

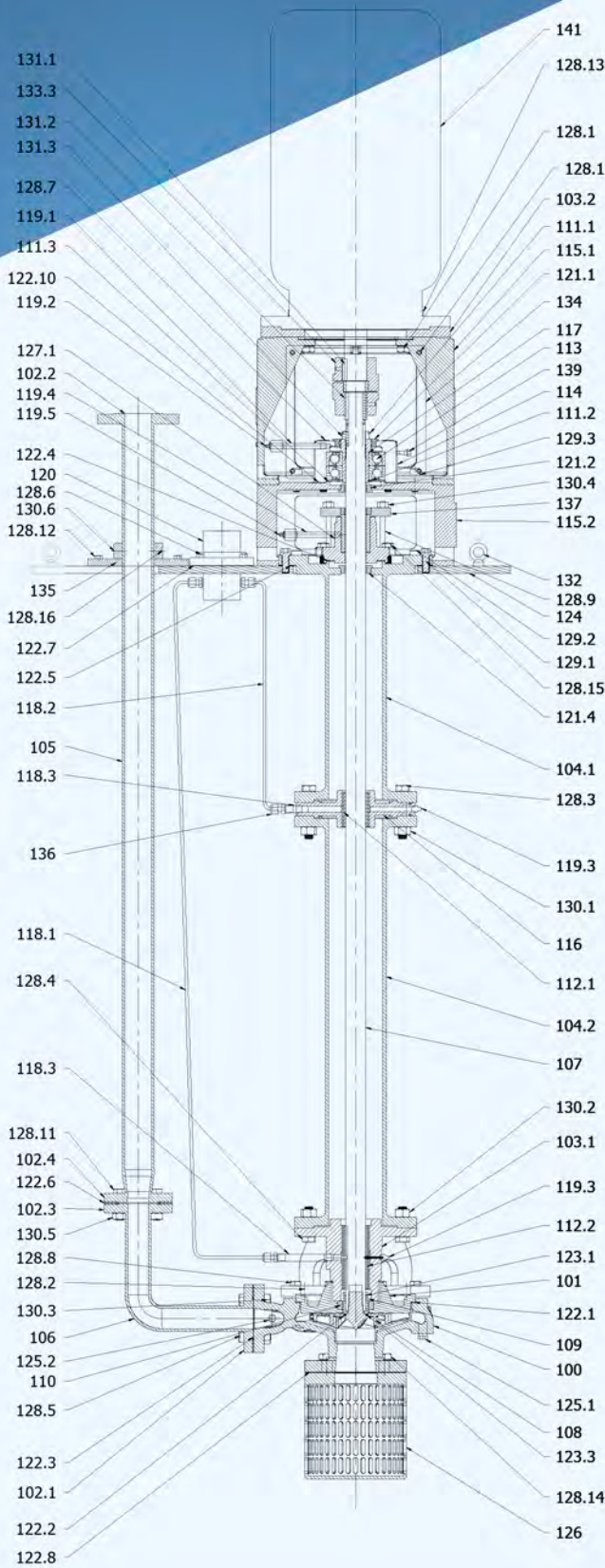
Vertical Sump Pumps IVS Series (VS4 - API 610 Compliant)



Vertical Immersion Sump Pump

GP: 1 & 2

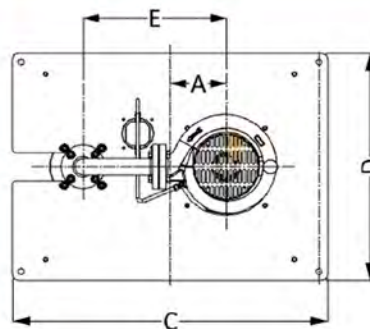
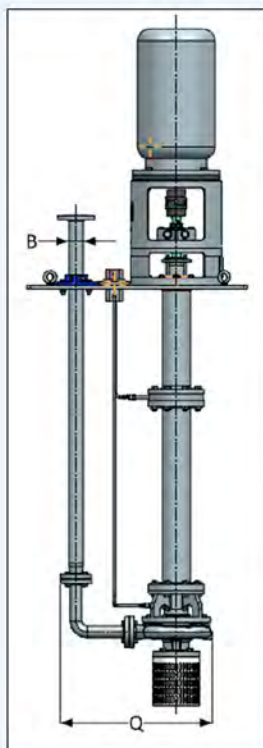
(Cross Sectional Drawing & Parts List)



