

SERIES

INI



 **IMBIL**[®]
Pumping Solutions



INTRODUCTION

In this catalogue the entire range of pump models from the series INI/INI-bloc produced by our company are described.

It contains technical information about construction, and characteristic curves from each model. Imbil and its DISTRIBUTORS will always be at your disposal to supply for additional information and to offer technical assistance.

NOTES

- We reserve the right to perform modifications in our products whenever necessary and this shall not incur in obligations of any type.
- The illustrations contained in this catalogue are indicative and in case there are any questions about their interpretation you must consult the IMBIL DISTRIBUTOR.

APPLICATION INI

Pumping of liquids in wastewater, irrigation, chemical and petrochemical industries, sugarmills, distilleries paper and pulp industries, raw sewage, sugar bagasse, circulation of thermal oil, condensed liquids etc.

CONSTRUCTION

Constructed dimensionally according to the norms **DIN 24 256/ ISO 2858**, and mechanically according to the norm **ANSI B73.1**.

Horizontal shaft pumps, single stage, horizontal suction and vertical discharge, with "**BACK PULL-OUT**" construction, allowing the disassembly from the back for eventual maintenance and repair, without affecting the alignment and fixation of the piping.

Spiral housing, casted in one single piece, with the fixation supports incorporated.

The sealing between the impeller and the housing is made by a replaceable wear ring, facilitating the pump maintenance.

The Shaft Sealing is ensured by a gasket in the standard execution, or optionally by a mechanical seal.

The **Shaft** has a protective bushing in the stuffing box packing region, without contact with the pumped liquid.

The **Impeller** is closed, single flow radial and has **axial thrust balance** through the relief holes, except in the models 32-125 and 32-160.

Depending on the temperature of the pumped liquid, the pumps may be supplied with a cooling chamber.



APPLICATION INI-BLOC

The pumps INI-Bloc are indicated for the pumping of clean or cloudy liquids and can be used in building and air conditioning facilities, in cooling services, in the condensed liquids circulation, irrigation, farming, public services, industrial water supply etc.

CONSTRUCTION TECHNIQUES

Horizontal shaft pumps, single stage, horizontal suction and vertical discharge, with "BACK PULL-OUT" construction, allowing the disassembly from the back for eventual maintenance and repair, without affecting the alignment and fixation of the piping.

Housing

Volute, cast in one single piece, with the fixation supports incorporated. The discharge and suction are flanged (ANSI B16.1 FF/ B16.5 RF/EN 1092-2).

Note: some models can be supplied with threaded suction and discharge.

Impeller

The impeller is closed, single flow radial. The axial thrust balance is made through relief holes. The impeller is keyed directly on the engine.

Pressure cover / Junction part

All the pump sizes use the Pressure cover and some also use the Junction Part.

These parts have the function of coupling the Housing to the Engine flange, allowing a perfect alignment between them.

Sealing

Through Mechanical Seal, TYPE 21

Protective Bushing

Surrounds the motor axle in the sealing region, preventing the pumped liquid from getting in contact with the shaft.

Electric Motor

Is supplied with the pump.

Standardized with Flange and shaft Stub JM/ JP according with the norm NEMA.

Motor Characteristics:

Protection Degree: IP 55

Insulation: Class B (130° C) - NBR 7094

Service Factor: 1.15 (up to 50 HP) – 1.00 (above 50 HP)

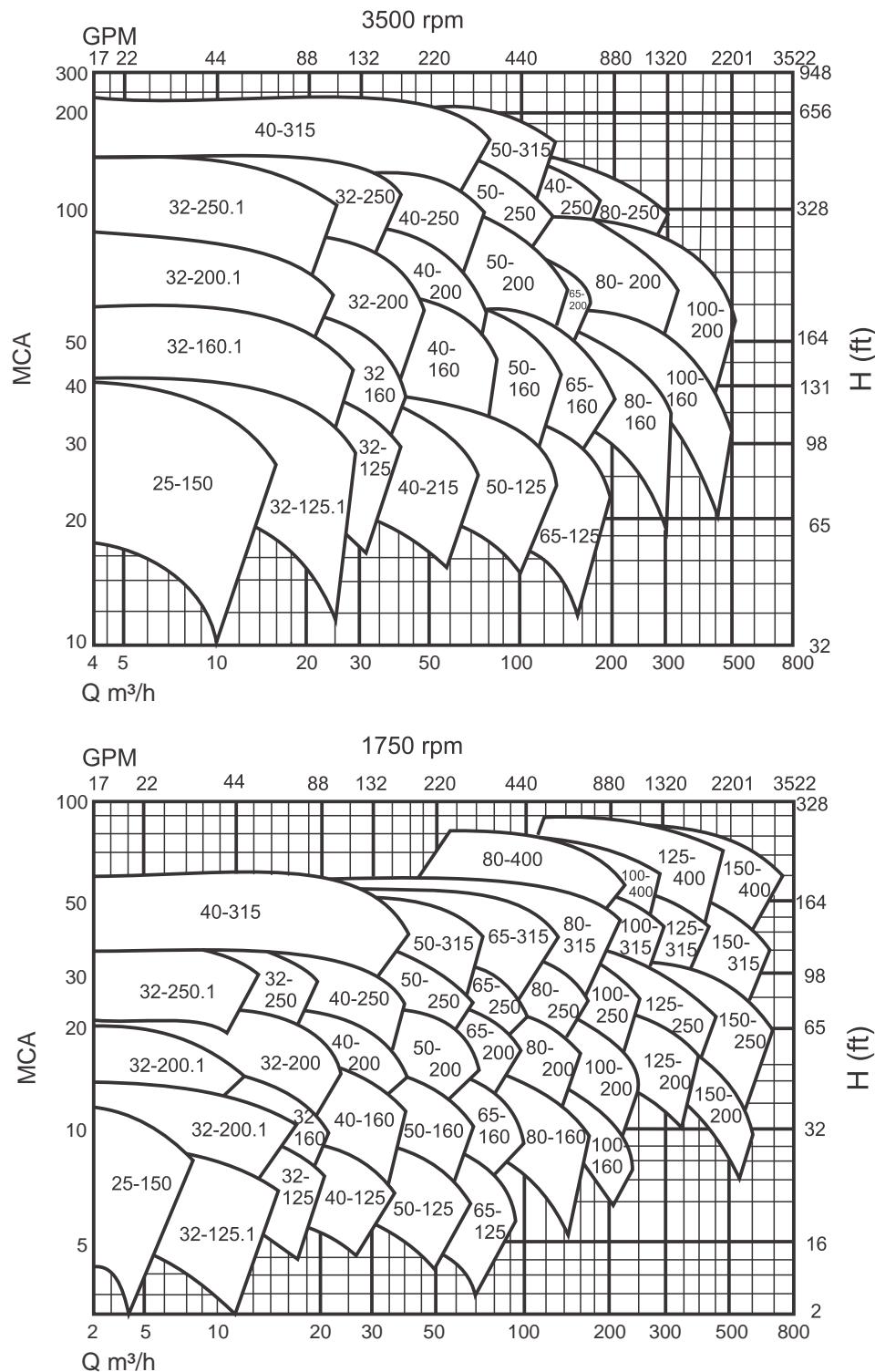
Rotation: 3500/ 1750 RPM

Frequency: 60Hz

Note: when purchasing the pump kit (without the motor), please inform the motor manufacturer.



Range Coverage Chart





TECHNICAL DATA

- Suction Maximum Pressure (bar):

10 bar

- Discharge Maximum Pressure according to the Temperature:

See Figures 1, 2, 3 and 4 (page 7).

DP = SP + DiffP (Q = 0)

DP = Discharge Pressure

SP = Suction Pressure

DiffP= Differential Pressure

- Minimum/maximum pressure for models with no cooling chamber (°C):

With packing = -50/ + 105 °C.

With Mechanical Seal according to manufacturer recommendation.

- Minimum/Maximum Temperature for models

with refrigeration chamber (C°):

With packing = see Figures 1 and 2 (pag 8);
With Mechanical Seal according to manufacturer recommendation.

- Pressure of Hydrostatic Test (bar):

According to ANSI B 73.1

- Rotation direction:

Clockwise, as seen from the actuation side.

- Type of oil that should be used during lubrication:

Up to 1800 rpm - Castro

I HySpin AWS 68.

Above 1800 rpm - Castrol HySpin AWS 46.

The values indicate in the table below for cooling liquid flow are based in a ?t of 15 °C. The maximum temperature at the cooling chamber outlet is 50 °C

Models		Unit	25-150	32-125.1	32-160.1	32-200.1	130	80	140	32-250.1	40-315	50-315	65-250	80-200	80-250	100-160	100-200	65-315	80-315	80-400	100-250	100-315	150	160
Bearing Housing																								
Impeller width		mm	6	7	5	6	9	12	15	12	12	13	12	13	19	20	17	18	18	19	20	21	22	23
GD ² rotating set with water		Kg.m ²	0,0216	0,0140	0,0224	0,0760	0,0239	0,0785	0,0285	0,0145	0,0334	0,0334	0,0639	0,0190	0,0395	0,0749	0,0263	0,0180	0,0192	0,0187	0,0192	0,0192	0,0192	0,0192
Weight in cast iron		Kg	28	34	34	42	37	45	38	41	48	40	40	41	47	49	68	67	73	73	73	73	73	73
Maximum rotation		rpm																						
Refrigeration liquid volumetric flow according to pumping temperature	140 °C																							
	160 °C																							
	200 °C																							
	250 °C																							
	350 °C																							
Refrigeration fluid maximum pressure		bar																						
Maximum / minimum volumetric flow																								
Flanges	Iron/Bronze	Stander																						
	Opcional																							
	Steel	Stander																						
	Opcional																							
Bearings																								
P/N Maximum admissible		CV/rpm																						
P/N Maximum admissible for pumps with SAE 40 Impeller		CV/rpm																						
<input checked="" type="checkbox"/> Packing		mm																						
			10																					
*125Lb FF **250Lb FF ***Bearing Pump Side: NU 308 EC/Bearing Driver Side: 7308(2x)																								



TECHNICAL DATA

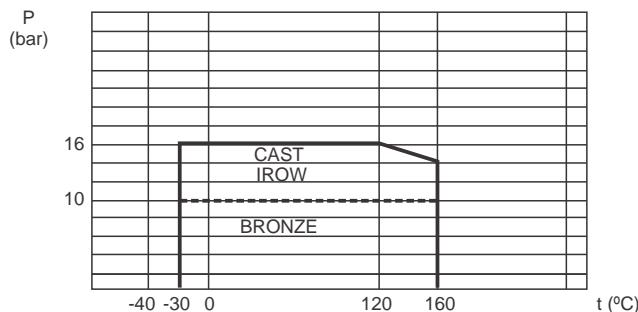


Fig. 1 – Maximum discharge pressure according to temperature.

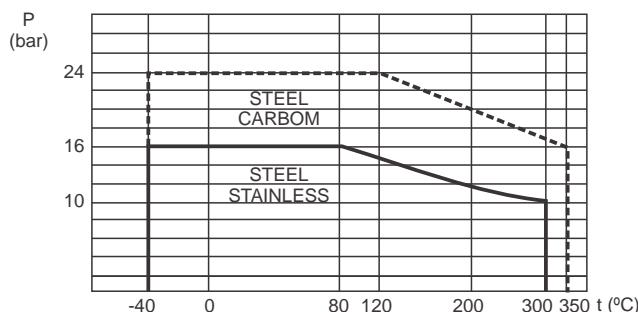


Fig. 2 Maximum discharge pressure according to temperature.

- Peripheral speed (m/s).

When determining the pump operation rotation, besides the maximum discharge pressure the maximum peripheral speed of the motor must be considered, according to its construction material.

GG 20	40 m/s
GGG 40	60 m/s
SAE 40	60 m/s
CF8M	80 m/s

- The **NPSH** values required are found in the characteristic curves of each model, being necessary to add 0.5 m as a measure fabrication safety.

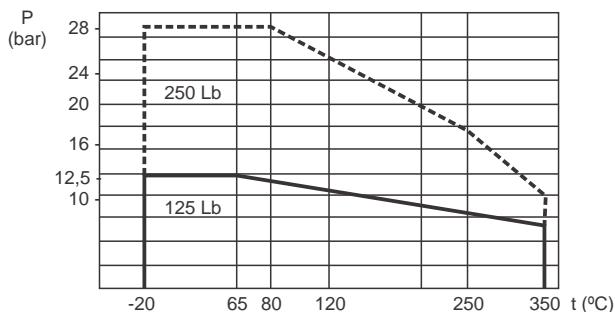


Fig. 3 - Flanges ANSI B 16.1. Accesitable pressure according to temperature.

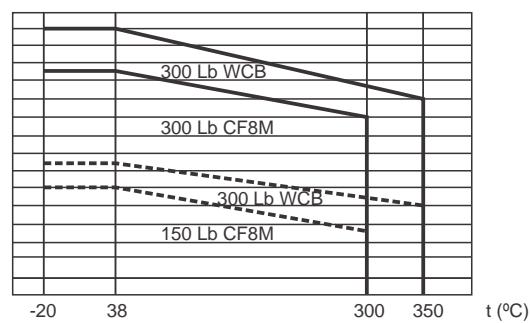


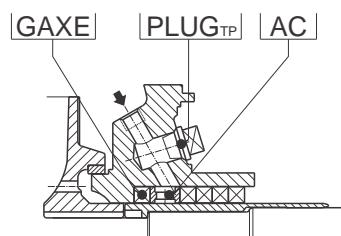
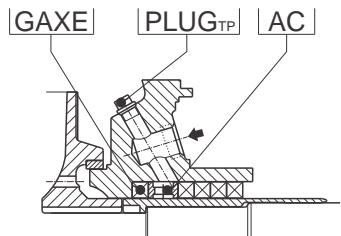
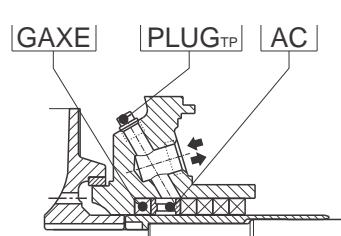
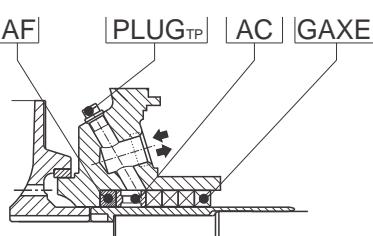
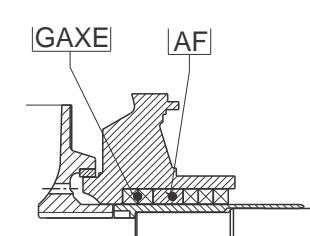
Fig. 4 - Flanges ANSI B 16.5. Accesitable pressure according to temperature.

- For the execution with a CF8M stainless steel impeller, it's necessary to reduce the outputs found in the characteristic curves according to what is indicated next:

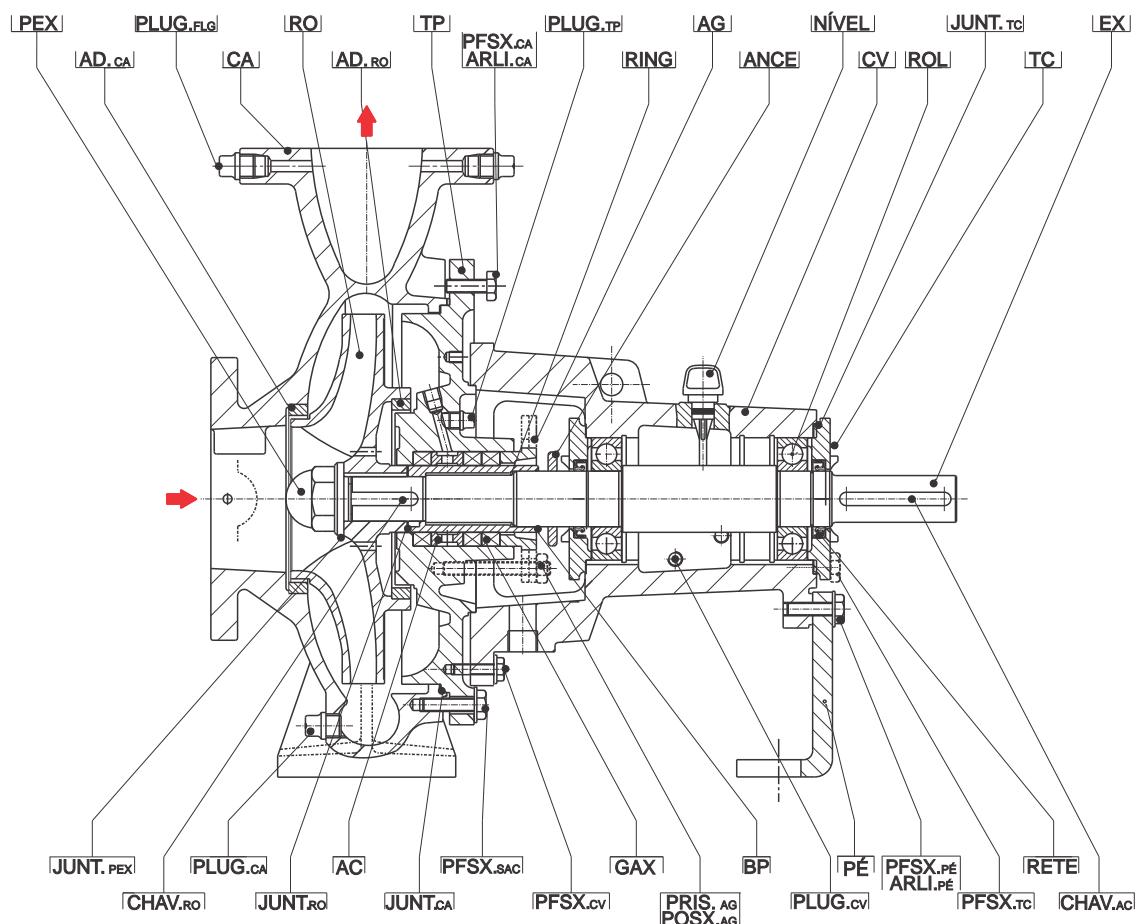
Impeller width	Reduce
Up to 12 mm	3 points
From 12 to 15 mm	2 points
Over 15 mm	No reduction

- For the pump selection, use the characteristic curves that refer to water at room temperature and specific weight equal to 1.0 kgf/ dm3.

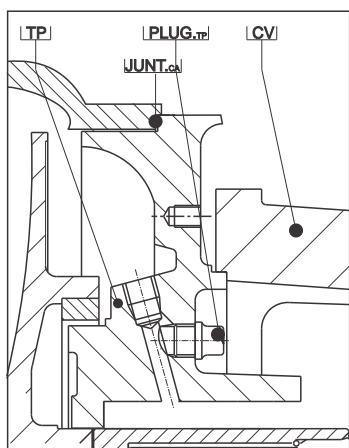
TECHNICAL DATA

1	 <p>Pumping of non-aggressive clear fluids. Sealing through internal source. Temperature up to 160°C.</p>	
2	 <p>Pumping of toxic, aggressive fluids and for pumps suctioning from a tank subject to vacuum. Sealing with clear liquid through external source. Temperature up to 105°C.</p>	<p>The manufacturing codes 2, 3 and 4 may only be applied for models without refrigeration chamber.</p> <p>- Volumetric flow rate of sealing liquid (l/min): Sealing = approximately 1 l/min Washing = approximately from 3 to 5 l/min.</p> <p>- Pressure of external sealing liquid (bar): 1 + DP for models 32-125 and 32-160. 2 1 + SP for the all the other models. DP = Discharge Pressure SP = Suction Pressure</p>
3	 <p>Pumping of fluids with suspended solid particles and/or when avoiding contamination from external source. Temperature up to 105°C.</p>	<p>The driver is performed by means of flexible coupling, with or without spacer, by: electric motor, combustion engine, etc.</p>
4	 <p>Pumping of fluids with abrasive particles or particles prone to crystallization. Flushing with clear liquid from external source. Temperature up to 105°C.</p>	<p>The driver may be performed by pulleys and belts as long as reinforced intermediate bearings are used.</p> <p>- Power reserve for driver in relation to power consumed by pump (HP): Up to 2 HP approximately 20% of reserve. Up to 20 HP approximately 15% of reserve. Over 20 HP approximately 10% of reserve.</p>
5	 <p>Pumping of thermal oils with temperatures higher than 180°C (Rothaterm Packing).</p>	<p>The following accessories are optionally available:</p> <ul style="list-style-type: none"> - IMBIL standard coupling or from other manufacturers. - IMBIL standard coupling protector. - IMBIL standard base, in plate or U-shaped. - IMBIL standard counterflange.

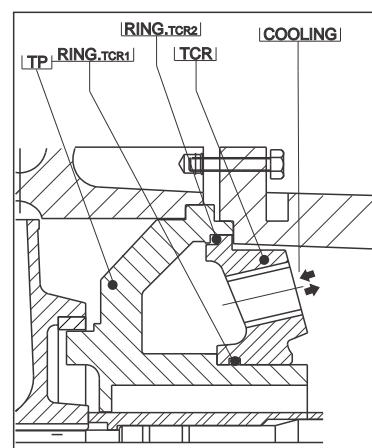
CROSS SECTION AND IDENTIFICATION OF PARTS



DETAIL OF PRESSURE COVER



DETAIL COOLING CHAMBER



For Models		
130	32, 40, 50, 65-125	32, 40, 50-160
140	65, 80-160	
150	125, 150-200	
160	150-315	

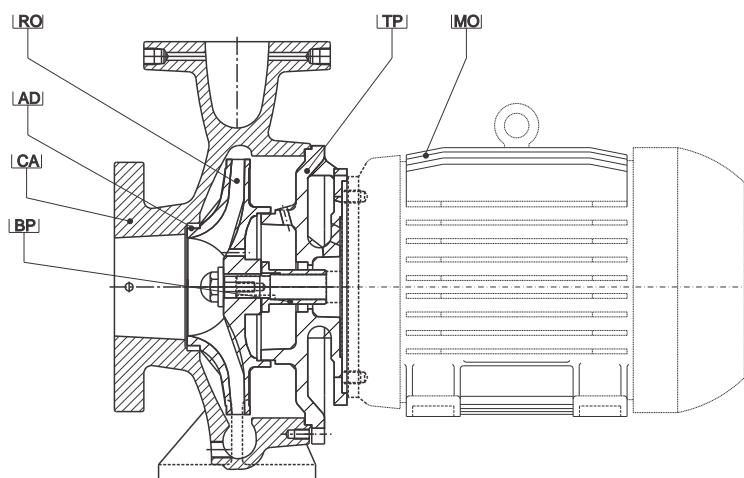


PART LIST – INI

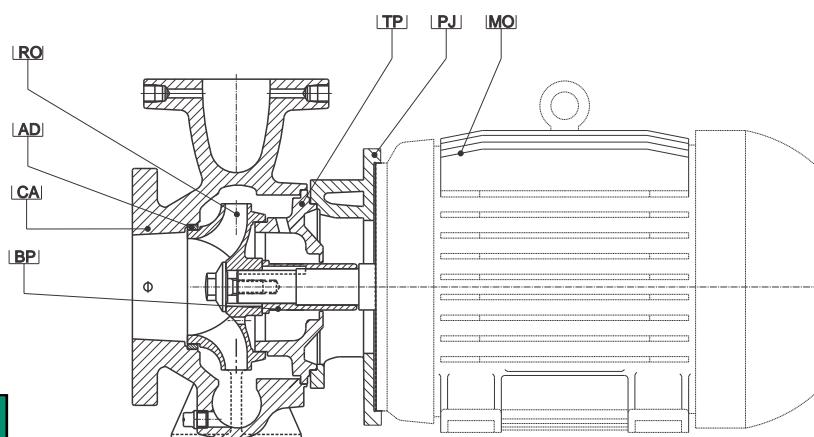
Part	Denomination	Ref.	Material	Qty	Reference notes
AC	Lantern ring		A48 CL30	1	
ANCE	Centrifuge ring		Nylon	1	
AD.CA	Volute case wear ring		A48 CL30	1	
AD.RO	Impeller wear ring		A48 CL30	1	
AF	Back ring	1	A48 CL30	1	
AG	Stuffing box packing gland		A48 CL30	1	
ARLI.CA	Smooth washer of volute case	2	SAE 1020	8	
ARLI.PÉ	Smooth washer of feet		SAE 1020	1	
BP	Shaft sleeve		SAE 1020	1	
CA	Volute case		A48 CL30	1	
CV	Bearing Housing		GG-20	1	
CHAV.ACP	Coupling Key		SAE 1045	1	
CHAV.RO	Impeller key		SAE 1045	1	
EX	Shaft		SAE 1045	1	
GAXE	Packing		Graphitized	1	
JUNT.CA	Volute case joint		K. oilit	1	
JUNT.PEX	Shaft nut joint		K. oilit	1	
JUNT.TC	Bearing housing cover joint		Velumoide	2	
JUNT.RO	Impeller joint		K. oilit	1	
RING.BP	Shaft sleeve o'ring		Nitrilic	1	
RING.TCR1	Refrigeration cover o'ring	3	Nitrilic	1	
RING.TCR2	Refrigeration cover o'ring	3	Nitrilic	1	
PFSX.CA	Volute case screw	2	SAE 1020	8	
PFSX.TC	Bearing housing cover screw		SAE 1020	8	
PFSX.CV	Bearing housing screw	4	SAE 1020	6	
PFSX.PÉ	Feet screw		SAE 1020	1	
PFSX.SAC	Cover opener screw	5	SAE 1020	1	
PÉ	Feet		GG-20	1	
PLUG.CA	Volute case plug		Galvanized iron	1	
PLUG.FLG	Flange plug		Galvanized iron	3	
PLUG.TP	Pressure cover plug		Galvanized iron	2	
PLUG.CV	Bearing housing plug		Galvanized iron	2	
POSX.AG	Stuffing box packing gland nut		SAE 1020	2	
PEX	Shaft nut		SAE 1045	1	
PRIS.AG	Tap bolt of stuffing box		SAE 1045	2	
RETE	Retainer		Nitrílica	2	
ROL	Ball bearing		Steel	2	
RO	Impeller		GG-20	1	
TCR	Refrigeration chamber cover	3	GG-20	1	
TP	Pressure cover		GG-20	1	
TC	Bearing housing cover		GG-20	2	
Nível	Oil dip stick		Nylon	1	

Note: The materials specified for the parts are for standard pumps. The parts can be manufactured in the following materials: nodular iron, carbon steel, stainless steel, bronze, aluminum and special alloys and or other material according to the purpose of the pump.

