end - suction centrifugal pumps

KALITEPOMPA

NM

TÜV CERT EN ISO-9001

CE

1997 POMSAD Member of Pump Manufacturers' Association

Europump Member of Europump

PG

In Accordance With DIN 24 255

For water supply , boosting , circulating of water in HVAC systems and for liquid transfer in industry, agriculture , horticulture , etc.

Capacity up to 3500 m^3/h - Total Head up to 105 m.
Temperature up to 90 °C (140 °C) - Operating Pressure 10 Bar

MAS®

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general specifications

Fields of Application

- Water Supply and booster stations.
- Irrigation, overhead irrigation and draining.
- Filling and emptying of tanks and containers.
- Circulating of hot and cold water in central heating and air-conditioning installations.
- Pumping of condensate.
- Water circulating for swimming pools.
- Sanitary and cleaning installations.
- For industrial applications and public services.
- Fresh water supply on ships

Pumped Liquids

Thin , clean , non-aggressive and non-explosive liquids free from large solid particles or fibres.

Design

Single-stage, and suction, centrifugal volute pump.
Main dimensions according to DIN 24 255.
In addition to 25 basic sizes conforming with NORM There are 17 additional sizes. We produce
Single entry, closed impeller is hydraulically thrust compansated and dynamically balanced.
Pump and motor are separate components, connected to each other via a flexiple 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.
the use of one spacer type coupling enables a pump to be dismantled without moving either the driver or the pump casing.
Maximum interchangeability of components, identical parts can be used with various sizes of pumps which greatly simplifies and reduces stock of spare parts.

Bearings

The pump has sturdy maintenance-free antifriction bearings, Which are greased for life with high-temperature grease. A deflactor on the shaft prevents leakage fluid from getting into bracket.

Shaft Seal

Pumps are supplied as standard a conventional packed gland. Lantern rings are used for water sealing and lubricatihg of packing.

- Uncooled stuffing box is standard (Up to 90 °C)
- Uncooled mechanical seal is optional. (Up To 90 °C)
- Water cooled stuffing box or mechanical seal is Optional (90 - 140 °C)

Technical Data

- Suction Nozzle:..... DN 50 ...DN 400
- Discharge Nozzle :..... DN 32... DN 350
- Operating Pressure: .....10 Bar
- Casing Test Pressure :.....13 Bar.
- Impeller Diamater : .....160...500 mm Ø
- Speed Range .....1000...3600 RPM
- Capacity Range : ..... 5 - 3500 m^3 / h
- Head Range : ..... 4 - 105 m .

