MODEL S4X4S

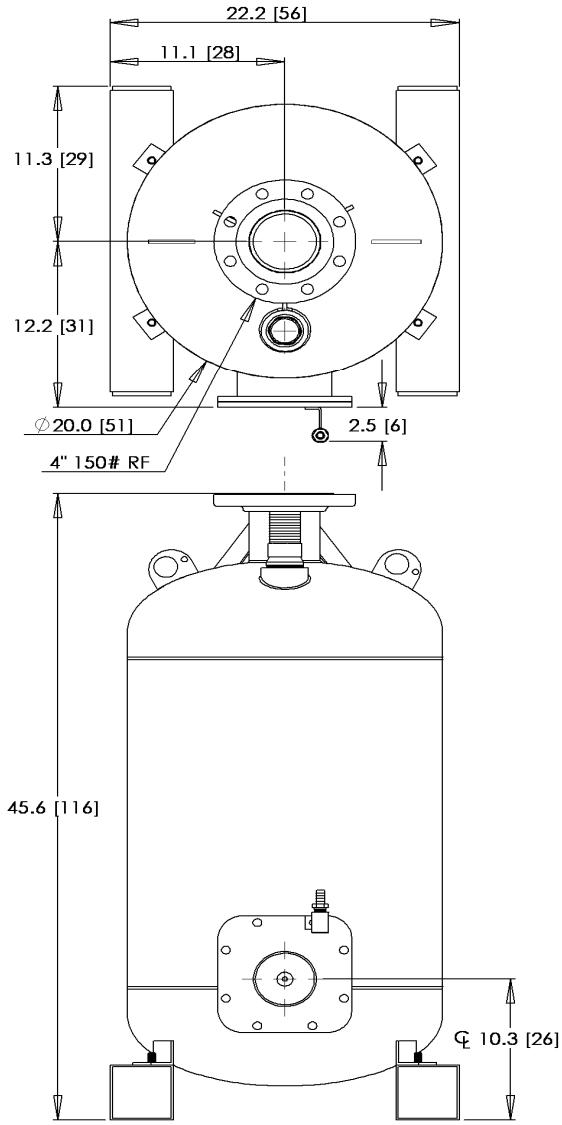
CLASS: Submersed chemical and solids handling

CONSTRUCTION: 316 Stainless Steel

CAPACITY: 0-135 gpm [511 lpm]

DISCHARGE PRESSURE: 0-100 psi [6.9 Bar]

MAX SOLID: 3.75” [9.5 cm]



CONFIGURATION OPTIONS

- ALL-PNEUMATIC CONTROL (XP/explosion-proof and remote locations)
- ELECTRO-PNEUMATIC CONTROL (non-XP)
- GRAVITY FILLED
- FLOW INDUCED (vacuum assisted fill)
- HIGH TEMPERATURE (212F/100C)

APPLICATION EXAMPLES

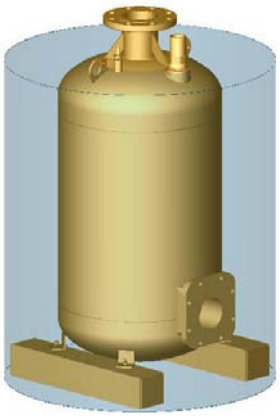
Sumps for: chemical process waste, coal handling and belt conveyor sumps, bottom ash and clinker sumps, muds, wood yard and pulp sumps, machining chips, packing plant waste, poultry offals, blood, XP locations, mill scale, raw sewage.

<u>This pump will handle debris ranging from stringy to abrasive up to 3.75” diameter including slurries.</u>

QUICK SPECS

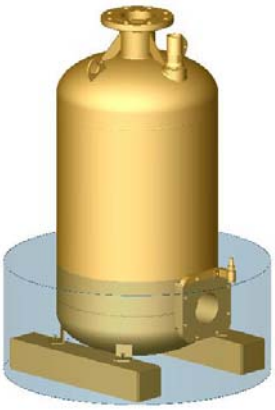
- Weight: 370 lbs [168 kg]
- Stroke Volume: 43 gal [163 l]
- Operating Levels: ‘Flow Induced’ - 15”[38 cm], ‘Gravity’ - 41” [104 cm] *(see reverse side for explanation)*
- Panel Required: either AP300, EP250 or SP310

See reverse side for Specification Details, Flow Curve and Air Consumption



Gravity operation requires an operating level equal to the top of the pump (appr 41").