INI-BLOC PUMP



INI-BLOC PUMP (With coupling pieces)

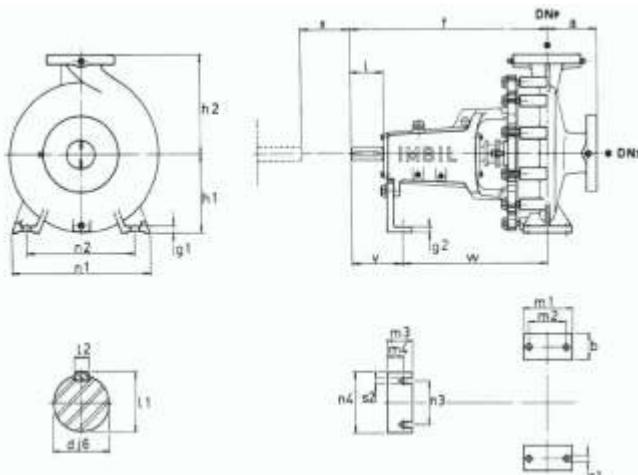


Part	Qty.	Denomination
AD	01	Wear Ring
BP	01	Shaft Sleeve
CA	01	Volute Case
MO	01	Engine
PJ*	01	Coupling Piece
RO	01	Impeller
TP	01	Pressure Couver

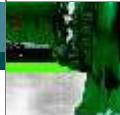
* Used only some models, when required



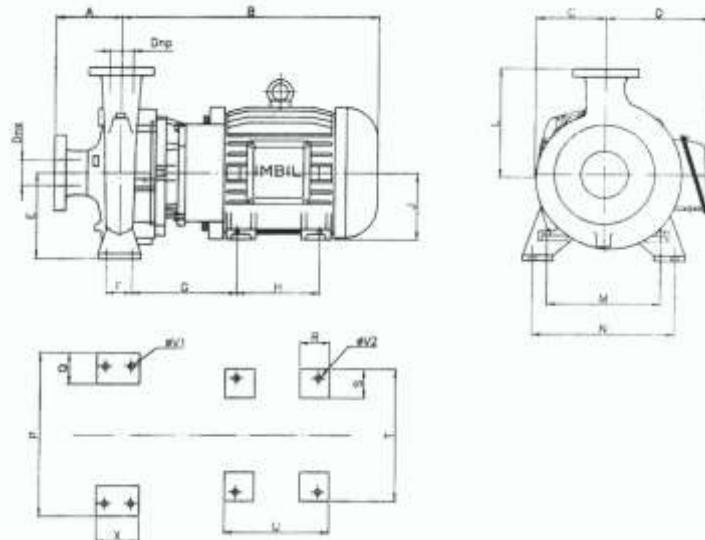
BASIC DIMENSIONS (mm) – INI



Bearing Housing	Models	Pump dimensions					Feet dimensions												Shaft End									
		DNs	DNp	a	f	h ₁	h ₂	b	g ₁	g ₂	m ₁	m ₂	m ₃	m ₄	n ₁	n ₂	n ₃	n ₄	s ₁	s ₂	v	w	djs	I	l ₁	l ₂	x	
I 30	25-150	32	25	73	400	112	160	50	15	6,5	100	70	64	38	190	140	110	152,4	14	14	118	282	24	50	26,9	8	100	
	32-125.1	50	32			112	160								190	140												
	32-160.1	50	32			132	160								240	190												
	32-200.1	50	32			160	180								240	190												
	32-125	50	32			112	160								190	140												
	32-160	50	32			132	160								240	190												
	32-200	50	32			160	180								240	190												
	40-125	65	40			112	140								210	160												
	40-160	65	40			132	160								240	190												
	40-200	65	40			160	180								265	212												
	50-125	80	50			132	160								240	190												
	50-160	80	50			160	180								265	212												
	50-200	80	50			160	200								265	212												
	65-125	100	50			160	180	65	18			125	95															
I 40	32-250.1	50	32	100		180	225								320	250												
	32-250	50	32	100		180	225								320	250												
	40-250	65	40	100		180	225								320	250												
	50-250	80	50	125		180	225								320	250												
	65-160	100	65	125		160	200								280	212												
	65-200	100	65	100		180	225								320	250												
	80-160	125	80	100		180	225								320	250												
	65-250	100	65			200	250								360	280												
I 40 R	80-250	125	80			225	280								400	315												
	100-160	125	100			200	280								360	280												
	100-200	125	100			200	280								360	280												
	40-315	65	40			200	250								345	280												
	50-315	80	50			225	280								345	280												
	80-200	125	80			180	250								345	280												
	65-315	100	65	125		225	280								400	315												
	80-315	125	80	125		250	315								400	315												
I 50	80-400	125	80	125		280	355								435	315												
	100-250	125	100	140		225	280								400	315												
	100-315	125	100	140		250	315								400	315												
	125-200	150	125	140		250	315								400	315												
	125-250	150	125	140		250	355								400	315												
	100-400	125	100	140		280	355								500	400												
	125-315	150	125	140		280	355								500	400												
	125-400	150	125	140		315	400								500	400												
	150-200	200	150	160		280	375								500	400												
	150-250	200	150	160		280	375								500	400												
	150-315	200	150	160	670	400	100	20	15	200	150				38	550	450	140	210	22	20	170	500	48	110	51,1	14	180
	150-400	200	150	160	670	400	100	20	15	200	150																	



BASIC DIMENSIONS (mm) – INI-BLOC



Model	Motor		Dimensions	R	S	T	U	ØV1	ØV2	X								
	4 POLOS	2 POLOS																
32-125			361 386 411 432	89 99 112	150 140	112	138 135 142	100 125 140	90 100 112	140 160 190	140 160 190	190	42 50 42 50 42	38 44 38 44 38	164 188 164 220 164	131 156 131 173 131	10 12	
			2/ 3 CV 4 CV 5 CV 6/ 7,5 CV				140	100 125	90									
			10 CV				140	100 125	90									
			1,5/ 2 CV 3 CV				132	137 144	100 112				50	42 55 42 55 42	188 220 248 248 164	173 177 187 187 131	10 12	
			6/ 7,5 CV 10 CV 12,5/ 15 CV 20/ 25 CV				70	- 140	132									
32-160			363 388 413 434 -	89 99 112 140	150	132	140 137 144	100 125 140	90 100 112				190 216	240	131 156 173 187 131	100		
			2/ 3 CV 4 CV 5 CV 6/ 7,5 CV				70	137 144	100 112					50	42 55 42 55 42	188 220 248 248 164	173 177 187 187 131	10 12
			10 CV				70	-	132					50	48 55 48 55 48	220 248 220 248 164	177 187 177 187 131	10 12
			1,5/ 2 CV 3 CV				70	137 141	100 112					50	42 55 42 55 42	220 248 220 248 164	177 187 177 187 131	10 12
			6/ 7,5 CV 10 CV 12,5/ 15 CV 20/ 25 CV				70	141 160	100 125					50	42 55 42 55 42	220 248 220 248 164	177 187 177 187 131	10 12
32-200			360 385 431 471 509	89 99 112 140	150	160	137 141	100 140	90 112					50	42 55 42 55 42	220 248 220 248 164	177 187 177 187 131	10 12
			20/ 25 CV				160	160	132					50	42 55 42 55 42	220 248 220 248 164	177 187 177 187 131	10 12
			3 CV				160	205	210	160				50	42 55 42 55 42	220 248 220 248 164	177 187 177 187 131	10 12
			4 CV				160	125 210	90	50				42 55 42 55 42	220 248 220 248 164	177 187 177 187 131	10 12	
			40 CV				160	267	200	50				42 55 42 55 42	220 248 220 248 164	177 187 177 187 131	10 12	
32-250			89 99 155 177 195	150 140 210 241 267	180	95	125 140	90 100	65	42 55 250 320 250			308 320 250 320 308	256 256 256 256 256	125			
			4 CV				95	-	180	65			42 55 42 55 42	308 320 308 320 164	256 256 256 256 156	125		
			4 CV				95	-	225	65			42 55 42 55 42	308 320 308 320 164	256 256 256 256 156	125		
			30 CV				95	254	254	65			42 55 42 55 42	308 320 308 320 164	256 256 256 256 156	125		
			40 CV				95	279	279	65			42 55 42 55 42	308 320 308 320 164	256 256 256 256 156	125		
40-125			387 412 433 473	89 99 112 135	150	112	139 136 143 162	125 100 112	90	42			42 50 42 55 42	164 188 173 220 164	156 173 173 177 131	10 12		
			4 CV				112	140	140	50			42 55 42 55 42	164 188 173 220 164	156 173 173 177 131	10 12		
			5 CV				112	164	140	50			42 55 42 55 42	164 188 173 220 164	156 173 173 177 131	10 12		
			6/ 7,5 CV				112	164	178	50			42 55 42 55 42	164 188 173 220 164	156 173 173 177 131	10 12		
			10 CV				112	206	210	160			50	42 55 42 55 42	265 320 265 320 164	225 225 225 225 131	10 12	
40-160			364 476 514	89 135 178	150	132	140 164 164	100 140 178	90 132	50			42 55 42 55 42	164 188 173 220 164	156 173 173 177 131	10 12		
			1,5/ 2 CV				132	164	140	50			42 55 42 55 42	164 188 173 220 164	156 173 173 177 131	10 12		
			10 CV				132	206	210	160			50	42 55 42 55 42	265 320 265 320 164	225 225 225 225 131	10 12	
			12,5/ 15 CV				132	206	210	160			50	42 55 42 55 42	265 320 265 320 164	225 225 225 225 131	10 12	
			20 CV				132	218	241	180			50	42 55 42 55 42	265 320 265 320 164	225 225 225 225 131	10 12	
40-200			385 514 614	89 99 155	150	160	137 134 205	125 140 210	90 100 160	50			42 55 42 55 42	164 188 173 320 164	156 173 173 256 131	10 12		
			3 CV				160	134	140	100			50	42 55 42 55 42	164 188 173 320 164	156 173 173 256 131	10 12	
			4 CV				160	134	140	100			50	42 55 42 55 42	164 188 173 320 164	156 173 173 256 131	10 12	
			20/ 25 CV				160	205	210	160			50	42 55 42 55 42	265 320 265 320 164	225 225 225 225 131	10 12	
			30 CV				160	218	241	180			50	42 55 42 55 42	265 320 265 320 164	225 225 225 225 131	10 12	
40-250			408 429 678	99 112 177	140	180	120 127 207	140 212 241	100 212 180	50			42 55 42 55 42	164 188 173 220 164	156 173 173 177 131	10 12		
			4/ 5 CV				180	127	210	160			50	42 55 42 55 42	164 188 173 220 164	156 173 173 177 131	10 12	
			6 CV				180	127	210	160			50	42 55 42 55 42	164 188 173 220 164	156 173 173 177 131	10 12	
			25 CV				180	207	241	180			50	42 55 42 55 42	225 320 225 320 164	225 225 225 225 131	10 12	
			30 CV				180	207	241	180			50	42 55 42 55 42	225 320 225 320 164	225 225 225 225 131	10 12	
			40 CV				180	207	241	180			50	42 55 42 55 42	225 320 225 320 164	225 225 225 225 131	10 12	
			50 CV				180	207	241	180			50	42 55 42 55 42	225 320 225 320 164	225 225 225 225 131	10 12	



BASIC DIMENSIONS (mm) – INI-BLOC

Model	Motor		Dimensions																				X
	4 POLOS	2 POLOS	Dns	Dnp	A	B	C	D	E	F	G	H	J	L	M	N	P	Q	R	S	T	U	ØV1
50-125	1 / 1,5 CV				-	89	150				-	100	90		140				42	38	164	131	10
		10 CV			476	135	140	132			165	140	132	160	216	190	240		55	51	248	187	12
		12,5 / 15 CV			514		178				178												
50-160	3 CV				-	89	150				-	125	90		140				42	38	164	156	10
		4 CV				99	140				140	100	180	160					50	44	188	173	12
		20 / 25 CV			616	155	210				207	210	160		254				65	64	308	256	15
50-200	4 / 5 CV				411	99		140	160		135	140	100		160	212	265	50	50	44	188	173	12
		6 CV			432	112					142	112		190					48	220	177		
		25 CV			615	155	210				206	210	160	200	254				65	64	308	256	15
		30 CV			678	177	241				219	241		180		279			75	80	350	294	15
		40 CV			744	195	267				231	267		318					85	82	385	332	19
50-250	6 CV				-	112		180			-	112	225	190		250	320		50	48	220	177	
		7,5 / 10 CV			474						150								55	51	248	187	12
50-315	10 CV				470	135	140		225		146	140	132	280	216	280	345		55	51	248	187	14
		12,5 / 15 CV			508		178				210	160		254					65	64	308	256	15
		20 CV				155	210				100	90		140					42	38	164	131	10
		2 CV			-	89	150				178	132	180	216					55	51	248	225	12
65-125		15 CV			314	155	210				193	210	160		254				55	64	308	256	15
		20 CV			414	99	140	160			125	140	100		160	212	280	65	50	44	188	173	12
65-160	4 CV				622	155	210				196	210	160		254				65	64	308	256	15
		25 CV			679	177	241				209	241	180		279				75	80	350	294	15
		30 CV			745	195	267				211	267	200		318				85	82	385	332	19
		40 CV			-	99		180			-	140	112		190				50	44	188	173	12
65-200	4 / 5 CV				122						135	140	180		216				55	51	248	187	12
		6 CV			135						-	177	241		241	180	225		75	80	350	294	15
		7,5 / 10 CV			-	177	241				178	241	180		279				85	82	385	332	19
		30 CV			195		305				241	180	225		318								
		40 CV			-	177	241				140	112		190					50	48	220	177	
65-250	7,5 / 10 CV				472	140	200				136	140		250	216	280	360		55	51	248	187	12
		12,5 / 15 CV			510	135	178				178	132	180	216					65	64	308	256	15
65-315	15 CV				-						170	210	160	280	254	315	400		65	64	308	256	15
		20 CV			604	155	210	225			183	241	180		279				75	80	350	294	15
		25 / 30 CV			667	177	241				183	241	180										
80-160	5 CV				-	99		180			-	100	160		160				50	44	188	173	
		6 CV			112						112	225	190	250					55	48	220	177	
		7,5 CV			135	140					135	135		216					55	51	248	187	14
80-200	6 CV				-	112		200			-	140		112					50	48	220	177	12
		7,5 / 10 CV			135						202	178	132		216					55	51	248	187
80-250	12,5 / 15 CV				502		178				128	178	132		216				65	64	308	256	15
		20 CV			604	155	210				170	210	160		254				75	80	350	294	15
80-315	25 / 30 CV				674	177	241				190	241	180		279				85	82	385	332	19
		40 CV			740	195	267	250			202	267	200	315	305				85	82	385	332	19
		50 CV			778	195	305				230	178	132		216								
100-200	12,5 / 15 CV				604	135	178	200	120		210	160	280	254				55	51	248	225	18	
		20 CV			-	155	210				210	160	280	254				65	64	308	256	160	
100-250	20 CV				177	241					241	180	20	279				75	80	350	294	15	
		25 / 30 CV			195	267					267	200	315	318				75	80	350	294	15	
100-315	40 CV				195	305	250				267	305						85	82	385	332	19	
		50 CV			-	243	280	280	150	199	286	225	355	356	400	500	100	105	80	436	391	22	
		60 CV			-	243	286				286	225	355	356	400	500	100		65	64	308	256	200
100-400	75 CV				610	155	210				176	210	160	315	254			75	80	350	294	18	
		20 CV			-	177	241				241	180		279		315	400	80	75	80	350	294	15
125-200	25 CV				-	177	241				267	305	355	318				85	82	385	332	19	
		25 / 30 CV			-	195	267				210	160		254		450	550		85	82	385	332	
125-250	40 CV				-	195	305				169	241	180		279				65	64	308	256	22
		50 CV			-	243	286				267	200	375	315	400	500	100		75	80	350	294	19
150-200	20 CV				668	177	241				305		286	225	356				85	82	385	332	20
		25 / 30 CV			-	195	267				305		286	225	356				105	80	436	391	
150-250	40 CV				-	243	286				305		286	225	356								
		50 CV			-	243	286				305		286	225	356								
		60 CV			-	243	286				305		286	225	356								

Notes:

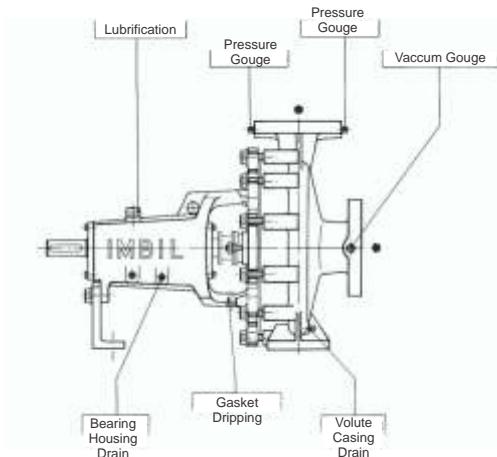
1 – Models with engine with power different from those described above may be supplied, for such orders, please, contact IMBIL.

2 -The following models are available with Threaded Suction/Pressure:

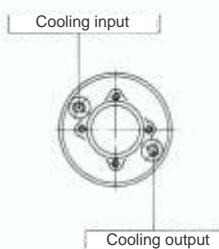
32-125, 32-160, 32-200, 40-125, 40-160, 40-200, 50-125 and 65-160.

3 – Consult IMBIL for any missing dimensions.

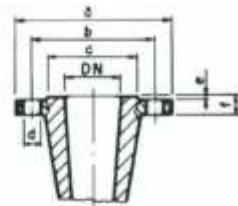
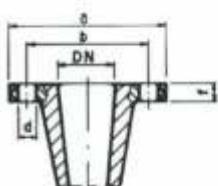
CONNECTION SIZES AND FLANGE TABLE



Detail of the cooling cap

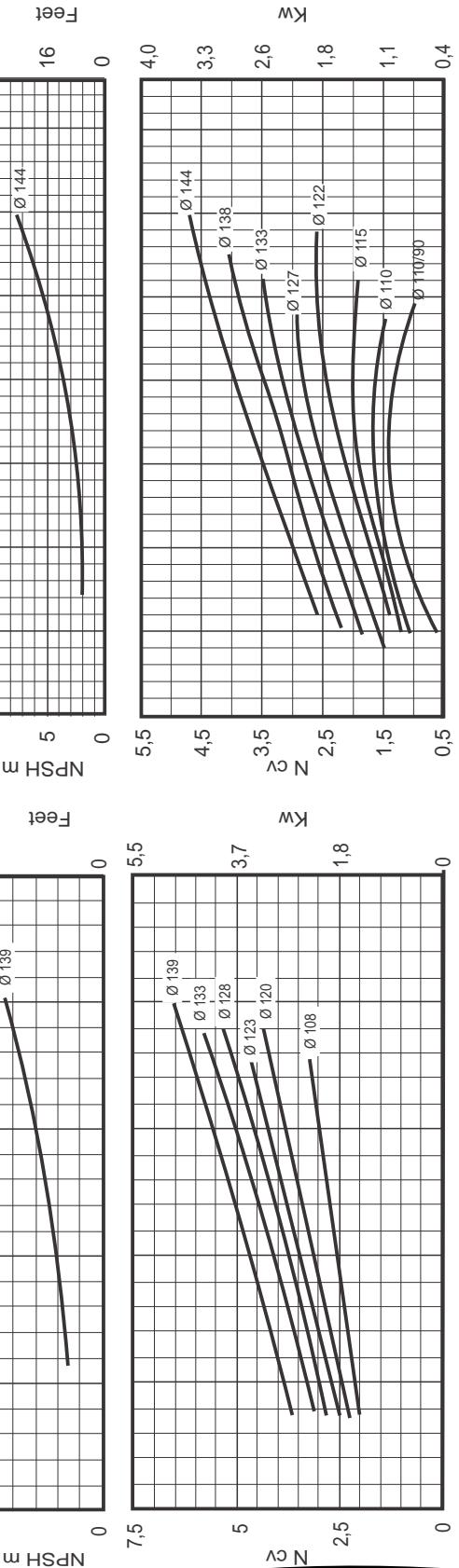
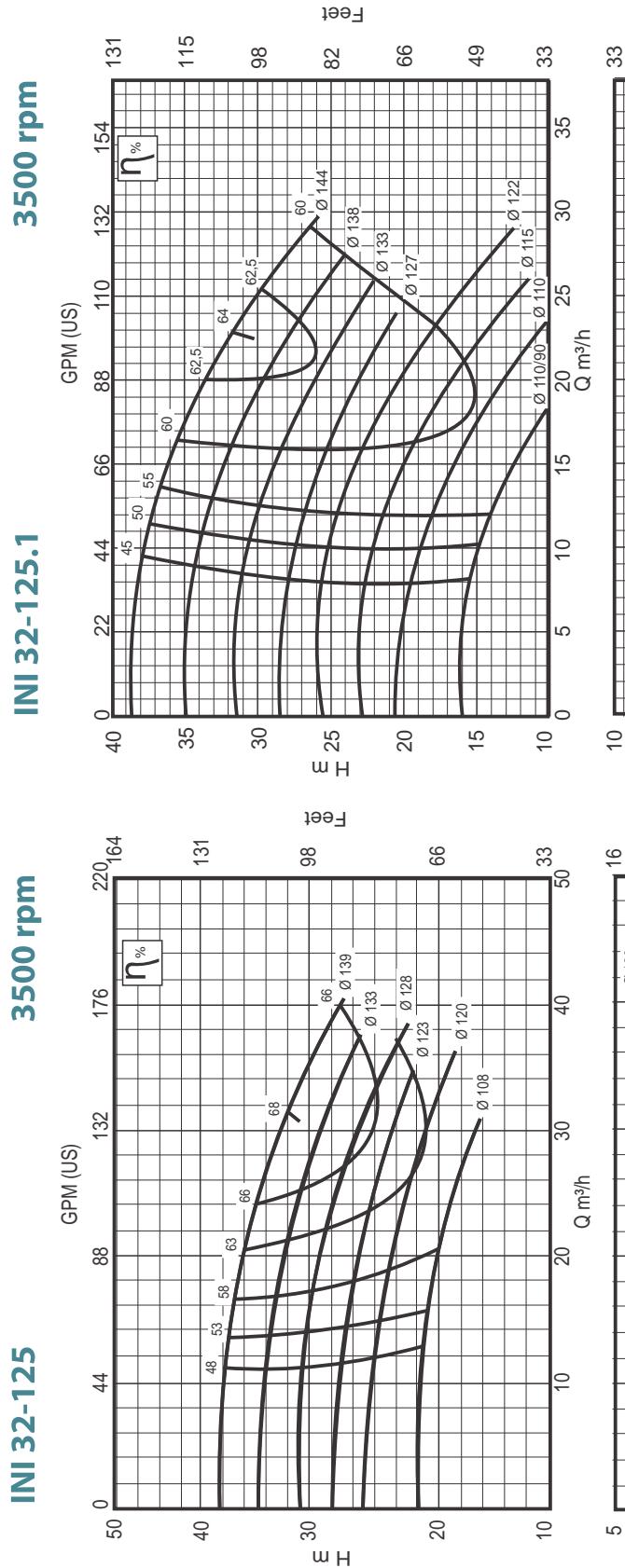


Connection / Denomination	BSP screw threads				
	I 30	I 40	I 40 R	I 50	I 60
Pressure gauge	3/8"	3/8"	3/8"	1/2"	1/2"
Pressure/Vacuum Meter	3/8"	3/8"	3/8"	1/2"	1/2"
Volute case drain	3/8"	3/8"	3/8"	1/2"	1/2"
Bearing Housing Drain	1/4"	1/4"	1/4"	1/4"	1/4"
Lubrication	-	-	-	-	-
Dripping	1/2"	1/2"	1/2"	3/4"	3/4"
Inlet refrigeration	1/2"	1/2"	1/2"	1/2"	1/2"
Outlet refrigerarion	1/2"	1/2"	1/2"	1/2"	1/2"



	ANSI B 16.1FF Standard	a	b	d	f	Number of holes
25	125 Lb	108	79	16	11	4
	250 Lb	124	89	19	18	4
32	125 Lb	117	89	16	13	4
	250 Lb	133	98	19	17	4
40	125 Lb	127	98	16	14	4
	250 Lb	155	114	22	19	4
50	125 Lb	152	120	19	16	4
	250 Lb	165	127	19	20	8
65	125 Lb	178	140	19	17	4
	250 Lb	190	149	22	24	8
80	125 Lb	190	152	19	19	4
	250 Lb	209	168	22	27	8
100	125 Lb	228	190	19	24	8
	250 Lb	254	200	22	30	8
125	125 Lb	254	216	22	24	8
	250 Lb	279	235	22	35	8
150	125 Lb	279	241	22	25	8
	250 Lb	317	270	22	36	12
200	125 Lb	343	298	22	28	8
	250 Lb	381	330	25	41	12

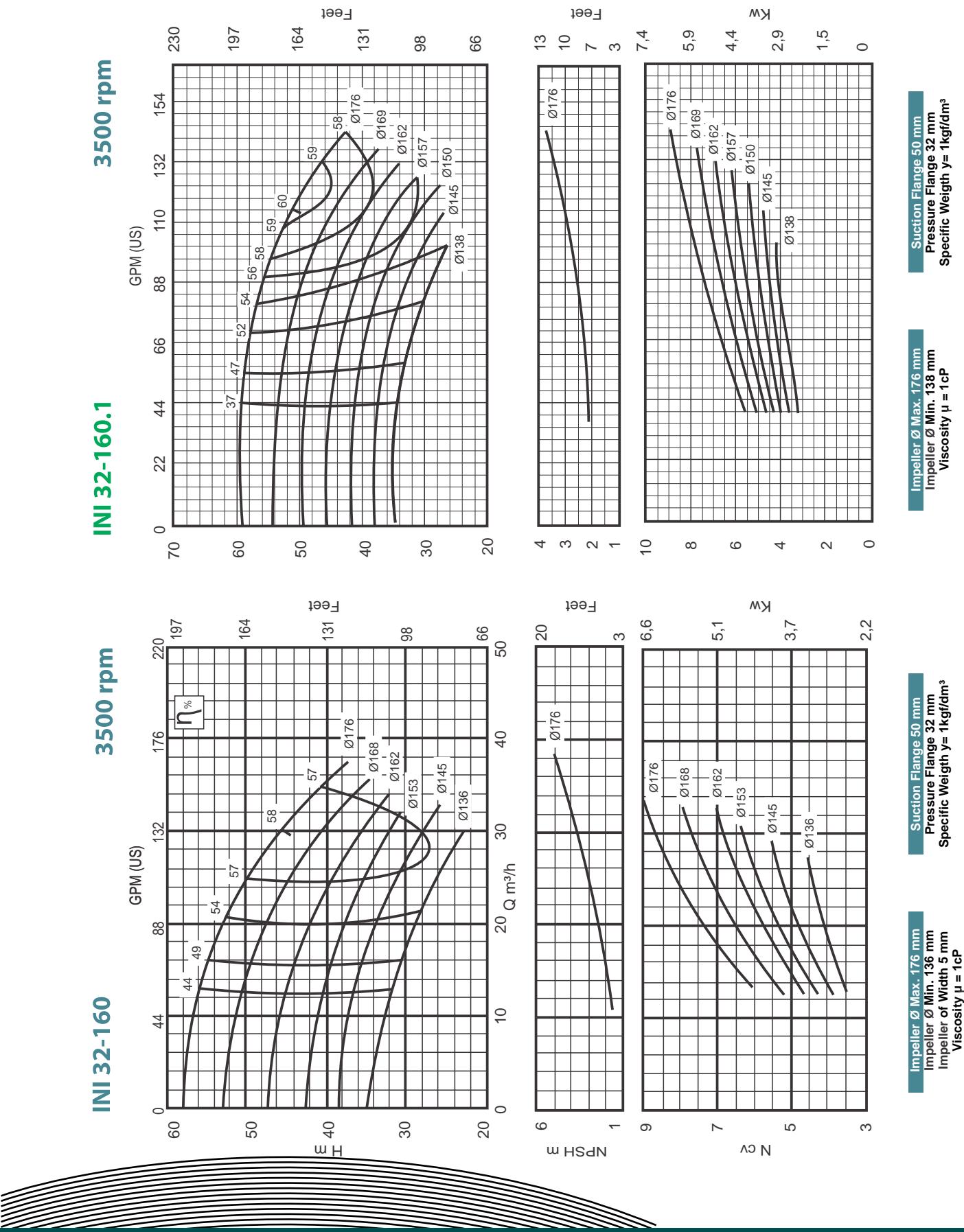
	ANSI B 16.1FF Standard	a	b	c	d	e	f	Number of holes
25	150 Lb	110	79,4	50,8	16	2,0	14,7	4
	300 Lb	125	88,9	50,8	19	2,0	17,9	4
32	150 Lb	115	88,9	63,5	16	2,0	16,3	4
	300 Lb	135	98,4	63,5	19	2,0	19,5	4
40	150 Lb	125	98,4	73,0	16	2,0	17,9	4
	300 Lb	155	114,3	73,0	22	2,0	21,1	4
50	150 Lb	150	120,7	92,1	19	2,0	19,5	4
	300 Lb	165	127,0	92,1	19	2,0	22,7	8
65	150 Lb	180	139,7	104,8	19	2,0	22,7	4
	300 Lb	190	149,2	104,8	22	2,0	25,9	8
80	150 Lb	190	125,4	127,0	19	2,0	24,3	4
	300 Lb	210	168,3	127,0	22	2,0	29,0	8
100	150 Lb	230	190,5	157,2	19	2,0	24,3	8
	300 Lb	255	200,0	157,2	22	2,0	32,2	8
125	150 Lb	255	215,9	185,7	22	2,0	24,3	8
	300 Lb	280	235,0	185,7	22	2,0	35,4	8
150	150 Lb	280	241,3	215,9	22	2,0	25,9	8
	300 Lb	320	269,9	215,9	22	2,0	37,0	12
200	150 Lb	345	298,5	269,9	22	2,0	29,0	8
	300 Lb	380	330,2	269,9	25	2,0	41,7	12