Pump Flanges

- Flanges: 50-200 DIN 2533 PN 16
  250 - 400 DIN 2532 PN 10

Idendification Code NM 100 - 250

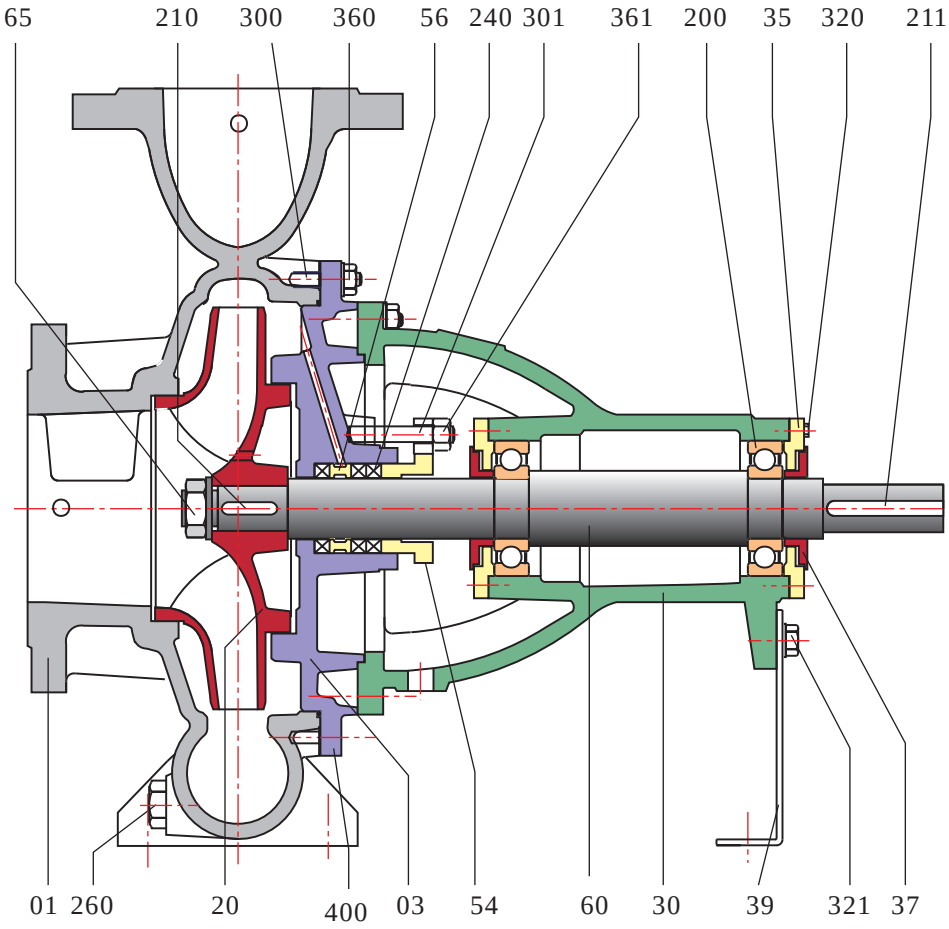
Pump Type
Discharge Nozzle DN (mm)
Nominal diameter of ‹mpeller (mm)

Materials

Component	Material Version					
	Standard	Impeller in Bronze	All bronze	Ductile Iron	Carbon Steel	Stainless Steel
Volute Casing	GG 25	GG 25	Bronze	GGG 50	GS 45	SS 304 - 316
Discharge Cover	GG 25	GG 25	Bronze	GGG 50	GS 45	SS 304 - 316
Impeller	GG 25	Bronze	Bronze	GGG 50	GS 45	SS 304 - 316
Gland	Bronze	Bronze	Bronze	Bronze	GS 45	SS 304 - 316
Wear Ring (*)	Bronze (*)	GG 25 (*)	Bronze (*)	GG 25	Bronze	X20Cr13
Shaft	X20Cr13	X20Cr13	X20Cr13	X20Cr13	X20Cr13	SS 304 - 316
Shaft Sleeve (**)	X20Cr13 (**)	X20Cr13 (**)	X20Cr13 (**)	X20Cr13 (**)	X20Cr13 (**)	X20Cr13 (**)
Bearing Bracket	GG 25	GG 25	GG 25	GG 25	GG 25	GG 25
Bearing Cover	GG25	GG 25	GG 25	GG 25	GG 25	GG 25

(*) Wear Ring is Optional
(**) Shaft Sleeve is optional.

