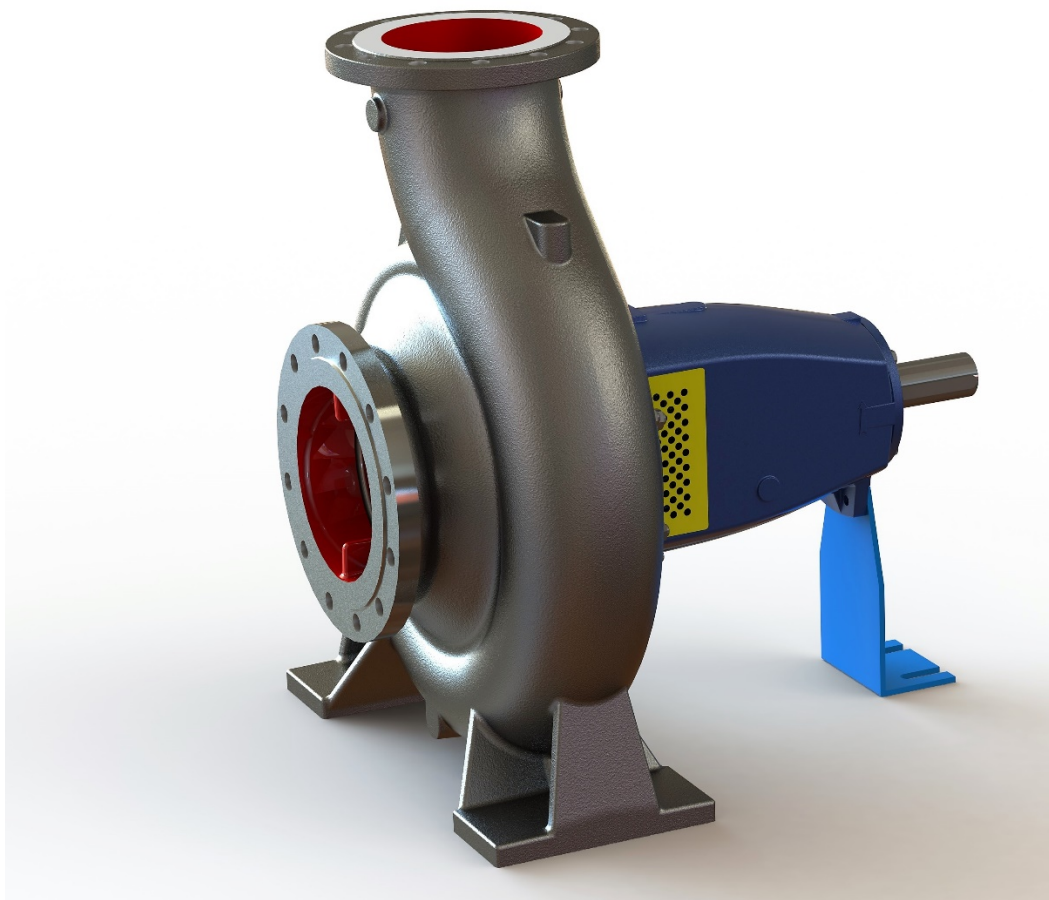




Meccaniche Idroelettriche Service Arzignano

CRS

Single stage centrifugal pumps



Specifications:

Capacity	Q	from 60 m ³ /h to 2000 m ³ /h
Head	H	up to 100 m
Max operating pressure	P	up to 16 bar
Work temperature	t	up to 105 °C
Rotation speed	V	up to 1480 1/min
Size		from DN 100 to DN 300

Misa is a leading Italian company in the production of pumps and in the field of the design and construction of large water pumping plants and power generation stations.

It can offer highly skilled and specialized staff able to meet the requirements from the different application sectors with high quality deliverables guaranteed by a system according to EN ISO 9001 standard. It chose to operate also in compliance with UNI EN 14001 and 45001 and gained the SOA qualifications to enable the participation at public tenders.

MISA is able to provide complete cycle solutions, from design, construction, commissioning for a supply on turn-key plant. The possibility to produce some plant parts involves the company quite further of the simple supply.



