

D52 : DOUBLE SUCTION SPLIT-CASE
CENTRIFUGAL PUMPS

General and construction

Applications

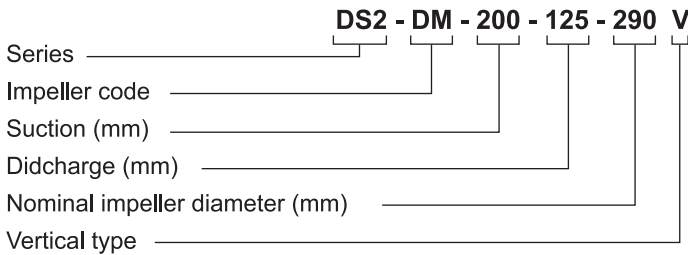
Waterworks, irrigation and drainage pumping stations, cooling tower, power stations, industrial water supply system, fire fighting applications in refineries, municipal, marine, sea water, river water flood, water, raw water, sewage system.

Pump can be designed according to API610 BB1 type service for petroleum, petrochemical and natural gas industrial.

Operating data

Pump sizes	DN	up to	1400 mm
Capacities	Q	up to	7000 L/S
Total heads	H	up to	270 m
Operating pressure	P	up to	30 bar
Operating temperature	t	up to	+105 °C

Model code



Pump Casing

The casing is axially split, which permits removal of the complete rotor without moving either piping or motor. Pumps generating high heads have double volutes to reduce radial forces, ensuring minimal shaft deflection and low bearing loads.

Replaceable wear rings protect the casing at the impeller running clearances. High head pumps are also fitted with replaceable impeller wear rings. Flange drilled to Iso, DIN, BS or ANSI

Impeller

The closed impellers have double curved vanes. The double suction design gives practically zero axial forces. Each impeller is statically and dynamically balanced according to ISO1940



Bearings

On both sides grease lubricated deep groove ball bearings. sealed for life, optionally oil lubrication.

Shaft seal

Uncooled soft-packed stuffing box or uncooled single acting. Unbalanced mechanical seal according to DIN 24960 independent of direction of rotation. For operating pressure >16 bar : balanced mechanical seal.

Volute casing

Cast iron
Ni-resist cast iron
Ductile cast iron
Carbon steel
Stainless steel
Duplex stainless steel

Shaft

Cr-steel
Stainless steel

Wear ring

Cast iron
Ni-resist cast iron
Ductile cast iron
Bronze
Stainless steel

Impeller

Cast iron
Ni-resist cast iron
Ductile cast iron
Bronze
Stainless steel
Duplex stainless steel

Advantages

1. Your technical advantages

Innovative casing

- in - line design
- short distance between bearings and correspondingly short shaft
- leak - tight due to compact joint flange with long, prestressed bolts
- counter - rotation possible with similar parts
- double volute version for appropriate total heads
- easy mounting - self - aligning upper casing

