



P3 Series High Flow Chemical Injection/Pressure Test Skids Data Sheet Model Numbers:

P3-40-DA-SK (MWP 5,750 psig) P3-28-DA-SK (MWP 11,850 psig) P3-20-DA-SK (MWP 20,000 psig)

The P3 series skids are heavy duty chemical injection/pressure test units. P3 series skids are modular in design to incorporate any one of the three available P3 pump units in the range regardless of the pressure and flow making it a versatile and cost effective skid & pump package.

P3 series skids are available in three different pump models, 40mm, 28mm & 20mm to provide a wide range of pressures and flows to 20,000 psig.

The P3 pump utilises a common air motor, shuttle valve assembly, hydraulic section housings and check valves and has been designed to be modular using interchangeable inserts, pistons and components permitting the pump to be economically reconfigured to either the 40mm, 28mm or 20mm model for different pressures and flows within a short period of time.

All P3 series pumps are CE marked, ATEX compliant (94/9/EC) II 2 Gc T6 & NACE compliant as standard and suitable for H2S fluid service.

Skid Overview Standard Sale/Rental Build Unit:

Frame Construction:	Heavy duty 316 stainless steel (30x30x3) box section frame c/w forklift pockets & drip tray. Four tie down points. Two earth bonding points. 2mm SS control panel with engraved P&ID. (SS wheels can be fitted as an option for more portability)		
Pump Selection:	(CP-P3-40-D, MWP 5,750 psig) or (CP-P3-28-D, MWP 11,850 psig) or (CP-P3-20-D, MWP 23,300 psig)		
Air Drive:	Norgren Series 68 Filter/Regulator/Lubricator/Ball Valve & pilot air filter. Pneumatic panel mounted stroke counter. Stewart 60mm filled SS panel mounted pressure gauge. 1" Stainless steel interconnecting fittings and pipework. (MWP 200 psig)		
Fluid Inlet:	Stainless steel isolation valve. 50 mesh Y strainer filter. 1" Stainless steel interconnecting fittings and pipework. (MWP 600 psig)		
Fluid Discharge:	Swagelok SS high cycle ball to metal seat non return valve. BIS SS adjustable PRV. Swagelok SS HP isolation valve. Swagelok SS HP vent vale. Stewart 100mm filled SS panel mounted pressure gauge. 9/16" MP Stainless steel interconnecting fittings and pipework. (MWP 20,000 psig)		
Total Net Weight:	166.5Kg	Maximum Noise Level:	90 db

Skid Connection Sizes:

Air Inlet:	1" NPT (F) Bulkhead.	Fluid Inlet:	1" NPT (F) Bulkhead.	Fluid Discharge:	9/16" MP (F) Bulkhead.
System Vent:	3/8" NPT (F) Bulkhead.	PRV Vent:	3/8" NPT (F) Bulkhead.		

Pump Performance:

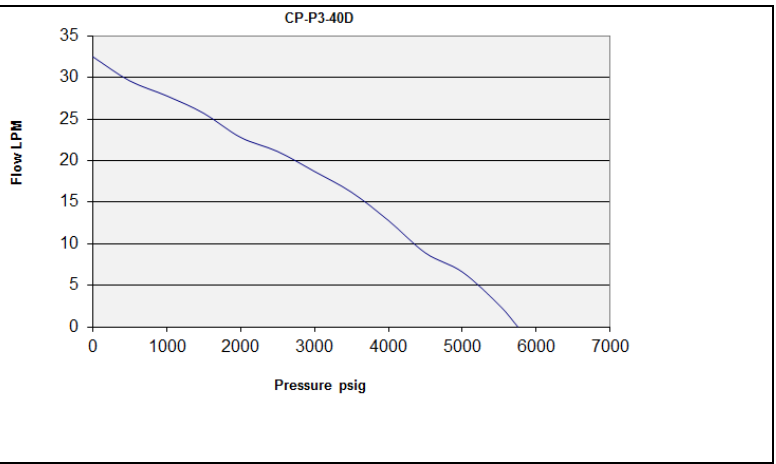
Max Pump Air Supply:	100 psig.	Max Pilot Air Supply:	100 psig.
Max Air Consumption:	250 scfm.	Air Quality Required:	Cooled & dry plant air.
Pump Ratio:	(40mm: 57.5-1)	(28mm: 118.4-1)	(20mm: 233-1)
Max Discharge Pressure Static:	(40mm: 5,750 psig)	(28mm: 11,850 psig)	(20mm: 23,300 psig)
Discharge Volume per Stroke:	(40mm: 246.2cc)	(28mm: 120.6cc)	(20mm: 61.5cc)
Max Discharge Flow @ 0 psig:	(40mm: 32.5 LPM)	(28mm: 16.0 LPM)	(20mm: 8.6 LPM)

Air input to hydraulic discharge pressure static/stall values.