SINGLE STAGE CENTRIFUGAL PUMPS

Description

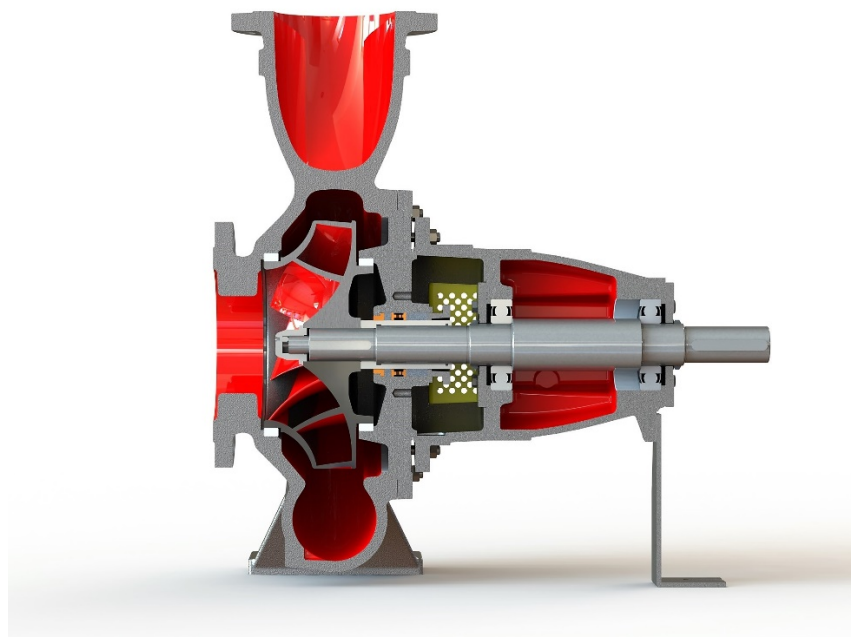
Misa **CRS** pumps are single stage centrifugal pumps with simple suction radial impeller, suitable for horizontal or vertical installation. Connection flanges according to ISO, DIN, BS and ANSI.

Suitable for general service applications, pumping stations, irrigation and drainage plants, power and water supply for the industry, fire fighting systems, as well as general applications in the petrochemical industry.

Designed with special care to the hydraulic efficiency, the structural strength and the easy maintenance.

