ITT

GOULDS PUMPS

Centrifugal electric pumps made of AISI 316 stainless steel in compliance with EN 733

GSH Series

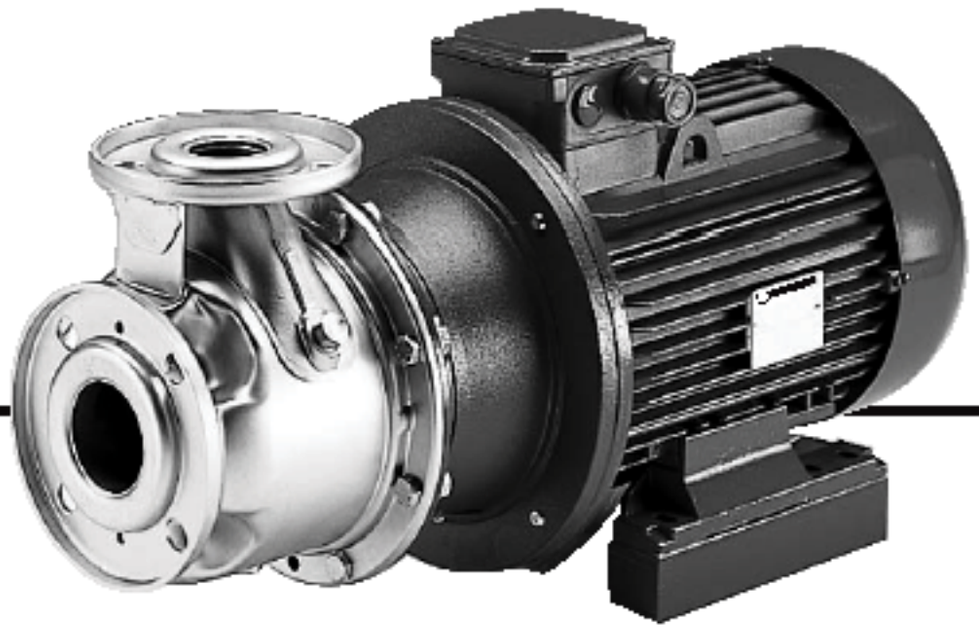
50 Hz

Engineered for life

GOULDS PUMPS

GSH SERIES
MODEL

CENTRIFUGAL ELECTRIC PUMPS MADE OF AISI 316 STAINLESS STEEL IN COMPLIANCE WITH EN 733



MARKET SECTORS

The GOULDS PUMPS GSH series pumps are used for water and clean liquid circulation in heating, ventilating and airconditioning systems, and for pressure boosting in industrial applications.

APPLICATION RANGE

- **Delivery** up to 240 m³/h, 2 poles up to 130 m³/h, 4 poles
- **Head** up to 110 m, 2 poles up to 23 m, 4 poles
- **Temperature of pumped liquid**
  Standard -20 +110°C Special versions available on request.
- **Maximum working pressure** 12 bar (PN 12).

SPECIFICATIONS

PUMP

- The GSH series consists of single-stage centrifugal pumps made of pressed AISI 316 stainless steel.
- The liquid sizes and diameters of the suction and delivery ports are incompliance with EN 733 standards (ex DIN 24255).
- Flange dimensions in compliance with UNI-EN 1092-2 (ex UNI 2236).
- Available sizes: DN 25 to DN 80.
- DN 25 version available on request.
- Anti-clockwise rotation when facing pump's suction port. Back pull-out design.

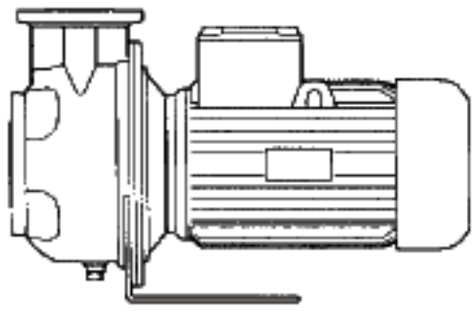
MOTOR

- Three-phase asynchronous, squirrel cage rotor, enclosed construction, external ventilation.
- Performances according to EN60034-1.
- **Standard voltages**
  Three-phase version
  220-240/380-415V 50 Hz for powers up to 3 kW; 380-415/660V 50 Hz for powers above 3 kW. Overload protection to be provided by user.
- **IP 55 protection.**
- Insulation class **F.**
- Max. ambient temperature: 40°C. For different environmental conditions, check the power.
- Overload protection to be provided by user.
- Condensation drain plugs on all motors.
- **Type of motor used:**
  2-pole
  Single-stage: SM (up to 1.5 kW)LM (above 1.5 kW)
  Three-stage: SM (up to 2.2 kW) LM (above 2.2 kW)
  4-pole
  Three-stage: LM

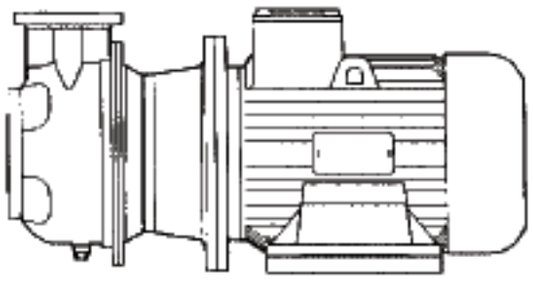
PUMP COUPLING

MOTOR

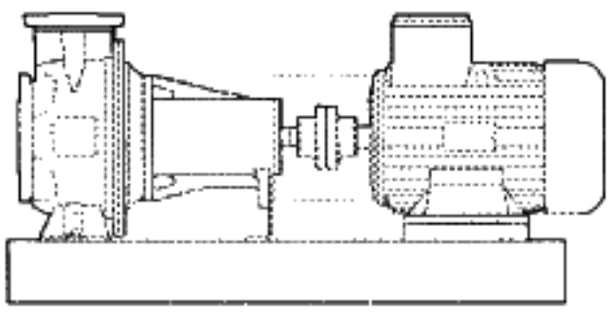
Three different types of motor-pump couplings are available:
GSHE close-coupled by means of an adaptor bracket with an impeller keyed directly to the motor shaft extension. Special B14-B34 design motor.
GSHS with a bracket, adaptor and rigid coupling keyed to the shaft extension.
Standard B5-B35 design motor.
GSHF with bracket, support, flexible coupling, supporting base.
Also available: bare shaft pump only and version with spacer coupling.



GSHE



GSHS



GSHF

CONSTRUCTION CHARACTERISTICS

Pump body made of AISI 316L stainless steel, PN 16 flanges in compliance with UNI-EN 1092-2 (ex UNI2236) and DIN 2533.
Closed impeller made of AISI 316L stainless steel, laser-technology welded for sizes 32, 40, 50, 65-160/75, 65-160/110A.
Cast stainless steel for sizes 65-200, 65-250 and 80.
Mechanical seal according to EN 12756 (ex DIN 24960). 316L stainless steel fill & drain plug.

ACCESSORIES ON REQUEST

AISI 316 stainless steel or galvanized iron threaded counter-flanges.
Intermediate flange with pressure gauge connection.
Pump and motor shims. Bolts and nuts in AISI 316.

OPTIONAL FEATURES

Different voltages and frequencies.
Different materials for the mechanical seal and pump body gasket.
Version with seal with anti-rotation locking system.
Version with internal recirculation of pumped liquid to mechanical seal.
Flameproof motors for GSHS and GSHF versions (dependant upon geography).
Tropicalized motors.
Version with frequency converter (variable speed).
GSHF with flexible coupling with spacer.
Version with diesel motor. DN 25 version with same performances as the DN 32version.
AISI 316 stainless steel bolts and screws.

MATERIALS

Stainless steel's resistance to corrosion is due to a thin protective coat that develops during the reaction between the metal and the oxygen in the environment. This passivated surface consists of a chromium oxide film which provides greater protection when the percentage of chromium in the material increases.
The range of austenic stainless steels, which according to the AISI classification is designated by a three-digit number starting with 3, is divided into two families:
- CHROMIUM-NICKEL AUSTENIC STEELS (AISI 304, for example).
- CHROMIUM-MANGANESE-NICKEL AUSTENIC STEELS (AISI 316) - These contain molybdenum, which guarantees greater resistance to pitting corrosion. They are also more resistant to stress corrosion.

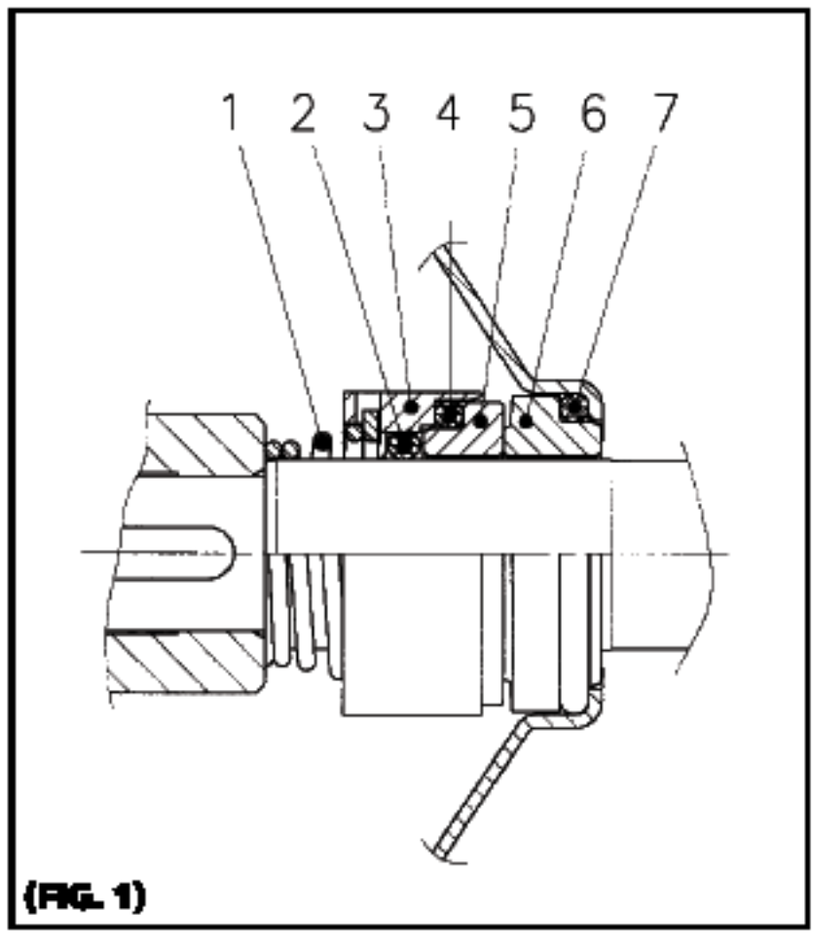
In the welding phase, the basic material is subjected insome areas to thermal cycles which may cause the precipitation of chromium carbides (approximately in the 550-850°C interval).
This may cause intergranular corrosion phenomena which may be prevented by using low-carbon stainless steel.
For stressful working conditions, the use of low-carbon stainless steel (0.03% max.) is recommended. This isindicated by the letter L (which stands for Low-carbon)in the material classification code.
The standard material used in the manufacture of the GSH pumps is AISI 316L low-carbon stainless steel.

NAME	MATERIAL			
		UNI	ASTM - AISI	EN - DIN
Pump body	Stainless steel	X2 CrNiMo 17-12-2	316L	1.4404
Seal housingdisk	Stainless steel	X2 CrNiMo 17-12-2	316L	1.4404
Impeller 32, 40, 50, 65(160)	Stainless steel	X2 CrNiMo 17-12-2	316L	1.4404
Impeller 65 (200-250),80	Stainless steel	GX5 CrNiMo 19-11-2	CF - 8M (cast 316)	1.4408
Wear ring	Stainless steel	X2 CrNiMo 17-12-2	316L	1.4404
Counterwearring	Stainless steel	X2 CrNiMo 17-12-2	316L	1.4404
Shaft extension (SHE)	Stainless steel	X5 CrNiMo 17-12-2	316	1.4401
Rigid shaft coupling (SHS)	Stainless steel	X5 CrNiMo 17-12-2	316	1.4401
Shaft (SHF)	Stainless steel	X5 CrNiMo 17-12-2	316	1.4401
Impeller locknut and washer	Stainless steel	X5 CrNiMo 17-12-2	316	1.4401
Tab	Stainless steel	X5 CrNiMo 17-12-2	316	1.4401
Fill/drain plugs	Stainless steel	X2 CrNiMo 17-12-2	316L	1.4404
Gaskets for fill/drain plugs	FPM			
Mechanical seal	Ceramic / Carbon/ FPM (standardversion)			
O-Rings	FPM (standardversion)			
Adapter*	Aluminium			
Adapter	Cast iron	EN-GJL-200	Class 25 B	EN-GJL-200
Adapter-motorcoupling (SHS)	Cast iron	EN-GJL-200	Class 25 B	EN-GJL-200
Supportbody (SHF)	Cast iron	EN-GJL-200	Class 25 B	EN-GJL-200
Cover for front bearing (SHF)	Stainless steel	X5 CrNi 18-10	304	1.4301
Cover for rear bearing (SHF)	Stainless steel	X5 CrNi 18-10	304	1.4301
Pump body fastening bolts & screws	Zinc platedsteel			

* For the 32/40/50- 125 2/4-pole,32/40- 160 2/4-pole,32/40- 200 4-poleversions

MECHANICAL SEAL

The assembly dimensions of the mechanical seal are in compliance with EN 12756 (ex DIN 24960) and ISO3069.
The characteristics of the standard configuration are shown in fig. 1 and table 1.

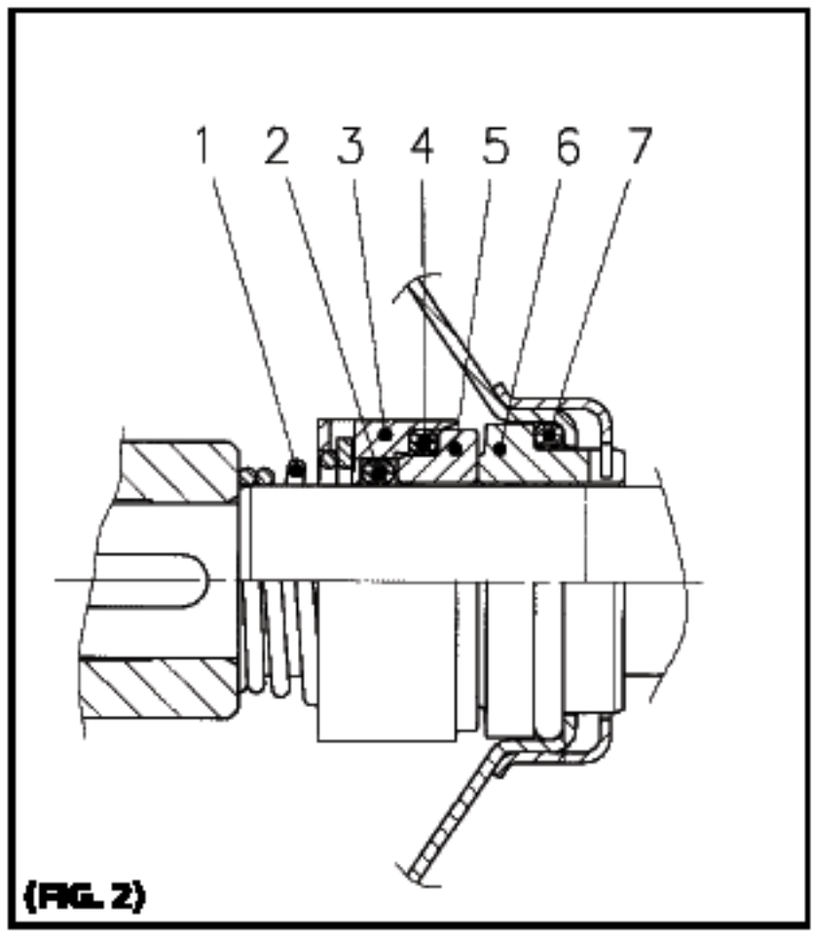


(FIG. 1)

STANDARD MATERIALS (TABLE 1)

POS.	COMPONENT	MATERIAL
1	Spring	AISI 316 stainless steel
2	Shaft gasket	FPM
3	Armature	AISI 316 stainless steel
4	Rotating assembly gasket	FPM
5	Rotating assembly seal ring	Ceramic
6	Fixed assembly ring	Carbon
7	Fixed assembly gasket	FPM

Alternative materials are available on request.
The special configuration has the characteristics shown in fig. 1 and table 2.
A model with fixed assembly anti-rotation lockpin is available on request.



(FIG. 2)

ALTERNATIVE MATERIALS (TABLE 2) (ON REQUEST)

POS. 1-2-3-4-7	MATERIAL 5 - 6
NBR AISI 316	Ceramic - Carbon
	–
FPM AISI 316	Ceramic - Special carbon*
	Silicon carbide - Silicon carbide*
	Silicon carbide - Tungstencarbide*
	Tungstencarbide - Special carbon*
	Tungstencarbide - Tungstencarbide*
EPDM AISI 316	Ceramic - Carbon
	Ceramic - Special carbon*
	Silicon carbide - Silicon carbide*
	Silicon carbide - Tungstencarbide*
	Tungstencarbide - Special carbon*
	Tungstencarbide - Tungstencarbide*

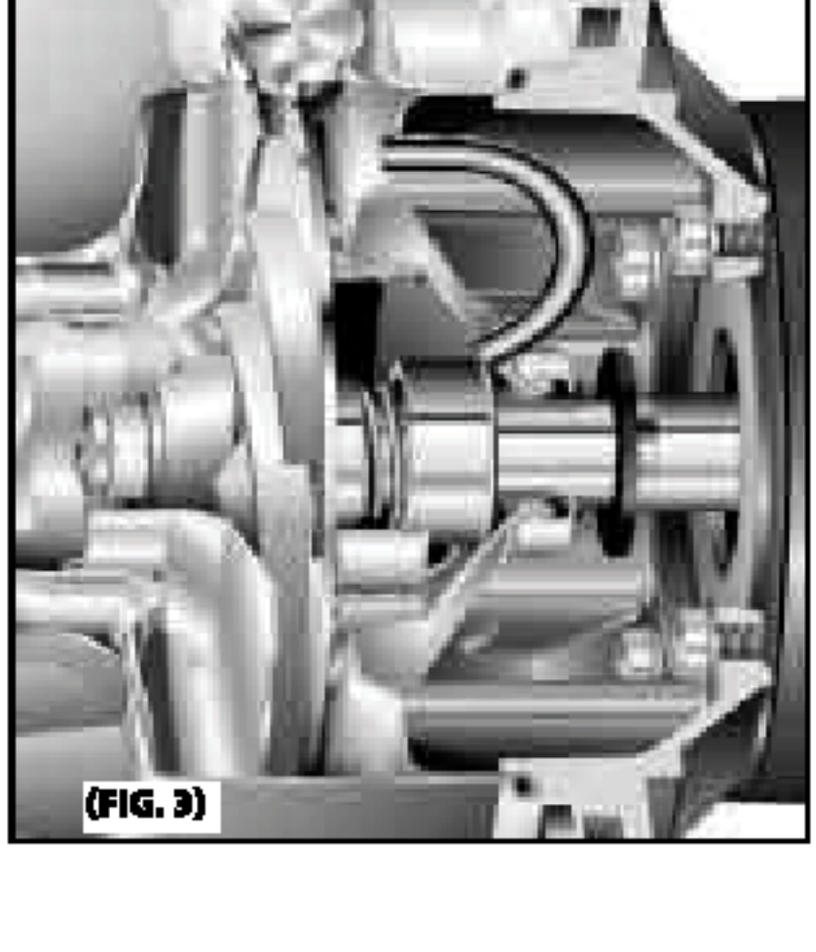
* Modified version available with anti-rotation lockpin.

SEAL LUBRICATION THROUGH RECIRCULATION

Under particular operating conditions, when there is high specific flow rate with air pockets, detergents, low head, the lubrication of the mechanical seal is improved by means of an external fluxing pipe (fig. 3).

This solution can be accompanied by the use of a special seal with a fixed assembly rotation-locking system (fig. 2).

This solution is also recommended when the pump is mounted vertically


(FIG. 3)

LIST OF MODELS, GSHE-GSHS-GSHF SERIES 50 HZ

2 POLES

SIZE	kW	VERSION			
		GSHEM	GSHE	GSHS	GSHF
25-125/07	0,75	•	•	•	•
25-125/11	1,1	•	•	•	•
25-160/15	1,5	•	•	•	•
25-160/22	2,2	•	•	•	•
25-200/30	3	–	•	•	•
25-200/40	4	–	•	•	•
25-250/55	5,5	–	•	•	•
25-250/75	7,5	–	•	•	•
25-250/110	11	–	•	•	•
32-125/07	0,75	•	•	•	•
32-125/11	1,1	•	•	•	•
32-160/15	1,5	•	•	•	•
32-160/22	2,2	•	•	•	•
32-200/30	3	–	•	•	•
32-200/40	4	–	•	•	•
32-250/55	5,5	–	•	•	•
32-250/75	7,5	–	•	•	•
32-250/110	11	–	•	•	•
40-125/11	1,1	•	•	•	•
40-125/15	1,5	•	•	•	•
40-125/22	2,2	•	•	•	•
40-160/30	3	–	•	•	•
40-160/40	4	–	•	•	•
40-200/55	5,5	–	•	•	•
40-200/75	7,5	–	•	•	•
40-250/92	9,2	–	•	–	–
40-250/110A	11	–	–	•	•
40-250/110	11	–	•	•	•
40-250/150	15	–	•	•	•
50-125/22	2,2	•	•	•	•
50-125/30	3	–	•	•	•
50-125/40	4	–	•	•	•
50-160/55	5,5	–	•	•	•
50-160/75	7,5	–	•	•	•
50-200/92	9,2	–	•	–	–
50-200/110A	11	–	–	•	•
50-200/110	11	–	•	•	•
50-250/150	15	–	•	•	•
50-250/185	18,5	–	•	•	•
50-250/220	22	–	•	•	•
65-160/40	4	–	•	•	•
65-160/55	5,5	–	•	•	•
65-160/75	7,5	–	•	•	•
65-160/92	9,2	–	•	–	–
65-160/110A	11	–	–	•	•
65-160/110	11	–	•	•	•
65-160/150	15	–	•	•	•
65-200/185	18,5	–	•	•	•
65-200/220	22	–	•	•	•
65-250/300	30	–	–	•	•
65-250/370	37	–	–	•	•
80-160/110	11	–	•	•	•
80-160/150	15	–	•	•	•
80-160/185	18,5	–	•	•	•
80-200/220	22	–	•	•	•
80-200/300	30	–	–	•	•
80-200/370	37	–	–	•	•
80-250/450	45	–	–	–	•
80-250/550	55	–	–	–	•
80-250/750	75	–	–	–	•

4 POLES

SIZE	kW	VERSION		
		GSHE4	GSHS4	GSHF4
25-125/02A	0,25	••	–	•
25-125/02	0,25	••	–	•
25-160/02	0,25	••	–	•
25-160/03	0,37	••	–	•
25-200/03	0,37	••	–	•
25-200/05	0,55	•	–	•
25-250/07	0,75	•	•	•
25-250/11	1,1	•	•	•
25-250/15	1,5	•	•	•
32-125/02A	0,25	••	–	•
32-125/02	0,25	••	–	•
32-160/02	0,25	••	–	•
32-160/03	0,37	••	–	•
32-200/03	0,37	••	–	•
32-200/05	0,55	•	–	•
32-250/07	0,75	•	•	•
32-250/11	1,1	•	•	•
32-250/15	1,5	•	•	•
40-125/02A	0,25	••	–	•
40-125/02	0,25	••	–	•
40-125/03	0,37	••	–	•
40-160/03	0,37	••	–	•
40-160/05	0,55	•	–	•
40-200/07	0,75	•	•	•
40-200/11	1,1	•	•	•
40-250/11	1,1	•	•	•
40-250/15	1,5	•	•	•
40-250/22	2,2	•	•	•
50-125/03A	0,37	••	–	•
50-125/03	0,37	••	–	•
50-125/05	0,55	•	–	•
50-160/07	0,75	•	•	•
50-160/11	1,1	•	•	•
50-200/11	1,1	•	•	•
50-200/15	1,5	•	•	•
50-250/22A	2,2	•	•	•
50-250/22	2,2	•	•	•
50-250/30	3	•	•	•
65-160/05	0,55	•	–	•
65-160/07	0,75	•	•	•
65-160/11A	1,1	•	•	•
65-160/11	1,1	•	•	•
65-160/15	1,5	•	•	•
65-200/15	1,5	•	•	•
65-200/22	2,2	•	•	•
65-200/30	3	•	•	•
65-250/40	4	–	•	•
65-250/55	5,5	–	•	•
80-160/15	1,5	•	•	•
80-160/22A	2,2	•	•	•
80-160/22	2,2	•	•	•
80-200/30	3	•	•	•
80-200/40	4	•	•	•
80-250/55	5,5	•	•	•
80-250/75	7,5	•	•	•
80-250/92	9,2	•	•	–

• – Available

•• = Available in the version with rigid coupling for both GSHE4 and GSHS4.

MOTORS

The motors have casing, squirrel cage rotor in short circuit (TEFC) and shields made of aluminium alloy
They are fan cooled according to EN 60034-6.
The terminal box is made of AB technopolymer for motors up to IM 100 and aluminium alloy for larger sizes.
The cable gland has standard passage dimensions according to EN 50262 (metric thread) for SM motors, and according to DIN 46255 (Pg thread) for LM motors.
The standard protection is IP55, insulation class F

ELECTRICAL DATA OF MOTORS WITH SPECIAL SHAFT EXTENSION FOR THE GSHE SERIES

SINGLE-PHASE 50 HZ, 2-POLE MOTORS

MOTOR TYPE			INPUT CURRENT	CAPACITOR		DATA FOR 230 V 50 Hz VOLTAGE					
kW	IEC SIZE*	CONSTRUCTION DESIGN	In (A) 220-240 V	µF	V	min $^{-1}$	Is / In	n %	cos j	Cn Nm	Cs/Cn
1.1	90R	B14	7.07-6.81	30	450	2800	3.80	73.8	0.95	3.75	0.47

*R = Reduced size of motor casing as compared to shaft extension and flange.

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THREE-PHASE 50 HZ 2-POLE MOTORS

MOTOR TYPE			INPUT CURRENT In (A)				DATA FOR 400 V 50 Hz VOLTAGE					
kW	IEC SIZE *	COSTRUCTION DESIGN	D 220-240 V	Y 380-415 V	D 380-415 V	Y 660-690 V	min $^{-1}$	Is / In	n %	cos j	Cn Nm	Cs/Cn
0.75	90R	B14	3.72	2.15	-	-	2915	8.23	77.7	0.65	2.45	5.20
1.1	90R	B14	4.52	2.61	-	-	2875	6.78	78.9	0.77	3.65	3.49
1.5	90R	B14	5.98	3.45	-	-	2875	7.04	80.1	0.78	4.98	3.83
2.2	90R	B14	8.71	5.03	-	-	2860	7.32	81.1	0.78	7.34	4.12
3	90	B14	10.8	6.22	-	-	2845	6.81	80.4	0.87	10.1	3.00
4	112R	B14	-	-	8.14	4.70	2900	7.86	83.5	0.85	13.2	2.86
5.5	112	B14	-	-	11.0	6.35	2910	7.71	84.5	0.85	18.0	2.66
7.5	112	B14	-	-	14.6	8.43	2910	7.62	87.2	0.85	24.6	3.03
9.2	132	B14	-	-	17.5	10.1	2925	8.72	86.3	0.88	30.0	3.33
11	132	B14	-	-	21.2	12.2	2925	8.75	88.8	0.84	35.9	3.66
15	160	B34	-	-	28.6	16.5	2940	8.56	85.3	0.89	48.7	3.10
18.5	160	B34	-	-	34.2	19.7	2945	8.80	87.3	0.90	60.0	4.06
22	160	B34	-	-	40.3	23.3	2945	8.61	89.5	0.88	71.2	4.79

* R = Reduced size of motor casing as compared to shaft extension and flange.

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THREE-PHASE 50 HZ 4-POLE MOTORS

MOTOR TYPE			IMPUT CURRENT In (A)				DATA FOR 400 V 50 Hz VOLTAGE					
kW	IEC SIZE *	COSTRUCTION DESIGN	D 220-240 V	Y 380-415 V	D 380-415 V	Y 660-690 V	min $^{-1}$	Is / In	n %	cos j	Cn Nm	Cs/Cn
0.25	71	B5	1.71	0.99	-	-	1390	3.58	62.0	0.59	1.71	3.16
0.37	71	B5	2.53	1.46	-	-	1370	3.39	61.4	0.60	2.57	3.40
0.55	90R	B14	3.03	1.75	-	-	1390	3.95	68.2	0.67	3.77	2.45
0.75	90R	B5	4.04	2.33	-	-	1395	4.06	70.1	0.66	5.13	2.73
1.1	90	B5	4.35	2.51	-	-	1415	4.65	78.0	0.81	7.42	2.15
1.5	90	B5	5.85	3.38	-	-	1420	4.99	79.9	0.80	10.1	2.26
2.2	100	B5	8.28	4.78	-	-	1410	5.53	81.4	0.82	14.9	2.52
3	100	B5	11.0	6.37	-	-	1425	6.03	82.5	0.82	20.1	2.53
4	112	B5	-	-	8.38	4.84	1440	5.81	84.8	0.81	26.5	2.50
5.5	132	B14	-	-	11.3	6.52	1445	5.98	85.8	0.82	36.3	2.60
7.5	132	B14	-	-	15.2	8.78	1450	6.70	88.1	0.81	49.3	3.17
9.2	132	B14	-	-	19	11.0	1445	5.63	87.9	0.80	60.7	2.80

* R = Reduced size of motor casing as compared to shaft extension and flage.

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ELECTRICAL DATA OF STANDARD MOTORS FOR GSHS - GSHF SERIES

THREE-PHASE 50 HZ, 2-POLE MOTORS

MOTOR TYPE				IMPUT CURRENT In (A)				DATA FOR 400 V 50 Hz VOLTAGE					
		CONSTRUCTION DESIGN		D	Y	D	Y					Cn	
kW	IEC SIZE *	GSHS	GSHF	220-240 V	380-415 V	380-415 V	660-690 V	min^{-1}	Is / In	n %	cosj	Nm	Cs/Cn
0.75	80R	B5	-	3.50	2.02	-	-	2855	5.81	74.3	0.72	2.51	3.76
0.75	80	-	B3	3.72	2.15	-	-	2915	8.23	77.7	0.65	2.45	5.20
1.1	80	B5	B3	4.52	2.61	-	-	2875	6.78	78.9	0.77	3.65	3.49
1.5	90R	B5	-	5.98	3.45	-	-	2875	7.04	80.1	0.78	4.98	3.83
1.5	90	-	B3	5.66	3.27	-	-	2875	6.40	76.5	0.87	4.98	2.71
2.2	90R	B5	-	8.71	5.03	-	-	2860	7.32	81.1	0.78	7.34	4.12
2.2	90	-	B3	8.02	4.63	-	-	2870	6.94	80.0	0.86	7.32	2.85
3	100R	B5	-	10.8	6.22	-	-	2845	6.81	80.4	0.87	10.1	3.00
3	100	-	B3	10.6	6.10	-	-	2895	6.53	83.6	0.85	9.89	3.34
4	112R	B5	-	-	-	8.14	4.70	2900	7.86	83.5	0.85	13.2	2.86
4	112	-	B3	-	-	8.21	4.74	2915	7.41	82.2	0.86	13.1	2.58
5.5	132R	B5	-	-	-	11.0	6.35	2910	7.71	84.5	0.85	18.0	2.66
5.5	132	-	B3	-	-	10.7	6.18	2905	6.53	84.4	0.88	18.1	2.39
7.5	132R	B5	-	-	-	14.6	8.43	2910	7.62	87.2	0.85	24.6	3.03
7.5	132	-	B3	-	-	14.4	8.31	2915	7.37	85.8	0.88	24.6	2.69
11	160	B35	B3	-	-	21.6	12.5	2925	6.83	82.4	0.89	35.9	2.97
15	160	B35	B3	-	-	28.6	16.5	2940	8.56	85.3	0.89	48.7	3.10
18.5	160	B35	B3	-	-	34.2	19.7	2945	8.80	87.3	0.90	60.0	4.06
22	180R	B35	-	-	-	40.3	23.3	2945	8.61	89.5	0.88	71.2	4.79
22	180	-	B3	-	-	42.0	24.2	2930	7.10	90.0	0.84	71.0	2.50
30	200	B35	B3	-	-	55.0	31.8	2945	6.80	90.5	0.87	97.0	2.40
37	200	B35	B3	-	-	67.0	38.7	2940	7.20	91.5	0.87	120	2.50
45	225	-	B3	-	-	81.0	46.8	2955	6.70	91.3	0.88	145	2.40
55	250	-	B3	-	-	98.0	56.6	2960	6.70	92.1	0.88	177	2.40
75	280	-	B3	-	-	134	77.4	2965	6.80	92.8	0.87	241	2.30

*R = Reduced size of motor casing as compared to shaft extension and flange.

shs-shf-mott-2p50_a_te

ELECTRICAL DATA OF STANDARD MOTORS FOR GSHS - GSHF SERIES

THREE-PHASE 50 HZ, 4-POLE MOTORS

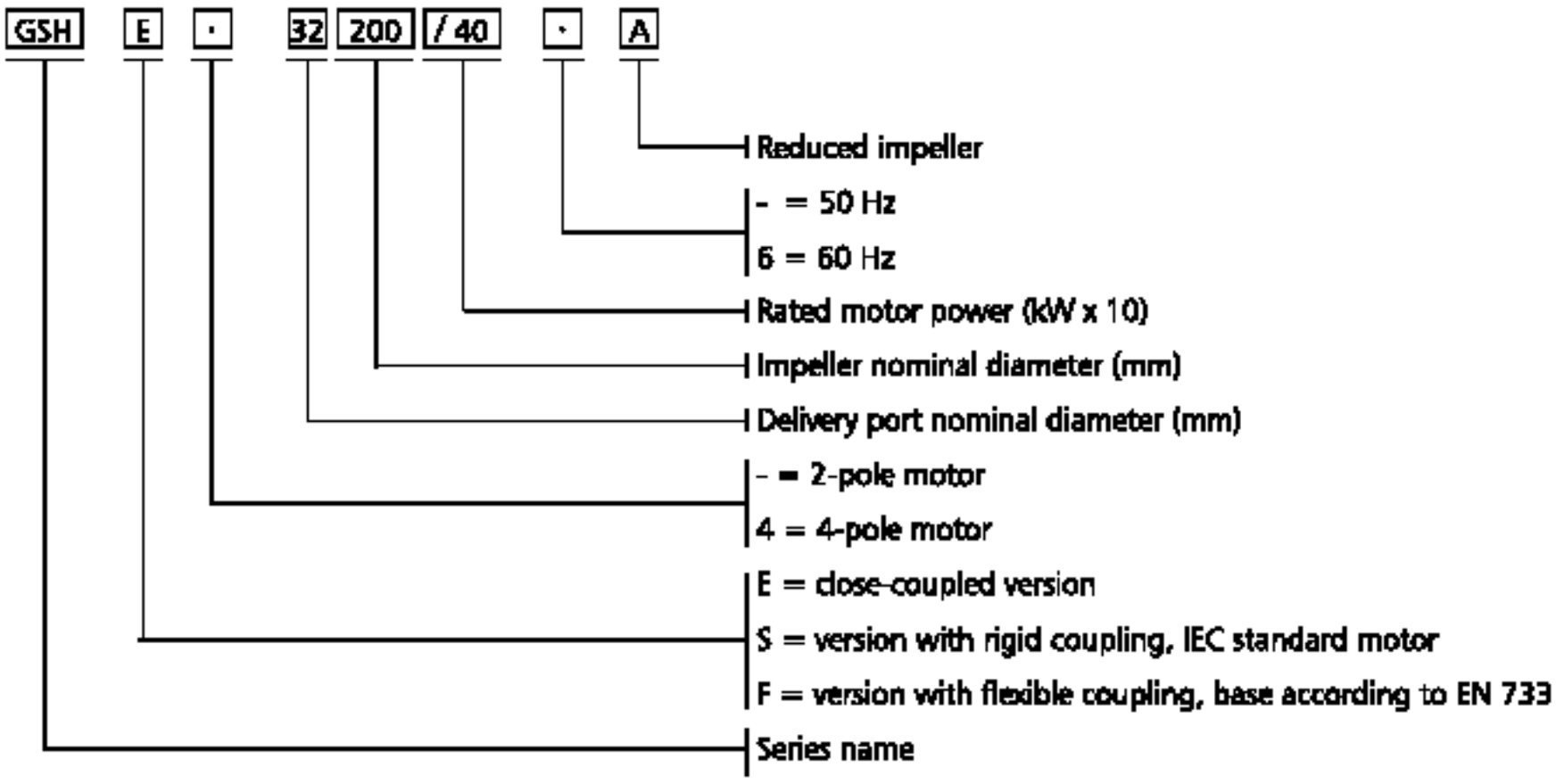
MOTOR TYPE				IMPUT CORRENT In (A)				DATA FOR 400 V 50 Hz VOLTAGE					
		COSTRUCTION DESIGN		D	Y	D	Y					Cn	
kW	IEC SIZE *	GSHS	GSHF	220-240 V	380-415 V	380-415 V	660-690 V	min^{-1}	Is / In	n %	cosj	Nm	Cs/Cn
0.25	71	-	B3	1.71	0.99	-	-	1390	3.58	62.0	0.59	1.71	3.16
0.37	71	-	B3	2.53	1.46	-	-	1370	3.39	61.4	0.60	2.57	3.40
0.55	80	B5	B3	3.03	1.75	-	-	1390	3.95	68.2	0.67	3.77	2.45
0.75	80	B5	B3	4.04	2.33	-	-	1395	4.06	70.1	0.66	5.13	2.73
1.1	90	B5	B3	4.35	2.51	-	-	1415	4.65	78.0	0.81	7.42	2.15
1.5	90	B5	B3	5.85	3.38	-	-	1420	4.99	79.9	0.8	10.1	2.26
2.2	100	B5	B3	8.28	4.78	-	-	1410	5.53	81.4	0.82	14.9	2.52
3	100	B5	B3	11.0	6.37	-	-	1425	6.03	82.5	0.82	20.1	2.53
4	112	B5	B3	-	-	8.38	4.84	1440	5.81	84.8	0.81	26.5	2.50
5.5	132	B5	B3	-	-	11.3	6.52	1445	5.98	85.8	0.82	36.3	2.60
7.5	132	B5	B3	-	-	15.2	8.78	1450	6.70	88.1	0.81	49.3	3.17
9.2	132	B5	B3	-	-	19.0	11.0	1445	5.63	87.9	0.80	60.7	2.80

* R = Reduced size of motor casing as compared to shaft extension and flange.

shs-shf-mott-4p50_a_te

IDENTIFICATION CODE

The GSH series models are identified as follows:



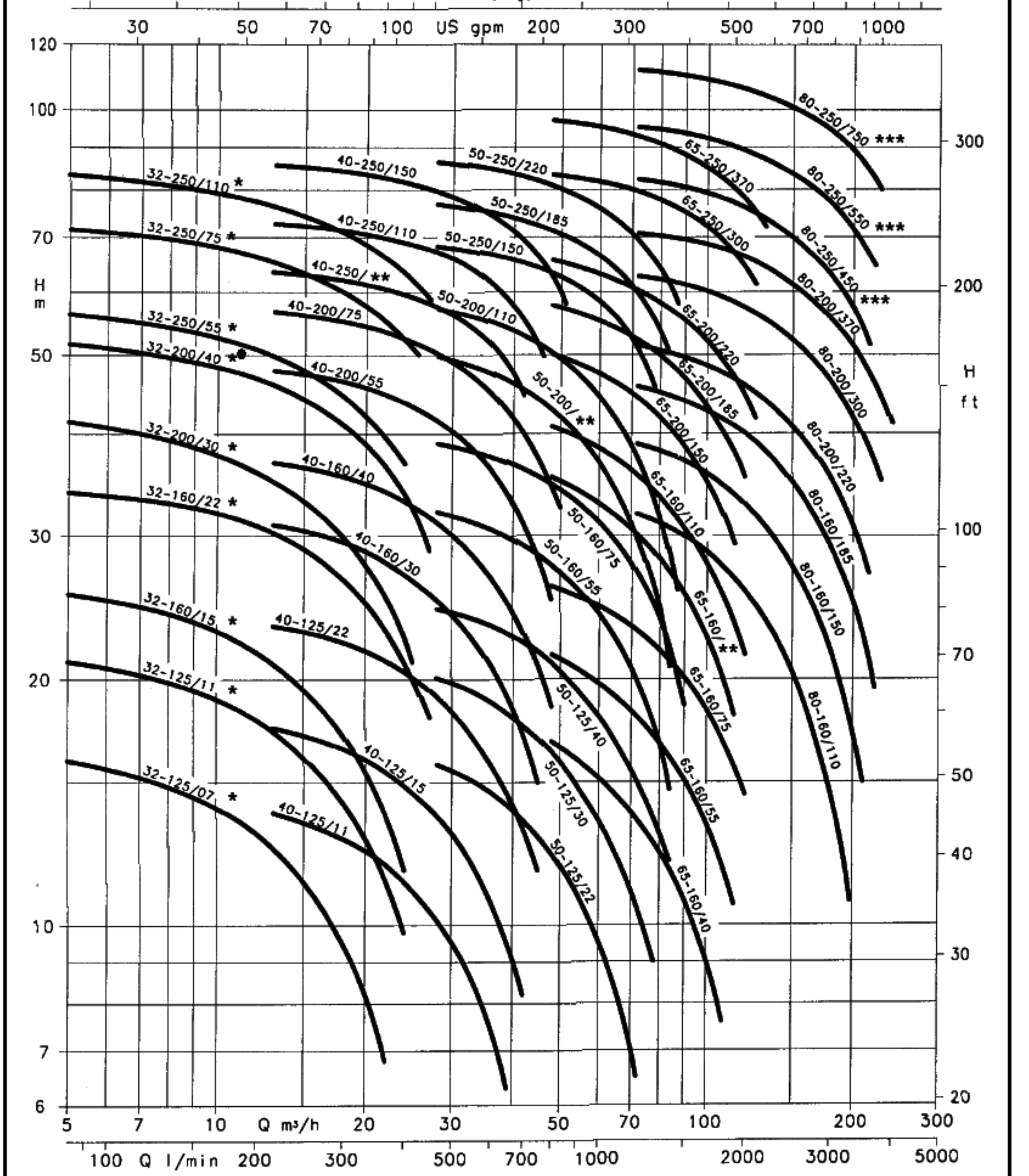
MOTOR NOISE

The table shows the mean noise levels for sound pressure (Lp) and sound power (LW), measured at 1 metre distance in a free field according to the A curve (ISO 1680 standard).
The noise values are measured with idling 50 Hz motor with a tolerance of 3 dB (A).

