



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:	750.0	BHP:	76	Calc PS FPM:	437.5

SOUR GAS-2

Driver Data:

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

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	9.404	9.345	9.219	9.191
BHP per Stage	11.0	22.6	21.0	18.9
Specific Gravity	1.4593	1.4645	1.4760	1.4786
Ratio of Sp Ht (N)	1.2858	1.2786	1.2905	1.3189
Comp Suct (Zs)	0.9922	0.9882	0.9618	0.8766
Comp Disch (Zd)	0.9909	0.9834	0.9486	0.8575
Pres Suct Line, kPag	50.00	N/A	N/A	N/A
Pres Suct Flg, kPag	48.59	128.21	590.46	2035.58
Pres Disch Flg, kPag	139.23	619.43	2086.35	6648.95
Pres Disch Line, kPag	N/A	N/A	N/A	6580.00
Pres Ratio F/F	1.648	3.239	3.194	3.169
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	200.1	170.9	52.3	16.5
Pres Suct Intl, kPag	39.97	122.24	574.89	2002.96
Temp Suct Intl, °C	30	34	29	30
Pres Disch Intl, kPag	151.39	638.00	2131.25	6739.90
Temp Disch Intl, °C	75	128	123	130
HE Suct Gas Vel, FPM	N/A	3607	3284	2715
HE Disch Gas Vel, FPM	N/A	3357	2957	2422
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	5370	3543	3100	2261
CE Disch Gas Vel, FPM	4429	3299	2791	2017
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/87.3	64.8/63.9	65.5/62.7	63.1/54.8
Disch Event HE/CE, ms	N/A/23.6	12.4/14.7	12.7/14.7	12.7/14.0
Suct Pseudo-Q HE/CE	N/A/3.7	3.2/3.1	2.4/2.1	1.8/1.2
Gas Rod Ld Comp, %	2.0 C	42.6 C	40.9 C	43.8 C
Gas Rod Ld Tens, %	21.9 T	46.1 T	41.0 T	34.5 T
Gas Rod Ld Total, %	12.1	46.7	43.2	41.6
Xhd Pin Deg/%RvrsI lbf	98/64.8	169/93.4	173/86.2	179/64.9
Flow Calc, E3m3/D	9.404	9.345	9.219	9.191
Cyl BHP	11.0	22.6	21.0	18.9