



THERMAL OIL CENTRIFUGAL PUMPS

KYP SERIES (50 Hz)



TECHNICAL MANUAL



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MAS KYP Thermal Oil Centrifugal Pumps

General Information



Fields of Application

- Chemical and refinery plants.
- Paper and sugar industry.
- Food and drug industry.
- Leather industry.
- Plastic and synthetic fibre industry.
- Rubber industry.
- Baking and heating applications
- Textile industry.
- Laundries.
- Heat transfer applications with a medium over 100 °C temperature.

Pumped Liquids

All organic and synthetic oils used for transferring heat.

Design

- Single-stage, end suction, centrifugal volute pump.
- Main dimensions according to DIN 24256 (ISO 2858).
- Single entry, closed impeller is hydraulically thrust compensated and dynamically balanced.
- To drop the pressure on the sealing and to balance axial thrust, the impellers have back radial blades.
- Pump and motor are separate components, connected to each other via a flexible coupling and mounted on a common base plate.
- Maintenance is very much easier, the impeller shaft and other rotating parts being removable with no need to disconnect the suction and delivery pipes.
- Maximum interchangeability of components, identical parts can be used with various sizes of a pump, which greatly simplifies and reduces stock of spare parts.
- No need to cool the pump externally. Thanks to mechanical design, the temperature drops from casing to the bearing rapidly with the help of natural convection.

Shaft and Bearings

- The shaft is designed according to the minimum heat transfer criteria.
- Bearing housing is made of spherical cast iron and mounted to the casing keeping minimum heat transfer from the casing to the bearing housing.
- On the bearing housing, there are fins for natural convection. There are two roller bearings and mechanical seal in the bearing housing.

Shaft Seal

- The mechanical seal stands between two roller bearings and close to the roller bearing on the coupling side. This gives the mechanical seal longer working life since it is on a lower temperature region.
- First bearing is on the impeller side and lubricated with working medium.
- There is a thermal resistant soft packing seal behind the impeller. It slows down the leakage and prevents the pumping to be stopped if there is mechanical seal damage.
- Second bearing is on the coupling side and lubricated with grease.

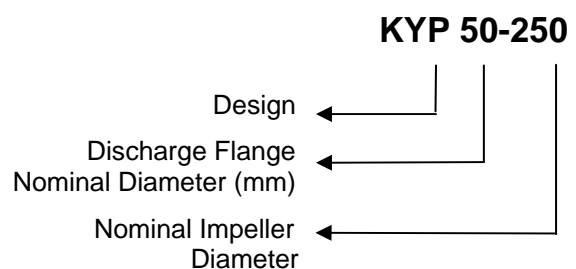
Technical Data

- Suction Nozzle..... : DN 32 ...DN 100
- Discharge Nozzle..... : DN 32....DN 100
- Operating Pressure..... : 16 Bar
- Speed Range..... : 1500 – 3000 RPM
- Capacity Range..... : 10 - 400 m³ / h
- Head Range..... : 5 - 90 m

Pump Flanges

- Discharge Flanges: DIN 2533 – PN 16
- Suction Flanges : DIN 2533 – PN 16

Identification Code



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Interchangeability for Pumps



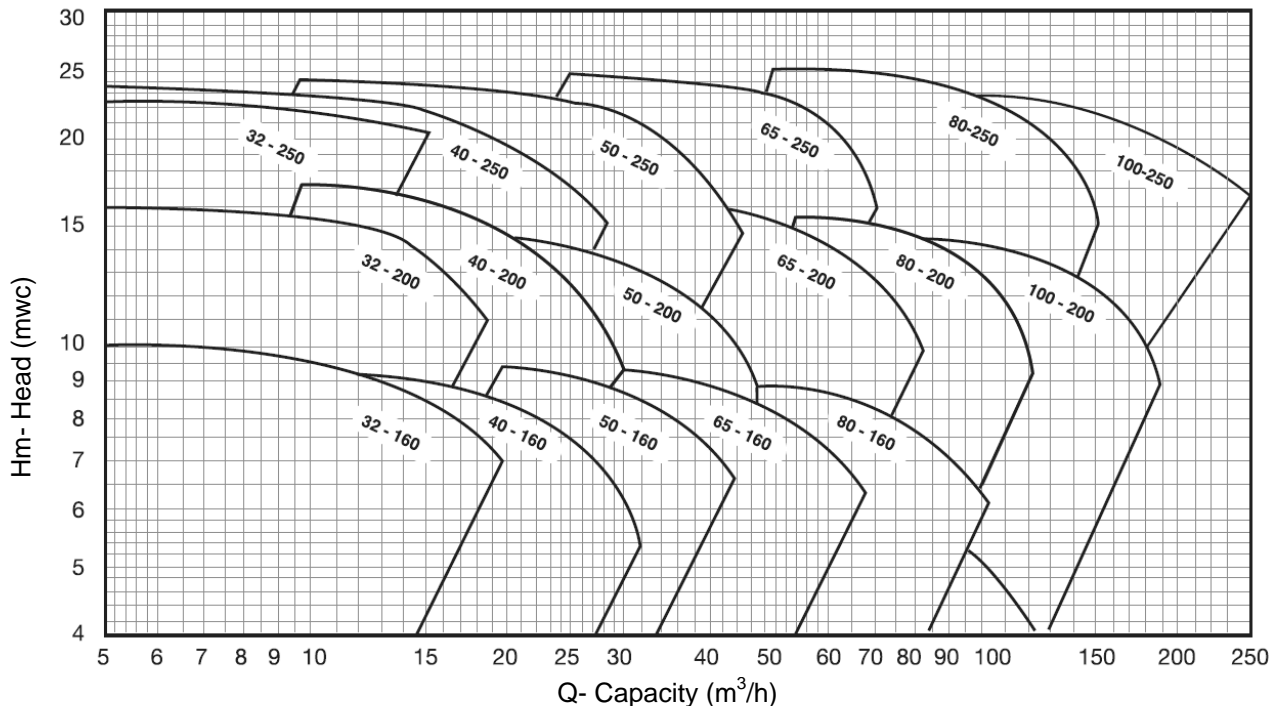
GROUP	PUMP TYPE	CASING	IMPELLER	ADAPTER	SHAFT	BEARING HOUSING	MECH. SEAL	ROLLER BEARING		
A	A1	KYP 32-160								
		KYP 40-160								
		KYP 50-160								
	A2	KYP 32-200								
		KYP 40-200								
		KYP 50-200								
B	B1	KYP 65-160								
		KYP 80-160								
	B2	KYP 65-200								
		KYP 80-200								
		KYP 100-200								
	B3	B3	KYP 32-250							
			KYP 40-250							
			KYP 50-250							
		B3	KYP 65-250							
			KYP 80-250							
			KYP 100-250							

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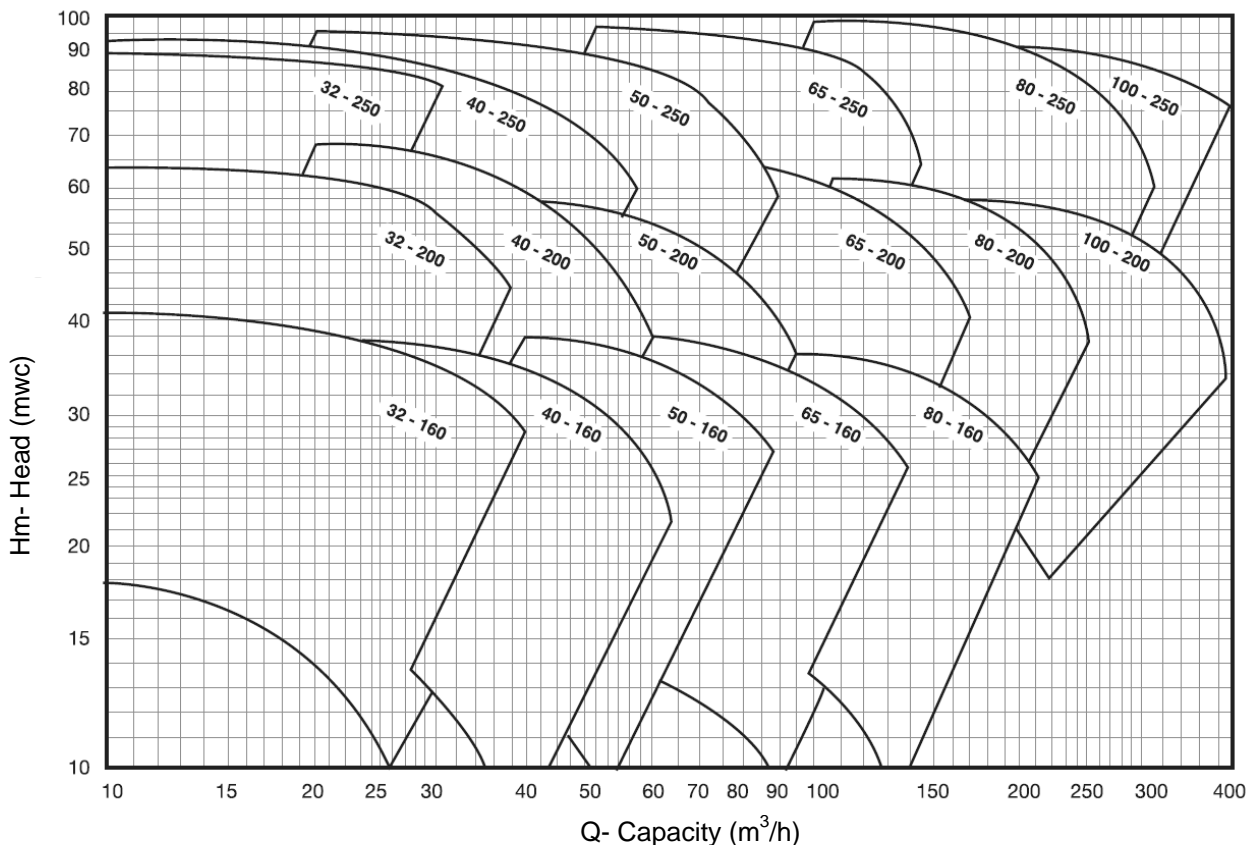
General Performance Curves 1450 RPM – 2900 RPM



1450 RPM

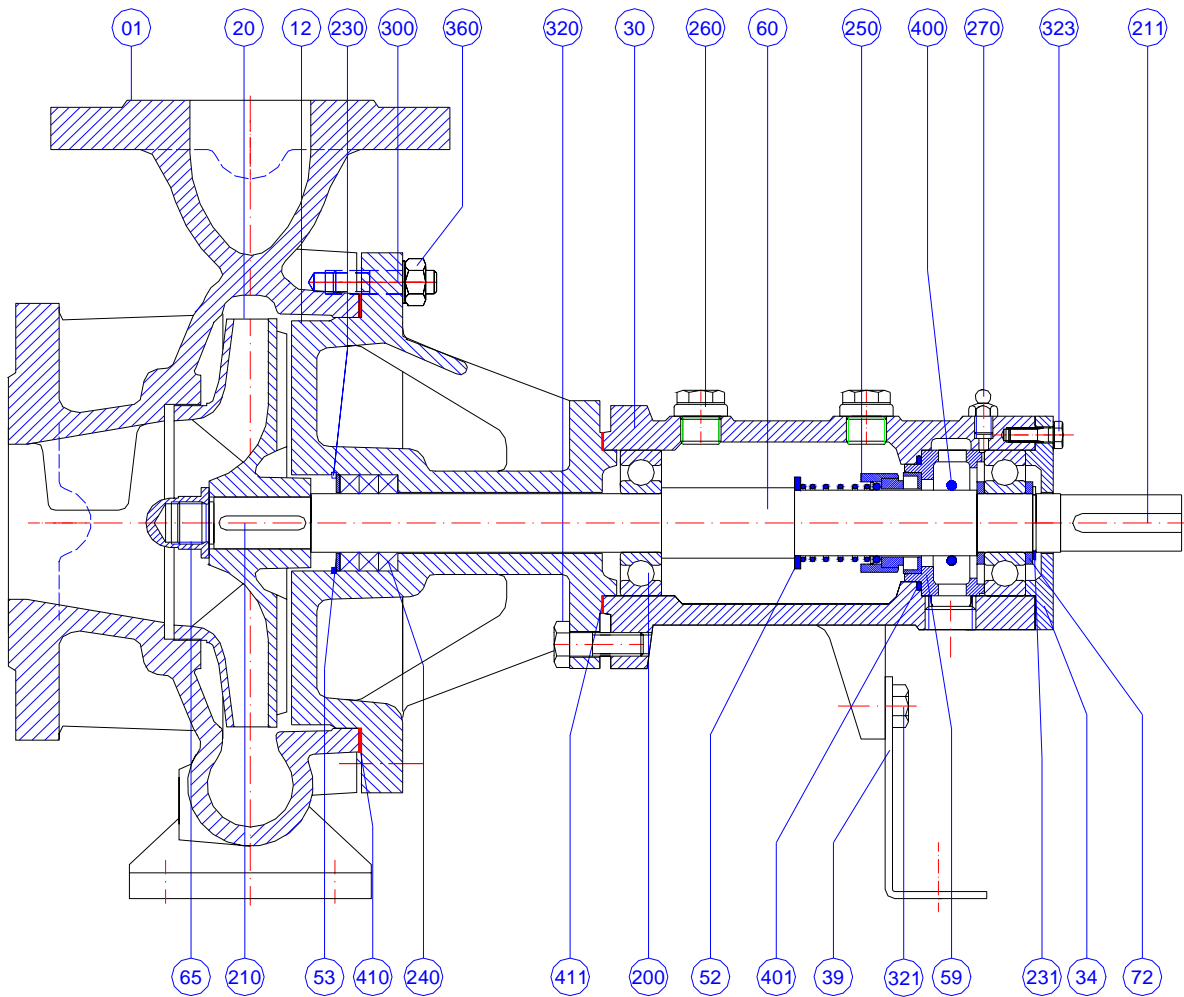


2900 RPM



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Cross-Sectional View and Part Lists