Impeller Ø	Max. 139 mm	Suction Flange	50 mm
Impeller Ø	Min. 108 mm	Pressure Flange	32 mm
Impeller of Width	9 mm	Specific Weight y	1 kg/lit
Viscosity η	= 1 cP		

Impeller Ø Max. 144 mm
Impeller Ø Min. 110/90 mm
Impeller of Width 9 mm
Viscosity $\mu = 1 \text{ cP}$

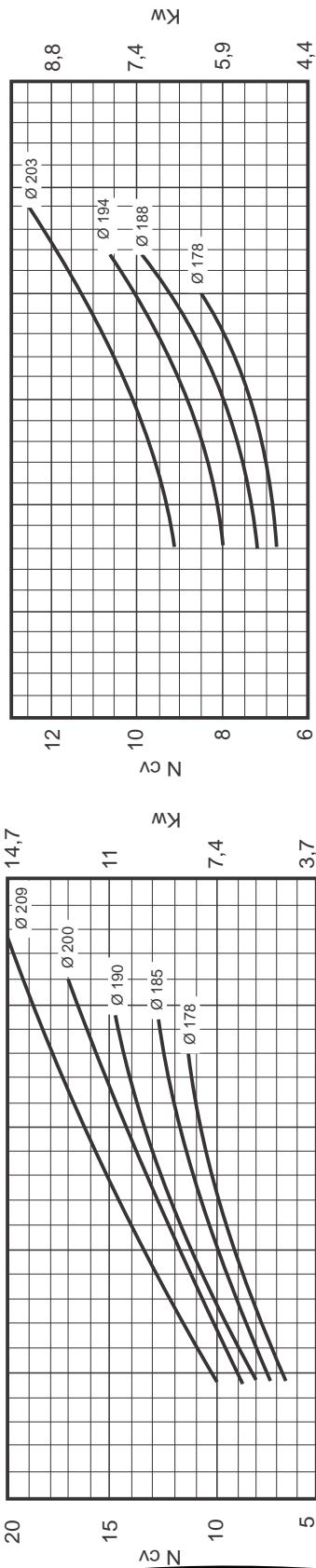
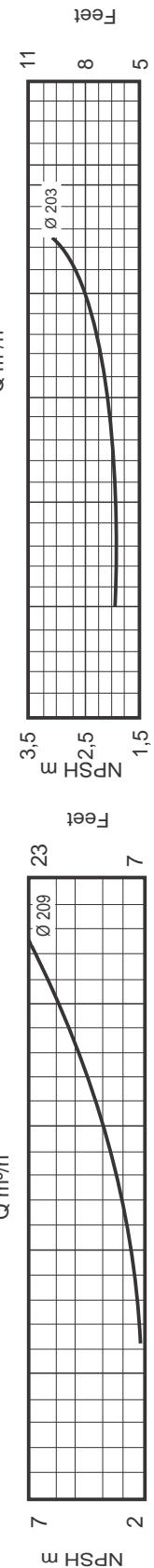
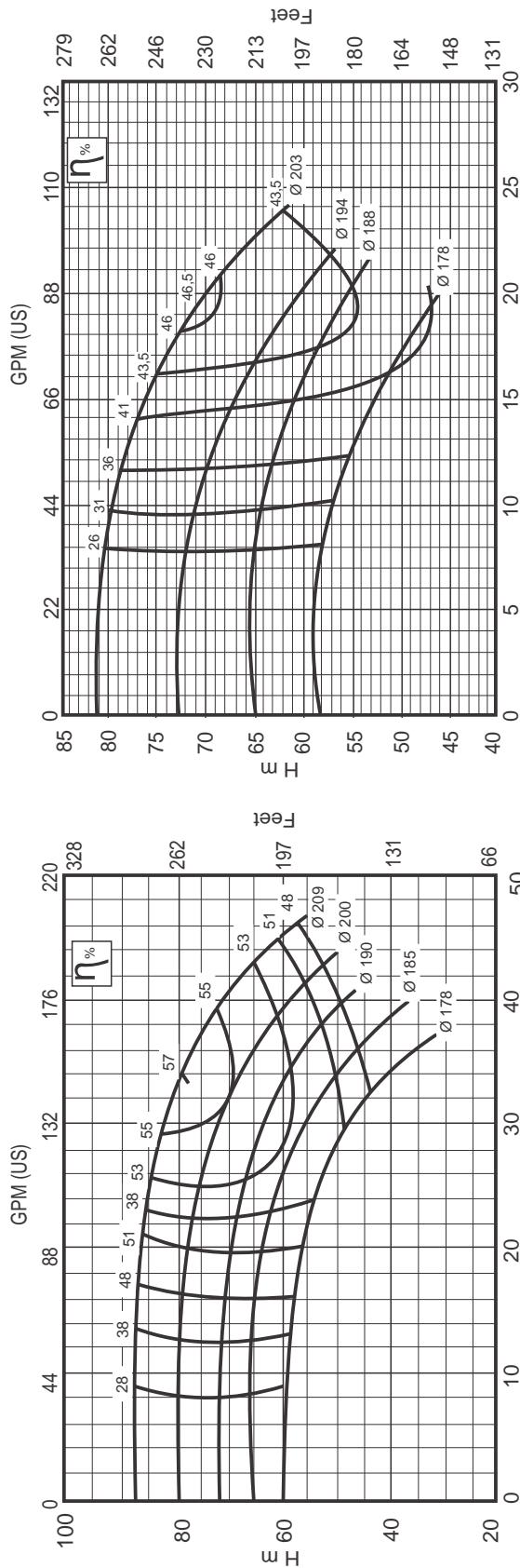
Suction Flange 50 mm
Pressure Flange 32 mm
Specific Weight y= 1kgf/dm³





INI 32-200 **INI 32-200.1**

3500 rpm

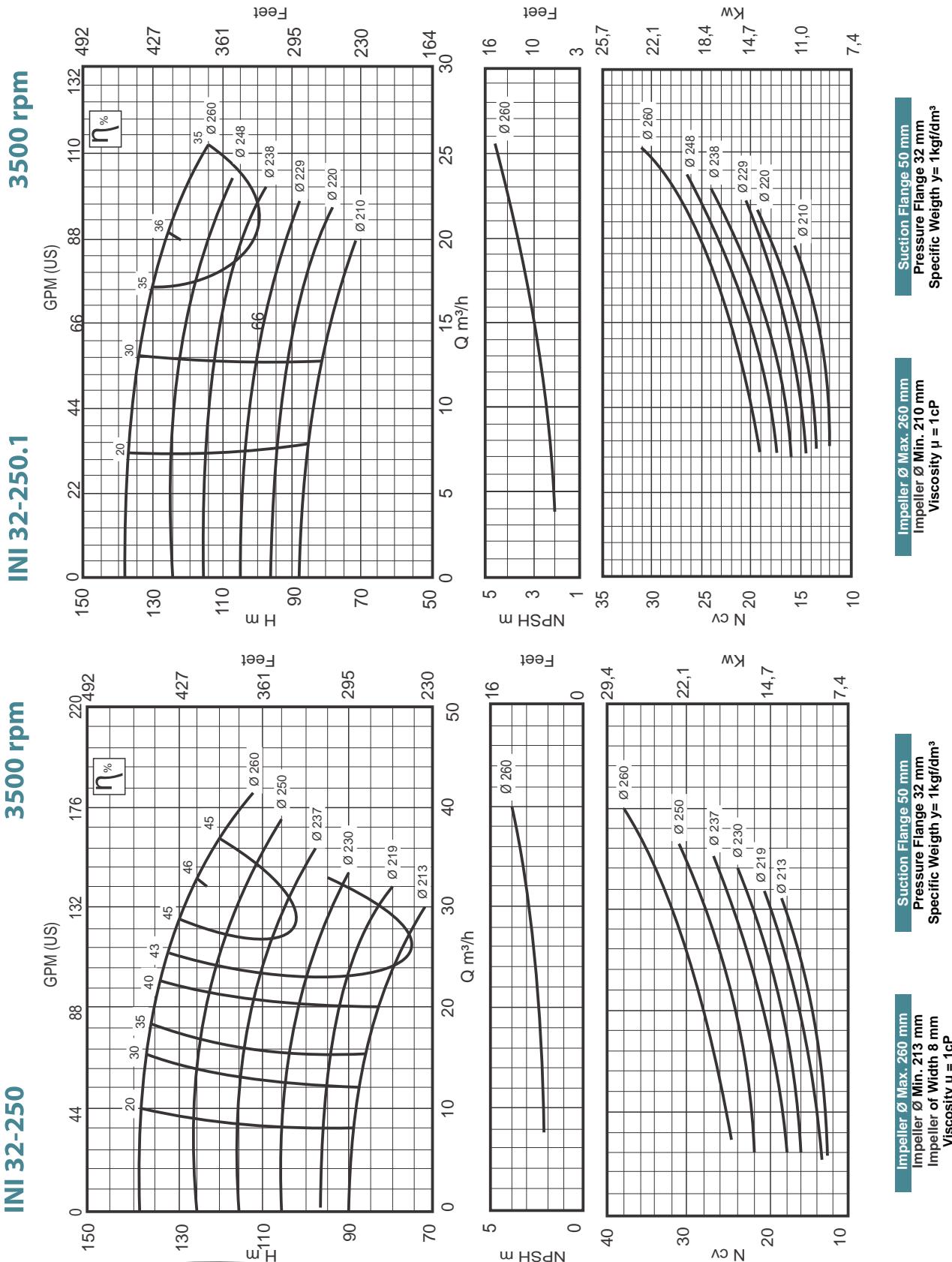


Impeller Ø Max. 209 mm
Impeller Ø Min. 178 mm
Impeller of Width 6 mm
Viscosity $\mu = 1 \text{ cP}$

Suction Flange 50 mm
Pressure Flange 32 mm
Specific Weigh y = 1kgf/dm³

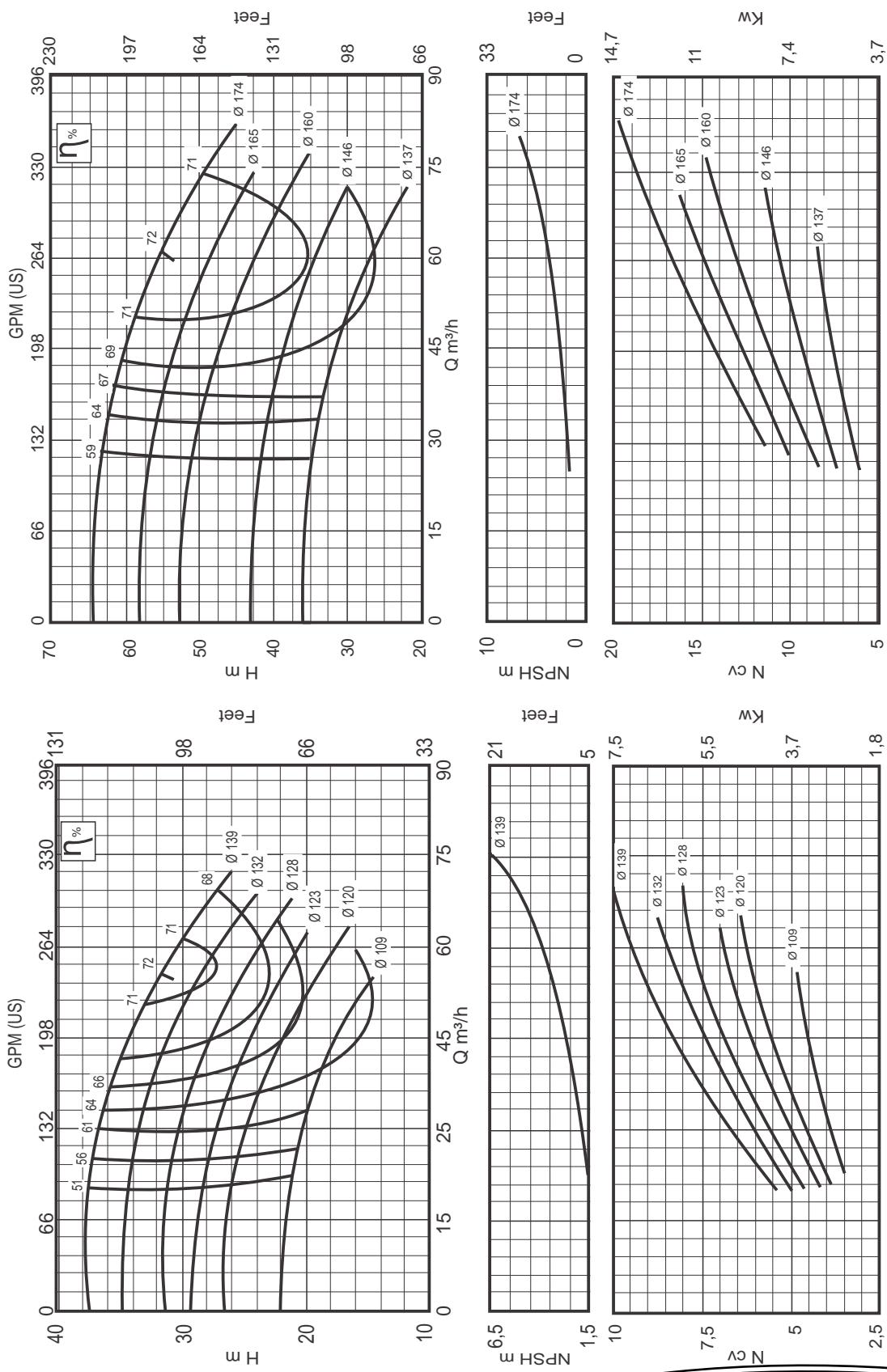
Impeller Ø Max. 203 mm
Impeller Ø Min. 178 mm
Viscosity $\mu = 1 \text{ cP}$

Suction Flange 50 mm
Pressure Flange 32 mm
Specific Weigh y = 1kgf/dm³





[INI] 40-125 **[INI] 40-160**



Impeller Ø Max. 139 mm
Impeller Ø Min. 109 mm
Impeller of Width 14 mm
Viscosity $\mu = 1cP$

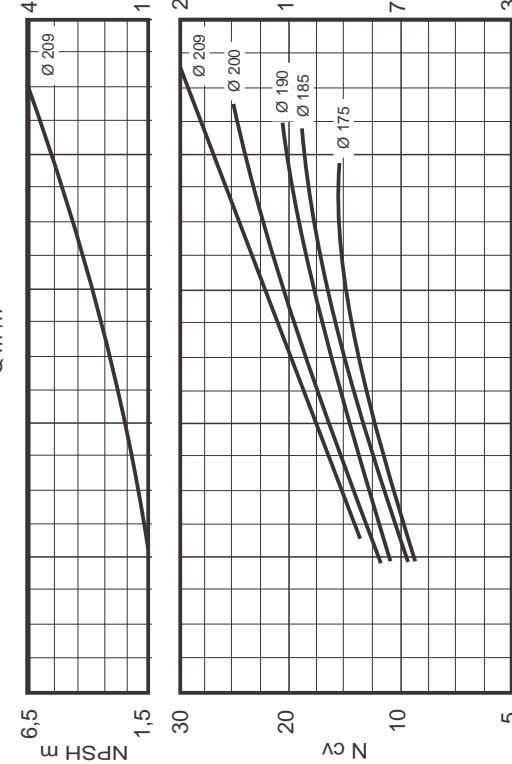
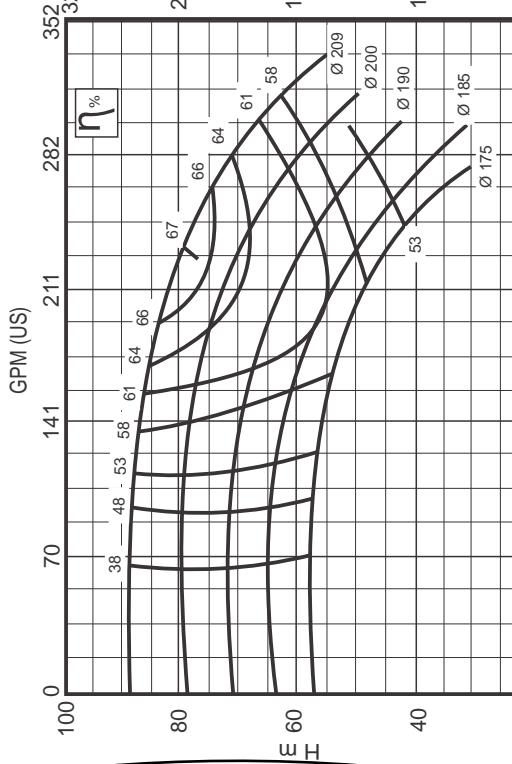
Suction Flange 65 mm
Pressure Flange 40 mm
Specific Weight y = 1kgf/dm³

Suction Flange 65 mm
Pressure Flange 40 mm
Specific Weight y = 1kgf/dm³

IMBIL
Shipping Solutions



INI 40-200 **INI 40-250**

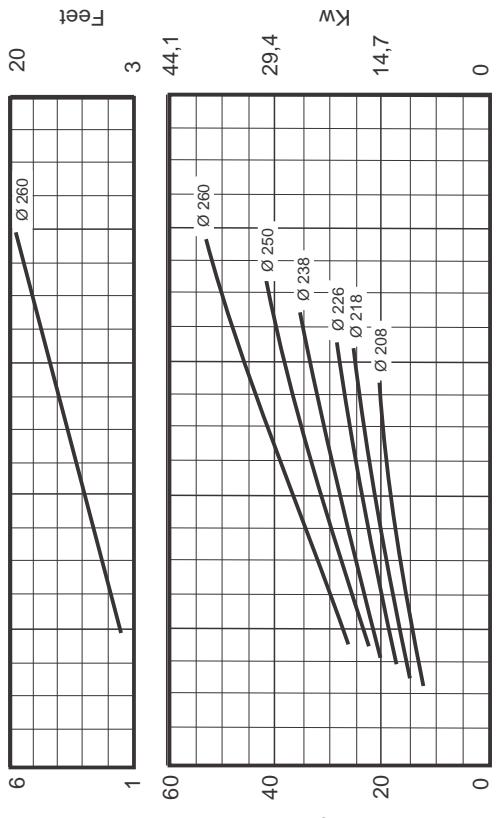
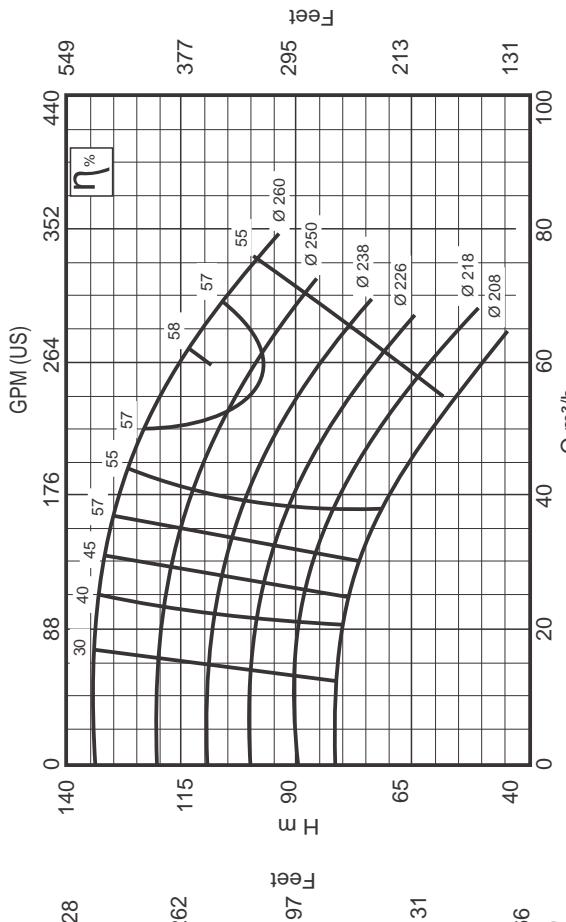


Impeller Ø Max. 209 mm
Impeller Ø Min. 175 mm
Impeller of Width 9 mm
Viscosity $\eta = 1 \text{ cP}$

Impeller Ø Max. 260 mm
Impeller Ø Min. 208 mm
Impeller of Width 8 mm
Viscosity $\eta = 1 \text{ cP}$

Suction Flange 65 mm
Pressure Flange 40 mm
Specific Weigh y = 1kgf/dm³

INI 40-250 **3500 rpm**



Impeller Ø Max. 260 mm
Impeller Ø Min. 208 mm
Impeller of Width 8 mm
Viscosity $\eta = 1 \text{ cP}$

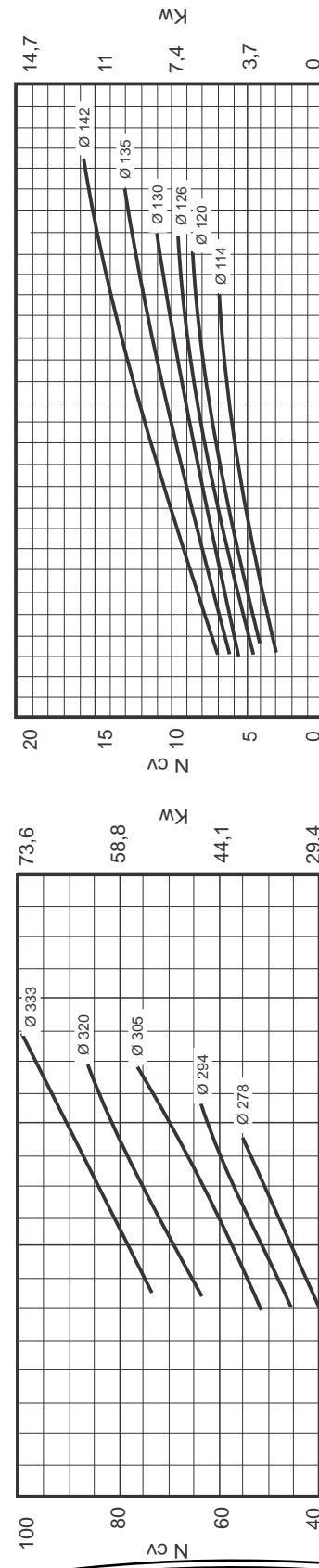
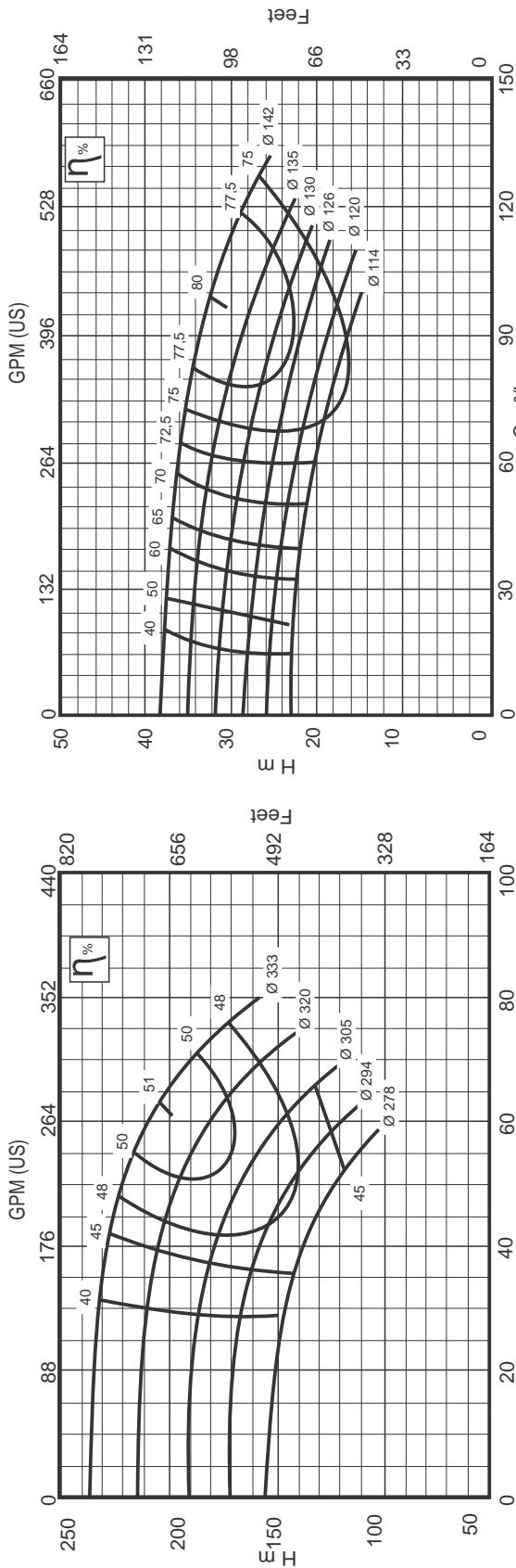
Suction Flange 65 mm
Pressure Flange 40 mm
Specific Weigh y = 1kgf/dm³

3500 rpm

INI 50-125

3500 rpm

INI 40-315



Impeller Ø Max. 333 mm
Impeller Ø Min. 278 mm
Impeller of Width 9 mm
Viscosity $\mu = 1cP$

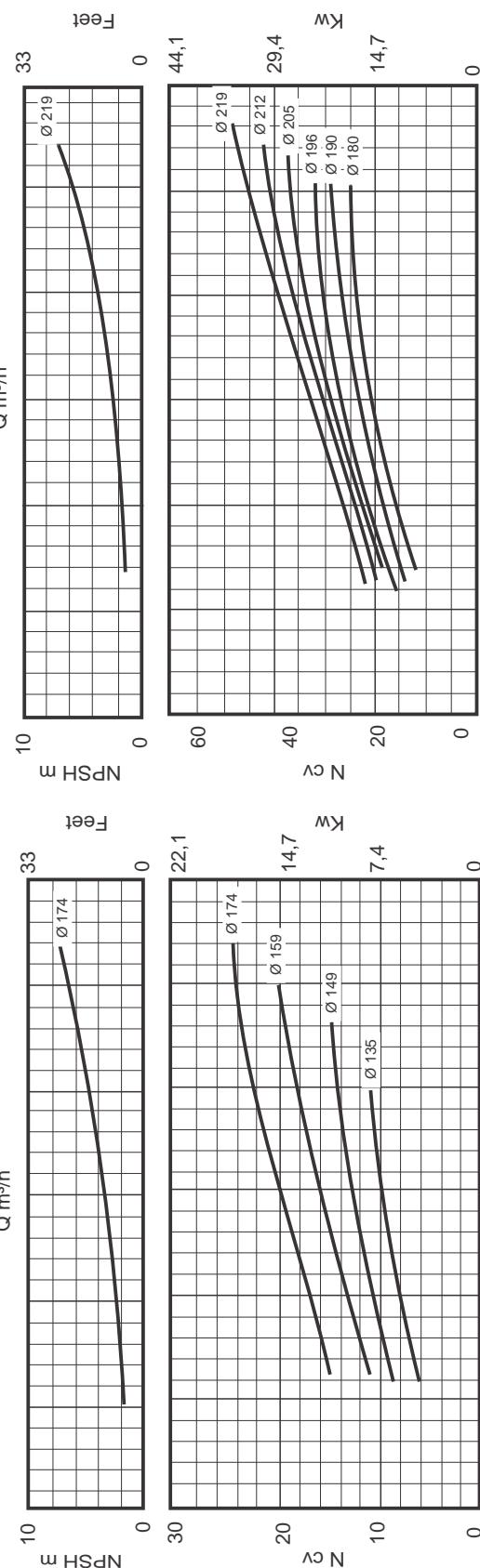
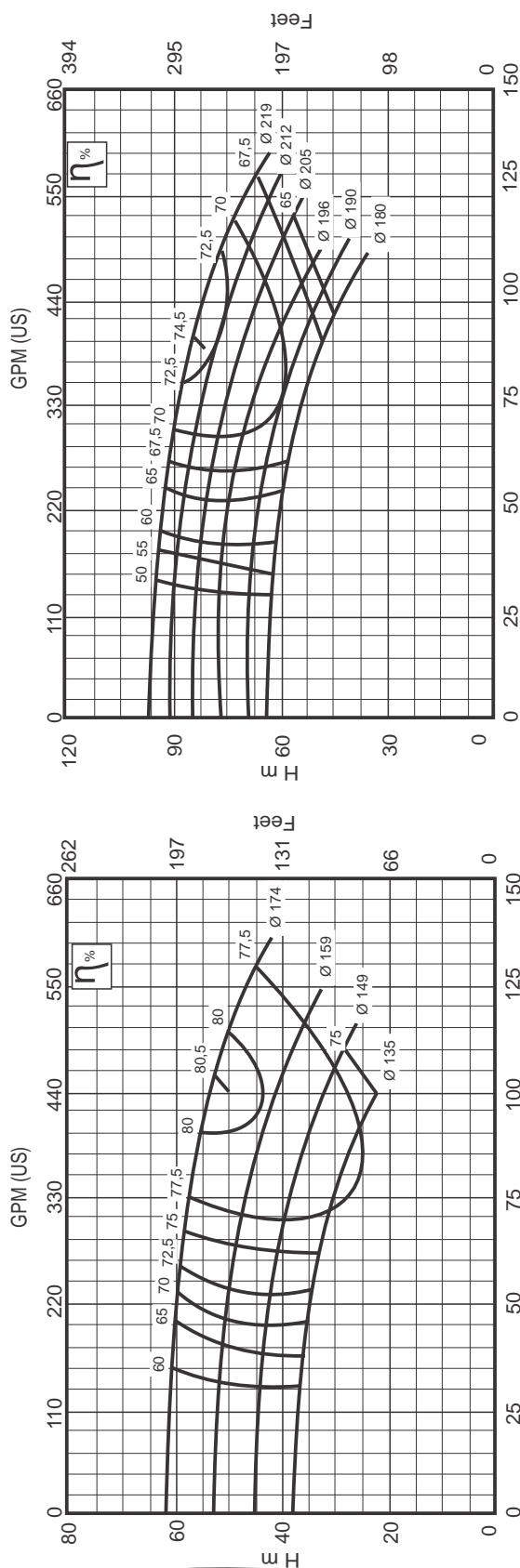
Suction Flange 65 mm
Pressure Flange 40 mm
Specific Weight $y = 1kg/dm^3$