MOTOR TYPE SIZE	2 POLES		4 POLES	
	Lp-dB(A)	LW-dB (A)	Lp-dB (A)	LW-dB (A)
71	60	68	48	57
80R	60	68	-	-
80	61	69	50	59
90R	64	73	-	-
90	66	75	51	60
100R	66	75	-	-
100	70	80	53	63
112R	70	80	-	-
112	74	84	56	66
132R	74	84	-	-
132	77	87	66	76
160	78	88	-	-
180R	80	91	-	-
200	80	91	-	-
225	84	94	-	-
250	84	94	-	-
280	84	94	-	-

CHARACTERISTICS CURVES, GSH SERIES 50 HZ, 2 POLES

GSHE- GSHS - GSHF	~2900min⁻¹	ISO 9906- Annex A



** /92 - 9,2 kW - 12,5HP - GSHE
/110 - 11 kW - 15HP - GSHS-GSHF

* DN 25 available with the same performances as DN 32

*** only version F available

The NPSH values are laboratory values: for practical use we suggest increasing these values by 0.5 m.

The performancesare valid for liquids with density $\rho = 1.0$ kg/dm³ and kinematic viscosity $\gamma = 1$ mm²/sec.

GSHE - GSHS - GSHF SERIES
TABLE OF HYDRAULIC PERFORMANCES AT 2900 rpm
50Hz, 2 POLES

PUMPTYPE	POWER		Q =DELIVERY																		
			l/min 0	100	150	200	250	300	400	500	600	700	800	1000	1200	1400	1600	1800	2000	2500	3000	3500	3800
			m³/h 0	6	9	12	15	18	24	30	36	42	48	60	72	84	96	108	120	150	180	210	228
	kW	HP	H =TOTAL HEAD METERS COLUMN OF WATER																				
32-125/07 *	0,75	1	16,6	15,6	14,4	13	11,3	9,5															
32-125/11 *	1,1	1,5	21,6	20,6	19,4	18	16	14	9,8														
32-160/15 *	1,5	2	26,7	25	23,5	21,5	19,5	17	11,7														
32-160/22 *	2,2	3	35	33,6	32,5	31	29	26,5	21														
32-200/30 *	3	4	43,7	40,7	38,5	36	33	30	21														
32-200/40 *	4	5,5	53,5	51	49	47	44	41	32,3														
32-250/55 *	5,5	7,5	58,6	55,5	53,4	51	48	44,5	36,8														
32-250/75 *	7,5	10	74	71	68,9	66	63	60	52														
32-250/110*	11	15	86	82,5	80,1	77,5	74,3	71	63														
40-125/11	1,1	1,5	15,1				13,5	12,8	11,3	9,5	7,5												
40-125/15	1,5	2	18,7				17	16,5	14,8	13	10,7	8,2											
40-125/22	2,2	3	24,2				23	22,2	20,5	18,3	15,8	13,2											
40-160/30	3	4	32,2				30,5	29,5	27	24	20,8	17											
40-160/40	4	5,5	38				36,5	35,5	33	30	26,5	22,8	18,5										
40-200/55	5,5	7,5	49,1				47,5	46,4	43,5	40,5	36	31	25										
40-200/75	7,5	10	58,2				56	55,1	52,5	49	45	40	34,4										
40-250/**	11	15	65				63	62	60	56	52	44,6											
40-250/110	11	15	75				72	71	69	66	61	55											
40-250/150	15	20	88				85	84	82	78	74	69	63										
50-125/22	2,2	3	17,2							15,5	14,6	13,6	12,3	9,5	6,5								
50-125/30	3	4	21,7							20	18,8	17,6	16,4	13,5	10,5								
50-125/40	4	5,5	25,7							24	23,3	22,2	21	18	15	12							
50-160/55	5,5	7,5	34,1							32	30,6	29	27,6	24	19,9	14,7							
50-160/75	7,5	10	40,8							38,5	37,5	36	34,7	31,2	27	21,8							
50-200/**	11	15	53							49,5	47,5	45	42,8	37	29,8	20,7							
50-200/110	11	15	60,1							57	55	53	50,3	44,4	37,4	28,4							
50-250/150	15	20	70							68	67	65	63	58	51								
50-250/185	18,5	25	80							76	75	73	71	66	60								
50-250/220	22	30	89							86	85	83	81	76	69	61							
65-160/40	4	5,5	19,6										16,8	15,2	13,5	11,7	9,7	7,6					
65-160/55	5,5	10	24,2										21,4	19,8	18	16	14	11,8					
65-160/75	7,5	5,5	28,2										26	24,5	23	21	19	16,9	14,5				
65-160/**	11	15	38,2										35,4	33	30	27	23,7	20					
65-160/110	11	15	42,9										40,8	38,5	35,5	32,5	29	25,5	21,4				
65-200/150	15	20	53										50	47,5	44,5	40,5	36,5	32					
65-200/185	18,5	25	60										57,5	55	52	48,7	44,7	40	35,4				
65-200/220	22	30	68										65,5	63	60	57	53,5	49	41,8				
65-250/300	30	40	84										83	81,7	80	77	73	69	64				
65-250/370	37	50	97										97	95,3	93	90	86	82	78				
80-160/110	11	15	33												31,9	30,6	29,2	27,5	25,6	20,5	14,5		
80-160/150	15	20	39,6												38,8	37,6	36,3	34,5	32,8	27,5	21,5	15	
80-160/185	18,5	25	46,5												45,7	44,7	43	41,5	40	35	29	22,5	19,5
80-200/220	22	30	52													50,5	49	47,5	45,8	41	35	28,5	
80-200/300	30	40	62													62	60,5	59	57,5	52	46,5	39,5	35,1
80-200/370	37	50	70													70	69	68	66	61	55,5	49	44,4
80-250/450***	45	61	82													81	80	78	76	70	63	54	
80-250/550***	55	75	94													94	93	91	89	83	77	68	
80-250/750***	75	100	110													111	109	108	106	101	94	86	80

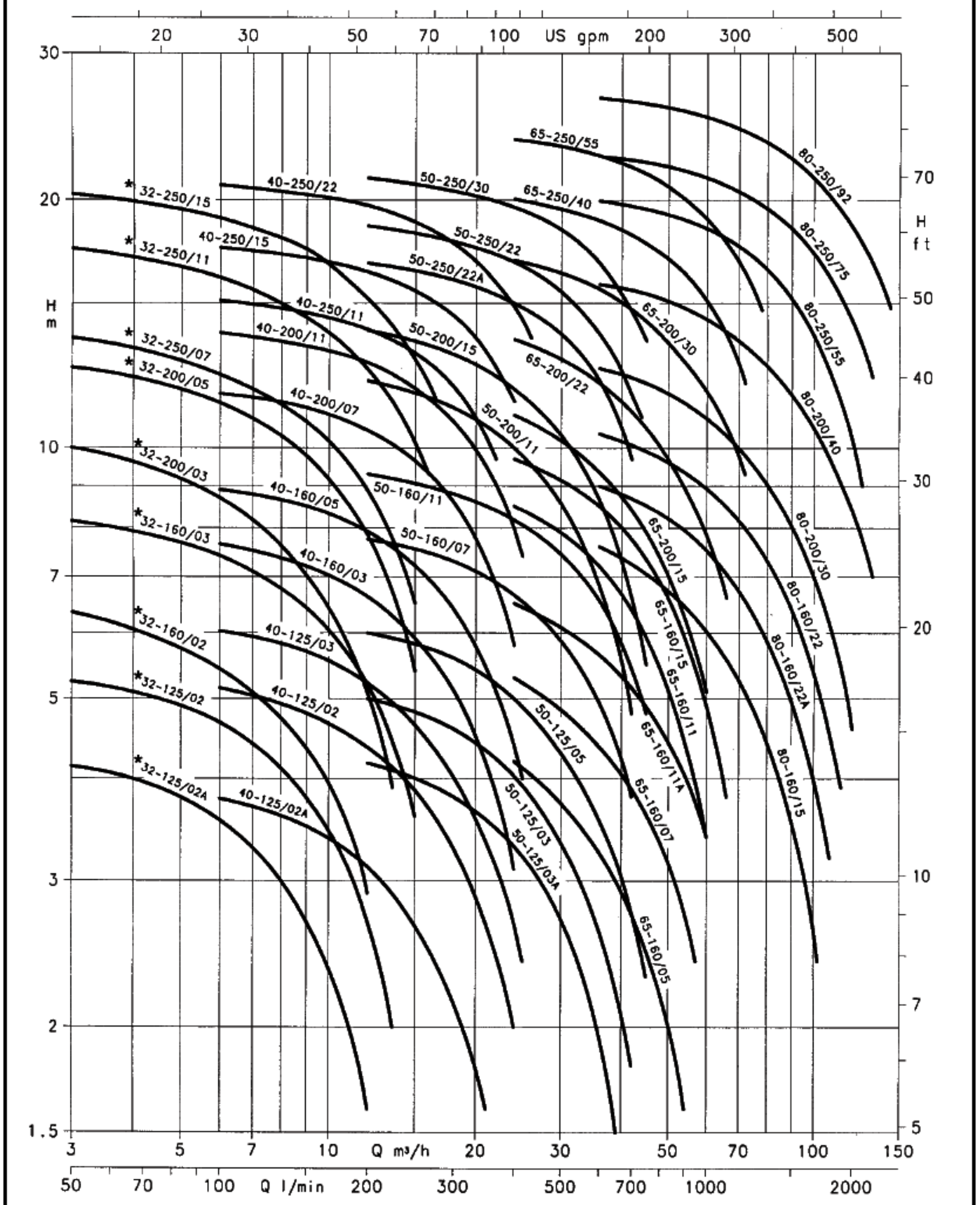
* DN25 available with the same performances as DN32

** /92 in the GSHE version
/110 in the GSHS-GSHF versions

*** only version F available

GSH SERIES CHARACTERISTICS CURVES, 50 HZ, 4 POLES

GSHE4- GSHS4 - GSHF4	~1400min⁻¹	ISO 9906- Annex A



* DN25 available with the same performances as DN32

The NPSH values are laboratory values: for practical use we suggest increasing these values by 0.5 m.

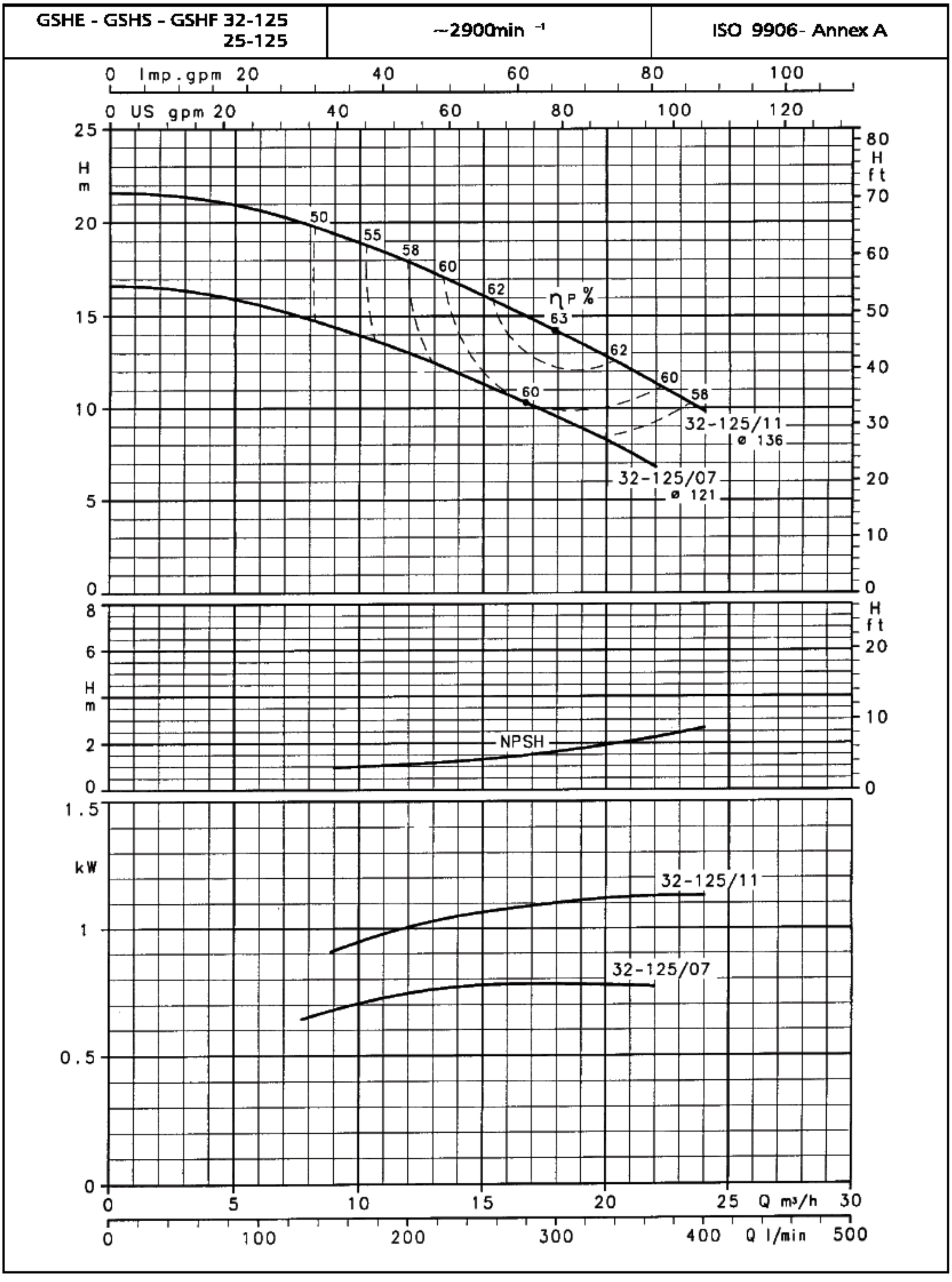
The performances are valid for liquids with density ρ = 1.0 kg/dm³ and kinematic viscosity ν = 1 mm²/sec.

GSHE- GSHS - GSHP SERIES
TABLE OF HYDRAULIC PERFORMANCES AT 1450 rpm
50Hz, 4 POLES

PUMP TYPE	POWER		Q = DELIVERY																		
			l/min	0	50	75	100	125	150	175	200	250	300	400	500	600	700	800	1000	1200	1500	1800	2200
			m³/h	0	3	4,5	6	7,5	9	10,5	12	15	18	24	30	36	42	48	60	72	90	108	132
	kW	HP	H = TOTAL HEAD METERS COLUMN OF WATER																				
32-125/02A*	0,25	0,33	4,4	4,1	3,9	3,6	3,2	2,7	2,2	1,6													
32-125/02 *	0,25	0,33	5,5	5,2	5	4,7	4,3	3,8	3,3	2,7													
32-160/02 *	0,25	0,33	6,9	6,3	5,9	5,4	4,9	4,4	3,7	2,9													
32-160/03 *	0,37	0,5	8,6	8,2	7,8	7,4	6,9	6,4	5,8	5,2	3,6												
32-200/03 *	0,37	0,5	10,8	10	9,4	8,7	7,9	7	6,1	5,1													
32-200/05 *	0,55	0,75	13,2	12,5	12	11,4	10,6	9,8	8,8	7,8	5,4												
32-250/07 *	0,75	1	14,5	13,6	13	12,3	11,6	10,8	9,9	8,9	6,5												
32-250/11 *	1,1	1,5	18,4	17,5	16,8	16,1	15,3	14,4	13,5	12,5	10,2												
32-250/15 *	1,5	2	21,3	20,3	19,7	19	18,2	17,4	16,3	15,2	12,8												
40-125/02A	0,25	0,33	4				3,6	3,5	3,3	3,1	2,7	2,1											
40-125/02	0,25	0,33	5,4				5	4,8	4,6	4,4	3,9	3,3	2										
40-125/03	0,37	0,5	6,3				5,9	5,7	5,5	5,2	4,7	4	2,7										
40-160/03	0,37	0,5	8				7,4	7,2	6,9	6,6	5,9	5,1	3,1										
40-160/05	0,55	0,75	9,2				8,7	8,5	8,2	7,9	7,2	6,4	4,4										
40-200/07	0,75	1	11,9				11,5	11,2	10,8	10,5	9,7	8,6	5,8										
40-200/11	1,1	1,5	14,2				13,5	13,3	13	12,7	11,8	10,8	8										
40-250/11	1,1	1,5	15,6				14,9	14,6	14,3	14	13	11,9											
40-250/15	1,5	2	18,1				17,3	17	16,7	16,4	15,5	14,5	11,4										
40-250/22	2,2	3	21,5				20,7	20,3	20	19,7	18,8	17,7	14,8										
50-125/03A	0,37	0,5	4,4							4,2	4	3,8	3,3	2,7	2								
50-125/03	0,37	0,5	5,4							5	4,8	4,6	4	3,3	2,6	1,8							
50-125/05	0,55	0,75	6,4							6	5,8	5,6	5	4,3	3,6	2,8							
50-160/07	0,75	1	8,2							7,8	7,6	7,3	6,7	5,9	4,9	3,8							
50-160/11	1,1	1,5	9,9							9,3	9,1	8,8	8,2	7,4	6,6	5,4							
50-200/11	1,1	1,5	12,8							12,1	11,7	11,2	10	8,6	6,8	4,8							
50-200/15	1,5	2	14,7							13,9	13,5	13	11,8	10,4	8,7	6,6							
50-250/22A	2,2	3	17,5							16,8	16,4	16	15	13,8	12	9,7							
50-250/22	2,2	3	19,4							18,6	18,2	17,8	16,8	15,5	13,8	11,6							
50-250/30	3	4	21,9							21,3	20,9	20,5	19,6	18,4	16,8	14,7							
65-160/05	0,55	0,75	5,4										4,2	3,7	3,3	2,7	2,2						
65-160/07	0,75	1	6,4										5,3	4,8	4,4	3,8	3,4						
65-160/11A	1,1	1,5	7,6										6,5	6,1	5,7	5,1	4,6	3,4					
65-160/11	1,1	1,5	9,4										8,5	7,9	7,2	6,3	5,5	3,4					
65-160/15	1,5	2	10,6										9,7	9,2	8,5	7,7	6,9	4,9					
65-200/15	1,5	2	11,8										11	10,2	9,4	8,4	7,4	5,1					
65-200/22	2,2	3	14,4										13,5	12,8	12	11	10	7,9					
65-200/30	3	4	17,5										16,8	16,3	15,6	14,7	13,8	11,7	9,3				
65-250/40	4	5,5	20,4										20	19,5	18,9	18	17,3	15,1	12				
65-250/55	5,5	7,5	23,7										23,7	23,2	22,6	22	21	19	16,3				
80-160/15	1,5	2	8												7,6	7,2	6,8	6	5,1	3,6			
80-160/22A	1,5	2	9,4												9	8,7	8,3	7,5	6,6	5	3,2		
80-160/22	2,2	3	10,8												10,4	10,1	9,7	9	8	6,4	4,5		
80-200/30	3	4	12,3												12,5	12,2	11,8	10,8	9,8	8	6,1		
80-200/40	4	5,5	15,4												15,8	15,5	15,2	14,3	13,3	11,6	9,7	7	
80-250/55	5,5	7,5	20,3												20	19,7	19,3	18,4	17,4	15,2	12,4		
80-250/75	7,5	10	22,6												22,6	22,3	22	21,3	20,3	18,5	16,1	12,2	
80-250/92	9,2	12,5	26,7												26,5	26,3	26	25,2	24,2	22,3	20,2	16,8	

* DN25 available with the same performances as DN32

HYDRAULIC PERFORMANCE CURVES

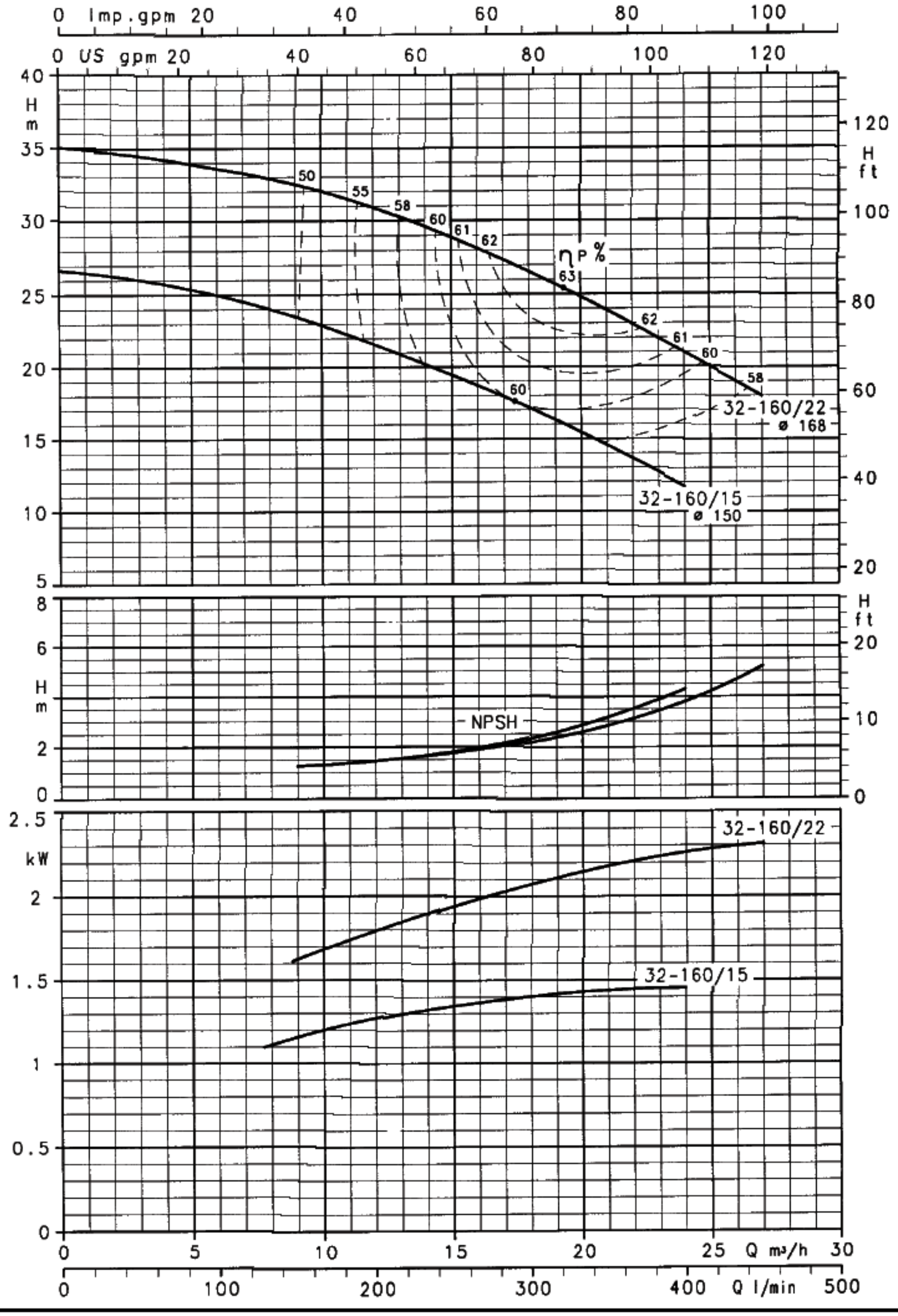


The NPSH values are laboratory values: for practical use we suggest increasing these values by 0.5 m.

The performances are valid for liquids with density ρ = 1.0 kg/dm³ and kinematic viscosity γ = 1 mm²/sec.

HYDRAULIC PERFORMANCE CURVES

GSHE - GSHS - GSHF 32-160 25-160	~2900min $^{-1}$	ISO 9906- Annex A

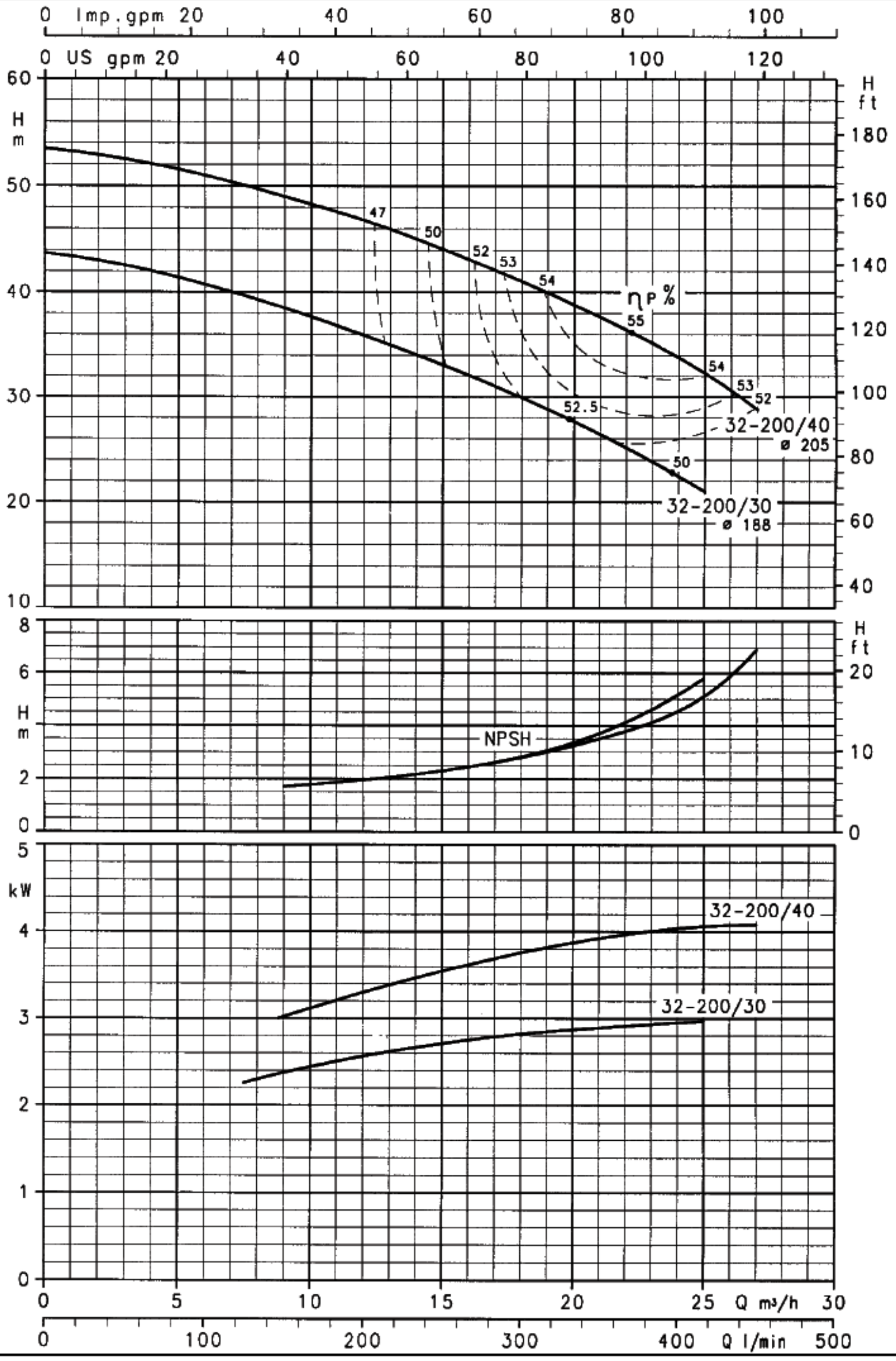


The NPSH values are laboratory values: for practical use we suggest increasing these values by 0.5 m.

The performances are valid for liquids with density ρ = 1.0 kg/dm ^{3} and kinematic viscosity γ = 1 mm ^{2}/sec.

HYDRAULIC PERFORMANCE CURVES

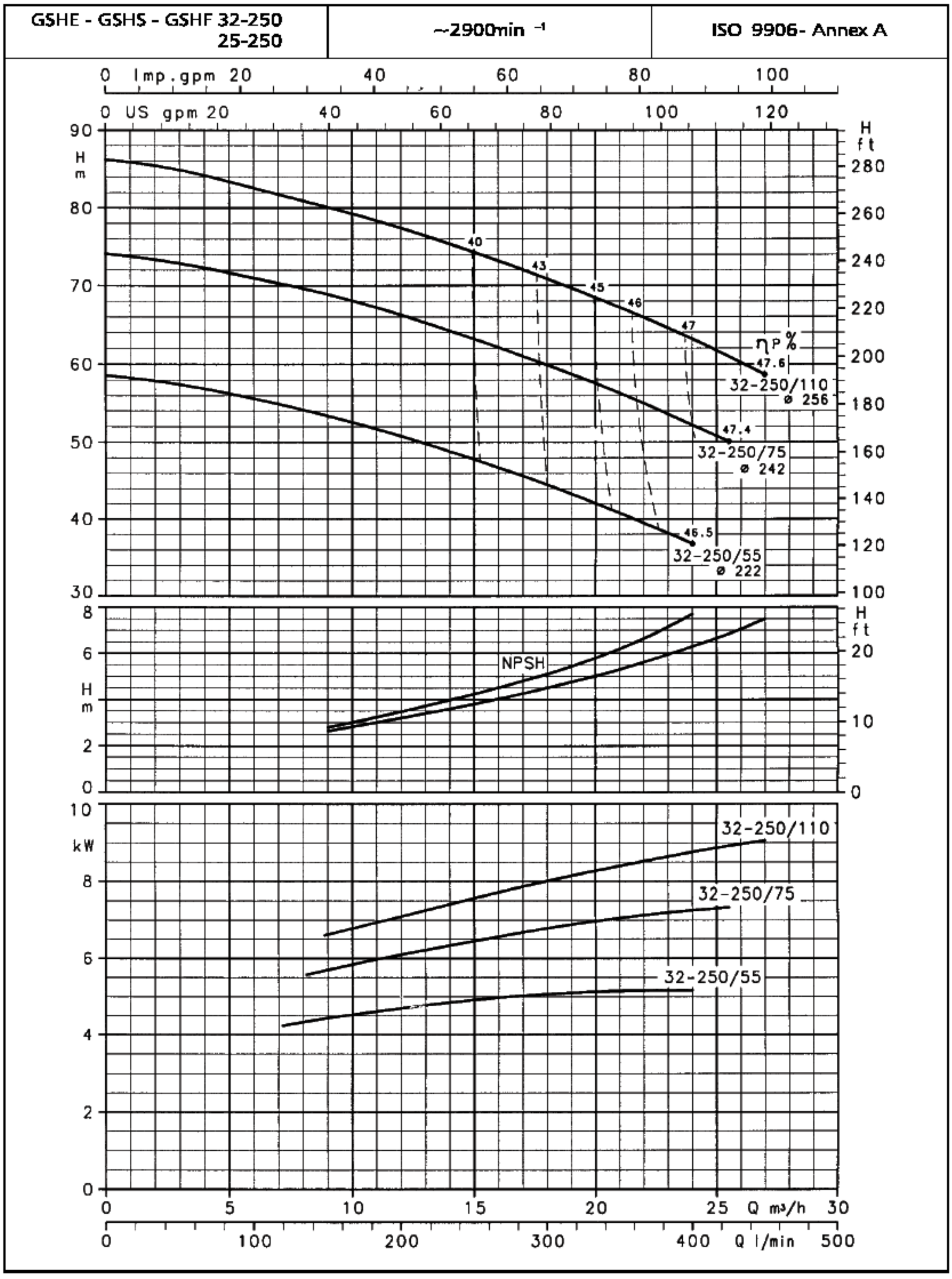
GSHE - GSHS - GSHF 32-200 25-200	~2900min $^{-1}$	ISO 9906- Annex A



The NPSH values are laboratory values: for practical use we suggest increasing these values by 0.5 m.

The performance are valid for liquids with density ρ = 1.0 kg/dm ^{3} and kinematic viscosity γ = 1 mm ^{2}/sec.

HYDRAULIC PERFORMANCE CURVES

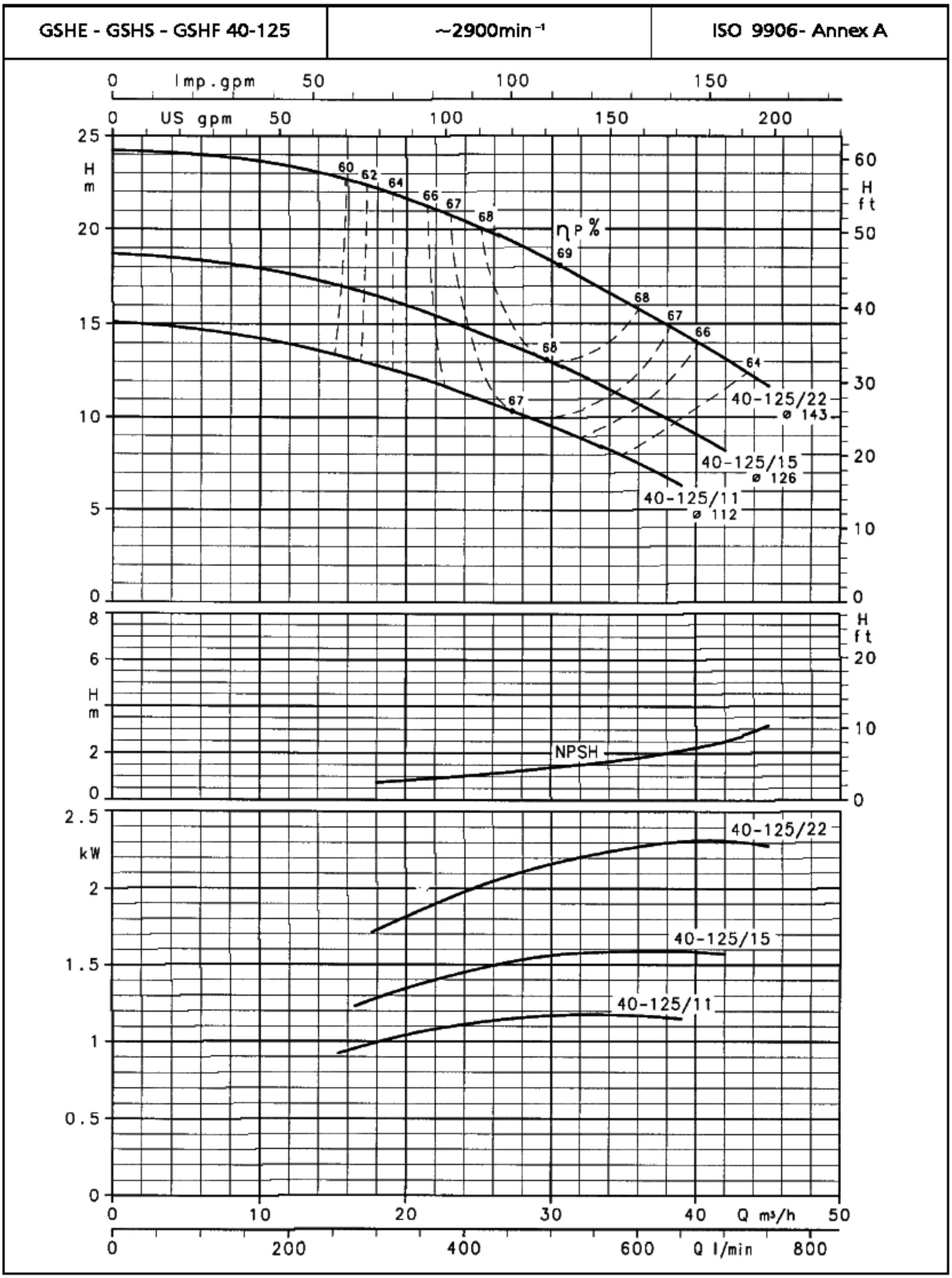


The NPSH values are laboratoryvalues: for practical use we suggestincreasing thesevalues by 0.5 m.

The performancesare valid for liquids with density ρ =1.0 kg/dm ³ and kinematicviscosity Y =1 mm ²/sec.

HYDRAULIC PERFORMANCE CURVES

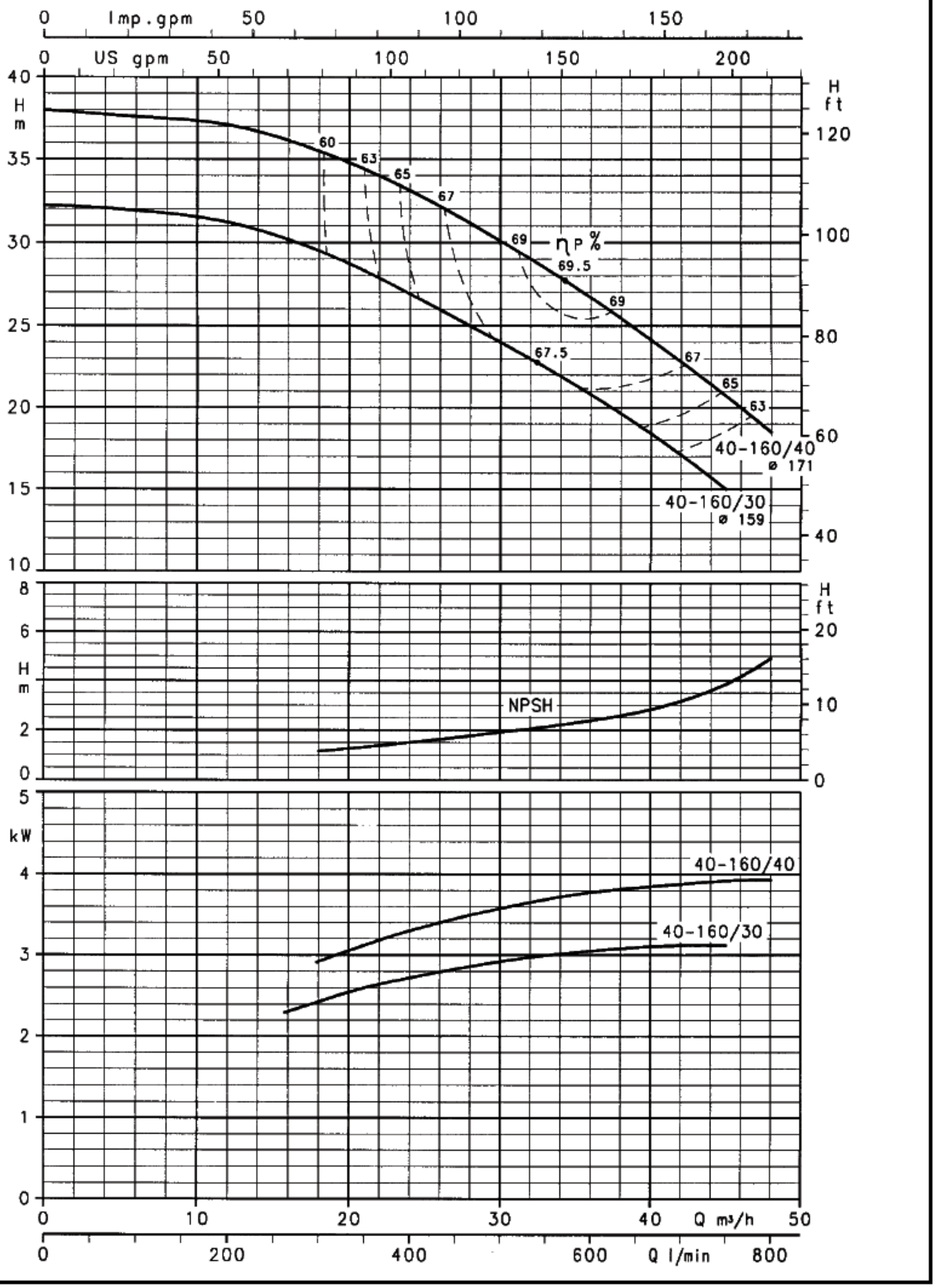
GSHE - GSHS - GSHF 40-125	~2900min⁻¹	ISO 9906- Annex A



The NPSH values are laboratory values: for practical use we suggest increasing these values by 0.5 m.
The performances are valid for liquids with density $\rho = 1.0$ kg/dm³ and kinematic viscosity $\gamma = 1$ mm²/sec.