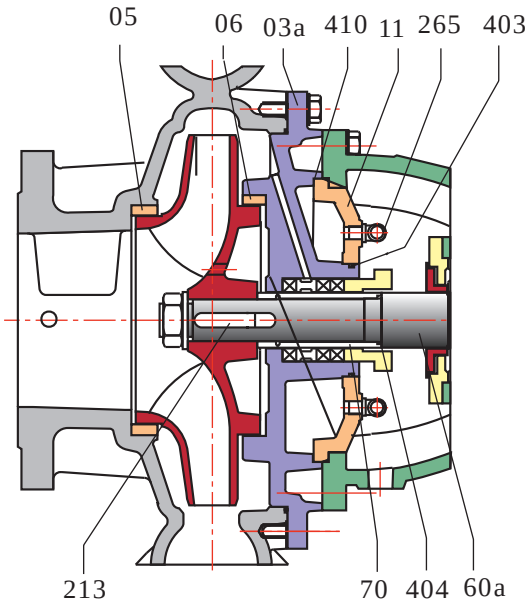
sectional drawing & parts list

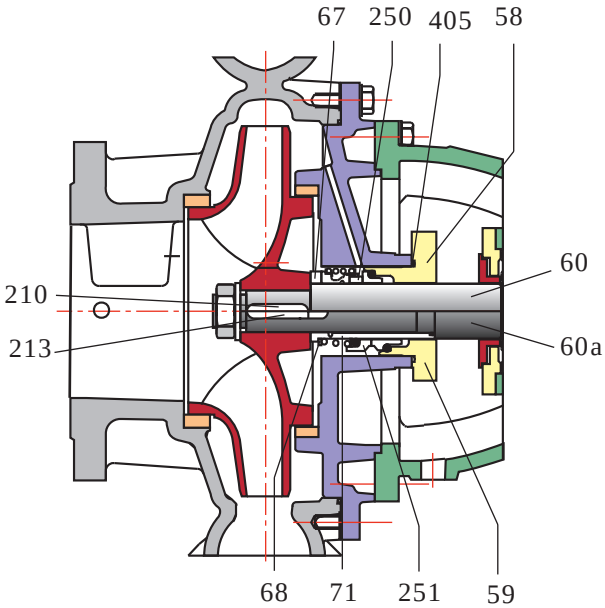


Parts List

Part Number	Part Name (Standard Pump Parts)	Part Number	Part Name (For Optional Applications)
01	Casing	03a	Discharge cover for cooled stuffing box.
03	Dicharge cover (Stuffing Box)	05	Wearing ring (Suction)
20	Impeller	06	Wearing ring (Discharge)
30	Bearing Bracket	11	Cover for cooled stuffing box.
35	Bearing Cover	58	Cover for Rubber Bellow type Mech. Seal.
37	Thrower	59	Cover for Single Spring type Mech. Seal.
60	Shaft	60a	Special shaft for sleeve application.
39	Support foot	67	Mech. Seal adjusting ring (Normal Shaft)
54	Stuffing Box Gland	68	Mech. Seal adjusting ring (Shaft Sleeve)
56	Lantern Ring	70	Shaft sleeve for soft packing.
65	Impeller Nut	71	Shaft sleeve for mechanical seal.
200	Ball Bearing	213	Impeller key for sleeve application
210	Key For Impeller	250	Rubber bellow type Mechanical Seal
211	Key For Coupling	251	Single spring type Mechanical Seal
240	Stuffing Box Packing	265	Pipe Connection Parts for Stuffing Box Cooling System.
260	Drain Plug		
300	Stud for Casing	403	O – Ring for cooling cover
301	Gland Stud	404	O – Ring for mech. Seal cover.
320	Bolt for Bearing Cover	404	O – Ring for Shaft Sleeve.
321	Bolt for Support Foot	410	Gasket for cooling cover.
360	Nut For Casing		
361	Gland Stud nut		
400	O – Ring for casing		

optional applications





- Cas›ng Wear Rings (Part No: 05 and 06)
- Shaft Sleeve Appl. (60a, 70, 213 and 404)
- Cooled Stuffing Box (03a, 11, 403 and 265)
- Rubber Bellow Mech. Seal (67, 250, 405 and 58)
- Single Spring Mech. Seal (67, 251, 59 and 405)
- Shaft Sleeve for Mech. Seal (60a, 71, 213 and 404)

