



# SSP-V

## Extra Heavy Duty Slurry Pumps



Pump • Fire Fighting Units • Booster Set

## SSP-V

### Extra Heavy Duty Slurry Pumps

#### Handled Liquids

Slurry, highly contaminated, viscous, corrosive and abrasive liquids with solid or fibrous particles

#### Technical Data

Discharge Flange \_\_\_\_\_ DN 50.....DN 200 mm

Capacity \_\_\_\_\_ up to 1000 m<sup>3</sup>/h

Head \_\_\_\_\_ up to 40 m

Temperature Operation \_\_\_\_\_ -10°C up to +110 °C

Generating Steam Temperature \_\_\_\_\_ up to 300°C

**Not:** The Material of pump differs according to the type of pumped liquid, operating temperature and pressure. Contact for detailed information.

#### Fields of Application

- Mining and mineral processing
- Sand and gravel processing plants
- Abrasive slurry transfer
- Industrial plants
- Pulp and paper industry
- Cyclone feed
- Mine wastes transfer
- Fly ash and bottom ash transport
- Manure transfer
- Lime mud transport
- Waste water systems
- Chemical slurries
- Filter press applications
- Aggregate plants
- Autoclaved aerated concrete plants

#### Pump Designation

Pump Type \_\_\_\_\_

Installation Arrangement Horizontally (H) / Vertically (V) \_\_\_\_\_

Suction Nozzle (DN-mm) \_\_\_\_\_

Pump Suction / Discharge Size (inch) \_\_\_\_\_

Pump Material Selection \_\_\_\_\_



#### Design Features

- SSP-V pump series are carefully designed by taking into consideration years of production experience of STANDART POMPA and field experiences of our customers using process and slurry pumps. Hydraulic efficiency and hardwearing are considerate and optimised while hard solid particles were pumping.
- SSP-V pump series users are offered with advantages of resistant to extensive wear, high reliability, high hydraulic efficiency, cost effective spare parts and continuous spare part supply in short lead time.

#### Bearing Design

- SSP-V pump series are produced with extra heavy duty (EHD) design. EHD bearings are greased lubricated.

**SSP - V 80 3/2 HC**

Pump Type \_\_\_\_\_

Installation Arrangement Horizontally (H) / Vertically (V) \_\_\_\_\_

Suction Nozzle (DN-mm) \_\_\_\_\_

Pump Suction / Discharge Size (inch) \_\_\_\_\_

Pump Material Selection \_\_\_\_\_

## Features

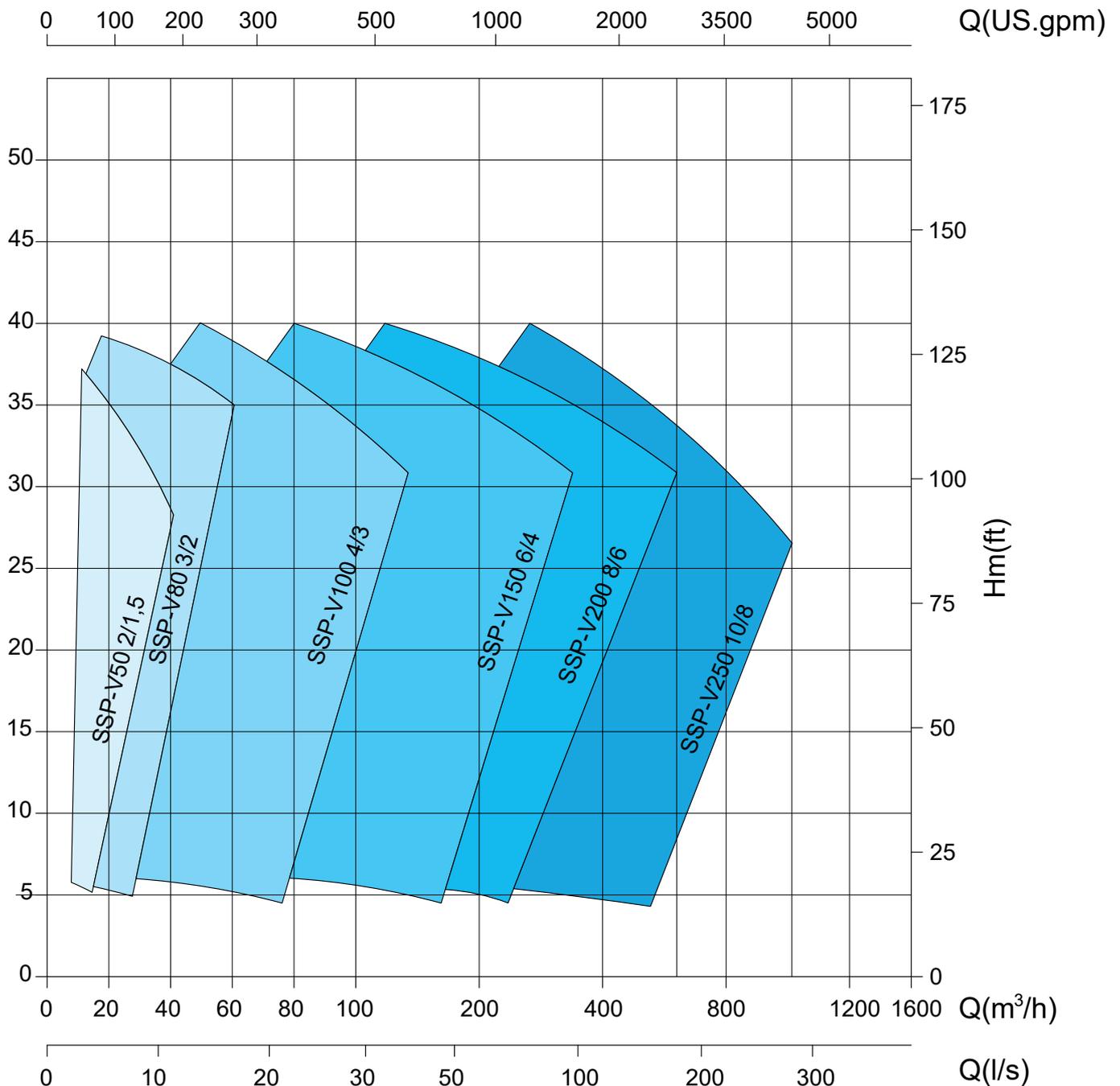
SSP-V pump series, the bearing group is designed for encountering loads on long column lengths and keeping bearing life much higher than  $L_{10}$  nominal bearing life. Corrosive and abrasive properties decrease pump performances in time, distance adjustment between suction side and wear plate on the SSP-V pump series can optimise the pump performances and improve service time. These distance adjustment mechanism does not require any disassemble and distance can be adjusted easily by loosening bolts.