PART NO	PART NAME	PART NO	PART NAME
01	Pump Casing	230	Ring
20	Impeller	231	Ring
12	Adapter	240	Gland Packing
34	Bearing Housing Cover	260	Plug
30	Bearing Housing	270	Greaser
39	Support Foot	300	Stud
52	Mech. Seal Front Ring	320	Hexagonal Bolt
53	Packing Retaining Ring	321	Hexagonal Bolt
59	Mechanical Seal Housing	323	Hexagonal Bolt
60	Pump Shaft	250	Mechanical Seal
65	Impeller Nut	360	Hexagonal Nut
72	Retaining Ring	400	O-Ring
200	Ball Bearing	401	O-Ring
210	Key, Impeller	410	Gasket
211	Key, Coupling	411	Gasket

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Technical Specifications



Material Options

Parts	Material No	0.6025	0.7040	2.1050.01	1.4021	1.4301	1.4401
Pump Casing			●	○		○	○
Adapter			●	○		○	○
Impeller		●	○	○		○	○
Bearing Housing			●	○		○	○
Pump Shaft					●	○	○

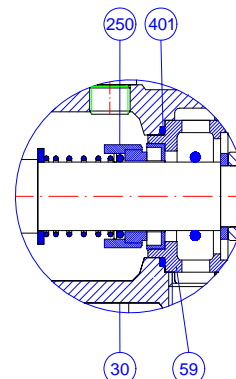
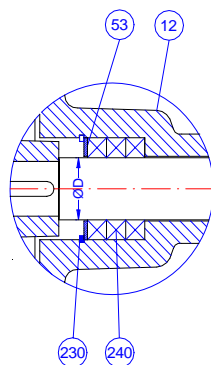
● – Standard Manufacturing
○ - Options

Material Equivalent

Description	DIN 17007	EN-DIN	ASTM
Cast Iron	0.6025	GJL-250 (GG25)	A 48 Class 40-B
Nodular Cast Iron	0.7040	GJS-400-15 (GGG40)	A 536 Gr.60-40-18
Cast Bronze	2.1050.01	G-Cu Sn 10	B 584 C 90700
Chrome Steel	1.4021	X20 Cr 13	A 276 Type 420
Chrome Nickel Steel	1.4301	X5 Cr Ni 18.9	A 276 Type 304
Chrome Nickel Molybdenum Steel	1.4401	X5 Cr Ni Mo 18.10	A 276 Type 316

Bearings, Soft Packing, Mechanical Seal

Group	Bearing System	Soft Packing (Rotatherm)		Mechanical Seal	Pump Size
	Type of Bearing	Packing Ring Size ØD	Qty		
A	2 x 6305 C4 / F	Ø25	3 Soft Packing 8x8	Ø28 M32N69	32-160, 40-160, 50-160, 32-200, 40-200, 50-200
B	2 x 6307 C4 / F	Ø35	3 Soft Packing 10x10	Ø38 M32N69	65-160, 80-160, 65-200, 80-200, 100-200, 32-250, 40-250, 50-250, 65-250, 80-250, 100-250

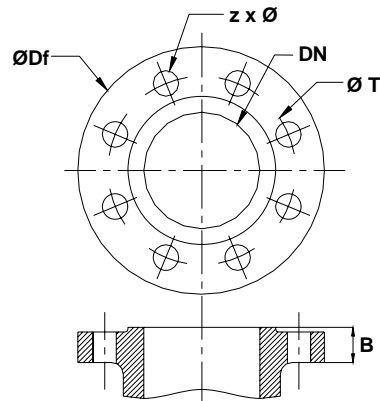


Gland Packing Detail	
Part No	Part Name
12	Adapter
53	Packing Retaining Ring
230	Ring
240	Rotatherm Soft Packing

Mechanical Seal Detail	
Part No	Part Name
30	Bearing Housing
59	Mech. Seal Housing
250	Mechanical Seal
401	O-Ring

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Flange Dimensions

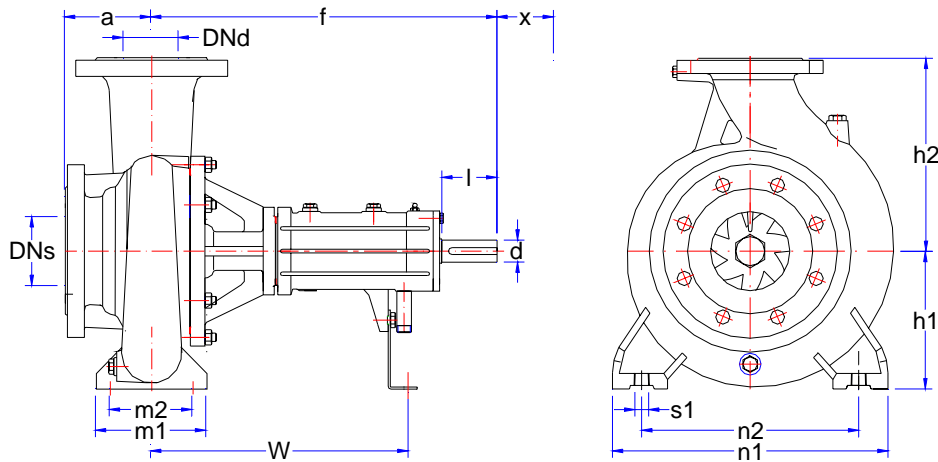


PUMP SUCTION AND DISCHARGE FLANGE DIMENSIONS								
DNs	PN	ØD	Øk	Ød4	Ød2	b	f	Hole
DNd								Number
32	16	140	100	78	18	18	2	4
40		150	110	88	18	18	3	4
50		165	125	102	18	20	3	4
65		185	145	122	18	20	3	4
80		200	160	138	18	22	3	8
100		220	180	158	18	24	3	8
125		250	210	188	18	26	3	8

No	Pump Type	Flanges			
		DNs (mm) Suction		DNd (mm) Discharge	
1	32-160	50	PN 16	PN 16	PN 16
2	32-200				
3	32-250				
4	40-160	65			
5	40-200				
6	40-250				
7	50-160	65			
8	50-200				
9	50-250				
10	50-315				
11	65-160	80			
12	65-200				
13	65-250				
14	65-315				
15	65-400				
16	80-160	100			
17	80-200				
18	80-250				
19	80-315				
20	80-400				
21	100-200	125			
22	100-250				

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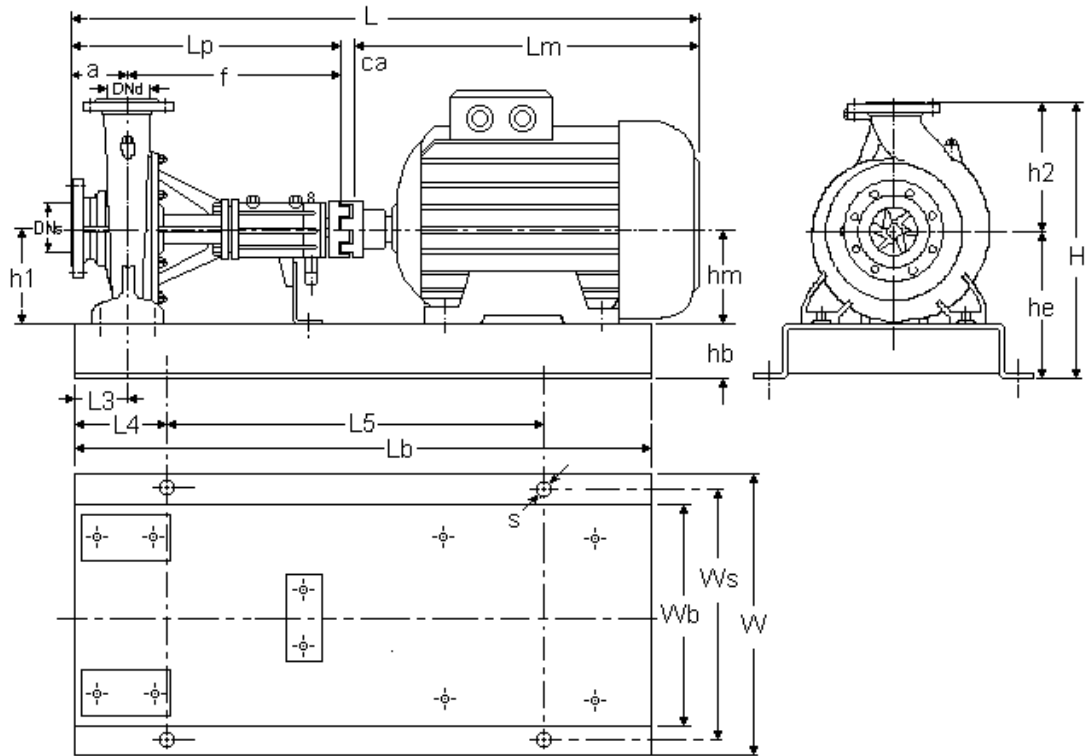
Overall Dimensions



No	PUMP SIZE	Flanges (PN16)		Length		Height		Pump Feet		Fixing Details				Shaft End			(*)
		DN Suc.	DN Del.	a	f	h1	h2	b	m1	m2	n1	n2	s1	W	d	l	
1	32-160	50	32	80	385	132	160	50	100	70	240	190	M12	285	24	50	65
2	32-200	50	32	80	385	160	180	50	100	70	240	190	M12	285	24	50	65
3	32-250	50	32	100	500	180	225	65	125	95	320	250	M12	370	32	80	80
4	40-160	65	40	80	385	132	160	50	100	70	240	190	M12	285	24	50	75
5	40-200	65	40	100	385	160	180	50	100	70	265	212	M12	285	24	50	75
6	40-250	65	40	100	500	180	225	65	125	95	320	250	M12	370	32	80	75
7	50-160	65	50	100	385	160	180	50	100	70	265	212	M12	285	24	50	80
8	50-200	65	50	100	385	160	200	50	100	70	265	212	M12	285	24	50	85
9	50-250	65	50	100	500	180	225	65	125	95	320	250	M12	370	32	80	85
10	65-160	80	65	100	500	160	200	65	125	95	280	212	M12	370	32	80	100
11	65-200	80	65	100	500	180	225	65	125	95	320	250	M12	370	32	80	100
12	65-250	80	65	100	500	200	250	80	160	120	360	280	M16	370	32	80	100
13	80-160	100	80	125	500	180	225	65	125	95	320	250	M12	370	32	80	110
14	80-200	100	80	125	500	180	250	65	125	95	345	280	M12	370	32	80	110
15	80-250	100	80	125	500	200	280	80	160	120	400	315	M16	370	32	80	115
16	100-200	125	100	125	500	200	280	80	160	120	360	280	M16	370	32	80	120
17	100-250	125	100	140	500	225	280	80	160	120	400	315	M18	370	32	80	120

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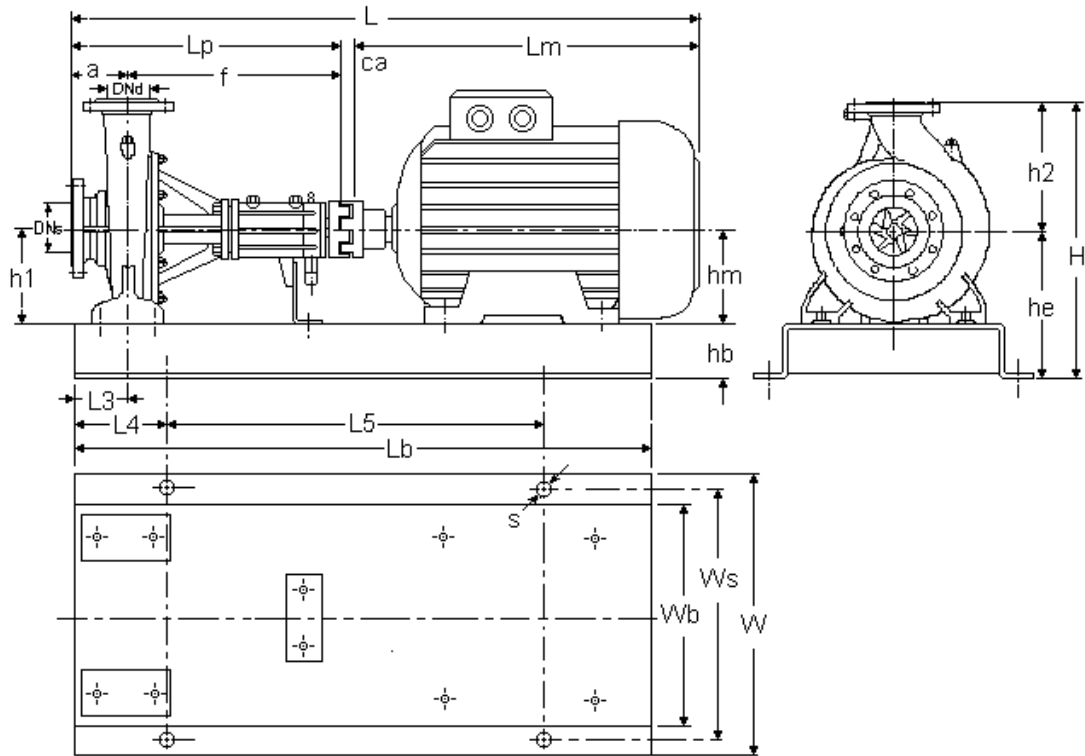
Overall Dimensions with Electric Motor 1450 RPM



Pompa	Motor	Pompa		Diş Boyutlar			Motor		Temel Plakası										
Tipi	[kW]	DNs	DNd	a	f	L	W	H	L _m	h _m	L _b	W _b	h _b	h _e	L3	L4	L5	W _s	s3
KYP 32-160	0.25	50	32	80	385	723	330	357	242	71	710	240	65	197	60	115	480	290	19
	0.37					754			273	80									
	0.55					754			273	80									
	0.75					754			273	80									
KYP 32-200	0.55	50	32	80	385	754	330	405	273	80	710	240	65	197	60	115	480	290	19
	0.75					785			300	90									
	1.1					810			325	90									
	1.5					810			325	90									
KYP 32-250	1.1	50	32	100	500	893	450	485	273	80	800	340	80	260	72	150	540	320	24
	1.5					920			300	90									
	2.2					945			325	100									
	2.2					985			365	100									
KYP 40-160	0.55	65	40	80	385	754	330	357	273	80	710	240	65	197	60	115	480	290	19
	0.75					785			300	90									
	1.1					785			300	90									
KYP 40-200	0.55	65	40	100	385	774	360	405	273	80	710	270	65	225	60	115	480	320	19
	0.75					805			350	90									
	1.1					830			360	90									
	1.5					830			360	90									
KYP 40-250	1.1	65	40	100	500	920	450	485	300	90	900	340	80	260	72	150	600	400	24
	1.5					945			325	100									
	2.2					985			365	100									
	2.2					985			365	100									
	3					985			385	100									

