



## Ariel Performance



Company: Ariel Corporation  
Quote:  
Case 1:

Customer: Acme  
Inquiry:  
Project: Jay Project

**7.7.8.0**

### Compressor Data:

Elevation,ft:	2700.00	Barmtr,psia:	13.300	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:	737	Calc PS FPM:	700.0

### Driver Data:

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

### Services

Gas Model

#### Stage Data:

Target Flow, MMSCFD	3.500
Flow Calc, MMSCFD	2.144
BHP per Stage	102.1
Specific Gravity	0.6500
Ratio of Sp Ht (N)	1.2529
Comp Suct (Zs)	0.9876
Comp Disch (Zd)	0.9841
Pres Suct Line, psig	50.00
Pres Suct Flg, psig	49.37
Pres Disch Flg, psig	130.88
Pres Disch Line, psig	N/A
Pres Ratio F/F	2.301
Temp Suct, F	80.00
Temp Clr Disch, F	120.00

#### Cylinder Data:

Cyl Model	11-1/2RJ
Cyl Bore, in	11.500
Cyl RDP (API), psig	454.5
Cyl MAWP, psig	500.0
Cyl Action	DBL
Cyl Disp, CFM	500.6
Pres Suct Intl, psig	47.04
Temp Suct Intl, F	85
Pres Disch Intl, psig	135.73
Temp Disch Intl, F	194
HE Suct Gas Vel, FPM	6272
HE Disch Gas Vel, FPM	5445
HE Spcrs Used/Max	0/2
HE Vol Pkt Avail	1.24+57.26
Vol Pkt Used	0.00 (V) %
HE Min Clr, %	23.58
HE Total Clr, %	24.81
CE Suct Gas Vel, FPM	6166
CE Disch Gas Vel, FPM	5352
CE Spcrs Used/Max	0/2
CE Min Clr, %	24.56
CE Total Clr, %	24.56
Suct Vol Eff HE/CE, %	71.4/71.7
Disch Event HE/CE, ms	9.7/11.1
Suct Pseudo-Q HE/CE	2.1/2.0
Gas Rod Ld Comp, %	40.4 C
Gas Rod Ld Tens, %	42.7 T
Gas Rod Ld Total, %	43.5
Xhd Pin Deg/%RvrsI lbf	148/84.9
Flow Calc, MMSCFD	2.144
Cyl BHP	102.1

### Service 1

VMG-APRNGL2

#### 1 (SG)

3.500	3.500
2.144	2.144
136.6	136.6
0.6500	0.6500
1.2458	1.2458
0.9784	0.9784
0.9731	0.9731
N/A	N/A
125.88	125.88
394.93	394.93
N/A	N/A
2.933	2.933
120.00	120.00
120.00	120.00

#### Throw 1

11-1/2RJ	8-3/8RJ
8.375	8.375
577.3	577.3
635.0	635.0
DBL	DBL
263.5	263.5
122.97	122.97
125	125
402.59	402.59
270	270
4893	4893
4300	4300
0/2	0/2
No Pkt	No Pkt
No Pkt	No Pkt
20.09	20.09
20.09	20.09
4736	4736
4163	4163
0/2	0/2
21.33	21.33
21.33	21.33
66.0/64.3	66.0/64.3
8.3/9.3	8.3/9.3
1.8/1.7	1.8/1.7
68.0 C	68.0 C
69.9 T	69.9 T
72.2	72.2
173/88.5	173/88.5
2.144	2.144
136.6	136.6

#### 2

3.500	3.500
2.134	2.134
143.6	143.6
0.6476	0.6476
1.2599	1.2599
0.9407	0.9407
0.9435	0.9435
N/A	N/A
385.65	385.65
1262.63	1262.63
1250.00	1250.00
3.198	3.198
120.00	120.00
120.00	120.00