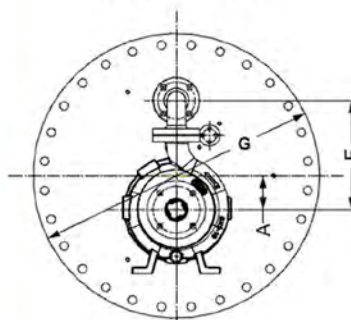
PARTS LIST			
ITEM NO.	QTY.	DESCRIPTION	MATERIAL
100	01	CASING	SS-316
101	01	COVER (STUFFING BOX)	SS-316
102.1	01	FLANGE - COMPANION	SS-316
102.2	01	FLANGE - DISCHARGE	SS-316
102.3	01	FLANGE - BEND DISCHARGE	SS-316
102.4	01	FLANGE - REDUCER	SS-316
103.1	01	ADAPTOR	SS-316
103.2	01	ADAPTOR - MOTOR RING	SG IRON
104.1	01	COLUMN - UPPER	SS-316
104.2	01	COLUMN - INTERMEDIATE	SS-316
105	01	PIPE - DISCHARGE	SS-316
106	01	BEND - DISCHARGE	SS-316
107	01	SHAFT	SS-316
108	01	IMPELLER	SS-316
109	01	SLEEVE	SS-316
110	01	THROTTLE BUSHING	CARBON
111.1	01	SNAP RING	STEEL
111.2	01	RETAINING RING	SS-316/STEEL
111.3	01	WAVE SPRING	SPRING STEEL
112.1	01	BEARING - INTERMEDIATE	SS+CARBON BUSH
112.2	01	BEARING - BOTTOM	SS+CARBON BUSH
113	02	BEARING - THRUST	7310 SKF
114	01	BEARING BODY (COVER)	SG IRON
115.1	01	SUPPORT HEAD (MOTOR STOOL)	SG IRON
115.2	01	BEARING BRACKET	SG IRON
116	01	HOLDER - BEARING	SS-316
117	01	SLEEVE - ADJUSTING	SS-316
118.1	01	LUBE PIPING (MANIFOLD TO ADAPTOR)	SS-316
118.2	01	LUBE PIPING (MANIFOLD TO BRG. HOLDER)	SS-316
118.3	02	NIPPLE - LUBE LINE	SS-316
119.1	01	NIPPLE - PIPE (GREASE)	SS-316
119.2	01	FITTING GREASE (THRUST BRG.)	SS-316
119.3	02	FITTING GREASE (BRG. HOUSING+ADAPTOR)	SS-316
119.4	01	NIPPLE - PIPE (GREASE)	SS-316
119.5	01	FITTING GREASE (STUFFING BOX GLAND PLATE)	SS-316
120	01	MANIFOLD - LUBE PIPING	SS-316
121.1	01	TOP SIDE BEARING BODY - BUSH	PHOSPHOR BRONZE- PB2
121.2	01	BEARING BRACKET - BUSH	PHOSPHOR BRONZE- PB2
121.4	01	COLUMN UPPER - BUSH	PHOSPHOR BRONZE- PB2
122.1	01	GASKET - CASING	PTFE
122.2	01	GASKET - IMPELLER	PTFE
122.3	01	GASKET - DISCHARGE PIPE	CHAMPION MAKE
122.4	01	GASKET - STUFF BOX TO UPPER COL	CHAMPION MAKE
122.5	01	GASKET - UPPER COL. TO MTG. PL.	CHAMPION MAKE
122.6	01	GASKET - BEND FLANGE TO REDUCER FLANGE	CHAMPION MAKE
