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# Technical specification

BS 2071.010, BS 2071.010-U, BS 2071.010-W



Flygt



ITT Industries

# PRODUCT DESCRIPTION

## Applications

2071.010 is intended to be used for pumping of water which may contain abrasive particles.

The pump is available in the following versions:

LT = lowhead version

MT = mediumhead version

**Liquid temperature:** max. 40°C (105°F)

The pump is also available in a version (2071.010-W) for liquid temperatures up to 90°C (195°F) and in a version (2071.010-U) with POLY-LIFE wear parts for extra resistance.

2071-010-W has certain operational limitations, which are stated on a plate on the pump.

**Liquid density:** max. 1100 kg/m<sup>3</sup> (9.2 lb per US gal.)

The pumped liquid may contain particles up to a size which corresponds to the openings in the strainer.

**The pH of the pumped liquid:** 5—8.

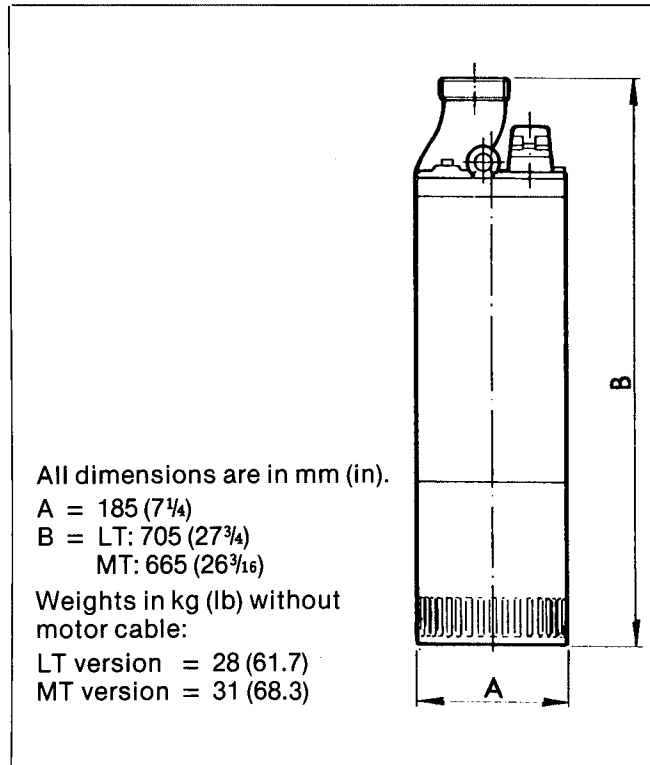
**Depth of immersion:** max. 20 m (66 ft).

For other applications, contact your nearest Flygt representative for information.

### WARNING!

The pump may not be used in an explosive or flammable environment or for pumping flammable liquids.

## Dimensions and weights



## Motor data

### 3-phase motor

Motor type: Squirrel-cage AC motor, insulation class F

**Rated output: 3.0 kW, 3 ~ 50 Hz**  
**2800 r/min**

Voltage V	Rated current A	Starting current A
220	11.0	60.1
380	6.6	34.6
400	6.3	30.0
415	6.0	31.0
440	5.7	32.9
500	5.0	24.7
550	4.6	27.1
660	3.8	20.0

**Rated output: 4.6 kW (6.0 hp), 3 ~ 60 Hz**  
**3335 r/min**

Voltage V	Rated current A	Starting current A
230	16.0	78.0
460	8.1	43.0
575	6.5	29.0
600	6.2	30.0

**Rated output: 3.1 kW (4.1 hp), 1~ 60 Hz**  
**3430 r/min**

Voltage V	Rated current A	Starting current A
230	17.0	46.0

## Materials

		DIN	BS	AISI
Cast parts:	Aluminium (Hydronalium)	G-Al Mg5 Si 1	1490 LM 5	~ SEA 320
	Shaft:	Stainless steel	1.4460	— 329
Impeller:	1) Forged and hardened spring steel	1.8159	735 A50	6150
	2) Forged stainless steel	1.4571	A 12 Ti	316 Ti
Hydraulic parts:		Nitrile-rubber-covered		
POLY-LIFE version:		Polyurethane-lined		
Seal surfaces, inner seal:		Tungsten carbide—Tungsten carbide		
Seal surfaces, outer seal:		Tungsten carbide—Tungsten carbide		

# Design

## Motor

Motor insulation to Class F means a maximum working temperature of 155°C (310°F) and permits a temperature rise of 100°C (210°F).

The temperature rise in Flygt motors does not normally exceed 80°C (175°F). The insulation material is chosen with the greatest care, and most materials are classified as Class H (180°C, 355°F) materials or very close to Class H. This means an expected service life far beyond what is required for Class F.

## Monitoring equipment

The stator incorporates two thermal switches connected in series. The thermal switches open at 125°C (260°F).