## ATTENTION

- HC models in figures have casting volute casing, impeller and wear plates.
- Volute cover is casting, impeller is lined with casting and all volute liner parts are rubber in the CR models.
- Please get confirmation from our company for dimension of column lengths at pump installation.

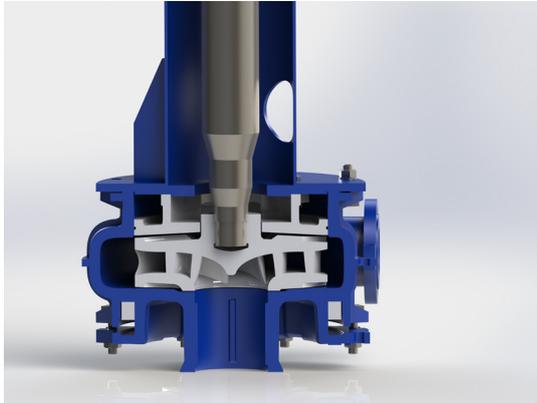
## Vertical Extra Heavy Duty Slurry Pumps

### SSP-V Field Chart (HC and CR series)



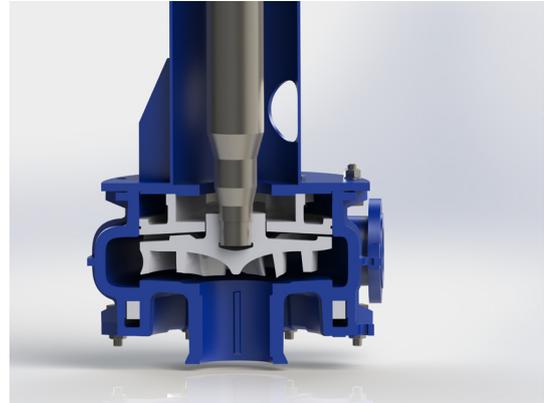
## Impeller Types

SSP-V series model pumps are centrifugal pumps that have vertical shaft, volute casing, single stage and closed impeller. Semi-open or vortex impeller types can be applied in different requirements. Besides that, mixer feature can be applied on suction side by extending shaft length and helps to avoid clogging by solid particles at suction side



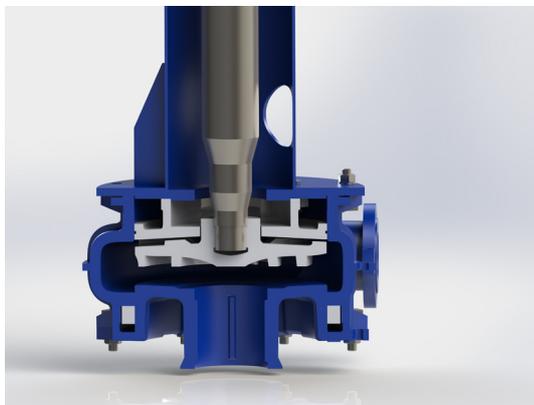
### Standard Impeller

Small and medium solid particles are transferred with standard impeller type. On the other hand these impeller types are more efficient than the others. It offers high efficient and more durable solutions regarding material selection and abrasive properties of the handled fluid. It is used for high demanding heads and more efficiency.