122.7	01	GASKET - MANIFOLD	CHAMPION MAKE
122.8	01	GASKET - CASING TO STRAINER	PTFE
122.10	01	GASKET - BEARING BODY	OIL PAPER GASKET
123.1	01	O-RING - SLEEVE	VITON
123.3	01	O-RING - IMPELLER	VITON
124	01	MOUNTING PLATE	MILD STEEL
125.1	01	PLUG CASING DRAIN	SS-316
125.2	01	PLUG CASING DISCHARGE	SS-316
126	01	STRAINER	SS-316
127.1	01	STUFFING BOX (GLAND PLATE)	SS-316
128.1	04	CAP SCREW - SUPP HD TO MTR	SS-316
128.2	02	CAP SCREW - TOKEN BOLTS	SS-316
128.3	08	CAP SCREW - INTER.BRG	SS-316
128.4	08	CAP SCREW - COL. TO ADAPTOR	SS-316
128.5	04	CAP SCREW - DISCHARGE	SS-316
128.6	04	CAP SCREW - MANIFOLD. TO MTG PLT.	SS-316
128.7	03	CAP SCREW - BRG BODY TO COL.	SS-316
128.8	08	CAP SCREW - CASING	SS-316
128.9	04	STUD - GLAND	SS-316
128.10	08	CAP SCREW - COUPL.GUARD	SS-316
128.11	04	CAP SCREW - BEND TO REDUCER FLANGE	SS-316
128.12	04	CAP SCREW - DISCHARGE PIPE SUPP. FLANGE	SS-316
128.13	04	CAP SCREW - MOTOR TO ADAPTOR	SS-316
128.14	04	CAP SCREW - CASING TO STRAINER	SS-316
128.15	03	CAP SCREW - STUFFING BOX TO COL.	SS-316
128.16	02	CAP SCREW - SUPP. FLANGE TO DISCHARGE PIPE	SS-316
129.1	04	CAP SCREW - COL. TO MTG. PLT.	SS-316
129.2	04	CAP SCREW - SUPP HD TO MTG. PLT.	SS-316
129.3	04	CAPSCREW - SUPP HD TO BRG BKT	SS-316
130.1	08	NUT - HEX INTER. BRG.	SS-316
130.2	08	NUT - COL. TO ADAPTOR	SS-316
130.3	04	NUT - HEX CASING DISCHARGE	SS-316
130.4	04	NUT - HEX	SS-316
130.5	04	NUT - BEND TO REDUCER FLANGE	SS-316
130.6	02	NUT- SUPP. FLANGE TO DISCHARGE PIPE	SS-316
131.1	01	KEY - DRIVER SHAFT	SS-316
131.2	01	KEY - PUMP SHAFT	SS-316
131.3	01	GIB KEY	SS-316
132	04	I-BOLT	MILD STEEL
133.3	01	COUPLING - L TYPE (L-110)	CAST IRON
134	01	COUPLING GUARD	SS-316
135	01	DISCHARGE PIPE SUPPORT FLANGE	SS-316
136	04	FERRULE- LUBE PIPING	SS-316
137	01	GLAND PACKING / MECHANICAL SEAL	-
139	01	VIBRATION SENSOR	-
141	01	DRIVER (MOTOR)	-