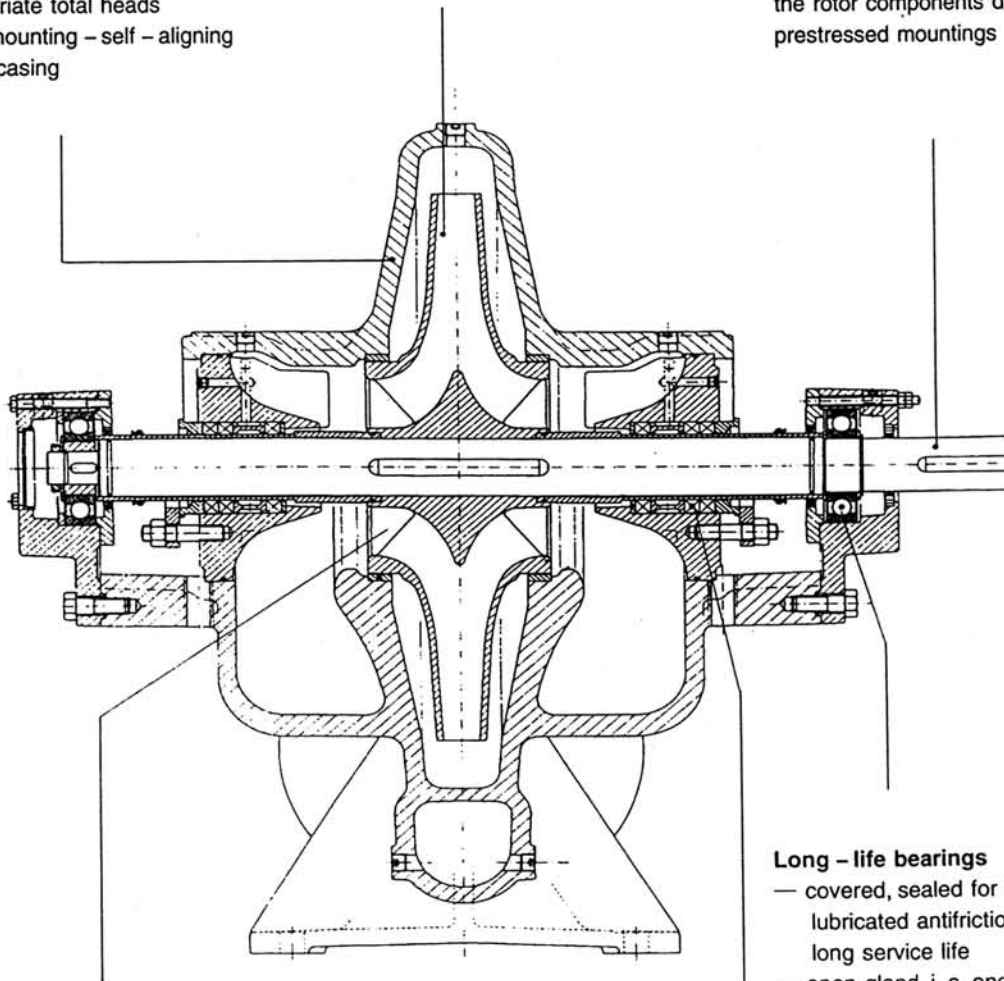
High - performance impeller

- minimal axial thrust due to double - entry impeller
- optional impeller wear rings
- new vane passage with excellent hydraulic characteristics

2. Your service advantage

Service - friendly shaft

- completely sealed and dry for zero corrosion
- short and rigid with negligible vibrations
- replaceable shaft protecting sleeves
- no threads exposed to pumped medium, long operating life and no corrosion
- adjustment - free assembly
- quick and easy assembly/dismantling of the rotor components due to elastically prestressed mountings



Excellent efficiencies

Outstanding NPSH

- computer - optimized double entry impellers
- smooth surfaces inside the casing and on the impeller
- smooth, quiet running also guaranteed by a large impeller eye area
- no drop in efficiency due to cost effective replaceable casing wear rings and impeller wear rings
- smooth, low loss running due to a swirl - free inlet

Long - life bearings

- covered, sealed for life grease lubricated antifriction bearings for a long service life
- open gland, i. e. enough space for service activities
- optional: oil lubrication with constant level oiler

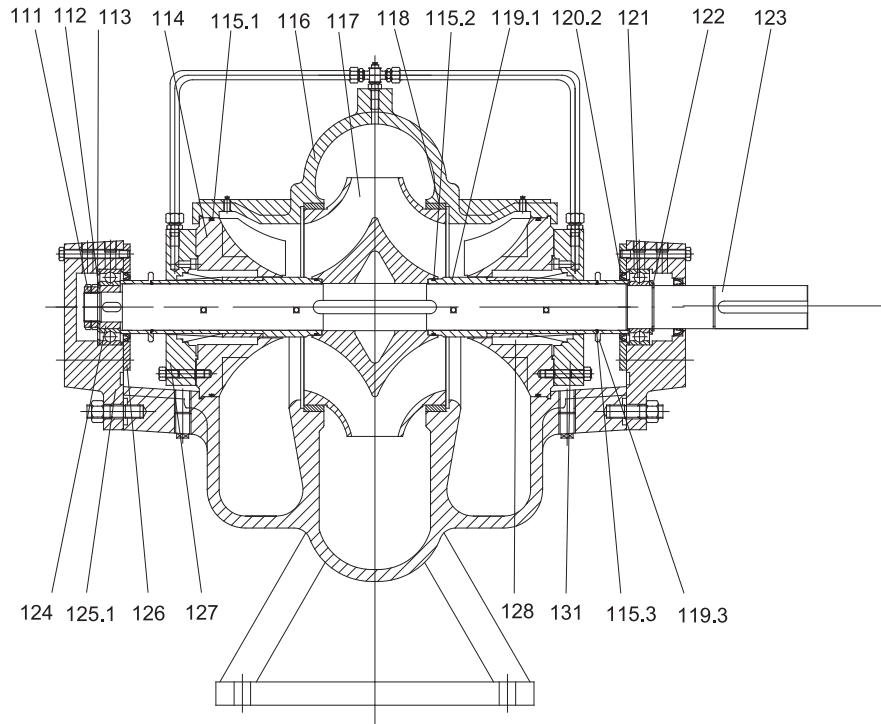
Application - orientated seals

- asbestos - free, potable water quality soft - packed stuffing boxes
- optional: mechanical seals