HYDRAULIC PERFORMANCE CURVES

GSHE - GSHS -GSHF 40-160	~2900 min⁻¹	ISO 9906- Annex A

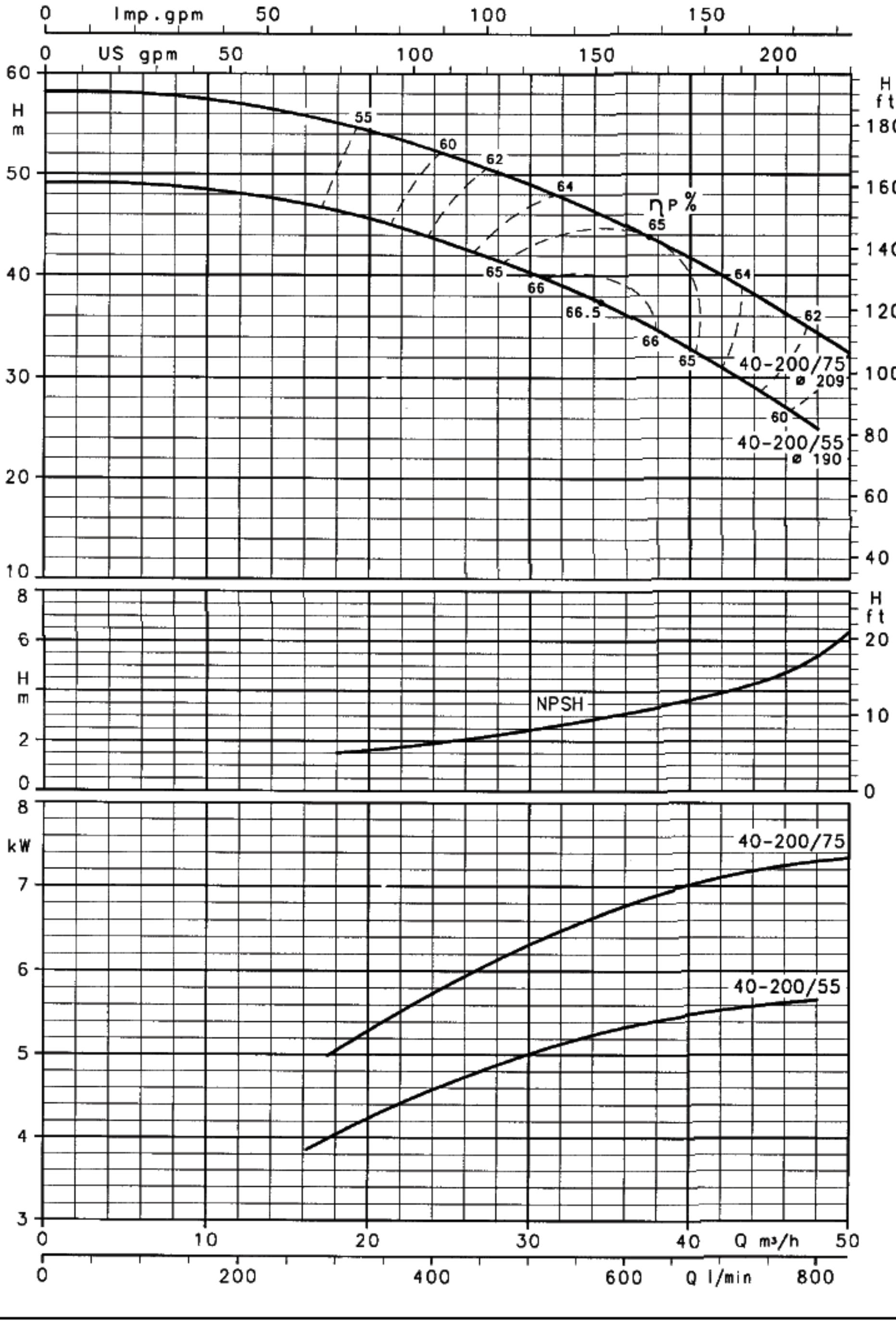


The NPSH values are laboratory values: for practical use we suggest increasing these values by 0.5 m.

The performances are valid for liquids with density $\rho = 1.0$ kg/dm³ and kinematic viscosity $\gamma = 1$ mm²/sec.

HYDRAULIC PERFORMANCE CURVES

GSHE - GSHS - GSHF 40-200	~2900min $^{-1}$	ISO 9906- Annex A

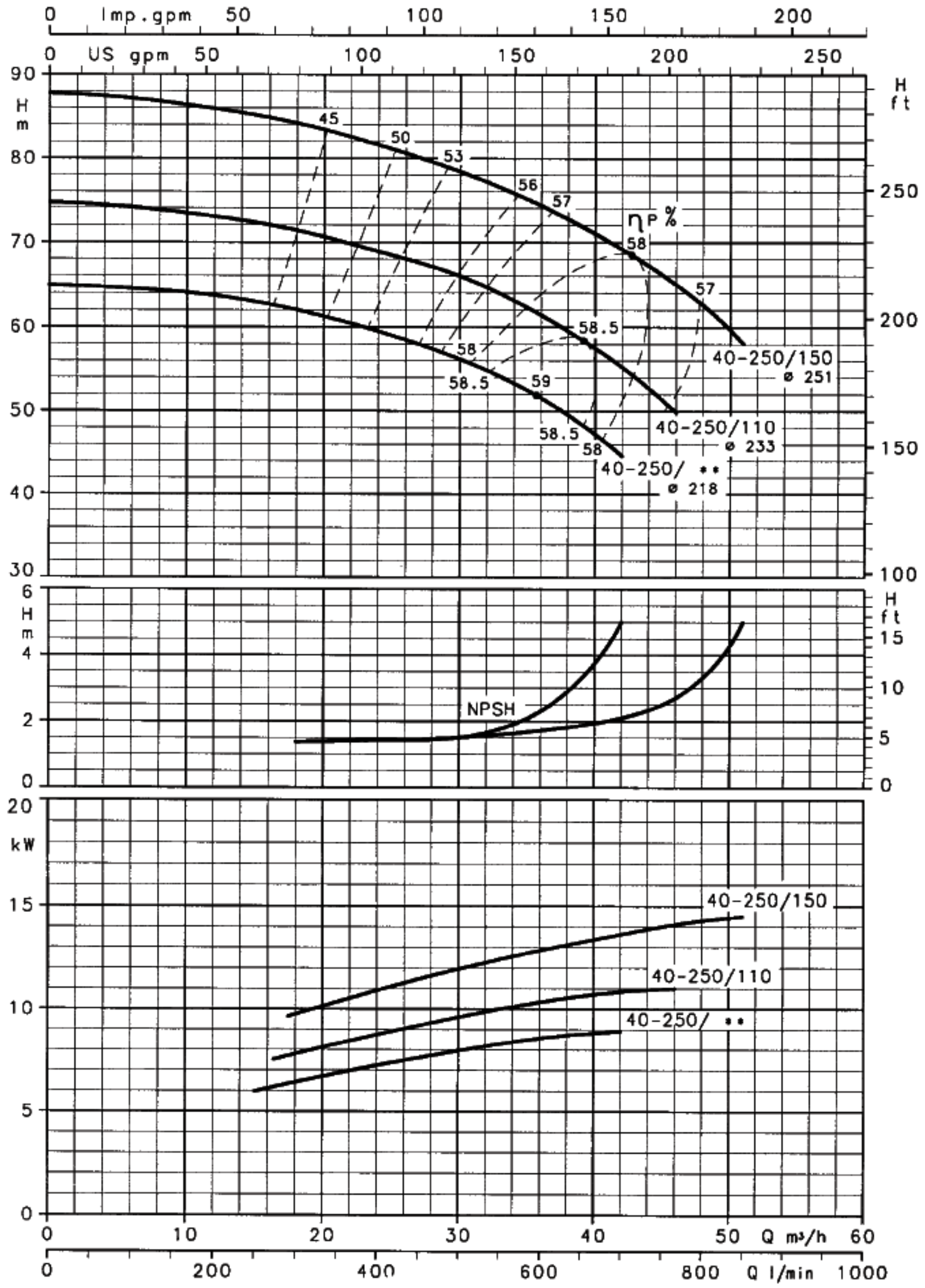


The NPSH values are laboratory values: for practical use we suggest increasing these values by 0.5 m.

The performance are valid for liquids with density ρ = 1.0 kg/dm ^{3} and kinematic viscosity γ = 1 mm ^{2}/sec.

HYDRAULIC PERFORMANCE CURVES

GSHE - GSHS - GSHF 40-250	~2900min⁻¹	ISO 9906- Annex A

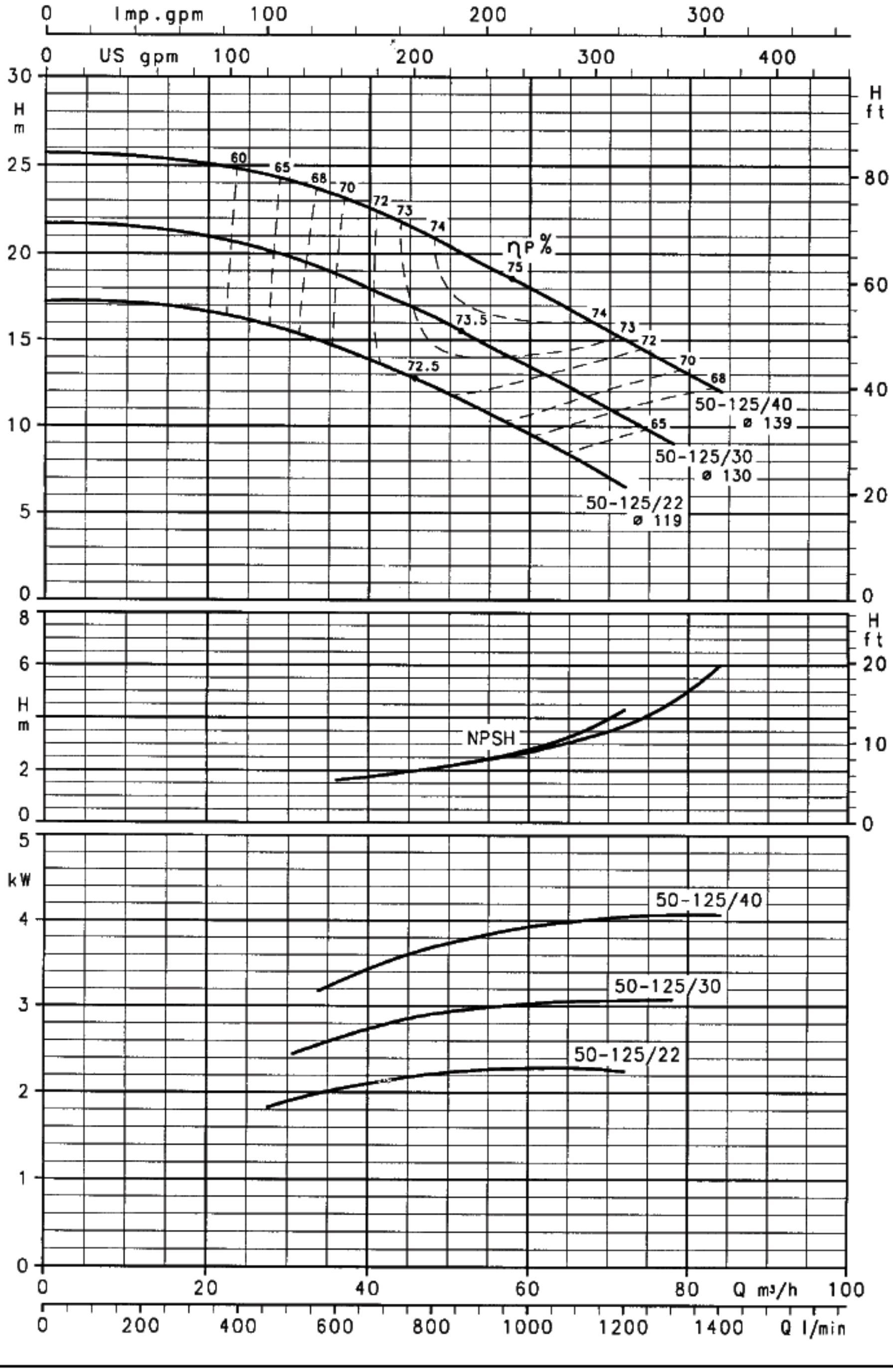


* */92 - 9,2 kW - 12,5 HP - GSHE
/110A - 11 kW - 15 HP - GSHS-GSHF

The NPSH values are laboratoryvalues: for practical use we suggestincreasing thesevalues by 0.5 m.
The performancesare valid for liquids with density ρ =1.0 kg/dm³ and kinematic viscosity ν =1 mm²/sec.

HYDRAULIC PERFORMANCE CURVES

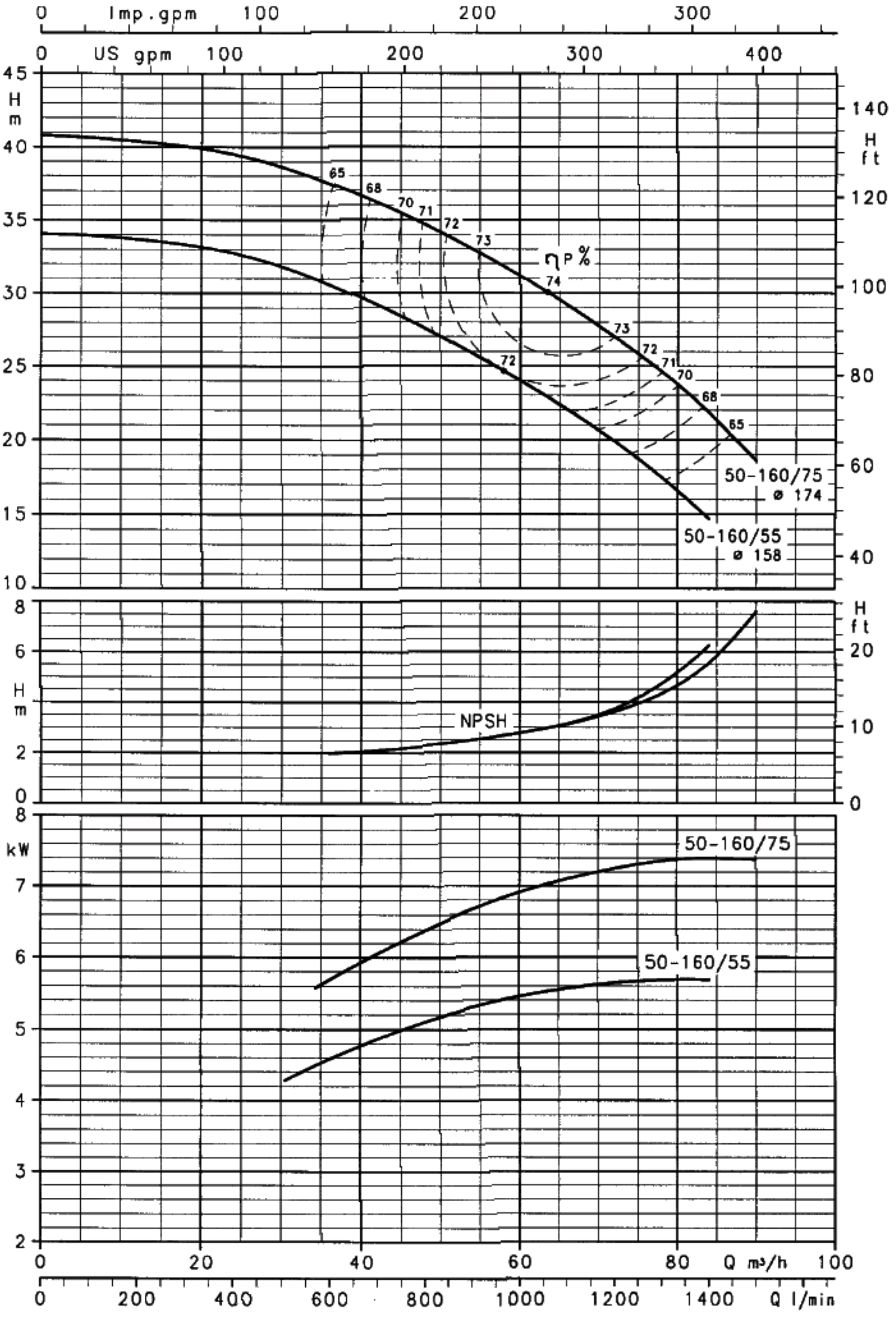
GSHE - GSHS - GSHF 50-125	~2900min⁻¹	ISO 9906- Annex A



The NPSH values are laboratory values: for practical use we suggest increasing these values by 0.5 m.
The performance are valid for liquids with density ρ = 1.0 kg/dm³ and kinematic viscosity γ = 1 mm²/sec.

HYDRAULIC PERFORMANCE CURVES

GSHE - GSHS - GSHF 50-160	~2900min⁻¹	ISO 9906- Annex A

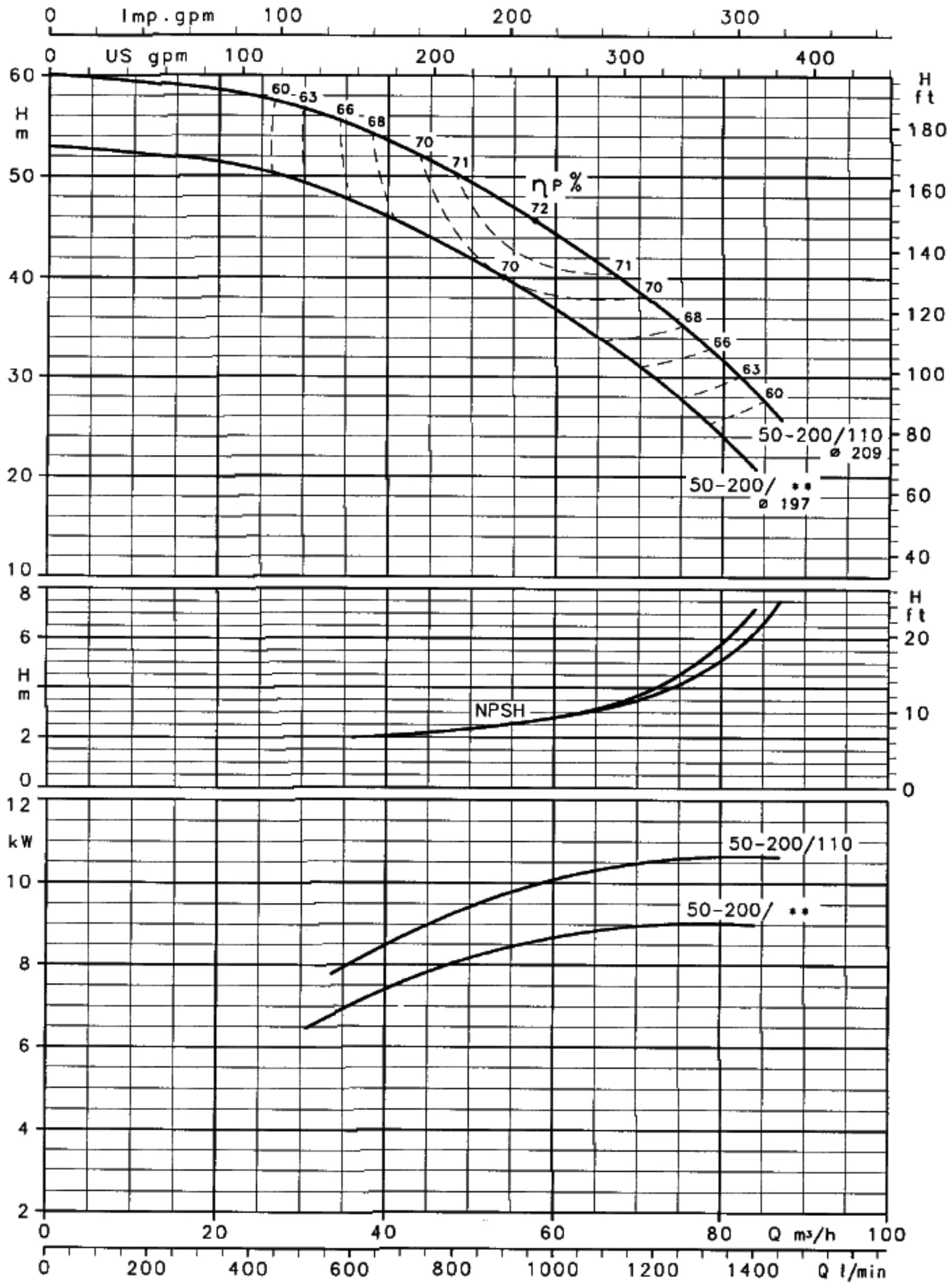


The NPSH values are laboratoryvalues: for practical use we suggestincreasing thesevalues by 0.5 m.

The performancesare valid for liquids with density ρ =1.0 kg/dm³ and kinematicviscosity ν =1 mm²/sec.

HYDRAULIC PERFORMANCE CURVES

GSHE - GSHS - GSHF 50-200	~2900min $^{-1}$	ISO 9906- Annex A



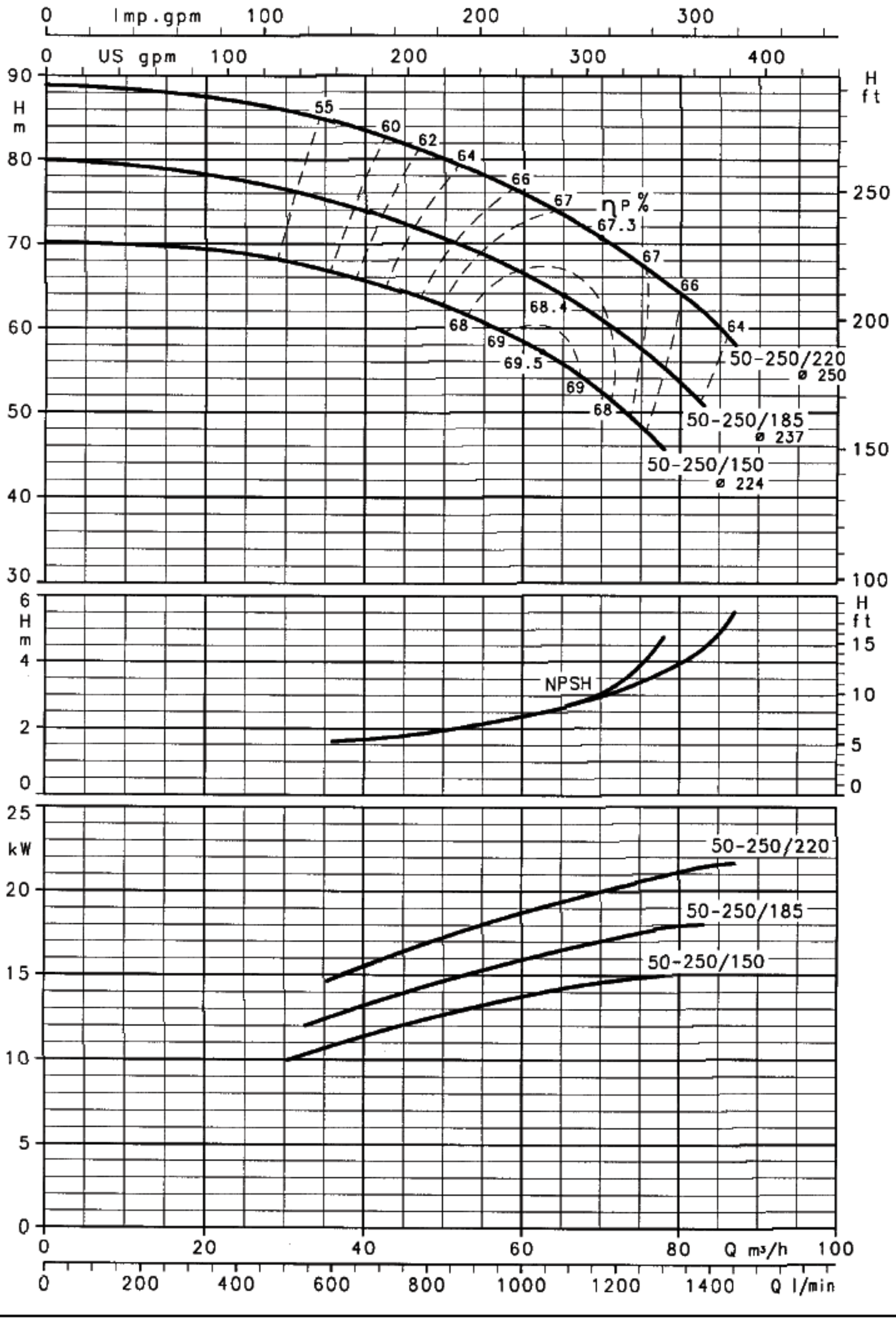
* */92 - 9,2 kW - 12,5 HP - GSHE
/110A - 11 kW - 15 HP - GSHS-GSHF

The NPSH values are laboratory values: for practical use we suggest increasing these values by 0.5 m.

The performances are valid for liquids with density ρ = 1.0 kg/dm ^{3} and kinematic viscosity γ = 1 mm ^{2}/sec.

HYDRAULIC PERFORMANCE CURVES

GSHE - GSHS - GSHF 50-250	~2900min⁻¹	ISO 9906- Annex A

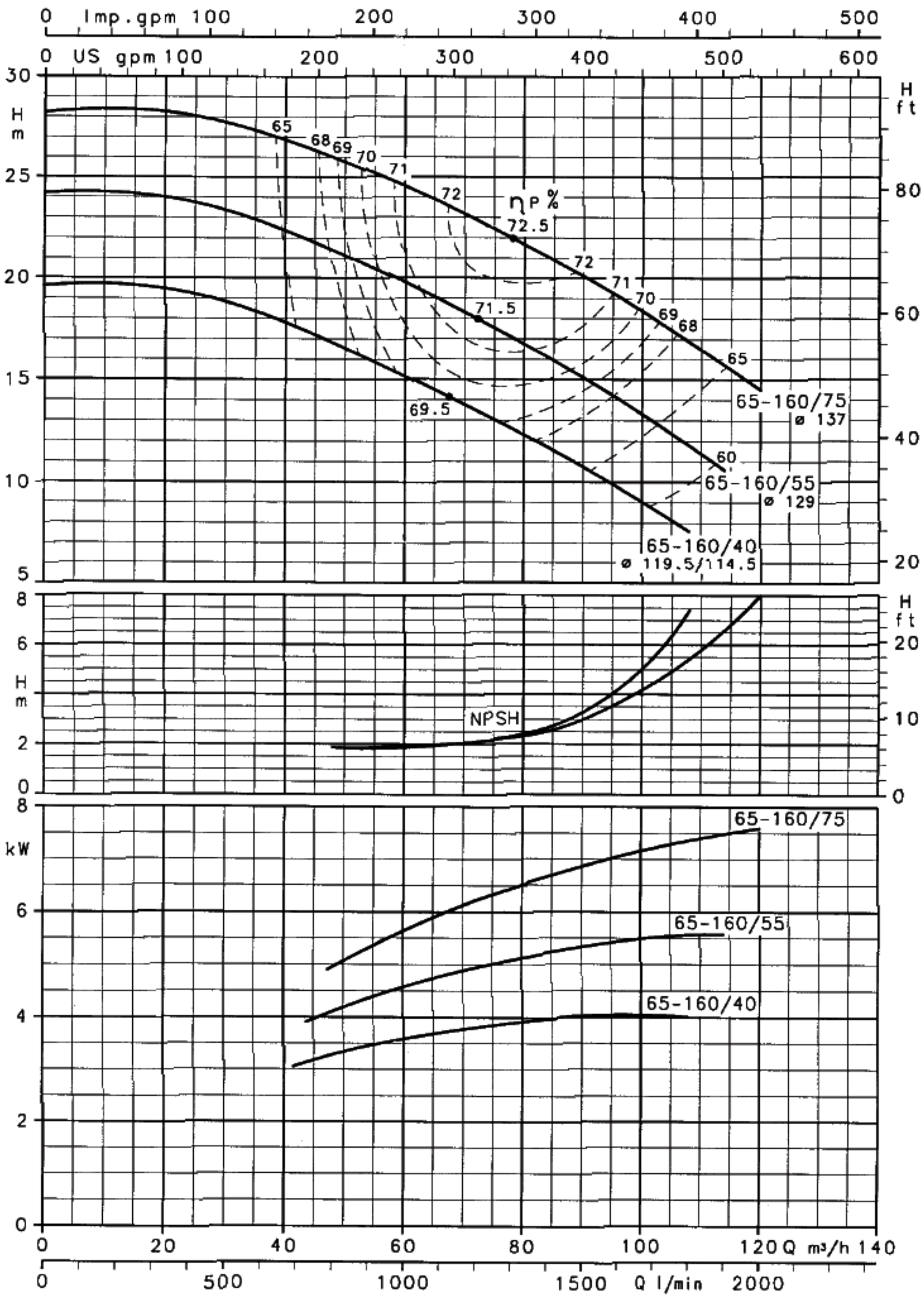


The NPSH values are laboratory values: for practical use we suggest increasing these values by 0.5 m.

The performances are valid for liquids with density $\rho = 1.0$ kg/dm³ and kinematic viscosity $\gamma = 1$ mm²/sec.

HYDRAULIC PERFORMANCE CURVES

GSHE- GSHS - GSHF 65-160	~2900min^{-1}	ISO 9906- Annex A

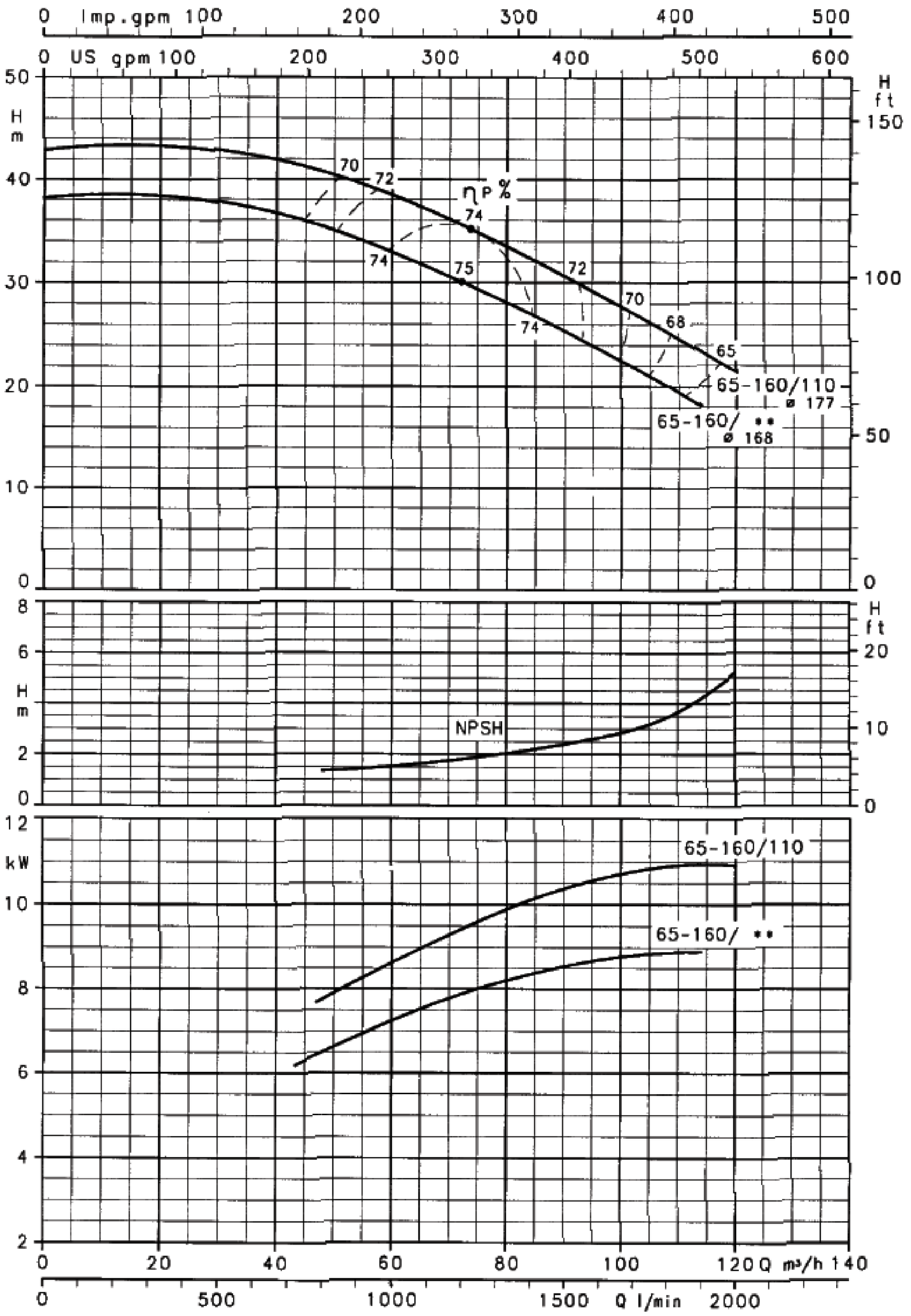


The NPSH values are laboratory values: for practical use we suggest increasing these values by 0.5 m.

The performances are valid for liquids with density $\rho = 1.0$ kg/dm³ and kinematic viscosity $\gamma = 1$ mm²/sec.

HYDRAULIC PERFORMANCE CURVES

GSHE - GSHS - GSHF 65-160	~2900min $^{-1}$	ISO 9906- Annex A

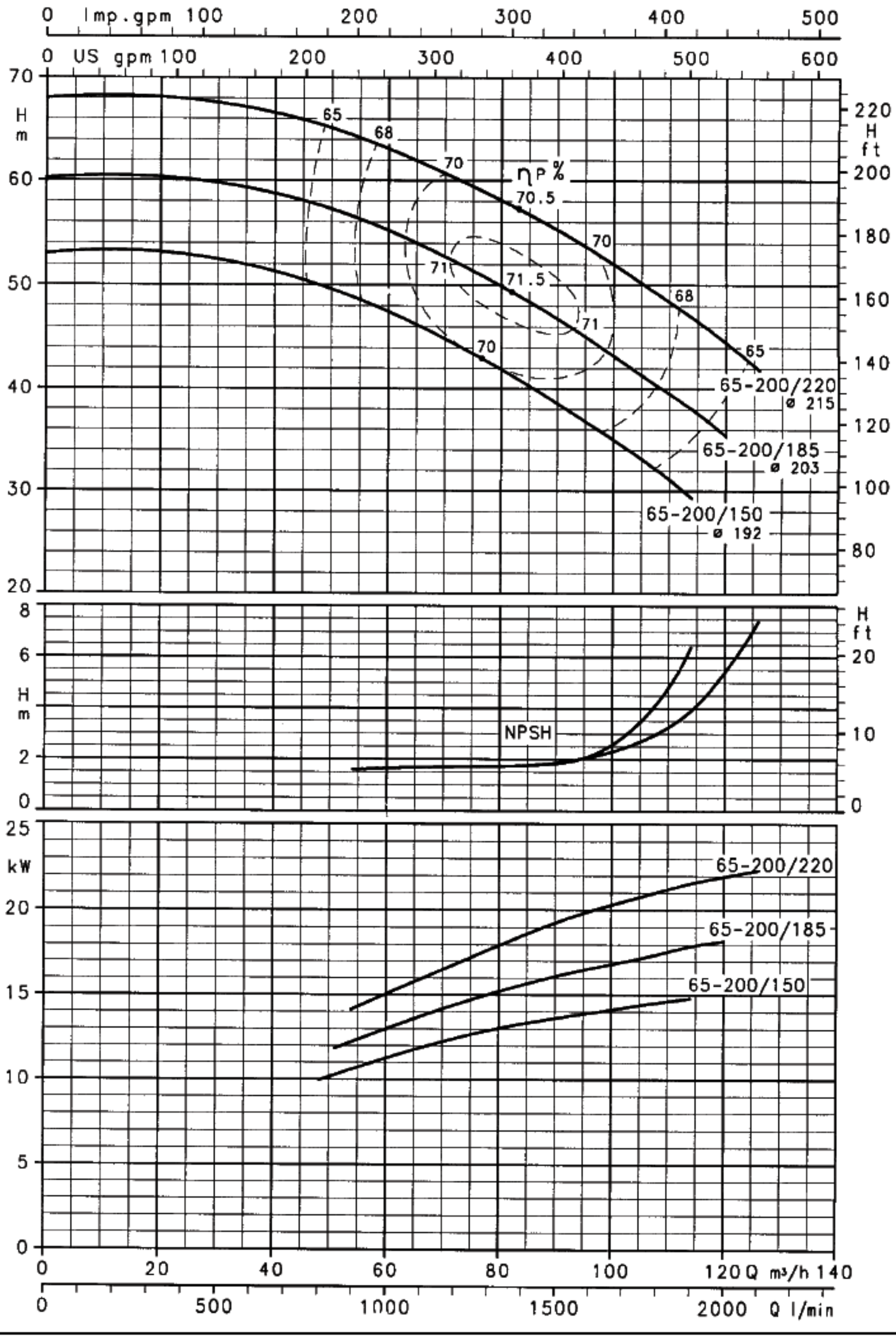


* */92 - 9,2 kW - 12,5 HP - GSHE
/110A - 11 kW - 15 HP - GSHS-GSHF

The NPSH values are laboratory values: for practical use we suggest increasing these values by 0.5 m.
The performances are valid for liquids with density ρ = 1.0 kg/dm³ and kinematic viscosity γ = 1 mm²/sec.

HYDRAULIC PERFORMANCE CURVES

GSHE - GSHS - GSHF 65-200	~2900min^{-1}	ISO 9906- Annex A

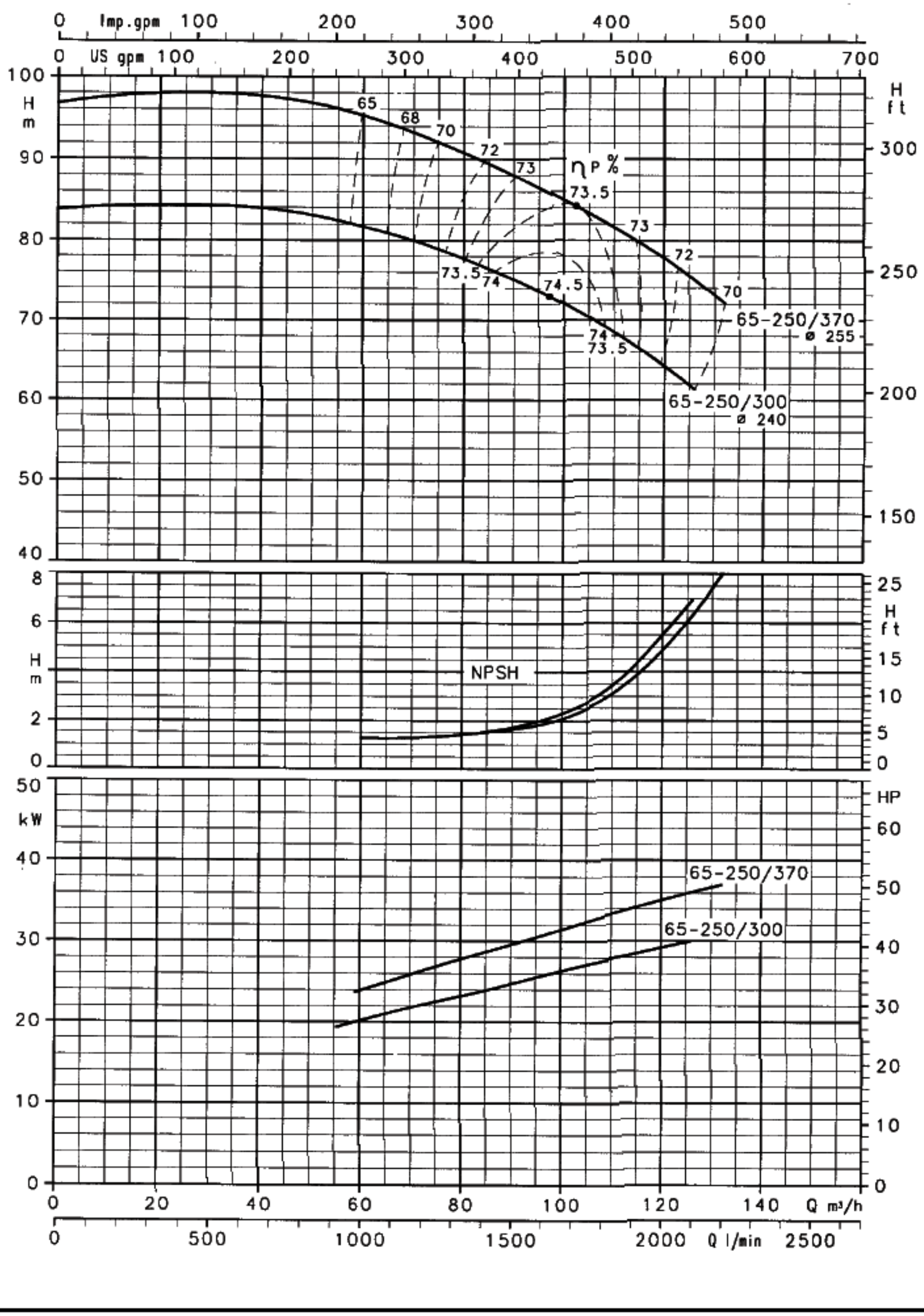


The NPSH values are laboratoryvalues: for practical use we suggestincreasing thesevalues by 0.5 m.