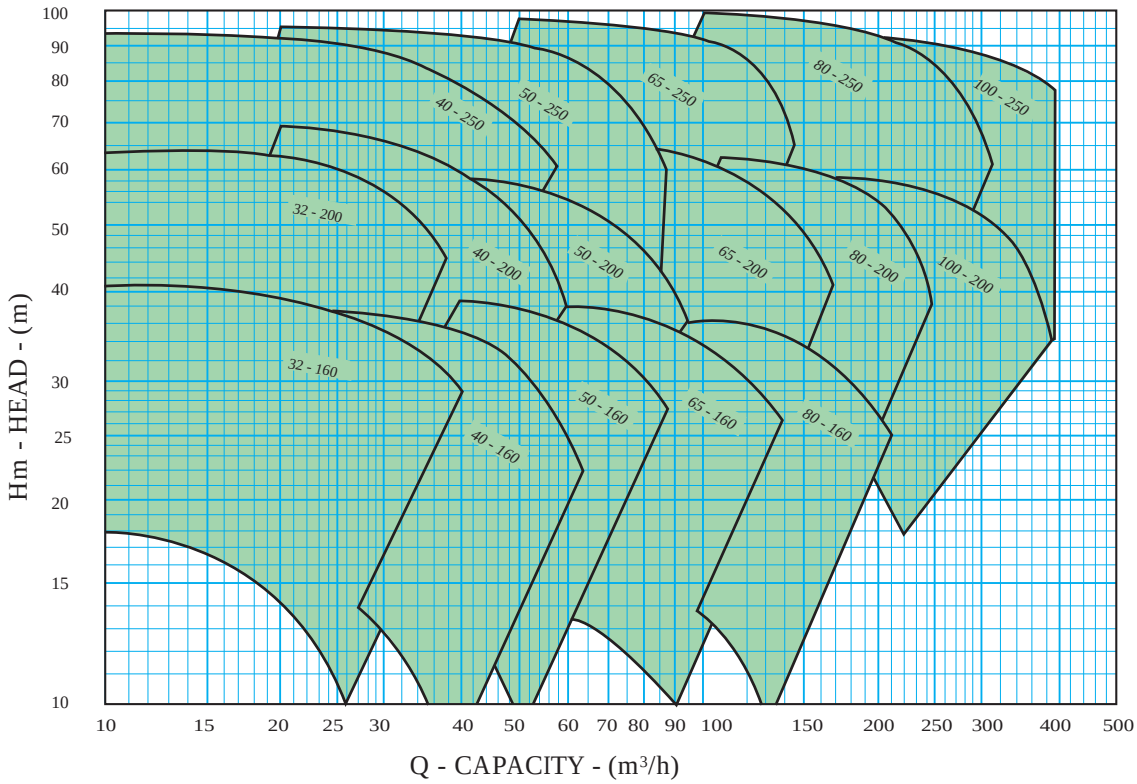
Interchangeability

- Interchangeability Chart included only DIN 24 255 compatible pumps.