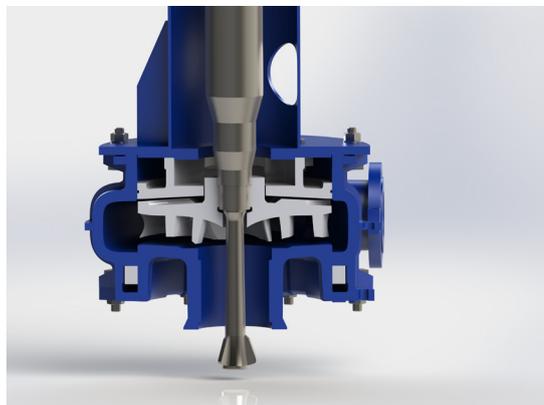
### Semi-open Impeller

Large and medium solid particles are transferred with semi-open impeller type. It offers high efficient and more durable solutions regarding material selection and abrasive properties of the handled fluid. Semi-open impellers prevent greater efficient loss in use of larger particles. It is preferred low and medium heads.



### Vortex Impeller

Vortex impellers are used in transfer of fluids containing large solid particles at low head. More life time is offered since large solid particles would have less contact area with the vortex impeller. These impellers are less efficient than the others.



### Impeller with Mixer

Add-on mixer provides a homogeneous mixture that has high amount of solid particles at suction side of the pump and prevents over wearing and clogging. Homogeneous fluid that contains high amount of solid particles improves impeller performance due to mixing effect. Mixer in the image is the application on semi-open impeller and same application can be applied on standard and vortex impellers as well.

## Recessed Vortex Impeller

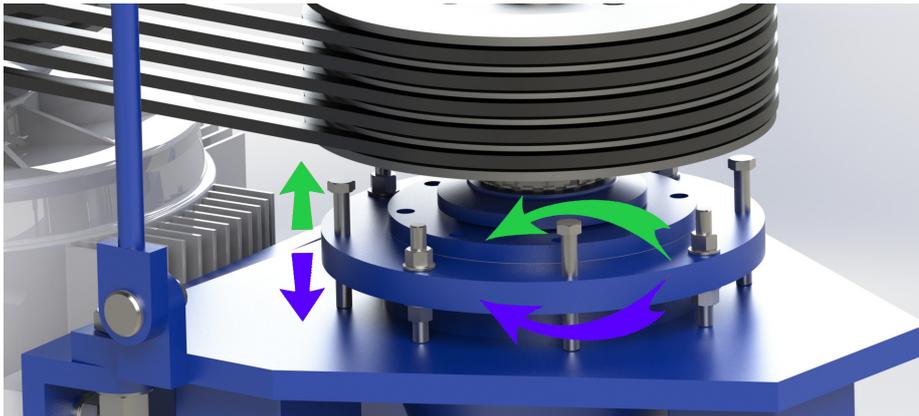
Recessed Vortex impellers are applied when large, solid and fibrous particles involved in handled fluid. Minimum contact area is accomplished between solid particles in fluid and the impeller. These impeller types are preferred for preventing damages to solid particles in fluid.

## Clearance Adjustment System

### General

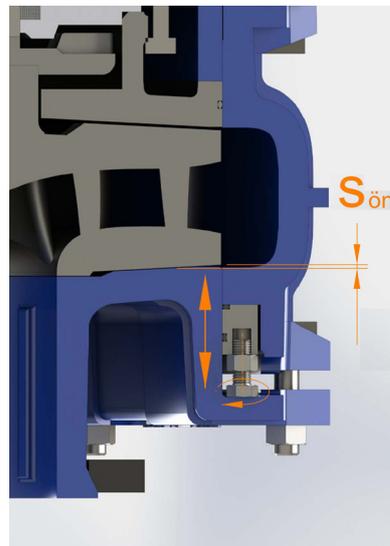
SSP-V pump series have major advantages to transfer fluid that has corrosive and abrasive properties. Even though these properties would have decrease pump performances in time, distance adjustment mechanisms on the SSP-V pump series can optimise the pump performances and improve service time. **Only SSP-V HC pump series have two-way clearance adjustment system. SSP-V CHC and CR pump series have one-way clearance adjustment system.**