The performancesare valid for liquids with density ρ =1.0 kg/dm^3 and kinematic viscosity γ =1 mm^2/sec.

HYDRAULIC PERFORMANCE CURVES

GSHE - GSHS - GSHF 65-250	~2900min⁻¹	ISO 9906- Annex A

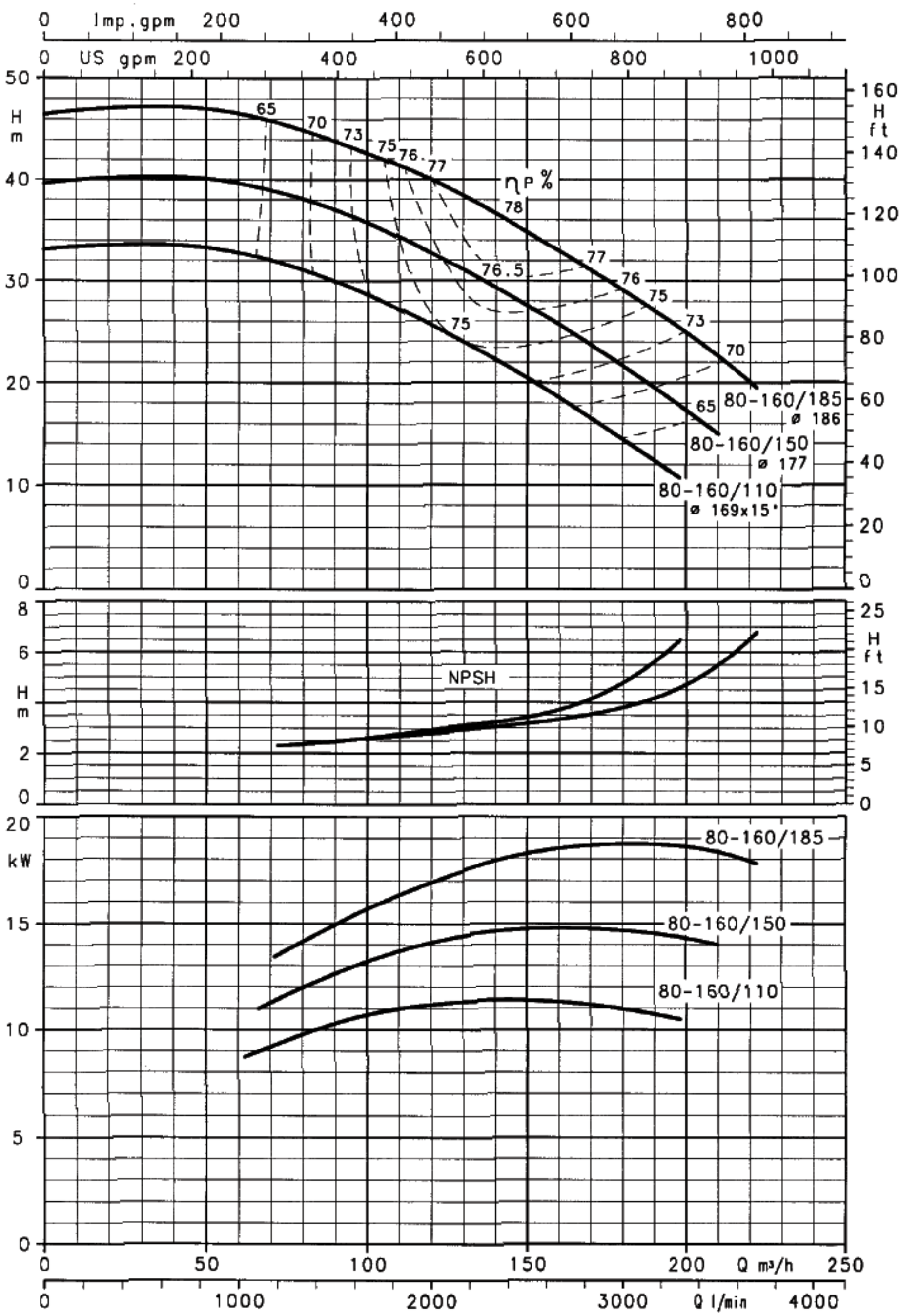


The NPSH values are laboratoryvalues: for practical use we suggestincreasing thesevalues by 0.5 m.

The performancesare valid for liquids with density ρ =1.0 kg/dm³ and kinematic viscosity ν =1 mm ²/sec.

HYDRAULIC PERFORMANCE CURVES

GSHE - GSHS - GSHF 80-160	~2900 min⁻¹	ISO 9906- Annex A

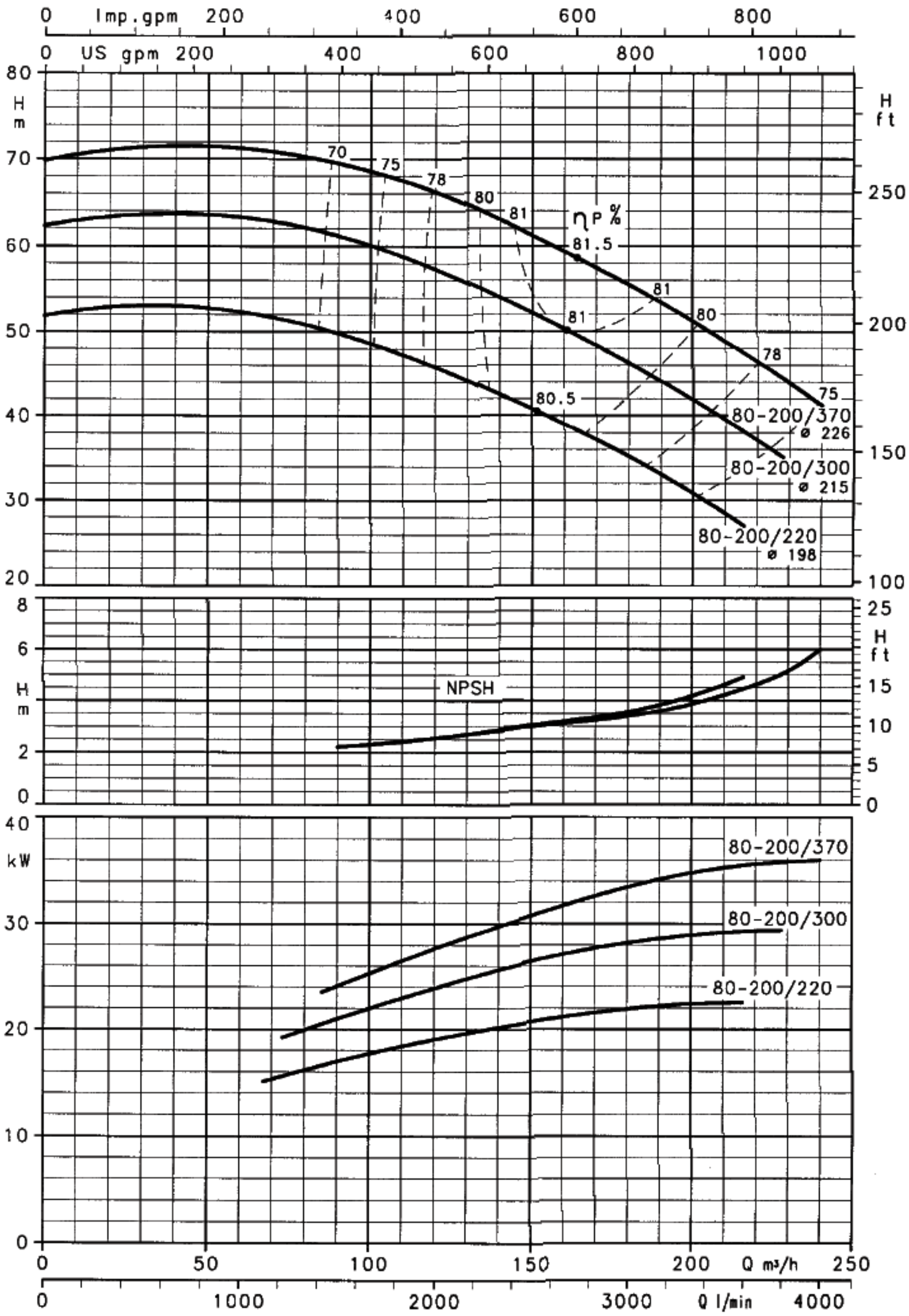


The NPSH values are laboratoryvalues: for practical use we suggestincreasing thesevalues by 0.5 m.

The performancesare valid for liquids with density ρ =1.0 kg/dm³ and kinematic viscosity ν =1 mm²/sec.

HYDRAULIC PERFORMANCE CURVES

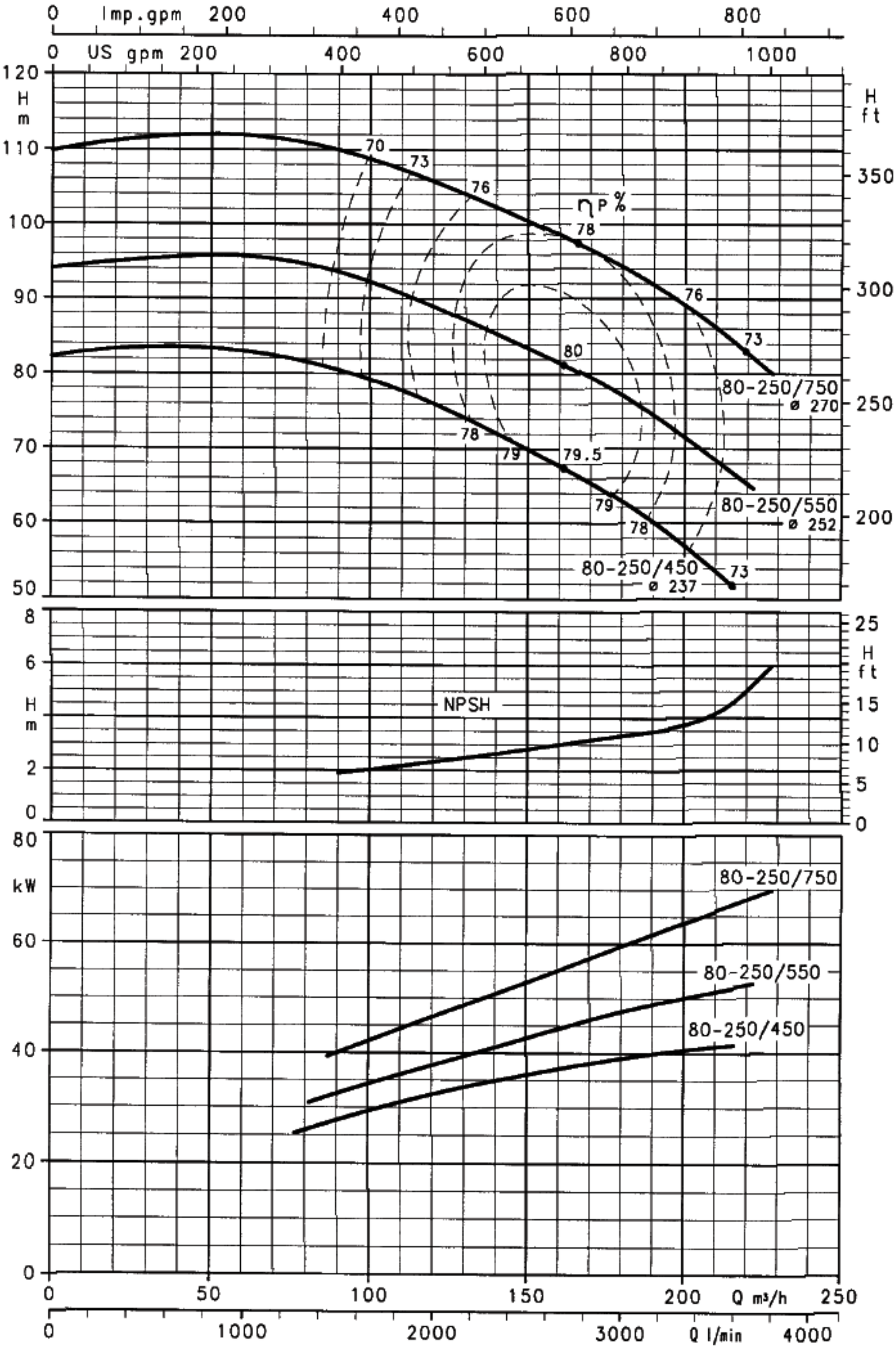
GSHE - GSHS - GSHF 80-200	~2900min⁻¹	ISO 9906- Annex A



The NPSH values are laboratoryvalues: for practical use we suggestincreasing thesevalues by 0.5 m.
The performancesare valid for liquids with density ρ =1.0 kg/dm ³ and kinematicviscosity ν =1 mm ²/sec.

HYDRAULIC PERFORMANCE CURVES

GSHF 80-250	~2900 min⁻¹	ISO 9906- Annex A

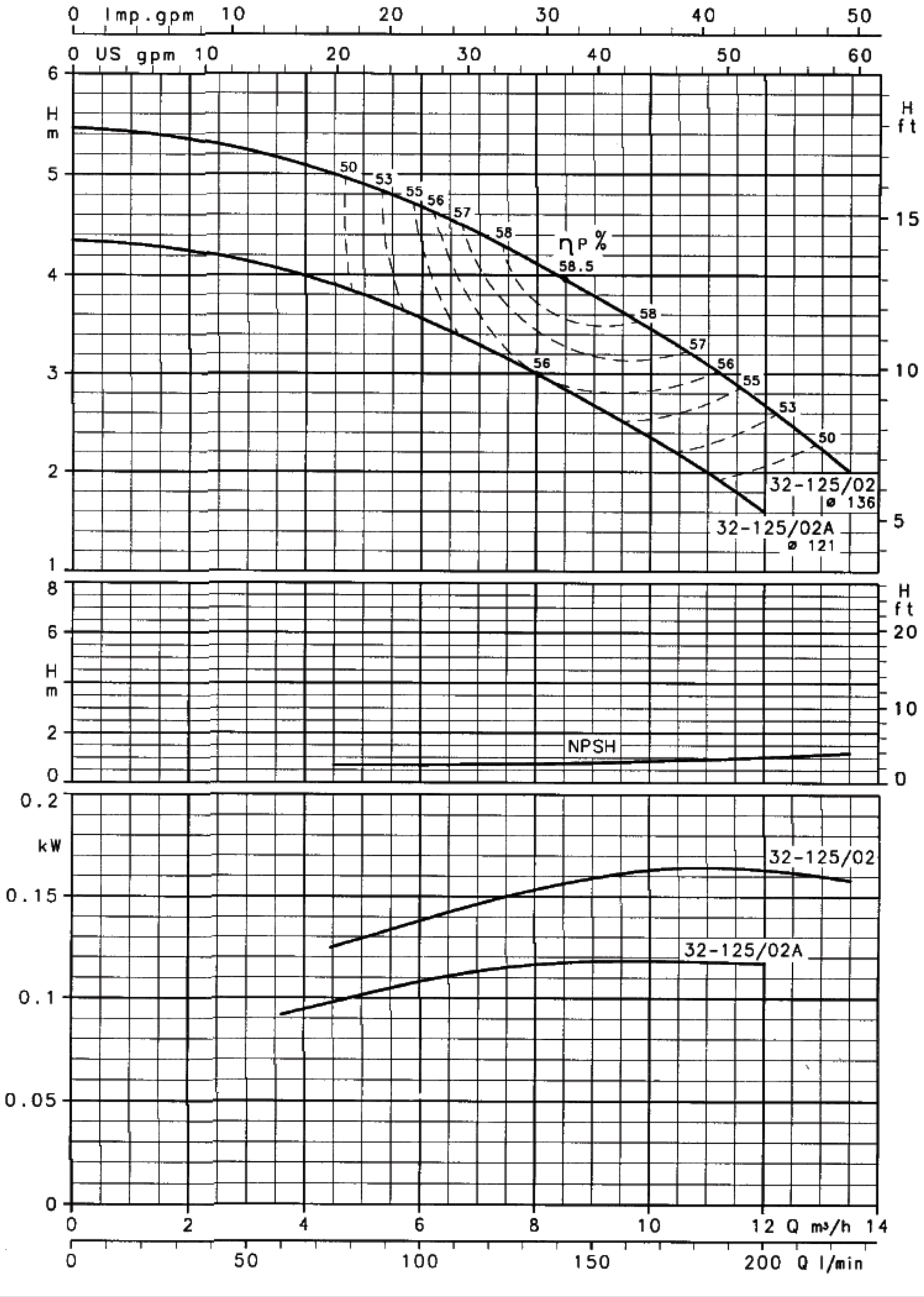


The NPSH values are laboratory values: for practical use we suggest increasing these values by 0.5 m.

The performance are valid for liquids with density $\rho = 1.0$ kg/dm³ and kinematic viscosity $\gamma = 1$ mm²/sec.

HYDRAULIC PERFORMANCE CURVES

GSHE4 - GSHF4 32 -125 25-125	~1450 min⁻¹	ISO 9906- Annex A

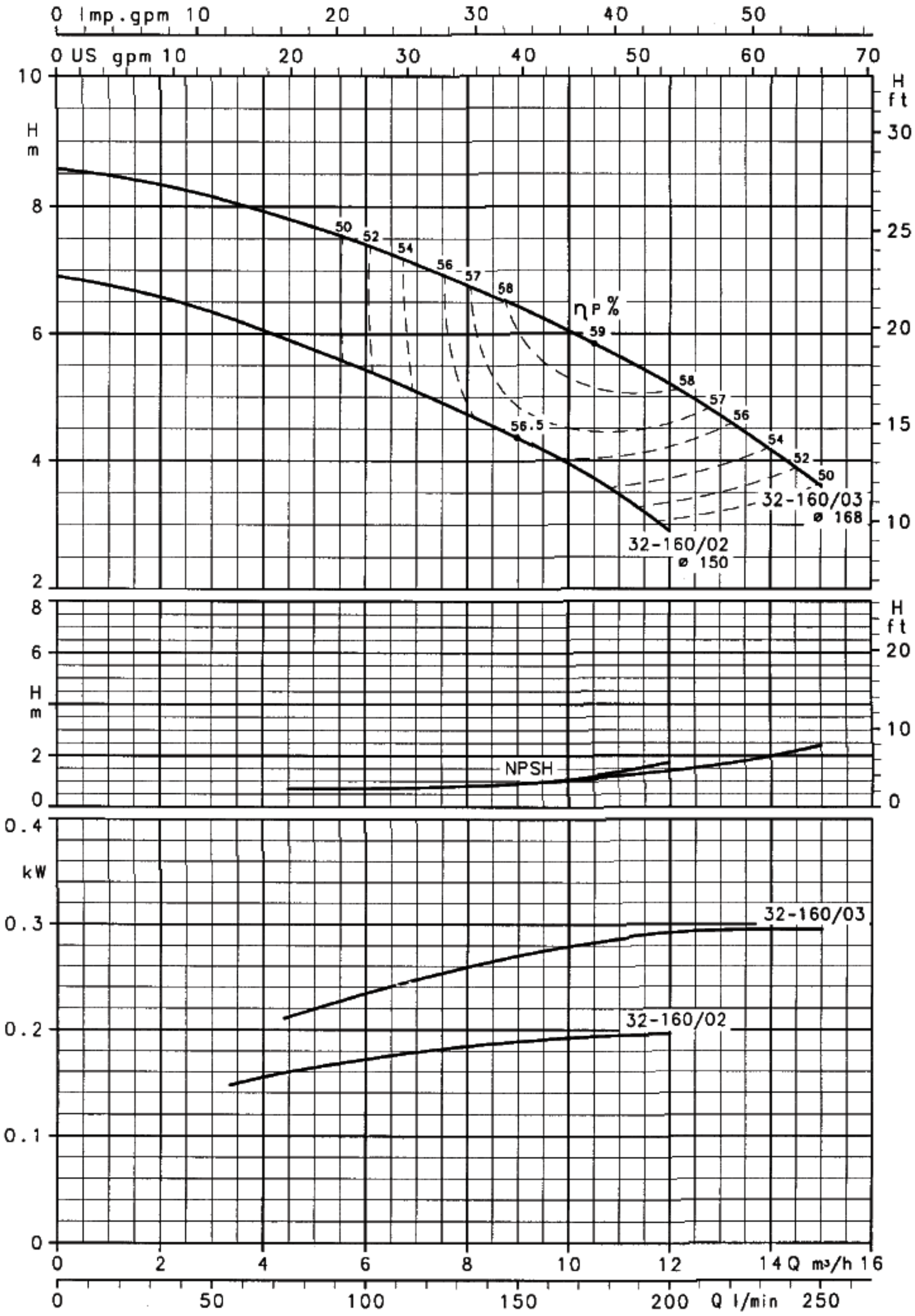


The NPSH values are laboratoryvalues: for practical use we suggestincreasing these values by 0.5 m.

The performancesare valid for liquids with density ρ =1.0 kg/dm³ and kinematic viscosity γ =1 mm²/sec.

HYDRAULIC PERFORMANCE CURVES

GSHE4- GSHF4 32-160 25-160	~1400 min^{-1}	ISO 9906- Annex A

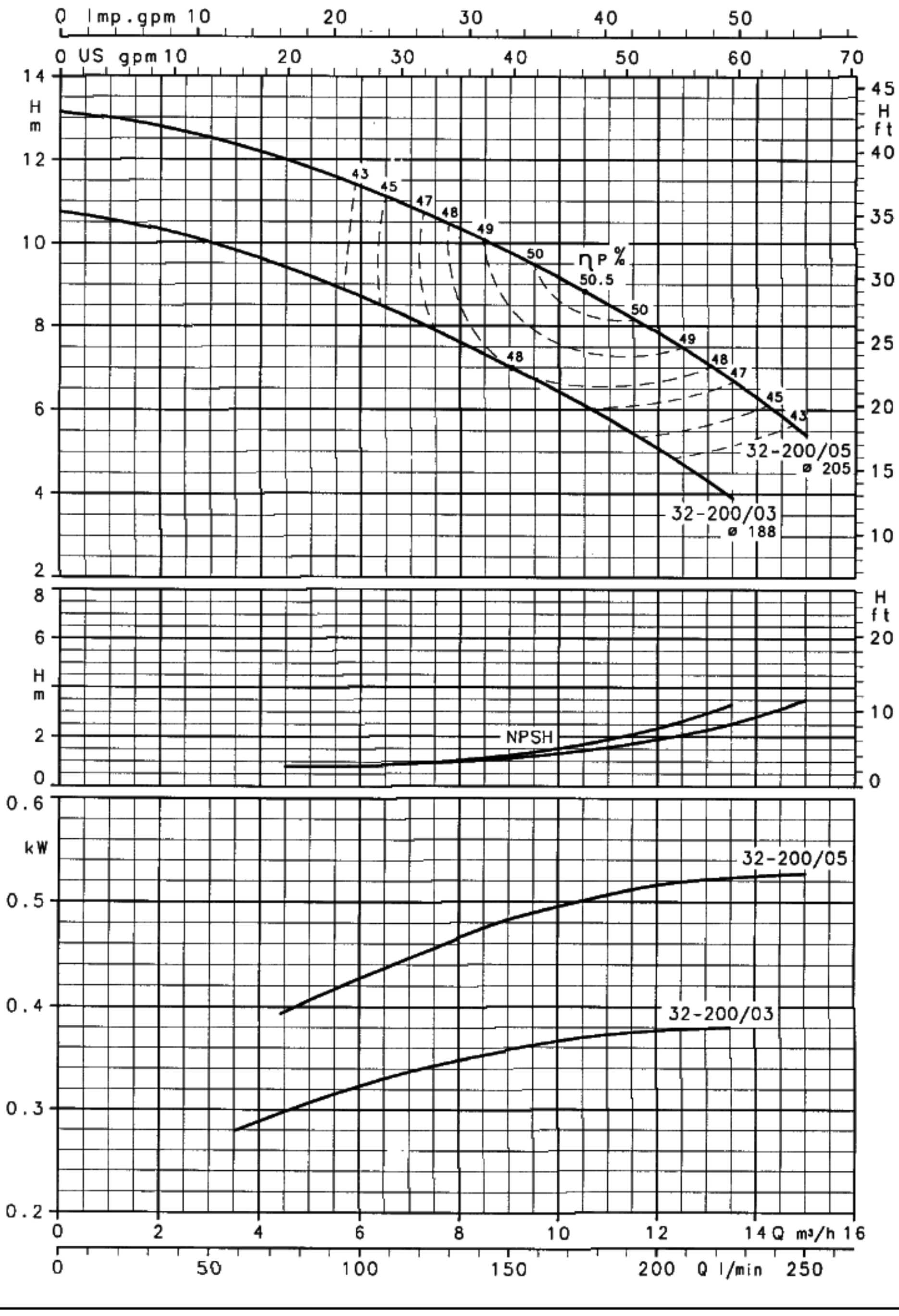


The NPSH values are laboratory values: for practical use we suggest increasing these values by 0.5 m.

The performances arevalid for liquids with density $\rho = 1.0$ kg/dm^3 and kinematic viscosity $\gamma = 1$ mm^2/sec.

HYDRAULIC PERFORMANCE CURVES

GSHE4 - GSHF4 32-200 25-200	~1450 min⁻¹	ISO 9906- Annex A

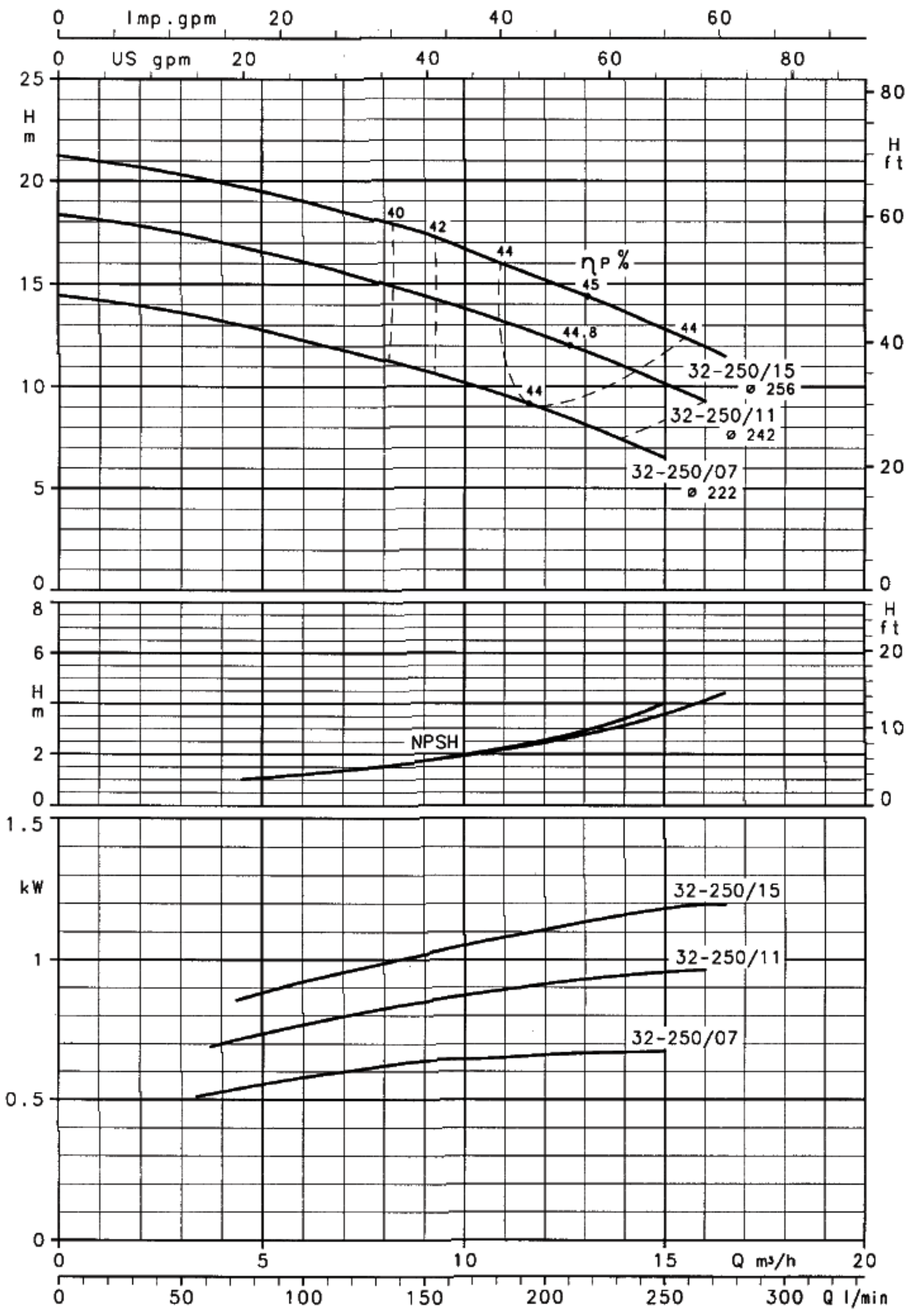


The NPSH values are laboratory values: for practical use we suggest increasing these values by 0.5 m.

The performances are valid for liquids with density $\rho = 1.0$ kg/dm ^{3} and kinematic viscosity $\gamma = 1$ mm ^{2}/sec.

HYDRAULIC PERFORMANCE CURVES

GSHE4 - GSHF4 32-250 25-250	—1450 min⁻¹	ISO 9906- Annex A

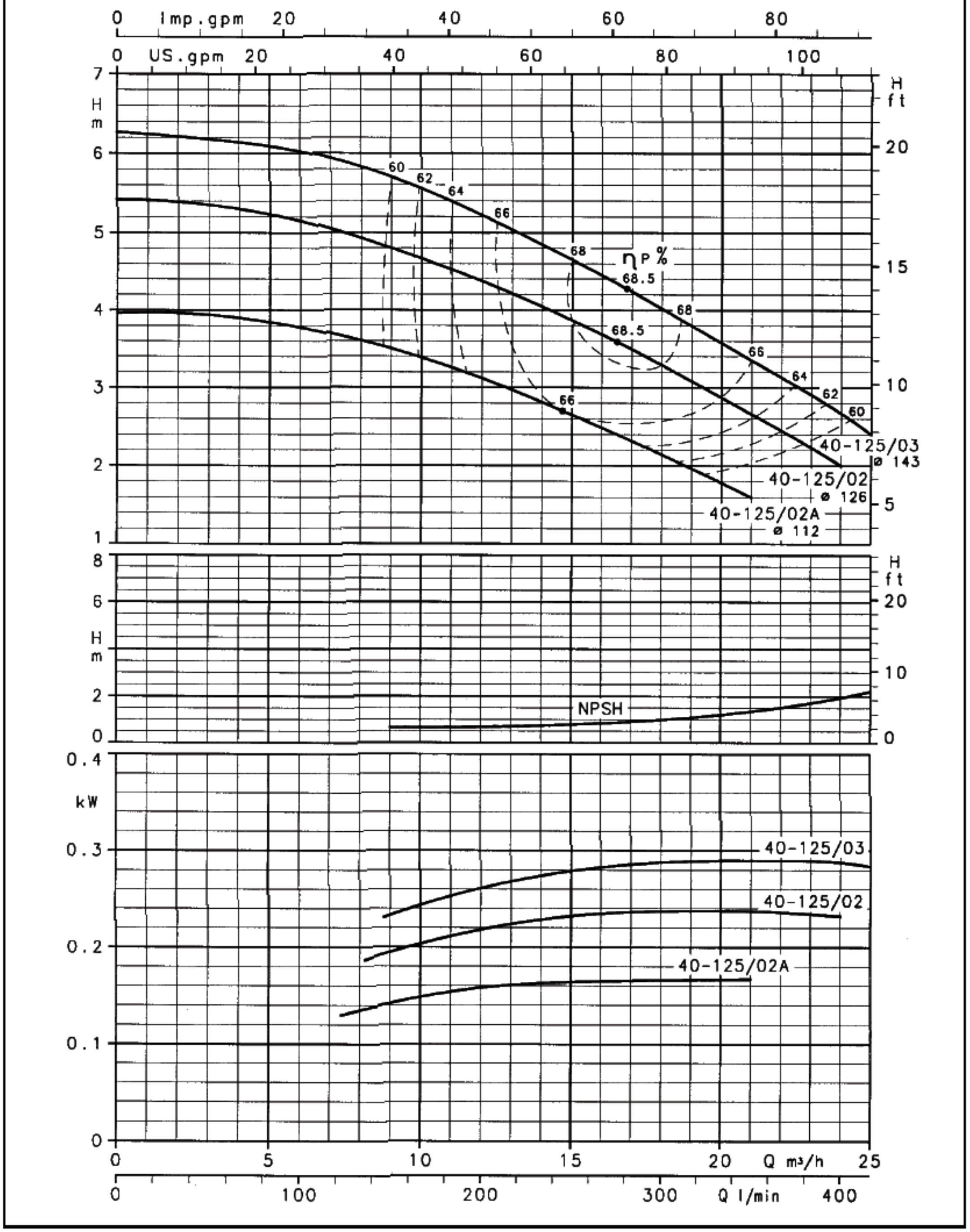


The NPSH values are laboratory values: for practical use we suggest increasing these values by 0.5 m.

The performances are valid for liquids with density $\rho = 1.0$ kg/dm³ and kinematic viscosity $\gamma = 1$ mm²/sec.

HYDRAULIC PERFORMANCE CURVES

GSHE4 - GSHF4 40-125	~1450 min^{-1}	ISO 9906- Annex A

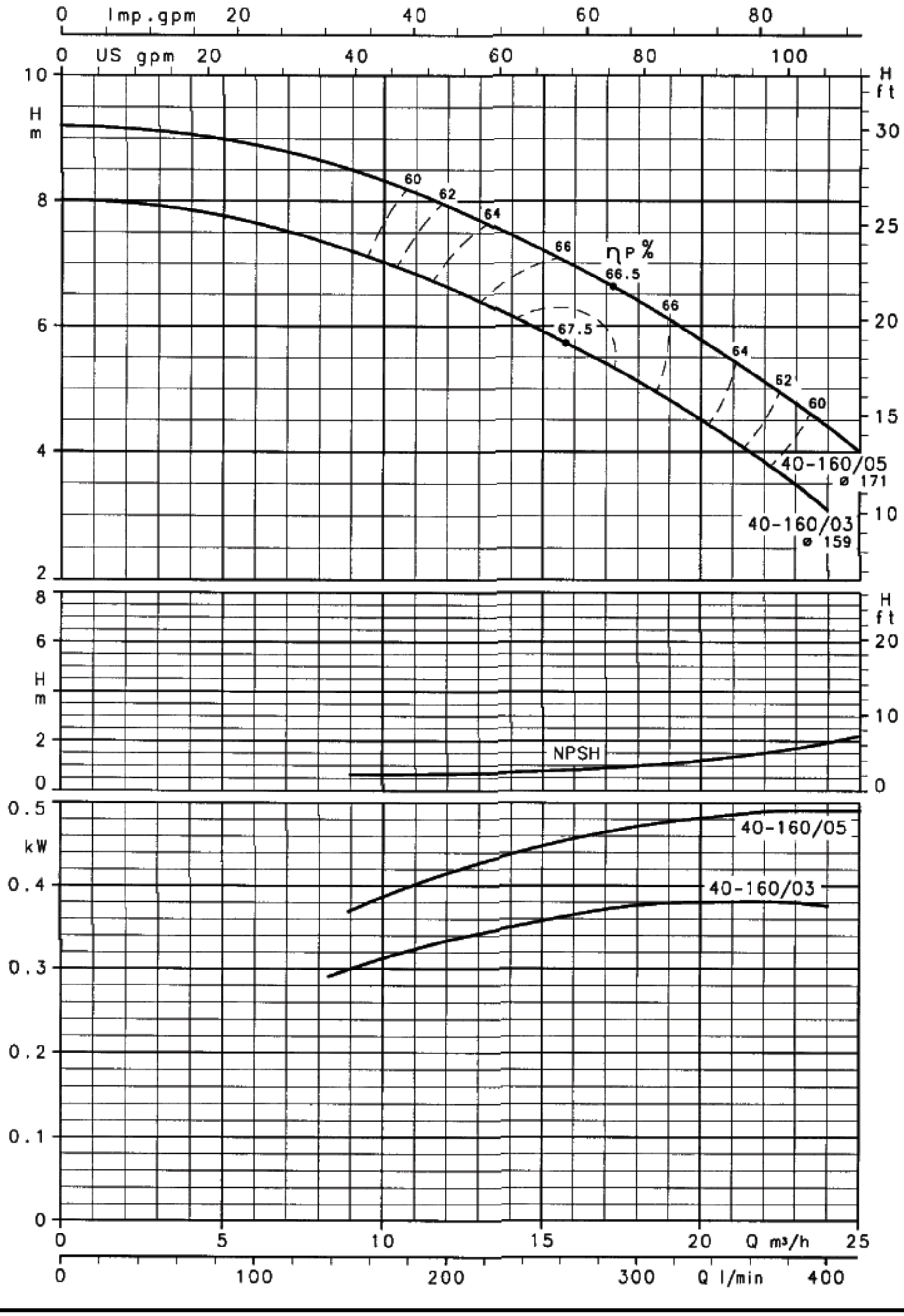


The NPSH values are laboratory values: for practical use we suggest increasing these values by 0.5 m.

The performances are valid for liquids with density $\rho = 1.0$ kg/dm ^{3} and kinematic viscosity $\gamma = 1$ mm ^{2}/sec.

HYDRAULIC PERFORMANCE CURVES

GSHE4 - GSHF4 40 -160	~1450 min^{-1}	ISO 9906- Annex A

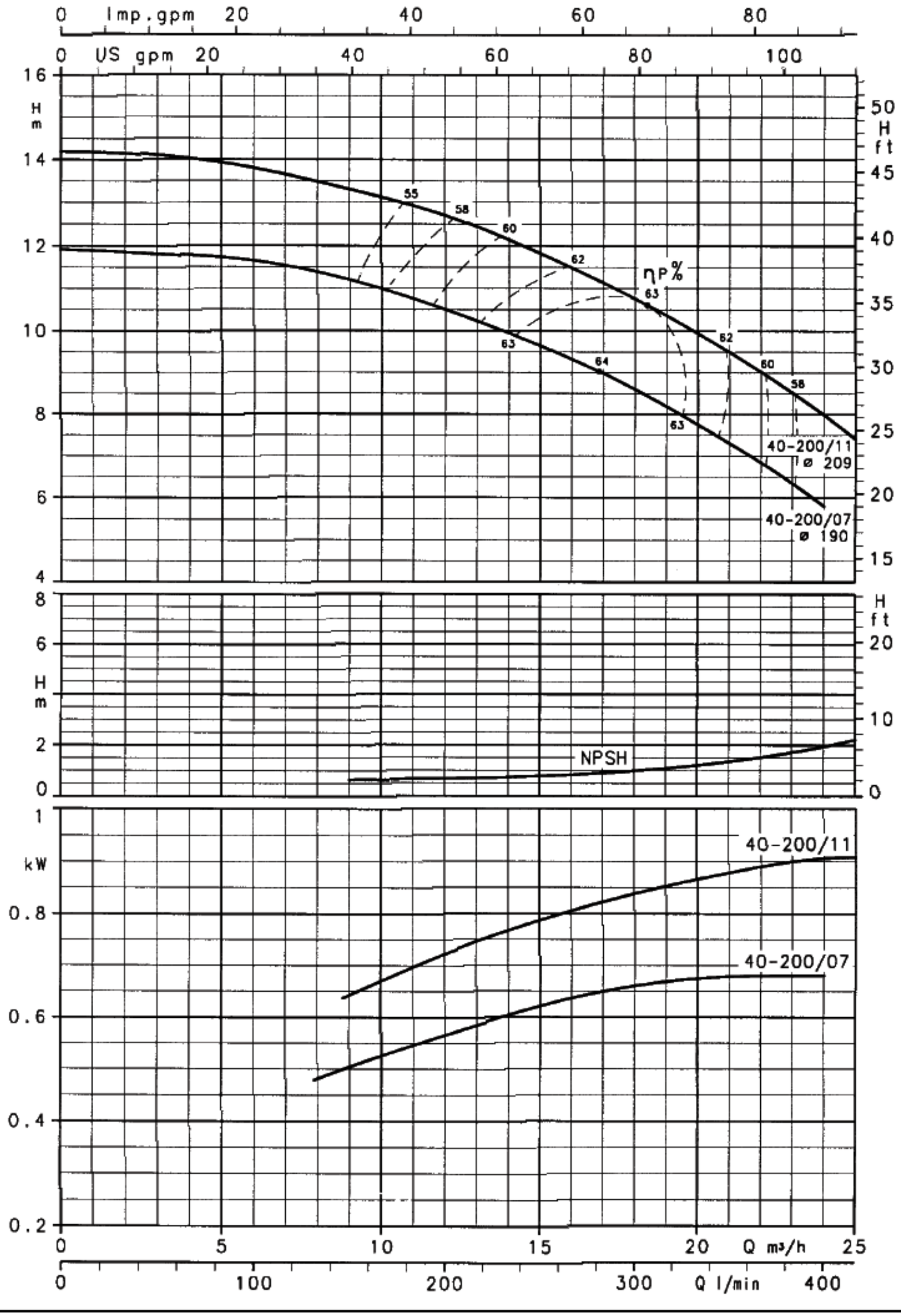


The NPSH values are laboratory values: for practical use we suggest increasing these values by 0.5 m.

