TYLEHURST

INSTALLED MAY 1998

TYLEHURST

Ingersoll-Dresser Pumps

PUMP DATASHEET

Tag No. :	Pump type: 8MF14A
Customer ref :	Curve : ER5311
IDP ref : 0754-W0000	Stages : 1
Service :	

OPERATING CONDITIONS

Flow :	1585. US gpm
Flow/CQ(1.00 :	-
Normal Flow :	-
Head :	44.4 ft
Head/CH(1.00 :	-
NPSH Available :	Ample
Adjusted NPSH :	
Suct Press Max :	0. psig

LIQUID

Liquid :	Other
Pumping Temp :	25. °F
Specific Grav :	1.000
Viscosity :	-

MATERIALS

Mat'l Column : IDP- CI, API- I1

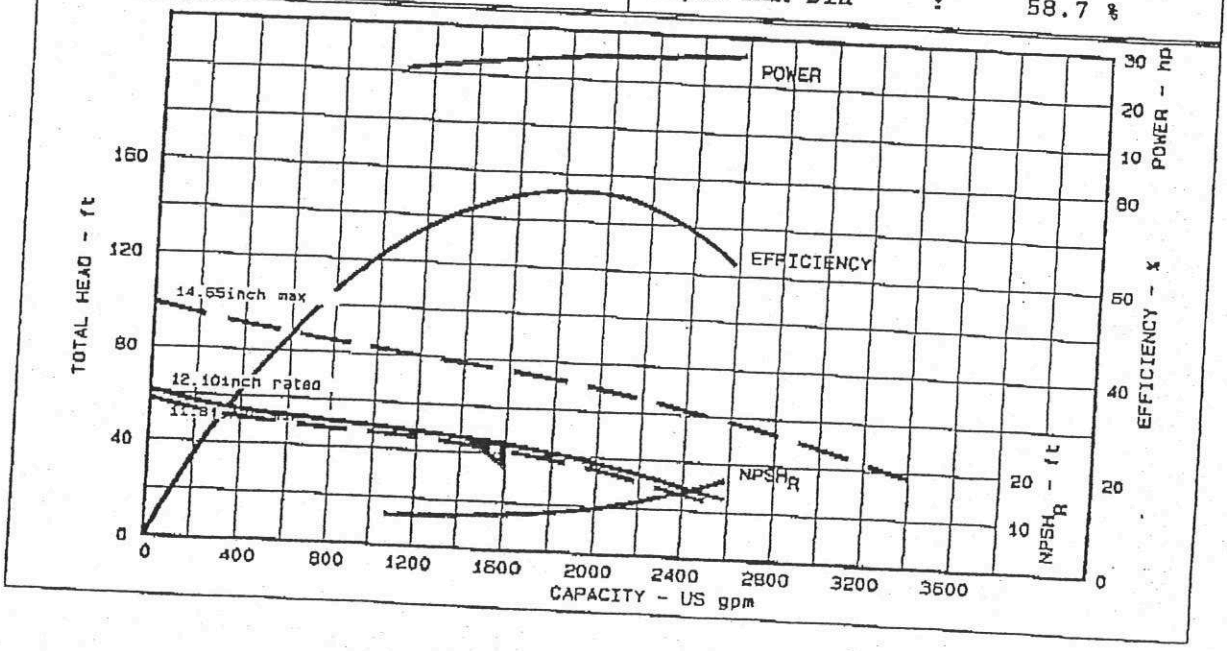
OTHER REQUIREMENTS

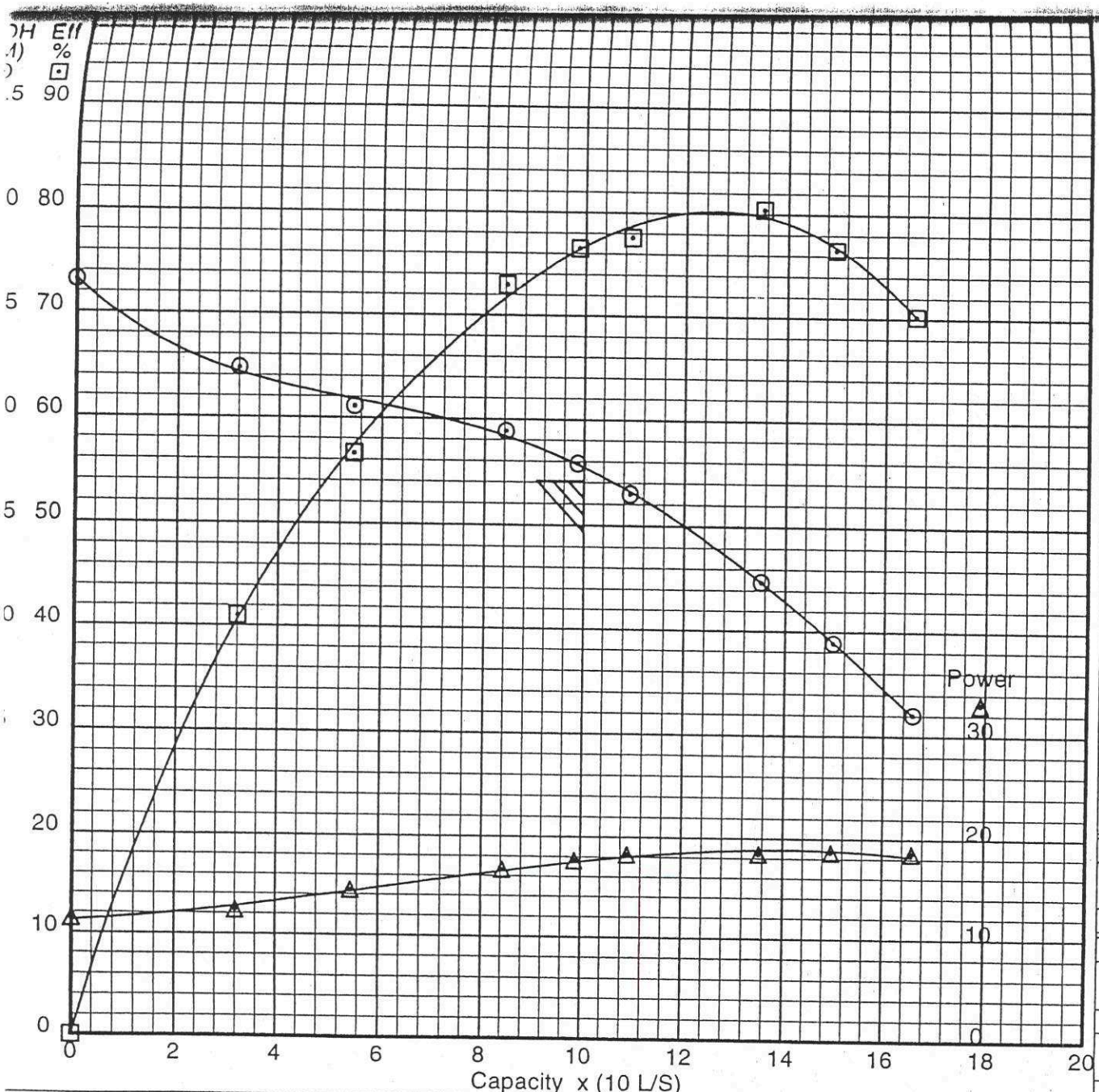
Driver sizing : Max Power

PERFORMANCE

Hydraulic Power:	17.8 hp
Speed :	1170 rpm
Efficiency :	74.8 %
Includ. factor:	1.00
NPSH Required :	7.4 ft
Rated Power :	23.7 hp
Maximum Power :	26.4 hp
Driver Power :	30.0 hp
Casing Pressure:	27. psig
(based on shut off, cut dia.)	
Allowable :	60. psig
Hydro Pressure :	75. psig

Impeller diameter	
- Rated :	12.10 inch
- Maximum :	14.65 inch
- Minimum :	11.81 inch
Suct. Spec Spd :	9640.
Min. Contin. Flow :	1074. US gpm
Head Max (cut dia):	61.8 ft
Flow at BEP :	1862. US gpm
Flow as % of BEP :	85. %
Eff at Normal Flow:	-
CutDia/DiaMax :	82.6 %
Rise to Shutoff :	39.1 %
HD/HD Max Dia :	58.7 %





INGERSOLL-DRESSER PUMP COMPANY

PUMP TEST DATA

RPM	L/S	TDH	kW	Eff
1187	0.0	18.7	11.8	0.0
1186	32.3	16.5	12.7	41.0
1185	55.2	15.5	14.8	56.6
1181	84.7	14.9	16.9	73.0
1180	99.2	14.1	17.9	76.5
1179	109.7	13.3	18.5	77.6
1178	135.7	11.3	18.6	80.4
1179	166.5	8.1	18.7	70.2
1179	150.3	9.8	18.8	76.5