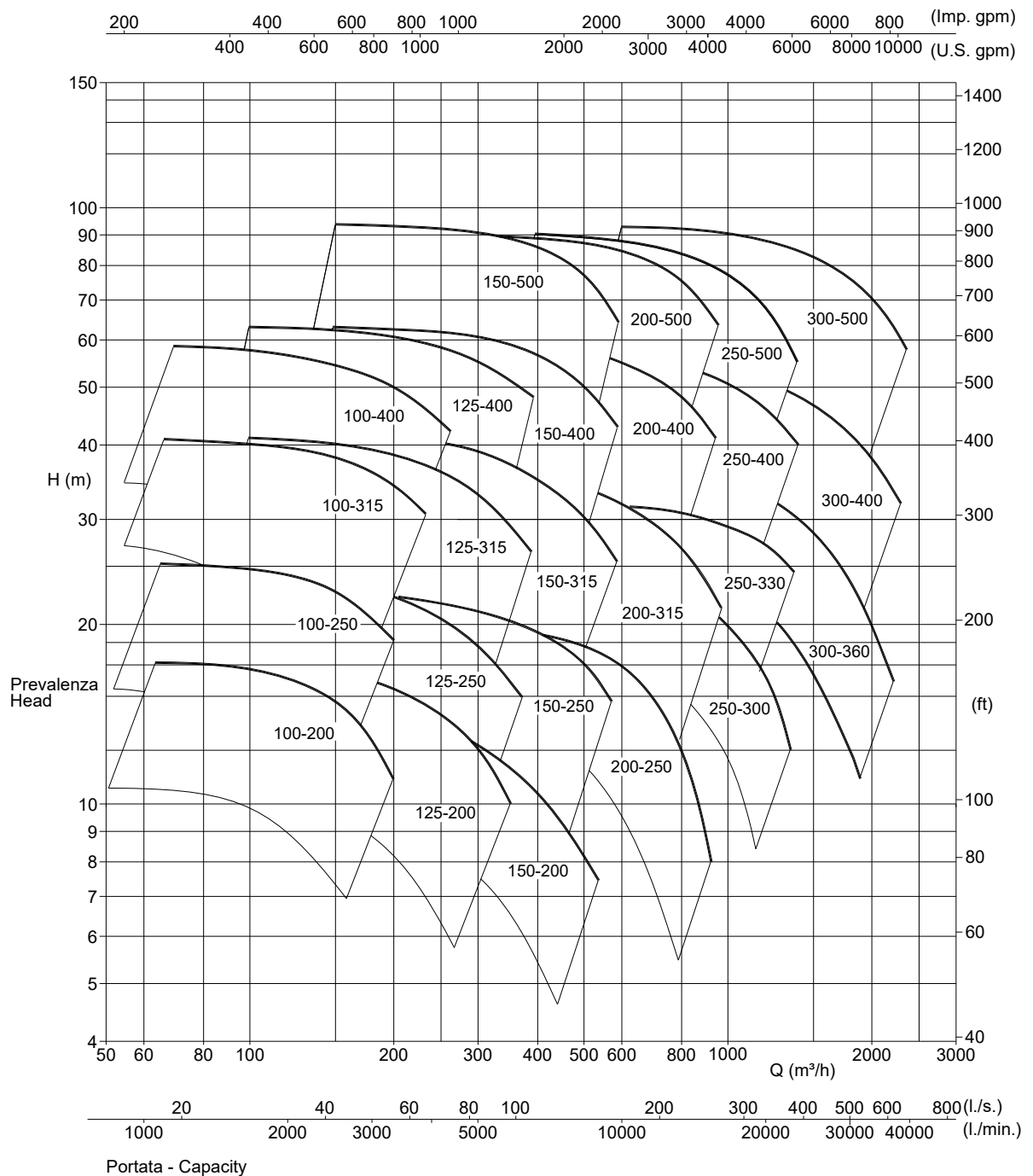
The volute design and the blade profile impeller ensure high efficiency and low NPSH values, thus achieving a high performance level.

Each pump is provided with a series of electrical motors with different power levels which allow to satisfy the most demanding applications and to achieve the best values of Capacity/Head. The electrical motors are in conformity with IEC, with protection value IP55 and insulation class F, except for different requests.