The performances are valid for liquids with density $\rho = 1.0$ kg/dm^3 and kinematic viscosity $\gamma = 1$ mm^2/sec.

HYDRAULIC PERFORMANCE CURVES

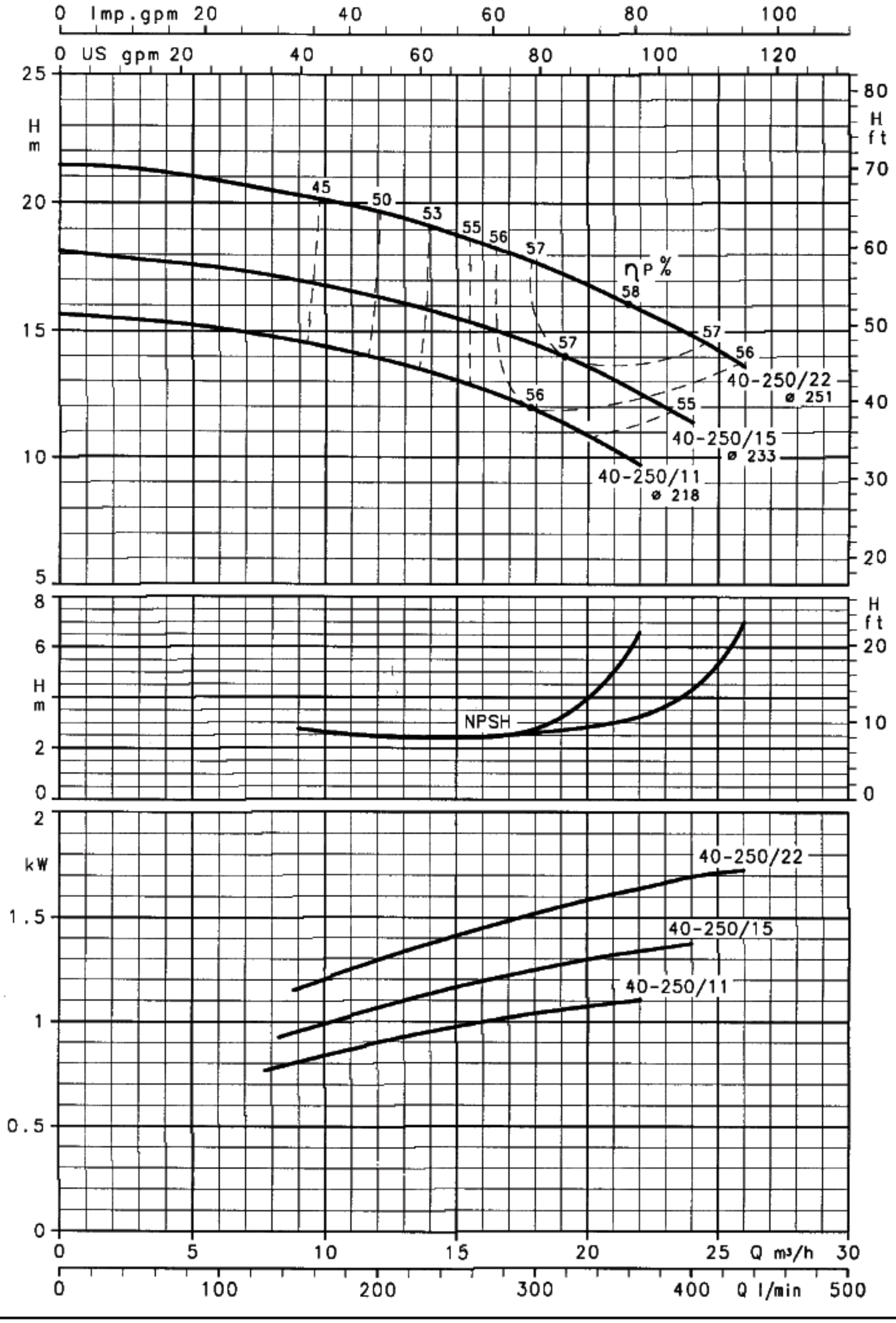
GSHE4 - GSH54 - GSHF4 40-200	~1450 min⁻¹	ISO 9906- Annex A



The NPSH values are laboratory values: for practical use we suggest increasing these values by 0.5 m.
The performances are valid for liquids with density ρ = 1.0 kg/dm ³ and kinematic viscosity ν = 1 mm ²/sec.

HYDRAULIC PERFORMANCE CURVES

GSHE4 - GSHS4 - GSHF4 40-250	~1450min^{-1}	ISO 9906- Annex A

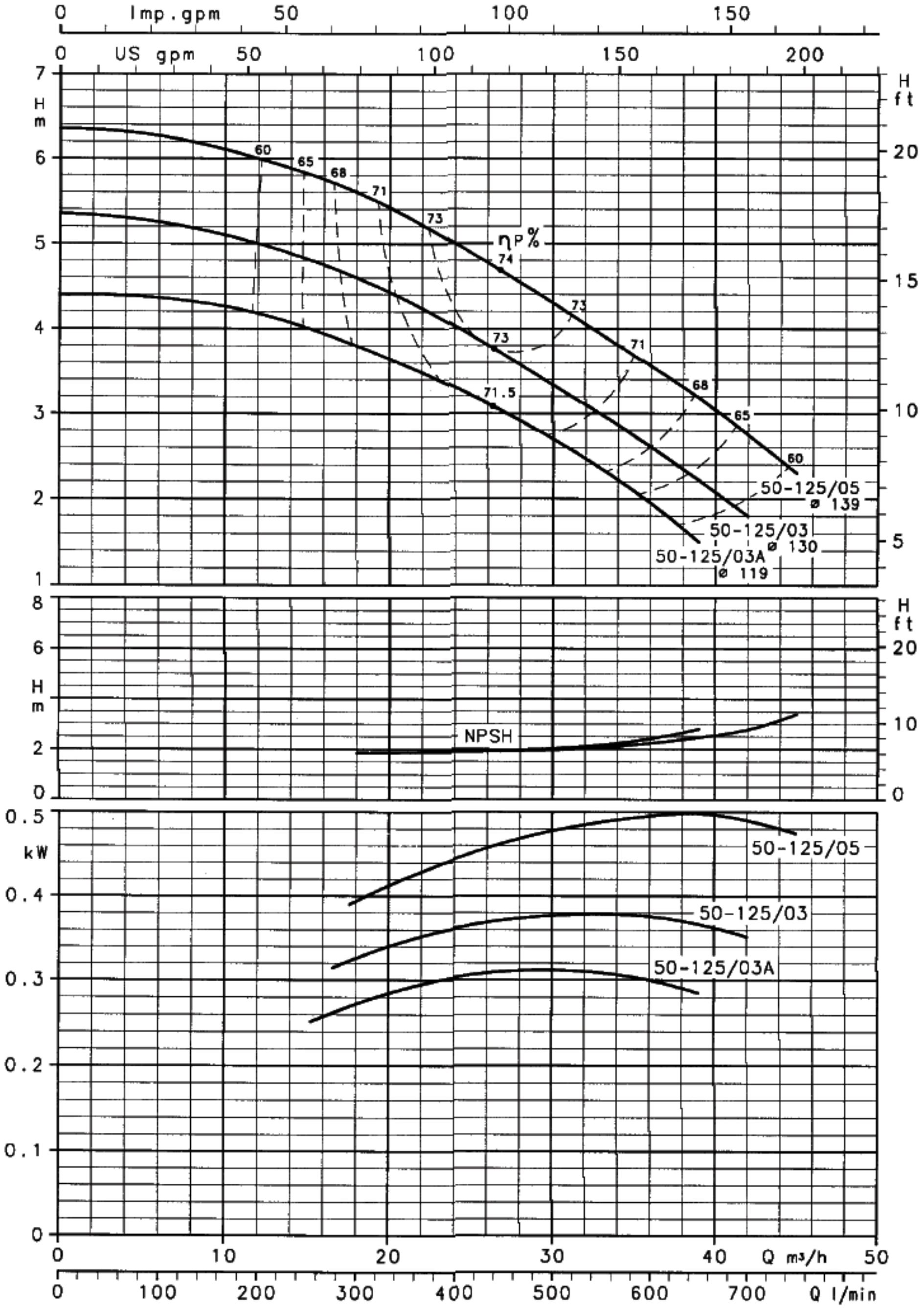


The NPSH values are laboratory values: for practical use we suggest increasing these values by 0.5 m.

The performances are valid for liquids with density ρ =1.0 kg/dm^3 and kinematic viscosity γ =1 mm^2/sec.

HYDRAULIC PERFORMANCE CURVES

GSHE4 - GSHF4 50-125	~1450 min⁻¹	ISO 9906- Annex A

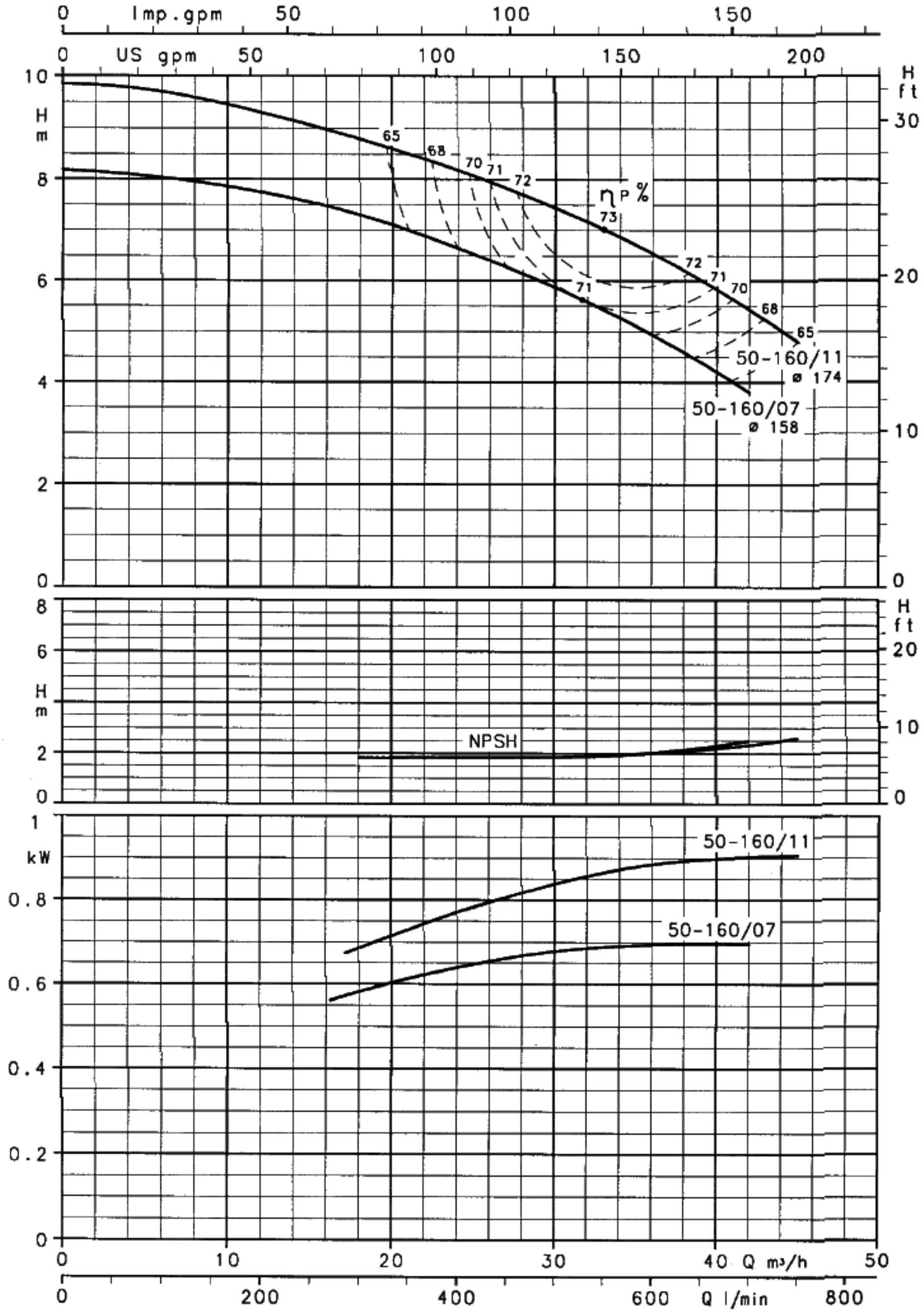


The NPSH values are laboratory values: for practical use we suggest increasing these values by 0.5 m.

The performances are valid for liquids with density ρ = 1.0 kg/dm³ and kinematic viscosity ν = 1 mm²/sec.

HYDRAULIC PERFORMANCE CURVES

GSHE4 - GSHS4 - GSHF4 50-160	~1450 min⁻¹	ISO 9906- Annex A

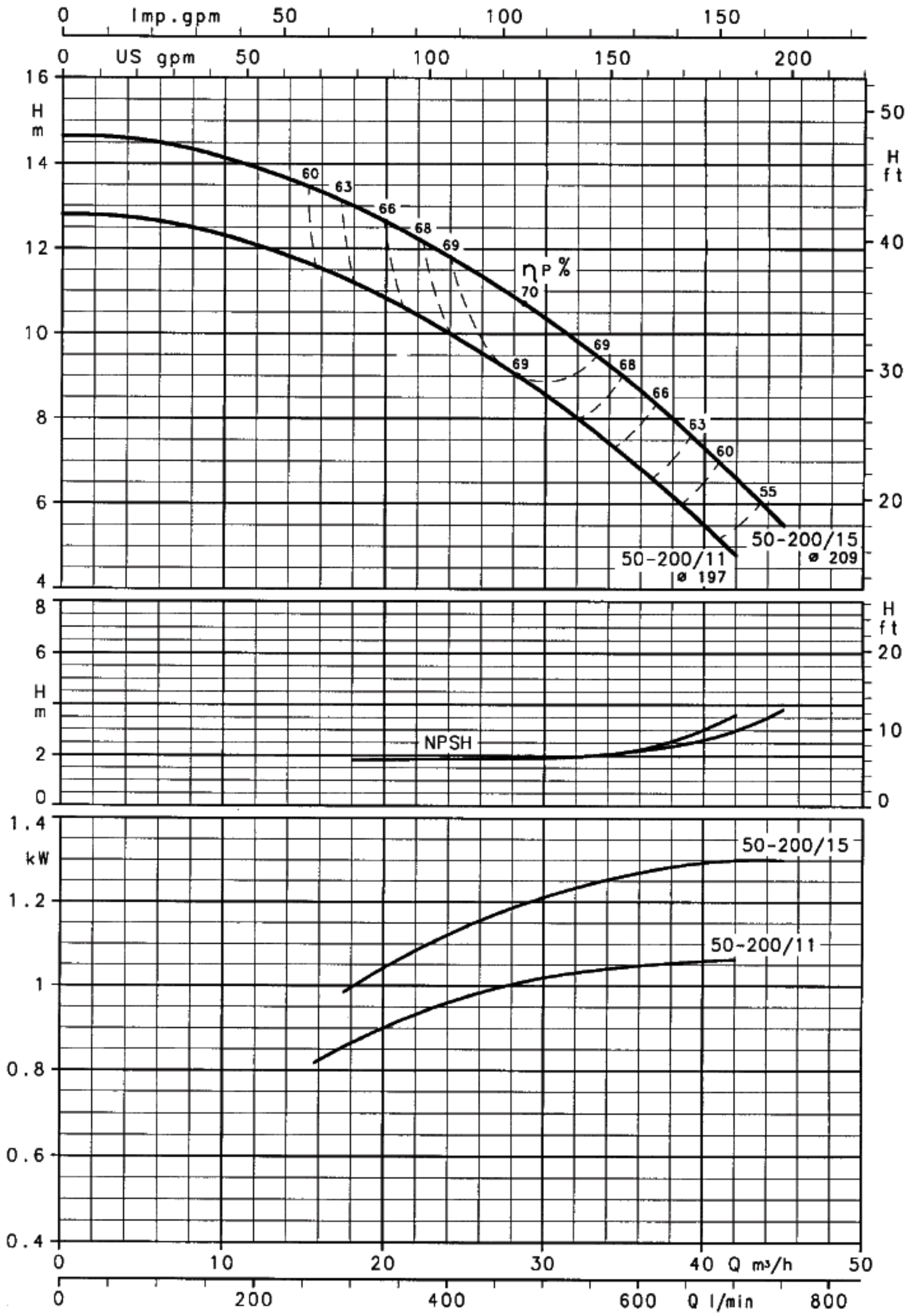


The NPSH values are laboratory values: for practical use we suggest increasing these values by 0.5 m.

The performances are valid for liquids with density$_{\rho}$ =1.0 kg/dm³ and kinematic viscosity$_{\nu}$ =1 mm²/sec.

HYDRAULIC PERFORMANCE CURVES

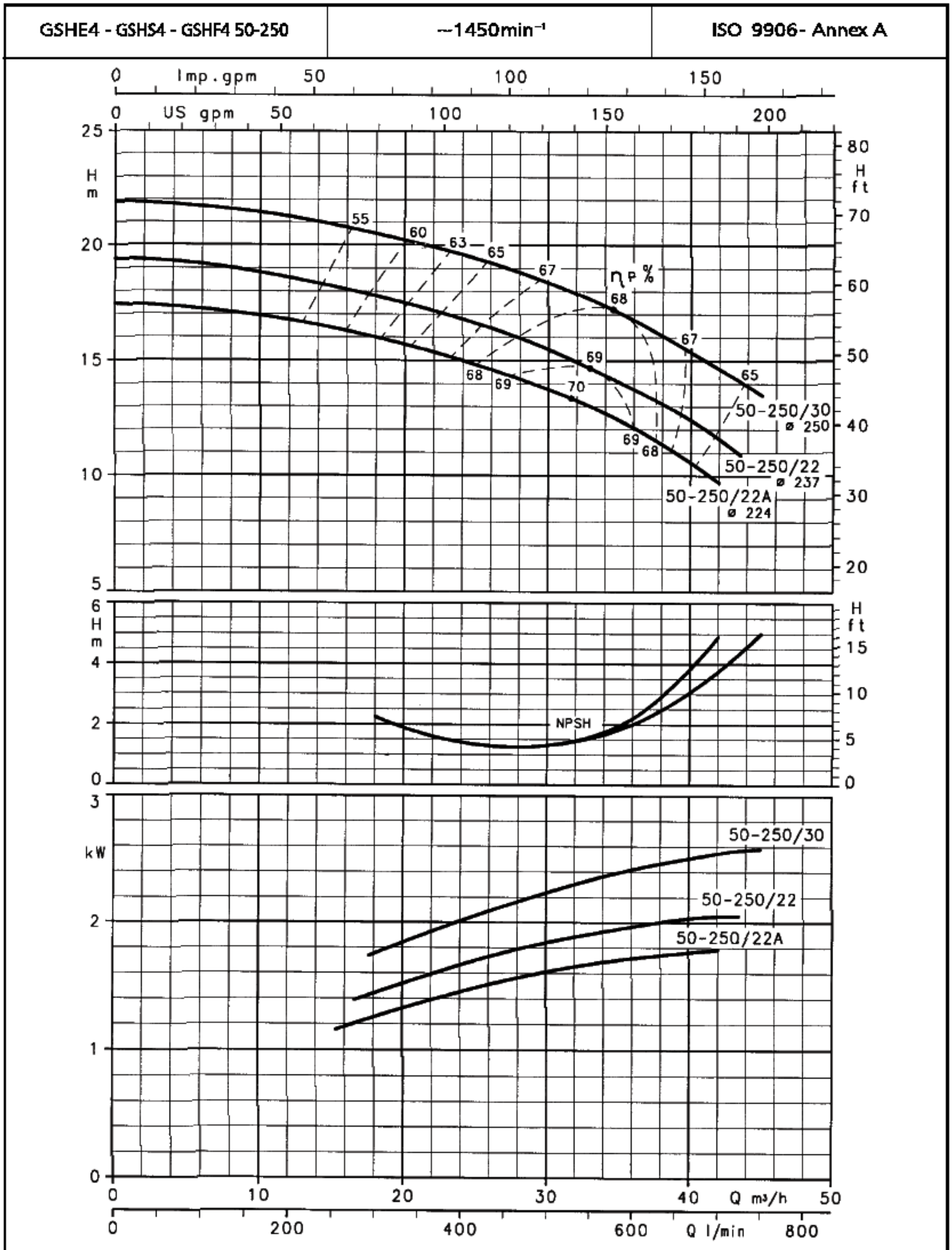
GSHE4 - GSHS4 - GSHF4 50-200	~1450min⁻¹	ISO 9906- Annex A



The NPSH values are laboratory values: for practical use we suggest increasing these values by 0.5 m.

The performances are valid for liquids with density $\rho = 1.0$ kg/dm³ and kinematic viscosity $\gamma = 1$ mm²/sec.

HYDRAULIC PERFORMANCE CURVES

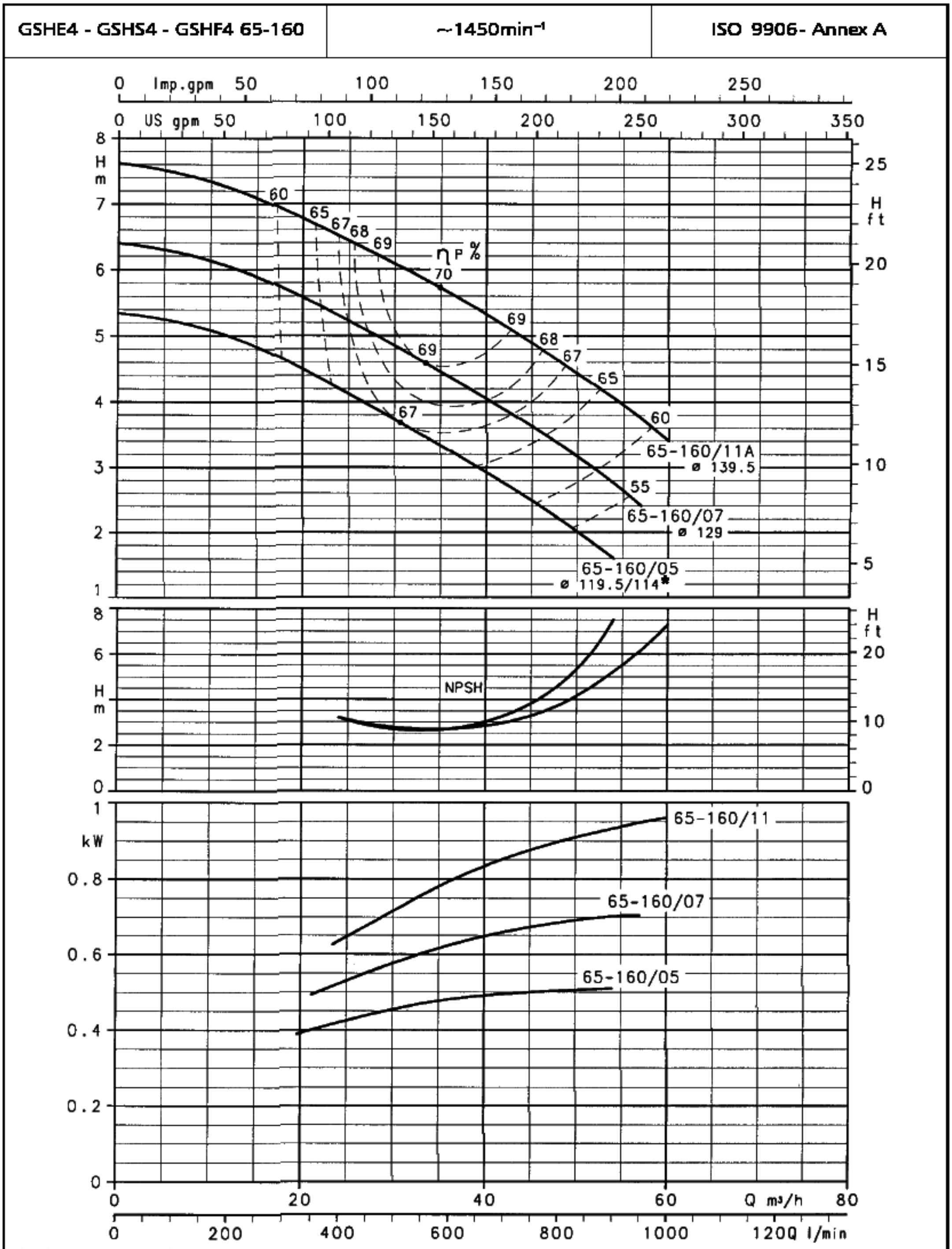


The NPSH values are laboratoryvalues: for practical use we suggest increasing these values by 0.5 m.

The performances are valid for liquids with density $\rho = 1.0$ kg/dm³ and kinematic viscosity $\gamma = 1$ mm²/sec.

HYDRAULIC PERFORMANCE CURVES

GSHE4 - GSHS4 - GSHF4 65-160	~1450min^{-1}	ISO 9906- Annex A



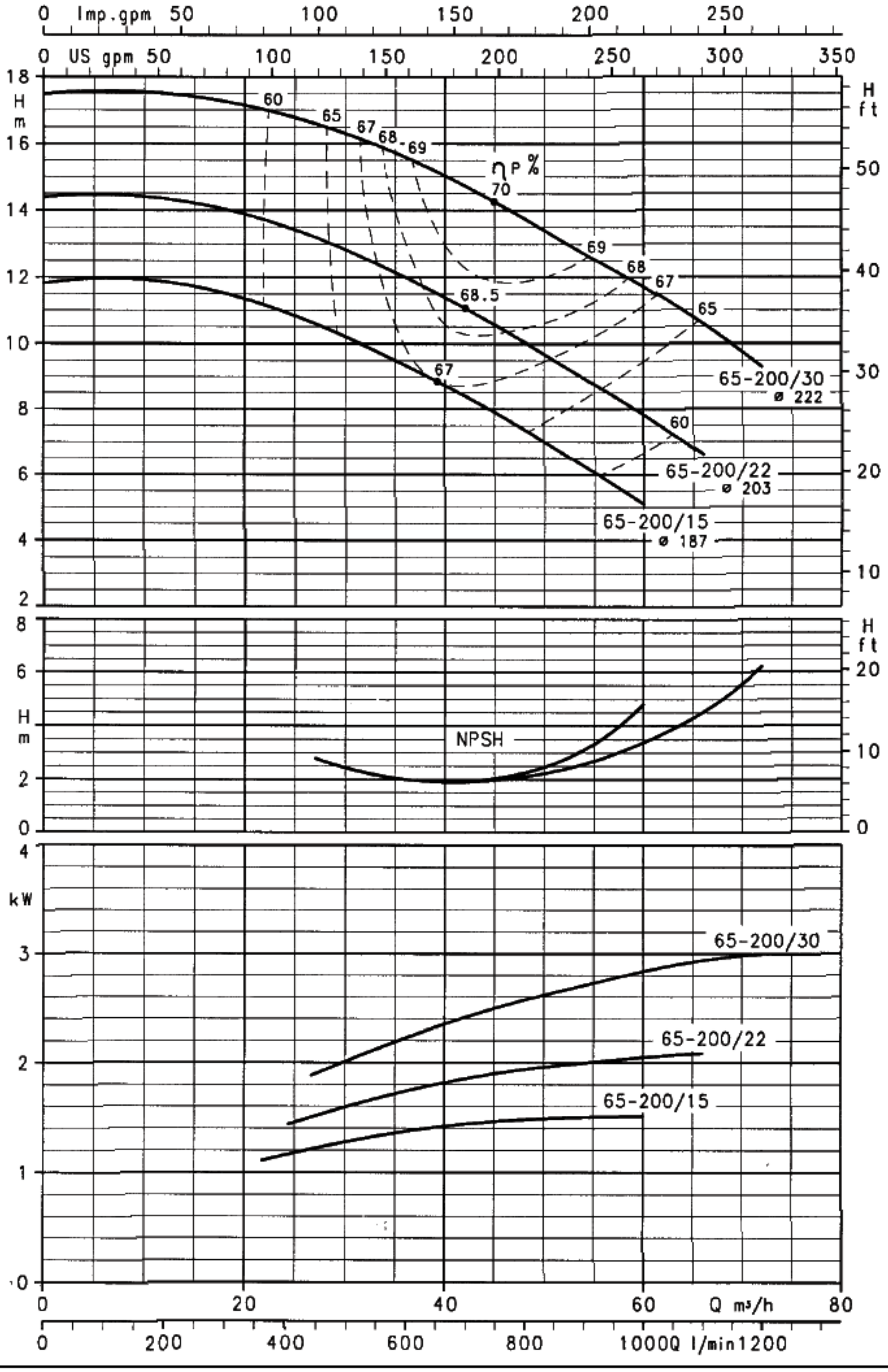
* Only GSHE4-GSHF4 versions

The NPSH values are laboratory values: for practical use we suggest increasing these values by 0.5 m.

The performances are valid for liquids with density $\rho = 1.0$ kg/dm³ and kinematic viscosity $\gamma = 1$ mm²/sec.

HYDRAULIC PERFORMANCE CURVES

GSHE4 - GSHS4 - GSHF4 65-200	---1450min^{-1}	ISO 9906- Annex A

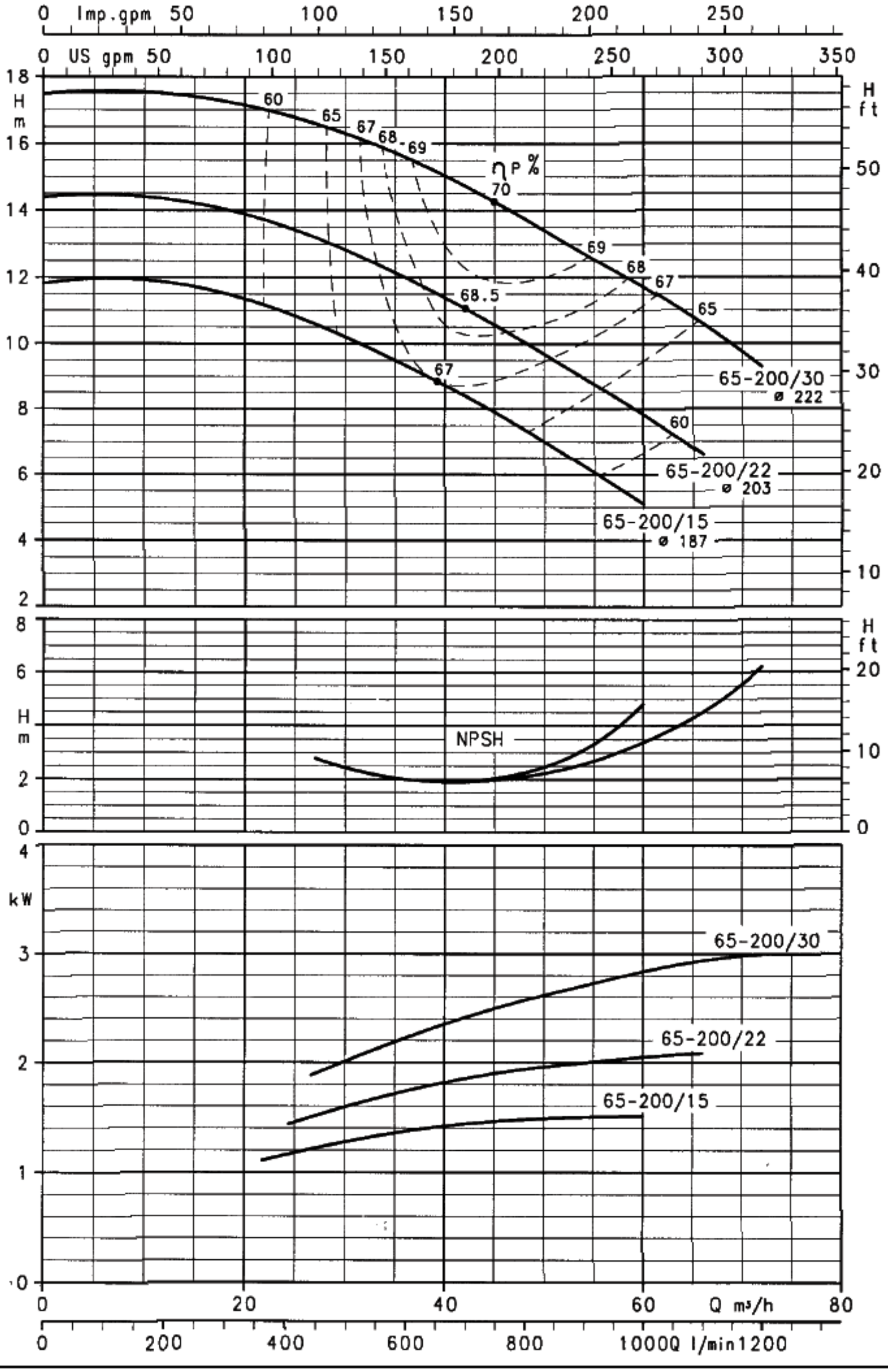


The NPSH values are laboratory values: for practical use we suggest increasing these values by 0.5 m.

The performances are valid for liquids with density $\rho = 1.0$ kg/dm ^{3} and kinematic viscosity $\gamma = 1$ mm ^{2}/sec.

HYDRAULIC PERFORMANCE CURVES

GSHE4 - GSHS4 - GSHF4 65-200	---1450min^{-1}	ISO 9906- Annex A

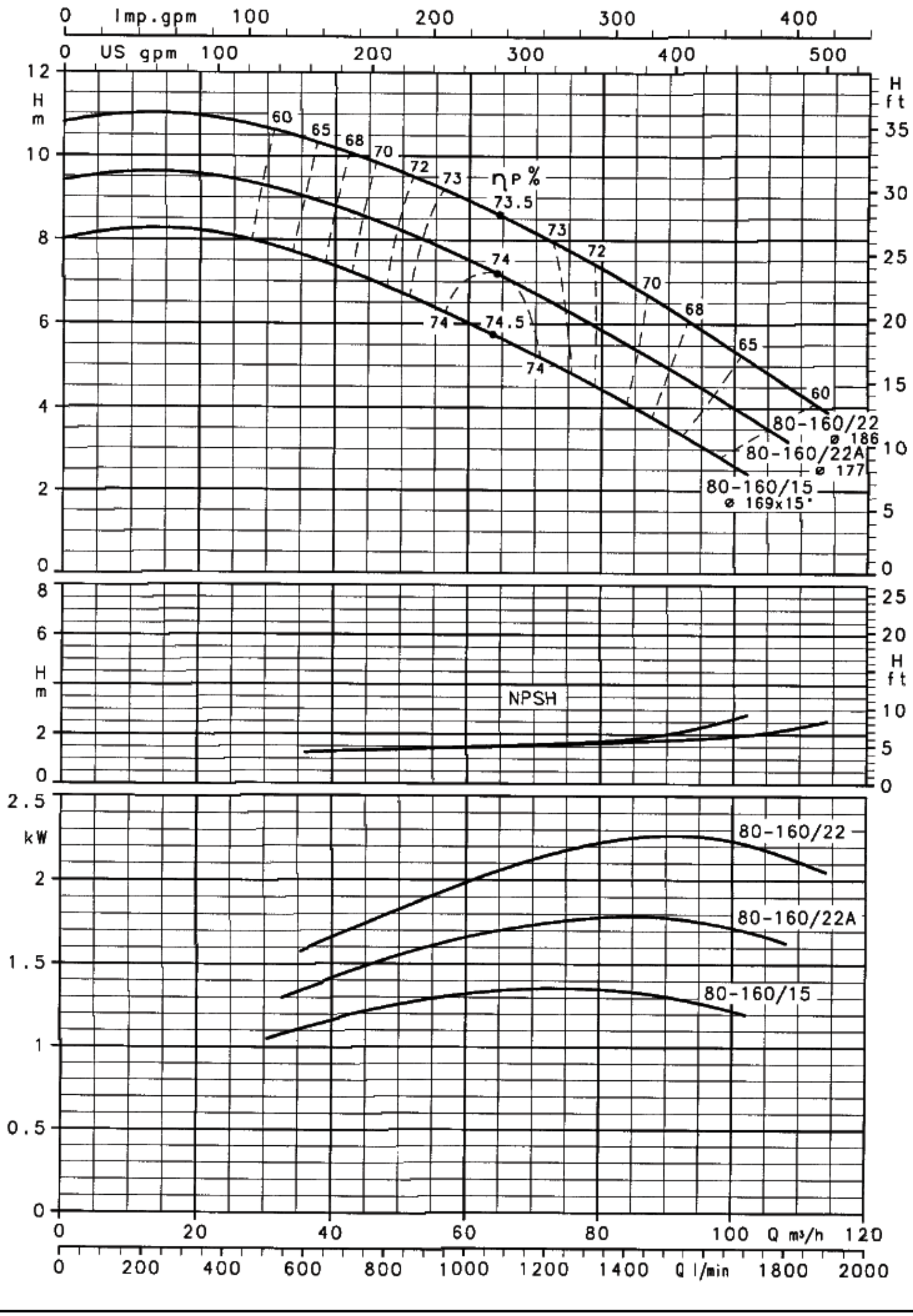


The NPSH values are laboratory values: for practical use we suggest increasing these values by 0.5 m.

The performances are valid for liquids with density $\rho = 1.0$ kg/dm ^{3} and kinematic viscosity $\gamma = 1$ mm ^{2}/sec.

HYDRAULIC PERFORMANCE CURVES

GSHE4 - GSHS4 - GSHF4 80 -160	~1450min⁻¹	ISO 9906- Annex A

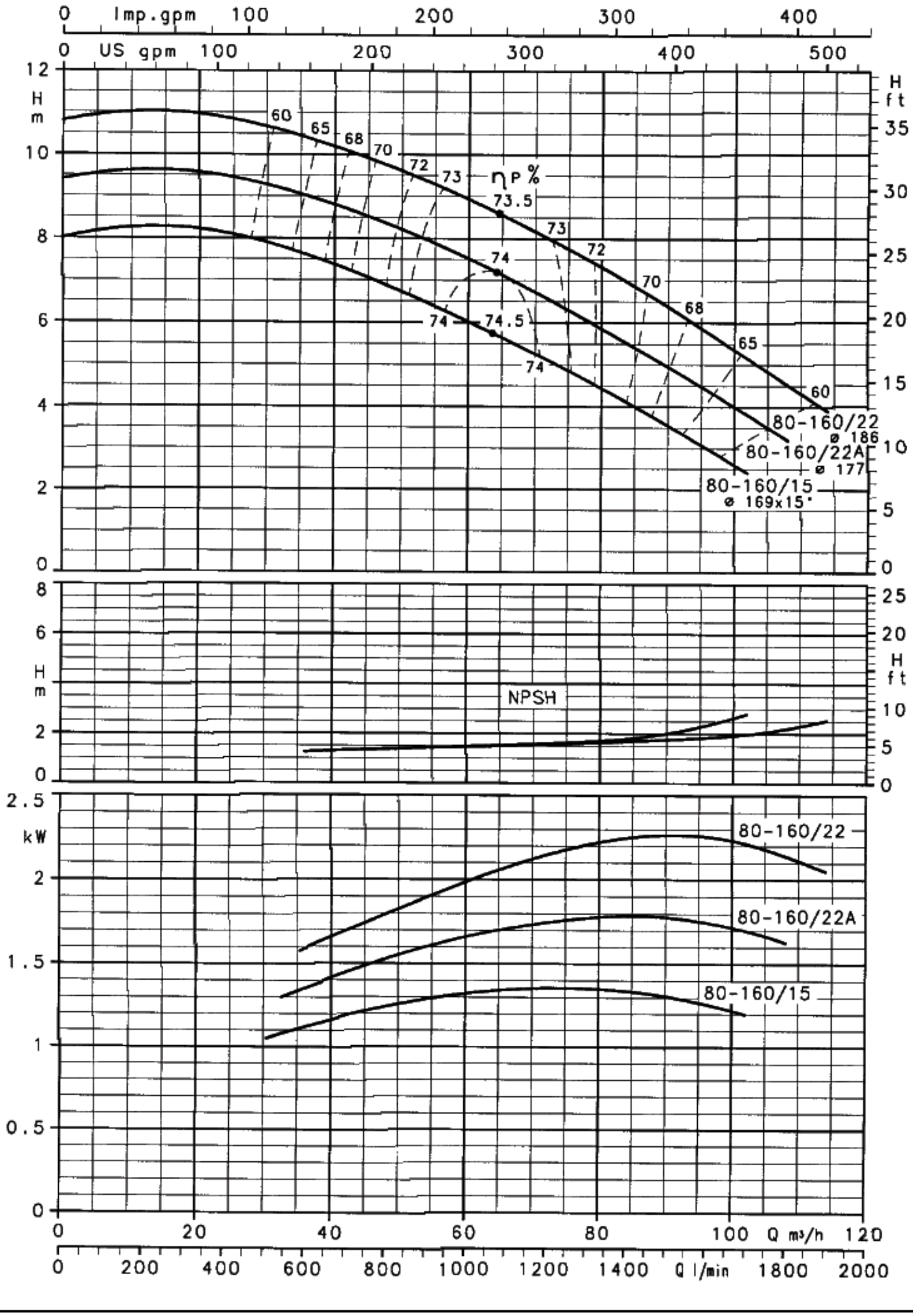


The NPSH values are laboratory values: for practical use we suggest increasing these values by 0.5 m.