MAS KYP Thermal Oil Centrifugal Pumps

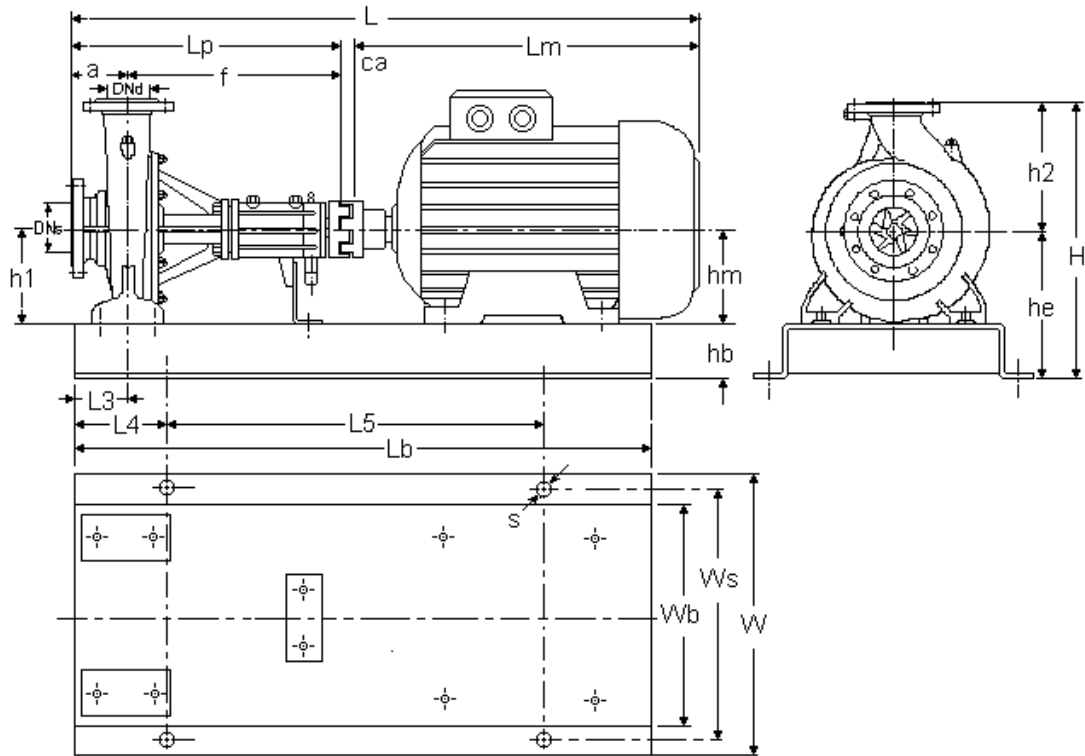
Overall Dimensions with Electric Motor 1450 RPM



Pompa	Motor	Pompa				Dış Boyutlar			Motor		Temel Plakası													
Tipi	[kW]	DNs	DNd	a	f	L	W	H	L _m	h _m	L _b	W _b	h _b	h _e	L3	L4	L5	W _s	s3					
KYP 50-160	0.55	65	50	100	385	774	360	405	273	80	710	270	65	225	60	115	480	320	19					
	0.75					300			90															
	1.1					805			325	800										130	540			
	1.5					830			325	800										130	540			
KYP 50-200	1.1					805			300	710										115	480			
	1.5					830			325	800										130	540			
	2.2			870	365	100	320	19																
KYP 50-250	2.2			100	500	450	485	985	450	485	365	100	900	340	80	260	72	150	600	400	24			
	3							384			112													
	4							1081			455	132										1000	170	
	5.5							1081			455	132										1000	170	
KYP 65-160	0.75			80	65	100	500	889	390	425	273	80	800	300	65	225	72	130	540	350	19			
	1.1	920	300					90																
	1.5	945	365					100			150	600												
	2.2	985	365					100			150	600												
KYP 65-200	1.5	945	325					90			150	600												
	2.2	985	365					100			150	600												
	3	1005	384			112	400	24																
KYP 65-250	3	490	530			450	530	985	450	530	365	100	900	380	80	280	90	150	600	440	24			
	4							1005			384	112												
	5.5							1081			455	132										1000	170	660
	7.5							1119			493	132										1000	170	660

MAS KYP Thermal Oil Centrifugal Pumps

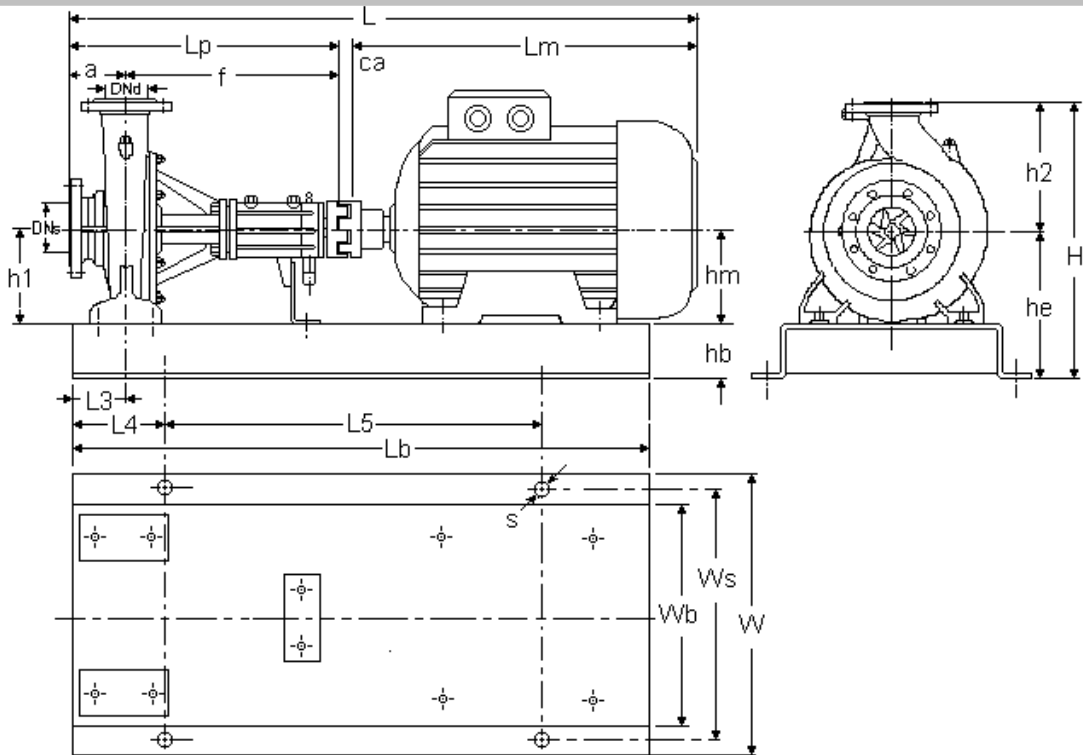
Overall Dimensions with Electric Motor 1450 RPM



Pompa	Motor	Pompa				Dış Boyutlar			Motor		Temel Plakası												
Tipi	[kW]	DNs	DNd	a	f	L	W	H	L _m	h _m	L _b	W _b	h _b	h _e	L3	L4	L5	W _s	s3				
KYP 80-160	1.5	100	80	125	500	970	450	485	325	90	900	340	80	260	72	150	600	400	24				
	2.2					1010			365	100													
	3																						
KYP 80-200	3					1010	490	510	500	365	490	510	100	900	380	80	260	72	150	600	440	24	
	4					1030				384			112										
	5.5					1106				455			132										1000
	7.5					1144				493													
KYP 80-250	5.5					1106	540	560	500	455	540	560	132	1000	430	80	280	90	170	660	490	24	
	7.5					1144				493													
	11					1249				594			160										1120
	15					1293				638													1250
KYP 100-200	3	125	100	125	500	1010	490	560	365	100	900	380	80	280	90	150	600	440	24				
	4					1030			384	112													
	5.5					1106			455	132										1000			
	7.5					1144			493														
KYP 100-250	11			1308	540	585	500	1308	540	585	638	160	1120	430	80	305	90	190	740	490	24		
	15			1308				654															
	18.5			1327				654															

MAS KYP Thermal Oil Centrifugal Pumps

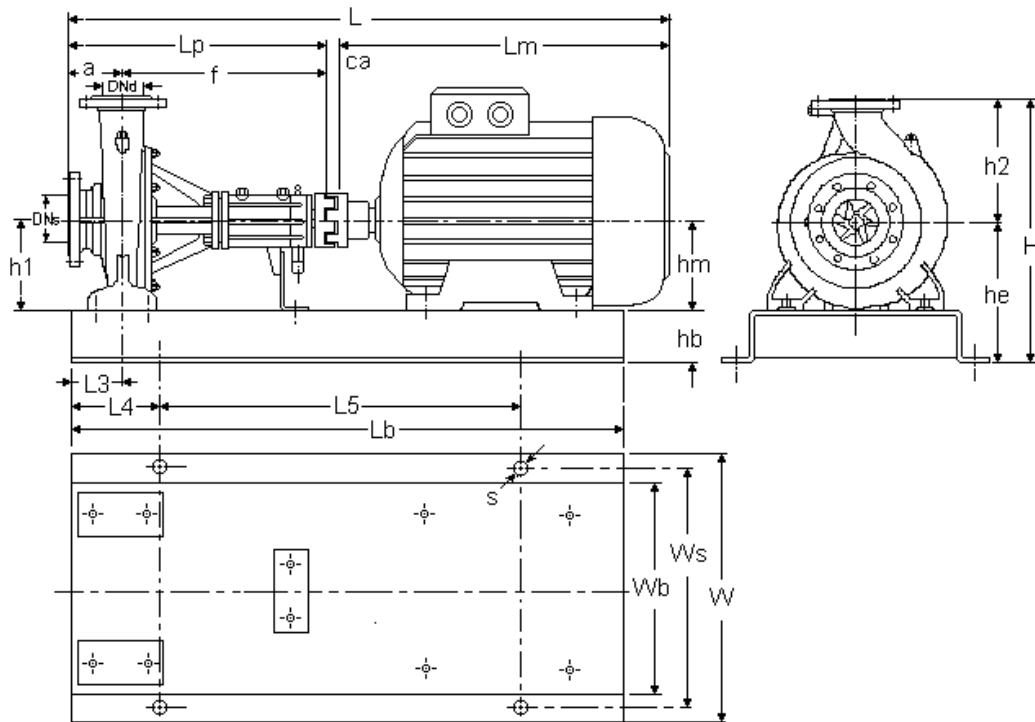
Overall Dimensions with Electric Motor 2900 RPM



Pump Type	Motor [kW]	Pump				Overall			Motor		Foundation Plate																			
		DNs	DNd	a	f	L	W	H	L _m	h _m	L _b	W _b	h _b	h _e	L ₃	L ₄	L ₅	W _s	s ₃											
KYP 32-160	1.5	50	32	80	385	775	330	358	300	90	710	240	65	197	60	115	480	290	19											
	2.2					800			325																					
	3					840			365											100										
	4					859			384											112										
KYP 32-200	4	50	32	80	385	859	330	405	384	112	800	240	65	225	60	130	540	290	19											
	5.5					930			455			132						270		320										
	7.5					930	360	405	455	132	800	270	65	225	60	130	540	320	19											
	11					1069	450	420	594	160	900	340	80	240	150	600	400	24												
KYP 32-250	7.5	65	40	100	500	1065	450	485	455	132	1000	340	80	260	73	170	660	400	24											
	11					1204			594											160	1120	190	740							
	15					1204			450											420	594	160	900	340	80	240	150	600	400	24
	18.5					1248			450											485	638	160	1120	340	80	260	73	190	740	400
KYP 40-160	3	65	40	80	385	840	330	357	365	100	800	240	65	197	60	130	540	290	19											
	4					859			384			112																		
	5.5					930	360	405	455	132	800	270	65	225	60	130	540	320	19											
	7.5					930	360	405	455	132	800	270	65	225	60	130	540	320	19											
KYP 40-200	5.5	65	40	100	385	950	360	405	455	132	800	270	65	225	60	130	540	320	19											
	7.5					950			450			420						594		160	900	340	80	240	150	600	400	24		
	11					1089	450	420	594	160	900	340	80	240	150	600	400	24												
	15					1089	450	420	594	160	900	340	80	240	150	600	400	24												
KYP 40-250	15	65	40	100	500	1204	450	485	594	160	1120	340	80	260	73	190	740	400	24											
	18.5					1248			638			180						380		440										
	22					1264	490	505	654	180	1250	380	80	280	205	840	490													
	30					1357	540	505	747	200	1250	430	280	205	840	490														