I CERTIFY THAT WITHIN THE ACCURACY OF THE TEST INSTRUMENTATION, THIS TEST REPRESENTS THE PERFORMANCE OF 8MFV14 PUMP 9705MS000224-1

David G. Hauke

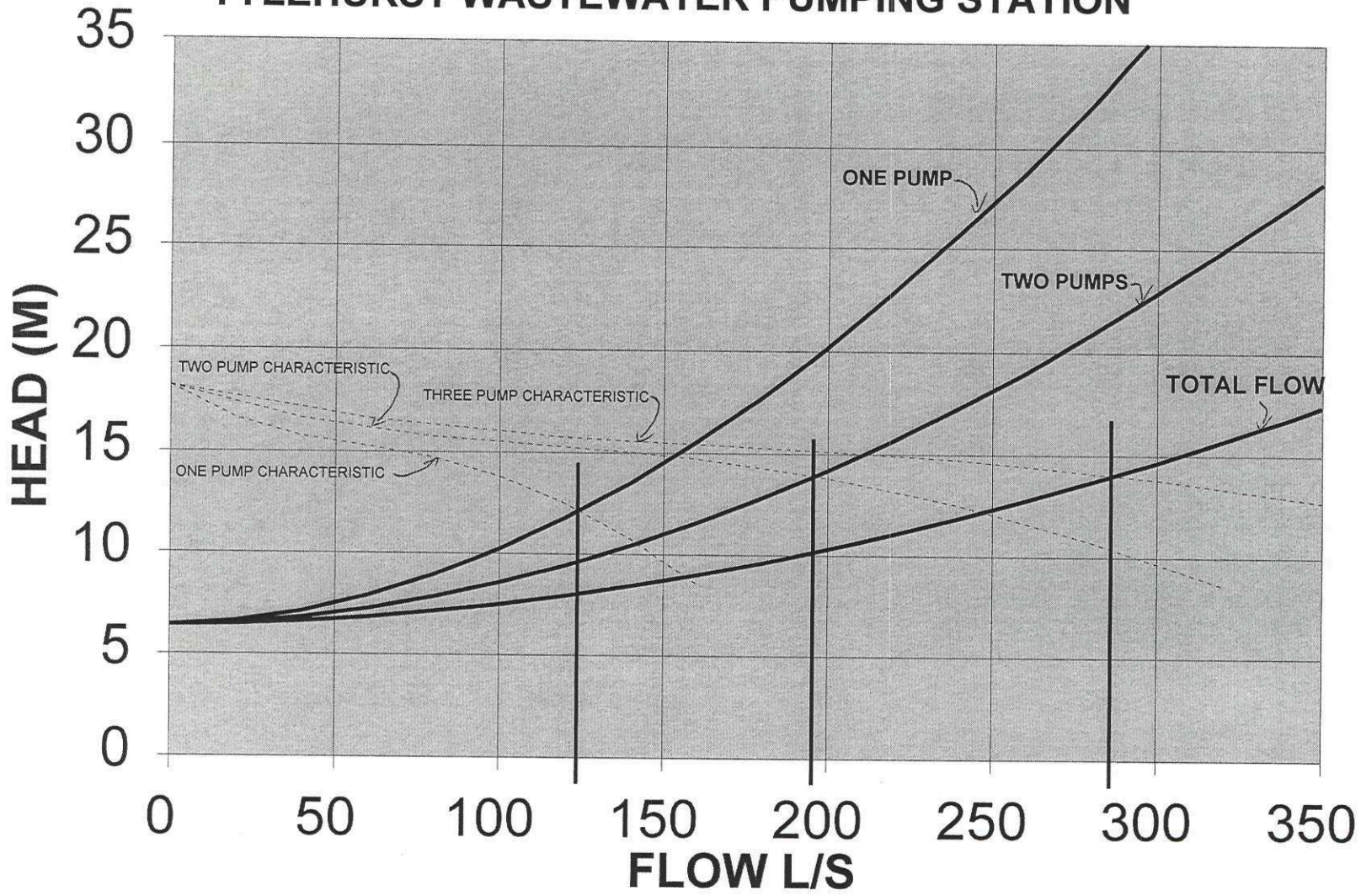
SP.GR.: 1.000

CASING DATA		
A278 CL30	SIS-3	-
MATERIAL	FINISH	TONGUE

IMPELLER DATA		
MIN 3% Ni A48 CL35	1A	-
MATERIAL	FINISH	DISC. TIPS
UB5659B	A-32	12.20"
PATT. NO.	COMB. NO.	DIA

8MFV14 PUMP	ES	S000224 ORDER NO.	9705MS000224-1 SERIAL NO.	14JUN97 DATE TESTED	SDA TEST	DA ROVED	30H/1200R,#62 TEST DRIVER	8x4.8,#84 VENTURI	1175 PLOTTED RPM	T-S0002 1A CURVE O

TYLEHURST WASTEWATER PUMPING STATION



ADWF = 105 L/S
PDWF = 180 L/S
TOTAL STATION CAPACITY = 289 L/S

SWEDEN

SEWAGE PUMP

Technical Data

2- KP 203
KE 203
TYLEHURST

8-E 143
60 HZ
84 10 01

CLASSIFICATION: Submersible and unchoke-able sewage pump for wet sump or dry chamber installation. Suitable for intermittent and continuous operation. Maximum depth of submersion: 20 m. (66 ft.).

DESIGN: Channel-impeller type centrifugal pump incorporating the principle of continuous delivery. Nominal pressure for the whole pump: 6 kp/sq.cm (85 psig) at discharge branch.

IMPELLER: Two-channel impeller. Minimum free passage 75 x 100 mm, corresponding to circular area dia. 98 mm.

CONNECTION KE 203: Discharge spigot directed vertically upward, with 8" (200 mm) hose connection.

CONNECTION KP 203: Pressure side: slotted flange dia. 200 (8"), suitable for (e.g.):

Fixed grey iron flanges	NT 10 SMS 342	DIN 2532 (ND 10)
Fixed casting steel flanges	NT 16 SMS 343	DIN 2543 (ND 16 Gusseisen)
Plain pipe flange for electr. welding	NT 16 SMS 2025, SMS 2033	DIN 2643 resp. DIN 2633 (ND 16)
Plain pipe flange for electr. welding	NT 10 SMS 2024, SMS 2032	DIN 2642 resp. DIN 2632 (ND 10)

ASA 125 (grey iron) and ASA 150 (steel). BS 4504 for steel, cast iron and grey iron. ISO R13, table 34.