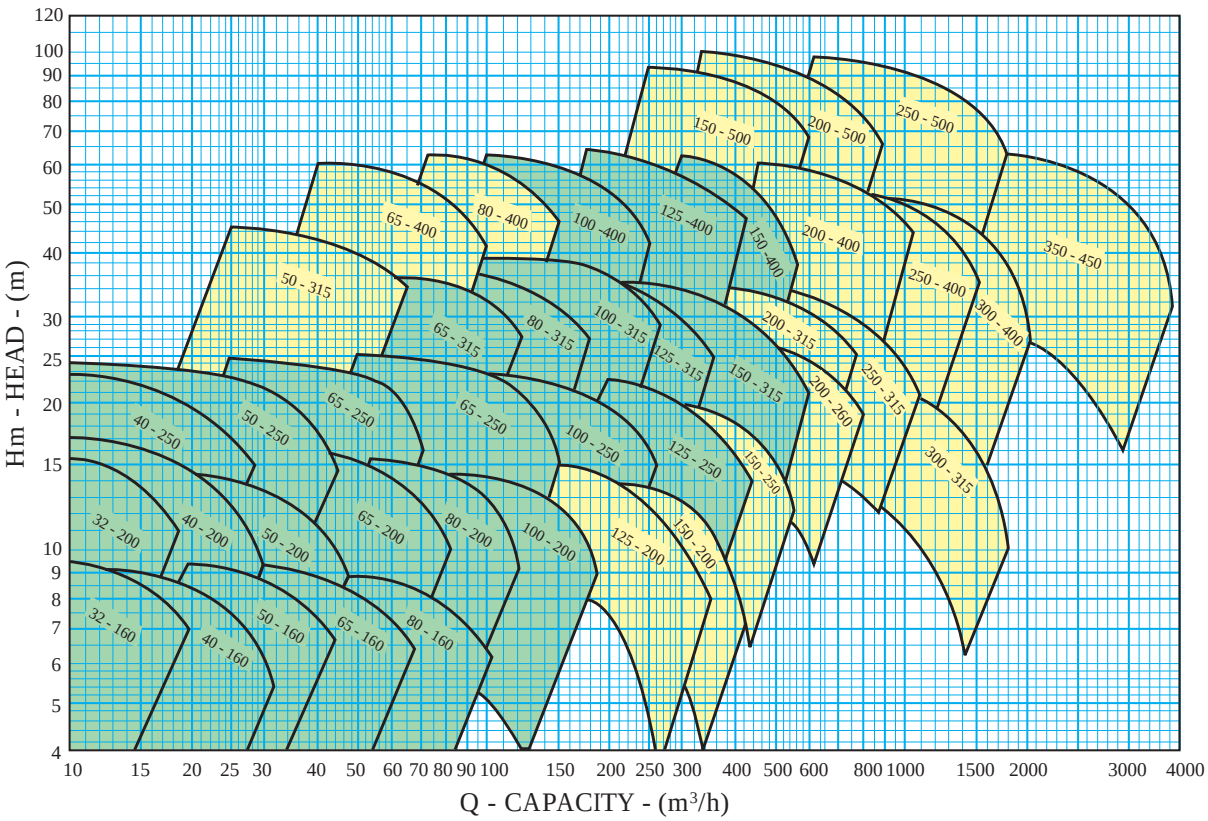
Part Number	Part name	Pump Size	NM 32 - 160	NM 40 - 160	NM 50 - 160	NM 65 - 160	NM 80 - 160	NM 32 - 200	NM 40 - 200	NM 50 - 200	NM 65 - 200	NM 40 - 250	NM 50 - 250	NM 80 - 200	NM 100 - 200	NM 65 - 250	NM 80 - 250	NM 100 - 250	NM 125 - 250	NM 65 - 315	NM 80 - 315	NM 100 - 315	NM 125 - 315	NM 150 - 315	NM 100 - 400	NM 125 - 400	NM 150 - 400
	DESIGN GROUP		A1					A2				A3		B1		B2				B3			C1		C2		
01	Casing		a	b	c	d	e	f	g	H	i	j	k	l	m	n	o	p	q	r	s	t	u	v	w	x	y
20	Impeller		a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q	r	s	t	u	v	w	x	y
03	Disc. Cover		A11			A12		A21				A31		B11		B21			B	B31			C11		C21		
30	Bearing Bracket		A											B									C				
60	Shaft		A											B									C				
65	Impeller Nut		A											B									C				
54	Gland		A											B									C				
37	Bearing Cover		A											B									C				
56	Lantern Ring		A											B									C				
39	Support Foot		a		b		c	b			c			b	c	d		e	d	e			c		d		

technical data

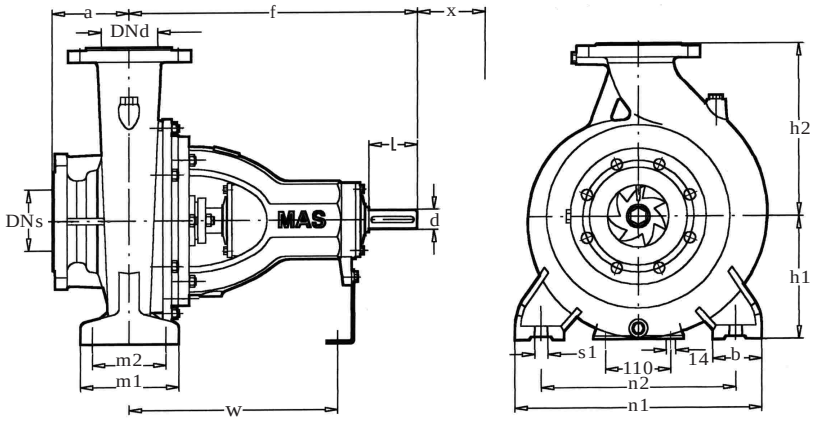
performance range (2900 RPM)



performance range (1450 RPM)