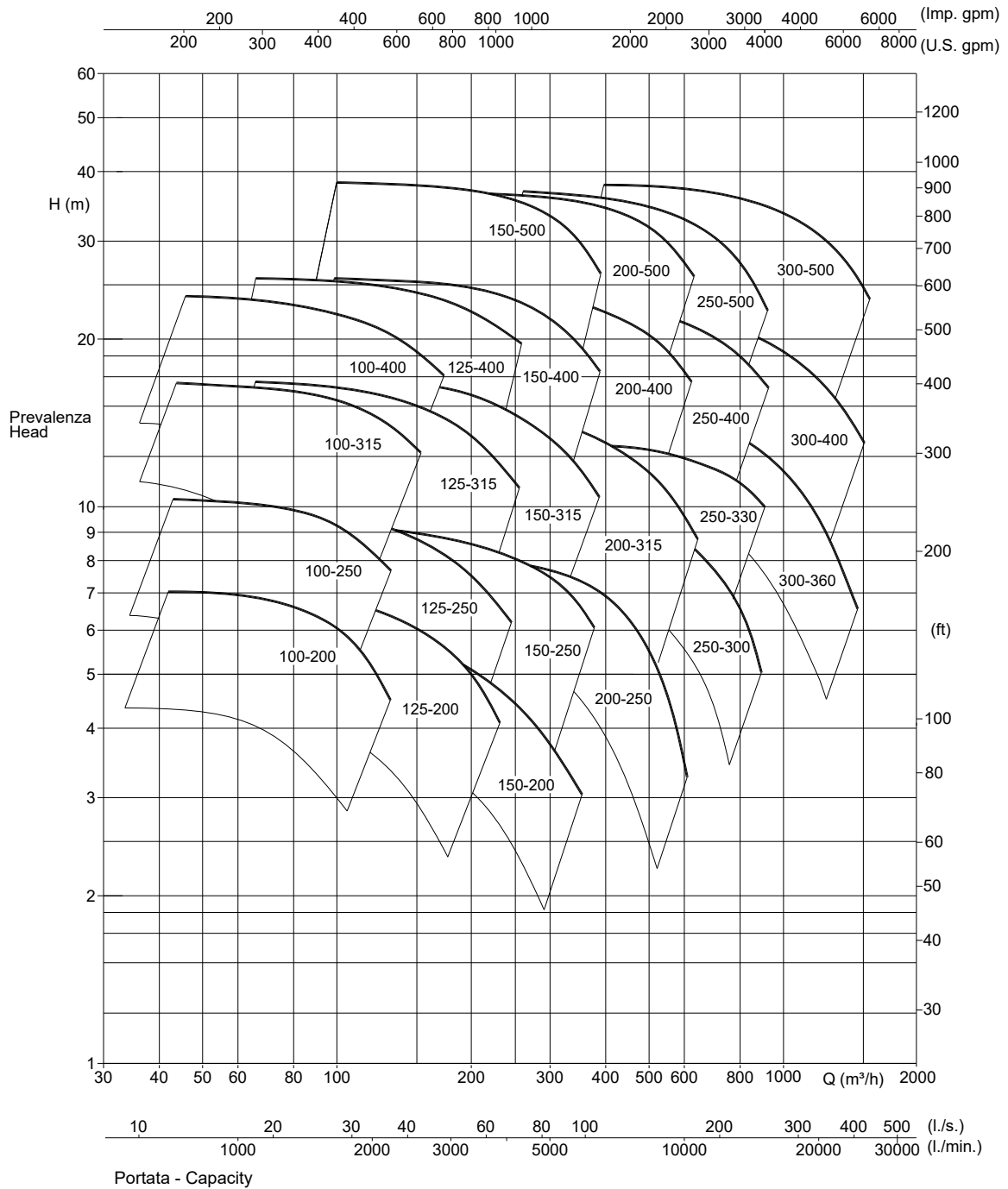
Hydraulic performance range at 1480 1/min

Capacity	Q	from 80 to 2000 m ³ /h
Head	H	up to 95m
Max operating pressure	P	up to 16 bar
Work temperature	t	up to 105°C
Rotation speed	V	up to 1480 1/min
Size		from DN 100 to DN 300



Hydraulic performance range at 980 1/min

Capacity	Q	from 40 to 1500 m ³ /h
Head	H	up to 38m
Max operating pressure	P	up to 16 bar
Work temperature	t	up to 105°C
Rotation speed	V	up to 980 1/min
Size		from DN 100 to DN 300



Construction characteristics

Horizontal CRS pumps, single stage centrifugal type, are designed according to DIN 24255 in order to have the maximum interchangeability.

Suction and delivery flanges can be chosen according to ISO, DIN, BS or ANSI.

Maintenance is simplified by the construction “back-pull-out” with dismantling made by upper extraction without removing the casing and piping, with only one connecting flange.

Closed radial impeller type with well balanced axial thrust. Optional, wear rings can be mounted.

Robust shaft construction, fully protected from the pumped liquid, held in position by a support where the ball bearings are mounted. Control end with key.

Protection liner of the shaft made with stainless steel mounted by sliding and easily replaceable. Stuffing box with executions for different operating conditions, or mechanical seal.

Robust support and anchorage of the support to prevent variations on the alignment of the coupling.

In horizontal execution, the bearings are radial ball bearings. In standard execution they are grease lubricated. It is possible to mount reinforced ball bearings with oil lubrication.

The oil lubrication is possible for horizontal execution pumps only.

The basement is fully made of electrically welded steel and it is fitted with a joint-cover. The joint is elastic type with or without spacer.

Direct drive by electrical motor through elastic joint. Direction of rotation for horizontal execution, standard anticlockwise drive end, optional clockwise with opposite drive end.