Impeller Ø Max. 142 mm
Impeller Ø Min. 114 mm
Impeller of Width 20 mm
Viscosity $\mu = 1cP$

Suction Flange 80 mm
Pressure Flange 50 mm
Specific Weight $y = 1kg/dm^3$



INI 50-160 **INI 50-160** **INI 50-200**



Impeller Ø Max. 174 mm
Impeller Ø Min. 135 mm
Impeller of Width 16 mm
Viscosity $\mu = 1cP$

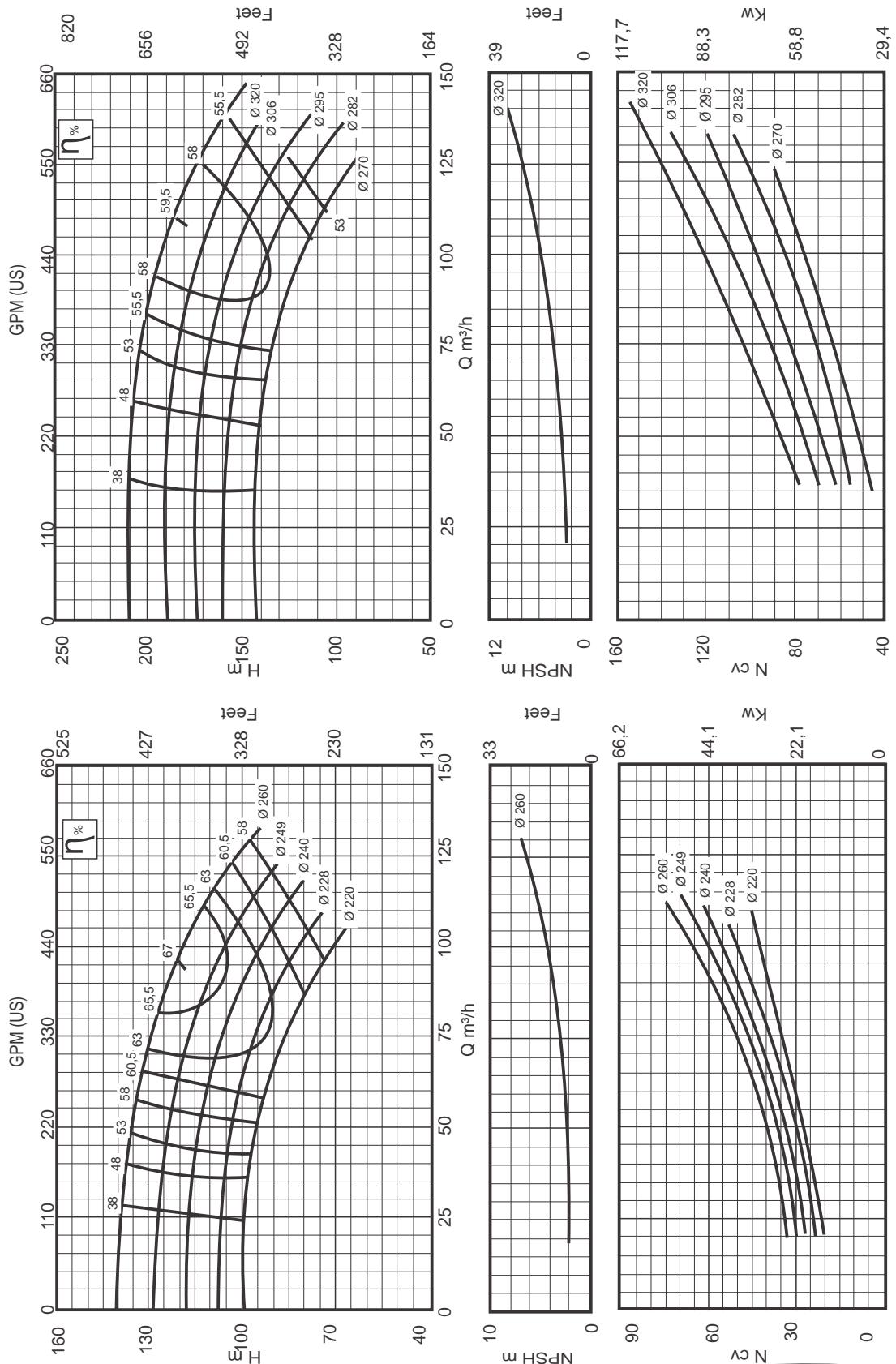
Suction Flange 80 mm
Pressure Flange 50 mm
Specific Weight y = 1kg/dm³

Impeller Ø Max. 219 mm
Impeller Ø Min. 180 mm
Impeller of Width 11 mm
Viscosity $\eta = 1 \text{ cP}$

Suction Flange 80 mm
Pressure Flange 50 mm
Specific Weigh y = 1kgf/dm³



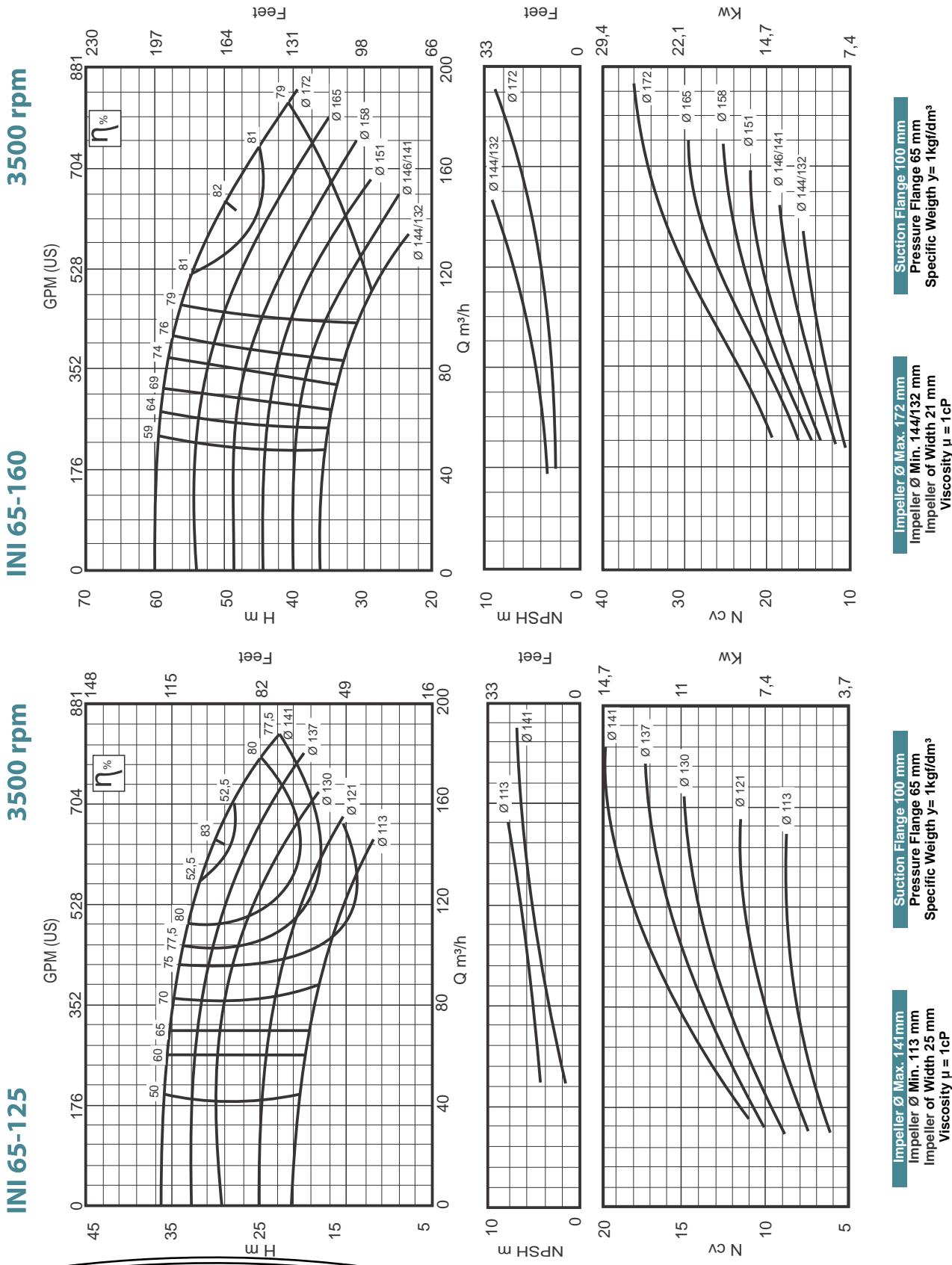
3500 rpm



Impeller Ø Max. 260 mm
Impeller Ø Min. 220 mm
Impeller of Width 12 mm
Viscosity $\mu = 1cP$

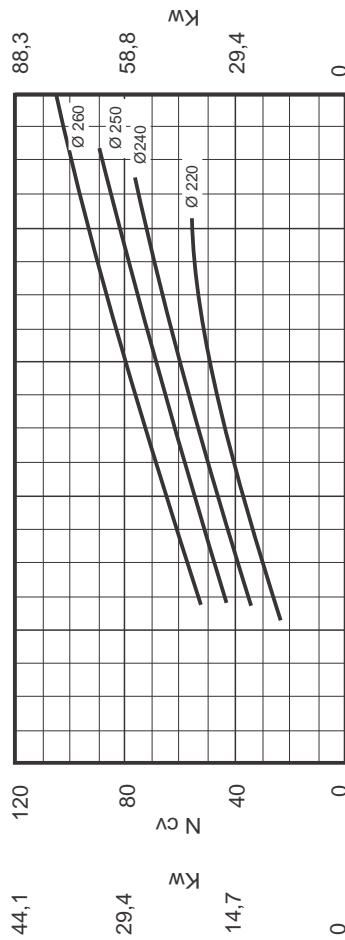
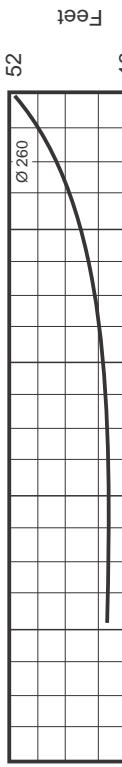
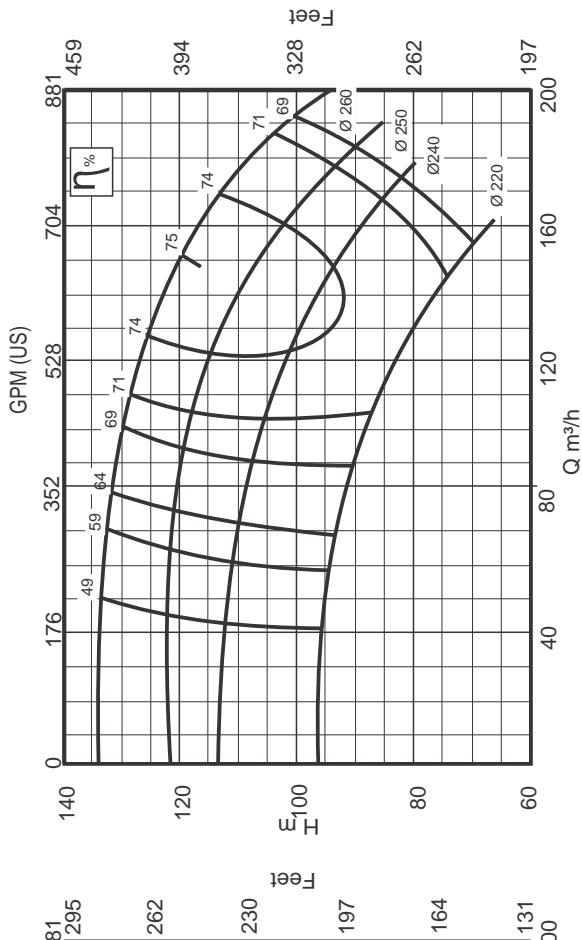
Suction Flange 80 mm
Pressure Flange 50 mm
Specific Weigh y = 1kg/dm³

Suction Flange 80 mm
Pressure Flange 50 mm
Specific Weigh y = 1kgf/dm³



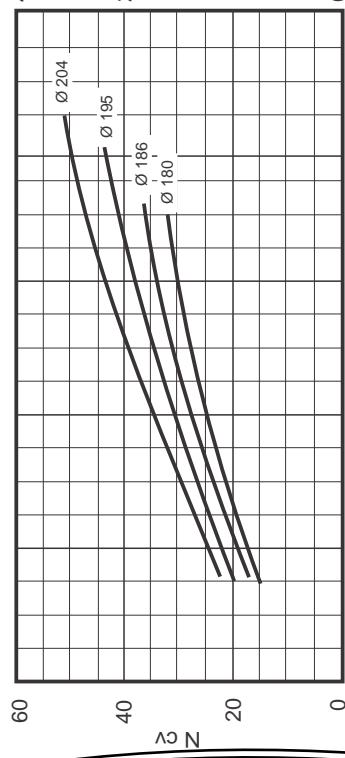
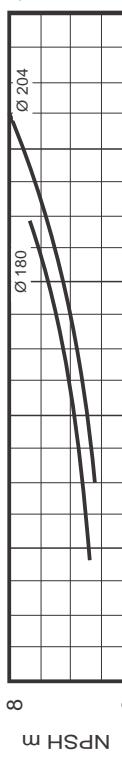
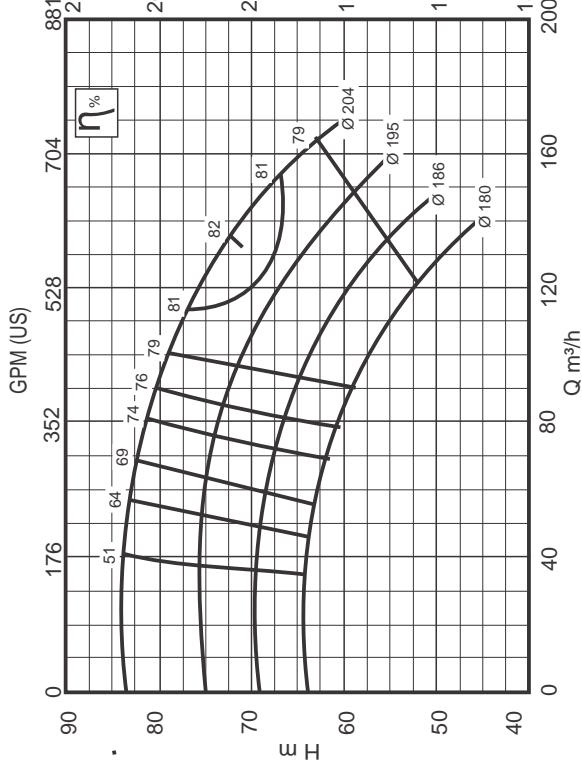
3500 rpm

INI 65-250

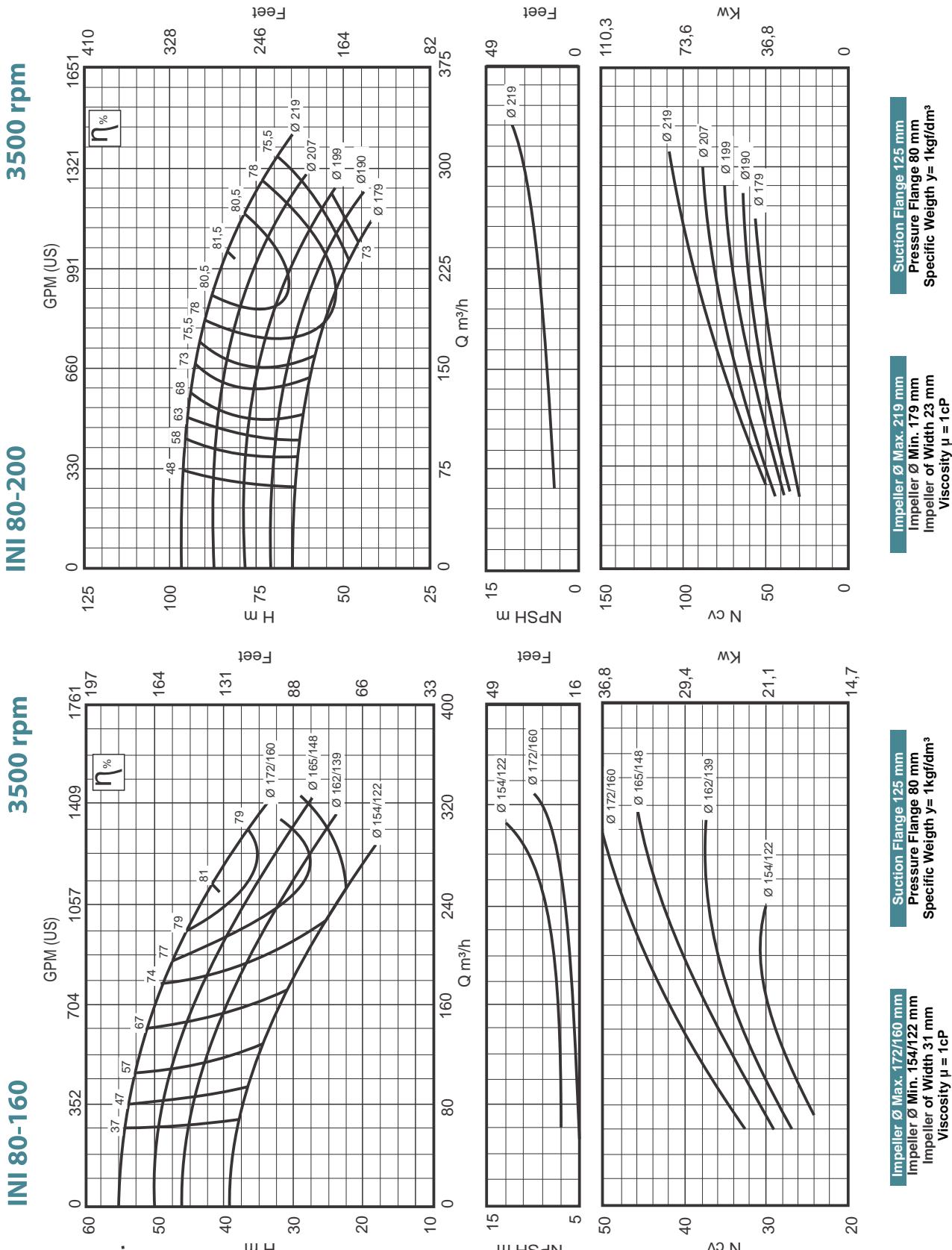


INI 65-200
3500 rpm
Suction Flange 100 mm
Pressure Flange 65 mm
Specific Weight $\gamma = 1 \text{ kgf/dm}^3$
Viscosity $\mu = 1 \text{ cP}$

INI 65-200



INI 65-250
3500 rpm
Suction Flange 100 mm
Pressure Flange 65 mm
Specific Weight $\gamma = 1 \text{ kgf/dm}^3$
Viscosity $\mu = 1 \text{ cP}$

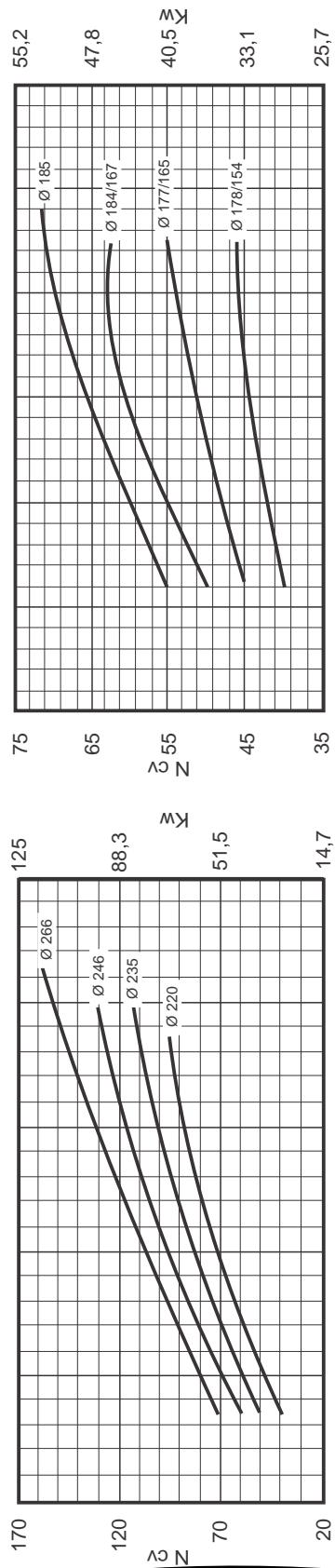
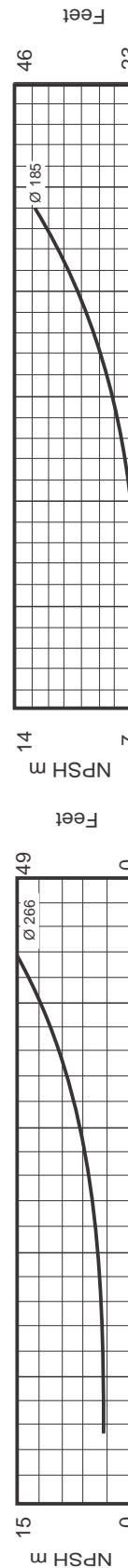
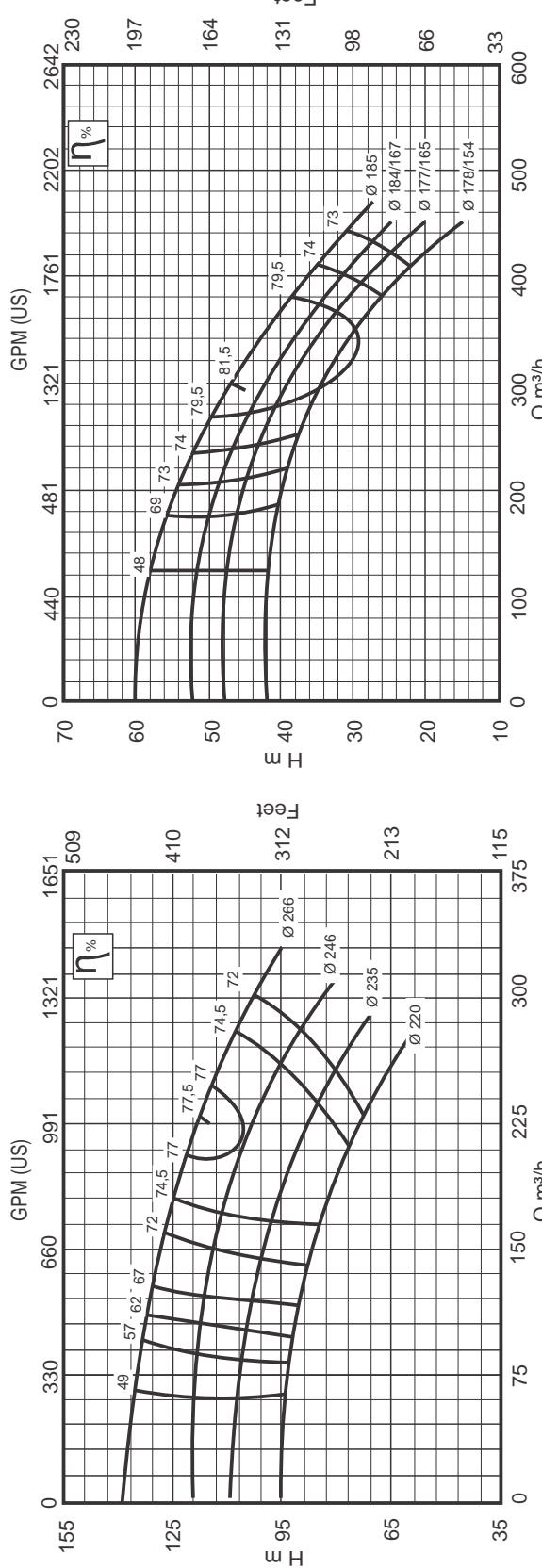


