



MODEL F2C

CLASS: Sludge and slurry handling

CONSTRUCTION: Carbon Steel

CAPACITY: 0-50 gpm [191 lpm]

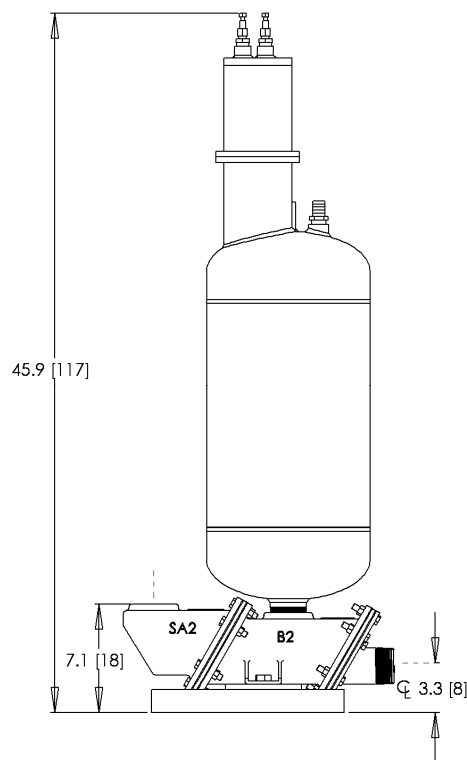
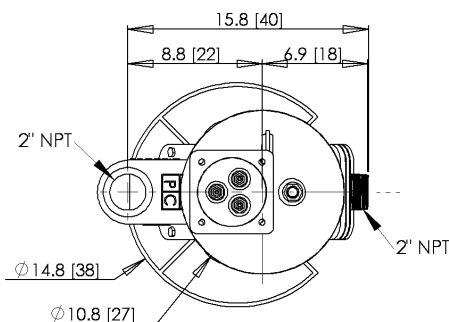
DISCHARGE PRESSURE: 0-125 psi [8.6 Bar]

MAX SOLID: 2" [5 cm]

CONFIGURATION OPTIONS

- ELECTRO-PNEUMATIC CONTROL (for non-explosion proof environments)
- GRAVITY FILLED
- FLOW INDUCED (vacuum assisted fill)
- HIGH TEMPERATURE (212F/100C)

Large stroke volume = low cycle and wear rates
Low internal velocities = low erosive wear



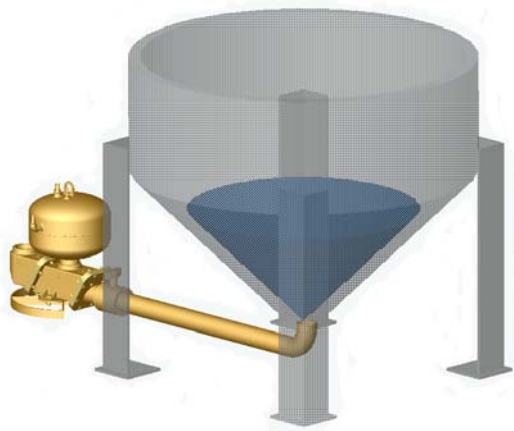
APPLICATION EXAMPLES

Clarifier sludge transfer, sludge de-watering feed to plate and frame filter press, belt filterpress, rotary drum filter, muds, BOF sludge, municipal primary and secondary sludge, sand, silt, stone cutting run-off, TiO₂ transfer and de-watering, diatomaceous earth, coal fines, mill scale, hot slurries. Fluid must be water-based/conductive.

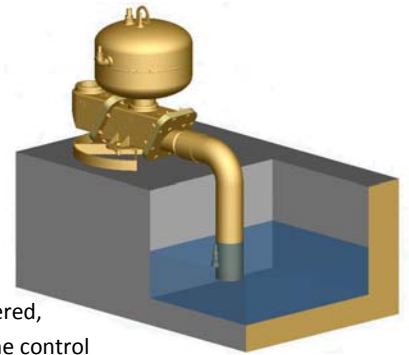
QUICK SPECS

- Weight: 109 lbs [49 kg]
- Stroke Volume: 7.7 gal [29 l]
- Operating Level: 'Gravity' - 27" [69 cm] above pump grade
 Optional Suction Lift: 'Flow Induced' - 120" [3 m] maximum suction lift
(see reverse side for explanation)
- Panel Required: DP310

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



Gravity operation (left) requires an operating level equal to or above the top of the pump (appr 27" above grade) .
No compressed air is required for the fill stroke.



F2 flow induction (right) uses an air powered, vacuum generator on the exhaust valve of the control panel. It applies vacuum to the pump during the fill stroke to pull fluid up into the pump. 10 ft of lift is the recommended max.

*see note below chart for additional air consumption

Part# **F2C / - / - -**

SEAT MATERIAL

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

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

PANEL OPTIONS

- DP310G2 = electro-pneumatic, dual probe, gravity fed.
- DP310F2 = electro-pneumatic, dual probe, flow induced.

Example:

F2C/N/DP310G2 = 2" steel filter press feed pump with nitrile seats, DP310G2 control panel.

Panel Requirements: Compressed air or dry gas, unlubricated, recommended 80 psi delivered through 3/4" pipe or equal and 110 vac (<1 A) power.

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	5	10	15	20	25	30	35	40	45	50	55	60
220 ft 67.1	5.5	11.0	16.5	22.0	27.5	33.0	38.5	44.0	49.5	55.0	60.5	66.0
200 ft 61.0	5.1	10.1	15.2	20.3	25.3	30.4	35.4	40.5	45.5	50.5	55.5	60.5
180 ft 54.9	4.6	9.3	13.9	18.5	23.2	27.8	32.4	37.0	41.6	46.2	50.8	55.4
160 ft 48.8	4.2	8.4	12.6	16.8	21.0	25.2	29.4	33.6	37.8	42.0	46.2	50.4
140 ft 42.7	3.8	7.5	11.3	15.1	18.8	22.6	26.4	30.1	33.9	37.7	41.4	45.2
120 ft 36.6	3.3	6.7	10.0	13.3	16.7	20.0	23.3	26.7	30.0	33.3	36.7	40.0
100 ft 30.5	2.9	5.8	8.7	11.6	14.5	17.4	20.3	23.2	26.1	29.0	31.9	34.8
80 ft 24.4	2.5	4.9	7.4	9.9	12.3	14.8	17.3	19.7	22.2	24.7	27.1	29.6
60 ft 18.3	2.0	4.1	6.1	8.1	10.2	12.2	14.2	16.3	18.3	20.3	22.4	24.4
40 ft 12.2	1.6	3.2	4.8	6.4	8.0	9.6	11.2	12.8	14.4	16.0	17.6	19.2
20 ft 6.1	1.2	2.3	3.5	4.7	5.8	7.0	8.2	9.3	10.5	11.7	12.8	14.0
10 ft 3.0	1.0	1.9	2.9	3.8	4.8	5.7	6.7	7.6	8.6	9.5	10.5	11.4
GPM	5	10	15	20	25	30	35	40	45	50	55	60
lpm	19	38	57	76	95	114	132	151	170	189	208	227

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

DP310G2 Panel



Example 1 (gravity fill): 40 gpm @ 20 ft TDH requires 9.3 scfm

*Note for flow induction: add 0.45 x gpm to the air consumption.

Example 2 (flow induced): 40 gpm @ 20 ft using suction lift. Since 40 gpm at 20 ft uses 9.3 scfm (from chart), then add 0.45 scfm per gpm to the consumption; in this case 40 x 0.45scfm or 18 scfm. The total consumption is 9.3 + 18 = 28.5 scfm.