MAS KYP Thermal Oil Centrifugal Pumps

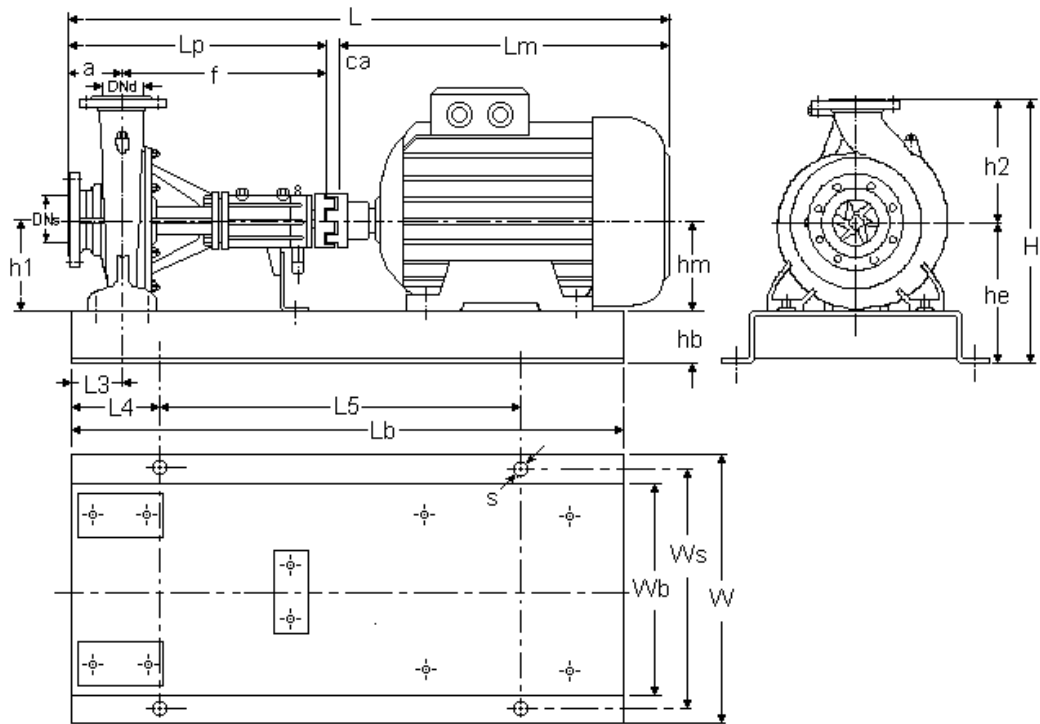
Overall Dimensions with Electric Motor 2900 RPM



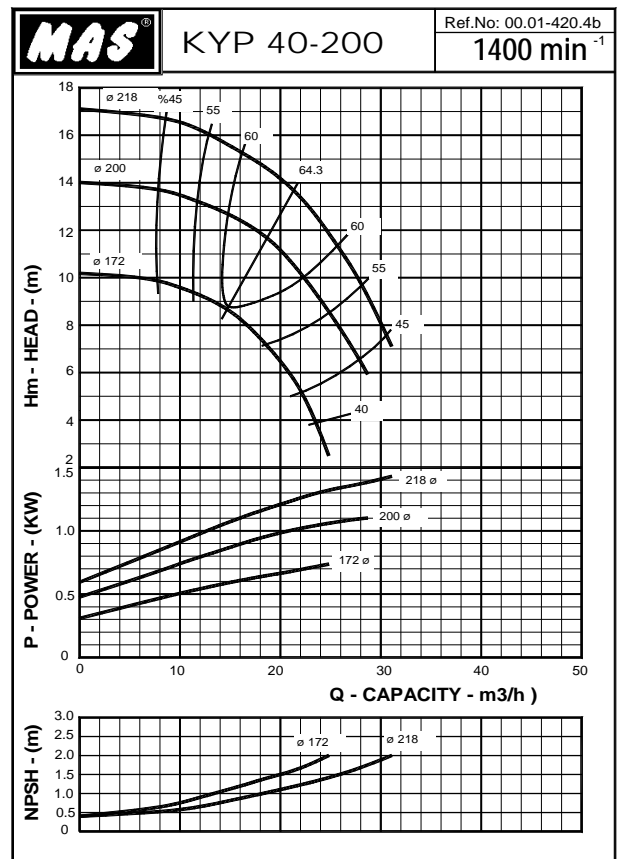
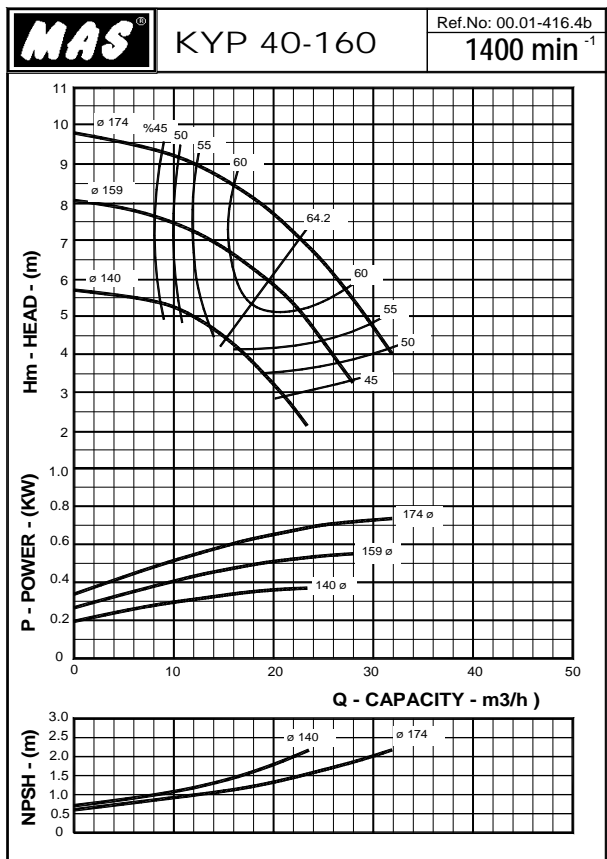
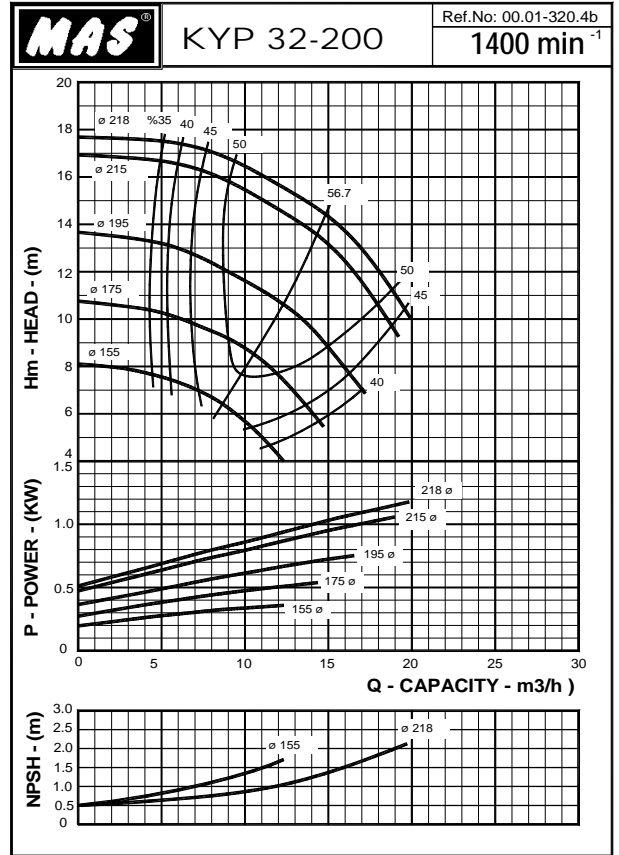
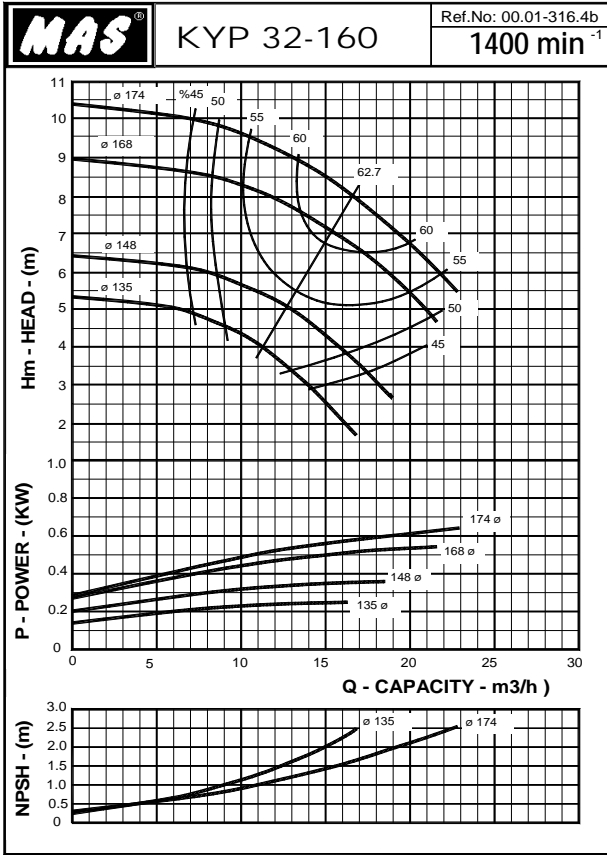
Pump	Motor	Pump				Overall			Motor		Foundation Plate										
Type	[kW]	DNs	DNd	a	f	L	W	H	L _m	h _m	L _b	W _b	h _b	h _e	L3	L4	L5	W _s	s3		
KYP 50-160	4	65	50	100	385	879	360	405	384	112	800	270	65	225	60	130	540	320	19		
	5.5					950			455	132											
	7.5					950			455	132											
	11					1089	450	594	160	900										340	150
KYP 50-200	7.5	65	50	100	385	950	360	425	455	132	800	270	65	225	60	130	540	320	19		
	11					1089	450	440	594	160	900	340	80	240	60	150	600	400	24		
	15					1089	450	440	594	160	900	340	80	240	60	150	600	400	24		
	18.5					1133	450	440	638	160	1000	340	80	240	60	170	660	400	24		
KYP 50-250	22	80	65	100	500	1264	490	485	654	180	1120	380	80	260	73	190	740	440	24		
	30					1357	540	505	747	200	1250	430		280		205	840	490			
	37					1357	540	505	747	200	1250	430	280	205		840	490	550	28		
	45					1400	610	550	790	225	480	100	325	205		840	490	550	28		
KYP 65-160	5.5	80	65	100	500	1065	390	425	455	132	900	300	65	225	73	150	600	350	19		
	7.5					1065	450	450	594	160	1120	340	80	240							
	11					1204	450	450	594	160	1120	340	80	240							
	15					1204	450	450	594	160	1120	340	80	240							
KYP 65-200	18.5	80	65	100	500	1248	450	485	638	160	1120	340	80	260	73	190	740	400	24		
	22					1264	490	485	654	180	1120	380		280				440			
	30					1357	540	505	747	200	1250	430	280	205				840	490		
	37					1357	540	505	747	200	1250	430	280	205				840	490		
KYP 65-250	22	80	65	100	500	1264	490	530	654	180	1120	380	80	280	90	190	740	440	24		
	30					1357	540		747	200	1250	430		280				490			
	37					1357	540	747	200	1250	430	280	490	550				28			
	45					1400	610	575	790	225	480	100	325	205				840	490	550	28
	55					1500	660	600	890	250	1400	530	100	350				230	940	600	600

MAS KYP Thermal Oil Centrifugal Pumps

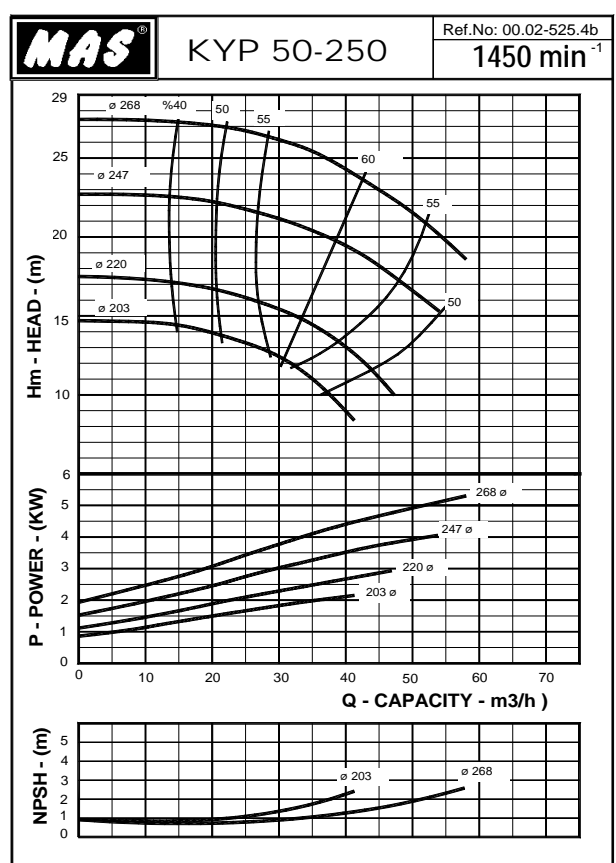
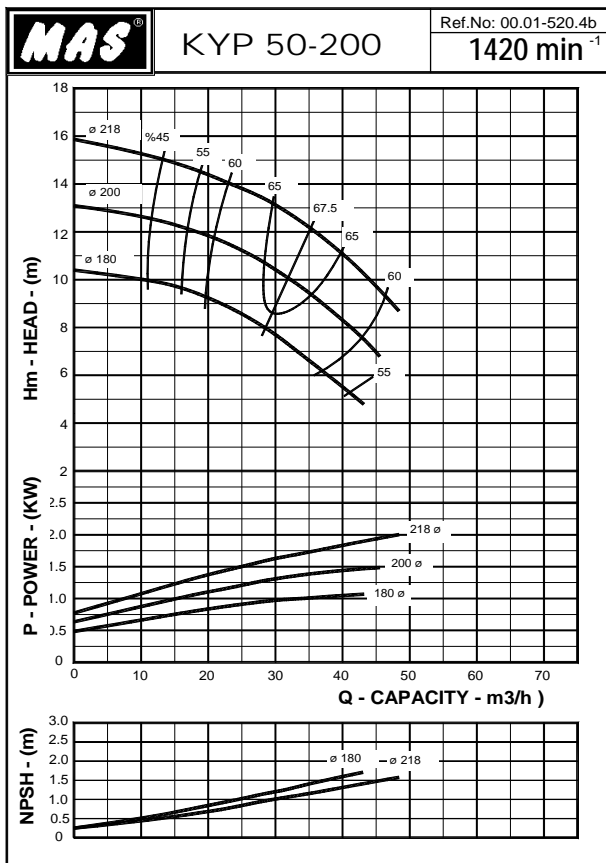
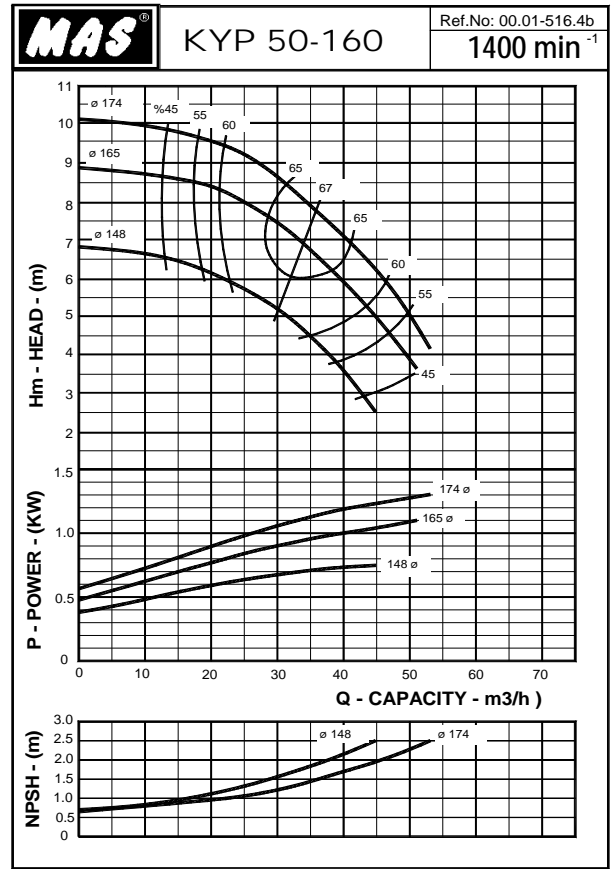
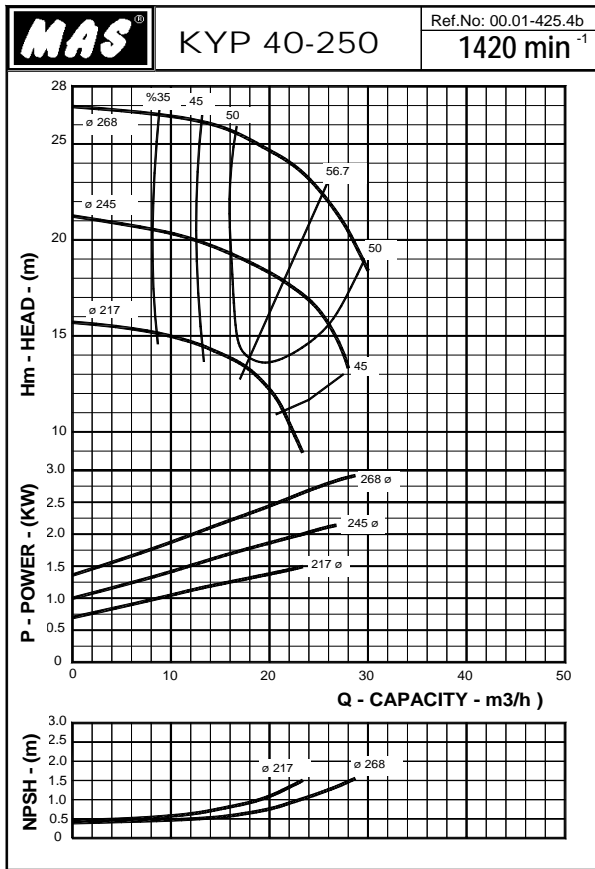
Overall Dimensions with Electric Motor 2900 RPM