Suction side: dia 200 (8"). In case of dry chamber installation: suction side with 8 threaded holes providing same variation of connections as for pressure side. If no other requests are made, holes located according to metric flange standard

WATERWORKS & WASTE DISPOSAL DEPARTMENT
APPROVED AS TO ENGINEERING DETAILS
DIRECTOR

MOTOR:

Pump Type	Power rating kW	Power rating hp	Power input max. kW	Motor efficiency	Poles	Cycles Hz	R.p.m.	Voltage V	Max. current nom. A	Max. current Operating A
KP/KE 203-3230	18	24	20,5	0,89	4	60	1735	230	60	59
-3240	27	36	25,0	0.90	4	60	1740	230	88	75
-3250			28,7							84
-3260	36	48	34,0	0,90	4	60	1760	230	120	104
-3270			39,5							120
-5330	31	42	29,5	0,89	6	60	1150	230	110	97
-5345			34,0							110
-7340	18	24	14,0	0,88	8	60	860	230	68	50
-7370			19,8							66

575 D VOLT

The table shows values at 230 V. Amperage-values at 460 V = 0.5 x table-value, at 500 V = 0.42 x table-value. The motor is equipped for connection to automatic motor protector. Overload and temperature protection provided by 3 thermocouples placed in the stator winding. Start: direct-on-line; on request: star-delta.

EXPLOSION PROTECTION: On special request: explosion-proof design with pressure-proof encapsulation comparable with VDE 0171 Exd2G3, explosion class d2, ignition group G3 (max. surface temperature 160°C).

SHAFT: Shaft with bearings designed in accordance with Pumpex bearing system 50. Radial deflection (at shaft sealing) and distortion of shaft: max. 0.05 mm (.002") - corresponding to American standards (ASA 1962).

SHAFT SEAL: Double mechanical seal in oil-bath. Primary seal: tungsten carbide steel against ceramics. Secondary seal: carbon against stainless steel. Oil: SAE 10-20, viscosity 25-30 Cst at 50°C. Oil quantity: 13.5 l for motor unit 18 kW ; 16.5 l for motor unit 27-36 kW.

