

Series description: Wilo-Drain TP 80/TP 100



Design

Submersible sewage pump for industrial applications

Application

Pumping of wastewater and drainage water as well as sewage containing faeces, municipal and industrial sewage for:

- Domestic and site drainage
- Sewage and water management
- Environmental and water treatment technology
- Industrial and process engineering

Type key

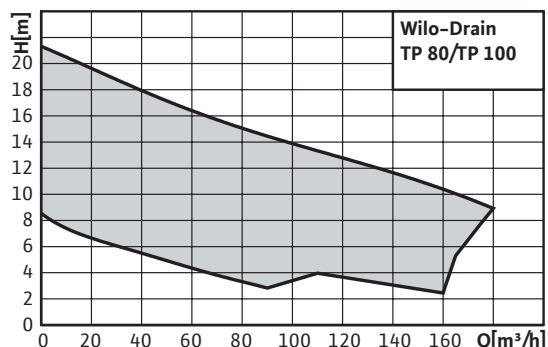
E.g.	WiloDrain TP 80 E 160/17
TP	Tauchmotorpumpe (submersible pump)
80	Nominal diameter [mm]
E	Einkanallauftrad (single-channel impeller)
160	Nominal diameter of impeller [mm]
17	Power P_2 [kW] (= value/10 = 1.7 kW)

Special features/product advantages

- Operation in stationary wet well and dry well installation as well as portable wet well installation
- Submersible
- ATEX approval as standard
- Low weight
- Detachable connection cable
- Longitudinally watertight cable inlet
- Standard-equipped with clogging-free sheath current cooling
- Corrosion-resistant (e.g. swimming-pool water, salt water, etc.)
- Low-wearing
- Patented clogging-free hydraulics
- Easy installation due to suspension unit or pump base

Technical data

- Mains connection: 3~400 V, 50 Hz
- Immersed and non-immersed operating modes: S1
- Protection class: IP 68
- Insulation class: F
- Max. fluid temperature: 3 40°C
- Free ball passage: 80 or 95 mm
- Max. immersion depth: 20 m



Equipment/function

- Thermal motor monitoring
- Leakage detection in the motor
- ATEX-certified
- Sheath current cooling

Description/design

Submersible sewage pump as submersible monobloc unit for stationary wet well and dry well installation as well as portable wet well installation.

Hydraulics

The outlet on the pressure side is designed as DN 80 or DN 100 horizontal flange connection. Single-channel impellers are used as the impeller shape.

Motor

Dry motors are equipped with clogging-free sheath current cooling as standard. This ensures that heat is given off directly to the fluid. As a result, these units can be operated in immersed and non-immersed state for permanent or intermittent operation.

In addition, the motor is equipped with a leakage detection unit and a thermal motor monitoring unit. A sealing chamber protects the motor from fluid ingress. The filling fluid used is potentially biodegradable and environmentally safe.

The cable inlet is longitudinally watertight, the standard cable length is 10 m.

Sealing

Sealing on the fluid side and on the pump side is achieved by two bidirectional mechanical seals.

Materials

- Pump housing: PUR
- Impeller: PUR
- Shaft: stainless steel 1.4404
- Mechanical seal on pump side: SiC/SiC
- Mechanical seal on motor side: C/Cr
- Static gasket: NBR
- Motor housing: stainless steel 1.4404

Scope of delivery

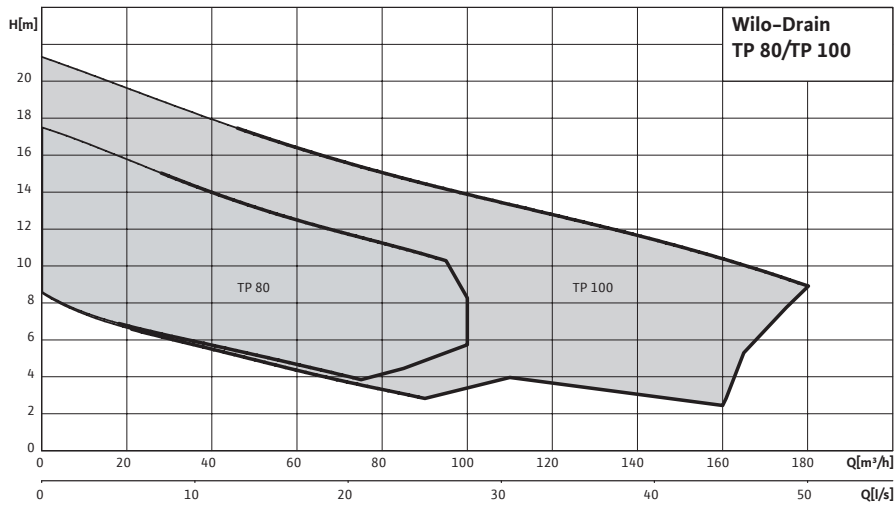
- Pump ready for connection with 10 m connection cable (bare cable end)
- Installation and operating instructions

Accessories

- Suspension unit
- Chain
- Non-return valve and gate valve
- Various pressure outlets and hoses
- Switchgears and relays

Duty chart: Wilo-Drain TP 80/TP 100

Duty chart



Equipment/function: Wilo-Drain TP 80/TP 100

Design	
Submersible	•
Single-channel impeller	•
Vortex impeller	-
Multi-channel impeller	-
Open multi-channel impeller	-
Macerator	-
Turbulator	-
Sealing chamber	•
Leakage chamber	-
Sealing for mechanical seal on motor side	•
Sealing for rotary shaft seal on motor side	-
Sealing for mechanical seal on fluid side	•
Single-phase AC motor	-
Three-phase motor	•
Direct activation	•
Star-delta activation	•
FC operation	-
Dry motor	-
Motor with oil cooling	-
Dry motor with closed-circuit cooling	-
Application	
Wet well installation, stationary	•
Wet well installation, portable	•
Dry well installation, stationary	•
Dry well installation, portable	•
Equipment/function	
Motor leakage monitoring	•
Sealing chamber monitoring	-
Leakage chamber monitoring	-
Motor temperature monitoring, bimetal	•
Motor temperature monitoring, PTC	-
Explosion protection	•
Float switch	-
Capacitor box for 1~230 V	-
Ready-to-plug	-
Materials	
Pump housing	Composite
Impeller	Composite
Motor housing	Stainless steel

• = available, - = not available; = optional