



Ariel Performance



Company: Ariel Corporation

Customer:

Quote:

Inquiry:

7.7.8.0

Case 1:

Project:

Bria is the best

Compressor Data:

Elevation,ft:	1111.00	Barmtr,psia:	14.108	Ambient,F:	100.00
Frame:	JGJ/6	Stroke, in:	3.50	Rod Dia, in:	1.500
Max RL Tot, lbf:	42000	Max RL Tens, lbf:	21000	Max RL Comp, lbf:	23000
Rated RPM:	1800	Rated BHP:	1860.0	Rated PS FPM:	1050.0
Calc RPM:	1200.0	BHP:	679	Calc PS FPM:	700.0

Driver Data:

Type:	Unselected
Mfg:	
Model:	
BHP:	0
Avail:	0

Services

Gas Model

Service 1

VMG-APRNL2

Service 2

VMG-APRNL2

Stage Data:

	1 (SG)	2	3	4	1	
Target Flow, MMSCFD	3.000	3.000	3.000	3.000	3.000	
Flow Calc, MMSCFD	3.229	3.229	2.943	1.977	4.427	
BHP per Stage	192.4	161.6	123.0	97.0	92.9	
Specific Gravity	<u>1.5000</u>	<u>1.5000</u>	<u>1.4393</u>	1.3306	0.9626	
Ratio of Sp Ht (N)	1.1281	1.1294	1.1513	1.2000	1.2673	
Comp Suct (Zs)	0.9684	0.9395	0.8848	0.7790	0.5626	
Comp Disch (Zd)	0.9424	0.9001	0.8104	0.6296	0.5689	
Pres Suct Line, psig	15.00	N/A	N/A	N/A	700.00	
Pres Suct Flg, psig	14.71	52.18	117.42	257.72	692.86	
Pres Disch Flg, psig	54.15	121.87	264.45	760.00	1262.64	
Pres Disch Line, psig	N/A	N/A	N/A	750.00	1250.00	
Pres Ratio F/F	2.369	2.051	2.118	2.848	1.806	
Temp Suct, F	80.00	120.00	120.00	120.00	80.00	
Temp Clr Disch, F	120.00	120.00	120.00	120.00	120.00	
Cylinder Data:	<u>Throw 1</u>	Throw 3	Throw 5	Throw 6	Throw 4	<u>Throw 2</u>
Cyl Model	15-3/4RJ	15-3/4RJ	13-1/2RJ	9-3/4RJ	5-1/2RJ	3-7/8RJ
Cyl Bore, in	15.250	15.250	13.500	9.250	5.500	3.625
Cyl RDP (API), psig	175.0	175.0	272.7	577.3	1568.2	2000.0
Cyl MAWP, psig	200.0	200.0	300.0	635.0	1725.0	2200.0
Cyl Action	DBL	DBL	DBL	DBL	DBL	DBL
Cyl Disp, CFM	883.6	883.6	691.5	322.4	111.2	45.9
Pres Suct Intl, psig	10.22	10.22	43.83	109.03	238.32	654.57
Temp Suct Intl, F	84	84	123	123	124	82
Pres Disch Intl, psig	66.31	66.31	140.58	284.90	817.50	1323.41
Temp Disch Intl, F	163	163	193	195	253	168
HE Suct Gas Vel, FPM	8340	8340	7662	5435	5753	5062
HE Disch Gas Vel, FPM	7849	7849	6909	4929	4857	4281
HE Spcrs Used/Max	0/2	0/2	0/2	0/2	0/2	0/0
HE Vol Pkt Avail	1.42+71.36	1.42+71.36	No Pkt	No Pkt	No Pkt	0.95+54.36
Vol Pkt Used	0.00 (V) %	0.00 (V) %	No Pkt	No Pkt	No Pkt	0.00 (V) %
HE Min Clr, %	23.72	23.72	20.32	22.72	17.10	21.48
HE Total Clr, %	25.14	25.14	20.32	22.72	17.10	22.43
CE Suct Gas Vel, FPM	8260	8260	7568	5292	5325	4195
CE Disch Gas Vel, FPM	7773	7773	6824	4800	4496	3548
CE Spcrs Used/Max	0/2	0/2	0/2	0/2	0/2	0/0
CE Min Clr, %	24.29	24.29	21.18	23.82	19.74	28.67
CE Total Clr, %	24.29	24.29	21.18	23.82	19.74	28.67
Suct Vol Eff HE/CE, %	64.6/65.6	64.6/65.6	75.8/74.9	70.5/69.3	60.5/55.3	83.0/79.5
Disch Event HE/CE, ms	8.6/10.0	8.6/10.0	10.3/11.5	9.7/11.0	7.8/8.6	12.1/13.2
Suct Pseudo-Q HE/CE	4.5/4.4	4.5/4.4	6.1/6.0	6.6/6.2	5.5/4.7	4.5/3.1
Gas Rod Ld Comp, %	44.7 C	44.7 C	60.6 C	52.3 C	62.0 C	35.3 C
Gas Rod Ld Tens, %	48.2 T	48.2 T	64.7 T	53.8 T	58.4 T	21.6 T
Gas Rod Ld Total, %	48.5	48.5	65.5	55.5	63.1	30.1
Xhd Pin Deg/%RvrsI lbf	173/92.1	173/92.1	146/87.5	144/81.3	169/72.6	152/64.1
Flow Calc, MMSCFD	1.615	1.615	3.229	2.943	1.977	4.427
Cyl BHP	96.2	96.2	161.6	123.0	97.0	92.9