3500 rpm

INI 100-160

3500 rpm

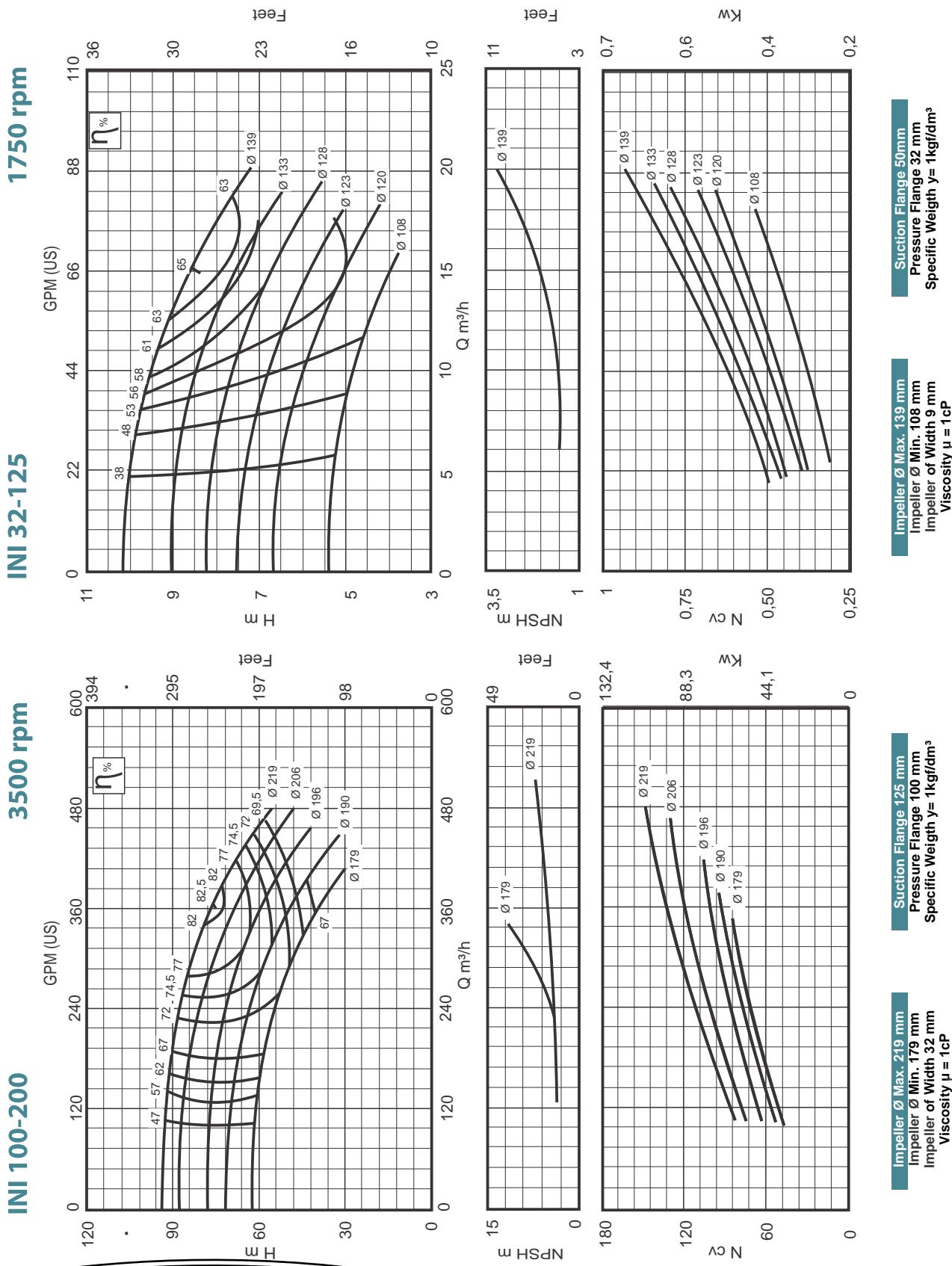
INI 80-250



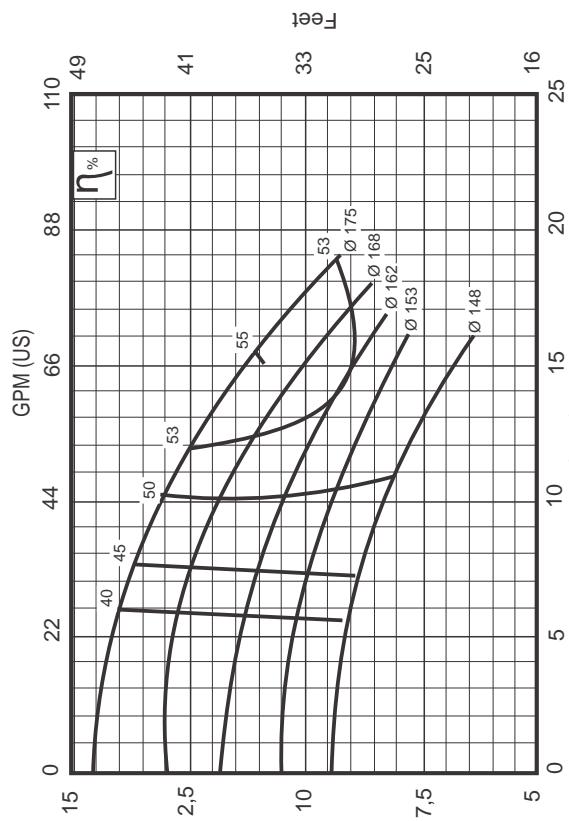
Impeller Ø Max. 266 mm
Impeller Ø Min. 220 mm
Impeller of Width 19 mm
Viscosity $\mu = 1\text{cP}$
Pressure Flange 80 mm
Specific Weight $y = 1\text{kg/dm}^3$

Suction Flange 125 mm
Pressure Flange 100 mm
Specific Weight $y = 1\text{kg/dm}^3$

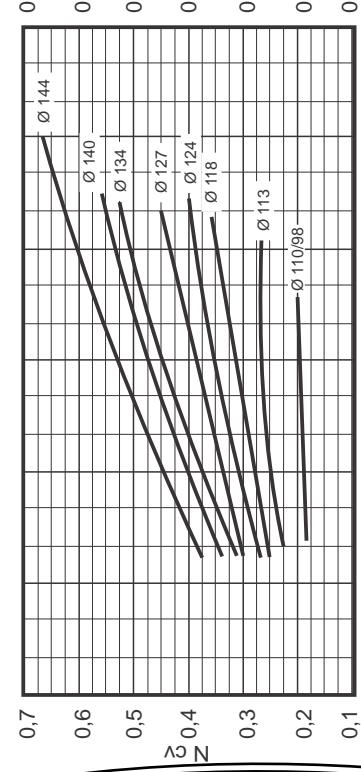
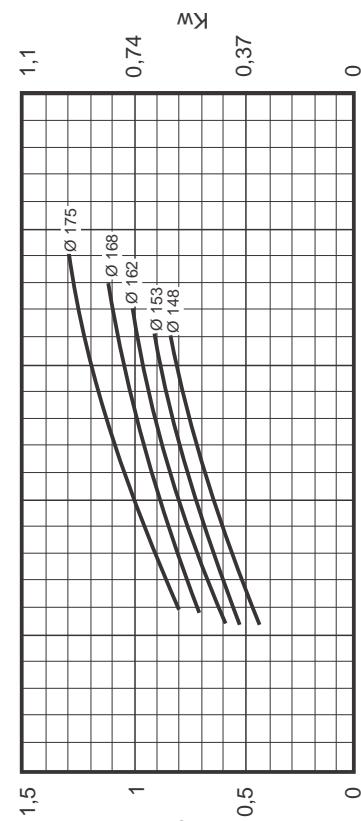
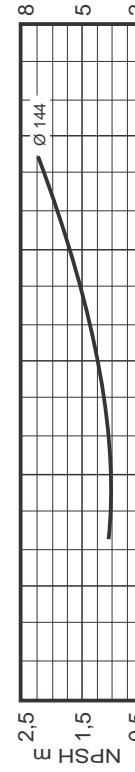
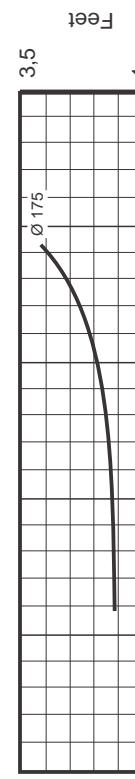
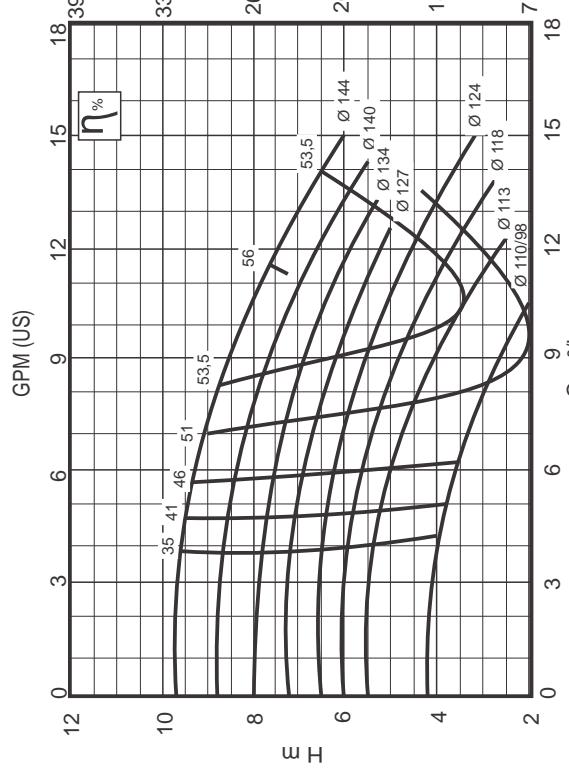
Impeller Ø Max. 185 mm
Impeller Ø Min. 178/154 mm
Impeller of Width 36 mm
Viscosity $\mu = 1\text{cP}$



INI 32-160



INI 32-125.1



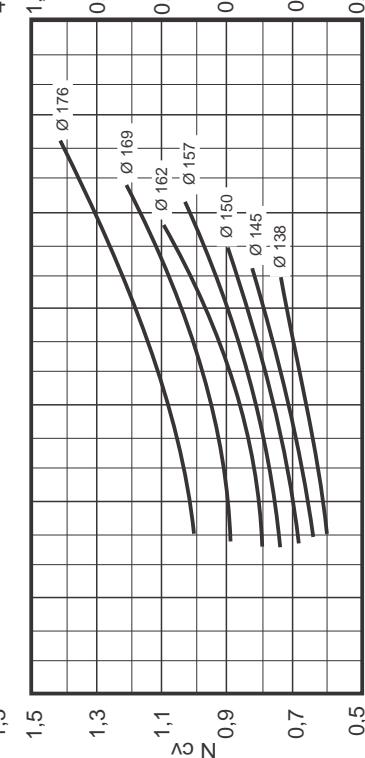
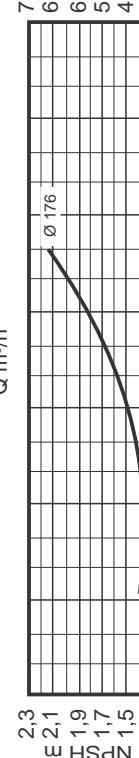
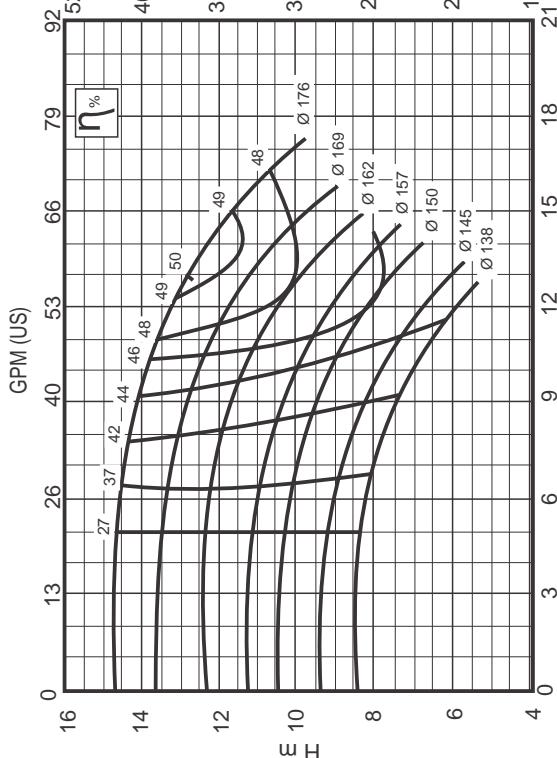
Impeller Ø Max. 144 mm
Impeller Ø Min. 110/98 mm
Viscosity $\mu = 1 \text{ cP}$

Suction Flange 50 mm
Pressure Flange 32 mm
Specific Weight $y = 1 \text{ kgf/dm}^3$

Suction Flange 50 mm
Pressure Flange 32 mm
Specific Weight $y = 1 \text{ kgf/dm}^3$



INI 32-160.1 **INI 32-200** **INI 32-200**



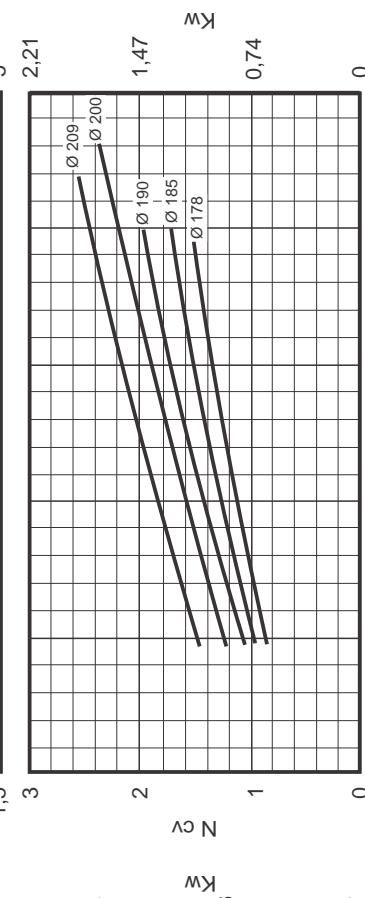
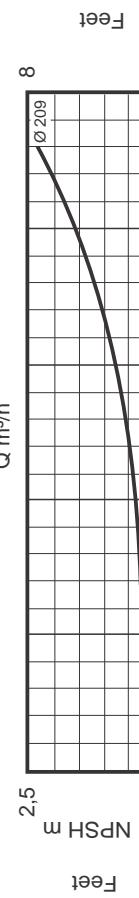
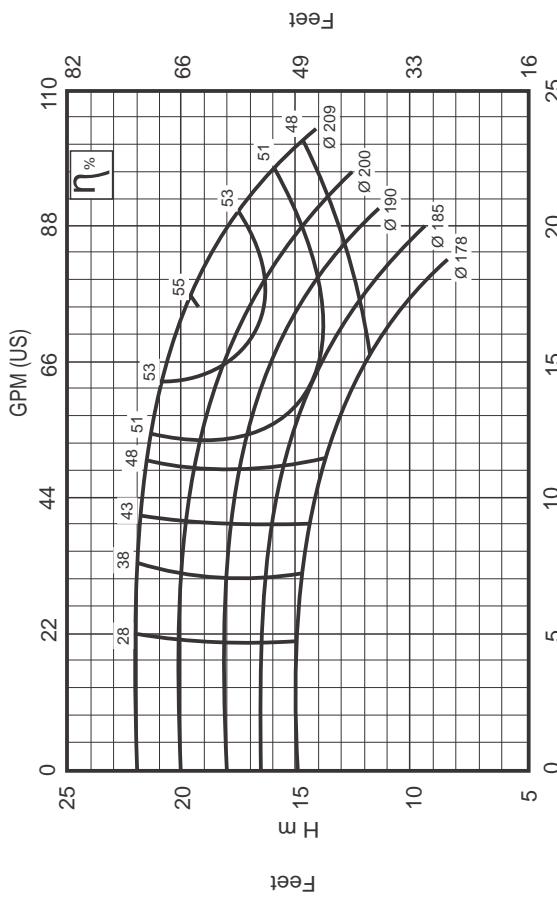
Impeller Ø Max. 176 mm
Impeller Ø Min. 138 mm
Viscosity $\mu = 1 \text{ cP}$

Suction Flange 50 mm
Pressure Flange 32 mm
Specific Weight y= 1kgf/dm³

Impeller Ø Max. 209 mm
Impeller Ø Min. 178 mm
Impeller of Width 6 mm
Viscosity $\mu = 1 \text{ cP}$

Suction Flange 50 mm
Pressure Flange 32 mm
Specific Weigh $\gamma = 1\text{kgf}/\text{dm}^3$

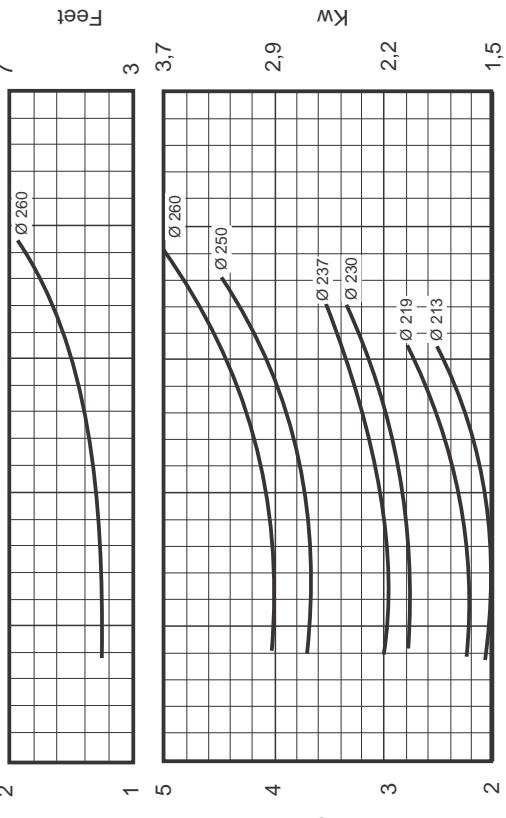
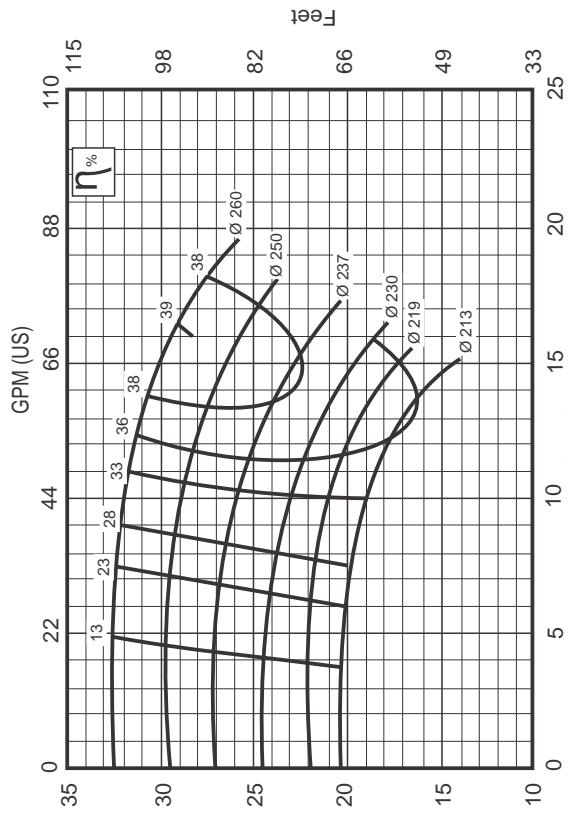
INI 32-200 1750 rpm



Impeller Ø Max. 209 mm
Impeller Ø Min. 178 mm
Impeller of Width 6 mm

Suction Flange 50 mm
Pressure Flange 32 mm
Specific Weigh $\gamma = 1\text{kgf}/\text{dm}^3$

1750rpm



INI 32-200.1
1750rpm
GPM (US)
NPSH
E
Z
Kw

Impeller Ø Max. 203 mm
Impeller Ø Min. 177 mm
Viscosity $\mu = 1 \text{ cP}$

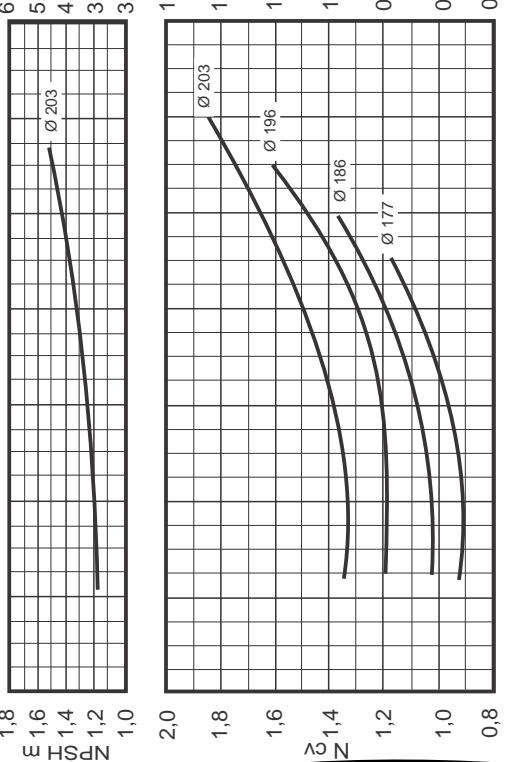
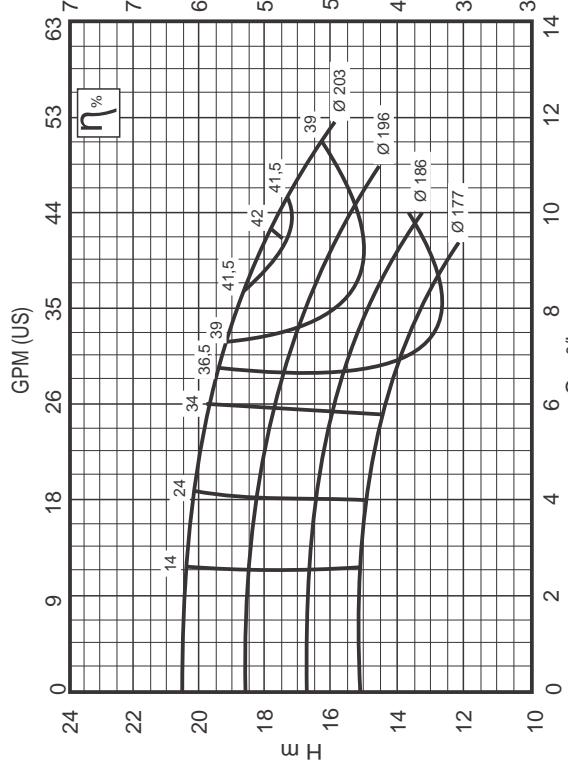
Suction Flange 50 mm
Pressure Flange 32 mm
Specific Weight $y = 1 \text{ kgf/dm}^3$

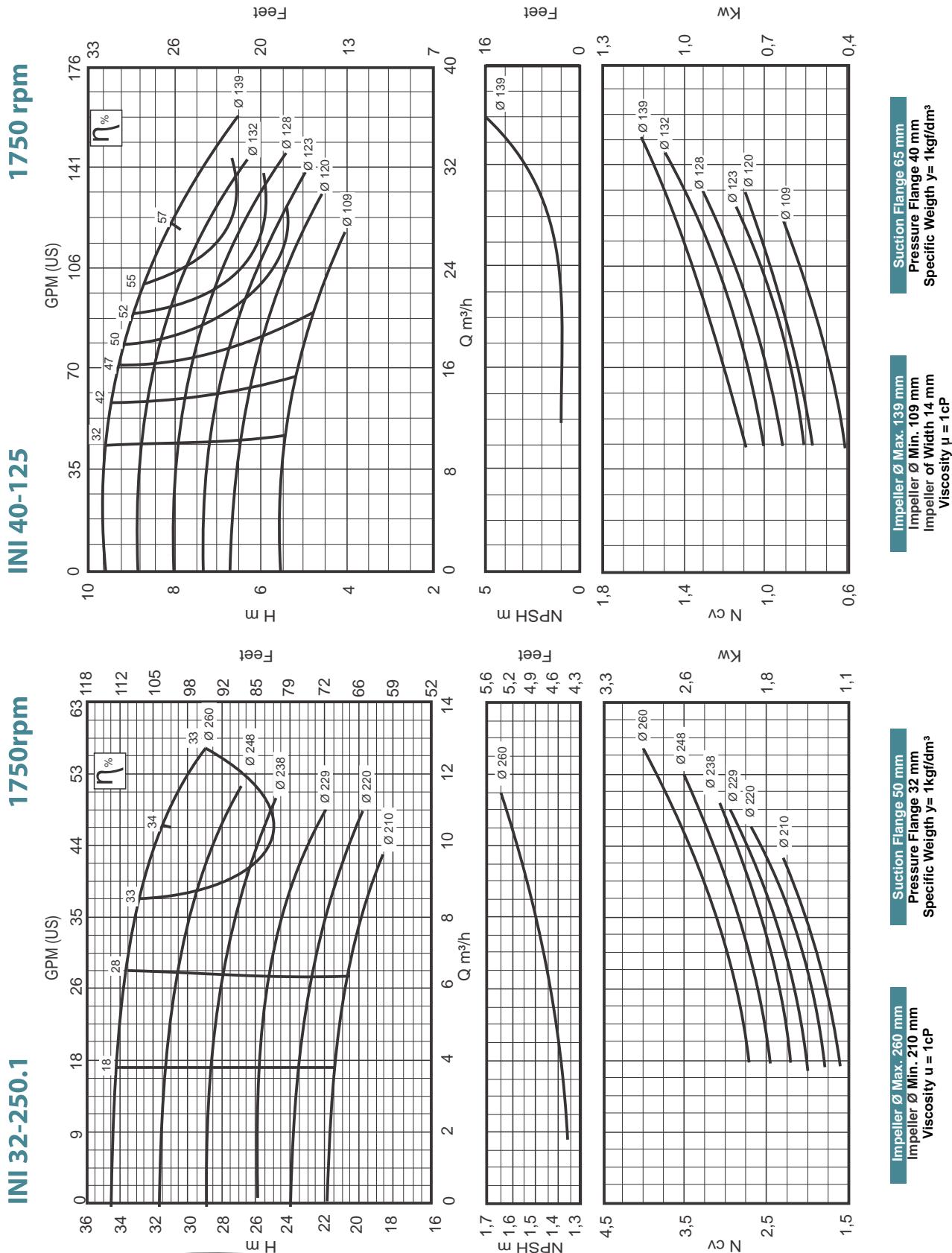
INI 32-250
1750rpm
GPM (US)
NPSH
E
Z
Kw

Impeller Ø Max. 260 mm
Impeller Ø Min. 213 mm
Viscosity $\mu = 1 \text{ cP}$

Suction Flange 50 mm
Pressure Flange 32 mm
Specific Weight $y = 1 \text{ kgf/dm}^3$

INI 32-200.1





Suction Flange 65 mm
Pressure Flange 40 mm
Specific Weight $\gamma = 1 \text{kgf/dm}^3$

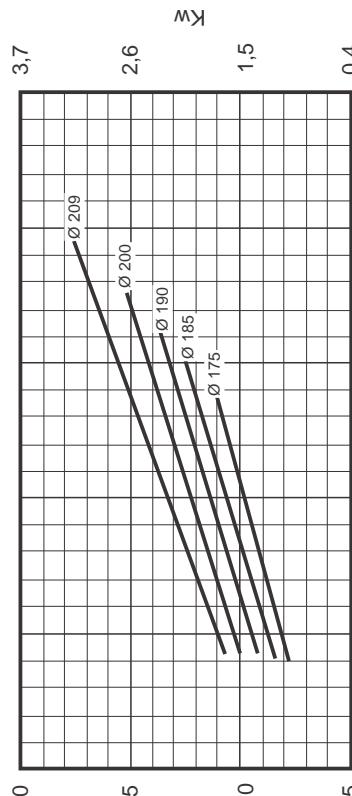
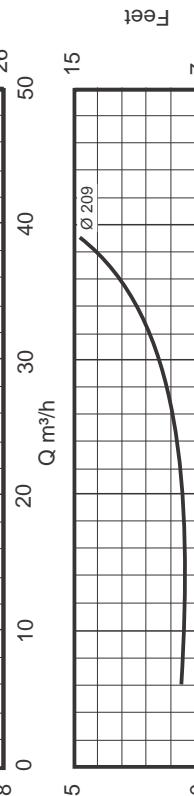
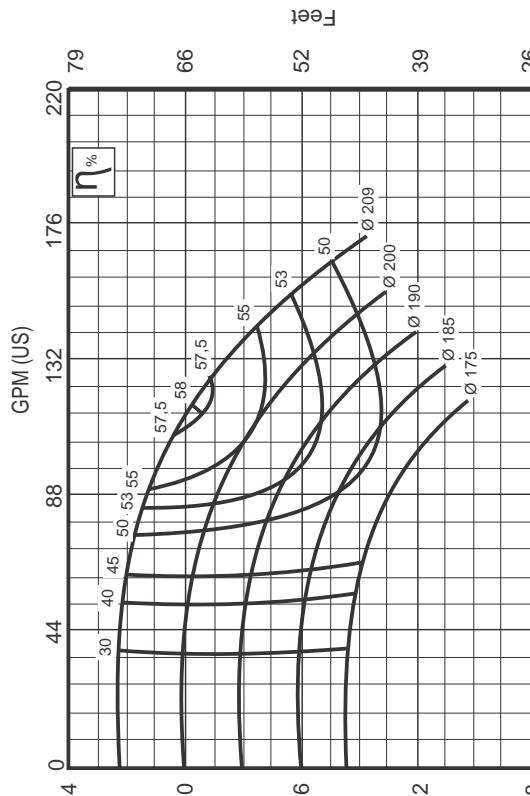
Impeller Ø Max. 139 mm
Impeller Ø Min. 109 mm
Impeller of Width 14 mm
Viscosity $\mu = 1 \text{cP}$