overall dimensions



No	PUMP Size		Nozles (PN16)		Lenght		Height		Pump Feet		Fixing Details					Shaft End		(*)
	DIN 24255	Additional	DN Suc.	DN Del.	a	f	h1	h2	b	m1	m2	n1	n2	s1	W	d	l	X
1	32-160		50	32	80	360	132	160	50	100	70	240	190	M12	260	24	50	65
2	32-200		50	32	80	360	160	180	50	100	70	240	190	M12	260	24	50	65
3	40-160		65	40	80	360	132	160	50	100	70	240	190	M12	260	24	50	75
4	40-200		65	40	100	360	160	180	50	100	70	265	212	M12	260	24	50	75
5	40-250		65	40	100	360	180	225	65	125	95	320	250	M12	260	24	50	75
6	50-160		65	50	100	360	160	180	50	100	70	265	212	M12	260	24	50	80
7	50-200		65	50	100	360	160	200	50	100	70	265	212	M12	260	24	50	85
8	50-250		65	50	100	360	180	225	65	125	95	320	250	M12	260	24	50	85
9		50-315	80	50	125	470	225	280	65	125	95	345	280	M12	330	32	80	100
10	65-160		80	65	100	360	160	200	65	125	95	280	212	M12	260	24	50	100
11	65-200		80	65	100	360	180	225	65	125	95	320	250	M12	260	24	50	100
12	65-250		80	65	100	470	200	250	80	160	120	360	280	M16	340	32	80	100
13	65-315		80	65	125	470	225	280	80	160	120	400	315	M16	340	32	80	110
14		65-400	100	65	125	470	250	355	80	160	120	400	315	M16	340	32	80	110
15	80-160		100	80	125	360	180	225	65	125	95	320	250	M12	260	24	50	110
16	80-200		100	80	125	470	180	250	65	125	95	345	280	M12	340	32	80	110
17	80-250		100	80	125	470	200	280	80	160	120	400	315	M16	340	32	80	115
18	80-315		100	80	125	470	250	315	80	160	120	400	315	M16	340	32	80	120
19		80-400	100	80	125	530	280	355	100	200	150	500	400	M20	370	42	110	120
20	100-200		125	100	125	470	200	280	80	160	120	360	280	M16	340	32	80	120
21	100-250		125	100	140	470	225	280	80	160	120	400	315	M16	340	32	80	130
22	100-315		125	100	140	470	250	315	80	160	120	400	315	M16	340	32	80	130
23	100-400		125	100	140	530	280	355	100	200	150	500	400	M20	370	42	110	130
24		125-200	150	125	140	470	250	315	80	160	120	400	315	M16	340	32	80	130
25	125-250		150	125	140	470	250	355	80	160	120	400	315	M16	340	32	80	140
26	125-315		150	125	140	530	280	355	100	200	150	500	400	M20	370	42	110	140
27	125-400		125	150	140	530	315	400	100	200	150	500	400	M20	370	42	110	140
28		150-200	200	150	160	470	280	355	100	200	150	500	400	M16	340	32	80	170
29		150-250	200	150	160	470	280	375	100	200	150	500	400	M16	340	32	80	140
30	150-315		200	150	160	530	280	400	100	200	150	550	450	M20	370	42	110	140
31	150-400		200	150	160	530	315	450	100	200	150	550	450	M20	370	42	110	140
32		150-500	200	150	200	730	400	525	140	250	200	720	600	M20	500	55	110	140
33		200-280	250	200	200	570	355	450	120	250	200	600	500	M20	410	42	110	200
34		200-315	250	200	200	570	355	450	120	250	200	600	500	M20	410	42	110	160
35		200-400	250	200	180	730	400	500	120	250	200	600	500	M20	500	55	140	160
36		200-500	250	200	210	950	400	525	140	300	240	720	500	M24	600	65	140	160
37		250-315	300	250	250	730	355	500	120	250	200	600	500	M20	500	55	140	200
38		250-400	300	250	225	980	400	525	140	300	240	720	500	M24	600	65	140	200
39		250-500	300	250	225	990	450	630	140	300	240	720	500	M24	600	65	140	200
40		300-315	300	300	275	840	425	600	140	300	240	620	500	M24	550	55	140	270
41		300-400	350	300	275	865	450	630	150	360	290	800	650	M24	550	65	140	300
42		350-450	400	350	280	875	500	700	150	360	290	900	750	M24	560	65	140	300

(*) Back Pull-Out Distance required between motor shaft end and pump shaft end.
NM type Pumps are conforming with DIN 24 255 and EN 733.
Operating Pressure is 10 bars. Test Pressure is 13 bars.