



# Ariel Performance



Company:  
Quote:

Customer:  
Inquiry: BM Unit# 060158  
Project: LSD:

7.7.9.1 Case 1: 120psig - 1250psig

### Compressor Data:

Elevation,ft:	2500.00	Barmtr,psia:	13.400	Ambient,F:	90.00
Frame:	<u>JGK/4</u>	Stroke, in:	5.50	Rod Dia, in:	2.000
Max RL Tot, lbf:	74000	Max RL Tens, lbf:	37000	Max RL Comp, lbf:	40000
Rated RPM:	1200	Rated BHP:	2540.0	Rated PS FPM:	1100.0
Calc RPM:	1200.0	BHP:	1287	Calc PS FPM:	1100.0

### Driver Data:

Type:	Nat. Gas
Mfg:	Waukesha
Model:	L7042GL
BHP:	1429 (3.45%)
Avail:	1375 (54)

### SOUR GAS-1

#### Services

Gas Model

#### Service 1

VMG-APRNL2

#### Stage Data:

	<b>1</b>	---	<b>2</b>	---
Target Flow, MMSCFD	9.000	---	9.000	---
Flow Calc, MMSCFD	9.087	---	9.087	---
BHP per Stage	672.1	---	590.5	---
Specific Gravity	0.7006	---	0.7006	---
Ratio of Sp Ht (N)	1.2456	---	1.2541	---
Comp Suct (Zs)	0.9690	---	0.9221	---
Comp Disch (Zd)	0.9566	---	0.9185	---
Pres Suct Line, psig	120.00	---	N/A	---
Pres Suct Flg, psig	118.67	---	416.53	---
Pres Disch Flg, psig	424.70	---	1262.63	---
Pres Disch Line, psig	N/A	---	1250.00	---
Pres Ratio F/F	3.317	---	2.968	---
Temp Suct, F	80.00	---	120.00	---
Temp Clr Disch, F	120.00	---	120.00	---

#### Cylinder Data:

	<b>Throw 1</b>	<b>Throw 3</b>	<b>Throw 2</b>	<b>Throw 4</b>
Cyl Model	<u>9-5/8K</u>	<u>9-5/8K</u>	<u>6-1/4K</u>	<u>6-1/4K</u>
Cyl Bore, in	9.625	9.625	5.875	5.875
Cyl RDP (API), psig	1154.5	1154.5	1863.6	1863.6
Cyl MAWP, psig	1270.0	1270.0	2050.0	2050.0
Cyl Action	DBL	DBL	DBL	DBL
Cyl Disp, CFM	543.8	543.8	195.1	195.1
Pres Suct Intl, psig	107.16	107.16	397.38	397.38
Temp Suct Intl, F	87	87	125	125
Pres Disch Intl, psig	462.21	462.21	1336.66	1336.66
Temp Disch Intl, F	257	257	285	285
HE Suct Gas Vel, FPM	9307	9307	6963	6963
HE Disch Gas Vel, FPM	8748	8748	7458	7458
HE Spcrs Used/Max	0/4	0/4	0/2	0/2
HE Vol Pkt Avail	0.77+44.16	0.77+44.16	0.64+45.20	0.64+45.20
Vol Pkt Used	0.00 (V) %	0.00 (V) %	0.00 (V) %	0.00 (V) %
HE Min Clr, %	16.00	16.00	23.05	23.05
HE Total Clr, %	16.77	16.77	23.69	23.69
CE Suct Gas Vel, FPM	8905	8905	6156	6156
CE Disch Gas Vel, FPM	8371	8371	6594	6594
CE Spcrs Used/Max	0/4	0/4	0/2	0/2
CE Min Clr, %	17.27	17.27	27.85	27.85
CE Total Clr, %	17.27	17.27	27.85	27.85
Suct Vol Eff HE/CE, %	65.4/64.5	65.4/64.5	59.8/53.6	59.8/53.6
Disch Event HE/CE, ms	7.6/9.0	7.6/9.0	7.8/8.6	7.8/8.6
Suct Pseudo-Q HE/CE	9.6/8.8	9.6/8.8	5.2/4.1	5.2/4.1
Gas Rod Ld Comp, %	65.6 C	65.6 C	67.2 C	67.2 C
Gas Rod Ld Tens, %	65.7 T	65.7 T	57.1 T	57.1 T
Gas Rod Ld Total, %	68.3	68.3	64.9	64.9
Xhd Pin Deg/%RvrsI lbf	180/98.0	180/98.0	168/89.3	168/89.3
Flow Calc, MMSCFD	4.543	4.543	4.543	4.543
Cyl BHP	336.0	336.0	295.2	295.2