### Back-Side Clearance



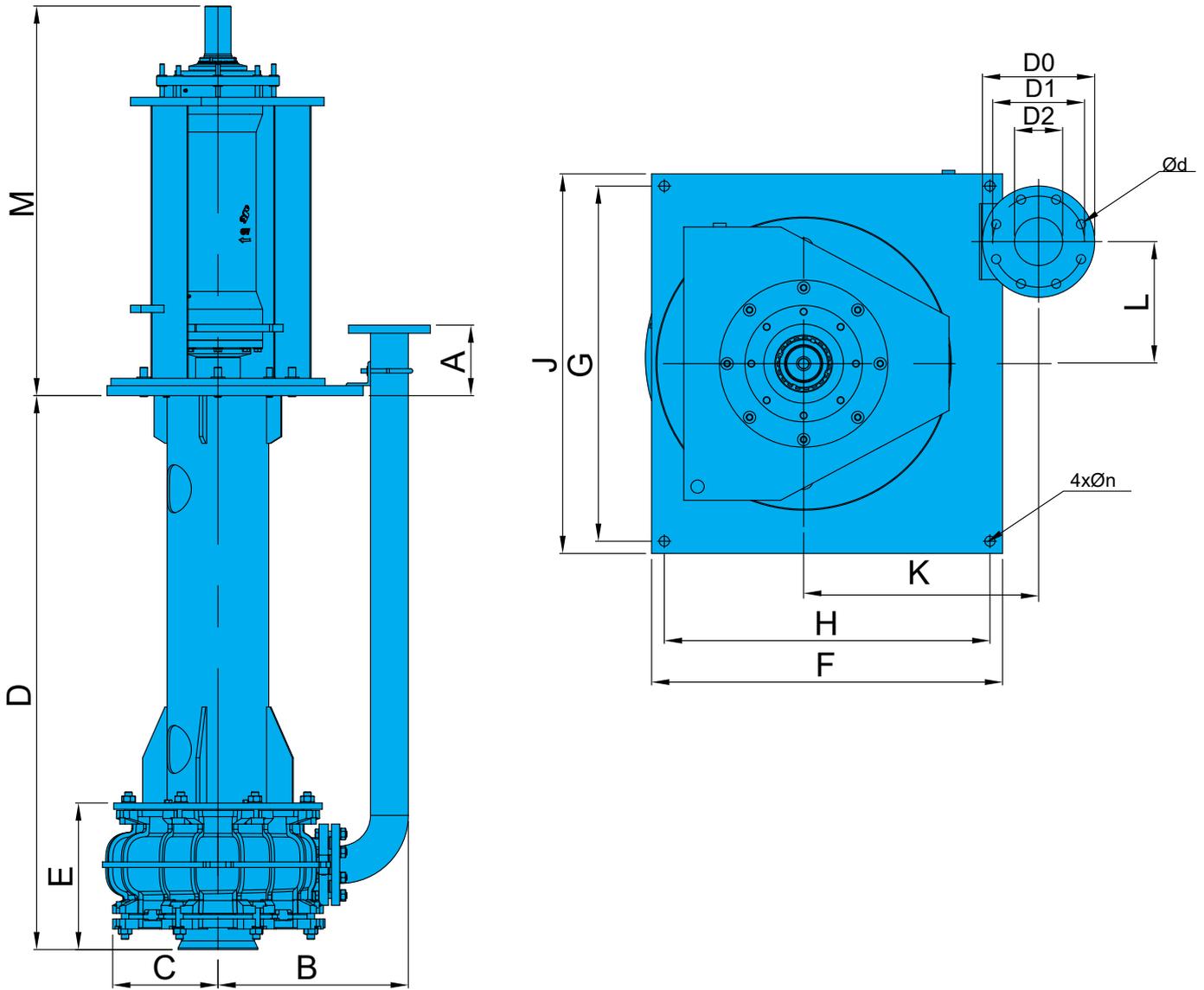
SSP-V series pumps have ability to move back and front by tightening and loosening the studs on the cartridge bearing housing. In this way, the clearance between the impeller and the wear plate is controlled. Back-side clearance adjustment allows to keep the pump performance at the highest level even if pump abrasions occur.

### Front-Side Clearance



SSP-V series HC model pumps have front gap adjustment. Stop bolts in front of volute casing can set the gap between inlet port and impeller. Therefore negative effects of wearing optimise and servise time of the pump improoes. Besides that there is no need diassembly of volute casing and time is saved accrodngly.