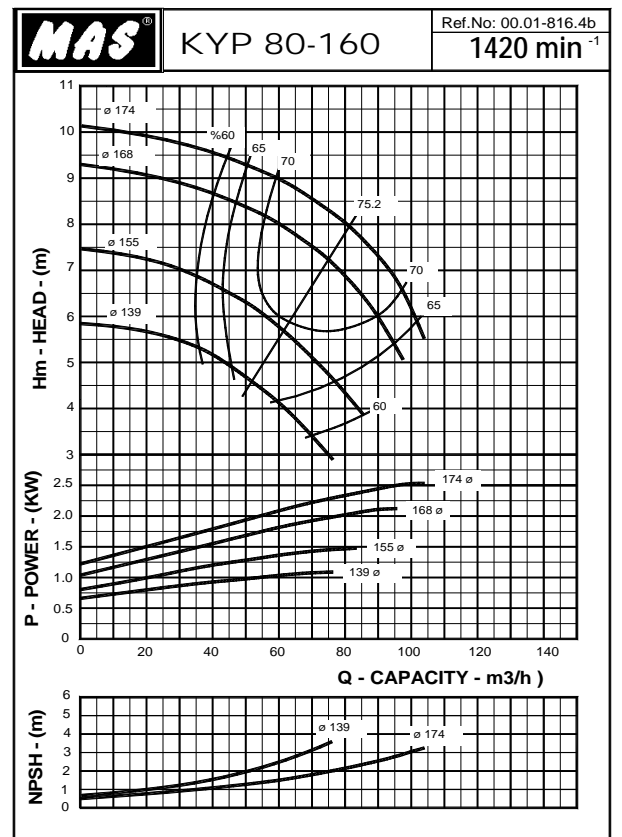
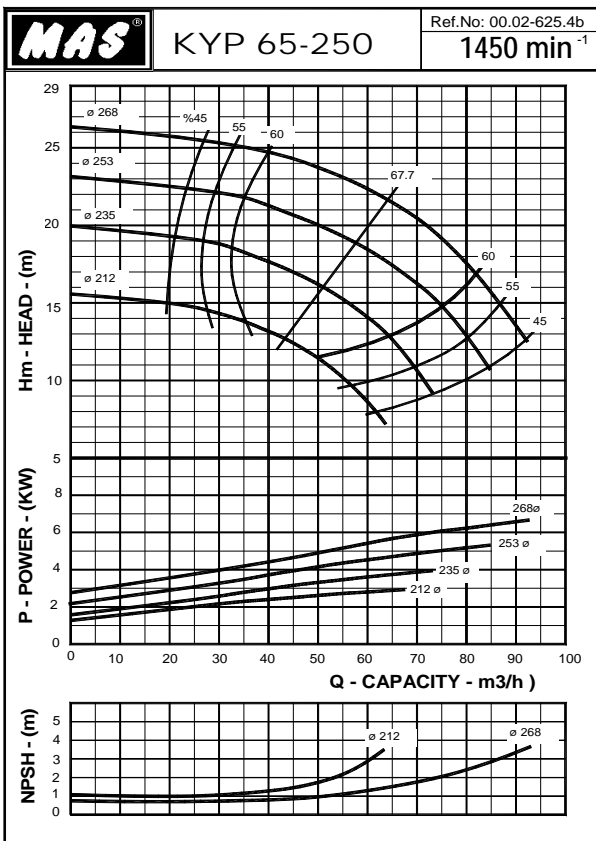
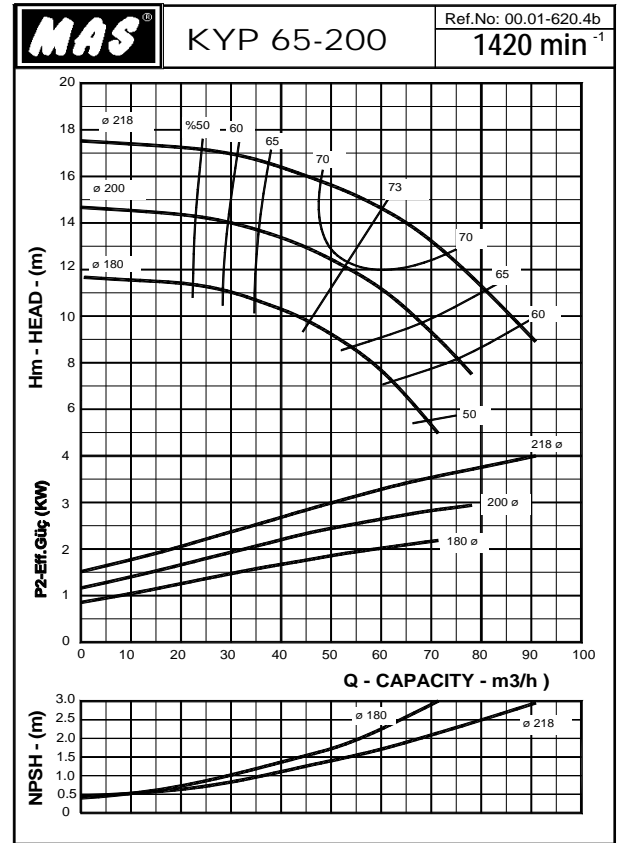
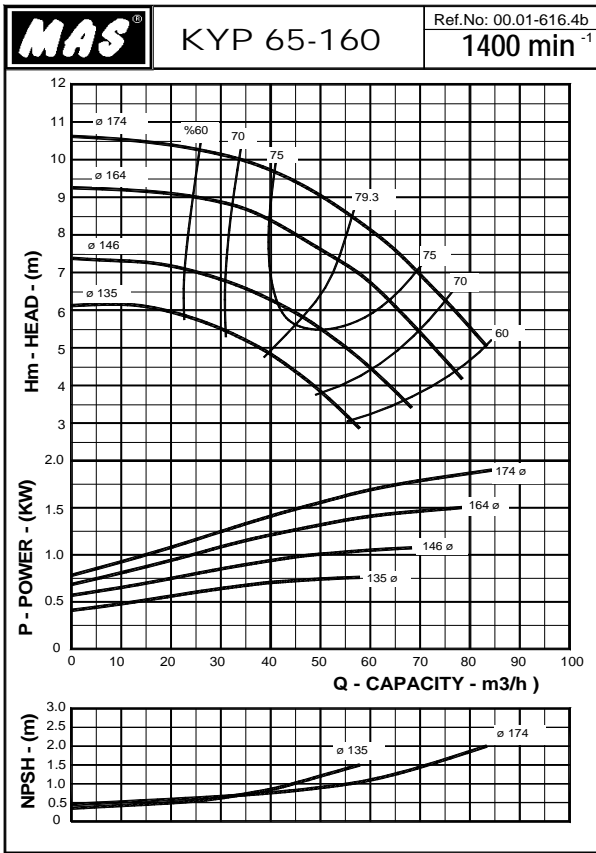
Pump	Motor	Pump					Overall			Motor		Foundation Plate											
Type	[kW]	DNs	DNd	a	f	L	W	H	L _m	h _m	L _b	W _b	h _b	h _e	L3	L4	L5	W _s	s3				
KYP 80-160	7.5	100	80	125	500	1090	450	485	455	132	900	340	80	380	73	150	600	400	24				
	11					1229			594	160										1120			
	15					1229			638	380													
	18.5					1273			654												180		
	22					1289			490													180	
KYP 80-200	30	100	80	125	500	1382	540	530	747	200	1250	430	80	280	73	205	840	490	24				
	37					1382	790	225	480	100		325	550										
	45					1425	610	575	790	225		480	100	325				600	28				
	55					1525	660	600	890	250		1400	530	350				230	940	600			
KYP 80-250	45	125	100	125	500	1425	610	605	790	225	1250	480	100	325	90	205	840	550	28				
	55					1525	660	630	890	250		530		350				600					
	75					1593	730	660	958	280		1400		600				380		230	940	670	
	90					1645	730	660	1010	280		1400		600				380		230	940	670	
KYP 100-200	30	125	100	125	500	1382	540	540	747	200	1250	430	80	280	90	205	840	490	24				
	37					1382	790	225	480	100		325	550										
	45					1425	610	605	790			225	480	100				325	600	28			
	55					1525	660	630	890			250	1400	530				350	230	940	600		
	75					1593	730	660	958			280	1400	600				380	230	940	670		
KYP 100-250	55	125	100	140	500	1570	610	630	890	250	1400	480	100	350	125	230	940	550	28				
	75					1640	730	660	958	280		600		380				140		270	1060	670	
	90					1690	730	660	1010	280		1600		600				380		140	270	1060	670
	110					1758	830	715	1078	315		1600		680				120		415	140	270	1060