#### Throw 3

5-1/2RJ	5-1/2RJ
5.125	5.125
1568.2	1568.2
1725.0	1725.0
DBL	DBL
96.0	96.0
377.11	377.11
125	125
1284.45	1284.45
290	290
4995	4995
4217	4217
0/2	0/2
No Pkt	No Pkt
No Pkt	No Pkt
20.64	20.64
20.64	20.64
4567	4567
3856	3856
0/2	0/2
24.05	24.05
24.05	24.05
62.2/57.0	62.2/57.0
7.8/8.5	7.8/8.5
1.7/1.4	1.7/1.4
84.4 C	84.4 C
78.2 T	78.2 T
85.3	85.3
177/76.9	177/76.9
2.134	2.134
143.6	143.6

#### 3

2.500	2.500
2.269	2.269
128.4	128.4
0.6500	0.6500
1.2544	1.2544
0.9812	0.9812
0.9755	0.9755
N/A	N/A
81.05	81.05
242.33	242.33
N/A	N/A
2.710	2.710
80.00	80.00
120.00	120.00

#### Throw 5

9-3/4RJ	9-3/4RJ
9.750	9.750
577.3	577.3
635.0	635.0
DBL	DBL
358.6	358.6
77.81	77.81
85	85
250.76	250.76
217	217
6038	6038
5477	5477
0/2	0/2
1.11+51.77	1.11+51.77
0.00 (V) %	0.00 (V) %
18.94	18.94
20.05	20.05
5896	5896
5347	5347
0/2	0/2
19.84	19.84
19.84	19.84
69.6/69.9	69.6/69.9
8.9/10.1	8.9/10.1
3.5/3.4	3.5/3.4
56.8 C	56.8 C
59.3 T	59.3 T
60.8	60.8
170/87.4	170/87.4
2.269	2.269
128.4	128.4

### Service 2

VMG-APRNGL2

#### 1 (SG)

2.500	2.500
2.269	2.269
105.2	105.2
0.6498	0.6498
1.2564	1.2564
0.9613	0.9613
0.9559	0.9559
N/A	N/A
237.33	237.33
548.29	548.29
N/A	N/A
2.241	2.241
120.00	120.00
120.00	120.00

#### Throw 6

6-3/8RJ	6-3/8RJ
6.000	6.000
1154.5	1154.5
1270.0	1270.0
DBL	DBL
133.1	133.1
232.10	232.10
124	124
558.97	558.97
234	234
4918	4918
4250	4250
0/2	0/2
No Pkt	No Pkt
No Pkt	No Pkt
21.63	21.63
21.63	21.63
4611	4611
3985	3985
0/2	0/2
23.89	23.89
23.89	23.89
75.4/73.4	75.4/73.4
10.1/11.4	10.1/11.4
1.7/1.5	1.7/1.5
42.0 C	42.0 C
39.3 T	39.3 T
42.6	42.6
173/72.4	173/72.4
2.269	2.269
105.2	105.2

#### 2

2.500	2.500
2.264	2.264
108.7	108.7
0.6491	0.6491
1.2697	1.2697
0.9186	0.9186
0.9234	0.9234
N/A	N/A
538.29	538.29
1303.03	1303.03
1290.00	1290.00
2.386	2.386
120.00	120.00
120.00	120.00

#### Throw 4

4-5/8HJ	4-5/8HJ
4.250	4.250
2363.6	2363.6
2600.0	2600.0
DBL	DBL
64.7	64.7
529.00	529.00
124	124
1323.92	1323.92
247	247
4453	4453
3975	3975
0/2	0/2
No Pkt	No Pkt
No Pkt	No Pkt
25.85	25.85
25.85	25.85
3898	3898
3480	3480
0/2	0/2
33.18	33.18
33.18	33.18
69.7/62.6	69.7/62.6
9.4/10.1	9.4/10.1
1.8/1.4	1.8/1.4
53.2 C	53.2 C
42.5 T	42.5 T
50.4	50.4
180/55.6	180/55.6
2.264	2.264
108.7	108.7