# SSP-V HC Series Pump Dimensions Table

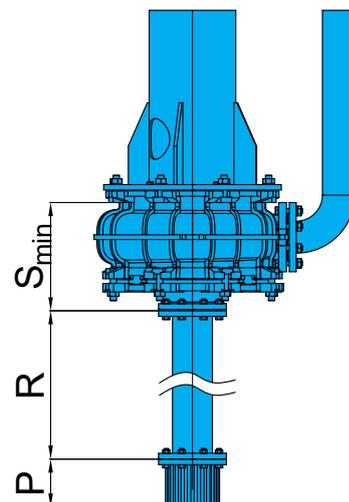


**DIMENSIONS (mm)**

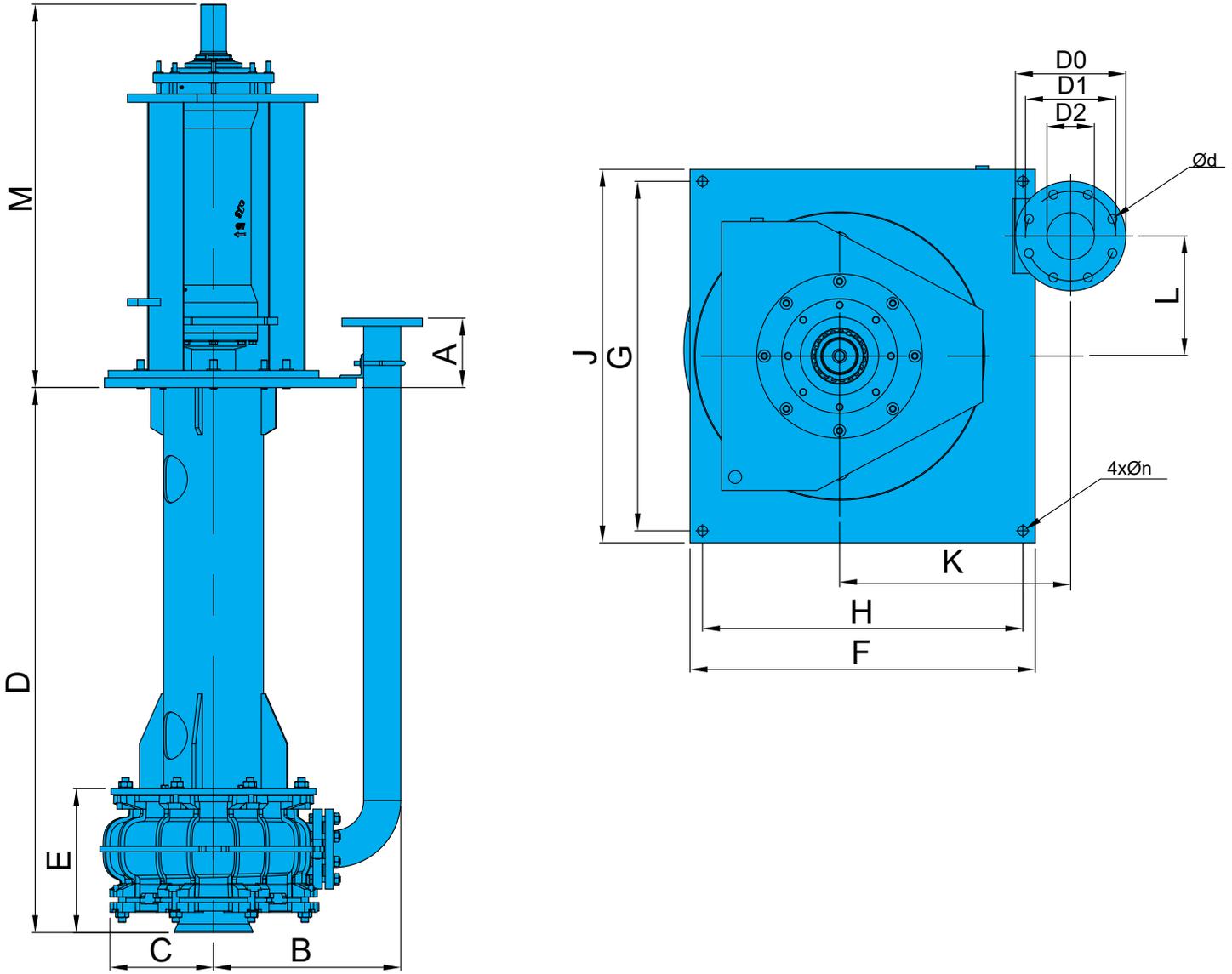
Pump Type	Frame	A	B	C	D <sub>max</sub>	E	F	G	H	Øn	J	K	L	M	Weight (kg)		Discharge Flange Size			
															D <sub>0</sub>	D <sub>1</sub>	D <sub>2</sub>	ød		
V50	DV	143	309	172	1200	205	650	340	590	23	400	280	125	745	225	150	110	40	4-Ø18	
V80	FV	173	342	194	1200	297	800	520	720	23	600	311	140	860	425	165	125	50	4-Ø18	
V100	GV	158	470	238	1500	344	850	650	750	27	750	425	185	1055	750	200	160	80	8-Ø18	
V150	GV	183	537	310	1500	397	950	650	850	27	750	460	241	1055	1100	220	180	100	8-Ø18	
V200	HV	248	774	418	1800	496	1250	890	1090	30	1050	690	320	1285	2100	285	240	150	8-Ø23	
V250	JV	223	915	487	2100	547	1450	1000	1250	40	1200	805	383	1300	3400	340	295	200	8-Ø23	

