PITBULL
INDUSTRIAL PUMPS ®

23.0 [58]

12.9 [33]   10.1 [26]

4" NPT

⌀ 22 [56]

⌀ 20.0 [51]

MODEL S4S

CLASS: Submersed chemical and solids handling
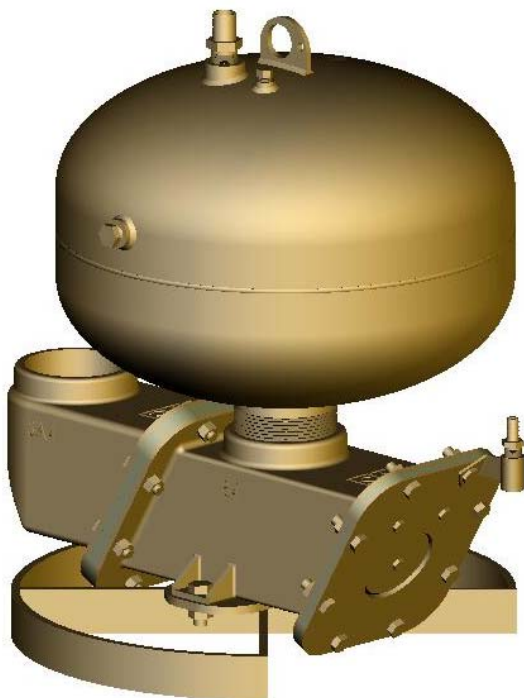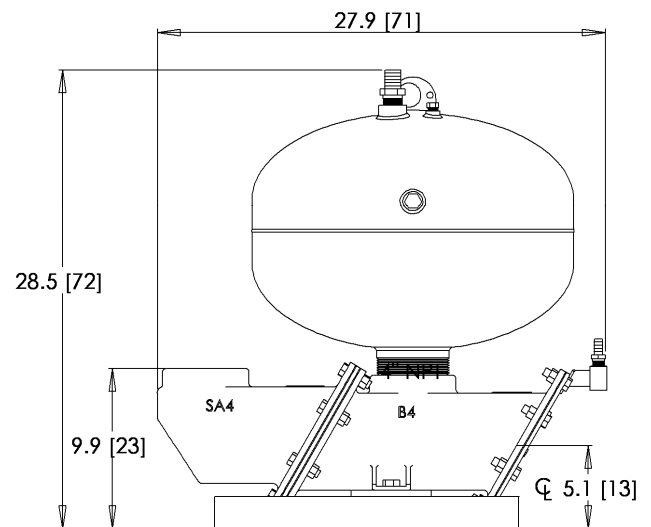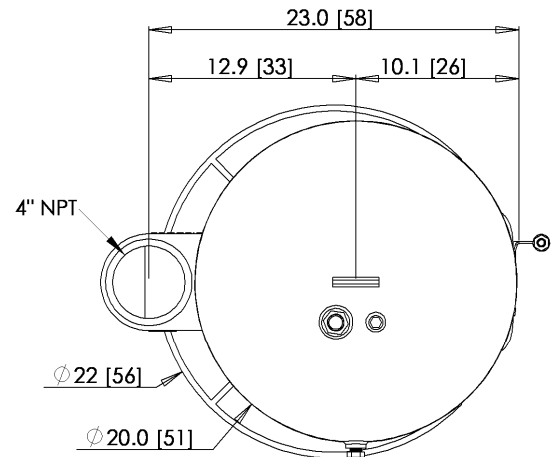
CONSTRUCTION: 316 Stainless Steel

CAPACITY: 0-100 gpm [379 lpm]

DISCHARGE PRESSURE: 0-100 psi [6.9 Bar]

MAX SOLID: 3.75" [10 cm]

27.9 [71]

28.5 [72]

SA4   B4

9.9 [23]

℄ 5.1 [13]

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 wastewater, acid/caustic wash-down, tank farms, secondary containment, solvents and extraction fluids, coal yards/belts, mining solids, packing plant waste, chicken offals, grains/mash, blood, boiler blow down, hot tallow, raw sewage, remote compressor stations, solvents/oils.

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

QUICK SPECS

- Weight: 148 lbs [67 kg]
- Stroke Volume: 13.5 gal [51.1 l]
- Operating Levels: 'Flow Induced' - 10"[25 cm], 'Gravity' - 26" [66 cm] *(see reverse side for explanation)*
- Panel Required: either AP300 or EP250

See reverse side for Specification Details, Flow Curve and Air Consumption
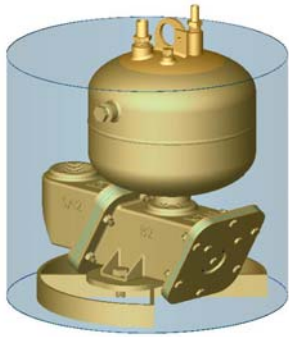
Gravity operation requires an operating level equal to the top of the pump (appr 26").

No compressed air is required for the fill stroke.

F4L 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 10").
*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# S4S/_ /_ _ _

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

PANEL OPTIONS
AP300G4 = all-pneumatic, gravity fed.
EP250G4 = electro-pneumatic, gravity fed.
AP300F4L = all-pneumatic, low vacuum flow induced.
EP250F4L = electro-pneumatic, low vacuum flow induced.

Example:
 S4S/V/AP300G4 = 4" 316SS submersible pump with viton seats, AP300G4 control panel.

Panel Requirements: Compressed air or dry gas, unlubricated, recommended 80 psi delivered through 3/4" pipe or equal (applies to all panels).

EP250 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)

AP300G4 Panel

HEAD	meters										
220 ft	67.1	11	22	33	44	55					
200 ft	61.0	10	20	30	41	51					
180 ft	54.9	9	19	28	37	46					
160 ft	48.8	8	17	25	34	42					
140 ft	42.7	8	15	23	30	38					
120 ft	36.6	7	13	20	27	33	40	47	53	60	67
100 ft	30.5	6	12	17	23	29	35	41	46	52	58
80 ft	24.4	5	10	15	20	25	30	35	39	44	49
60 ft	18.3	4	8	12	16	20	24	28	33	37	41
40 ft	12.2	3	6	10	13	16	19	22	26	29	32
20 ft	6.1	2	5	7	9	12	14	16	19	21	23
10 ft	3.0	2	4	6	8	10	11	13	15	17	19
GPM		**10**	**20**	**30**	**40**	**50**	**60**	**70**	**80**	**90**	**100**
lpm		38	76	114	151	189	227	265	303	341	379

Operating Flow Capacity: *anywhere* in shaded area.

Air consumption: *pick closest cell to your flow & pressure*

Example 1 (gravity fill): 80 gpm @ 20 ft TDH requires 19 scfm

*Note for flow inducement: add 0.17 x gpm to the air consumption.

Example 2 (flow induced): 80 gpm @ 20 ft. Since 80 gpm @ 20 ft uses 19 scfm, then add 0.17 scfm per gpm to that air consumption; in this case 80 x 0.17 scfm or 13.6 scfm. The total consumption is 19 + 13.6 = 32.6 scfm