BEARINGS: Bearing system 50. Axial and radial bearing: two angular contact ball bearings 7312 B. Radial bearing: single-row deep groove ball bearing 6309-2Z. Bearing arrangement with special grease, no need of subsequent greasing.

MATERIALS: Pump casing with feet, impeller: grey cast iron SIS 0120 (ASTM A48 Class 30). Motor casing: grey cast iron SIS 0120 (ASTM A48 Class 30).

CABLES: Heavy-duty, outdoor cord in wet or dry locations.

		Mains voltage 230 V	Mains voltage 380-600 V
Motor cable-direct start	18 kW	8 m 4x10 mm²	8 m 4x6 mm²
Motor cable-direct start	24 kW	8 m 4x16 mm²	8 m 4x10 mm²
Motor cable-direct start	31 kW	8 m 4x25 mm²	8 m 4x16 mm²
Motor cable-direct start	36 kW	2x8 m 4x16 mm²	8 m 4x16 mm²
Motor cable-star-delta	18 kW	2x8 m 4x6 mm²	2x8 m 4x4 mm²
Motor cable-star-delta	27 kW	2x8 m 4x10 mm²	2x8 m 4x6 mm²
Motor cable-star-delta	31 kW	2x8 m 4x16 mm²	2x8 m 4x10 mm²
Motor cable-star-delta	36 kW	2x8 m 4x16 mm²	2x8 m 4x10 mm²
Manoevre cable		8 m 2x1,5 mm²	8 m 2x1,5 mm²

MAINTENANCE: Once a year.

ACCESSORIES AND WEIGHT:

Pump casing with foot KE 202		130 kgs (285 lbs)
Pump casing with feet KP 202		110 kgs (240 lbs)
Motor assembly	18 kW	255 kgs (560 lbs)
	27 kW	350 kgs (765 lbs)
	31-36 kW	380 kgs (835 lbs)