Note: Weights are valid for given dimensions. May differ according to dimensions F, J ve D<sub>max</sub>  
 (\*) All dimensions (mm)

Pump Type	Frame	P	R	S <sub>min</sub>
V50	DV	120	300-600-900 1200-1800	160
V80	FV	150		240
V100	GV	180		280
V150	GV	200		330
V200	HV	250		410
V250	JV	320		460



## SSP-V CR Series Pump Dimensions Table

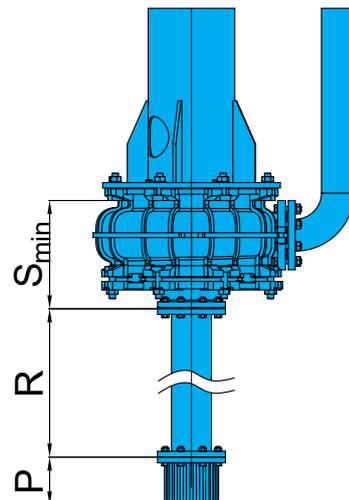


**DIMENSIONS (mm)**

Pump Type	Frame	A	B	C	D <sub>max</sub>	E	F	G	H	Øn	J	K	L	M	Weight (kg)	Discharge Flange Size			
																D <sub>0</sub>	D <sub>1</sub>	D <sub>2</sub>	Ød
V50	DV	143	324	181	1200	208	650	340	590	23	400	280	125	745	225	150	110	40	4-Ø18
V80	FV	173	372	205	1200	250	800	520	720	23	600	311	140	860	425	165	125	50	4-Ø18
V100	GV	158	507	263	1500	316	850	650	750	27	750	425	185	1055	750	200	160	80	8-Ø18
V150	GV	183	590	385	1500	370	950	650	850	27	750	460	241	1055	1100	220	180	100	8-Ø18
V200	HV	248	824	498	1800	466	1250	890	1090	30	1050	690	320	1285	2100	285	240	150	8-Ø23
V250	JV	223	965	591	2100	522	1450	1000	1250	40	1200	805	383	1300	3400	340	295	200	8-Ø23

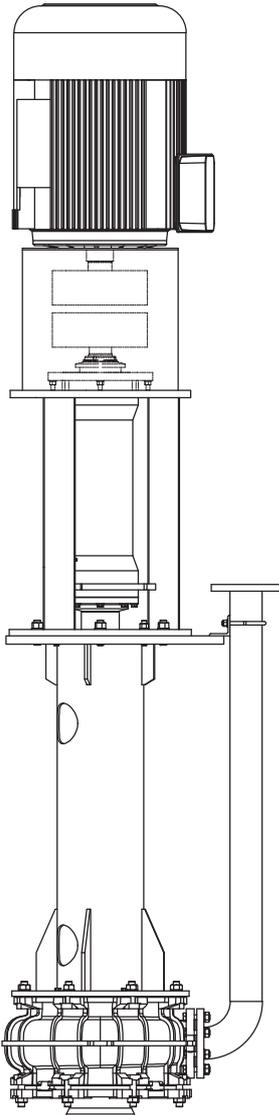
Not: Ağırlıklar verilen ölçüler için geçerlidir. F, J ve D<sub>max</sub> ölçülerine göre farklılık gösterebilir.  
(\*) Bütün ölçüler milimetre (mm) cinsindedir.

Pump Type	Frame	P	R	S <sub>min</sub>
V50	DV	120	300-600-900 1200-1800	160
V80	FV	150		240
V100	GV	180		280
V150	GV	200		330
V200	HV	250		410
V250	JV	320		460