1750 rpm

INI 40-200

1750 rpm

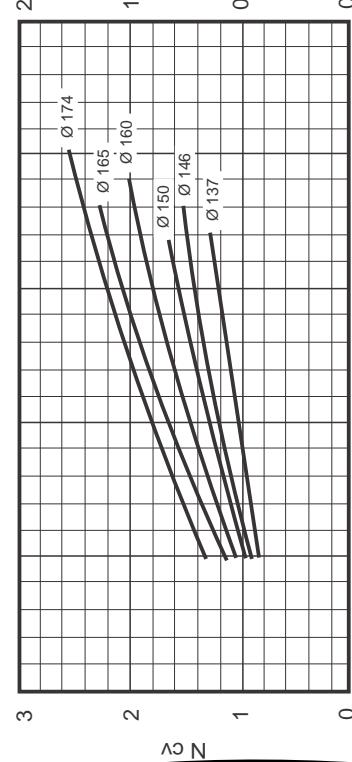
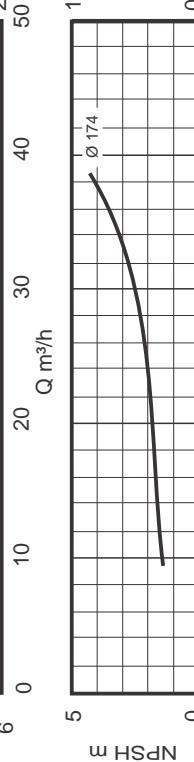
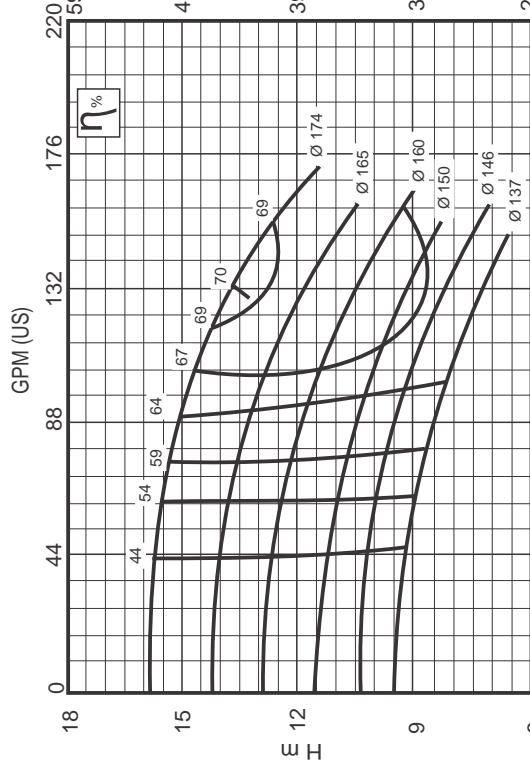
INI 40-160



INI 40-200
 Impeller Ø Max. 209 mm
 Impeller Ø Min. 137 mm
 Impeller of Width 9 mm
 Viscosity $\mu = 1cP$

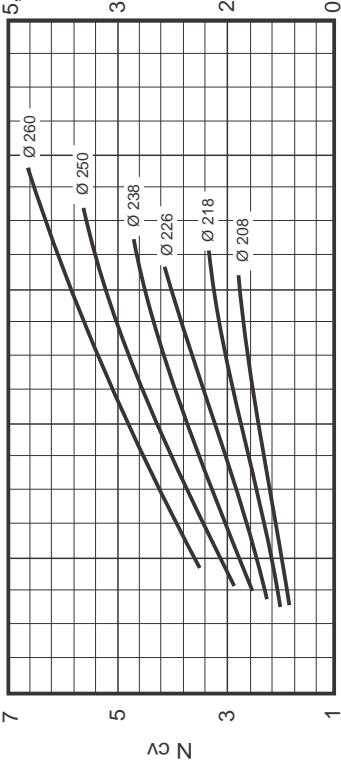
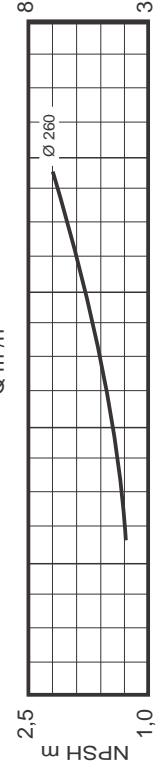
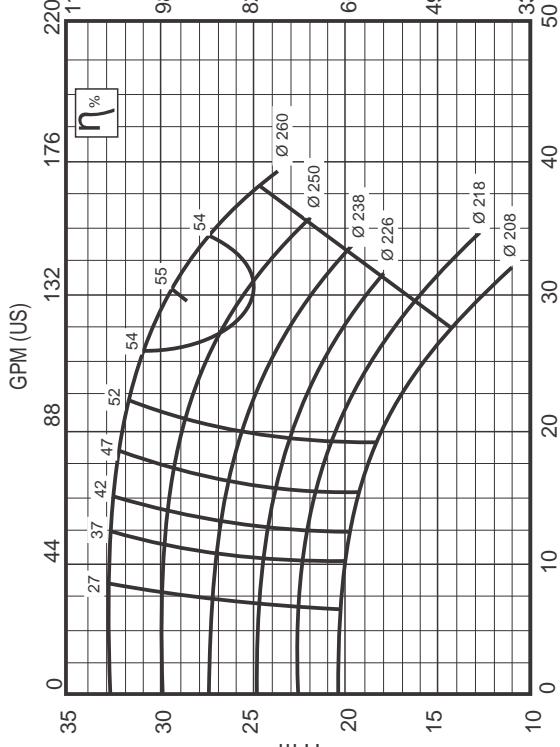
INI 40-160
 Impeller Ø Max. 174 mm
 Impeller Ø Min. 137 mm
 Impeller of Width 12 mm
 Viscosity $\mu = 1cP$

Suction Flange 65 mm
Pressure Flange 40 mm
Specific Weight $y = 1kg/dm^3$





INI 40-250 **INI 40-315**

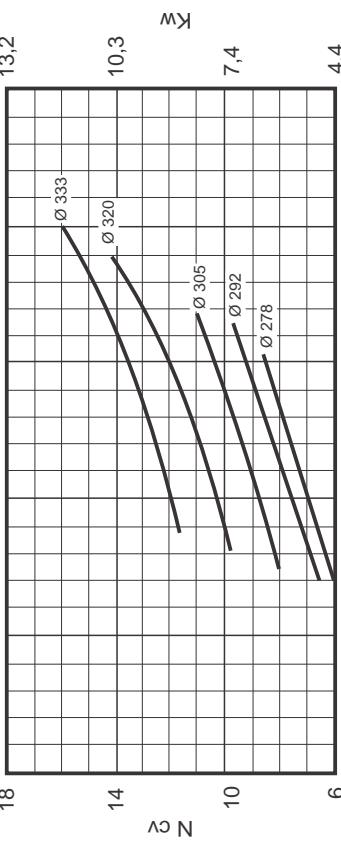
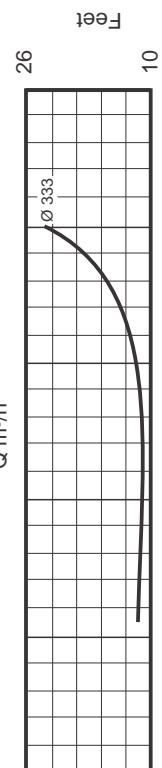
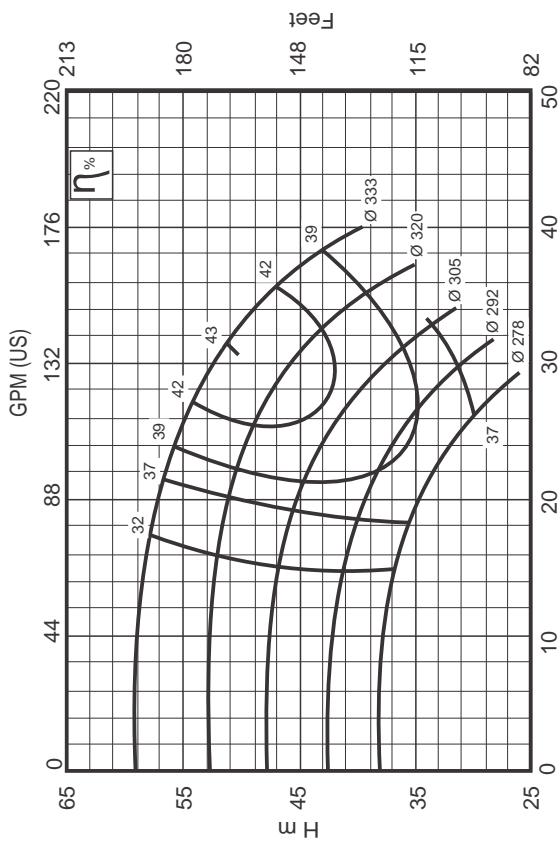


Impeller Ø Max. 260 mm
Impeller Ø Min. 208 mm
Impeller of Width 8 mm
Viscosity $\mu = 1 \text{ cP}$

Impeller Ø Max. 333 mm
Impeller Ø Min. 278 mm
Impeller of Width 9 mm
Viscosity $\eta = 1 \text{ cP}$

Suction Flange 65 mm
Pressure Flange 40 mm
Specific Weigh y = 1kgf/dm³

INI 40-315 **1750 rpm**



1

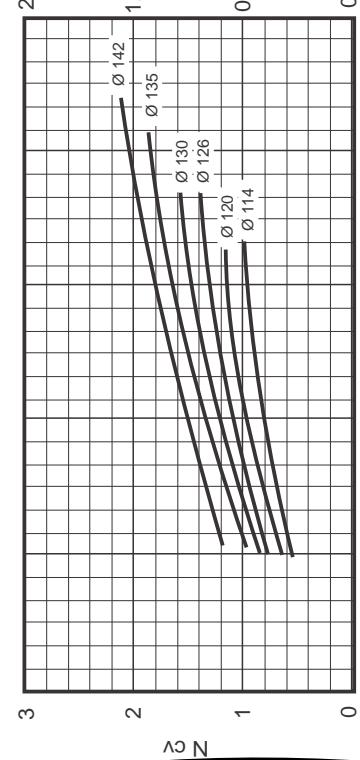
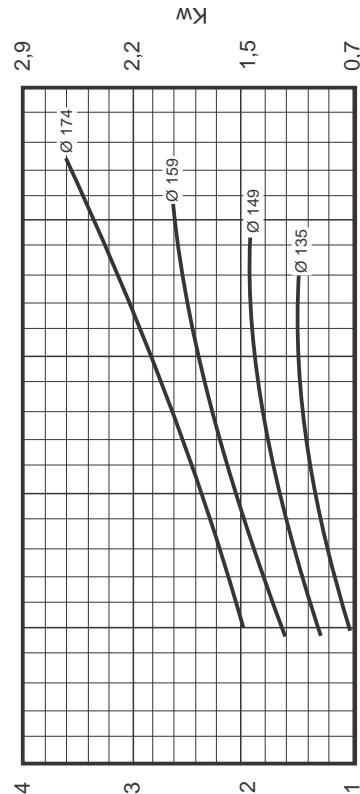
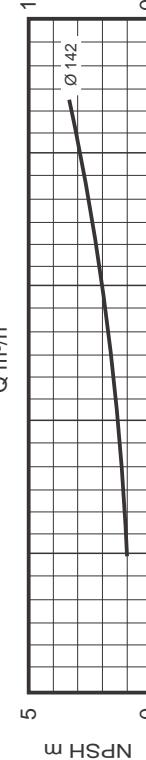
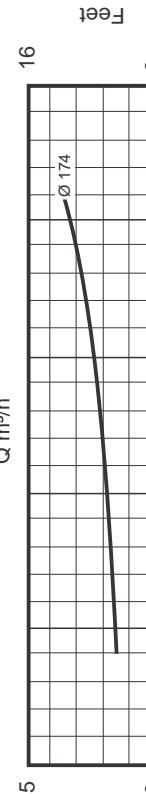
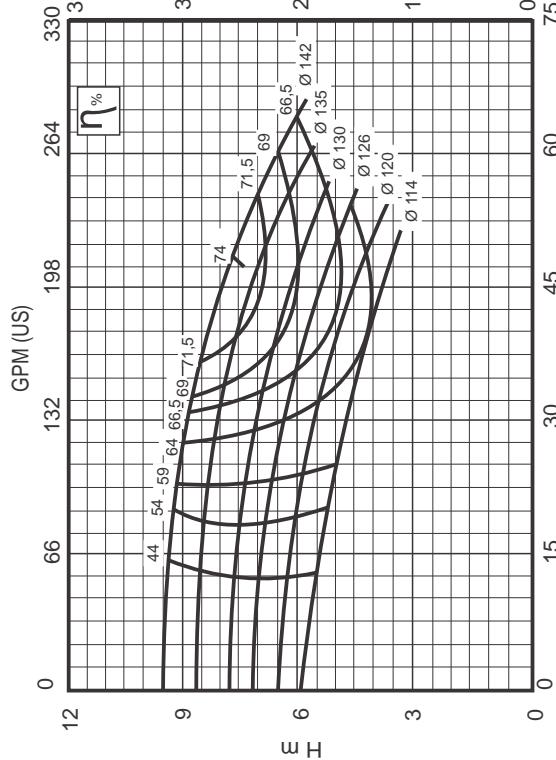
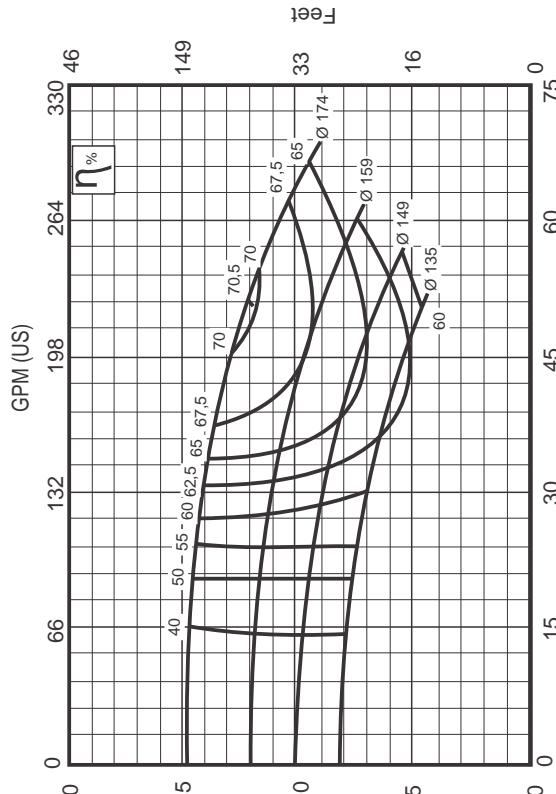
Suction Flange 65 mm
Pressure Flange 40 mm
Specific Weight y= 1kgf/dm³

1750 rpm

INI 50-160

1750 rpm

INI 50-125



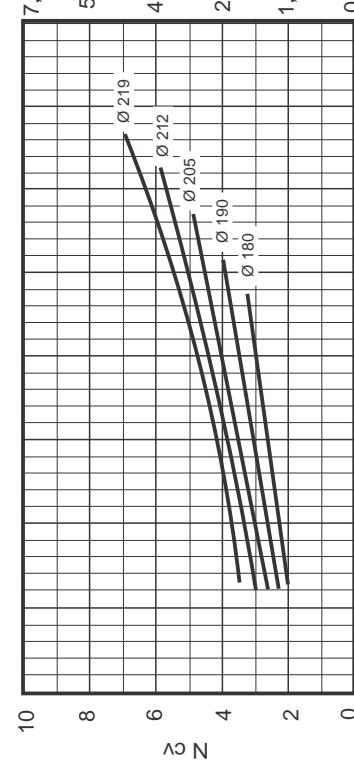
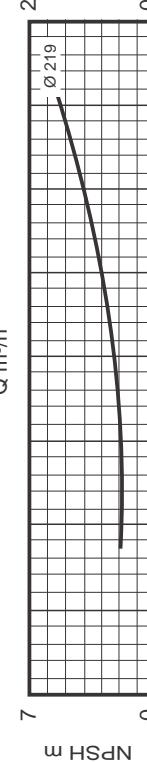
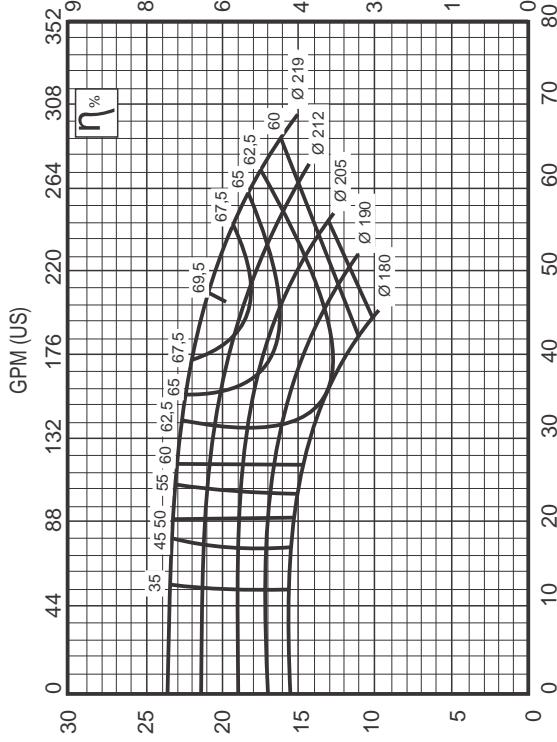
Impeller Ø Max. 142 mm
Impeller Ø Min. 114 mm
Impeller of Width 20 mm
Viscosity $\mu = 1 \text{ cP}$

Suction Flange 80 mm
Pressure Flange 50 mm
Specific Weight $y = 1 \text{ kgf/dm}^3$

Suction Flange 80 mm
Pressure Flange 50 mm
Specific Weight $y = 1 \text{ kgf/dm}^3$



INI 50-200 **INI 50-250**



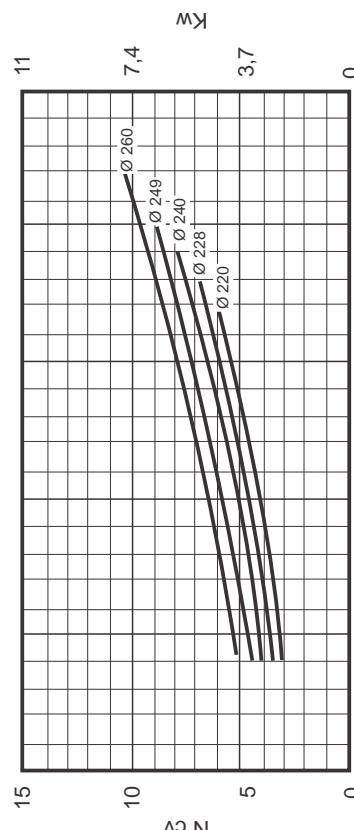
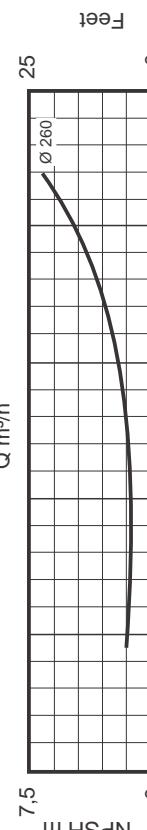
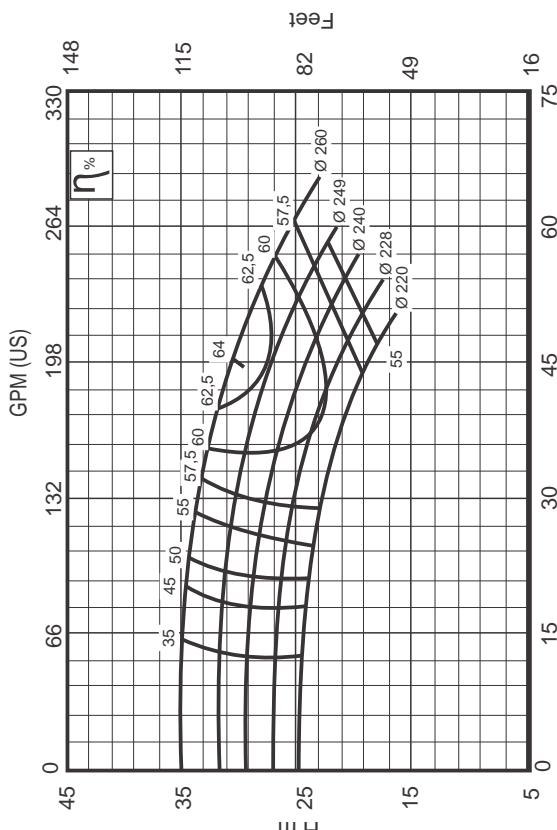
Impeller Ø Max. 219 mm
Impeller Ø Min. 180 mm
Impeller of Width 11 mm
Viscosity $\mu = 1cP$

Suction Flange 80 mm
Pressure Flange 50 mm
Specific Weight y = 1kgf/dm³

Impeller Ø Max. 260 mm
Impeller Ø Min. 220 mm
Impeller of Width 12 mm
Viscosity $\eta = 1 \text{ cP}$

Suction Flange 80 mm
Pressure Flange 50 mm
Specific Weigh y = 1kgf/dm³

INI 50-250



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Suction Flange 80 mm
Pressure Flange 50 mm
Specific Weigh y = 1kgf/dm³

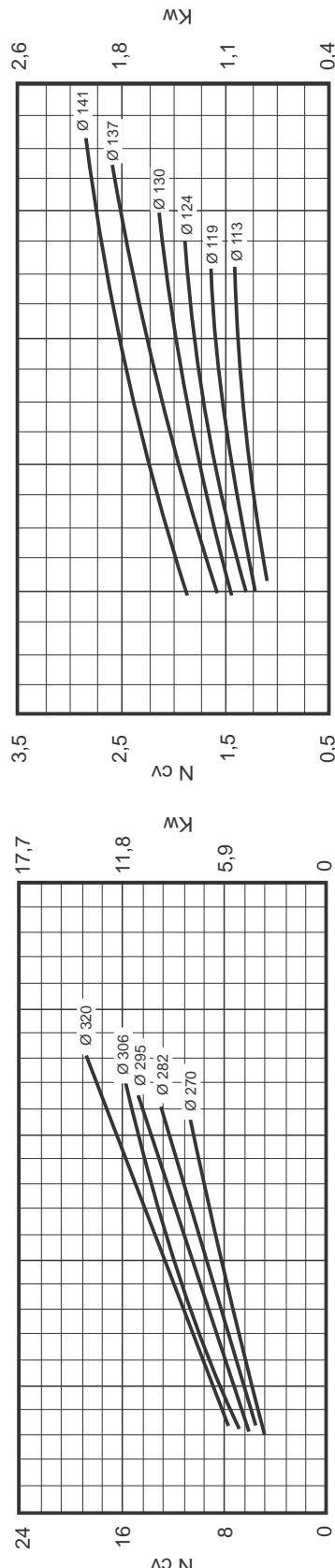
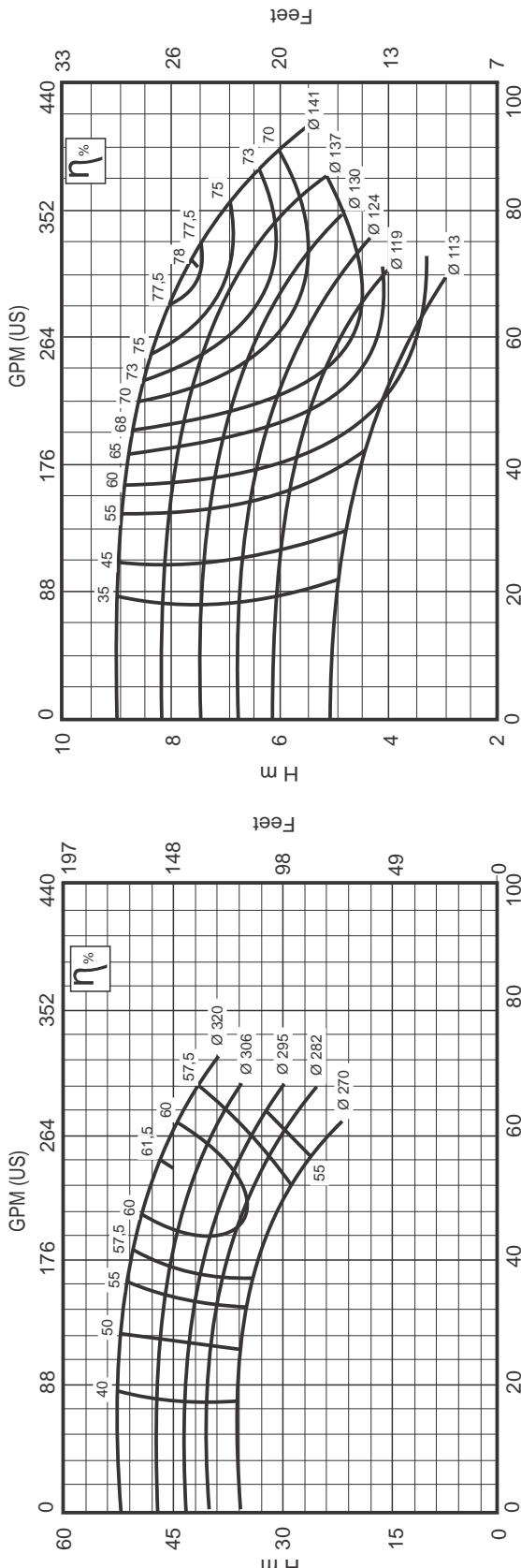
Impeller Ø Max. 260 mm
Impeller Ø Min. 220 mm
Impeller of Width 12 mm
Viscosity $\eta = 1 \text{ cP}$

1750 rpm

INI 65-125

1750 rpm

INI 50-315



INI 65-125
Suction Flange 80 mm
Pressure Flange 50 mm
Specific Weight $\gamma = 1 \text{ kgf/dm}^3$
Viscosity $\mu = 1 \text{ cP}$

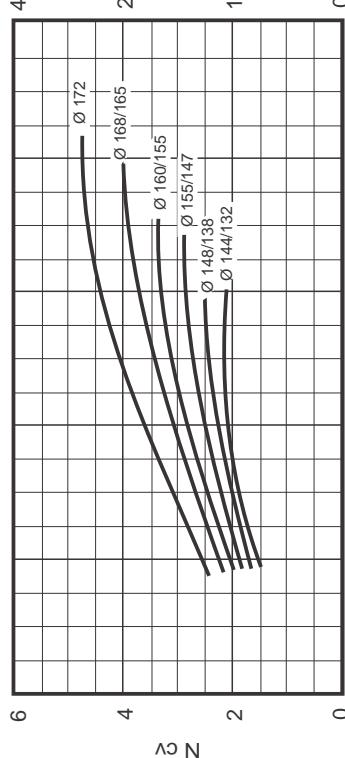
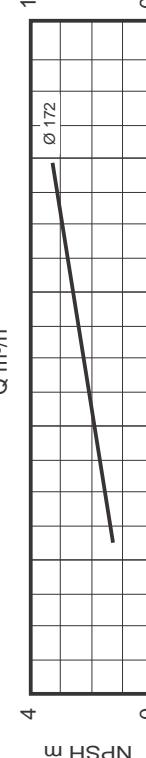
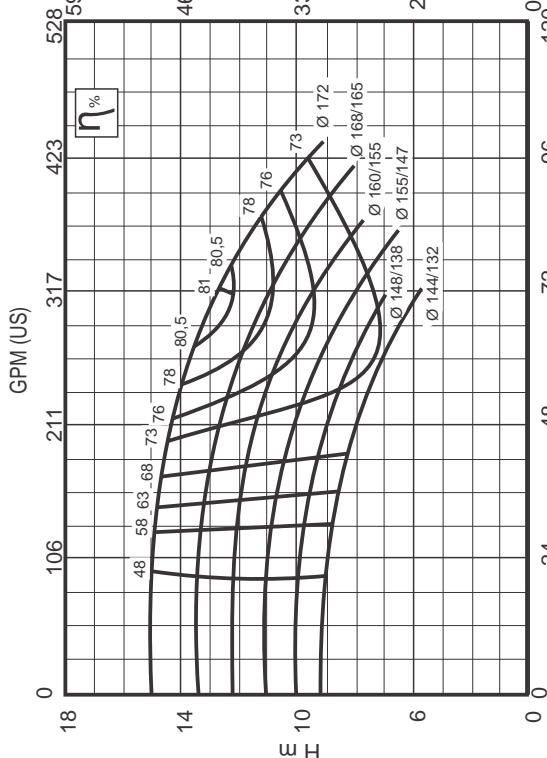
INI 65-125
Impeller Ø Max. 141 mm
Impeller Ø Min. 113 mm
Impeller of Width 25 mm
Viscosity $\mu = 1 \text{ cP}$