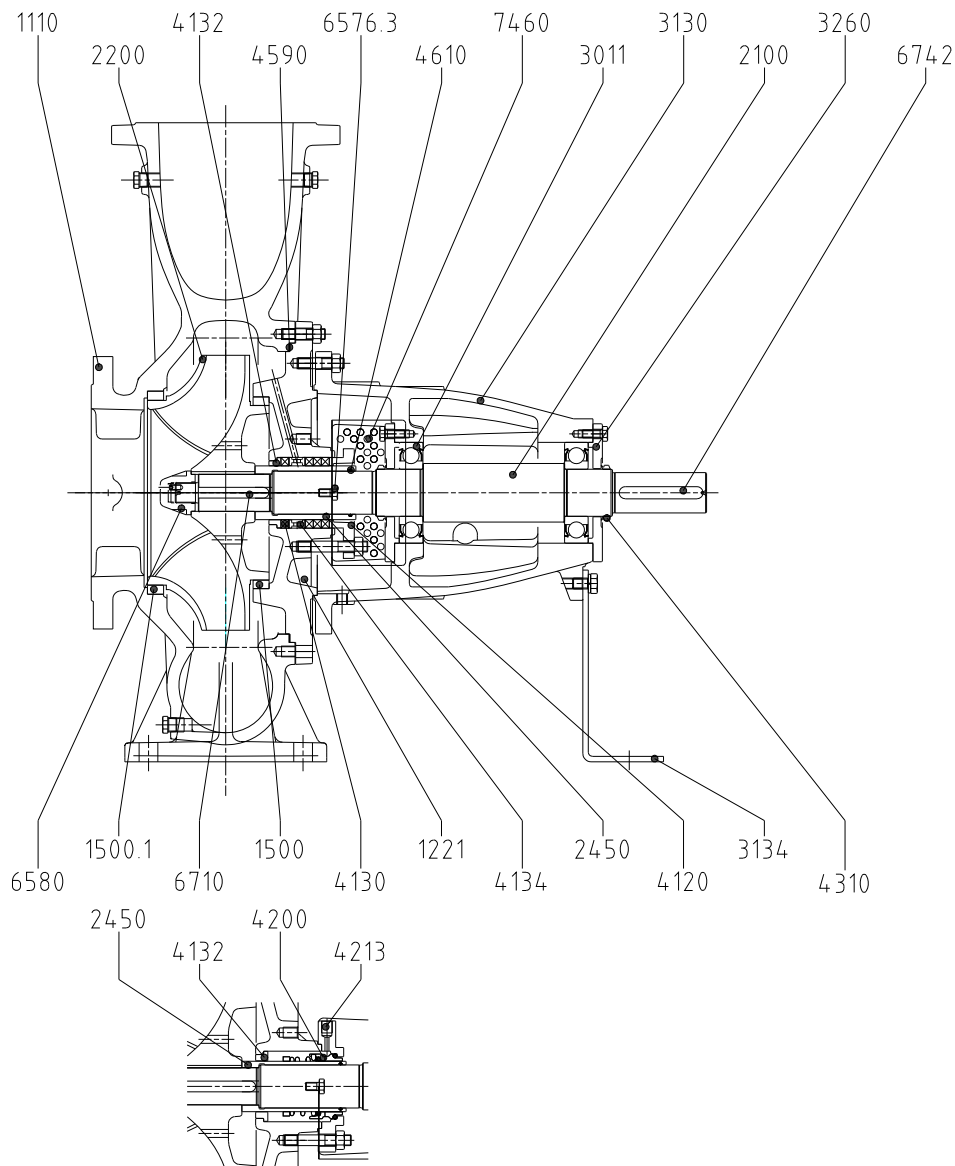
Different drive systems can be supplied, like internal combustion or hydraulic turbine engine etc.