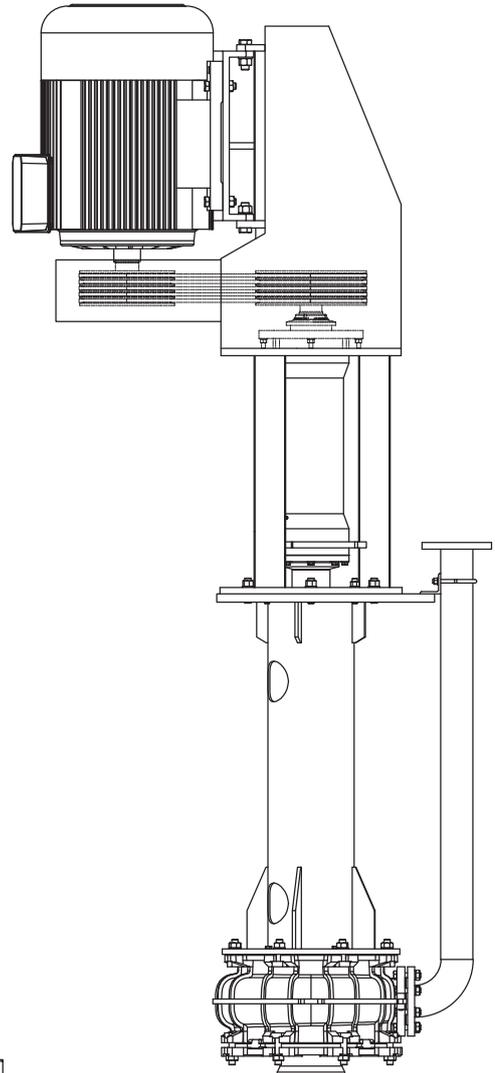


# Installation Types

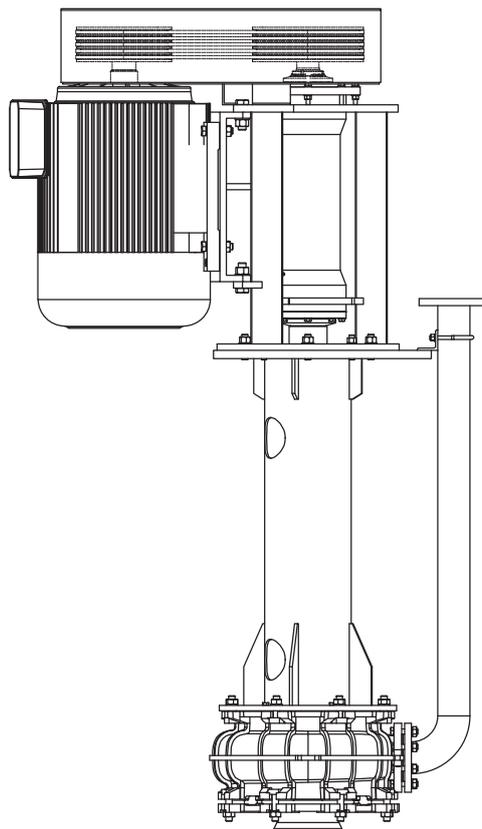
VT1



VT2



VT3



## SSP-V Material Options (HC Serisi)

PART LIST	0.6025	0.7040	0.7043	0.7050	1.0619	1.0037	1.4317	1.4525	1.4527	1.4308	1.4412	1.4517	1.4468	1.4469	5.5610	2.1050.01	2.0975.01	2.1096.01	2.0975	1.4021	1.4021(QT)	1.4301	1.4404	1.4460	1.4462	1.0503	
Volute Casing	○	○	○	○	○		○	○	○	○	○	○	○	○	●	○	○	○	○								
Impeller	○	○	○	○	○		○	○	○	○	○	○	○	○	●	○	○	○	○								
Back Wear Plate	○	○	○	○	○		○	○	○	○	○	○	○	○	●	○	○	○	○								
Suction Side	○	○	○	○	○		○	○	○	○	○	○	○	○	●	○	○	○	○								
Column Pipe (*)						●																	○	○			
Base Plate						●																	○	○			
Discharge Pipe (*)						●																	○	○			
Cartridge Housing	●	○	○	○																							
Shaft																				●	○				○	○	
Bolt, Nut and Washer																						●	○				

(\*) Note: Discharge and column pipes can be made of 1.0037 + NBR optionally.

● Standard manufacturing  
○ Optional

PART LIST	EPDM	VITON	NBR
O-Ring	●	○	○
Gasket	●	○	○

## Material Equivalents

Description	DIN 17007	EN-DIN	AISI / SAE / ASTM
Cast Iron	0.6025	EN-GJL-250 (GG 25)	A48 Class 40B
Nodular Cast Iron	0.7040	EN-GJS-400-15 (GGG 40)	A536 60-40-18
Nodular Cast Iron	0.7043	EN-GJS-400-18-LT (GGG 40.3)	A536 60-40-18
Nodular Cast Iron	0.7050	EN-GJS-500-7 (GGG 50)	A536 88-55-06
Cast Steel	1.0619	GP240GHGS-C25	A216 WCB
Steel	1.0037	St 37-2	A238Gr.C
Martenzitic Stainless Cast Steel	1.4317	G-X 4 CrNi 13 4	A743 CA-6NM
Martenzitic Stainless Cast Steel	1.4525	G-X 5 CrNiCu 16 4	A747 CB7Cu-2
Chrome Nickel Cast Steel (Heat Treated)	1.4308	G-X 6 CrNi 19 10	A743 CF-8
Austenitic Cast Steel (Heat Treated)	1.4412	C-X 5 CrNiMo 19 11 3	A743 CG-3M
Austenitic Cast Steel (Heat Treated)	1.4527	C-X 4 NiCrCuMo 30 20 4	A743 CN-7M
Duplex Steel (Austenitic-Ferritic, Heat Treated)	1.4468	G-X 2 CrNiMoN 25 6 3	A890 3A
Duplex Steel (Austenitic-Ferritic, Heat Treated)	1.4517	G-X 2 CrNiMoN 25 6 3 3	A890 1B
Duplex Steel (Austenitic-Ferritic, Heat Treated)	1.4469	G-X 2 CrNiMo 26 7 4	A890 5A
Wear Resistant Casts	5.5610	EN-GJN-HV600 (XCr23)	A532 Class III Type A
Cast Bronze (Tin Alloy)	2.1050.01	CuSn10	B427 C90700
Cast Bronze (Nickel Alloy)	2.0975.01	CuAl 10Ni	B148 C95500
Cast Bronze (Leaded)	2.1096.01	CuSn5ZnPb	B584 C83600
Cast Aluminium Bronze	2.0975	CuAl10 Fe5Ni5	B505 C95800
Carbon Steel	1.0503	C45	AISI 1045
Chrome Steel	1.4021	X20Cr13	A276 Type 420
Chrome Steel (Heat Treated)	1.4021(QT)	X20Cr13	A276 Type 420+QT
Chrome Nickel Steel	1.4301	X5CrNi18-10	A276 Type 304
Chrome Nickel Steel (Low Carbon)	1.4404	X2CrNiMo17-12-2	A276 Type 316
Duplex (Austenitic-Ferritic) Steel	1.4460	X3CrNiMoN27-5-2	AISI 329
Duplex (Austenitic-Ferritic) Steel	1.4462	X2CrNiMoN22-5-3	UNS S32205

