



**S. AIVAZIDIS S.A.**



[www.aivazidis.gr](http://www.aivazidis.gr)

**LOW AND MEDIUM  
PRESSURE CENTRIFUGAL PUMPS**



**S SERIES  
DIN 24255**

## GENERAL

The centrifugal pump of S.AIVAZIDIS S.A. Company, type 'S', is the result of long studies and tests, manufactured according to predetermined production processes such as analytically described in the certificate of quality assurance of ISO9001. The main dimensions are compatible with DIN24255 standard.

## IDENTIFICATION CODE

Example : S 100-250  
Pump Type : Sigma "S"  
Discharge Nozzle : DN(mm) 100  
Nominal Diameter of Impeller : DN(mm) 250

## APPLICATIONS

The centrifugal pump is horizontal, widely applicable in the field of pump stations for water supply or irrigation, industrial applications and generally in wherever pump of clean (or slightly impure) water or other non-aggressive or non-explosive liquid is needed.

## DESIGN - INTERCHANGEABILITY

The pump and motor are separate components, connected to each other via a flexible coupling and mounted on a common base plate, being a sturdy unit, totally dynamically balanced without vibrations or noiseless operation. Maintenance is very easy as the impeller, the shaft and other rotating parts are removable with no need to disconnect the suction and delivery pipes. All the cast parts and the surfaces of the different parts of the pump are free from defects (blebs, caverns, spongy mass etc.) and carefully dressed. Especially speaking, the formation and dressing of surfaces, which come in contact with the water, are suitable for avoiding abrupt changes in cross sections and directions. By this way, continuous and steady flow is achieved, minimizing the possibility of caverns, hydraulic knock and big frictions, which cause power loss, to be emerged.

## SHAFT SEAL

Pumps are supplied with a standard conventional packed gland. Lantern rings are used for ware sealing and lubricating 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 up to 140°C.

## BEARINGS

The shaft bearing includes ball bearings (close type), installed into the pump body, suitable for absorbing the radial loads during pump operation.

## PUMP FLANGES

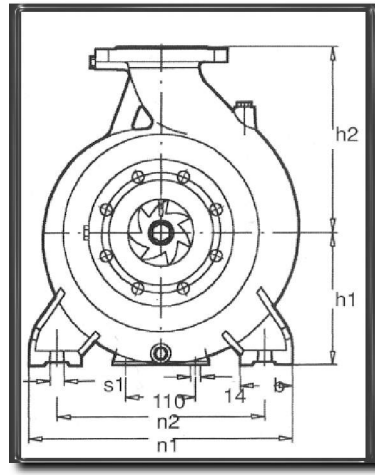
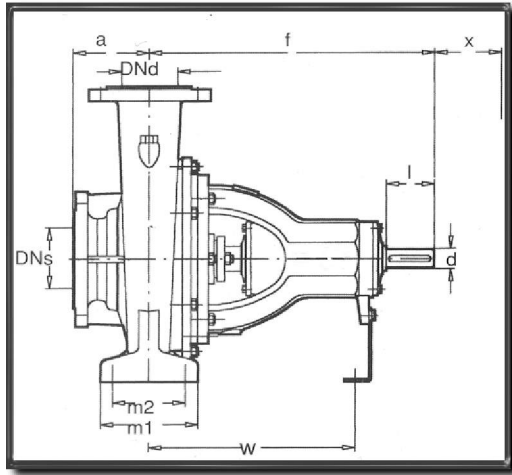
Discharge	DIN 2533 Pn16
Suction	50-200 DIN 2533 PN16 250-300 DIN 2532 PN10

## MATERIALS

The pump body and impeller are made of cast iron GG25 and the shaft of stainless steel AISI 420. The suction and discharge casing has integral cast footplates, which are used for the pump support on the metal base plate, whereas the rest of pump body is lean against screwed plates. The suction nozzle is axially horizontal and the discharge nozzle is vertical with up direction. The impeller is "close" type. All the rotating parts are statically and dynamically balanced. The pump casing is suitable for continuous operation under 10bar pressure and its strength is tested under 13 bar pressure. The suction and discharge flanges are PN16 according to DIN 2533 standard.

