



# ITT

## ROBOT PUMPS

### Slurry Pump

### RD4021BZ

### 60 c/s

Vortex impeller pump in wear resistant Nihard 4 for reliable transport of highly abrasive solids in high concentrations.

#### Pump

solids passage : 2 1/2"

suction diameter : 2 7/8"

discharge diameter : 2 1/2"

impeller diameter : 170

recommended minimum flow : 32 USGPM

#### Motor

rated horse power : 19.7 hp

rated electrical power : 16.7 kW

rated kVA : 19.2 kVA

mains : 60 c/s - 3 phase

speed : 3500 rpm

rated efficiency : 88 %

rated power factor (cos phi) : 0.87

degree of protection : IP 68

isolation class : F (311 °F)

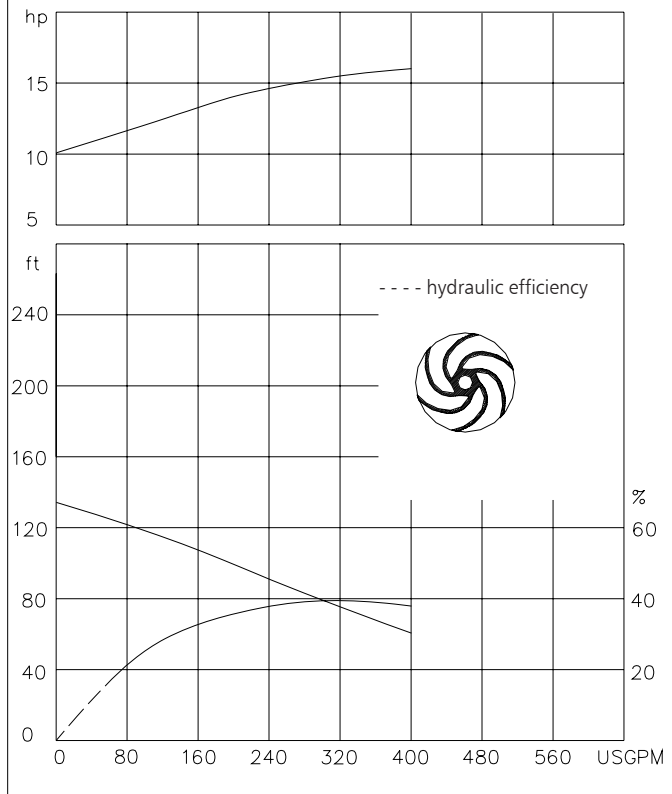
max. water temperature : 104 °F  
(higher temperatures on request)

standard cable length : 33 ft

max. submersion depth : 66 ft

shaft power

hydraulic characteristics in water at 68°F



15.9 USGPM = 1 l/s    1 hp = 0.736 kW    1 ft = 0.3 m    1 lb = 0.45 kg

#### Materials

motor housing : 1

seal housing : 7

volute : 7

hose adapter : 7

impeller : 7

shaft : 3 5

bolts : 4 5

elastomers : 7+8 10

electrical cable : 8

seal lubrication : oil

pump seal : silicon carbide-silicon carbide

motor seal : carbon-ceramic

primer : Alkyd primer

top coating : Two component high-build polyurethane coating

1	cast iron	ASTM A-48 Class 35
2	sg cast iron	ASTM A445 Gr.60-46-18
3	stainless steel	AISI 431
4	stainless steel	AISI 304
5	stainless steel	AISI 316
6	bronze	ASTM B145 Gr. 4a
7	Nihard 4	ASTM A532, class I, type D
8	nitrile	(NBR)
9	neoprene	(CR)
10	viton	(FPM)

[www.ittwwwalphen.com](http://www.ittwwwalphen.com)

*Engineered for life*

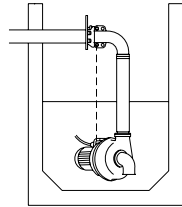


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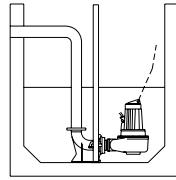
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### Installation options

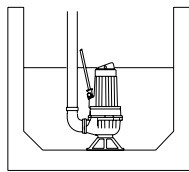
### RD4021BZ



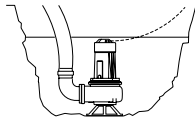
**H**  
Header coupling:  
Type HK80



**V**  
Guide bar coupling:  
Type V80

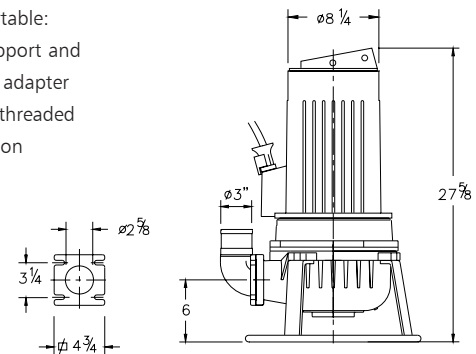
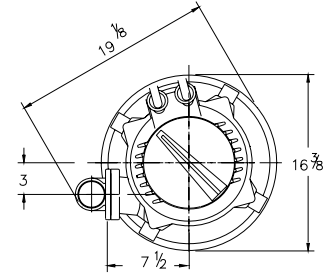


**F**  
Freestanding:  
With support and  
3" hose adapter  
or NPT threaded  
connection



**T**  
Transportable:  
With support and  
3" hose adapter  
or NPT threaded  
connection

Without cooling system the motor is cooled by the surrounding water.



### Versions

**B Basic version**

**Weight**

288 lbs

**P FM approved version**

Certified according to:  
Class I, Division I, Groups C&D T4  
Standard with thermostats and  
waterdetector in motorhousing.

330 lbs

### Optional:

**Thermostatches** in motorwindings  
Standard for FM approved version

**Flexible protective sheathing for cable**  
(AISI 316)

**Water detector in motor and oil housing** (for explosion proof version only in oil housing with external cable)

### Motor connection details

voltage [V]*	rated current[A]	electrical cable size					
				with waterdetector and/or thermostatches		FM approved version	
		DOL-start	YD-start	DOL-start	YD-start	DOL-start	YD-start
220	50.4	2xAWG8/4	2xAWG8/4	-	-	-	-
380	29.2	1xAWG8/4	2xAWG12/4	1xAWG8/4+1xAWG14/4	-	1xAWG8/4+1xAWG14/7	-
440	25.2	1xAWG8/4	1xAWG14/7	1xAWG8/4+1xAWG14/4	1xAWG14/7+1xAWG14/4	1xAWG8/4+1xAWG14/7	2xAWG14/7
460	24.1	1xAWG10/4	1xAWG14/7	1xAWG10/4+1xAWG14/4	1xAWG14/7+1xAWG14/4	1xAWG10/4+1xAWG14/7	2xAWG14/7
575	19.3	1xAWG12/4	1xAWG14/7	1xAWG12/4+1xAWG14/4	1xAWG14/7+1xAWG14/4	1xAWG12/4+1xAWG14/7	2xAWG14/7

starting current DOL-start : 7.8 x rated current

starting current YD-start : 2.6 x rated current

\* other voltages on request

We reserve the right to alter specifications without prior notice.