No compressed air is required for the fill stroke.



F6 flow inducement uses a compressed air powered, vacuum generator mounted to the exhaust valve of the control panel. It applies vacuum to the pump during the fill stroke to lower the operating level (appr 15").
*see note below chart for additional air consumption

To specify a pump select a control panel (required) and seat option. Nitrile (std) 15 ft airlines are provided.

Part# S4X4S/_ /_ _ _

SEAT MATERIAL
N = nitrile (standard)
V = viton
T = teflon
UHD = hard urethane
E = epdm
K = kynar

PANEL OPTIONS
AP300G6 = all-pneumatic, gravity fed
EP250G6 = electro-pneumatic, gravity fed
AP300F6L = all-pneumatic, low vacuum flow induced
EP250F6L = electro-pneumatic, low vacuum flow induced
SP310G6 = electro-pneumatic, single probe, gravity fed
SP310F6 = electro-pneumatic, single probe, high vacuum flow induced

Example:
S4X4S/N/SP310F6 = 4X4" 316SS submersible pump with nitrile seats, SP310F6 control panel.

Panel Requirements: Compressed air or dry gas, unlubricated, recommended 80 psi delivered through 1.25" pipe or equal (applies to all panels).

EP250 and SP310 panels also require 110 vac (<1 A).

Valve seat selection:

- Nitrile - good all-purpose elastomer. Medium chemical, oil and solvent resistance, used up to 150°F.
- Viton - excellent resistance to oxidizers and solvents. Medium strength, used up to 250°F.
- Teflon - excellent chemical resistance to acids, bases and solvents. Lower cycle life, non-elastomeric, used up to 300°F.
- Hard Urethane - high durometer with good abrasion resistance with mild chemical resistance, used up to 150°F.
- EPDM - good heat and acid/base resistance but poor hydrocarbon resistance, used up to 300°F.
- PVDF (kynar) - excellent chemical resistance, toughness and resistance to cold flow (thermoplastic). Good cycle life and can be used up to 250°F.

MAXIMUM FLOW CURVE

with air consumption in SCFM (gravity mode)

HEAD	meters	GPM 15	30	45	60	75	90	105	120	135	150	165	180
	lpm	57	114	170	227	284	341	397	454	511	568	625	681
220 ft	67.1	16	33	49	66	82	99	115					
200 ft	61.0	15	30	46	61	76	91	106					
180 ft	54.9	14	28	42	56	69	83	97					
160 ft	48.8	13	25	38	50	63	76	88					
140 ft	42.7	11	23	34	45	56	68	79	90	102	113	124	136
120 ft	36.6	10	20	30	40	50	60	70	80	90	100	110	120
100 ft	30.5	9	17	26	35	43	52	61	70	78	87	96	104
80 ft	24.4	7	15	22	30	37	44	52	59	67	74	81	89
60 ft	18.3	6	12	18	24	31	37	43	49	55	61	67	73
40 ft	12.2	5	10	14	19	24	29	34	38	43	48	53	58
20 ft	6.1	4	7	11	14	18	21	25	28	32	35	39	42
10 ft	3.0	3	6	9	11	14	17	20	23	26	29	31	34

Operating Flow Capacity: ***anywhere*** *in shaded area.*
Air consumption: *pick closest cell to your flow & pressure*

SP310F6 Panel

Example 1 (gravity fill): 90 gpm @ 20 ft TDH requires 21 SCFM

*Note for flow inducement: add 0.22 x gpm to the air consumption (F6).

Example 2 (flow induced): 90 gpm @ 20 ft. Since 90 gpm @ 20 ft uses 21 scfm, then add 0.22 scfm per gpm to that air consumption; in this case 90 x 0.22 scfm or 19.8 scfm. The total consumption is 21 + 19.8 = 40.8 scfm.