



Ariel Performance



Company: Ariel Corporation

Customer: Keyera

Quote:

Inquiry:

7.7.3.0 Case 1: K-5000

Project: K-5000 Acid Gas Injection

Compressor Data:

Elevation,ft:	2850.00	Barmtr,kPaa:	91.192	Ambient,°C:	15.00
Frame:	JG/4	Stroke, in:	3.50	Rod Dia, in:	1.125
Max RL Tot, lbf:	18000	Max RL Tens, lbf:	9000	Max RL Comp, lbf:	10000
Rated RPM:	1500	Rated BHP:	504.0	Rated PS FPM:	875.0
Calc RPM:	1120.0	BHP:	123	Calc PS FPM:	653.3

Driver Data:

Type: [VFD](#)
Mfg:
Model: 60 Hz - 6 Po
BHP: -0 (5.00%)
Avail: -0

[SOUR GAS-2](#)

Services

Gas Model

Acid Gas I

VMG

Stage Data:

	1	2	3	4
Target Flow, E3m3/D	0.000	0.000	0.000	0.000
Flow Calc, E3m3/D	13.960	13.875	13.686	13.645
BHP per Stage	20.9	35.6	32.8	29.1
Specific Gravity	1.4593	1.4645	1.4760	1.4786
Ratio of Sp Ht (N)	1.2858	1.2785	1.2904	1.3188
Comp Suct (Zs)	0.9922	0.9883	0.9620	0.8770
Comp Disch (Zd)	0.9909	0.9835	0.9488	0.8579
Pres Suct Line, kPag	50.00	N/A	N/A	N/A
Pres Suct Flg, kPag	48.59	127.08	587.40	2029.43
Pres Disch Flg, kPag	138.10	616.37	2080.19	6648.95
Pres Disch Line, kPag	N/A	N/A	N/A	6580.00
Pres Ratio F/F	1.640	3.242	3.200	3.178
Temp Suct, °C	26.67	30.00	26.00	27.00
Temp Clr Disch, °C	30.00	26.00	27.00	30.00

Cylinder Data:

	Throw 4	Throw 3	Throw 2	Throw 1
Cyl Model	13-1/2JG	8-7/8JG	5-1/8JG	3JG
Cyl Bore, in	13.000	8.500	4.750	2.750
Cyl RDP (API), kPag	620.5	2350.5	5421.8	15983.3
Cyl MAWP, kPag	792.9	2585.5	5964.0	17581.6
Cyl Action	CE(HEVR)	DBL	DBL	DBL
Cyl Disp, CFM	298.9	255.2	78.1	24.7
Pres Suct Intl, kPag	29.50	113.84	552.84	1956.95
Temp Suct Intl, °C	32	34	29	30
Pres Disch Intl, kPag	164.09	656.97	2178.75	6849.72
Temp Disch Intl, °C	88	134	128	134
HE Suct Gas Vel, FPM	N/A	5386	4904	4055
HE Disch Gas Vel, FPM	N/A	5014	4416	3617
HE Spcrs Used/Max	N/A	0/4	0/2	0/1
HE Vol Pkt Avail	N/A	No Pkt	No Pkt	0.62+33.05
Vol Pkt Used	N/A %	No Pkt	No Pkt	0.00 (V) %
HE Min Clr, %	N/A	18.66	18.59	20.24
HE Total Clr, %	N/A	18.66	18.59	20.86
CE Suct Gas Vel, FPM	8019	5291	4629	3376
CE Disch Gas Vel, FPM	6614	4926	4168	3012
CE Spcrs Used/Max	0/0	0/4	0/2	0/1
CE Min Clr, %	18.89	19.26	20.51	26.61
CE Total Clr, %	18.89	19.26	20.51	26.61
Suct Vol Eff HE/CE, %	N/A/87.4	64.8/63.9	65.4/62.6	62.9/54.6
Disch Event HE/CE, ms	N/A/15.9	8.3/9.8	8.5/9.8	8.5/9.4
Suct Pseudo-Q HE/CE	N/A/8.1	7.2/7.0	5.3/4.7	3.9/2.7
Gas Rod Ld Comp, %	4.3 C	44.9 C	42.7 C	45.2 C
Gas Rod Ld Tens, %	24.9 T	48.6 T	42.8 T	35.7 T
Gas Rod Ld Total, %	14.8	49.2	45.1	42.9
Xhd Pin Deg/%RvrsI lbf	173/64.7	135/87.6	170/82.3	180/57.8
Flow Calc, E3m3/D	13.960	13.875	13.686	13.645
Cyl BHP	20.9	35.6	32.8	29.1