The performances are valid for liquids with density $\rho = 1.0$ kg/dm³ and kinematic viscosity $\gamma = 1$ mm²/sec.

HYDRAULIC PERFORMANCE CURVES

GSHE4 - GSHS4 - GSHF4 80 -160	~1450min⁻¹	ISO 9906- Annex A

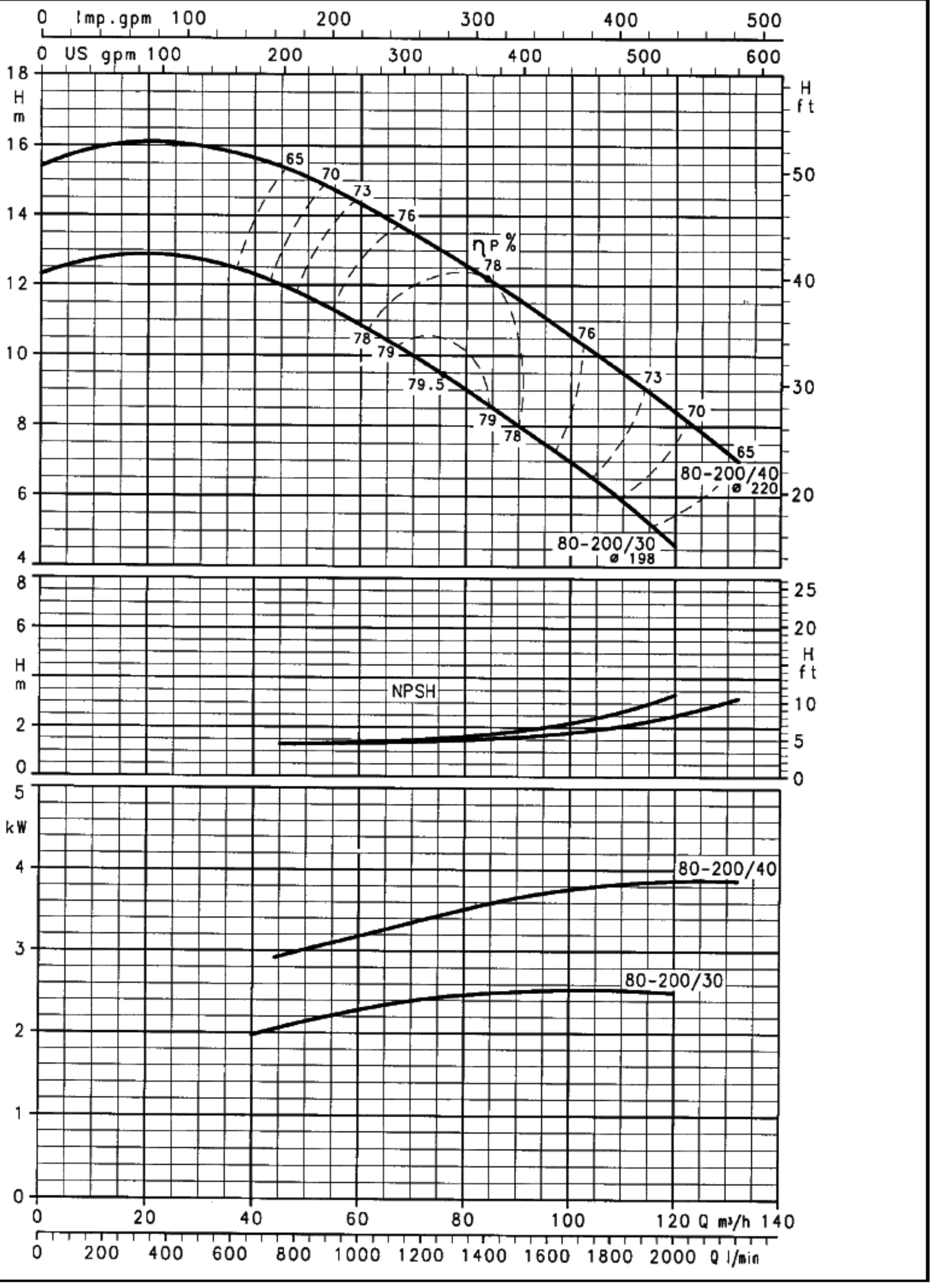


The NPSH values are laboratory values: for practical use we suggest increasing these values by 0.5 m.

The performances are valid for liquids with density $\rho = 1.0$ kg/dm³ and kinematic viscosity $\gamma = 1$ mm²/sec.

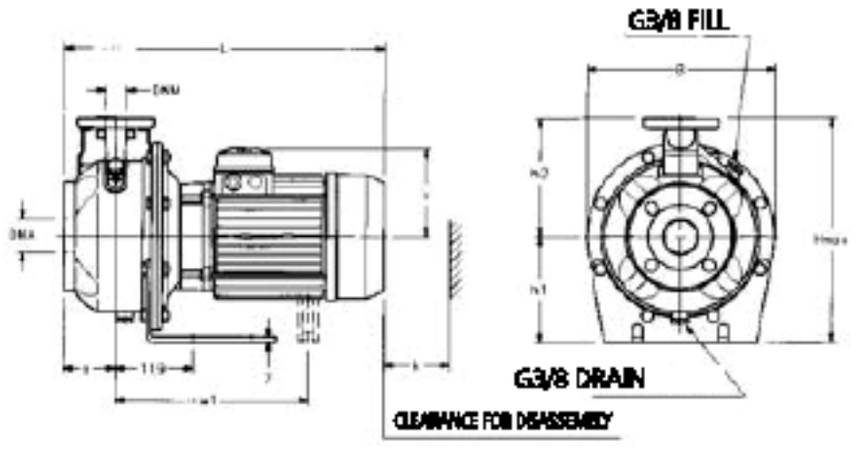
HYDRAULIC PERFORMANCE CURVES

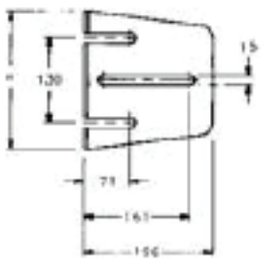
GSHE4 - GSHS4 - GSHF4 80-200	~1450min⁻¹	ISO 9906- Annex A



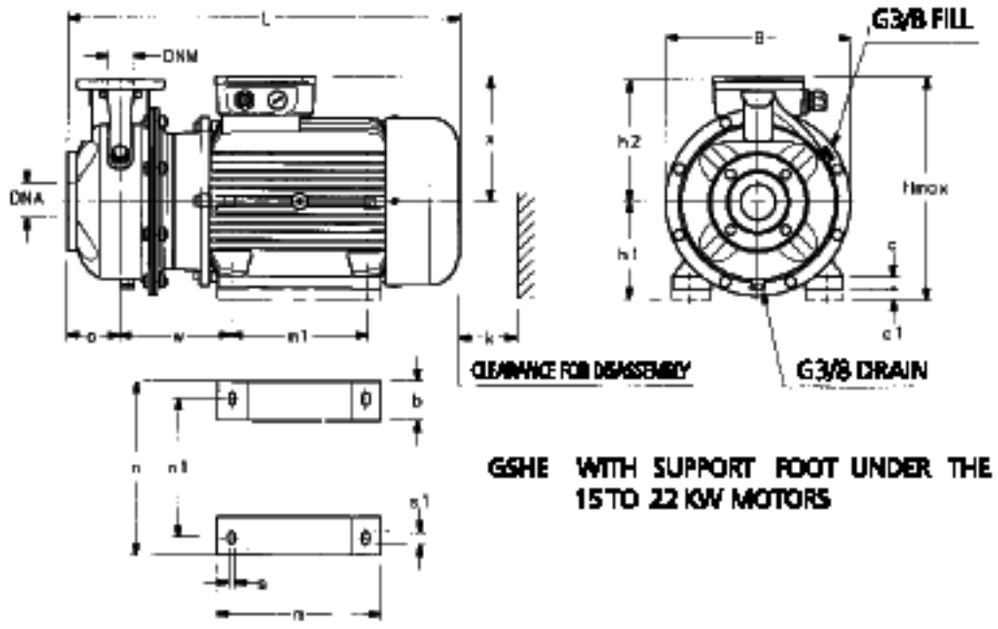
The NPSH values are laboratory values: for practical use we suggest increasing these values by 0.5 m.
The performances are valid for liquids with density $\rho = 1.0$ kg/dm³ and kinematic viscosity $\gamma = 1$ mm²/sec.

DIMENSIONS AND WEIGHTS GSHE SERIES, 2 POLES

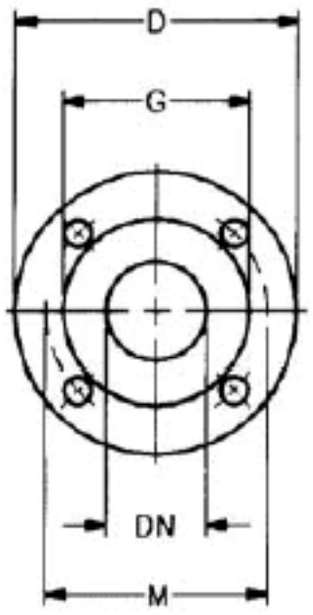




GSHE WITH PUMP SUPPORT FOOT
MOTORS UP TO 11 kW

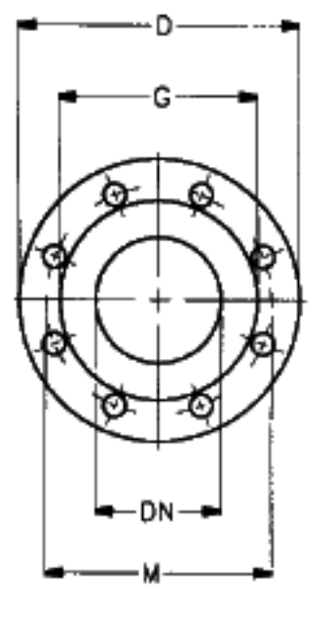


GSHE WITH SUPPORT FOOT UNDER THE MOTOR
15TO 22 KW MOTORS



FLANGES

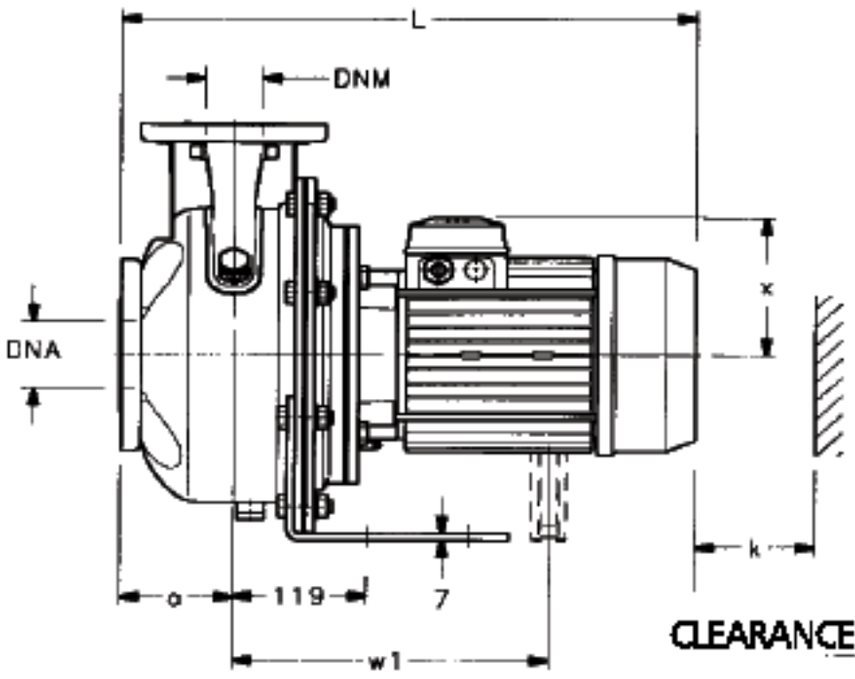
DN	D	M	G	BOLTS		MAX. THICKNESS
				N°	Ø	
25	115	85	56	4	14,5	16
50	165	125	83	4	18	18
32	140	100	64	4	18	16
40	150	110	68	4	18	16
50	165	125	83	4	18	18
65	185	145	104	4	18	18



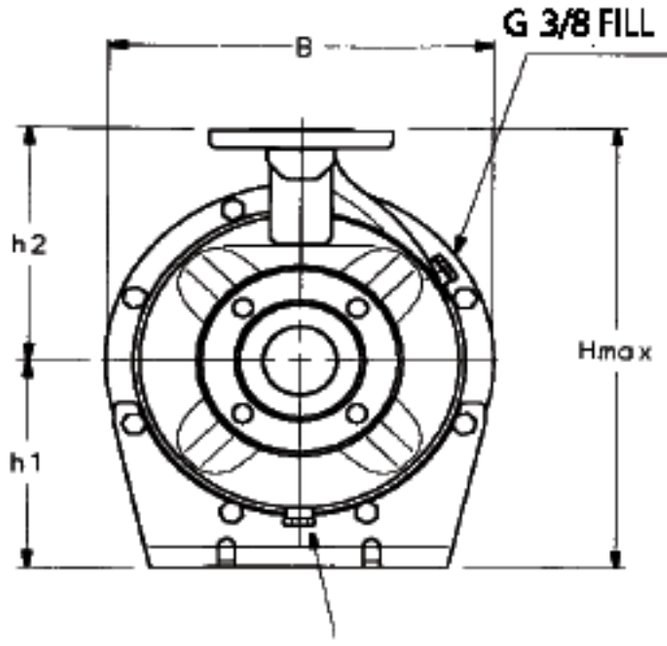
FLANGES

DN	D	M	G	BOLTS		MAX. THICKNESS
				N°	Ø	
80	200	160	116	8	18	20
100	225	180	142	8	18	20

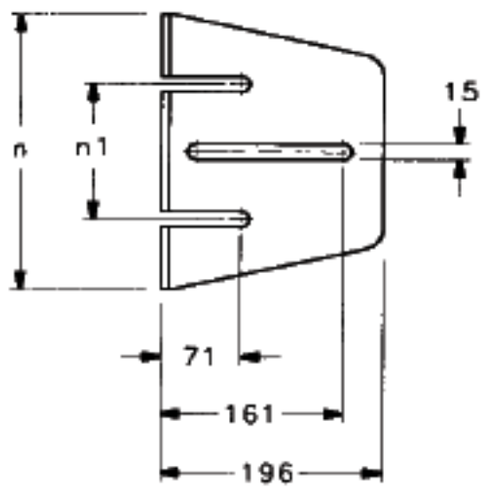
DIMENSIONS AND WEIGHTS GSHE4 SERIES, 4 POLES

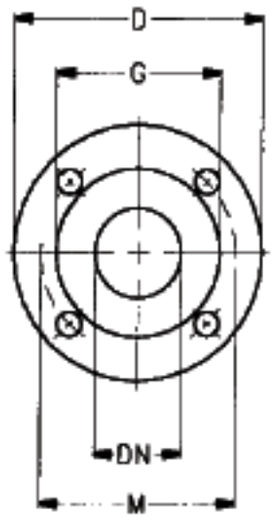


CLEARANCE FOR DISASSEMBLY



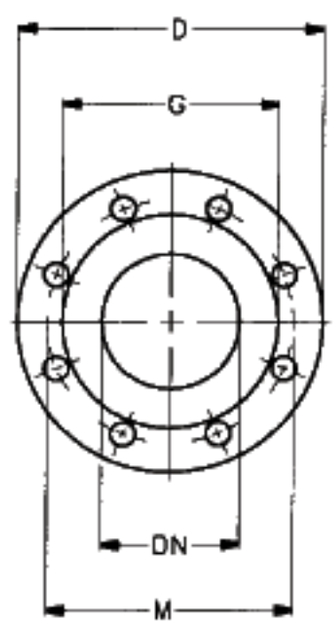
G 3/8 DRAIN





FLANGES

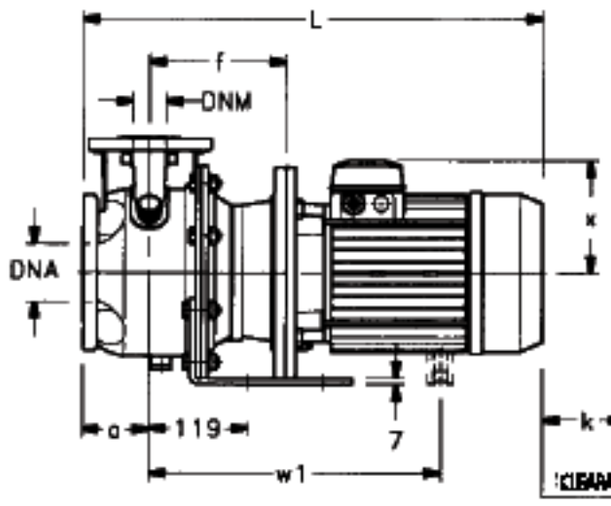
DN	D	M	G	HOLES		MAX. THICKNESS
				N°	DIA.	
25	115	85	56	4	14,5	16
32	140	100	64	4	18	16
40	150	110	68	4	18	16
50	165	125	83	4	18	18
65	185	145	104	4	18	18



FLANGES

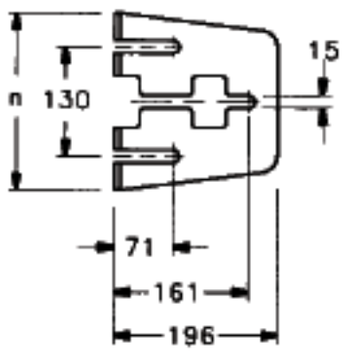
DN	D	M	G	HOLES		MAX. THICKNESS
				N°	Ø	
80	200	160	116	8	18	20
100	225	180	142	8	18	20

DIMENSIONS AND WEIGHTS GSHS SERIES, 2 POLES

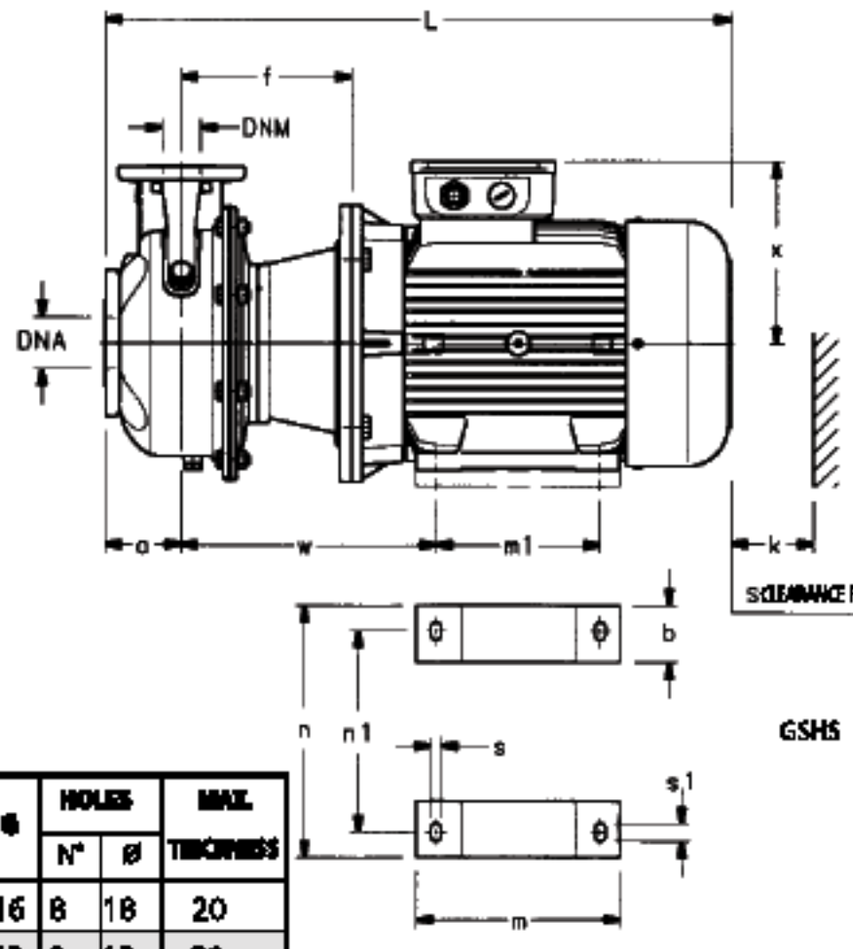


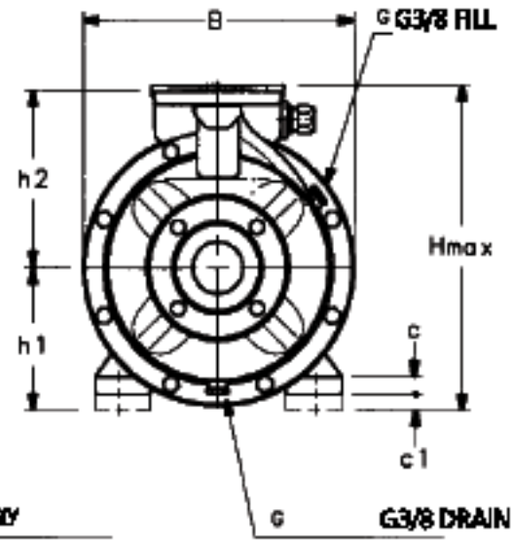
FLANGES

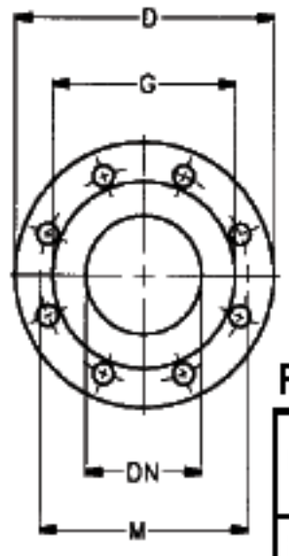
DN	D	M	G	HOLES N°	HOLES Ø	MAX. THICKNESS
25	115	85	56	4	14,5	16
50	165	125	83	4	18	18
32	140	100	64	4	18	16
40	150	110	68	4	18	16
50	165	125	83	4	18	18
65	185	145	104	4	18	18



GSHS WITH PUMP SUPPORT FOOT
MOTORS UP TO 7.5 kW







FLANGES

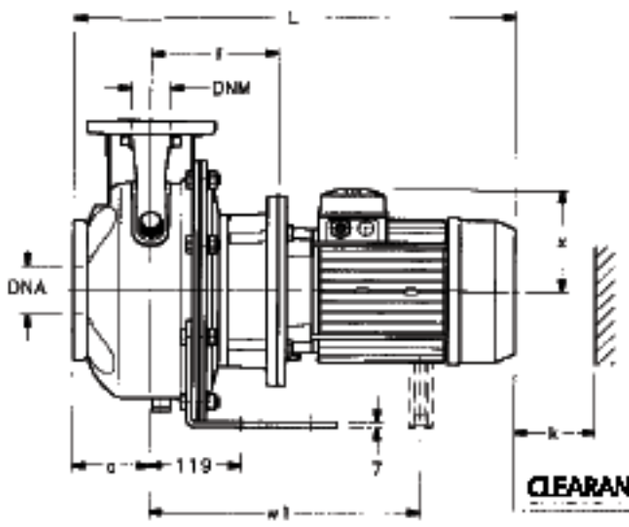
DN	D	M	G	HOLES N°	HOLES Ø	MAX. THICKNESS
80	200	160	116	8	18	20
100	225	180	142	8	18	20

GSHS WITH SUPPORT FOOT UNDER THE MOTOR
11 TO 37 kW MOTORS

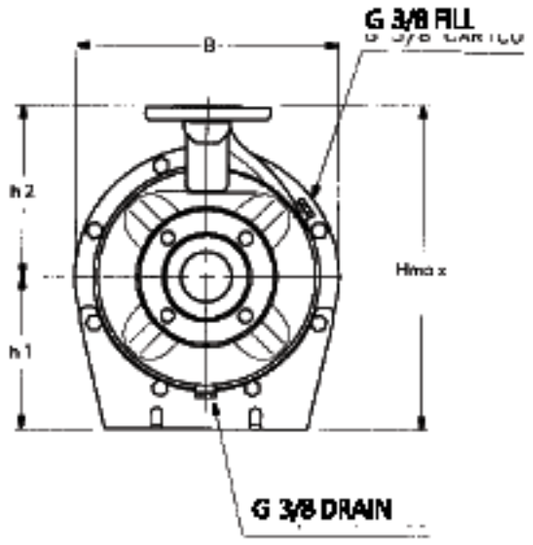
DIMENSIONS AND WEIGHTS GSHS SERIES, 2 POLES

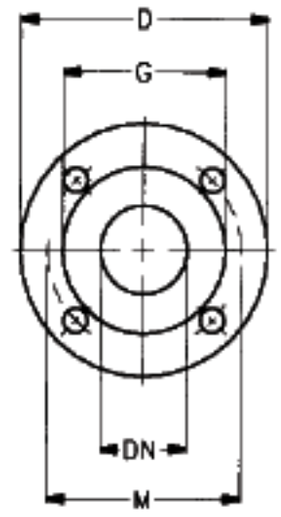
PUMP TYPE	PUMP								SUPPORT										B	H max	L	k	WEIGHT kg
	DNM	DNA	a	f	h2	w	w1	x	b	c	c1	h1	m	m1	n	n1	s	s1					
GSHS 25-125/07	25	50	80	155	140	–	–	121	–	–	–	160	–	–	190	–	–	–	218	252	461	98	25
GSHS 25-125/11	25	50	80	155	140	–	–	129	–	–	–	160	–	–	190	–	–	–	218	252	498	98	26
GSHS 25-160/15	25	50	80	155	160	–	–	129	–	–	–	160	–	–	210	–	–	–	253	320	498	98	28
GSHS 25-160/22	25	50	80	155	160	–	–	129	–	–	–	160	–	–	210	–	–	–	253	320	498	98	30
GSHS 25-200/30	25	50	80	165	180	–	–	121	–	–	–	160	–	–	230	–	–	–	285	340	548	98	41
GSHS 25-200/40	25	50	80	165	180	–	–	133	–	–	–	160	–	–	230	–	–	–	285	340	552	98	44
GSHS 25-250/55	25	50	100	192	225	–	424	150	–	–	–	180	–	–	265	–	–	–	345	405	666	98	63
GSHS 25-250/75	25	50	100	192	225	–	424	150	–	–	–	180	–	–	265	–	–	–	345	405	666	98	69
GSHS 25-250/110	25	50	100	222	225	330	–	232	72	22	20	180	260	210	318	254	14	23	350	412	810	98	81
GSHS 32-125/07	32	50	80	155	140	–	–	121	–	–	–	112	–	–	190	–	–	–	218	252	461	98	25
GSHS 32-125/11	32	50	80	155	140	–	–	129	–	–	–	112	–	–	190	–	–	–	218	252	498	98	26
GSHS 32-160/15	32	50	80	155	160	–	–	129	–	–	–	132	–	–	210	–	–	–	253	292	498	98	28
GSHS 32-160/22	32	50	80	155	160	–	–	129	–	–	–	132	–	–	210	–	–	–	253	292	498	98	30
GSHS 32-200/30	32	50	80	165	180	–	–	121	–	–	–	160	–	–	230	–	–	–	285	340	548	98	41
GSHS 32-200/40	32	50	80	165	180	–	–	133	–	–	–	160	–	–	230	–	–	–	285	340	552	98	44
GSHS 32-250/55	32	50	100	192	225	–	424	150	–	–	–	180	–	–	265	–	–	–	345	405	666	98	63
GSHS 32-250/75	32	50	100	192	225	–	424	150	–	–	–	180	–	–	265	–	–	–	345	405	666	98	69
GSHS 32-250/110	32	50	100	222	225	330	–	232	72	22	20	180	260	210	318	254	14	23	350	412	810	98	81
GSHS 40-125/11	40	65	80	155	140	–	–	129	–	–	–	112	–	–	190	–	–	–	219	252	498	100	25
GSHS 40-125/15	40	65	80	155	140	–	–	129	–	–	–	112	–	–	190	–	–	–	219	252	498	100	27
GSHS 40-125/22	40	65	80	155	140	–	–	129	–	–	–	112	–	–	190	–	–	–	219	252	498	100	28
GSHS 40-160/30	40	65	80	165	160	–	–	121	–	–	–	132	–	–	210	–	–	–	254	292	548	100	39
GSHS 40-160/40	40	65	80	165	160	–	–	133	–	–	–	132	–	–	210	–	–	–	254	292	552	100	42
GSHS 40-200/55	40	65	100	192	180	–	424	150	–	–	–	160	–	–	230	–	–	–	300	340	666	100	64
GSHS 40-200/75	40	65	100	192	180	–	424	150	–	–	–	160	–	–	230	–	–	–	300	340	666	100	66
GSHS 40-250/110A	40	65	100	222	225	330	–	232	72	22	20	180	260	210	318	254	14	23	350	412	810	107	110
GSHS 40-250/110	40	65	100	222	225	330	–	232	72	22	20	180	260	210	318	254	14	23	350	412	810	107	116
GSHS 40-250/150	40	65	100	222	225	330	–	232	72	22	20	180	260	210	318	254	14	23	350	412	810	107	122
GSHS 50-125/22	50	65	100	155	160	–	–	129	–	–	–	132	–	–	210	–	–	–	254	292	518	104	34
GSHS 50-125/30	50	65	100	165	160	–	–	121	–	–	–	132	–	–	210	–	–	–	254	292	568	104	37
GSHS 50-125/40	50	65	100	165	160	–	–	133	–	–	–	132	–	–	210	–	–	–	254	292	572	104	42
GSHS 50-160/55	50	65	100	192	180	–	424	150	–	–	–	160	–	–	210	–	–	–	255	340	666	104	60
GSHS 50-160/75	50	65	100	192	180	–	424	150	–	–	–	160	–	–	210	–	–	–	255	340	666	104	65
GSHS 50-200/110A	50	65	100	222	200	330	–	232	72	22	20	160	260	210	318	254	14	23	350	392	810	104	90
GSHS 50-200/110	50	65	100	222	200	330	–	232	72	22	20	160	260	210	318	254	14	23	350	392	810	104	90
GSHS 50-250/150	50	65	100	222	225	330	–	232	72	22	20	180	260	210	318	254	14	23	350	412	810	107	115
GSHS 50-250/185	50	65	100	222	225	330	–	232	72	22	20	180	304	254	318	254	14	23	350	412	854	107	125
GSHS 50-250/220	50	65	100	222	225	330	–	232	72	22	20	180	304	254	318	254	14	23	350	412	854	107	145
GSHS 65-160/40	65	80	100	165	200	–	–	133	–	–	–	160	–	–	245	–	–	–	310	360	572	115	67
GSHS 65-160/55	65	80	100	192	200	–	424	150	–	–	–	160	–	–	245	–	–	–	310	360	666	115	75
GSHS 65-160/75	65	80	100	192	200	–	424	150	–	–	–	160	–	–	245	–	–	–	310	360	666	115	80
GSHS 65-160/110A	65	80	100	222	200	330	–	232	72	22	–	160	260	210	318	254	14	23	350	392	810	130	106
GSHS 65-160/110	65	80	100	222	200	330	–	232	72	22	–	160	260	210	318	254	14	23	350	392	810	130	106
GSHS 65-200/150	65	80	100	222	225	330	–	232	72	22	20	180	260	210	318	254	14	23	350	412	810	130	122
GSHS 65-200/185	65	80	100	222	225	330	–	232	72	22	20	180	304	254	318	254	14	23	350	412	854	130	135
GSHS 65-200/220	65	80	100	222	225	330	–	232	72	22	20	180	304	254	318	254	14	23	350	412	854	130	149
GSHS 65-250/300	65	80	100	228	250	361	–	257	60	24	–	200	345	305	360	318	18	18	400	457	941	140	189
GSHS 65-250/370	65	80	100	228	250	361	–	257	60	24	–	200	345	305	360	318	18	18	400	457	941	140	200
GSHS 80-160/110	80	100	125	222	225	330	–	232	72	22	20	180	260	210	318	254	14	23	350	412	835	155	111
GSHS 80-160/150	80	100	125	222	225	330	–	232	72	22	20	180	260	210	318	254	14	23	350	412	835	155	127
GSHS 80-160/185	80	100	125	222	225	330	–	232	72	22	20	180	304	254	318	254	14	23	350	412	879	155	148
GSHS 80-200/220	80	100	125	222	250	330	–	232	72	22	20	180	304	254	318	254	14	23	350	430	879	155	157
GSHS 80-200/300	80	100	125	228	250	361	–	257	60	24	–	200	345	305	360	318	18	18	400	457	966	155	191
GSHS 80-200/370	80	100	125	228	250	361	–	257	60	24	–	200	345	305	360	318	18	18	400	457	966	155	203

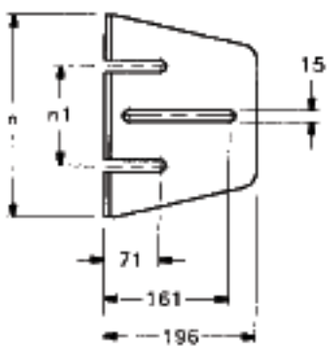
DIMENSIONS AND WEIGHTS GSHS4 SERIES, 4 POLES

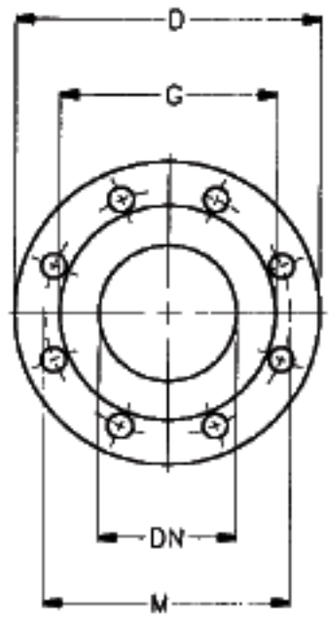


CLEARANCEFOR DISASSEMBLY









FLANGES

DN	D	M	G	HOLES		MAX. THICKNESS
				N°	Ø	
25	115	85	56	4	14,5	16
32	140	100	64	4	18	16
40	150	110	68	4	18	16
50	165	125	83	4	18	18
65	185	145	104	4	18	18

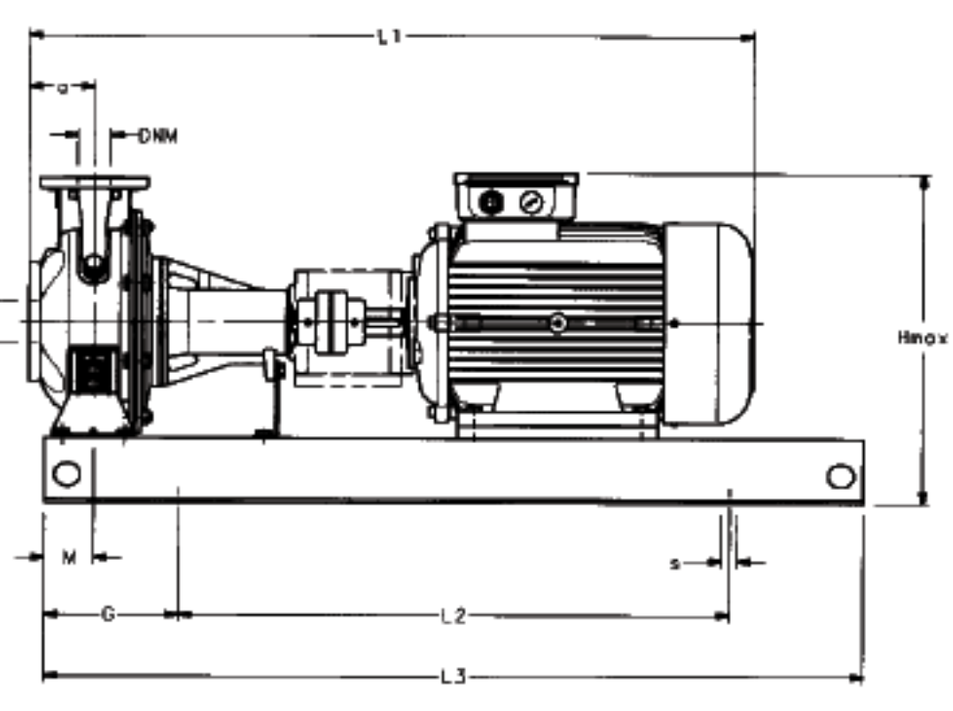
FLANGES

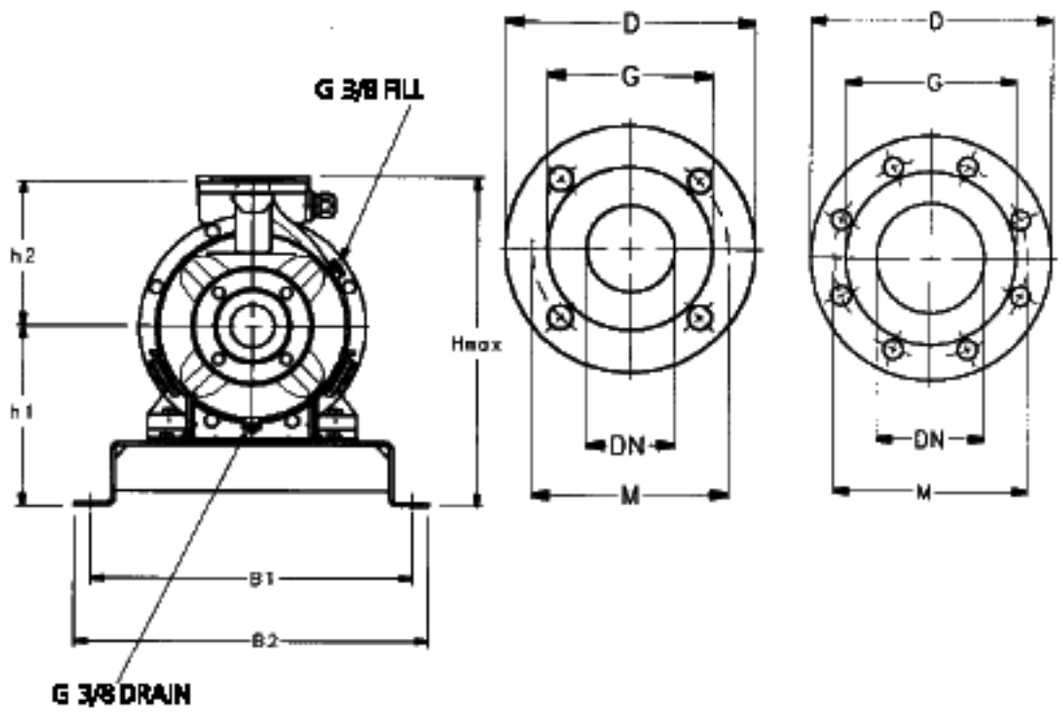
DN	D	M	G	HOLES		MAX. THICKNESS
				N°	Ø	
80	200	160	116	8	18	20
100	225	180	142	8	18	20