INI 65-125
Suction Flange 100 mm
Pressure Flange 65 mm
Specific Weight $\gamma = 1 \text{ kgf/dm}^3$



INI 65-160 **INI 65-190** **INI 65-200**

1750 rpm

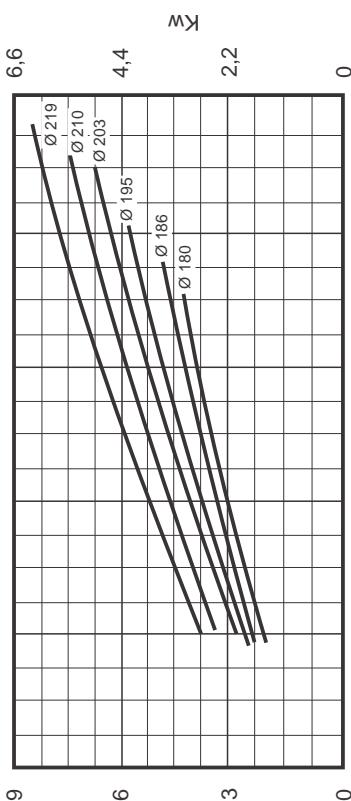
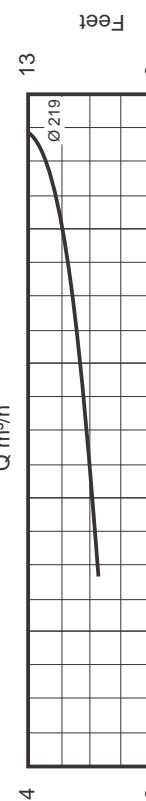
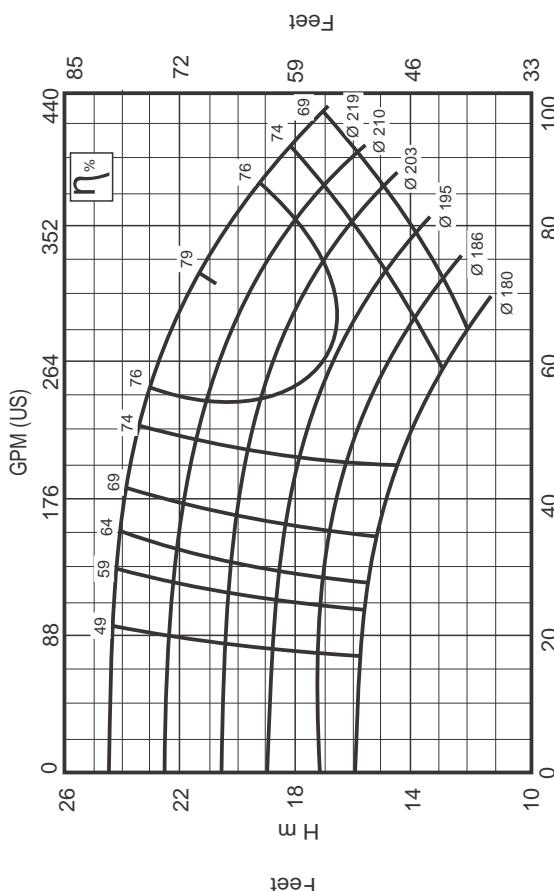


Impeller Ø Max. 172 mm
Impeller Ø Min. 144/132 mm
Impeller of Width 21 mm
Viscosity $\eta = 1 \text{ cP}$

Suction Flange 100 mm
Pressure Flange 65 mm
Specific Weight $\gamma = 1\text{kgf/dm}^3$

Suction Flange 100 mm
Pressure Flange 65 mm
Specific Weight $\gamma = 1\text{kgf/dm}^3$

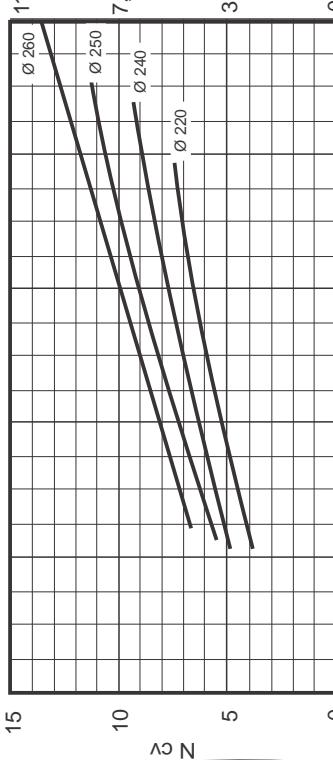
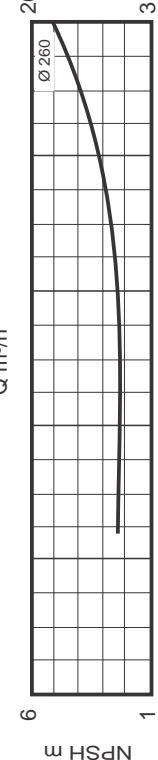
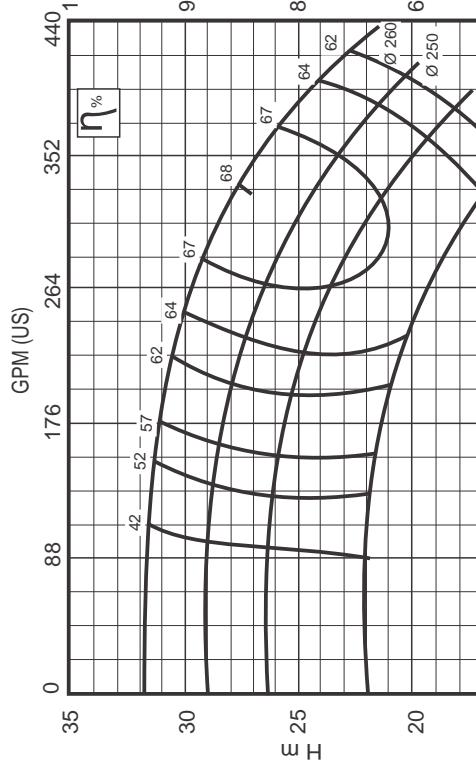
INI 65-200
1750 rpm



Impeller Ø Max. 219 mm
Impeller Ø Min. 180 mm
Impeller of Width 17 mm
Viscosity $\eta = 1 \text{ cP}$

1750 rpm

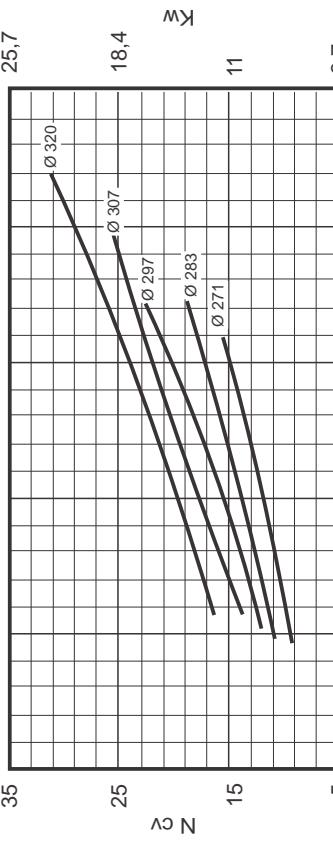
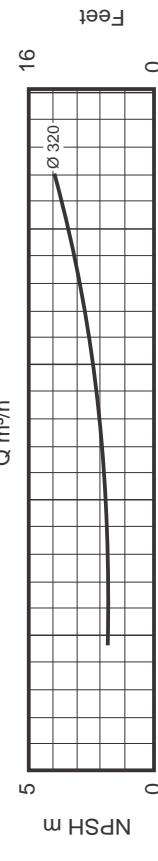
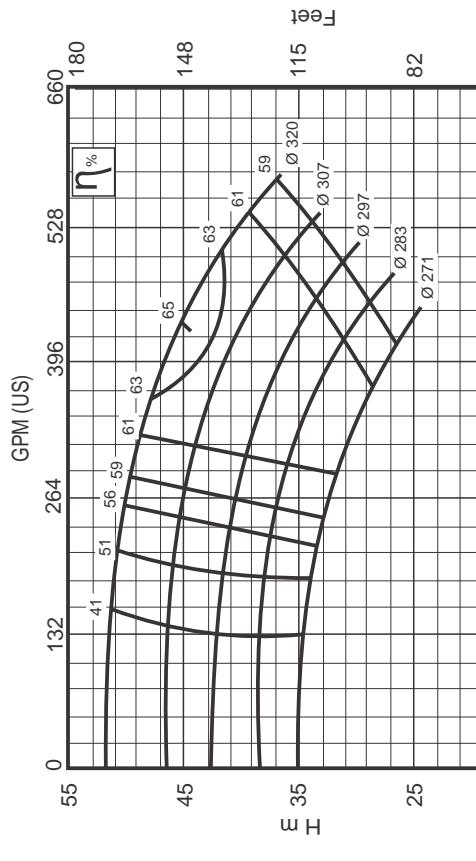
INI 65-315



INI 65-250

Impeller Ø Max. 260 mm
Impeller Ø Min. 220 mm
Impeller of Width 13 mm
Viscosity $\mu = 1\text{cP}$

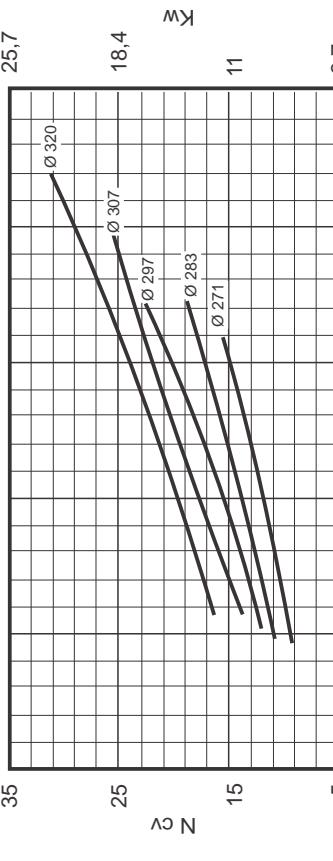
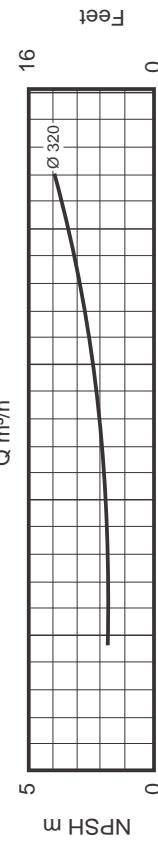
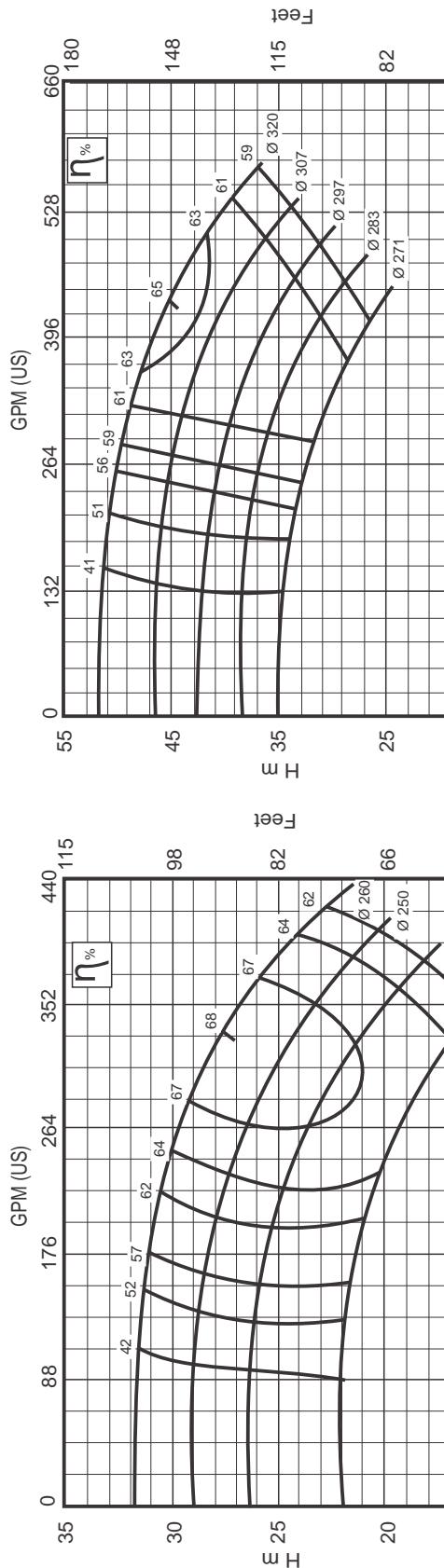
Suction Flange 100 mm
Pressure Flange 65 mm
Specific Weight $y = 1\text{kgf/dm}^3$

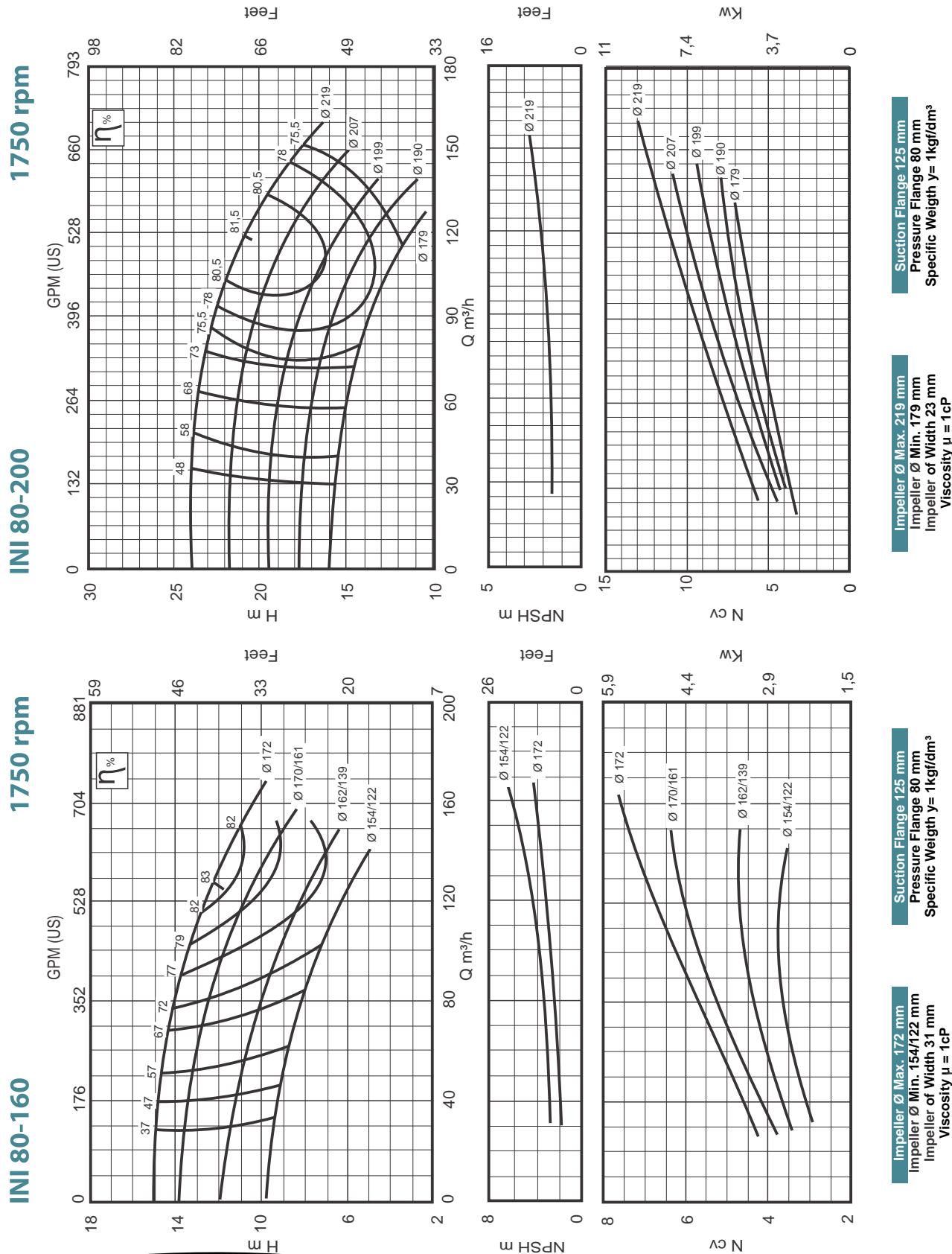


INI 65-315

Impeller Ø Max. 320 mm
Impeller Ø Min. 271 mm
Impeller of Width 13 mm
Viscosity $\mu = 1\text{cP}$

Suction Flange 100 mm
Pressure Flange 65 mm
Specific Weight $y = 1\text{kgf/dm}^3$



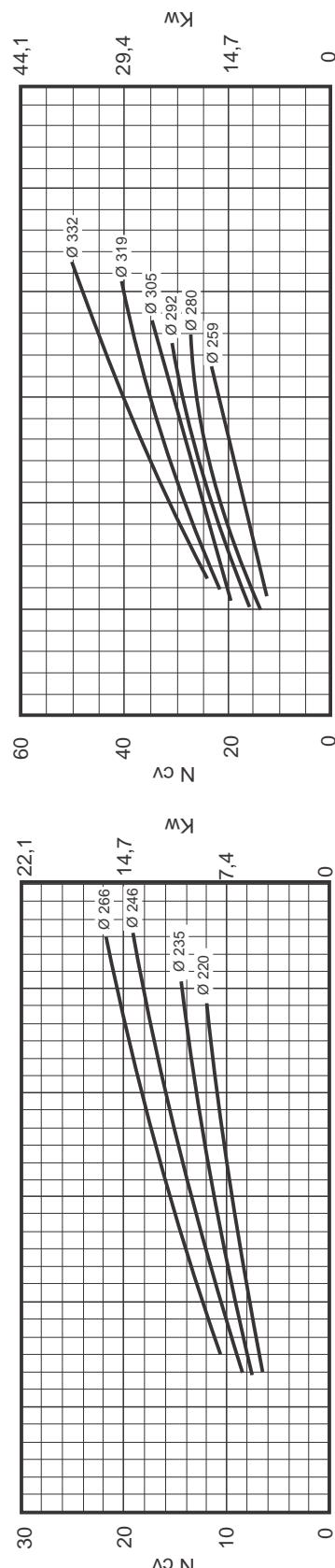
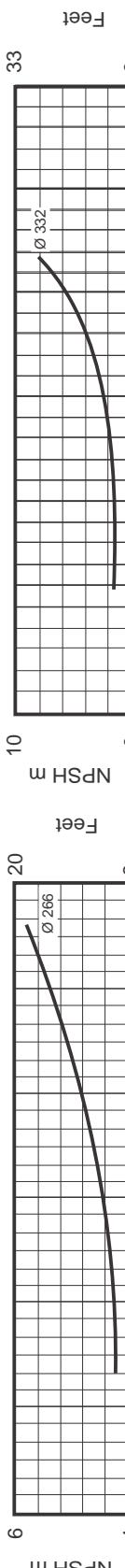
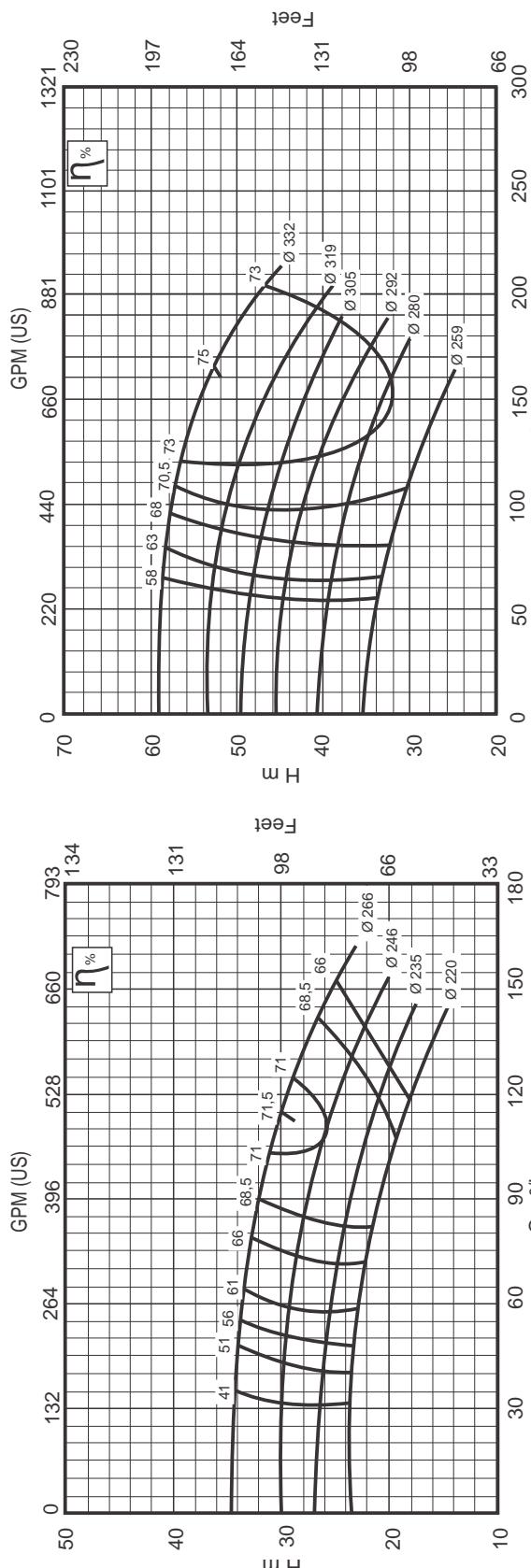


1750 rpm

INI 80-315

1750 rpm

INI 80-250



Impeller Ø Max. 266 mm
Impeller Ø Min. 220 mm
Impeller of Width 19 mm
Viscosity $\mu = 1cP$

Suction Flange 125 mm
Pressure Flange 80 mm
Specific Weight $y = 1kg/dm^3$

Suction Flange 125 mm
Pressure Flange 80 mm
Specific Weight $y = 1kg/dm^3$

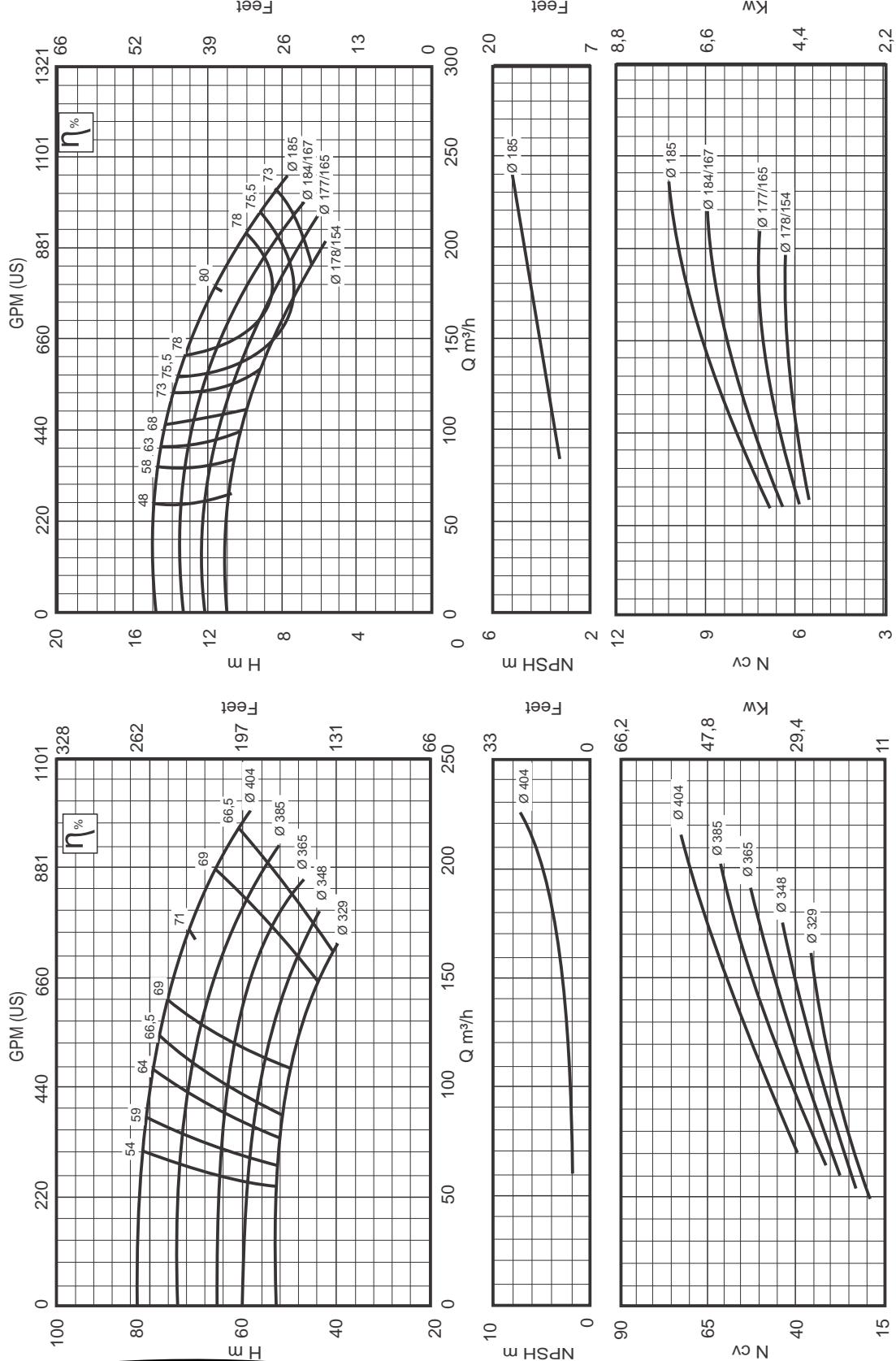
Impeller Ø Max. 332 mm
Impeller Ø Min. 259 mm
Impeller of Width 18 mm
Viscosity $\mu = 1cP$