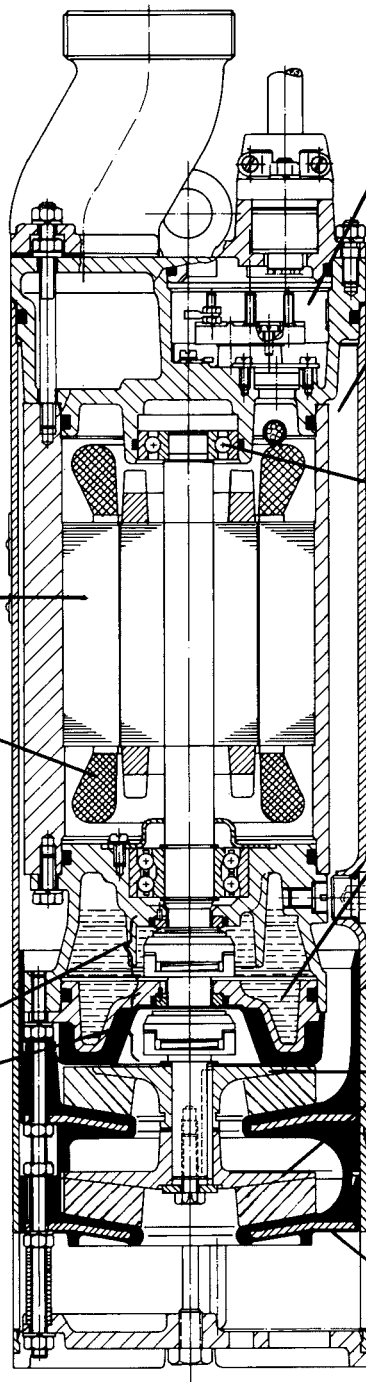
The monitoring equipment shall be of a design that makes automatic restart impossible.

See also "Electrical connections" and separate instructions for starter equipment.

## Shaft seals

The pump has two pairs of mechanical seals with extremely wear-resistant seal surfaces.

The seals work independently of each other and seal off the motor from the pump unit.



## Junction box

The junction box is completely sealed off against the surrounding liquid and against the motor unit.

## Cooling

The pumped liquid is circulated from the pump casing up between the cooling jacket and the stator casing and carries away the heat generated by the motor.

## Bearings

The upper bearing consists of a single row ball bearing.

The lower bearing consists of a double row angular contact ball bearing.

## Oil casing

The oil lubricates and cools the seals and acts as a buffer between the pump casing and the electric motor.

Pressure build-up within the oil casing is reduced by means of a built-in air volume.

## Impellers

The LT version is equipped with one impeller and the MT version has two impellers in series.

The impellers can be chosen in two different material variants.

## Wear parts

The pump's easily replaceable wear parts are rubbercovered.


By means of a simple fine adjustment, the pump's capacity can be maintained despite heavy wear.

When the parts are finally worn out, replacement is an easy matter.

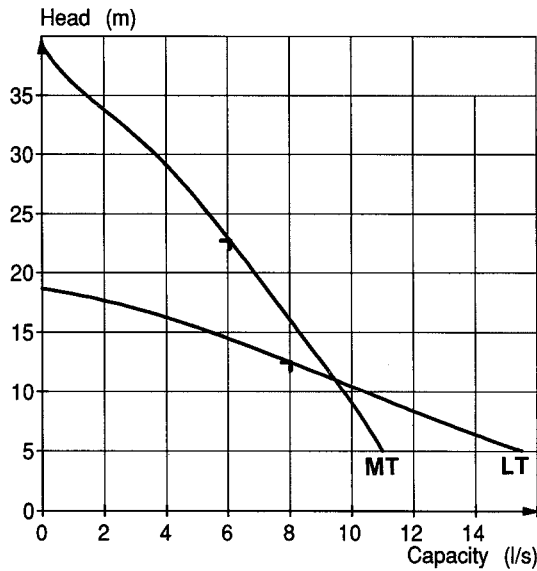
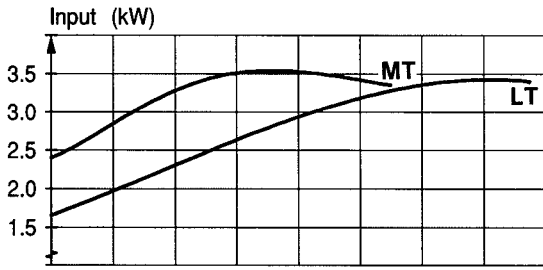
# Performance curves

LT = Low-head version

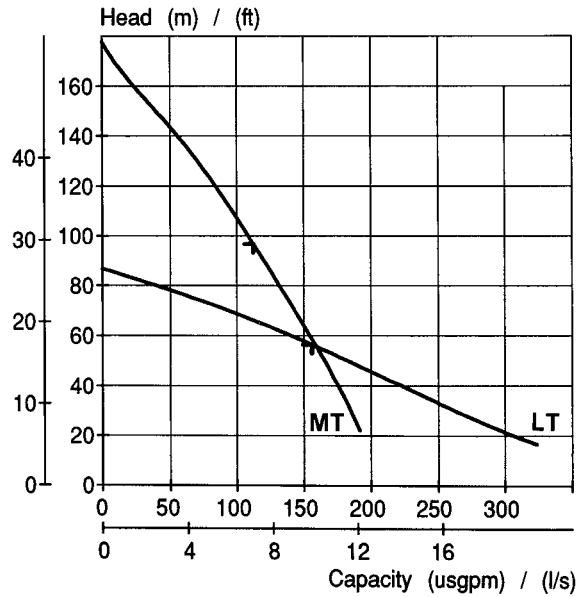
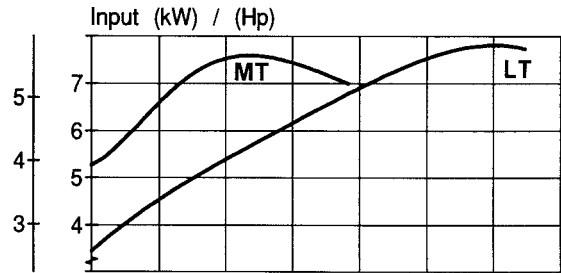
MT = medium-head version

 = Best operating point

## 50 Hz, 3-phase



## 60 Hz, 3-phase



## 60 Hz, 1-phase