## SSP-V Material Options (CR Serisi)

PART LIST	0.6025	0.7040	0.7043	0.7050	1.0619	1.0037	1.4317	1.4525	1.4527	1.4308	1.4412	1.4517	1.4468	1.4469	5.5610	2.1050.01	2.0975.01	2.1096.01	2.0975	1.4021	1.4021(QT)	1.4301	1.4404	1.4460	1.4462	1.0503	
Volute Casing	○	●	○	○	○		○	○	○	○	○	○	○	○	○	○	○	○	○								
Impeller	○	●	○	○	○		○	○	○	○	○	○	○	○	○	○	○	○	○								
Back Wear Plate	●	○	○	○																							
Suction Side	●	○	○	○																							
Column Pipe (*)						●																	○	○			
Base Plate						●																	○	○			
Discharge Pipe (*)						●																	○	○			
Cartridge Housing	●	○	○	○																							
Shaft																				●	○				○	○	
Bolt, Nut and Washer																						●	○				

(\*) Note: Discharge and column pipes can be made of 1.0037 + NBR optionally.

● Standard manufacturing  
○ Optional

PART LIST	NR	CR	IIR	NBR	PU	UR	CSM	FKM	CIIR	EPDM
Inner Volute Lining	●	○	○	○	○	○	○	○	○	○
Impeller (Coating)	●	○	○	○	○	○	○	○	○	○
O-Ring	●							○		○
Gasket	●							○		○

## Material Equivalents

Description	DIN 17007	EN-DIN	AISI / SAE / ASTM
Cast Iron	0.6025	EN-GJL-250 (GG 25)	A48 Class 40B
Nodular Cast Iron	0.7040	EN-GJS-400-15 (GGG 40)	A536 60-40-18
Nodular Cast Iron	0.7043	EN-GJS-400-18-LT (GGG 40.3)	A536 60-40-18
Nodular Cast Iron	0.7050	EN-GJS-500-7 (GGG 50)	A536 88-55-06
Cast Steel	1.0619	GP240GHGS-C25	A216 WCB
Steel	1.0037	St 37-2	A238Gr.C
Martenzitic Stainless Cast Steel	1.4317	G-X 4 CrNi 13 4	A743 CA-6NM
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Chrome Nickel Steel	1.4301	X5CrNi18-10	A276 Type 304
Chrome Nickel Steel (Low Carbon)	1.4404	X2CrNiMo17-12-2	A276 Type 316
Duplex (Austenitic-Ferritic) Steel	1.4460	X3CrNiMoN27-5-2	AISI 329
Duplex (Austenitic-Ferritic) Steel	1.4462	X2CrNiMoN22-5-3	UNS S32205

### RUBBER MATERIALS

Natural Rubber	NR	Urethane	UR
Neoprene	CR	Hypalon	CSM
Synthetic Rubber (Butyl)	IIR	Viton	FKM
Nitril Rubber	NBR	Chlorobutyl	CIIR
Polyurethane	PU	Ethylene Propylene Diene	EPDM



Tasarım ve boyut deęişikliği hakkı saklıdır.  
Baskı hatalarından dolayı sorumluluk kabul edilmez.

**STANDART POMPA VE MAKİNA SANAYİ TİC. A.Ş.**

Dudullu Organize Sanayi Bölgesi, 2. Cadde  
No: 9 Esenkent 34775 Ümraniye İstanbul / Türkiye  
T: +90 216 466 89 00 F: +90 216 499 05 59  
[www.standartpompa.com](http://www.standartpompa.com)