Materials

(depending on the characteristics of the pumped liquid)

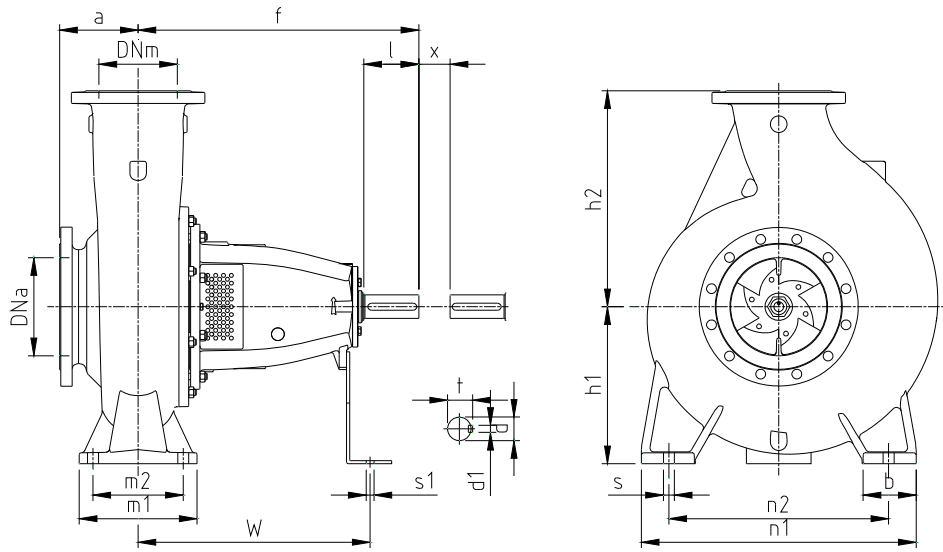
Pump casing	grey cast iron, nickel-resist cast iron, chrome steel, bronze, stainless steel, duplex steel
Impeller	grey cast iron, nickel-resist cast iron, chrome steel, bronze, stainless steel, duplex steel
Wear rings	bronze, chrome-nickel steel, chrome steel, stainless steel, duplex steel
Shaft	chrome steel, stainless steel, duplex steel

Sectional drawing and denomination

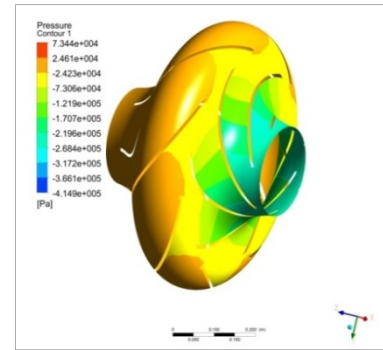


1110	Pump casing	4130	Gland packing
1221	Casing cover	4132	Stuffing box bushing
1500	Casing wear ring	4134	Lantern ring
1500.1	Casing wear ring	4200	Mechanical seal
2100	Shaft	4213	Carrier for mechanical seal
2200	Impeller	4310	V-Ring
2450	Shaft wearing sleeve	4590	Gasket
3011	Radial ball bearing	4610	O-Ring
3130	Bearing housing	6580	Nut
3134	Support feet	6710	Impeller key
3260	Bearing cover	6742	Coupling key
4120	Stuffing box gland	7460	Protection

Overall size



Pump size	Flanges (mm)		Pump dimensions (mm)				Feet dimensions (mm)				Shaft (mm)		Weight (Kg)	
	DN ₁	DN ₂	a	f	h ₁	h ₂	m ₁	m ₂	n ₁	n ₂	d ₁	l		
100-200	125	100	125	470	200	280	160	120	360	280	32	80	70	
100-250					225				315	400			315	126
100-315			250		355	500			400	222				
100-400			280		400	500			400	222				
125-200	150	125	140	470	250	315	160	120	400	315	32	80	118	
125-250					280	355			400	315			130	
125-315			315		400	500			400	155				
125-400			355		400	500			400	192				
150-200	200	150	160	470	280	400	200	150	550	450	32	80	152	
150-250					315				450	500			400	170
150-315					355				500	500			400	247
150-400			400	500	500	400			262					
150-500			450	500	640	540			320					
200-250	250	200	180	670	315	400	200	150	550	450	48	110	290	
200-315			315		450	550							450	315
200-400			355		500	660							560	378
200-500			425		560	660							560	600
250-300	300	250	225	670	315	450	250	200	630	500	48	110	298	
250-330					355	500							700	600
250-400			400		600	750							650	425
250-500			450		670	750							650	582
300-400	350	300	250	720	425	670	250	200	760	660	65	140	630	
300-500			300		480				840	720			820	



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