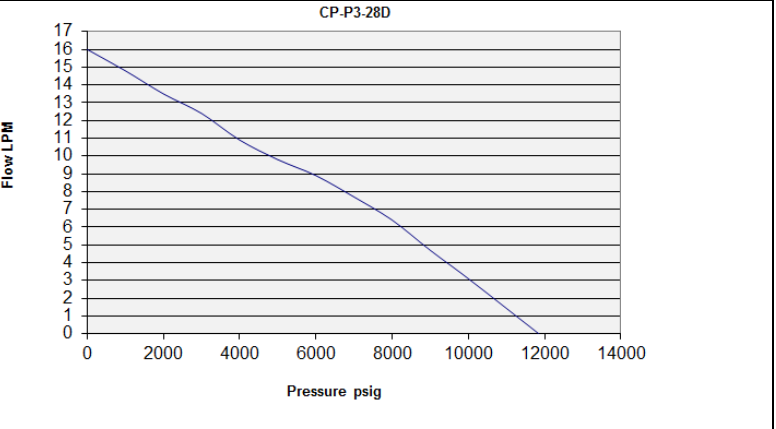
Pump Model	Hydraulic Piston Diameter	Pump Ratio	20 psig Air Supply	40 psig Air Supply	60 psig Air Supply	80 psig Air Supply	100 psig Air Supply
CP-P3-40-D	40mm	57.5-1	1,150	2,300	3,450	4,600	5,750
CP-P3-28-D	28mm	118.5-1	2,370	4,740	7,110	9,480	11,850
CP-P3-20-D	20mm	233-1	4,660	9,320	13,980	18,640	23,300

Flow Chart. Air Supply Pressure @ 100 psig Cooled & Dry Plant Air (Performance Curves For Guidance Only)

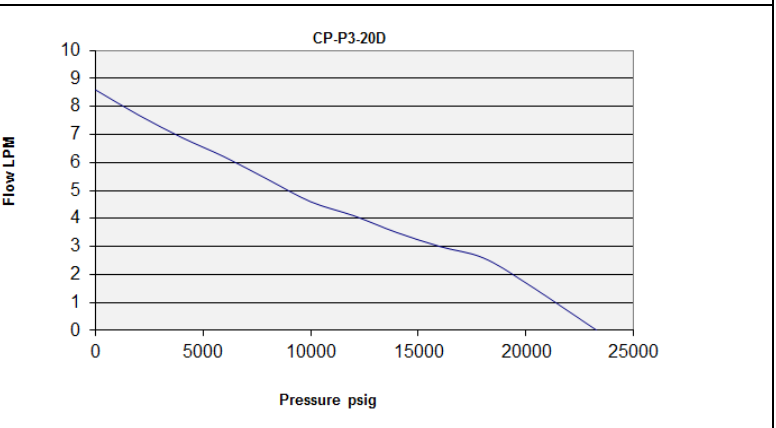
Pressure psig	CP-P3-40D Flow LPM	Air Consumption scfm
0	32.5	250
500	29.6	245
1000	27.8	240
1500	25.7	235
2000	22.8	225
2500	21.1	220
3000	18.7	205
3500	16.2	195
4000	12.8	170
4500	8.9	114
5000	6.6	100
5500	2.6	50



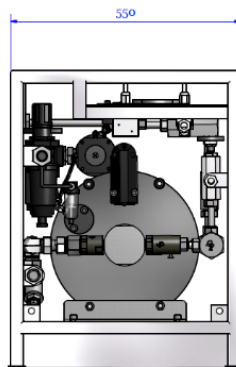
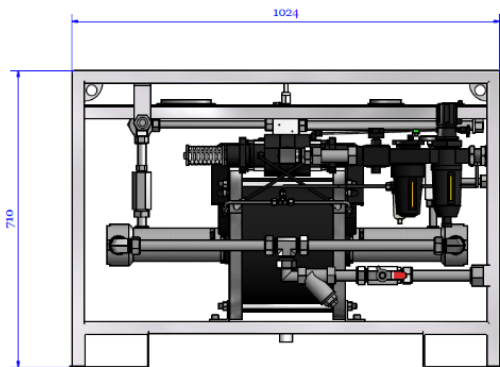
Pressure psig	CP-P3-28D Flow LPM	Air Consumption scfm
0	16.0	250
1000	14.8	245
2000	13.5	240
3000	12.4	235
4000	10.9	230
5000	9.8	220
6000	8.9	200
7000	7.7	180
8000	6.4	140
9000	4.7	120
10000	3.1	90



Pressure psig	CP-P3-20D Flow LPM	Air Consumption scfm
0	8.6	250
2000	7.7	245
4000	6.9	240
6000	6.2	230
8000	5.4	215
10000	4.6	190
12000	4.1	180
14000	3.5	170
16000	3.0	160
18000	2.6	140
20000	1.7	90



General Arrangement Drawing.



P&ID