General Arrangement Drawing

All Dimensions In inches and [mm]



GROUP - 1 & 2



GROUP - 1 & 2

DIMENSIONS (GROUP 1 & 2)

	GROUP	A	B	C	D	E	G	Q
1.5 X1-6	1	4 [101.60]	1.5 [48.20]	35.433 [900]	25.591 [650.0]	10.193 [258.90]	30.0 [762.0]	16.672 [423.470]
3 X1.5-6	1	4 [101.60]	2 [60.40]	35.433 [900]	25.591 [650.0]	10.444 [265.30]	30.0 [762.0]	17.292 [439.225]
3X2-6	1	4 [101.60]	2.5 [73.10]	35.433 [900]	25.591 [650.0]	11.193 [284.30]	30.0 [762.0]	19.468 [494.50]
1.5X1-8	1	4 [101.60]	1.5 [48.20]	35.433 [900]	25.591 [650.0]	10.193 [258.90]	30.0 [762.0]	17.474 [443.850]
3X1.5-8	2	4.50 [114.30]	2 [60.40]	35.433 [900]	25.591 [650.0]	11.458 [291.050]	36.50 [927.10]	19.639 [498.850]
3X2-8	2	4.50 [114.30]	2.5 [73.10]	35.433 [900]	25.591 [650.0]	14.224 [361.30]	36.50 [927.10]	23.208 [589.50]
4X3-8	2	6 [152.40]	3 [88.90]	45.0 [1143.0]	26.50 [673.10]	17.220 [437.40]	42 [1066.80]	27.096 [688.250]
2X1-10A	2	4.50 [114.30]	1.5 [48.20]	35.433 [900]	25.591 [650.0]	12.20 [309.90]	36.50 [927.10]	21.079 [535.405]
3X1.5-10A	2	4.50 [114.30]	2.0 [60.40]	35.433 [900]	25.591 [650.0]	12.453 [316.30]	36.50 [927.10]	21.735 [552.063]
3X2-10A	2	4.50 [114.30]	2.5 [73.10]	35.433 [900]	25.591 [650.0]	14.224 [361.30]	36.50 [927.10]	23.948 [608.287]
4X3-10	2	6 [152.40]	3 [88.90]	45.0 [1143.0]	26.50 [673.10]	17.220 [437.40]	42 [1066.80]	27.967 [710.375]
4X3-10H	2	8 [203.20]	3 [88.90]	45.0 [1143.0]	26.50 [673.10]	18.716 [475.40]	45.0 [1143.0]	30.537 [775.655]
6X4-10	2	8 [203.20]	4 [114.30]	45.0 [1143.0]	26.50 [673.10]	21.20 [585.50]	45.0 [1143.0]	33.931 [861.855]
6X4-10H	2	8 [203.20]	4 [114.30]	45.0 [1143.0]	26.50 [673.10]	21.20 [585.50]	45.0 [1143.0]	34.559 [877.80]
3X1.5-13	2	4.50 [114.30]	2.0 [60.40]	35.433 [900]	25.591 [650.0]	14.460 [367.30]	36.50 [927.10]	25.110 [637.80]
3X2-13	2	4.50 [114.30]	2.5 [73.10]	35.433 [900]	25.591 [650.0]	16.193 [411.30]	36.50 [927.10]	27.718 [704.048]
4X3-13	2	8 [203.20]	3 [88.90]	45.0 [1143.0]	26.50 [673.10]	18.716 [475.40]	45.0 [1143.0]	31.094 [789.780]

Note: - All flanges are as per 150 Lbs ANSI / ASME B 16.5 standard.

Vertical Sump Pumps IVS Series

(VS4 - API 610 Compliant)



Salient Features:

• Engineered for Rugged Reliability:

Designed to withstand demanding industrial environments with durable construction and robust components.

• Superior Pumping Efficiency:

Delivers high-performance output with optimized hydraulic design for maximum operational efficiency.

• Extended Service Life:

Reverse vane impeller technology ensures reduced wear, resulting in significantly longer pump lifespan.

• Minimized Downtime & Maintenance:

Customizable options in wetted components, bearing materials, and flush plans reduce maintenance frequency and unplanned shutdowns.

• Cost-Effective Over the Long Term:

Achieve lower total cost of ownership through enhanced durability, reduced energy consumption, and simplified servicing.

• Heavy Duty One Piece Shaft:

Engineered for superior strength and alignment, reducing wear and ensuring long-term reliability.

• Maximum Sealing Flexibility:

Accommodates a wide range of sealing options for diverse applications and media compatibility.

• Optional Mounting Systems:

Versatile installation choices tailored to meet site-specific requirements with ease.

Key Industrial Applications:

- Industrial Sump Waste Handling
- Pharmaceutical Manufacturing
- Molten Sulphur Transfer
- Petrochemical Processing
- Biomass Management
- Biofuel Production
- Water & Wastewater Treatment
- Pulp and Paper Industries
- Specialty Chemical Processing
- Tanker Unloading Operations
- Mining and Mineral Processing
- Steel and Primary Metal Industries
- Refinery Operations

Technical Specifications:

- **Flow Capacity:** Up to 300 m³/hr.
- **Maximum Head:** Up to 90 meters.
- **Pit Depth Compatibility:** Up to 4 meters.
- **Extended Flow Models:** Larger capacity pump sizes currently under development.
- **Material Options:** WCB, 304 SS, 316 SS, 316L, Duplex Grades, Alloy 20, Hastelloy B & C.
- **Custom Features:** Jacketed designs available on request.

Works:

Plot#762, Phase II,
G.I.D.C., Gundlav,
Gujarat. INDIA.

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