## TECHNICAL DATA

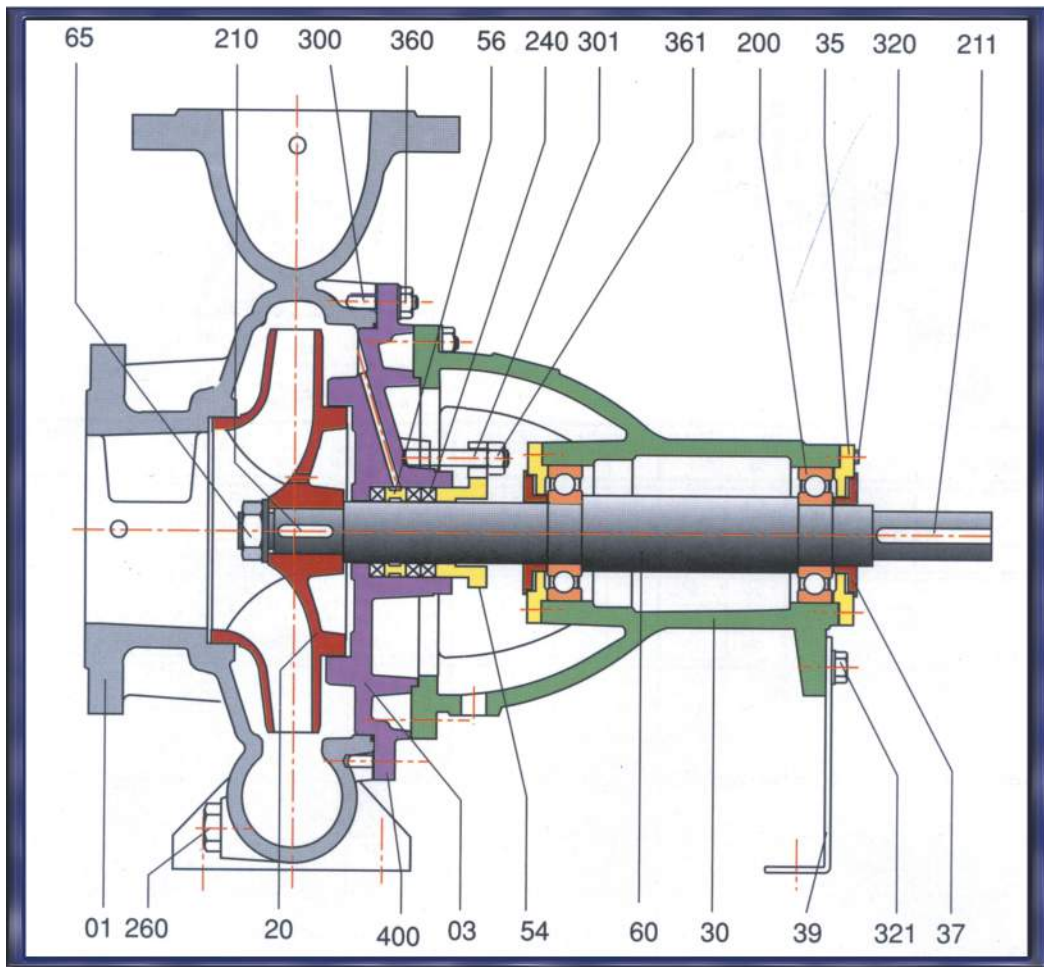
Suction Nozzle	DN50...DN300
Discharge Nozzle	DN32...DN250
Operating Pressure	10atm
Casing Test Pressure	13atm
Impeller Diameter	160mm...500mm
Speed Range	1000...3600rpm
Capacity Range	5...1300m <sup>3</sup> /h
Head Range	4...105m



