

PLEUGER

PN81-2 + M 6- 29

UB4-94-5964

A.-Nr./Order  
Ordre N°/Pedido No.

40 340

Ma.-Nr./Ma. No.  
Mol. N°/Ma. No.

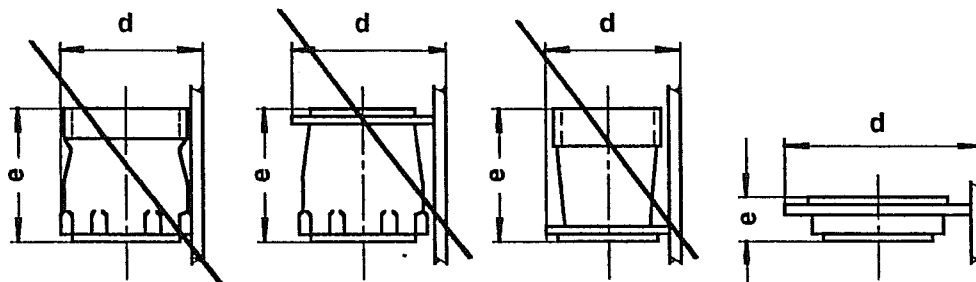
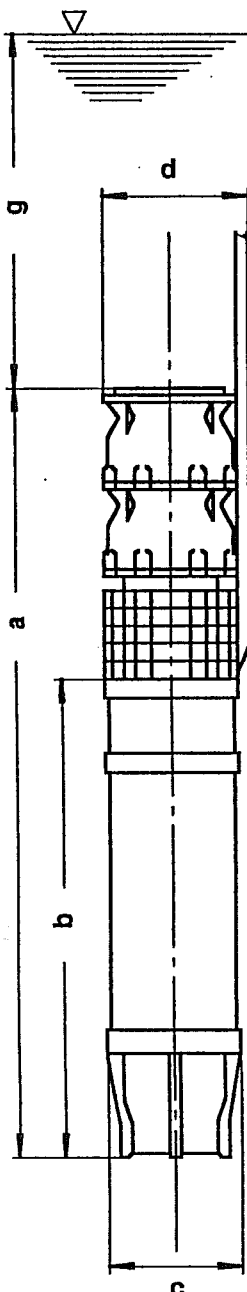
gez./drawn  
dess./firmado  
gepr./checked  
verif./control.

VP

Dat.  
Date  
Date  
Fecha

07.10.94

Pos. 19



Data of installation :

Length of motor b mm : 690  
Length of pump unit a mm : 1115  
Length of non-return valve  
and/or length of adapter e mm : 70  
Overall length a + e mm : 1185

Diameter of motor c mm : 142  
Largest diameter of pump unit  
including motor leads d mm : 245

Motor leads : 30m 1 Fl 4x4  
Power supply cable : refer motor leads  
Non-return valve / Adapter : DN100, PN16  
Size / connection of discharge piping : DN100, PN10

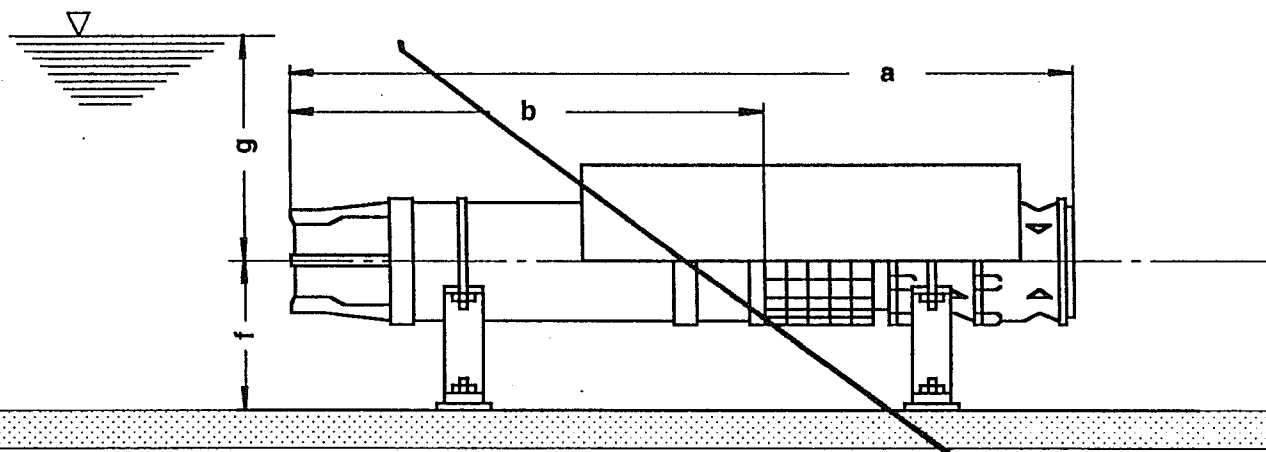
Horizontal installation :