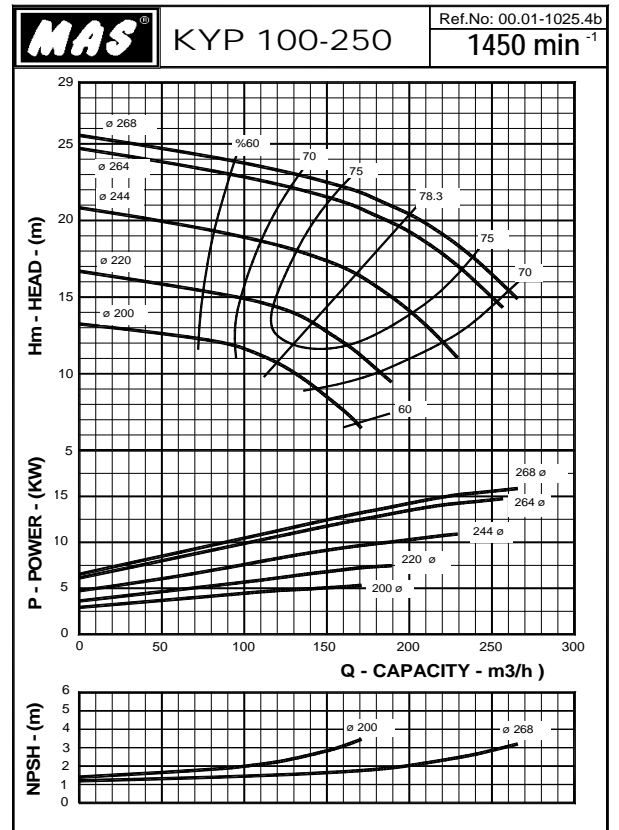
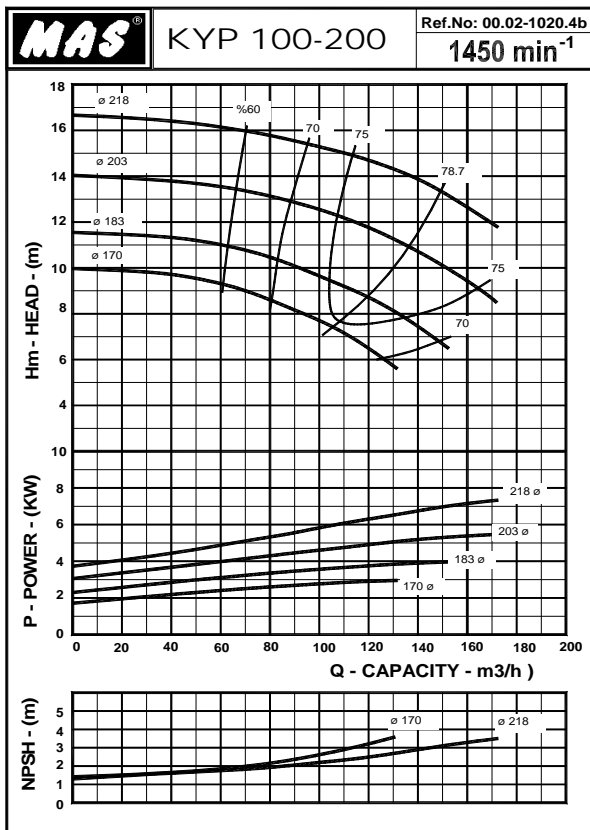
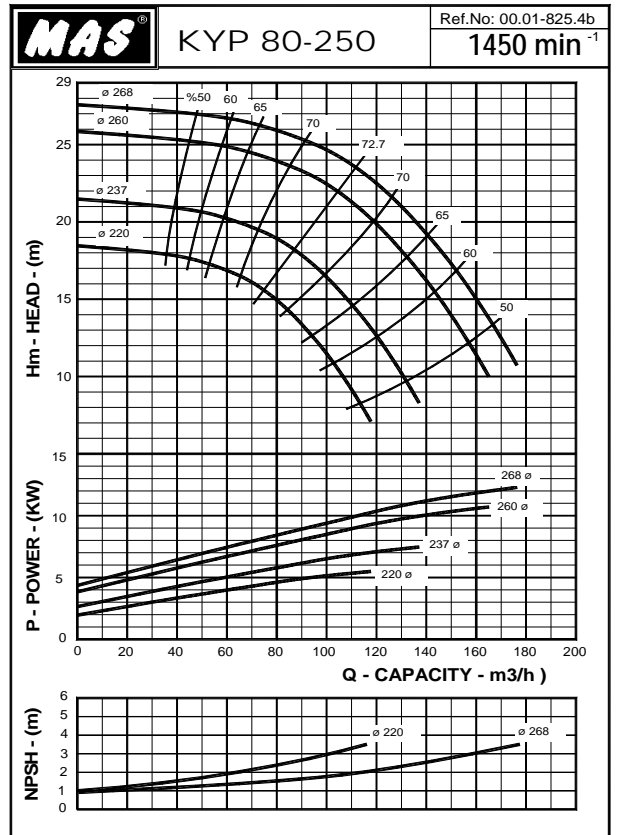
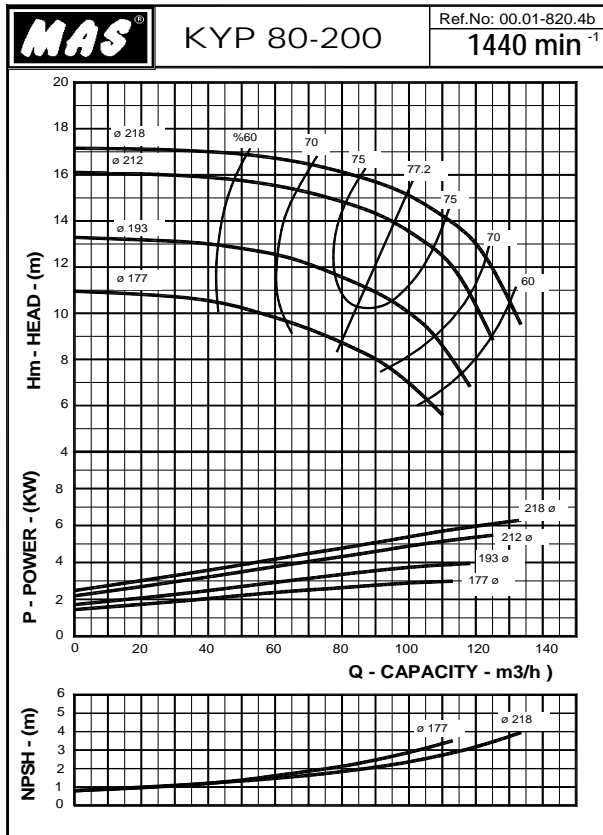
Curves are valid for 20°C clean water (2900 RPM). Tolerance ISO 9906



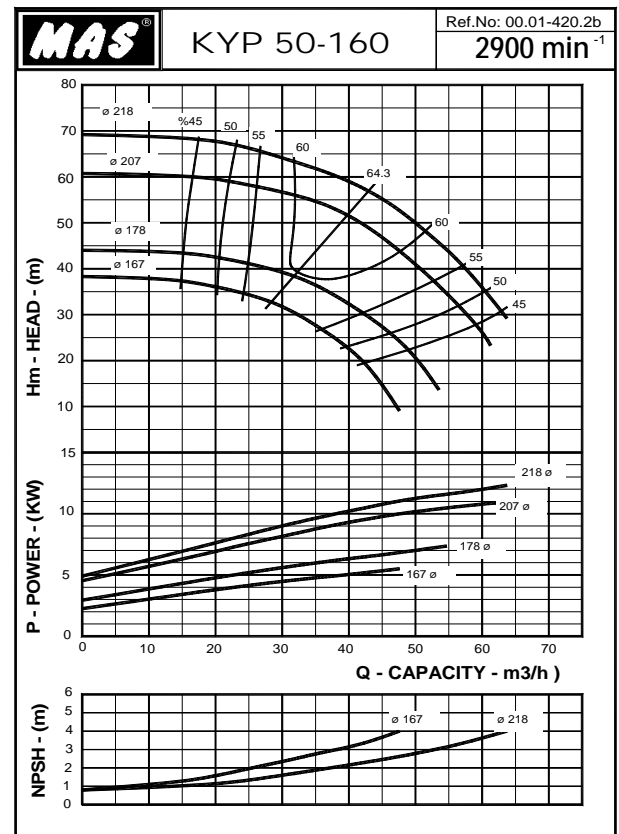
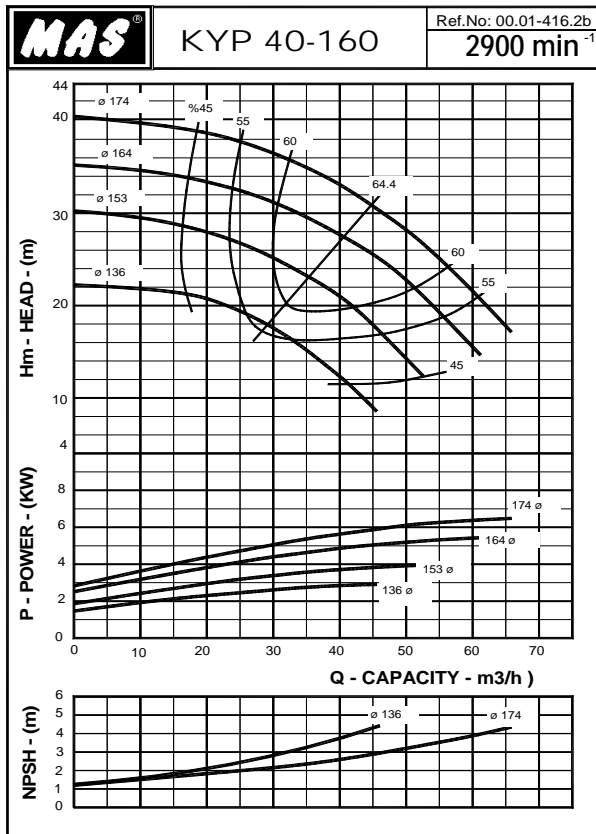
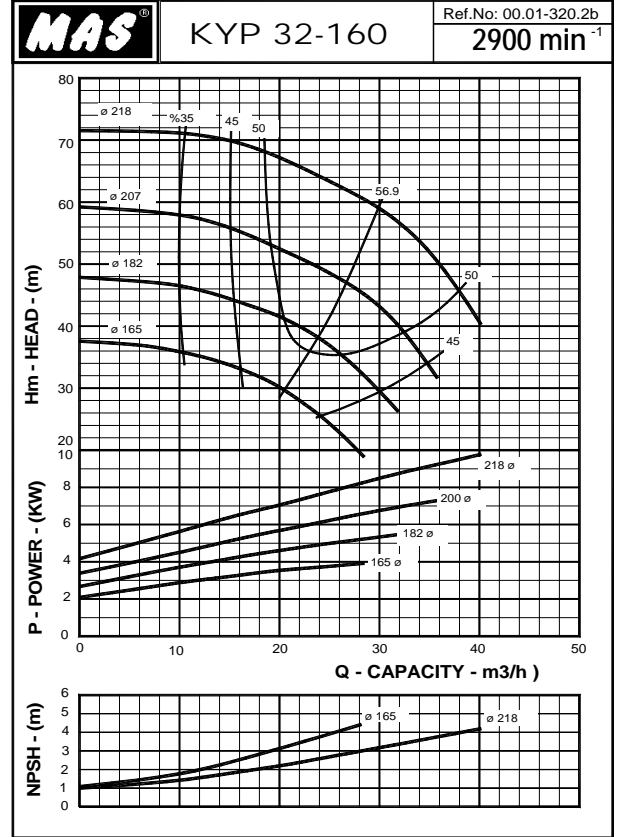
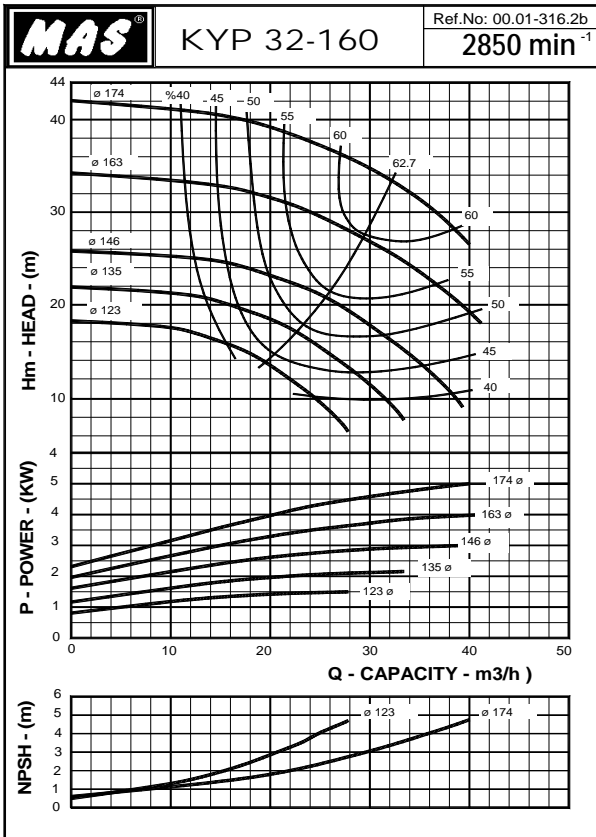
Curves are valid for 20°C clean water (2900 RPM). Tolerance ISO 9906