No	Pump Size		Nozzles(PN16)		Length		Height		Pump Feet		Fixing Details					Shaft End		
	DIN 24255	Additional	DN s	DNd	a	f	h1	h2	b	m1	m2	n1	n2	s1	w	d	l	x
1		25-160	40	25	65	280	132	132	40	80	60	200	170	M10	190	19	40	60
2		25-200	40	25	65	280	160	160	40	80	60	240	190	M10	190	19	40	60
3		25-202	40	25	65	300	160	160	40	80	60	240	190	M10	210	19	40	80
4	32-160		50	32	80	360	132	160	50	100	70	240	190	M12	260	24	50	65
5	32-200		50	32	80	360	160	180	50	100	70	240	190	M12	260	24	50	65
6		32-202	50	32	80	380	160	180	50	100	70	240	190	M12	280	24	50	80
7	40-160		65	40	80	360	132	160	50	100	70	240	190	M12	260	24	50	75
8	40-200		65	40	100	360	160	180	50	100	70	265	212	M12	260	24	50	75
9	40-250		65	40	100	360	180	225	65	125	95	320	250	M12	260	24	50	75
10		40-252	65	40	100	380	180	225	65	125	95	320	250	M12	280	24	50	100
11	50-160		65	50	100	360	160	180	50	100	70	265	212	M12	260	24	50	80
12	50-200		65	50	100	360	160	200	50	100	70	265	212	M12	260	24	50	85
13	50-250		65	50	100	360	180	225	65	125	95	320	250	M12	260	24	50	85
14		50-315	80	50	125	470	225	280	65	125	95	345	280	M12	330	32	80	100
15	65-160		80	65	100	360	160	200	65	125	95	280	212	M12	260	24	50	100
16	65-200		80	65	100	360	180	225	65	125	95	320	250	M12	260	24	50	100
17	65-250		80	65	100	470	200	250	80	160	120	360	280	M16	340	32	80	100
18	65-315		80	65	125	470	225	280	80	160	120	400	315	M16	340	32	80	110
19		65-400	100	65	125	470	250	355	80	160	120	400	315	M16	340	32	80	110
20	80-160		100	80	125	360	180	225	65	125	95	320	250	M12	260	24	50	110
21	80-200		100	80	125	470	180	250	65	125	95	345	280	M12	340	32	80	110
22	80-250		100	80	125	470	200	280	80	160	120	400	315	M16	340	32	80	115
23	80-315		100	80	125	470	250	315	80	160	120	400	315	M16	340	32	80	120
24		80-400	100	80	125	530	280	355	100	200	150	500	400	M20	370	42	110	120
25		100-160	125	100	100	360	200	280	80	160	120	360	280	M16	260	24	50	120
26	100-200		125	100	125	470	200	280	80	160	120	360	280	M16	340	32	80	120
27	100-250		125	100	140	470	225	280	80	160	120	400	315	M16	340	32	80	130
28	100-315		125	100	140	470	250	315	80	160	120	400	315	M16	340	32	80	130
29	100-400		125	100	140	530	280	355	100	200	150	500	400	M20	370	42	110	130
30		125-200	150	125	140	470	250	315	80	160	120	400	315	M16	340	32	80	130
31	125-250		150	125	140	470	250	355	80	160	120	400	315	M16	340	32	80	140
32	125-315		150	125	140	530	280	355	100	200	150	500	400	M20	370	42	110	140
33	125-400		150	125	140	530	315	400	100	200	150	500	400	M20	370	42	110	140
34		150-200	200	150	160	470	280	355	100	200	150	500	400	M16	340	32	80	170
35		150-250	200	150	160	470	280	375	100	200	150	500	400	M16	340	32	80	140
36	150-315		200	150	160	530	280	400	100	200	150	550	450	M20	370	42	110	140
37	150-400		200	150	160	530	315	450	100	200	150	550	450	M20	370	42	110	140
38		150-500	200	150	180	700	400	525	110	250	200	620	500	M20	490	55	110	160
39		200-280	250	200	200	560	355	450	110	250	200	620	500	M20	405	42	110	250
40		200-315	250	200	200	635	355	450	110	250	200	620	500	M20	375	42	110	220
41		200-400	250	200	180	710	400	500	110	250	200	620	500	M20	500	55	140	190
42		200-500	250	200	210	850	400	550	140	300	240	720	600	M24	535	65	140	190
43		250-315	300	250	240	725	400	525	140	300	240	620	500	M24	515	55	140	250
44		250-400	300	250	225	865	400	550	140	300	240	620	500	M24	550	65	140	250
45		250-500	300	250	225	965	450	630	140	300	240	720	500	M24	550	65	140	200