1750 rpm

INI 100-160

1750 rpm

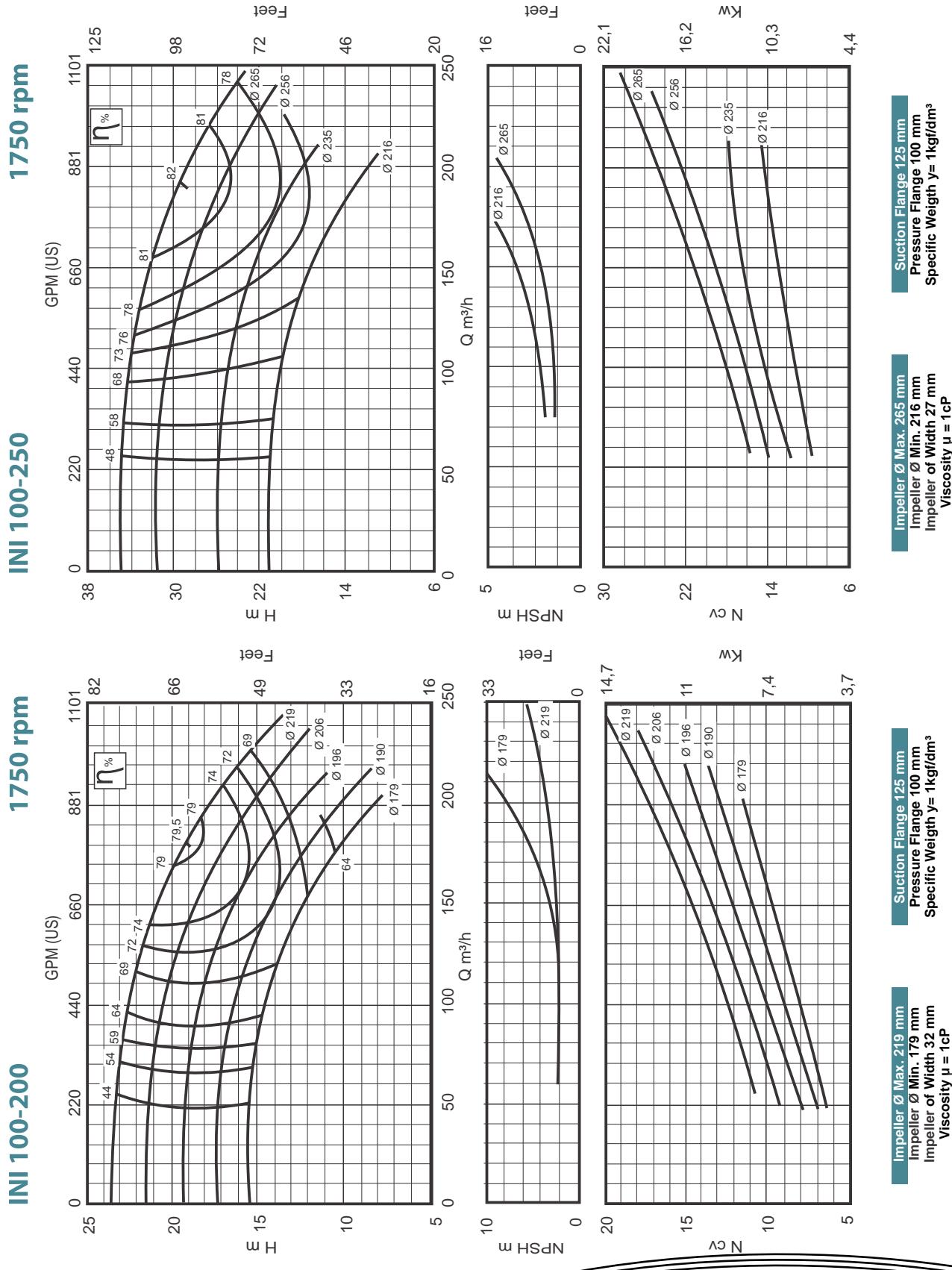
INI 80-400



INI 80-400
 Impeller Ø Max. 404 mm
 Impeller Ø Min. 329 mm
 Impeller of Width 13 mm
 Viscosity $\mu = 1 \text{ cP}$

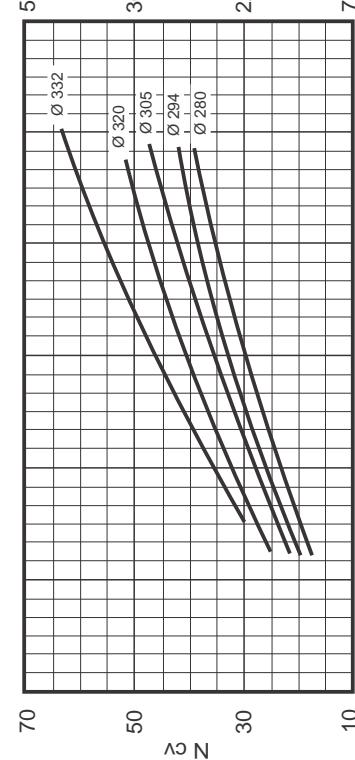
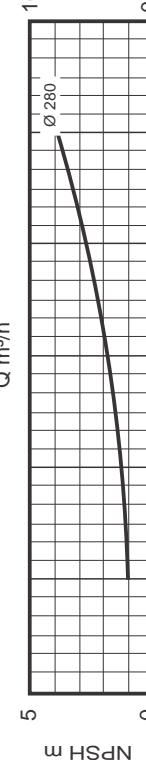
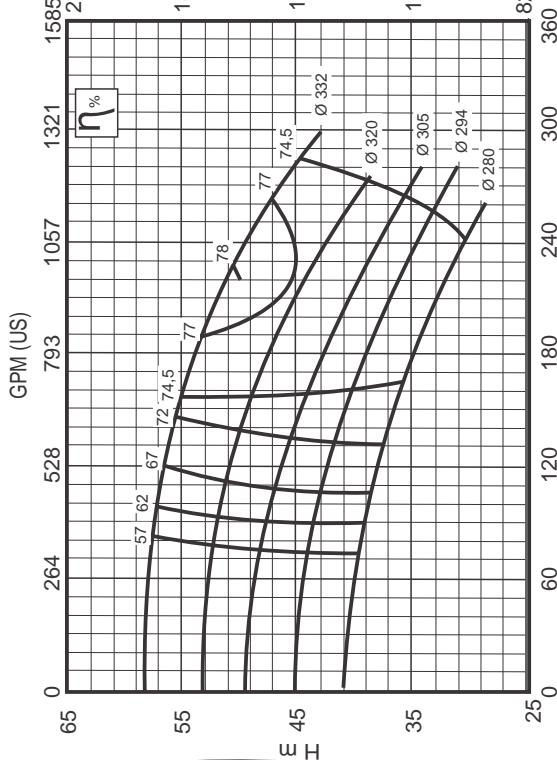
INI 100-160
 Impeller Ø Max. 185 mm
 Impeller Ø Min. 178/154 mm
 Impeller of Width 36 mm
 Viscosity $\mu = 1 \text{ cP}$

INI 100-160
 Suction Flange 125 mm
 Pressure Flange 80 mm
 Specific Weight $y = 1 \text{ kgf/dm}^3$





INI 100-315 **INI 100-400**



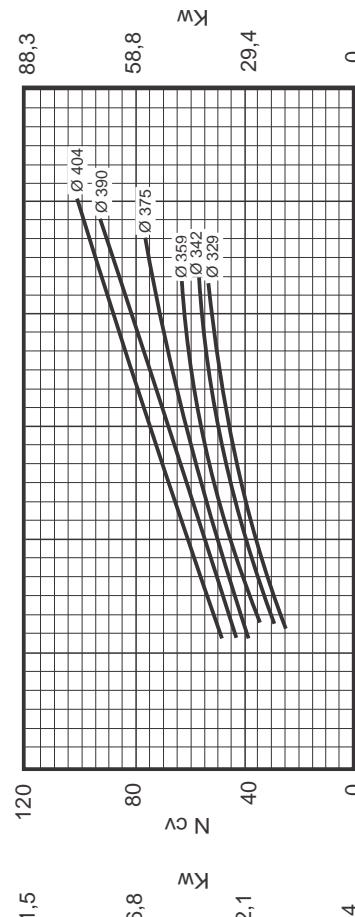
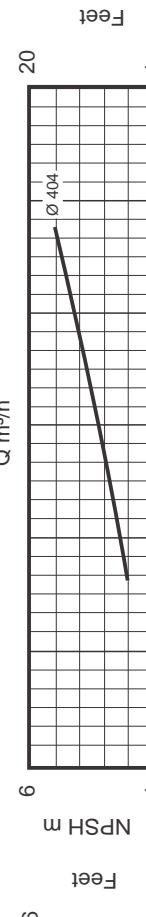
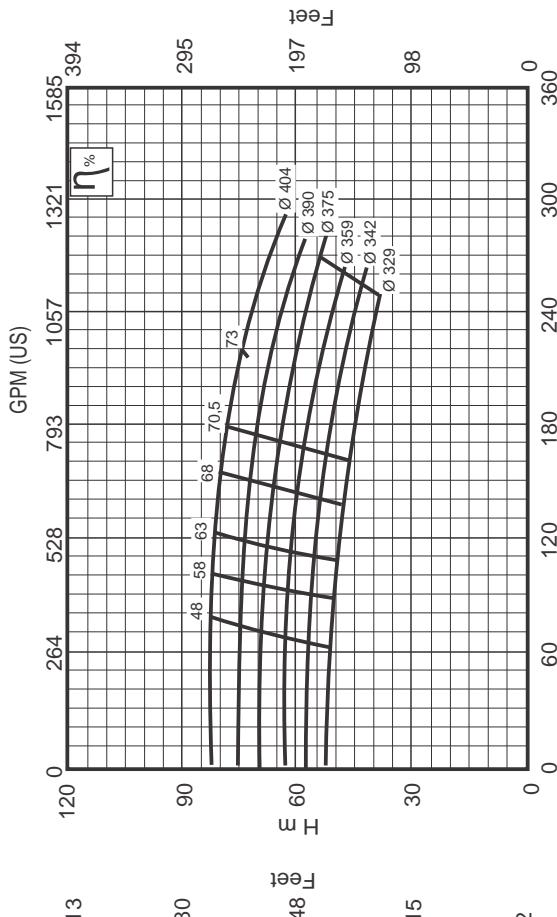
Impeller Ø Max. 332 mm
Impeller Ø Min. 280 mm
Impeller of Width 23 mm
Viscosity $\eta = 1 \text{ cP}$

Suction Flange 125 mm
Pressure Flange 100 mm
Specific Weight $\gamma = 1\text{kgf}/\text{dm}^3$

Impeller Ø Max. 404 mm
Impeller Ø Min. 329 mm
Impeller of Width 17 mm
Viscosity $\eta = 1 \text{ cP}$

Suction Flange 125 mm
Pressure Flange 100 mm
Specific Weigh γ = 1kgf/dm³

INI 100-400 **1750 rpm**



Suction Flange 125 mm
Pressure Flange 100 mm
Specific Weight γ = 1kgf/dm³

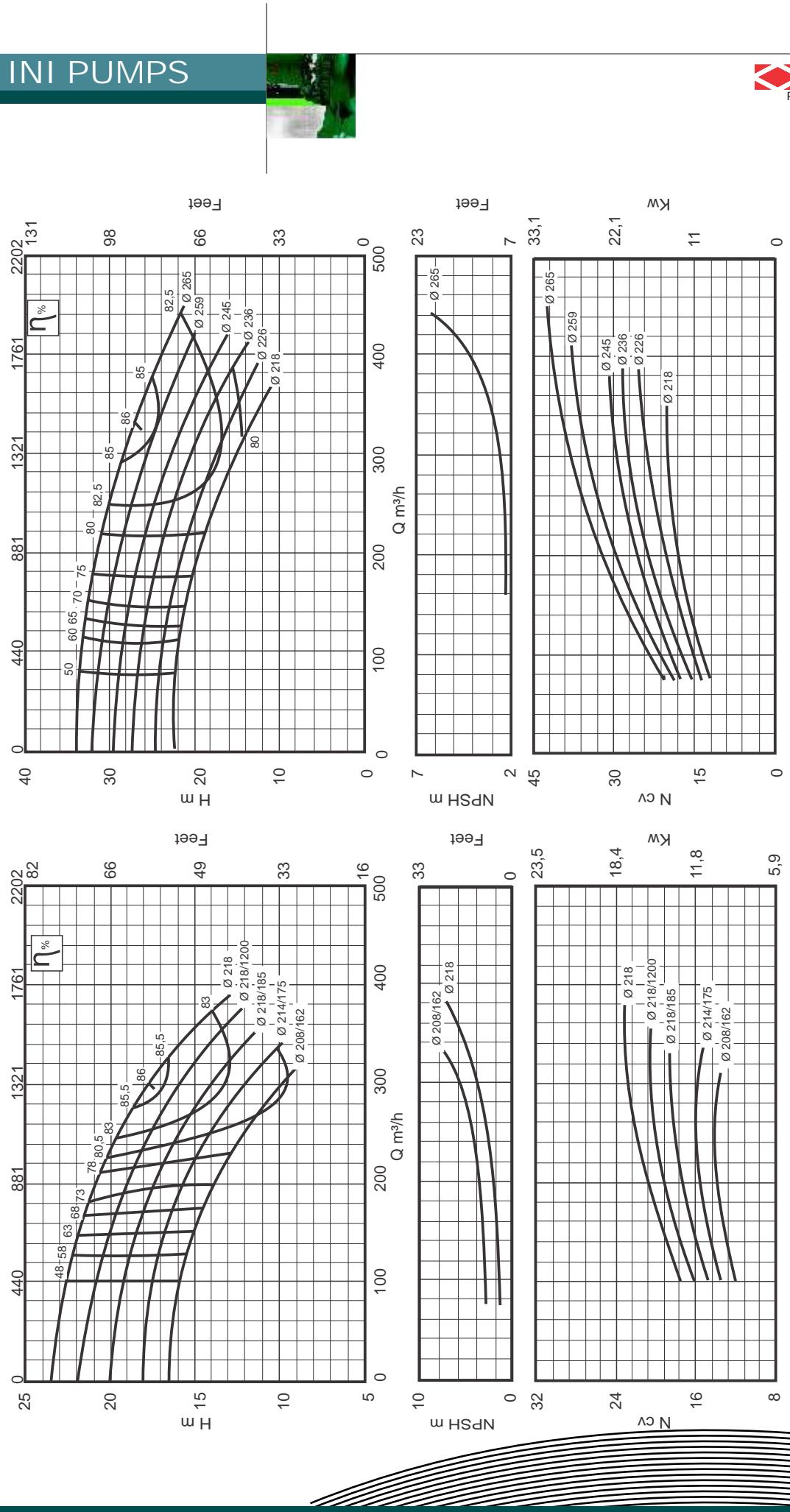
1750 rpm

INI 125-200

1750 rpm

INI 125-250

1750 rpm



Impeller Ø Max. 218 mm
Impeller Ø Min. 208/162 mm
Impeller of Width 40 mm
Viscosity $\mu = 1 \text{ cP}$

Suction Flange 150 mm
Pressure Flange 120 mm
Specific Weight $y = 1 \text{ kgf/dm}^3$

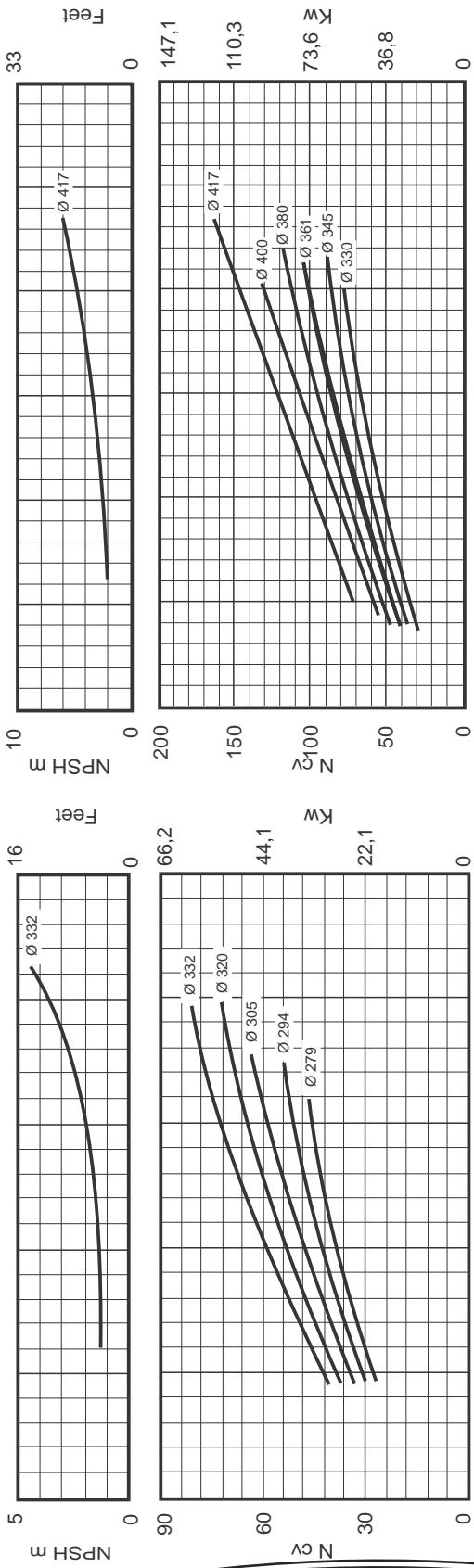
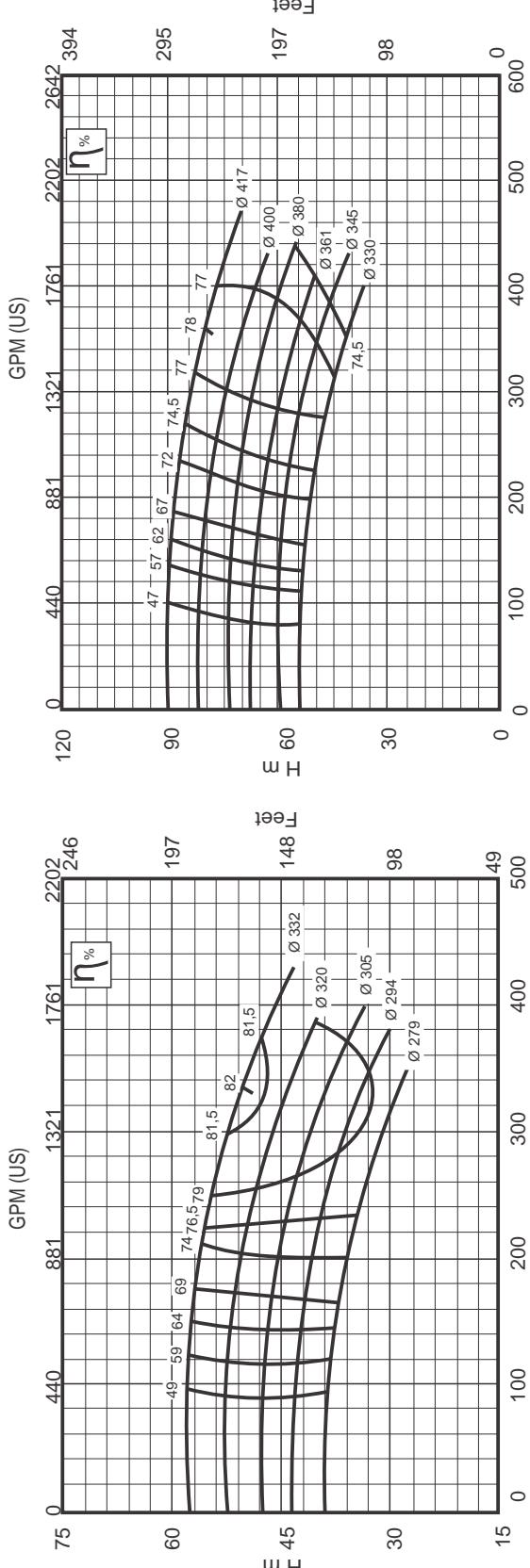
Suction Flange 150 mm
Pressure Flange 125 mm
Specific Weight $y = 1 \text{ kgf/dm}^3$

1750 rpm

INI 125 -400

1750 rpm

INI 125-315



INI 125-315
 Impeller Ø Max. 218 mm
 Impeller Ø Min. 218/53 mm
 Impeller of Width 59 mm
 Viscosity $\mu = 1cP$

INI 125-400
 Impeller Ø Max. 417 mm
 Impeller Ø Min. 330 mm
 Impeller of Width 25 mm
 Viscosity $\mu = 1cP$

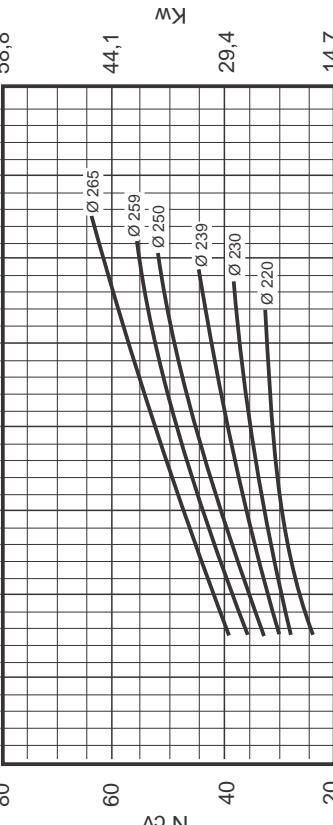
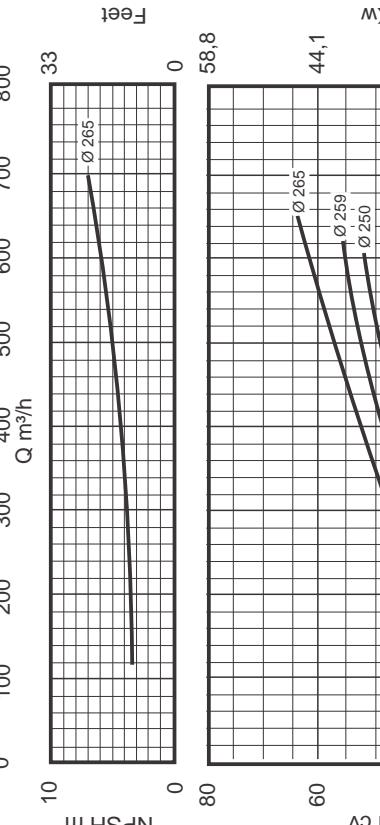
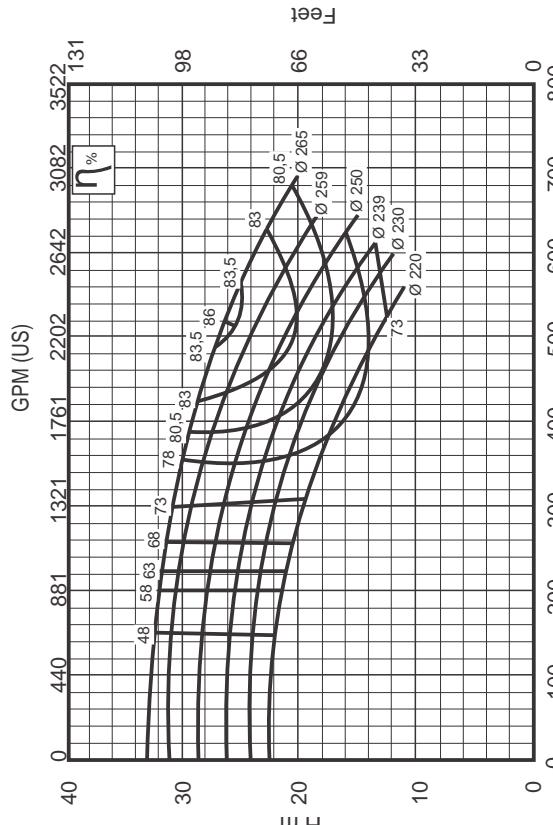
INI 125
 Impeller Ø Max. 417 mm
 Impeller Ø Min. 330 mm
 Impeller of Width 25 mm
 Viscosity $\mu = 1cP$

1750 rpm

INI 150-250

1750 rpm

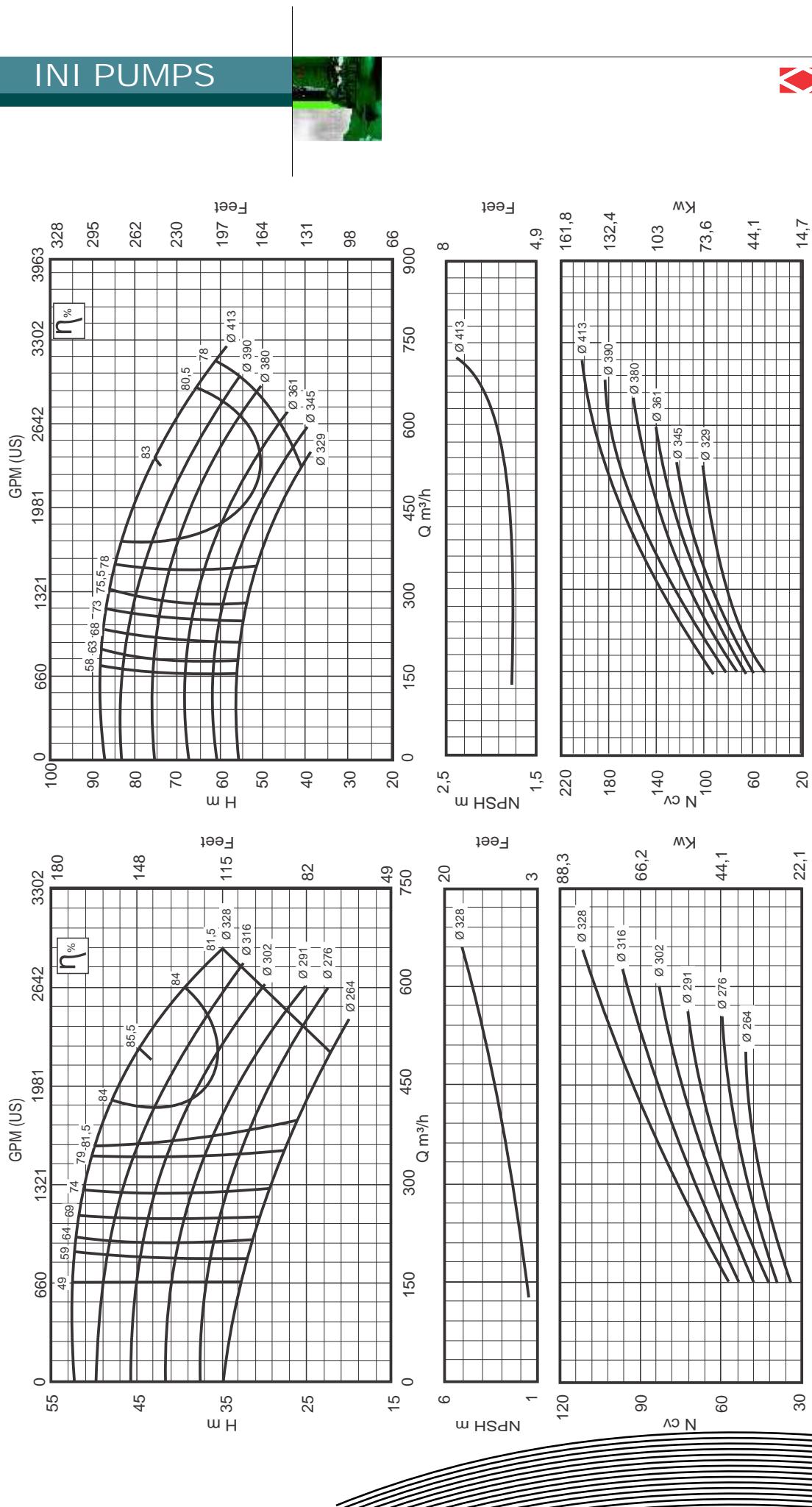
INI 150-200



Impeller Ø Max. 218 mm
Impeller Ø Min. 153 mm
Impeller of Width 59 mm
Viscosity $\mu = 1\text{cP}$
Suction Flange 200 mm
Pressure Flange 150 mm
Specific Weight $y = 1\text{kg/dm}^3$

Impeller Ø Max. 265 mm
Impeller Ø Min. 220 mm
Impeller of Width 12 mm
Viscosity $\mu = 1\text{cP}$
Suction Flange 200 mm
Pressure Flange 150 mm
Specific Weight $y = 1\text{kg/dm}^3$

Suction Flange 200 mm
Pressure Flange 150 mm
Specific Weight $y = 1\text{kg/dm}^3$

1750 rpm**INI 150-400****1750 rpm****INI 150-315**

Impeller Ø Max. 328 mm
Impeller Ø Min. 264 mm
Impeller of Width 39 mm
Viscosity $\mu = 1cP$

Suction Flange 200 mm
Pressure Flange 150 mm
Specific Weight $y = 1kg/dm^3$

Suction Flange 200 mm
Pressure Flange 150 mm
Specific Weight $y = 1kg/dm^3$