DIMENSIONS AND WEIGHTS GSHS4 SERIES, 4 POLES

PUMP TYPE	PUMP							DIMENSIONS IN mm			B	H	L	k	WEIGHT
	DNM	DNA	s	f	h2	w1	x	h1	s	n1		max			kg
GSHS4 25-250/07	25	50	100	155	225	–	129	180	265	–	345	405	518	98	41
GSHS4 25-250/11	25	50	100	155	225	–	121	180	265	–	345	405	536	98	43
GSHS4 25-250/15	25	50	100	155	225	–	121	180	265	–	345	405	536	98	47
GSHS4 32-250/07	32	50	100	155	225	–	129	180	265	130	345	405	518	98	41
GSHS4 32-250/11	32	50	100	155	225	–	121	180	265	130	345	405	536	98	43
GSHS4 32-250/15	32	50	100	155	225	–	121	180	265	130	345	405	536	98	47
GSHS4 40-200/07	40	65	100	155	180	–	129	160	230	130	285	340	518	100	28
GSHS4 40-200/11	40	65	100	155	180	–	121	160	230	130	285	340	536	100	32
GSHS4 40-250/11	40	65	100	155	225	–	121	180	265	130	345	405	536	107	33
GSHS4 40-250/15	40	65	100	155	225	–	121	180	265	130	345	405	536	107	46
GSHS4 40-250/22	40	65	100	165	225	–	133	180	265	130	345	405	572	107	52
GSHS4 50-160/07	50	65	100	155	180	–	129	160	210	130	255	340	518	104	27
GSHS4 50-160/11	50	65	100	155	180	–	121	160	210	130	255	340	536	104	30
GSHS4 50-200/11	50	65	100	155	200	–	121	160	245	130	310	360	536	104	34
GSHS4 50-200/15	50	65	100	155	200	–	121	160	245	130	310	360	536	104	42
GSHS4 50-250/22A	50	65	100	165	225	–	133	180	265	130	345	405	572	107	49
GSHS4 50-250/22	50	65	100	165	225	–	133	180	265	130	345	405	572	107	49
GSHS4 50-250/30	50	65	100	165	225	–	133	180	265	130	345	405	572	107	58
GSHS4 65-160/05	65	80	100	155	200	–	129	160	245	130	310	360	518	115	34
GSHS4 65-160/07	65	80	100	155	200	–	129	160	245	130	310	360	518	115	37
GSHS4 65-160/11A	65	80	100	155	200	–	121	160	245	130	310	360	536	115	40
GSHS4 65-160/11	65	80	100	155	200	–	121	160	245	130	310	360	536	130	40
GSHS4 65-160/15	65	80	100	155	200	–	121	160	245	130	310	360	536	130	45
GSHS4 65-200/15	65	80	100	155	225	–	121	180	245	130	310	405	536	130	48
GSHS4 65-200/22	65	80	100	165	225	–	133	180	245	130	310	405	572	130	54
GSHS4 65-200/30	65	80	100	165	225	–	133	180	245	130	310	405	572	130	59
GSHS4 65-250/40	65	80	100	165	250	–	150	200	265	130	345	450	595	140	65
GSHS4 65-250/55	65	80	100	192	250	351	191	200	265	130	345	450	658	140	79
GSHS4 80-160/15	80	100	125	155	225	–	121	180	265	130	345	405	561	160	53
GSHS4 80-160/22A	80	100	125	165	225	–	133	180	265	130	345	405	597	160	58
GSHS4 80-160/22	80	100	125	165	225	–	133	180	265	130	345	405	597	160	58
GSHS4 80-200/30	80	100	125	165	250	–	133	180	265	130	345	430	597	160	63
GSHS4 80-200/40	80	100	125	165	250	–	150	180	265	130	345	430	620	160	68
GSHS4 80-250/55	80	100	125	192	280	351	191	200	303	210	384	480	683	160	85
GSHS4 80-250/75	80	100	125	192	280	370	191	200	303	210	384	480	721	160	90
GSHS4 80-250/92	80	100	125	192	280	370	191	200	303	210	384	480	721	160	91

DIMENSIONS AND WEIGHTS GSHF SERIES, 2 POLES





FLANGES

DN	D	M	G	HOLES		MAX. THICKNESS
				N°	Ø	
25	115	85	56	4	14,5	16
32	140	100	64	4	18	16
40	150	110	68	4	18	16
50	165	125	83	4	18	18
65	185	145	104	4	18	18

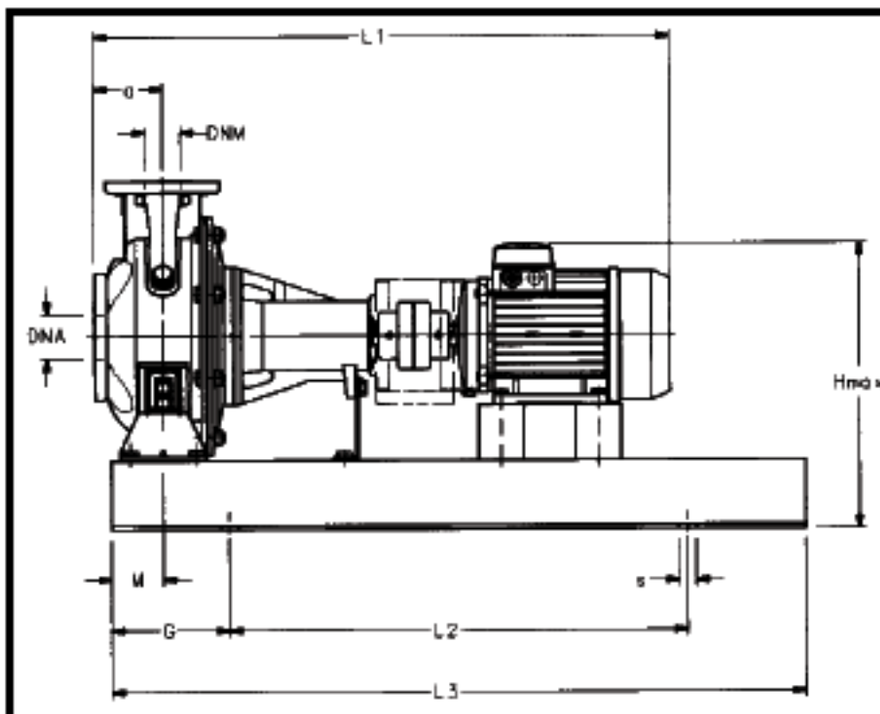
FLANGES

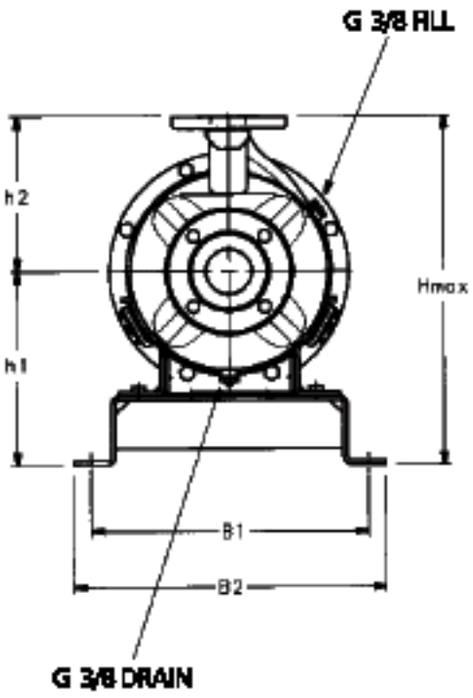
DN	D	M	G	HOLES		MAX. THICKNESS
				N°	Ø	
80	200	160	116	8	18	20
100	225	180	142	8	18	20

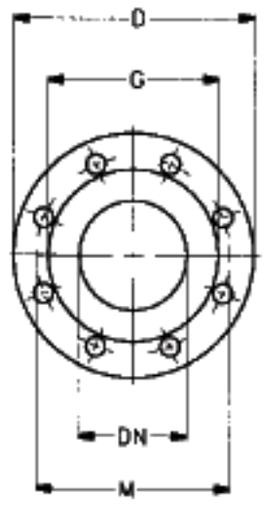
DIMENSIONS AND WEIGHTS GSHF SERIES, 2 POLES

PUMP TYPE	DIMENSIONS (mm)														WEIGHT
	DNN	DNA	A	B1	B2	L1	L2	L3	G	M	H1	H2	H max	n° for screws	kg
GSHF 25-125/07	25	50	80	320	360	744	540	800	130	60	212	140	352	M16	65
GSHF 25-125/11	25	50	80	320	360	744	540	800	130	60	212	140	352	M16	67
GSHF 25-160/15	25	50	80	350	390	773	600	900	150	60	232	160	392	M16	69
GSHF 25-160/22	25	50	80	350	390	773	600	900	150	60	232	160	392	M16	71
GSHF 25-200/30	25	50	80	350	390	809	600	900	150	60	260	180	440	M16	90
GSHF 25-200/40	25	50	80	350	390	832	600	900	150	60	260	180	440	M16	94
GSHF 25-250/55	25	50	100	440	490	909	740	1120	190	75	280	225	505	M20	126
GSHF 25-250/75	25	50	100	440	490	909	740	1120	190	75	280	225	505	M20	131
GSHF 25-250/110	25	50	100	490	540	1061	840	1250	205	75	280	225	512	M20	176
GSHF 32-125/07	32	50	80	320	360	744	540	800	130	60	212	140	352	M16	65
GSHF 32-125/11	32	50	80	320	360	744	540	800	130	60	212	140	352	M16	67
GSHF 32-160/15	32	50	80	350	390	773	600	900	150	60	232	160	392	M16	69
GSHF 32-160/22	32	50	80	350	390	773	600	900	150	60	232	160	392	M16	71
GSHF 32-200/30	32	50	80	350	390	809	600	900	150	60	260	180	440	M16	90
GSHF 32-200/40	32	50	80	350	390	832	600	900	150	60	260	180	440	M16	94
GSHF 32-250/55	32	50	100	440	490	909	740	1120	190	75	280	225	505	M20	126
GSHF 32-250/75	32	50	100	440	490	909	740	1120	190	75	280	225	505	M20	131
GSHF 32-250/110	32	50	100	490	540	1061	840	1250	205	75	280	225	512	M20	176
GSHF 40-125/11	40	65	80	320	360	744	540	800	130	60	212	140	352	M16	68
GSHF 40-125/15	40	65	80	350	390	773	600	900	150	60	212	140	352	M16	70
GSHF 40-125/22	40	65	80	350	390	773	600	900	150	60	212	140	352	M16	73
GSHF 40-160/30	40	65	80	350	390	809	600	900	150	60	232	160	392	M16	87
GSHF 40-160/40	40	65	80	350	390	832	600	900	150	60	232	160	392	M16	93
GSHF 40-200/55	40	65	100	400	450	909	660	1000	170	60	260	180	451	M20	108
GSHF 40-200/75	40	65	100	400	450	909	660	1000	170	60	260	180	451	M20	116
GSHF 40-250/110A	40	65	100	490	540	1061	840	1250	205	75	280	225	512	M20	174
GSHF 40-250/110	40	65	100	490	540	1061	840	1250	205	75	280	225	512	M20	174
GSHF 40-250/150	40	65	100	490	540	1061	840	1250	205	75	280	225	512	M20	184
GSHF 50-125/22	50	65	100	350	390	793	600	900	150	60	232	160	392	M16	80
GSHF 50-125/30	50	65	100	350	390	829	600	900	150	60	232	160	392	M16	87
GSHF 50-125/40	50	65	100	350	390	852	600	900	150	60	232	160	392	M16	92
GSHF 50-160/55	50	65	100	400	450	909	660	1000	170	60	260	180	451	M20	106
GSHF 50-160/75	50	65	100	400	450	909	660	1000	170	60	260	180	451	M20	110
GSHF 50-200/110A	50	65	100	440	490	1061	740	1120	190	60	260	200	492	M20	168
GSHF 50-200/110	50	65	100	440	490	1061	740	1120	190	60	260	200	492	M20	168
GSHF 50-250/150	50	65	100	490	540	1061	840	1250	205	75	280	225	512	M20	174
GSHF 50-250/185	50	65	100	490	540	1105	840	1250	205	75	280	225	512	M20	194
GSHF 50-250/220	50	65	100	490	540	1111	840	1250	205	75	280	225	510	M20	214
GSHF 65-160/40	65	80	100	400	450	852	660	1000	170	75	260	200	460	M20	130
GSHF 65-160/55	65	80	100	440	490	909	740	1120	190	75	260	200	460	M20	136
GSHF 65-160/75	65	80	100	440	490	909	740	1120	190	75	260	200	460	M20	142
GSHF 65-160/110A	65	80	100	490	540	1061	840	1250	205	75	260	200	492	M20	157
GSHF 65-160/110	65	80	100	490	540	1061	840	1250	205	75	260	200	492	M20	157
GSHF 65-200/150	65	80	100	490	540	1061	840	1250	205	75	280	225	512	M20	180
GSHF 65-200/185	65	80	100	490	540	1105	840	1250	205	75	280	225	512	M20	192
GSHF 65-200/220	65	80	100	490	540	1111	840	1250	205	75	280	225	510	M20	208
GSHF 65-250/300	65	80	100	550	610	1296	940	1400	230	90	310	250	557	M24	271
GSHF 65-250/370	65	80	100	550	610	1296	940	1400	230	90	310	250	557	M24	296
GSHF 80-160/110	80	100	125	490	540	1086	840	1250	205	75	280	225	512	M20	193
GSHF 80-160/150	80	100	125	490	540	1086	840	1250	205	75	280	225	512	M20	204
GSHF 80-160/185	80	100	125	490	540	1130	840	1250	205	75	280	225	512	M20	225
GSHF 80-200/220	80	100	125	490	540	1246	840	1250	205	75	280	250	530	M20	236
GSHF 80-200/300	80	100	125	550	610	1321	940	1400	230	75	310	250	557	M24	277
GSHF 80-200/370	80	100	125	550	610	1321	940	1400	230	75	310	250	557	M24	295
GSHF 80-250/450	80	100	125	550	610	1398	940	1400	230	90	365	280	605	M24	355
GSHF 80-250/550	80	100	125	600	660	1428	1060	1600	270	90	390	280	660	M24	394
GSHF 80-250/750	80	100	125	670	730	1558	1200	1800	300	90	420	280	735	M24	510

DIMENSIONS AND WEIGHTS GSHF4 SERIES, 4 POLES







FLANGES

DN	D	M	G	HOLES		MAX. THICKNESS
				N°	Ø	
80	200	160	116	8	18	20
100	225	180	142	8	18	20

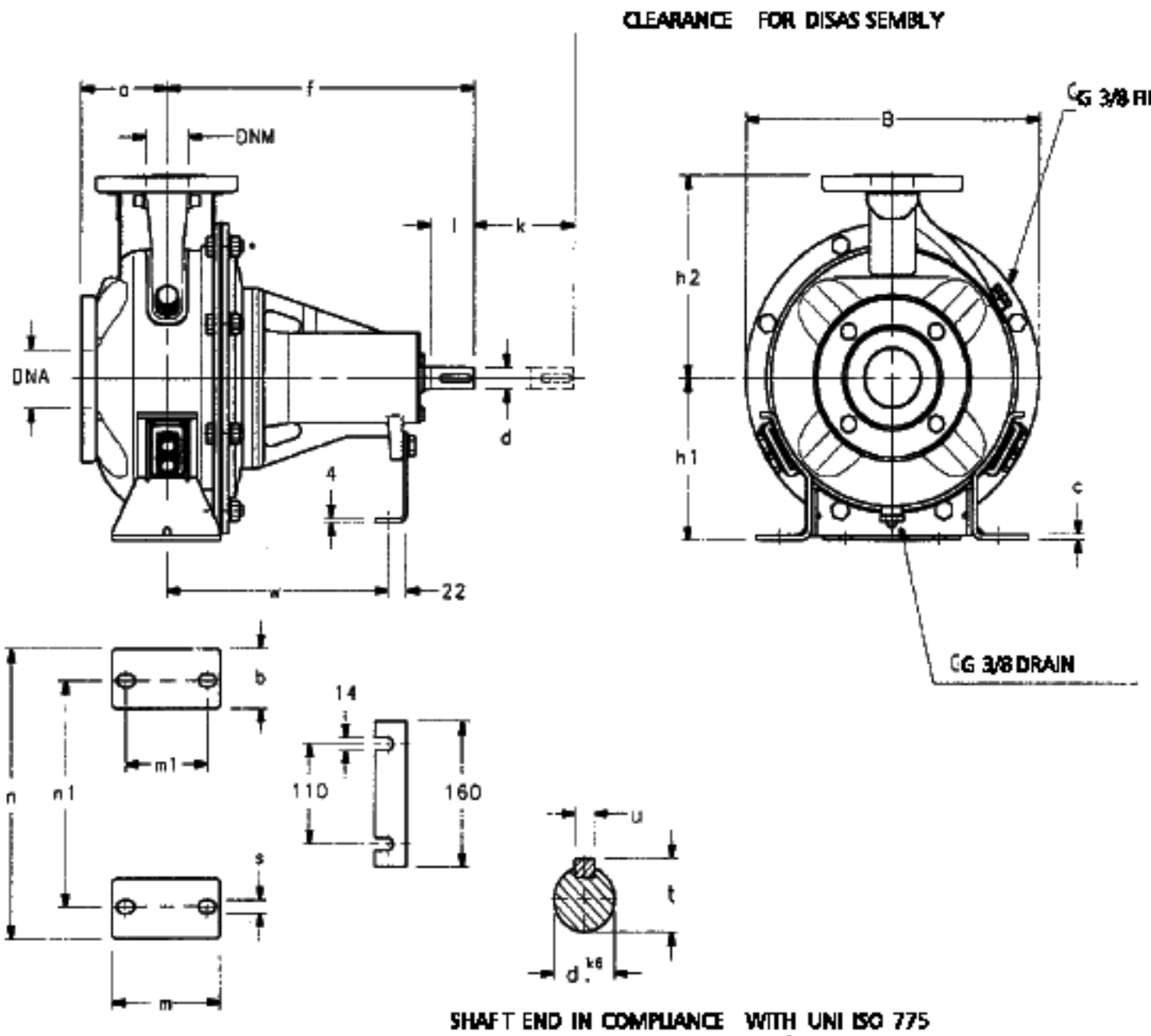
FLANGES

DN	D	M	G	HOLES		MAX. THICKNESS
				N°	Ø	
25	115	85	56	4	14,5	16
32	140	100	64	4	18	16
40	150	110	68	4	18	16
50	165	125	83	4	18	18
65	185	145	104	4	18	18

DIMENSIONS AND WEIGHTS GSHF4 SERIES, 4 POLES

PUMP TYPE	DIMENSIONS (mm)														WEIGHT
	DNM	DNA	a	B1	B2	L1	L2	L3	G	M	h1	h2	H max	g for screws	kg
GSHF4 25-125/02A	25	50	80	320	360	702	540	800	130	60	212	140	352	M16	72
GSHF4 25-125/02	25	50	80	320	360	702	540	800	130	60	212	140	352	M16	72
GSHF4 25-160/02	25	50	80	320	360	702	540	800	130	60	232	160	392	M16	74
GSHF4 25-160/03	25	50	80	320	360	702	540	800	130	60	232	160	392	M16	76
GSHF4 25-200/03	25	50	80	320	360	702	540	800	130	60	260	180	440	M16	78
GSHF4 25-200/05	25	50	80	320	360	744	540	800	130	60	260	180	440	M16	80
GSHF4 25-250/07	25	50	100	400	450	764	660	1000	170	75	280	225	505	M20	97
GSHF4 25-250/11	25	50	100	400	450	793	660	1000	170	75	280	225	505	M20	100
GSHF4 25-250/15	25	50	100	400	450	793	660	1000	170	75	280	225	505	M20	102
GSHF4 32-125/02A	32	50	80	320	360	702	540	800	130	60	212	140	352	M16	72
GSHF4 32-125/02	32	50	80	320	360	702	540	800	130	60	212	140	352	M16	72
GSHF4 32-160/02	32	50	80	320	360	702	540	800	130	60	232	160	392	M16	74
GSHF4 32-160/03	32	50	80	320	360	702	540	800	130	60	232	160	392	M16	76
GSHF4 32-200/03	32	50	80	320	360	702	540	800	130	60	260	180	440	M16	78
GSHF4 32-200/05	32	50	80	320	360	744	540	800	130	60	260	180	440	M16	80
GSHF4 32-250/07	32	50	100	400	450	764	660	1000	170	75	280	225	505	M20	97
GSHF4 32-250/11	32	50	100	400	450	793	660	1000	170	75	280	225	505	M20	100
GSHF4 32-250/15	32	50	100	400	450	793	660	1000	170	75	280	225	505	M20	102
GSHF4 40-125/02A	40	65	80	320	360	702	540	800	130	60	212	140	352	M16	57
GSHF4 40-125/02	40	65	80	320	360	702	540	800	130	60	212	140	352	M16	57
GSHF4 40-125/03	40	65	80	320	360	702	540	800	130	60	212	140	352	M16	58
GSHF4 40-160/03	40	65	80	320	360	702	540	800	130	60	232	160	392	M16	60
GSHF4 40-160/05	40	65	80	320	360	744	540	800	130	60	232	160	392	M16	62
GSHF4 40-200/07	40	65	100	350	390	764	600	900	150	60	260	180	440	M16	69
GSHF4 40-200/11	40	65	100	350	390	793	600	900	150	60	260	180	440	M16	72
GSHF4 40-250/11	40	65	100	400	450	793	660	1000	170	75	280	225	505	M20	99
GSHF4 40-250/15	40	65	100	400	450	793	660	1000	170	75	280	225	505	M20	102
GSHF4 40-250/22	40	65	100	400	450	829	660	1000	170	75	280	225	505	M20	115
GSHF4 50-125/03A	50	65	100	320	360	722	540	800	130	60	232	160	392	M16	59
GSHF4 50-125/03	50	65	100	320	360	722	540	800	130	60	232	160	392	M16	59
GSHF4 50-125/05	50	65	100	320	360	764	540	800	130	60	232	180	440	M16	61
GSHF4 50-160/07	50	65	100	350	390	764	600	900	150	60	260	180	440	M16	68
GSHF4 50-160/11	50	65	100	350	390	793	600	900	150	60	260	200	460	M16	71
GSHF4 50-200/11	50	65	100	350	390	793	600	900	150	60	260	200	460	M16	82
GSHF4 50-200/15	50	65	100	350	390	793	600	900	150	60	260	200	460	M16	85
GSHF4 50-250/22A	50	65	100	400	450	829	660	1000	170	75	280	225	505	M20	116
GSHF4 50-250/22	50	65	100	400	450	829	660	1000	170	75	280	225	505	M20	116
GSHF4 50-250/30	50	65	100	400	450	829	660	1000	170	75	280	225	505	M20	120
GSHF4 65-160/05	65	80	100	350	390	764	600	900	150	75	260	200	460	M16	84
GSHF4 65-160/07	65	80	100	350	390	764	600	900	150	75	260	200	460	M16	85
GSHF4 65-160/11A	65	80	100	400	450	793	660	1000	170	75	260	200	460	M20	88
GSHF4 65-160/11	65	80	100	400	450	793	660	1000	170	75	260	200	460	M20	88
GSHF4 65-160/15	65	80	100	400	450	793	660	1000	170	75	260	200	460	M20	91
GSHF4 65-200/15	65	80	100	400	450	793	660	1000	170	75	280	225	505	M20	103
GSHF4 65-200/22	65	80	100	440	490	829	740	1120	190	75	280	225	505	M20	117
GSHF4 65-200/30	65	80	100	440	490	829	740	1120	190	75	280	225	505	M20	121
GSHF4 65-250/40	65	80	100	440	490	962	740	1120	190	90	310	250	550	M20	158
GSHF4 65-250/55	65	80	100	440	490	1019	740	1120	190	90	310	250	550	M20	174
GSHF4 80-160/15	80	100	125	400	450	818	660	1000	170	75	280	225	505	M20	121
GSHF4 80-160/22A	80	100	125	440	490	854	740	1120	190	75	280	225	505	M20	127
GSHF4 80-160/22	80	100	125	440	490	854	740	1120	190	75	280	225	505	M20	127
GSHF4 80-200/30	80	100	125	440	490	964	740	1120	190	75	280	250	530	M20	146
GSHF4 80-200/40	80	100	125	440	490	987	740	1120	190	75	280	250	530	M20	151
GSHF4 80-250/55	80	100	125	490	540	1044	840	1250	205	90	310	280	580	M20	175
GSHF4 80-250/75	80	100	125	490	540	1082	840	1250	205	90	310	280	580	M20	185
GSHF4 80-250/92	80	100	125	490	540	1082	840	1250	205	90	310	280	580	M20	185

DIMENSIONS AND WEIGHTS GSHF SERIES, BARE SHAFT

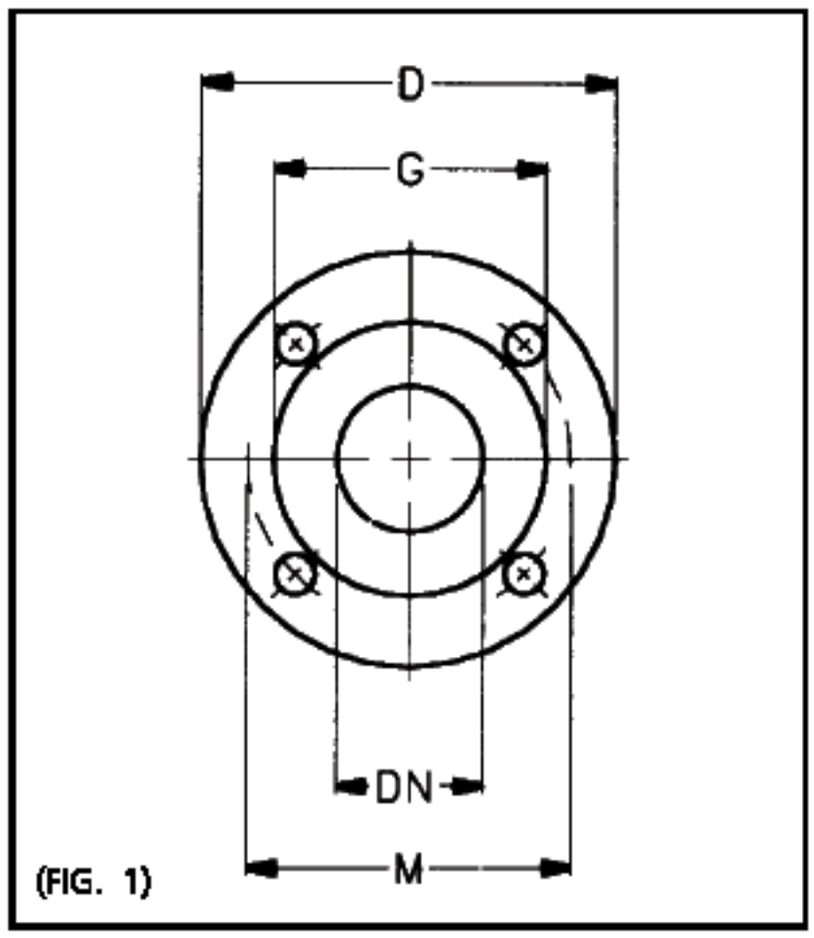


SIZE	PUMP						BASE								SHAFT				B	k	WEIGHT
	DNM	DNA	a	f	h1	h2	b	c	m	m1	n	n1	s	w	d	l	t	u			kg
GSHF 25-125	25	50	80	360	112	140	47	3	100	70	190	140	14	260	24	50	27	8	218	98	16
GSHF 25-160	25	50	80	360	132	160	48	3	100	70	240	190	14	260	24	50	27	8	253	98	18
GSHF 25-200	25	50	80	360	160	180	47	3	100	70	240	190	14	260	24	50	27	8	285	98	20
GSHF 25-250	25	50	100	360	180	225	54	6	125	95	320	250	14	260	24	50	27	8	345	98	36
GSHF 40-125	40	65	80	360	112	140	47	3	100	70	210	160	14	260	24	50	27	8	219	100	17
GSHF 40-160	40	65	80	360	132	160	48	3	100	70	240	190	14	260	24	50	27	8	254	100	18
GSHF 40-200	40	65	100	360	160	180	50	3	100	70	265	212	14	260	24	50	27	8	285	100	20
GSHF 40-250	40	65	100	360	180	225	54	6	125	95	320	250	14	260	24	50	27	8	345	100	36
GSFH 50-125	50	65	100	360	132	160	48	3	100	70	240	190	14	260	24	50	27	8	254	100	18
GSFH 50-160	50	65	100	360	160	180	48	3	100	70	265	212	14	260	24	50	27	8	255	100	19
GSFH 50-200	50	65	100	360	160	200	40	6	100	70	265	212	14	260	24	50	27	8	310	100	30
GSFH 50-250	50	65	100	360	180	225	54	6	125	95	320	250	14	260	24	50	27	8	345	100	36
GSHF 65-160	65	80	100	360	160	200	48	6	125	95	280	212	14	260	24	50	27	8	310	100	21
GSHF 65-200	65	80	100	360	180	225	65	15	125	95	320	250	14	260	24	50	27	8	310	130	31
GSHF 65-250	65	80	100	470	200	250	80	18	160	120	360	280	18	340	32	80	35	10	345	140	42
GSHF 80-160	80	100	125	360	180	225	54	6	125	95	320	250	14	260	24	50	27	8	345	140	22
GSHF 80-200	80	100	125	470	180	250	65	15	125	95	345	280	14	340	32	80	35	10	345	140	37
GSHF 80-250	80	100	125	470	200	280	80	21	160	120	400	315	18	340	32	80	35	10	384	140	43

FLANGE DIMENSIONS

(TABLE 1)

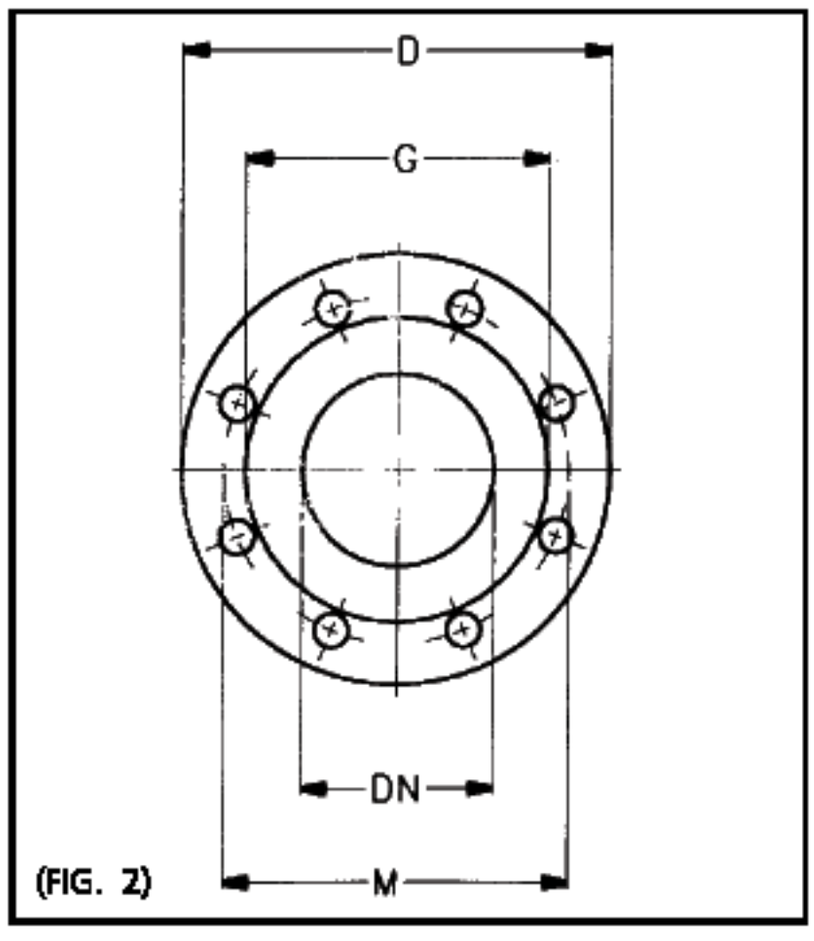
DIMENSIONS (mm)						
DN	D	M	G	MAX. THICKNESS	HOLES	
					N°	Ø
25	115	85	56	16	4	14,5
32	140	100	78	18	4	18
40	150	110	88	18	4	18
50	165	125	102	20	4	18
65	185	145	122	20	4	18



(FIG. 1)

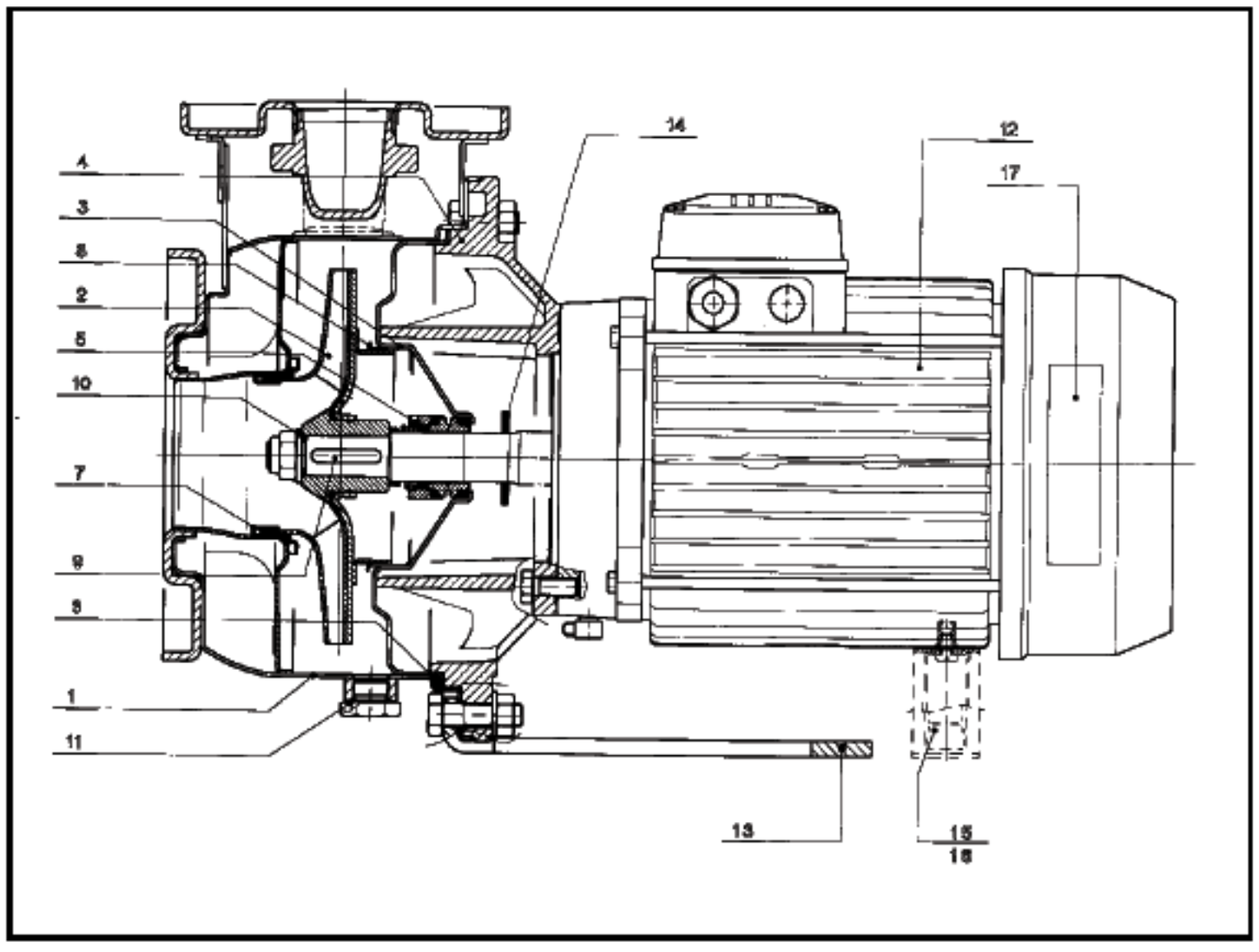
(TABLE 2)

DIMENSIONS (mm)						
DN	D	M	G	MAX. THICKNESS	HOLES	
					N°	Ø
80	200	160	138	22	8	18
100	220	180	158	22	8	18



(FIG. 2)

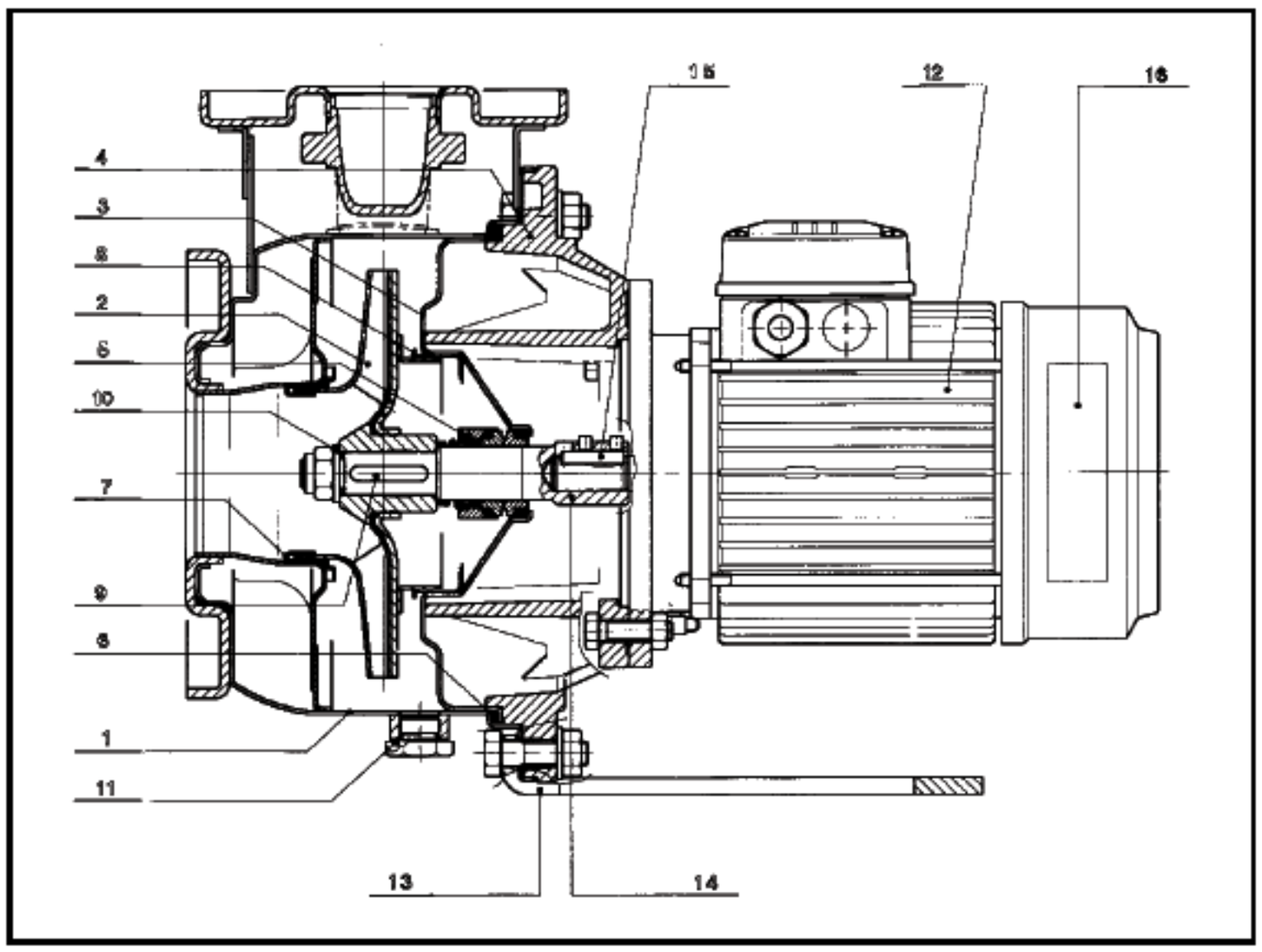
PUMP SECTION AND LIST OF MAIN COMPONENTS
GSHE



No.	DESCRIPTION
1	Pump body
2	Impeller
3	Seal housing disk
4	Adapter
* 5	Mechanical seal
* 6	O-ring
7	Wear ring
8	Counterwearing
9	Key
10	Impeller lock washer
11	O-ring
12	Motor
13	Supportfoot
14	Spray guard washer
15	Motor supportfoot
16	Supportfoot spacer
17	Rating plate

* Recommended spare parts

GSHE4 SERIES 0.25-0.37 KW



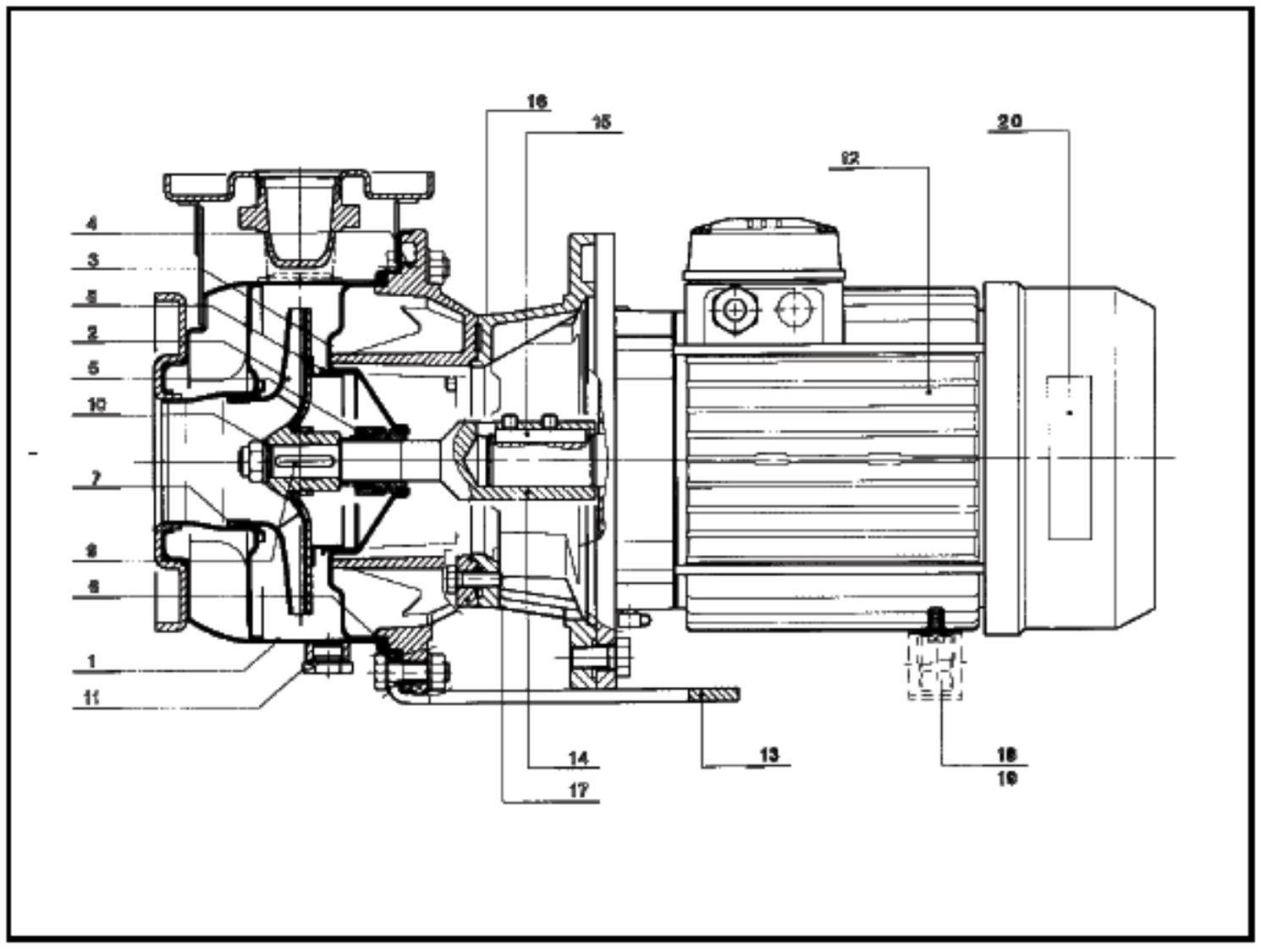
■	DESCRIPTION
1	Pump body
2	Impeller
3	Seal housing disk
4	Adapter
* 5	Mechanical seal
* 6	O-ring
7	Wear ring
8	Counterwearing
9	Key
10	Impeller lock washer
11	O-ring
12	Motor
13	Supportfoot
14	Coupling
15	Key
17	Rating plate

* Recommended spare parts

Reference numbers indicate spare parts as per relevant catalogue.

