



## MODEL S4X4C

CLASS: Submersed solids handling

CONSTRUCTION: Carbon Steel

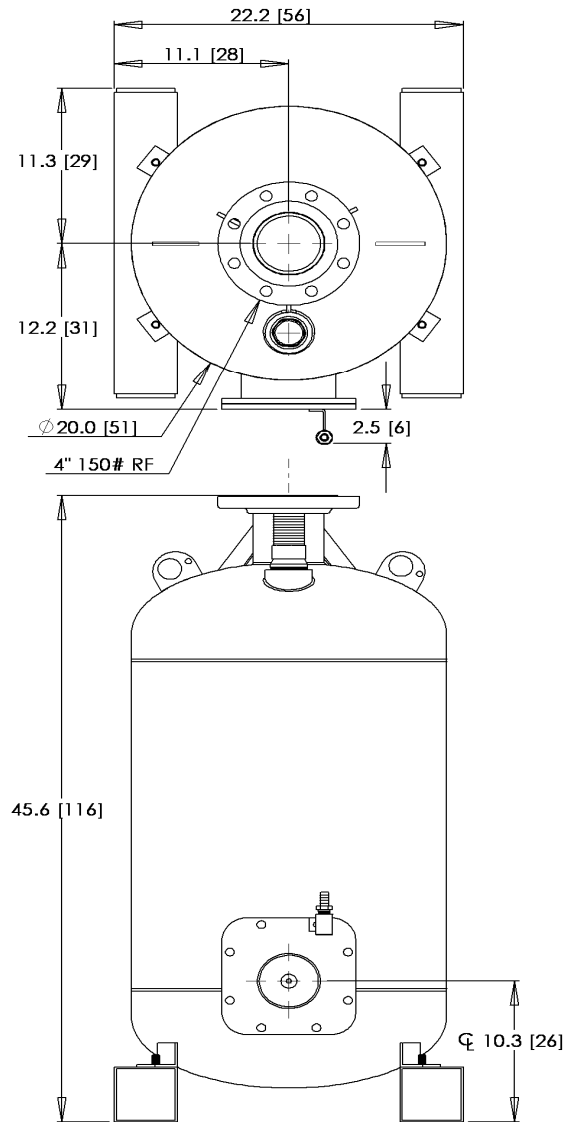
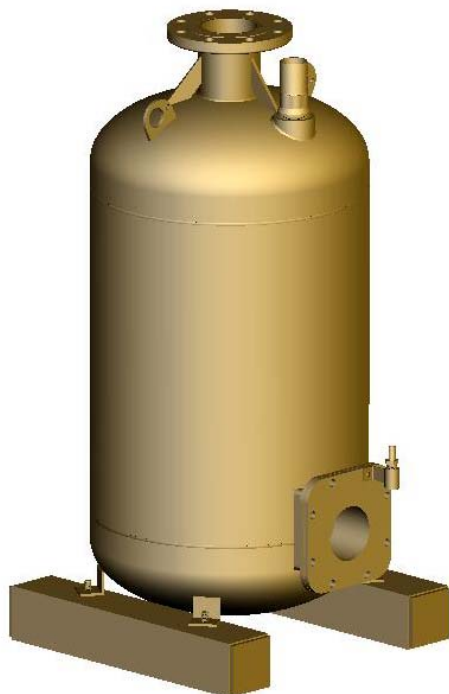
CAPACITY: 0-135 gpm [511 lpm]

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

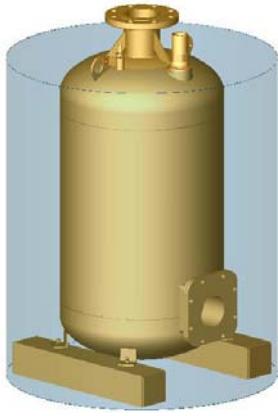
Sumps for: coal handling and belt conveyor sumps, bottom ash and clinker sumps, muds, wood yard and pulp sumps, chemical wastes, machining chips, packing plant waste, poultry offals, XP locations, mill scale, raw sewage.

This pump will handle debris ranging from stringy to abrasive up to 3.75" diameter including slurries.

### QUICK SPECS

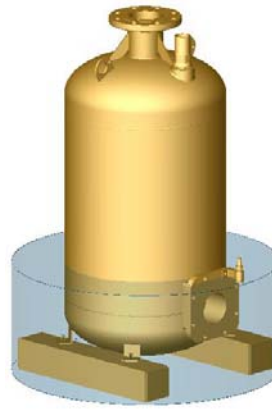
- Weight: 370 lbs [168 kg]
- Stroke Volume: 43 gal [163 l]
- Operating Levels: 'Flow Induced' - 15" [38 cm], 'Gravity' - 41" [104 cm] (see reverse side for explanation)
- Panel Required: either AP300, EP250 or SP310

**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 induction** 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# **S4X4C/** / - - -

**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:**

S4X4C/N/SP310F6 = 4X4” steel submersible pump with nitrile seats, SP310F6 control panel.

**Panel Requirements:** Compressed air or dry gas, unlubricated, recommended 80 psi delivered through 1-1/4” 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													
<b>220 ft</b>	67.1	16	33	49	66	82	99	115	Operating Flow Capacity: <i>anywhere in shaded area.</i>				
<b>200 ft</b>	61.0	15	30	46	61	76	91	106	Air consumption: <i>pick closest cell to your flow &amp; pressure</i>				
<b>180 ft</b>	54.9	14	28	42	56	69	83	97					
<b>160 ft</b>	48.8	13	25	38	50	63	76	88					
<b>140 ft</b>	42.7	11	23	34	45	56	68	79	90	102	113	124	136
<b>120 ft</b>	36.6	10	20	30	40	50	60	70	80	90	100	110	120
<b>100 ft</b>	30.5	9	17	26	35	43	52	61	70	78	87	96	104
<b>80 ft</b>	24.4	7	15	22	30	37	44	52	59	67	74	81	89
<b>60 ft</b>	18.3	6	12	18	24	31	37	43	49	55	61	67	73
<b>40 ft</b>	12.2	5	10	14	19	24	29	34	38	43	48	53	58
<b>20 ft</b>	6.1	4	7	11	14	18	21	25	28	32	35	39	42
<b>10 ft</b>	3.0	3	6	9	11	14	17	20	23	26	29	31	34
<b>GPM</b>		<b>15</b>	<b>30</b>	<b>45</b>	<b>60</b>	<b>75</b>	<b>90</b>	<b>105</b>	<b>120</b>	<b>135</b>	<b>150</b>	<b>165</b>	<b>180</b>
lpm		57	114	170	227	284	341	397	454	511	568	625	681

SP310F6 Panel



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

\*Note for flow induction: 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.