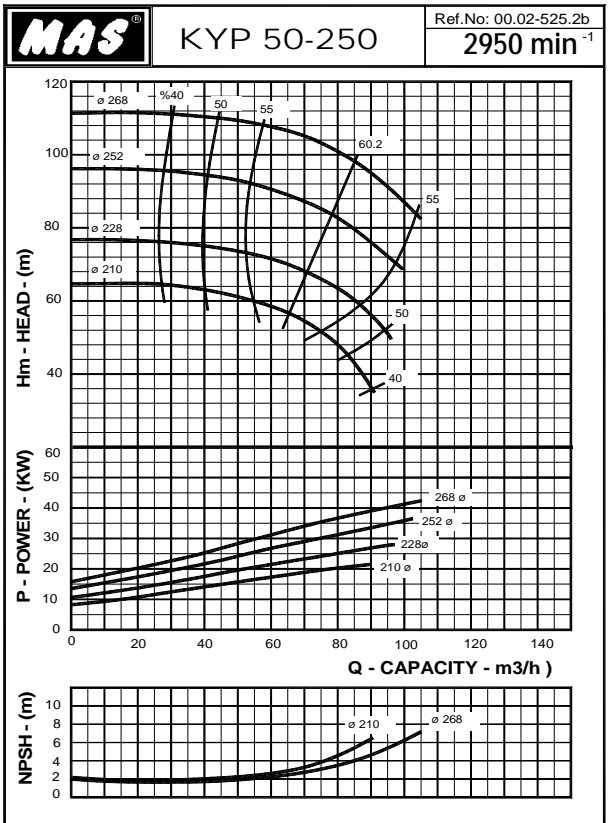
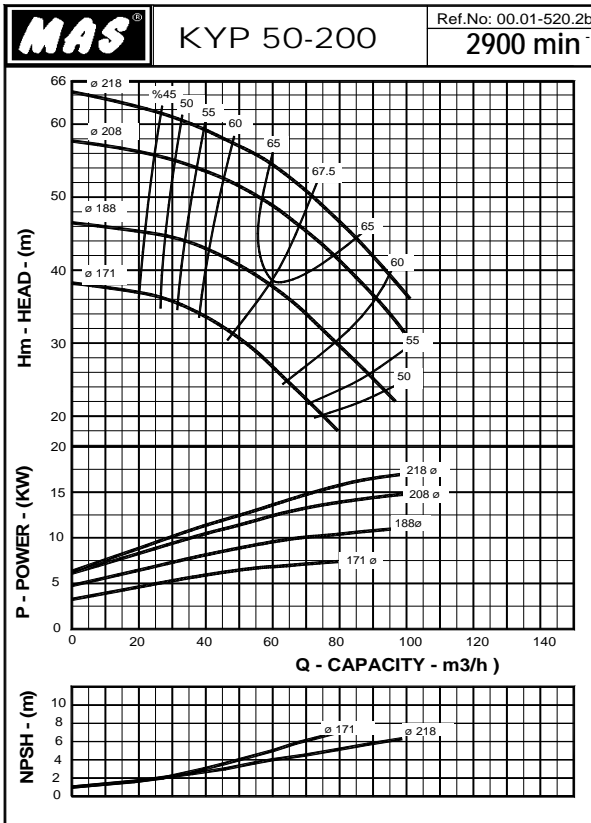
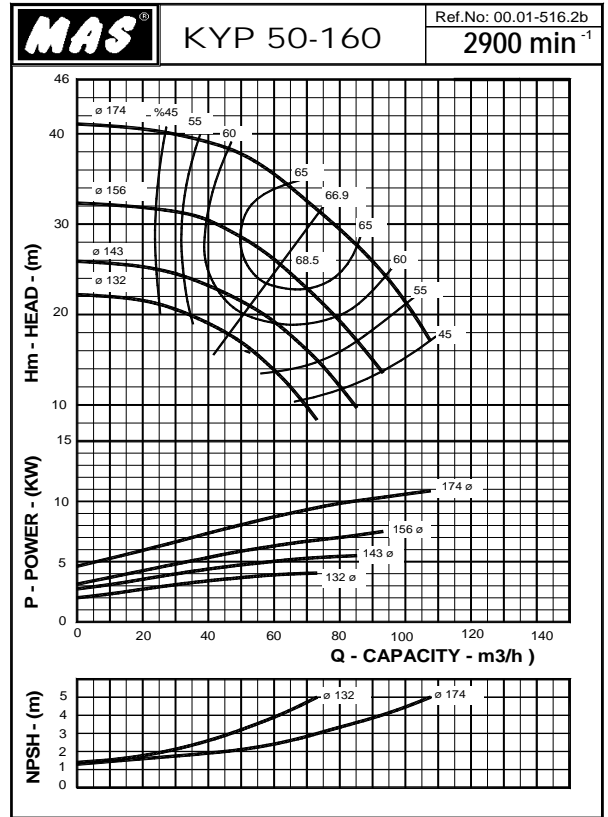
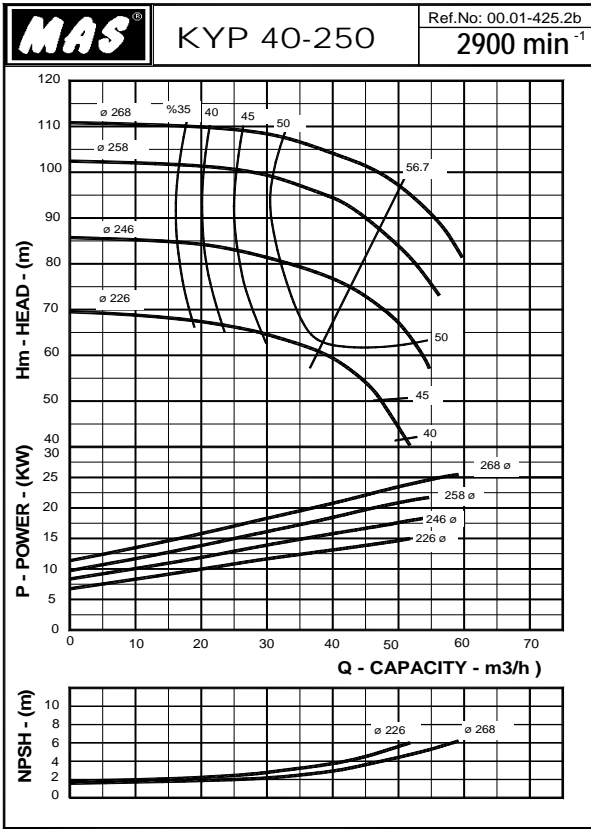
Curves are valid for 20°C clean water (2900 RPM). Tolerance ISO 9906



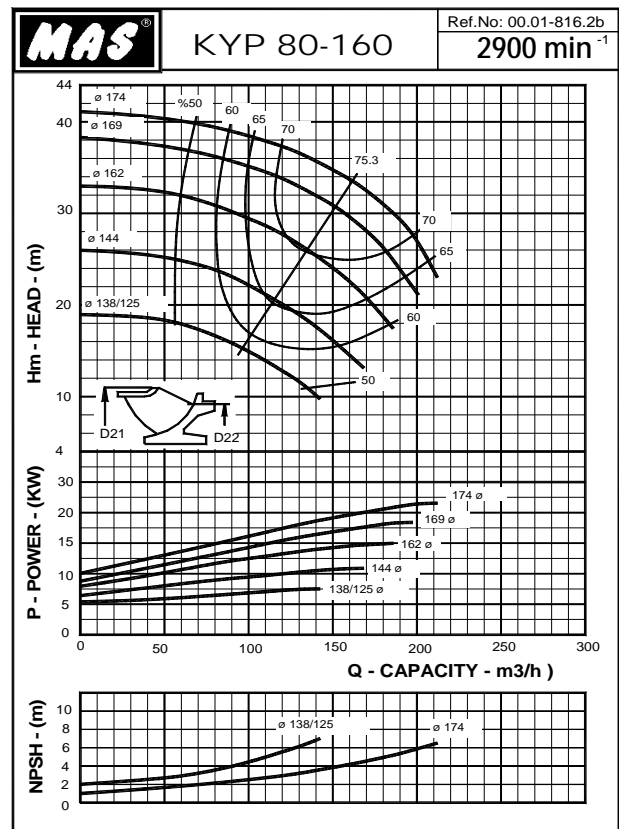
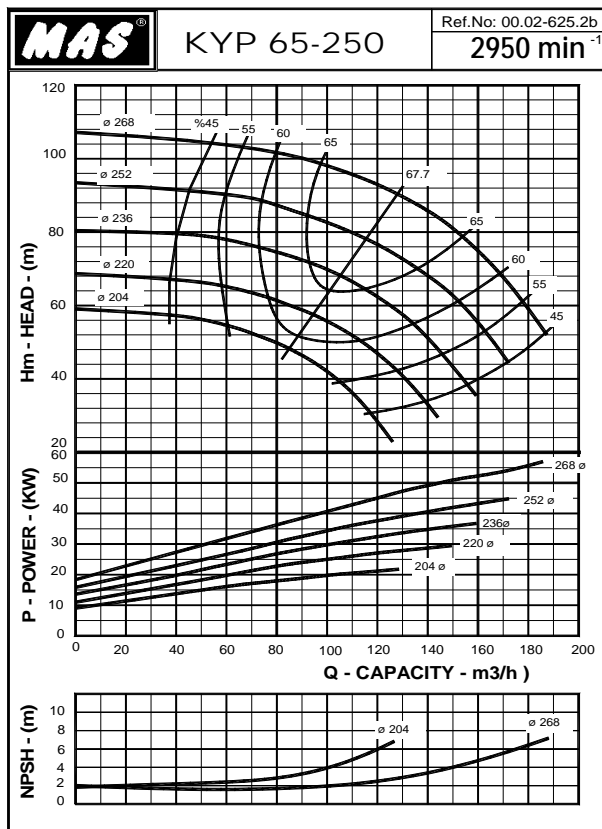
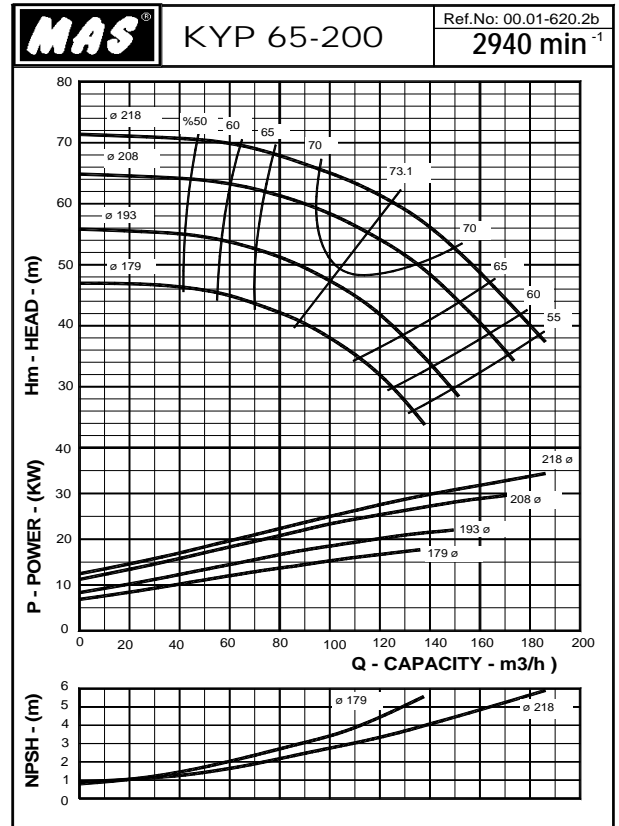
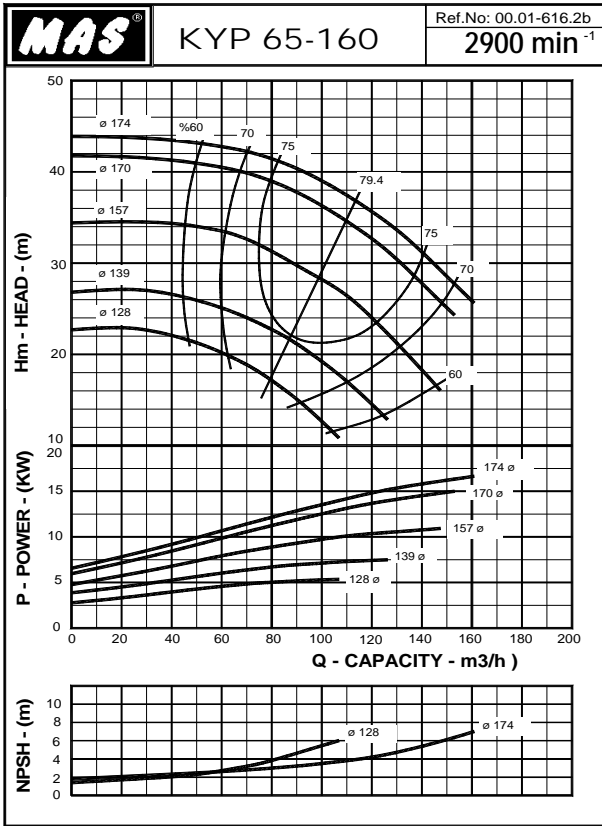
Curves are valid for 20°C clean water (2900 RPM). Tolerance ISO 9906



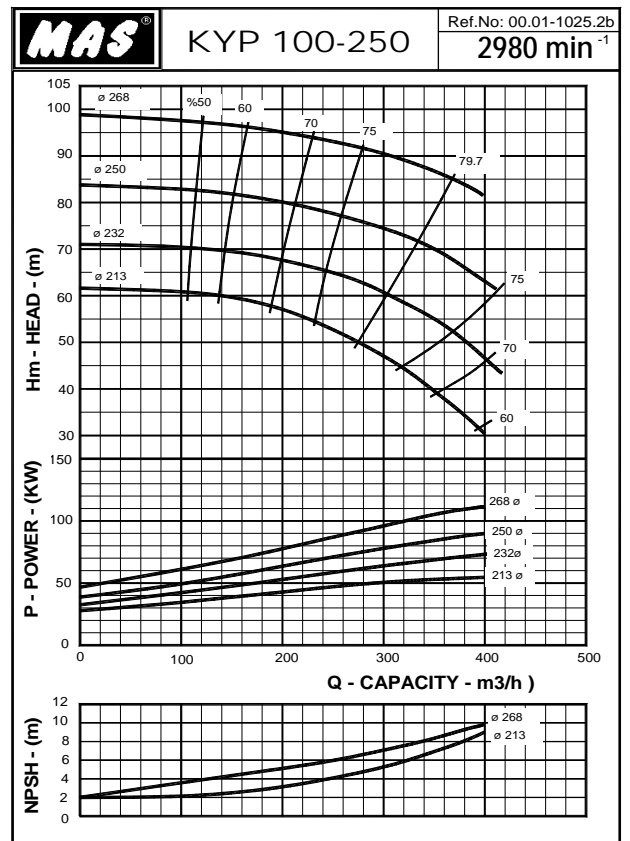
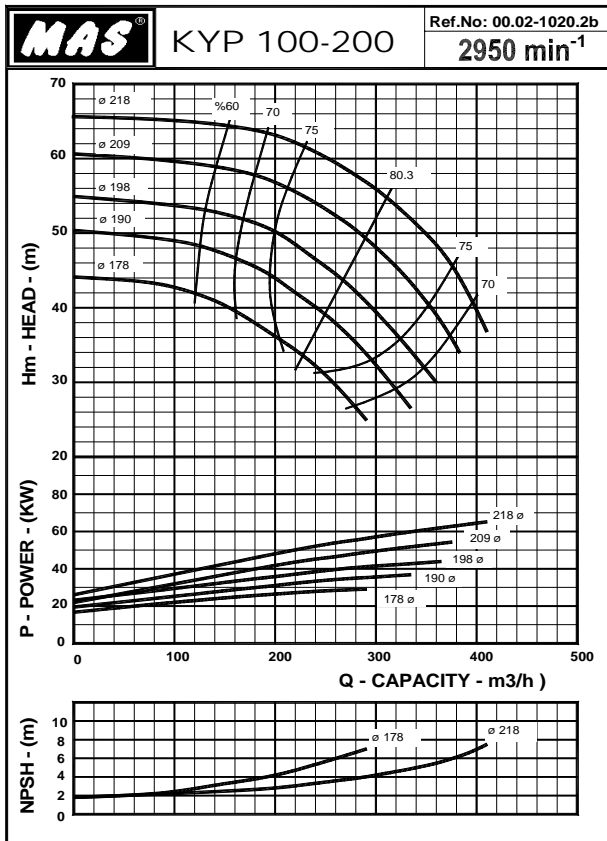
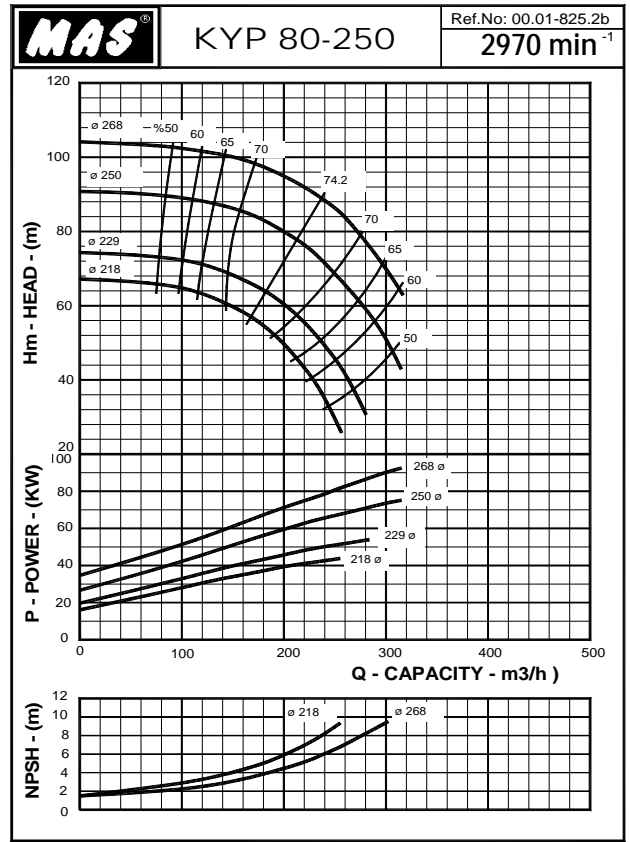
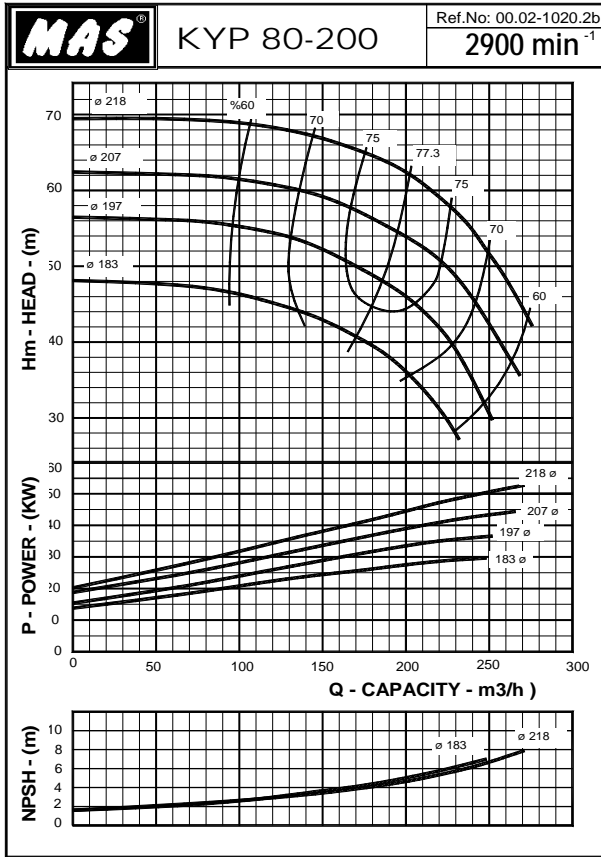
Curves are valid for 20°C clean water (2900 RPM). Tolerance ISO 9906