PUMP SECTION AND LIST OF MAIN COMPONENTS

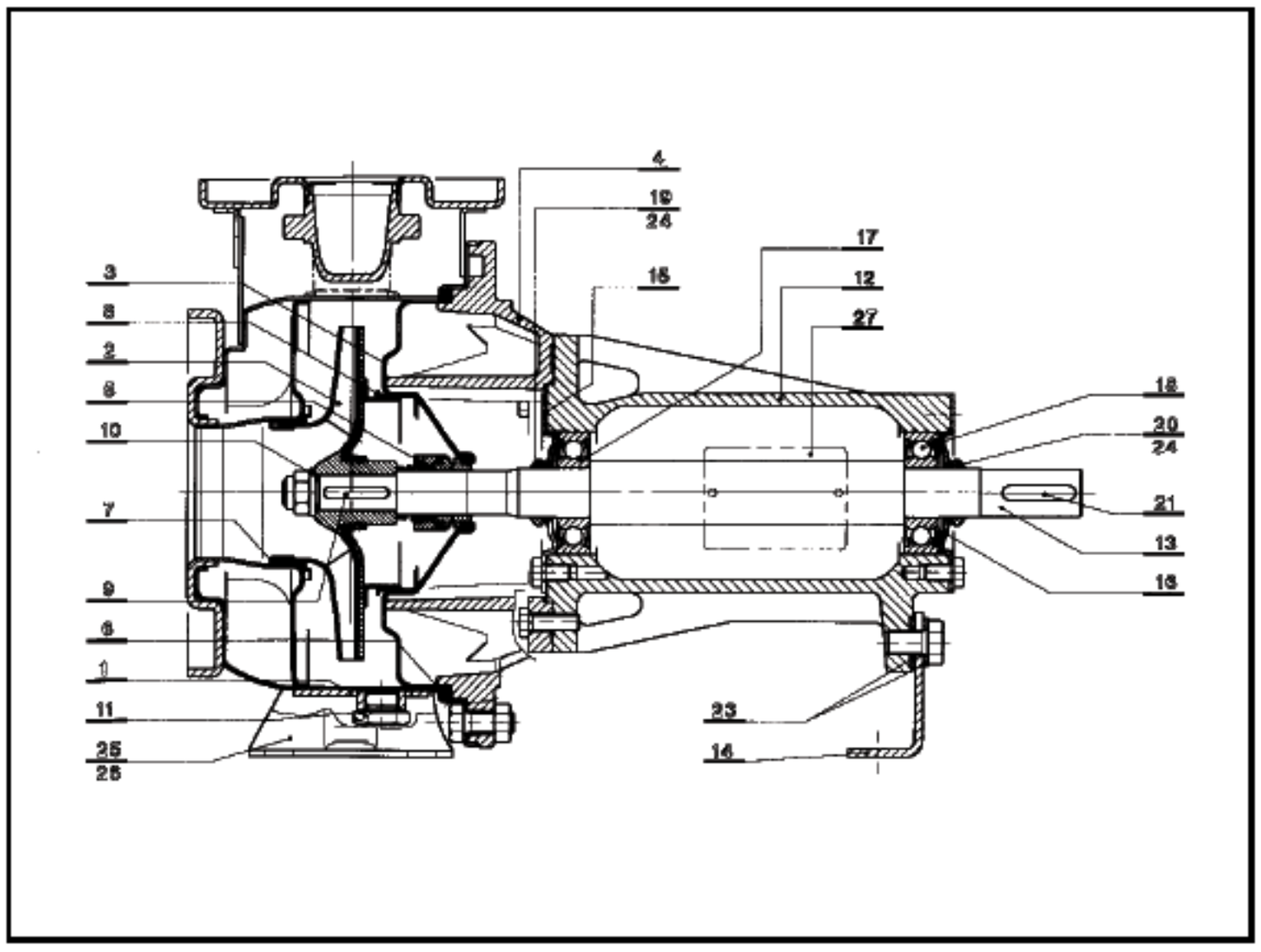
GSHS



No.	DESCRIPTION
1	Pump body
2	impeller
3	Seal housingdisk
4	Adapter
* 5	Mechanical seal
* 6	O-ring
7	Wear ring
8	Counterwearring
9	Key
10	Impeller lock washer
11	O-ring
12	Motor
13	Supportfoot
14	Coupling
15	Key
16	Motor connector
17	Coupling guard
18	Motor supportfoot
19	Motor foot spacer
20	Rating plate

* Recommended spare parts

GSHF SERIES



No.	DESCRIPTION
1	Pump body
2	Impeller
3	Seal housingdisk
4	Pump motorsupport
*5	Mechanical seal
*6	O-ring
7	Wear ring
8	Counterwearring
9	Key
10	Impeller lock washer
11	O-ring
12	Support body
13	Shaft
14	Supportfoot
15	Cap, pumpside
16	Cap, motorside
17	Bearing, pumpside
18	Bearing, motorside
19	V-ring, pumpside
20	V-ring, motorside
21	Key
23	Washer
24	AS type seal ring
25	Pump body support
26	Cap
27	Pump rating plate

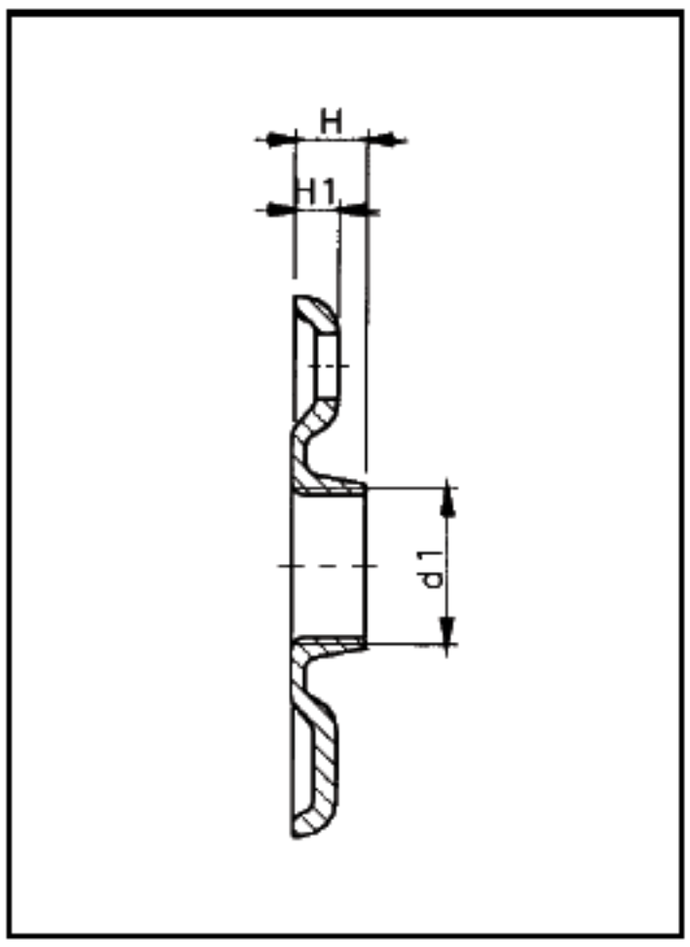
* Recommended spare parts

Reference numbers indicate spare parts as per relevant catalogue.

ACCESSORIES

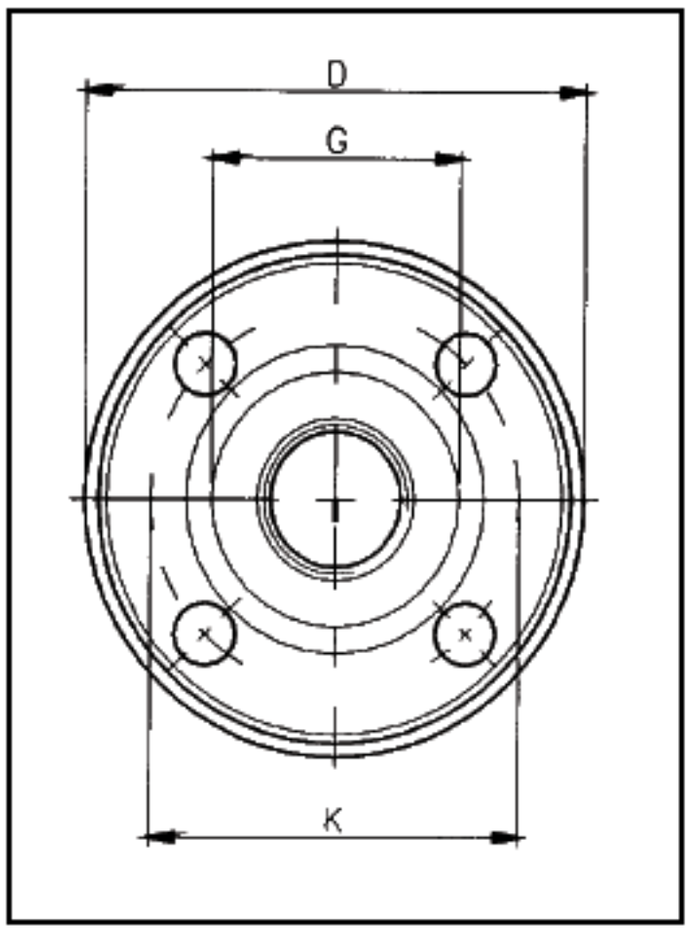
THREADED COUNTER FLANGES TO UNI 2254 - PN 16

DN	THREADED d1	DIMENSIONS (mm) H	H1	D	G	K	HOLES Ø	N°
25	Rp 1	16	10	115	55	85	14	4
32	Rp 1¼S	16	13	140	70	100	18	4
40	Rp 1½S	19	14	150	75	110	18	4
50	Rp 2	24	16	165	90	125	18	4
65	Rp 2½S	23	16	185	110	145	18	4
80	Rp 3	27	17	200	125	160	18	8
100	Rp 4	31	18	220	152	180	18	8



COUNTERFLANGE KIT
(Including gaskets, bolts and screws)

TYPE	MATERIAL	DIMENSIONS
Counterflangekit for size 32	Zinc-plated steel*	Rp 1" ¼ - 2"
Counterflangekit for size 40	Zinc-plated steel*	Rp 1 - 2" ½"
Counterflangekit for size 50	Zinc-plated steel*	Rp 2"-2" ½"
Counterflangekit for size 65	Zinc-plated steel*	Rp 2"2" ½"-3"
Counterflangekit for size 80	Zinc-plated steel*	Rp 3"-4"
Counterflangekit for size 32	AISI 316*	Rp 1" ¼-2"
Counterflangekit for size 40	AISI 316*	Rp 1" ½-2"½
Counterflangekit for size 50	AISI 316*	Rp 2"-2" ½
Counterflangekit for size 65	AISI 316*	Rp 2" ½-3"
Counterflangekit for size 80	AISI 316*	Rp 3"-4"

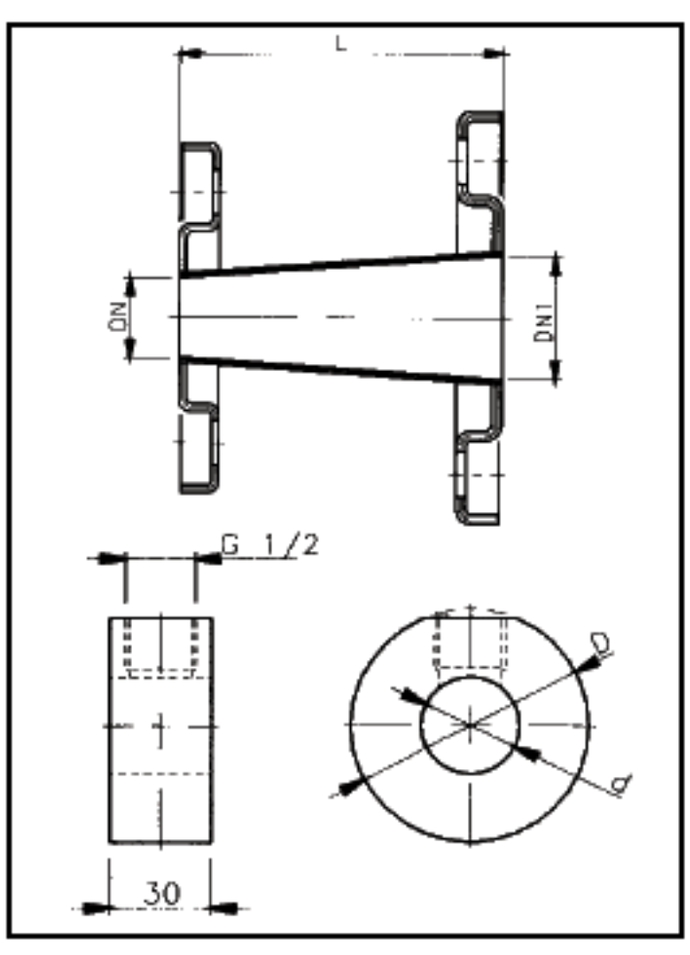


FLANGED TAPERED COUPLING (AISI 304)

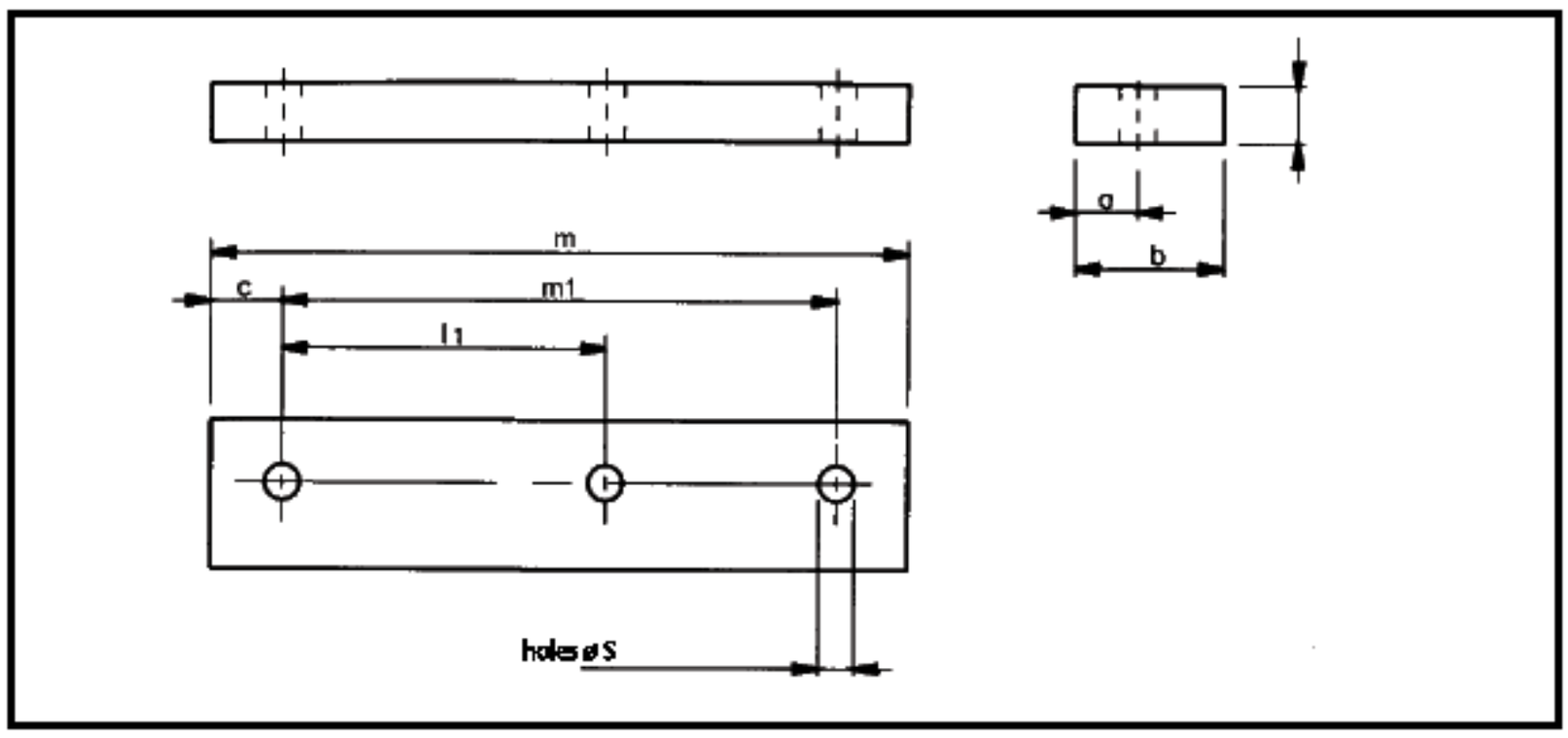
DN	DIMENSIONS(mm) DN1	L
25	32	132
32	40	132
40	50	132
50	65	132
65	80	132
80	100	132

FLANGE WITH G₁D₂" GAUGE CONNECTION (AISI 304)

DN	DIMENSIONS(mm) d	D
25	29	70
32	36	82
40	44	92
50	54	107
65	69	127
80	85	142
100	105	162



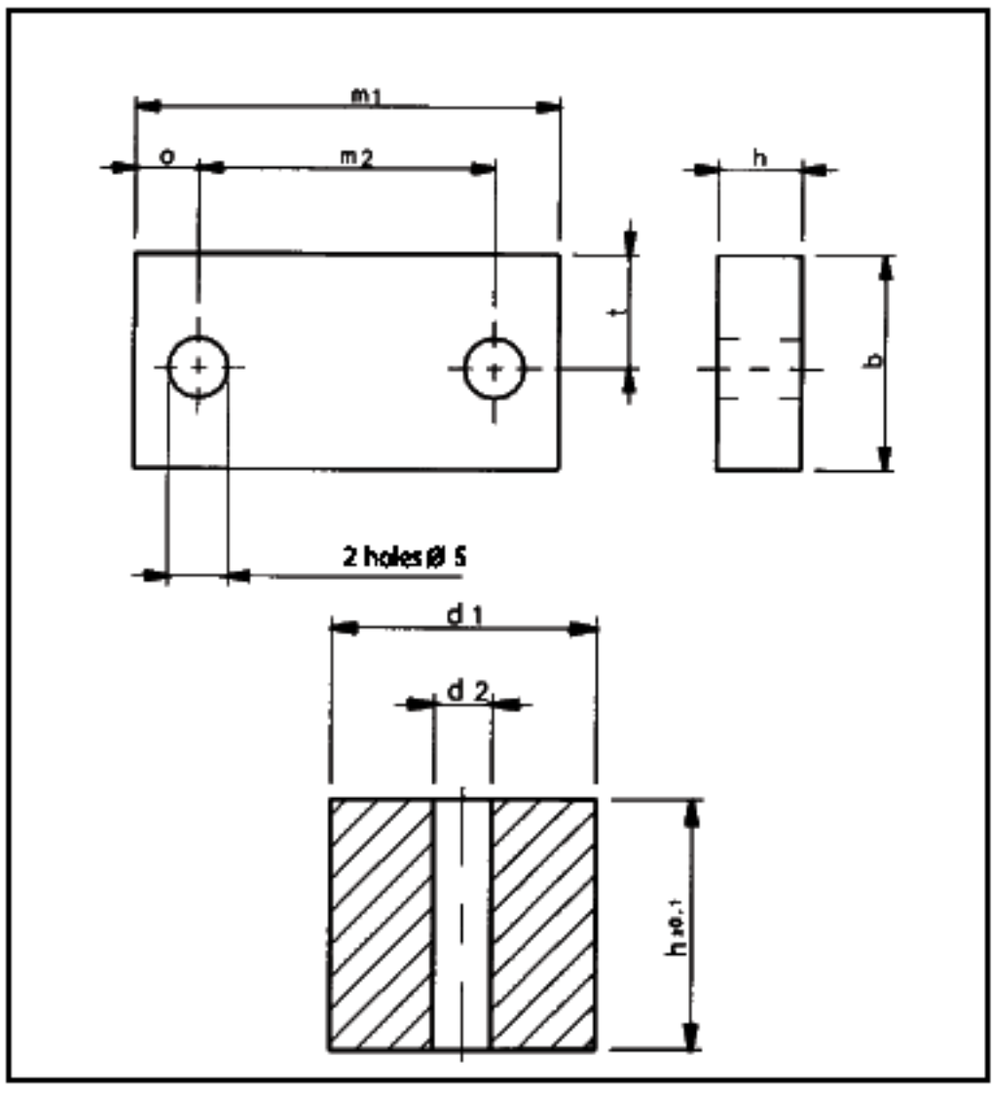
MOTOR SHIM FOR GSHS-GSHF VERSION



CODE	DIMENSIONS (mm) DESIGNATION b x h x l			a	l_1	l_2	c	HOLES N°	HOLES s
161402300	40	8	180	17	140	–	20	2	14
161402320	40	10	155	20	100	125	15	3	10
161402340	40	12	155	20	100	125	15	3	10
161402360	40	12	180	17	140	–	20	2	14
161402380	40	20	180	17	140	–	20	2	14
161402400	40	30	155	20	100	125	15	3	10
161402420	40	40	180	17	140	–	20	2	14
161402440	50	8	226	21	140	178	24	3	14
161402460	50	20	226	21	140	178	24	3	14
161402550	35	12	125	17	100	–	12,5	2	10
161402570	35	20	125	17	100	–	12,5	2	10
161402590	70	20	308	32	210	254	21	3	16
161404690	90	30	406	30	–	349	28,5	2	22
161407830	80	30	360	26,5	–	311	24,5	2	18

PUMP SHIM

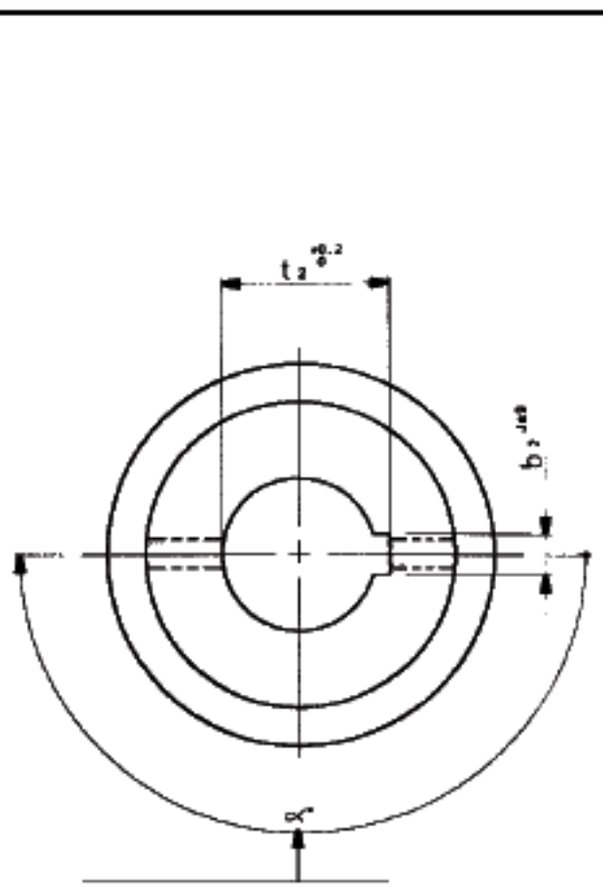
CODE	DIMENSIONS (mm) DESIGNATION b x h x m1			a	m2	ØS	t
161403230	70	20	125	15	95	14	37,5
161403250	40	20	160	25	110	14	16,5
161404360	40	25	160	25	110	14	16,5
161404380	80	25	160	20	120	18	42,5
161407770	40	10	160	25	110	14	16,5
161407780	40	30	160	25	110	14	16,5
161407790	80	10	160	20	120	18	42,5
161407800	80	30	160	20	120	18	42,5

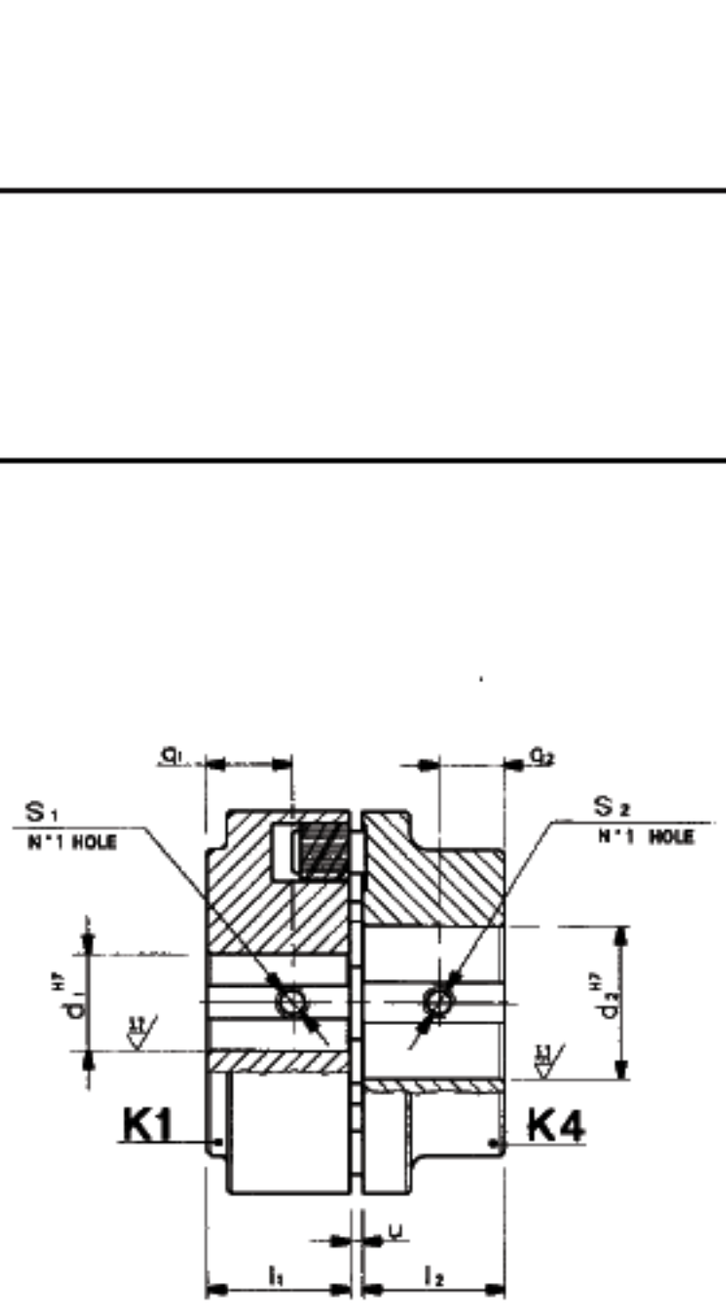


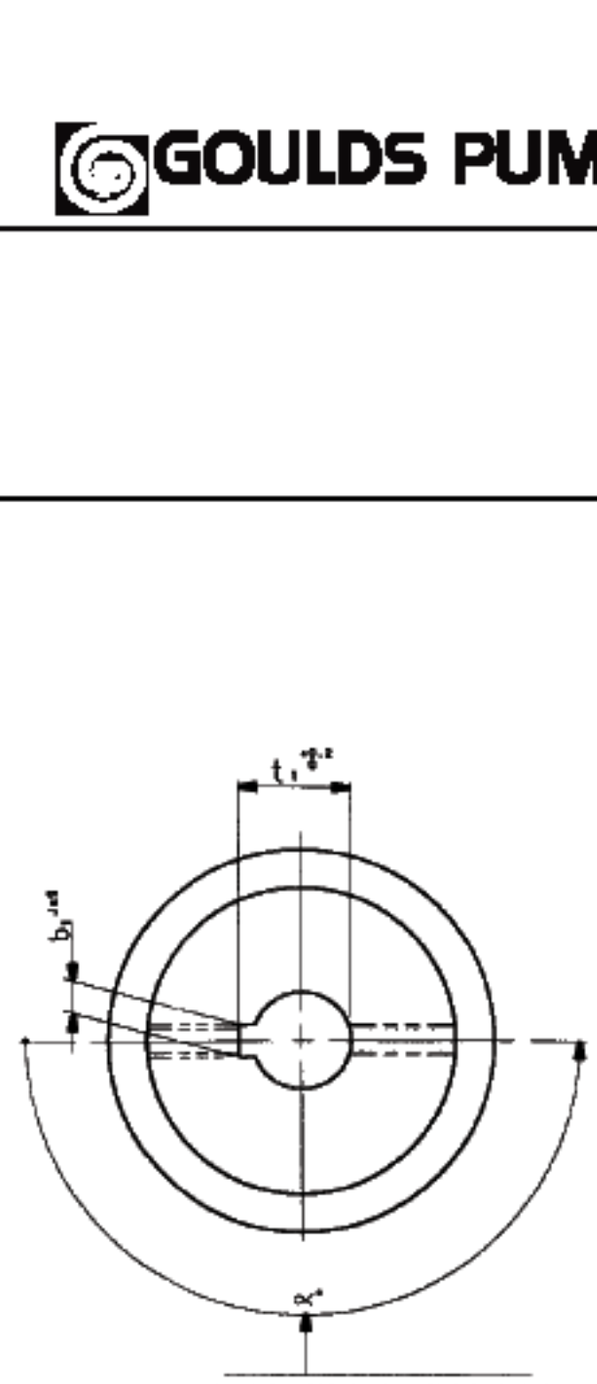
CYLINDRICAL MOTOR SHIM

CODE	DIMENSIONS (mm) d1 x h		db
161402720	55	52	12
161402740	55	70	12
161402760	55	80	12
161402950	55	90	12
161402970	55	100	12
161402990	65	48	16
161403010	65	60	16
161403030	65	68	16
161403050	65	80	16
161403130	65	88	16
161403150	45	41	10
161403170	45	61	10
161403170	45	61	10
161407810	65	78	16

FLEXIBLE COUPLING







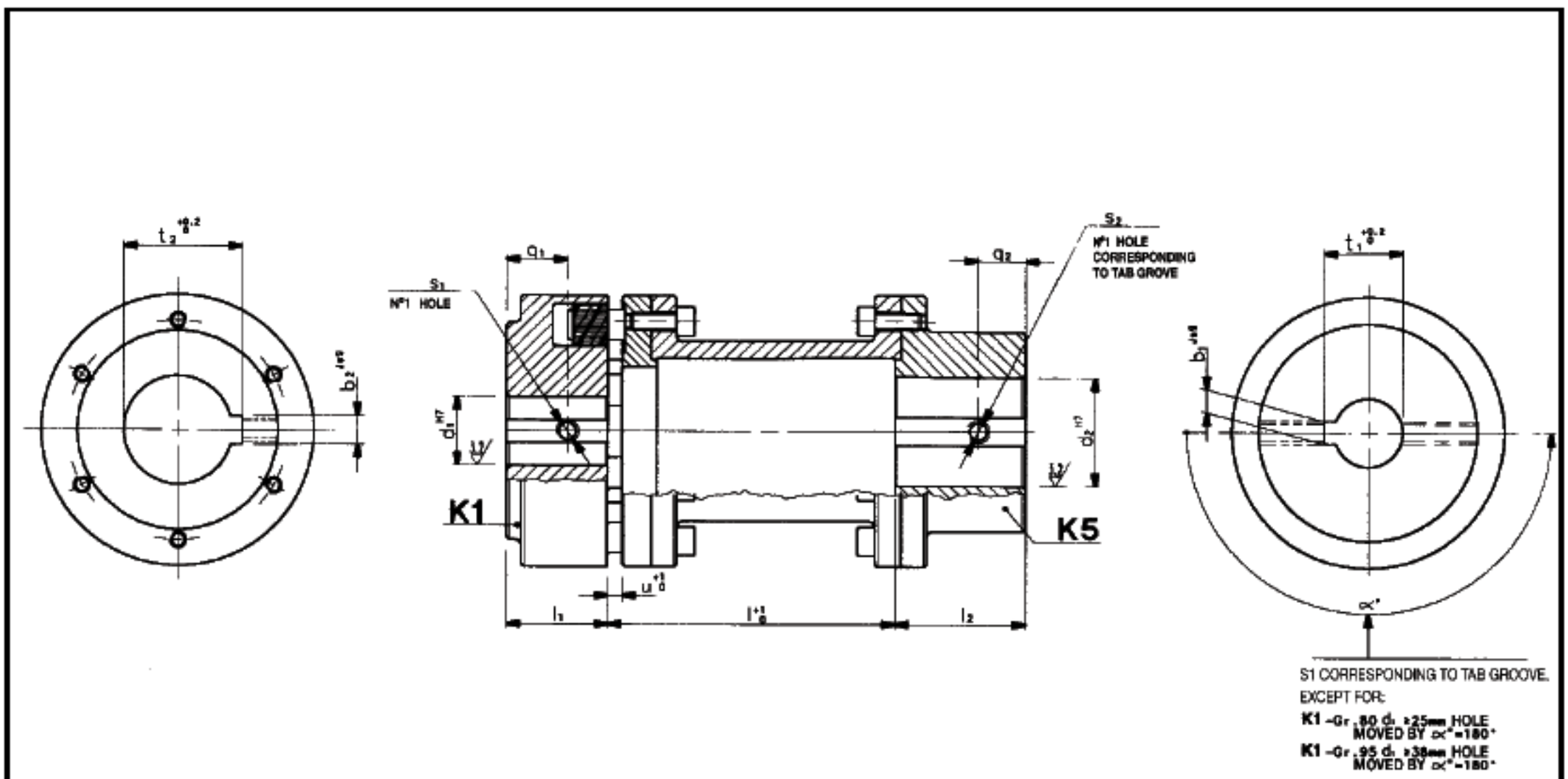
MATERIAL:
GREY IRON WITH FLEXIBLE ELEMENTS
MADE OF SYNTHETIC RUBBER 80 GShA

NOTES: Name, Dimensions and materials pertain to the standard Goulds Pumps flexible coupling.

NAME	DIMENSIONS (mm)												
	K1 PUMP-SIDE HALF COUPLING							K4 MOTOR-SIDE HALF COUPLING					
SIZE X d_1 x d_2	d_1 H7	l_1	b_1 JS9	t_1 +0,2	s_1	q_1	u	d_2 H7	l_2	b_2 JS9	t_2 +0,2	s_2	q_2
B x 24 x 1468	24	20	8	27,3	M 6	10	2 ÷ 4	14	20	5	16,3	M 6	8
B x 24 x 1968	24	20	8	27,3	M 6	10	2 ÷ 4	19	20	6	21,8	M 6	8
B x 24 x 2468	24	20	8	27,3	M 6	10	2 ÷ 4	24	20	8	27,3	M 6	8
B x 24 x 2880	24	30	8	27,3	M 6	19	2 + 4	28	30	8	31,3	M 6	12
B x 24 x 3895	24	35	8	27,3	M 6	20	2 ÷ 4	38	35	10	41,3	M 6	15
B x 24 x 4295	24	35	8	27,3	M 6	20	2 + 4	42	35	12	45,3	M 6	15
B x 24 x 48110	24	40	8	27,3	M 6	22	2 + 4	48	40	14	51,8	M 6	18
B x 24 x 55125	24	50	8	27,3	M 8	30	2 ÷ 4	55	50	16	59,3	M 8	20
B x 32 x 55125	32	50	10	35,3	M 8	30	2 + 4	55	50	16	59,3	M 8	20
B x 32 x 60140	32	55	10	35,3	M 8	13	2 ÷ 4	60	55	18	64,4	M 8	22
B x 32 x 65160	32	60	10	35,3	M 10	13	2 ÷ 6	65	60	18	69,4	M10	25
B x 32 x 2895	32	35	10	35,3	M 6	20	2 ÷ 4	28	35	8	31,3	M 6	15
B x 32 x 3895	32	35	10	35,3	M 6	20	2 ÷ 4	38	35	10	41,3	M 6	15
B x 32 x 48110	32	40	10	35,3	M 6	22	2 ÷ 4	48	40	14	51,8	M 6	18
B x 32 x 4295	32	35	10	35,3	M 6	20	2 + 4	42	35	12	45,3	M 6	15
	*		*	*	*			*		*	*	*	

When using flexible couplings supplied by a different manufacturer, observe the values marked by the asterisk (*).

FLEXIBLE COUPLING WITH SPACER



MATERIAL:
GREY IRON WITH FLEXIBLE ELEMENTS
MADE OF SYNTHETIC RUBBER 80 GShA

NOTE: Name, dimensions and materials pertain to the standard Goulds Pumps flexible coupling with spacer.

NAME	DIMENSIONS (mm)													
	K1 PUMP-SIDE HALF COUPLING							K4 MOTOR-SIDE HALF COUPLING						
SIZE X d1 x d2	l1	d1 H7	h	b1 JS9	t1 +0,2 0	s1	q1	u +0,1 0	d2 H7	l2	b2 JS9	t2 +0,2 0	s2	q2
H80-100X24X19	100	24	30	8	27,3	M 6	19	5	19	45	6	21,8	M 6	15
H80-100X24X24	100	24	30	8	27,3	M 6	19	5	24	45	8	27,3	M 6	15
H80-100X24X28	100	24	30	8	27,3	M 6	19	5	28	45	8	31,3	M 6	15
H95-100X24X38	100	24	35	8	27,3	M 6	20	5	38	45	10	41,3	M 6	20
H95-100X24X42	100	24	35	8	27,3	M 6	20	5	42	45	12	45,3	M 6	20
H110-100X24X48	100	24	40	8	27,3	M 6	22	5	48	50	14	51,8	M 6	25
H125-100X24X55	100	24	50	8	27,3	M 8	30	5	55	50	16	59,3	M 8	25
H125-140X32X55	140	32	50	10	35,3	M 8	30	5	55	50	16	59,3	M 8	25
H140-140X32X60	140	32	55	10	35,3	M 8	13	5	60	65	18	64,4	M 8	30
H160-140X32X65	140	32	60	10	35,3	M10	13	6	65	70	18	69,4	M10	35
H95-100X32X28	100	32	35	10	35,3	M 6	20	5	28	45	8	31,3	M 6	20
H95-100X32X38	100	32	35	10	35,3	M 6	20	5	38	45	10	41,3	M 6	20
H110-100X32X48	100	32	40	10	35,3	M 6	22	5	48	50	14	51,8	M 6	25
		*		*	*	*			*		*	*	*	

When using flexible couplings supplied by a different manufacturer, observe the values marked by the asterisk (*).