose connection up to size C possible); in case of stationary installation provide detachable connection in front of the swing-type check valve and/or incorporate a guide rail system.

Scope of supply

As a prewired pump in keeping with German / European standard DIN EN 12050 with 10 m cable and CEE plug 16 A (type M + MS) and/or safety plug (type ME + MES).

The pump bases are part of the scope of supply for pumps with automatic switch control.

As **explosion-proof pump** in keeping with German / European standard DIN EN 12050 with 10 m cable without plug. Complete motor protection only in combination with appropriate controls (see accessories).