Delivery includes:
1 set of expansion-shell bolts
1 Key for locking device

SWEDEN

CAPACITY GRAPH
LEISTUNGSDIAGRAMM
CARACTERISTIQUES

KP 203-3

60 HZ

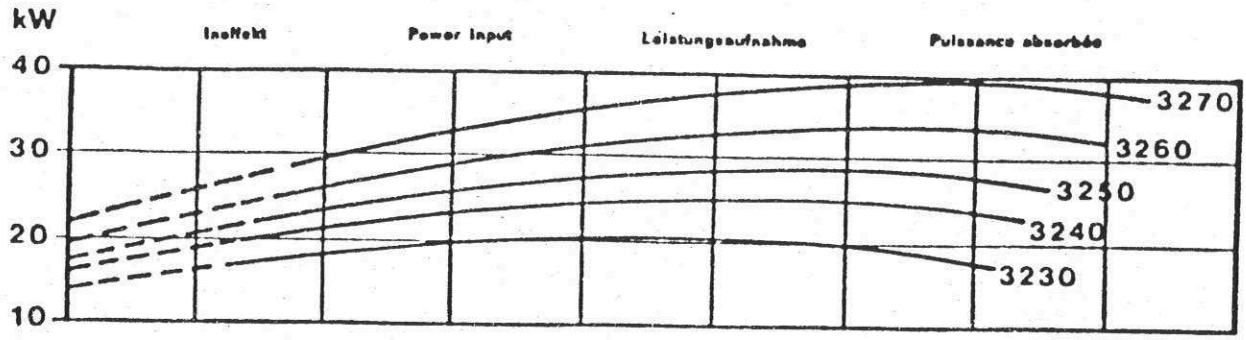
84 10 01

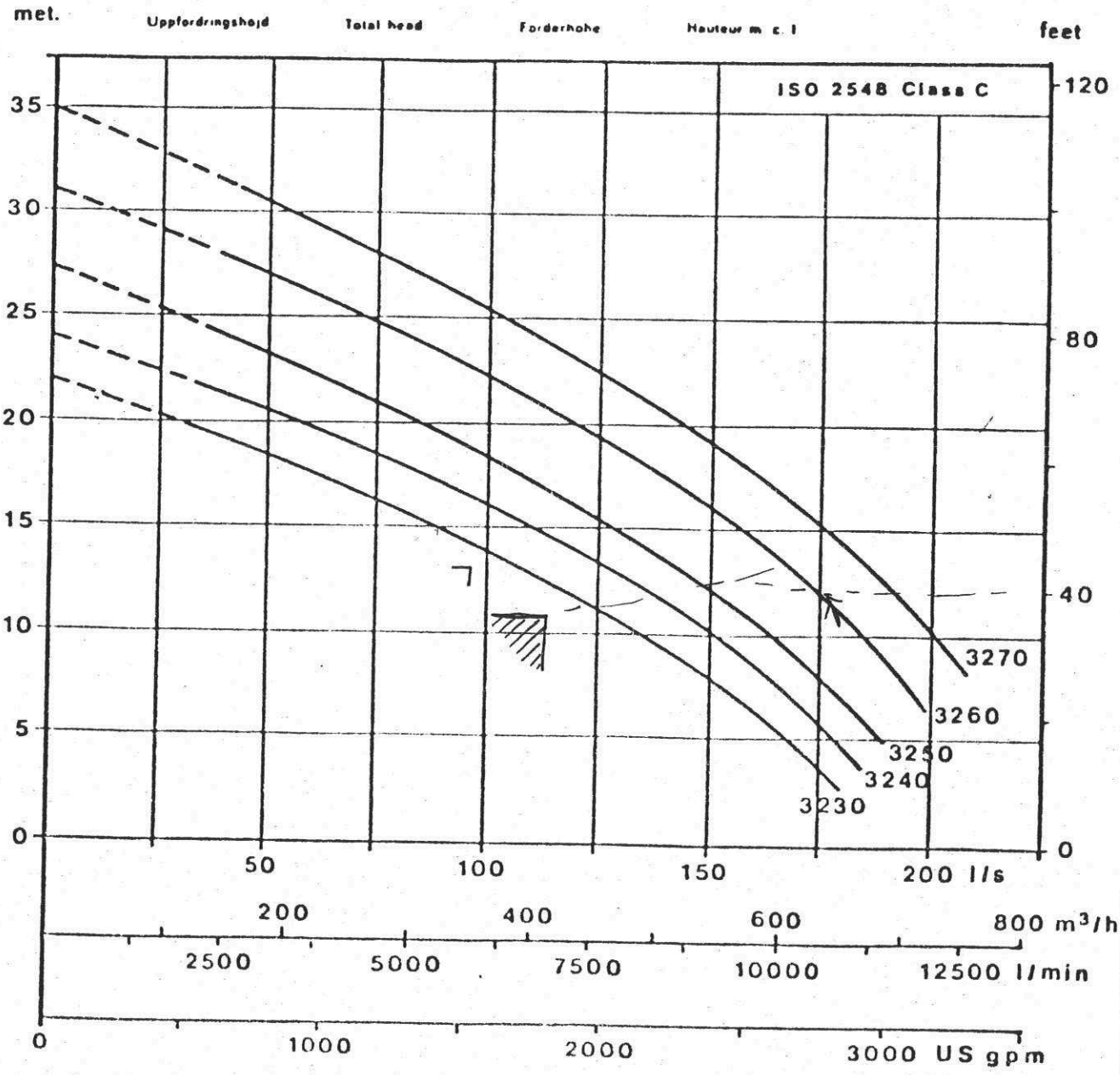
Kurvorna gäller för avloppsvatten och avloppsslam. För mera trögflytande vätskor måste dock prestandakurvorna ges erfarenhetsmässiga korrektioner.

Curves valid for sewage or sludge. For more viscous liquids, adjust curves empirically from case to case.

Die Kurven gelten bei Förderung von Abwasser oder Abwasserschlamm. Bei Förderung zähflüssigerer Medien sind die Kurven erfahrungsgemäß zu ändern.

Les courbes sont valables pour les eaux d'égouts ou de la boue. Pour les liquides plus visqueux ajuster les courbes empiriquement suivant le cas considéré.