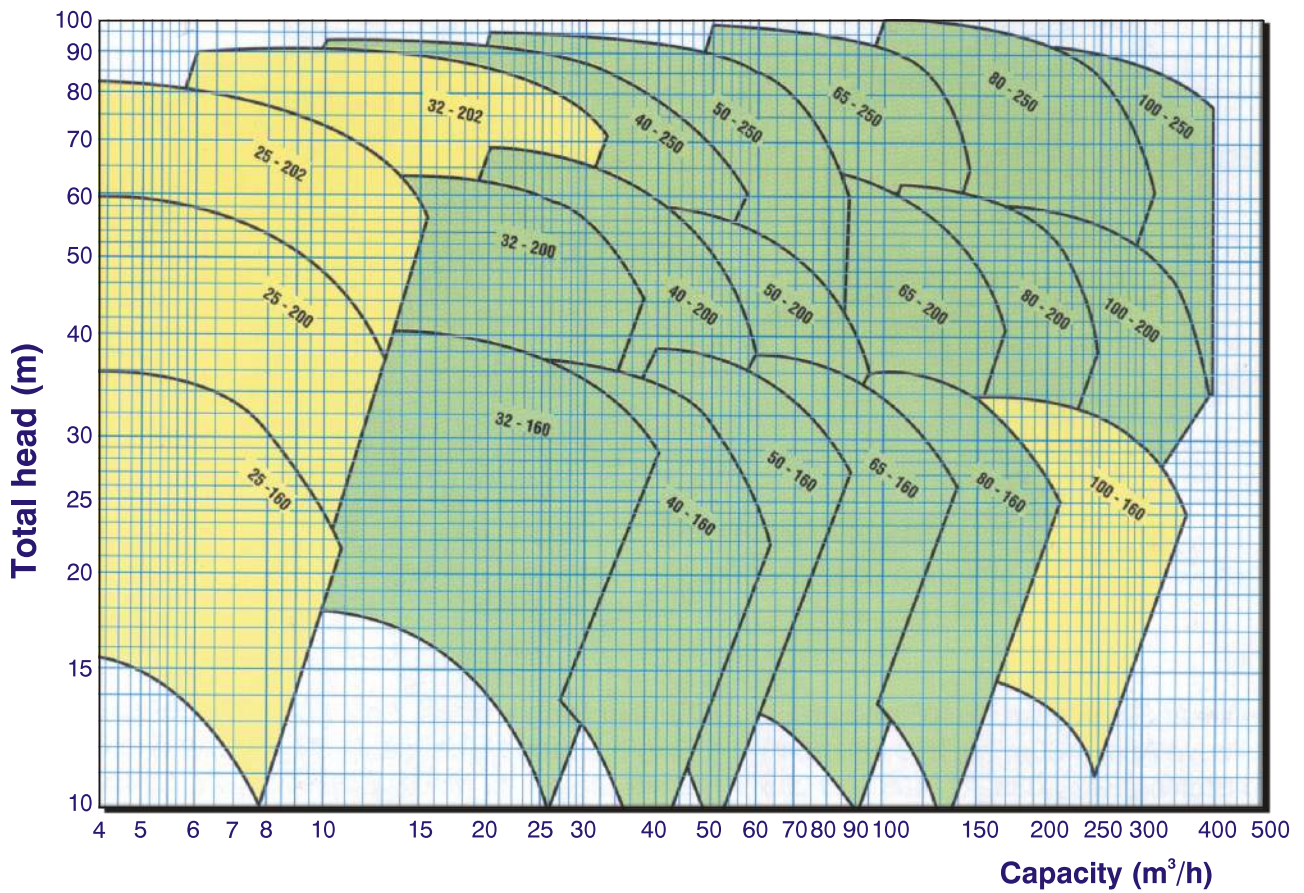
## Sectional Drawing & parts list



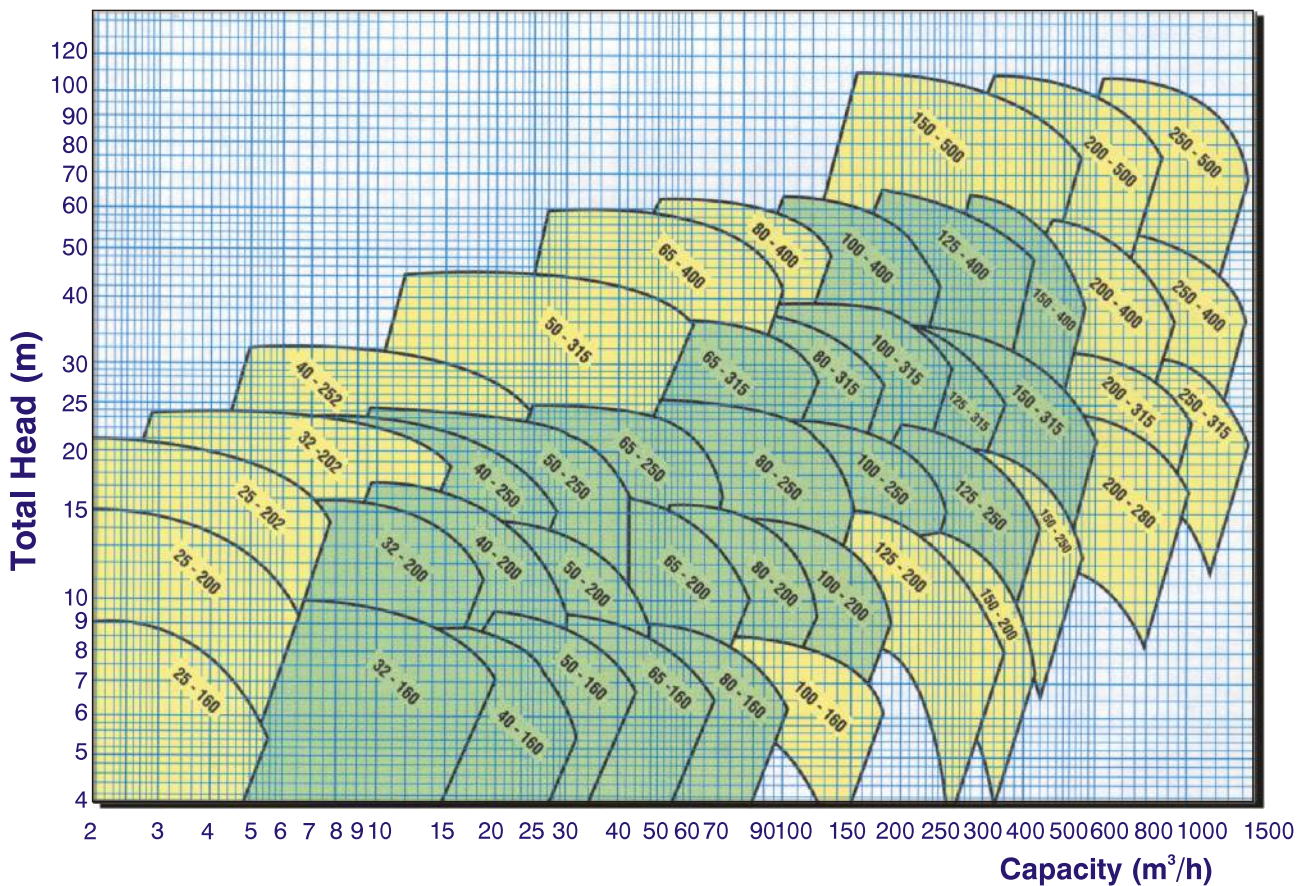
**Version D1**

Part Number	Part Name
01	Casing
03	Discharge Cover (Stuffing Box)
20	Impeller
30	Bearing Bracket
35	Bearing Cover
37	Thrower
60	Shaft
39	Support Foot
54	Stuffing Box Gland
56	Lantern Ring
65	Impeller Nut
200	Ball Bearing
210	Key for Impeller
211	Key for Coupling
240	Stuffing Box Packing
260	Drain Plug
300,301,320,321	Stud for Casing, Gland Stud, Bolt for Bearing Cover, Bolt for Supporting Foot
360,361,400	Nut for Casing, Gland Stud Nut, O-Ring for casing

## PERFORMANCE RANGE (2900 RPM)



## PERFORMANCE RANGE (1450 RPM)







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