Height of centre line f mm : ---

Submergence at duty point :

Vertical installation g mm : 0  
Horizontal installation g mm : ---

Attention is to be paid to the NPSH !



# PLEUGER WORTHINGTON GmbH

Customer : SCHLIE  
Salesman : V P

Date : 07.10.94  
Project : 40 340

Capacity [m<sup>3</sup>/h] = 50.0  
Delivery head [Meter] = 53.0  
Well diameter = not specified  
Rising main connect. = DN100  
Non-return valve = no  
Density [kg/m<sup>3</sup>] = 1000.0  
Water temp. [°C] = 20.0

Voltage [Volt] = 440  
Frequency [Hz] = 60  
Starting mode = DOL  
Cable length [m] = 30  
Material of constr. = 3/3  
Installation mode = vertical

## Technical Evaluation :

Pump and Motor : PN81-2 + M 6- 29  
Impellers are of Noryl

Capacity in duty point [m<sup>3</sup>/h] : 50.2  
Max. power cons. pump [kW]/[HP] : 12.1 / 16.3  
NPSH in duty point [m]/[ft] : 4.54 / 14.89  
Pump efficiency in optimum : 0.7360  
Pump efficiency in duty point : 0.6978  
Total efficiency in duty point : 0.5653

Rated speed of motor [rpm] : 3440  
Rated output of motor [kW]/[HP] : 13.0 / 17.5  
Rated current [A] : 25.5

Motor efficiency in duty point : 0.8102  
Motor leads : 30m 1 Fl 4x 4  
Power supply cable : refer motor leads

Adapter / discharge outlet : DN100, PN16  
Weight of pump [kg] : 36.0  
Weight of motor [kg] : 57.0  
Weight of adapter [kg] : 7.8  
Moment of inertia pump J [kgm<sup>2</sup>] : 0.0082  
Moment of inertia motor J [kgm<sup>2</sup>] : 0.0078  
Max. diameter of unit [mm] : 228 / 9 inch  
Length of unit incl. adapt. [mm] : 1185 / 46 3/4 inch

Load	eff.mot.	p.f.
1/2	0.7934	0.7153
3/4	0.8099	0.7963
1/1	0.8015	0.8299

Motor curve : MK- 62233/60  
Torque-speed curve : MM- 622344

The max. diameter of unit must be cross checked by all means for narrow wells !

Förderhöhe / TOTAL HEAD / Hauteur man. / Altura man.

H  
[m]

120

100

80

60

40

20

0

0

20

40

60

80

100

120

Q [m<sup>3</sup>/h]

TOTAL HEAD

P<sub>p</sub>

f = 60 cycles

n = 3440 rpm

U = 440 volts

DN100,PN10

Density = 1000 kg/n

P  
[kW]

25

20

15

10

5

0

Wirkungsgrad / EFFICIENCY / Rendimiento

0.9

0.8

0.7

0.6

0.5

0.4

0.3

0.2

0.1

0

0

NPSH

PUMP-EFF.

NPSH  
[m]

18

16

14

12

10

8

6

4

2

0

The guarantee points are marked and subject to tolerances according to VDE 0530 (1984) w/o cable, resp. DIN 1944 Cl. II (1968).