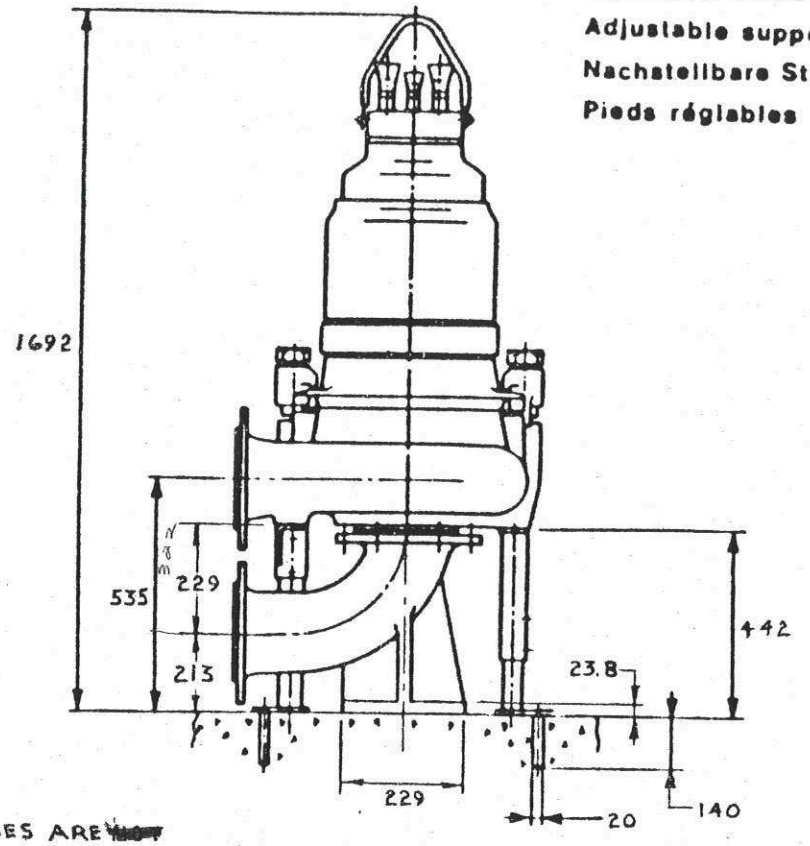


PUMPEX

MÅTTSKISS i mm
MASSBILD in mm
DIMENSION PRINT in mm
TABLEAU DES DIMENSIONS en mm

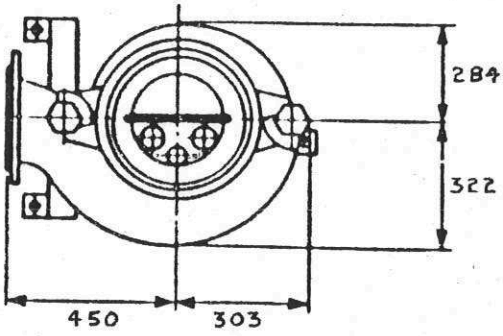
MODEL KP203-3230

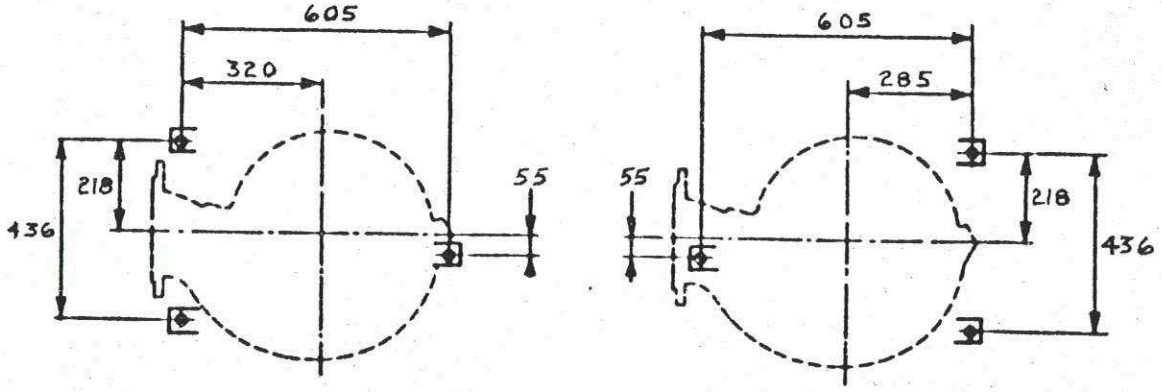
Ställbara stödben
Adjustable support legs
Nachstellbare Stützbeine
Pieds réglables



NOTE:
ELBOW BASES ARE [redacted] DRILLED.

PUMP SUPPLIED WITH
☐ ADJUSTABLE SUPPORT LEGS
☑ ELBOW BASE





PROJECT: TYLEHURST PUMPING UNIT PD86-139