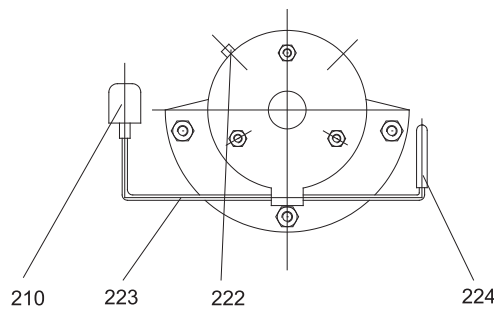
General arrangement drawing

Horizontal installation

125-80-210 up to 400-350-510



Oil supply fixed and radial bearing



Part No.	Part designation	Part No.	Part designation	Part No.	Part designation
111	Nut	119	Shaft protecting sleeve	128	Seal
112	Spring	120	Radial shaft seal ring	131	Cover
113	Washer	121	Deep groove ball bearing	210	Constant level oiler
114	Shaft seal housing	122	Circlip	222	Vent plug
115	O-Ring	123	Pump shaft	223	Special pipe part
116	Volute casing	124	Sleeve	224	Oil sight gauge
117	Impeller	125	Bearing housing		
118	Casing wear ring	126	Bearing cover		

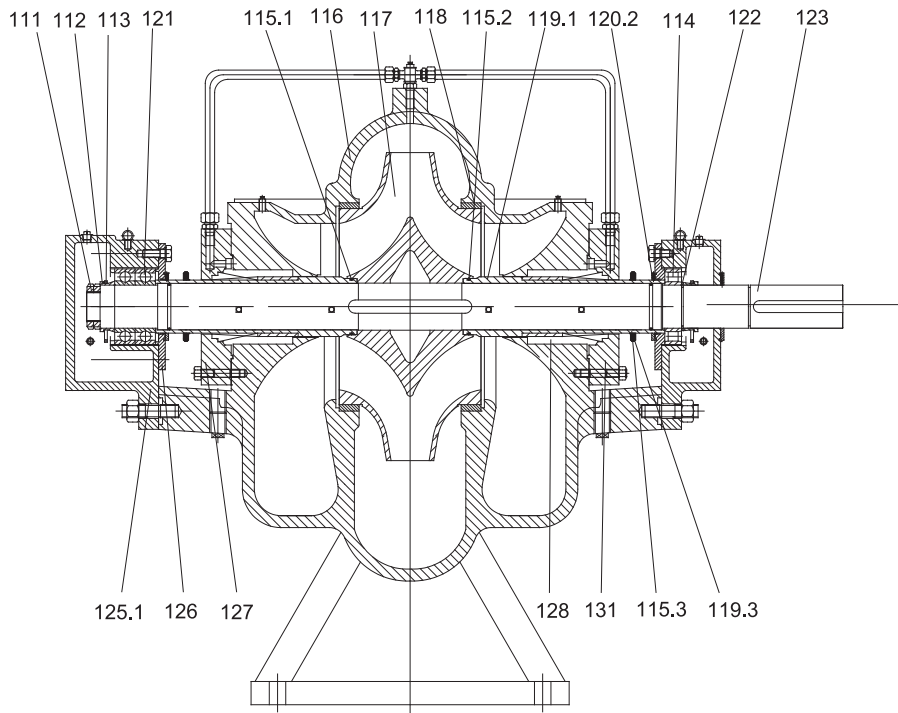
Note :

- 1) We reserve the right to change specifications without notice.
- 2) Please request for exact dimension sheet and data sheet from seller for each quotation.

