



Company: Black Iron Energy
Quote:

Ariel Performance

Customer:

Inquiry:

7.7.7.0

Case 1:

Project: Single Stage



Compressor Data:

Elevation, ft:	1000.00	Barmtr, psia:	14.165	Ambient, F:	100.00
Frame: (ELP)	JGD/2	Stroke, in:	5.50	Rod Dia, in:	2.500
Max RL Tot, lbf:	114000	Max RL Tens, lbf:	57000	Max RL Comp, lbf:	60000
Rated RPM:	1200	Rated BHP:	2070.0	Rated PS FPM:	1100.0
Calc RPM:	1200.0	BHP:	1031	Calc PS FPM:	1100.0

Driver Data:

Type:	Nat. Gas
Mfg:	Caterpillar
Model:	G3516 LE
BHP:	1150
Avail:	1150

Services

Gas Model

Service 1

VMG-APRNG2

Stage Data:

Target Flow, MMSCFD	25.000	---
Flow Calc, MMSCFD	25.764	---
BHP per Stage	1011.7	---
Specific Gravity	0.6500	---
Ratio of Sp Ht (N)	1.3052	---
Comp Suct (Zs)	0.9006	---
Comp Disch (Zd)	0.9099	---
Pres Suct Line, psig	650.00	---
Pres Suct Flg, psig	643.36	---
Pres Disch Flg, psig	1252.54	---
Pres Disch Line, psig	1240.00	---
Pres Ratio F/F	1.926	---
Temp Suct, F	80.00	---
Temp Clr Disch, F	120.00	---

Cylinder Data:

Throw 1

Throw 2

Cyl Model	9-5/8D	9-5/8D
Cyl Bore, in	9.125	9.125
Cyl RDP (API), psig	1727.3	1727.3
Cyl MAWP, psig	1900.0	1900.0
Cyl Action	<u>CE(HEVR)</u>	<u>CE(HEVR)</u>
Cyl Disp, CFM	231.0	231.0
Pres Suct Intl, psig	603.78	603.78
Temp Suct Intl, F	88	88
Pres Disch Intl, psig	1326.68	1326.68
Temp Disch Intl, F	196	196
HE Suct Gas Vel, FPM	2733	2733
HE Disch Gas Vel, FPM	N/A	N/A
HE Spcrs Used/Max	N/A	N/A
HE Vol Pkt Avail	N/A	N/A
Vol Pkt Used	N/A %	N/A %
HE Min Clr, %	N/A	N/A
HE Total Clr, %	N/A	N/A
CE Suct Gas Vel, FPM	7583	7583
CE Disch Gas Vel, FPM	6859	6859
CE Spcrs Used/Max	0/4	0/4
CE Min Clr, %	21.47	21.47
CE Total Clr, %	21.47	21.47
Suct Vol Eff HE/CE, %	N/A/82.1	N/A/82.1
Disch Event HE/CE, ms	N/A/13.1	N/A/13.1
Suct Pseudo-Q HE/CE	N/A/6.2	N/A/6.2
Gas Rod Ld Comp, %	10.1 C	10.1 C
Gas Rod Ld Tens, %	67.6 T	67.6 T
Gas Rod Ld Total, %	39.1	39.1
Xhd Pin Deg/%RvrsI lbf	121/72.1	121/72.1
Flow Calc, MMSCFD	12.882	12.882
Cyl BHP	505.9	505.9