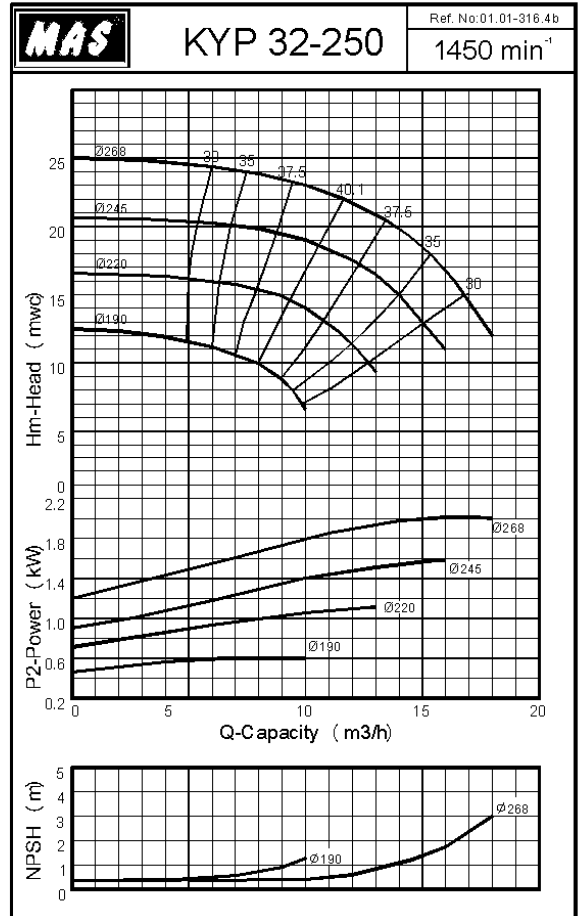
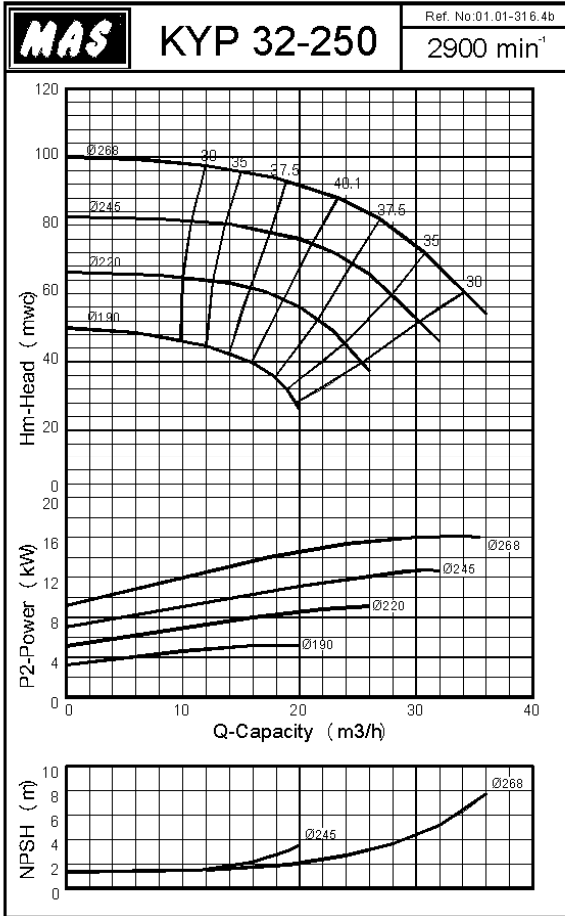
Curves are valid for 20°C clean water (2900 RPM). Tolerance ISO 9906



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MAS KYP Thermal Oil Centrifugal Pumps

Permissible Loads and Torques on Pump Flanges



Load and torque components on discharge flanges : $F_{xD}, F_{yD}, F_{zD}, M_{xD}, M_{yD}, M_{zD}$
 Load and torque components on suction flanges : $F_{xS}, F_{yS}, F_{zS}, M_{xS}, M_{yS}, M_{zS}$
 Dimension for force and torque : N, Nm

$F_{VD} = |F_{yD}|$: Amount of vertical load on discharge flange
 $F_{VS} = |F_{yS}|$: Amount of vertical load on suction flange
 $F_{HD} = (F_{xD}^2 + F_{zD}^2)^{1/2}$: Amount of horizontal load on discharge flange
 $F_{HS} = (F_{xS}^2 + F_{zS}^2)^{1/2}$: Amount of horizontal load on suction flange
 $M_D = (M_{xD}^2 + M_{yD}^2 + M_{zD}^2)^{1/2}$: Amount of torque on discharge flange
 $M_S = (M_{xS}^2 + M_{yS}^2 + M_{zS}^2)^{1/2}$: Amount of torque on suction flange

$\Sigma F_V = 2/3 \times F_{VD} + F_{VS}$: Sum of vertical loads
 $\Sigma F_H = F_{HD} + F_{HS}$: Sum of horizontal loads
 $\Sigma M = M_D + M_S$: Sum of torques

The load on the flange is permissible if the following condition is fulfilled.

$$(\Sigma F_V / \Sigma F_{Vmax})^2 + (\Sigma F_H / \Sigma F_{Hmax})^2 + (\Sigma M / \Sigma M_{max})^2 \leq 1$$

PUMP TYPE	t = 20 °C		
	F _{Vmax} [kN]	F _{Hmax} [kN]	M _{max} [kNm]
KYP 32-160	3.56	2.61	0.51
KYP 32-200	3.60	2.43	0.51
KYP 32-250	3.65	2.43	0.51

t = 300 °C		
F _{Vmax} [kN]	F _{Hmax} [kN]	M _{max} [kNm]
3.08	2.17	0.44
3.11	2.10	0.44
3.11	2.10	0.44

KYP 40-160	3.81	2.67	0.81
KYP 40-200	3.81	2.67	0.81
KYP 40-250	4.21	2.92	0.58

3.29	2.31	0.70
3.29	2.31	0.70
3.64	2.52	0.50

KYP 50-160	3.97	2.67	1.11
KYP 50-200	4.21	2.92	1.11
KYP 50-250	4.58	3.32	0.87

3.43	2.31	0.96
3.64	2.52	0.96
3.96	2.87	0.75

KYP 65-160	4.42	3.04	1.16
KYP 65-200	5.27	3.89	1.79
KYP 65-250	5.27	3.89	1.79

3.82	2.63	1.00
4.55	3.36	1.55
4.55	3.36	1.55

KYP 80-160	5.43	4.05	1.91
KYP 80-200	6.08	4.74	2.44
KYP 80-250	6.16	4.78	2.44

4.69	3.50	1.65
5.25	4.10	2.10
5.32	4.13	2.10

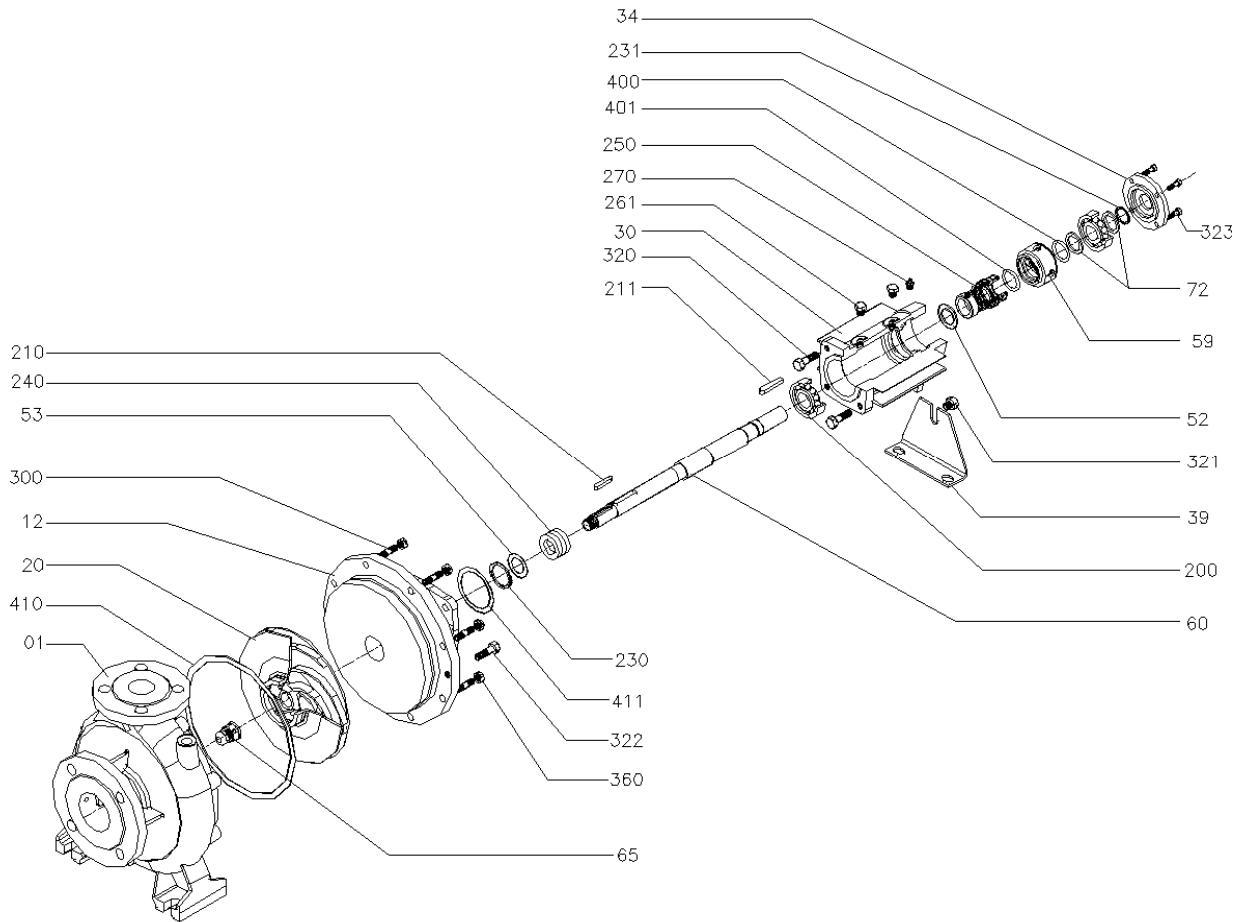
KYP 100-200	7.70	6.28	3.60
KYP 100-250	7.86	6.48	3.47

6.65	5.43	3.10
6.79	5.60	3.00

Note: Pump casing material is GGG 40.

MAS KYP Thermal Oil Centrifugal Pumps

Exploded Drawings



PART NO	PART NAME	PART NO	PART NAME
01	Pump Casing	230	Ring
20	Impeller	231	Ring
12	Adapter	240	Gland Packing
34	Bearing Housing Cover	261	Plug
30	Bearing Housing	270	Greaser
39	Support Foot	300	Stud
52	Mech. Seal Front Ring	320	Hexagonal Bolt
53	Packing Retaining Ring	321	Hexagonal Bolt
59	Mechanical Seal Housing	323	Hexagonal Bolt
60	Pump Shaft	250	Mechanical Seal
65	Impeller Nut	360	Hexagonal Nut
72	Retaining Ring	400	O-Ring
200	Ball Bearing	401	O-Ring
210	Key, Impeller	410	Gasket
211	Key, Coupling	411	Gasket