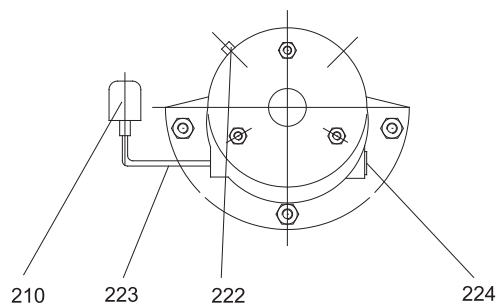
General arrangement drawing

Horizontal installation

500-300-660 up to 900-900-780



Oil supply fixed and radial bearing



Part No.	Part designation	Part No.	Part designation	Part No.	Part designation
111	Nut	119	Shaft protecting sleeve	128	Seal
112	Oil thrower sleeve	120	Labyrinth sleeve	131	Cover
113	Oil thrower ring	121	Deep groove ball bearing	210	Constant level oiler
114	Radia roller bearing	122	Circlip	222	Vent plug
115	O-Ring	123	Pump shaft	223	Special pipe part
116	Volute casing	124	Sleeve	224	Oil sight gauge
117	Impeller	125	Bearing housing		
118	Casing wear ring	126	Bearing cover		

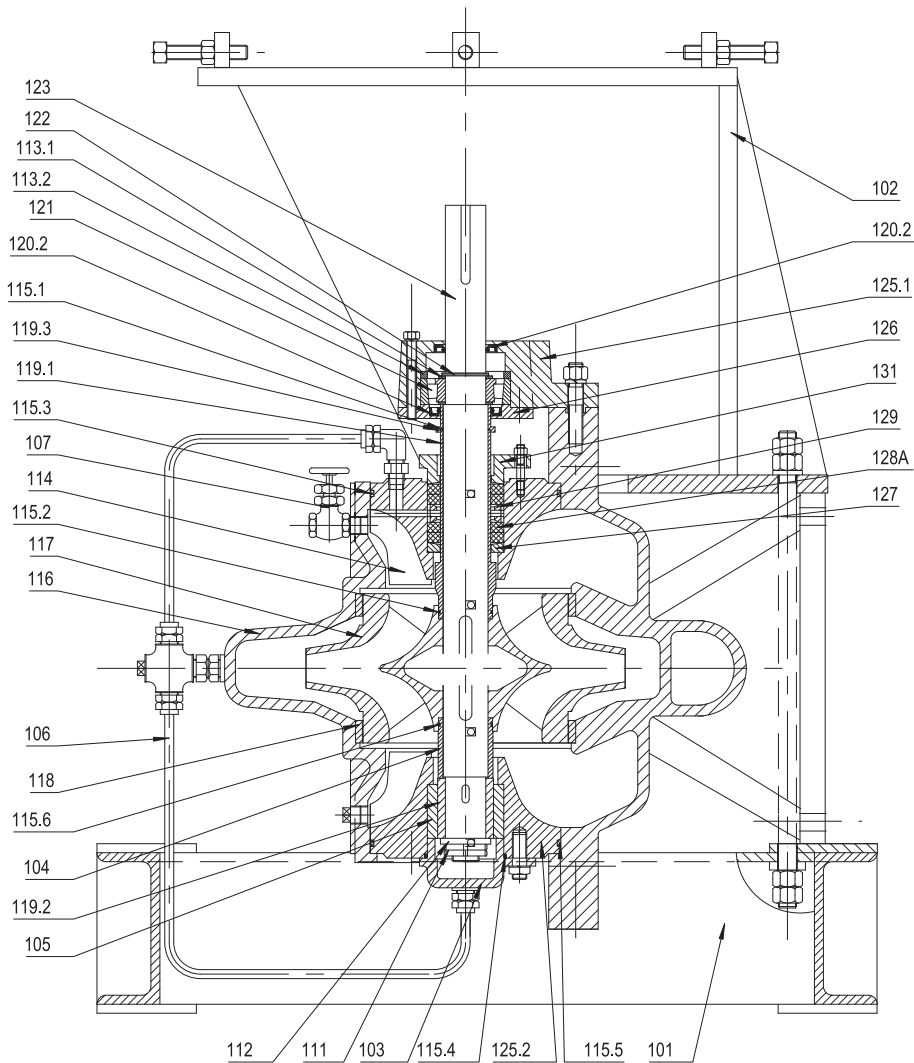
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General arrangement drawing

Vertical Installation

125-80-210V up to 900-900-780V



Part No.	Part designation	Part No.	Part designation	Part No.	Part designation
116	Volute casing	112	Spring	118	Casing wear ring
103	Cover	115	O-Ring	119	Shaft protecting sleeve
101	Foot	120	Radial shaft seal ring	104	Spacer sleeve
123	Pump shaft	114	Shaft seal housing	105	Bearing bush
117	Impeller	107	Valve	113	Washer
121	Bearing	128A	Gland packing	106	Flexible tube
102	Motor stool	131	Stuffing box insert	111	Nut
125	Bearing housing	127	Neck ring	122	Circlip
126	Bearing cover	129	Lantern ring		

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