



Company: J-W Power Company
 Quote: CNG Station B
 Remarks: By: Rick Poorman

Ariel Performance

Customer: Model B
 Inquiry: EA-100-3
 Project:



7.6.0.1

Compressor Data:

Elevat'n,ft:	2000.00	Barmtr,psia:	13.651	Ambient,°F:	100.00
Frame:	JGP/2	Stroke,in:	3.00	Rod Dia,in:	1.125
Max RL Tot,lbf:	12000	Max RL Tens,lbf:	6000	Max RL Comp,lbf:	7000
Rated RPM:	1800	Rated BHP:	170.0	Rated PS FPM:	900.0
Calc RPM:	1775.0	Calc BHP:	67	Calc PS FPM	887.5

Driver Data:

Type:	Electric
Mfg:	WEG
Model:	
BHP:	100
Avail:	100 (0)

Service

Stage Data

	1	2	3
Flow Req'd, SCFM	500.000		
Flow Calc, SCFM	178.028	178.008	177.363
Cyl BHP per Stage	25.2	15.8	20.4
Specific Gravity	0.61	0.61	0.61
Ratio of Sp Ht (N)	1.2586	1.2690	1.2718
Comp Suct (Zs)	0.9843	0.9476	0.8699
Comp Disch (Zd)	0.9796	0.9526	1.0176
Pres Suct Line, psig	75.00	N/A	N/A
Pres Suct Flg, psig	75.00	405.69	1171.42
Pres Disch Flg, psig	412.26	1183.60	4545.14
Pres Disch Line, psig	N/A	N/A	4500.00
Pres Ratio F/F	<u>4.804</u>	2.855	3.847
Temp Suct, °F	80.00	130.00	125.00
Temp Clr Disch, °F	130.00	125.00	120.00

Cylinder Data

	Throw 2	Throw 1	Throw 1
Cyl Model	3-5/8JG	3SG-CE	1-3/4SG-FS-HE
Cyl Bore,in	3.625	2.750	1.250
Cyl RDP (API),psig	<u>1154.5</u>	<u>2727.3</u>	5545.5
Cyl MAWP,psig	1270.0	3000.0	6100.0
Cyl Action	DBL	CE	HE
Cyl Disp, CFM	60.5	15.2	3.8
Pres Suct Intl, psig	69.49	193.44	573.62
Temp Suct Intl, °F	86	134	130
Suct Zsph	0.9849	0.9489	0.8738
Pres Disch Intl, psig	440.84	594.55	2287.72
Temp Disch Intl, °F	315	286	329
HE Suct Gas Vel, FPM	8712	N/A	3068
HE Disch Gas Vel, FPM	8964	N/A	3332
HE Spcrrs Used/Max	0/1	N/A	0/2
HE Vol Pkt Avail, %	1.16+49.54	N/A	No Pkt
HE Vol Pkt Used, %	0.00 (V)	N/A	No Pkt
HE Min Clr, %	14.58	N/A	24.00
HE Total Clr, %	15.74	N/A	24.00
CE Suct Gas Vel, FPM	7873	3779	N/A
CE Disch Gas Vel, FPM	8101	4036	N/A
CE Spcrrs Used/Max	0/1	0/2	N/A
CE Min Clr, %	17.79	39.15	N/A
CE Total Clr, %	17.79	39.15	N/A
Suct Vol Eff HE/CE, %	52.8/47.8	N/A/44.4	57.6/N/A
Disch Event HE/CE, ms	3.9/4.5	N/A/5.4	4.6/N/A
Suct Pseudo-Q HE/CE	7.0/5.8	N/A/1.4	1.4/N/A
Gas Rod Ld Comp, %	56.1	79.5	79.5
Gas Rod Ld Tens, %	56.2	43.5	43.5
Gas Rod Ld Total, %	60.8	68.1	68.1
Xhd Pin Deg/%Rvrs	135/91.2	71/29.3	71/29.3
Flow Calc, SCFM	178.028	178.008	177.363
Cyl BHP	25.2	15.8	20.4

Step: 0 - Adjusted Power: 100.0 BHP

COND. 1 OF 5

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Company: J-W Power Company
Quote: CNG Station B
Remarks: By: Rick Poorman

Ariel Performance

Customer: Model B
Inquiry: EA-100-3
Project:



7.6.0.1

Compressor Data:

Elevat'n,ft:	2000.00	Barmtr,psia:	13.651	Ambient,°F:	100.00
Frame:	JGP/2	Stroke,in:	3.00	Rod Dia,in:	1.125
Max RL Tot,lbf:	12000	Max RL Tens,lbf:	6000	Max RL Comp,lbf:	7000
Rated RPM:	1800	Rated BHP:	170.0	Rated PS FPM:	900.0
Calc RPM:	1775.0	Calc BHP:	97	Calc PS FPM:	887.5

Driver Data:

Type:	Electric
Mfg:	WEG
Model:	
BHP:	100
Avail:	100 (0)

Service

Stage Data

	Service 1 1	2	3
Flow Req'd, SCFM	500.000		
Flow Calc, SCFM	303.361	303.360	302.734
Cyl BHP per Stage	40.5	24.4	25.8
Specific Gravity	0.61	0.61	0.61
Ratio of Sp Ht (N)	1.2638	1.2763	1.2728
Comp Suct (Zs)	0.9756	0.9268	0.8450
Comp Disch (Zd)	0.9707	0.9420	0.9993
Pres Suct Line, psig	125.00	N/A	N/A
Pres Suct Flg, psig	125.00	593.85	1575.63
Pres Disch Flg, psig	602.70	1589.76	4545.14
Pres Disch Line, psig	N/A	N/A	4500.00
Pres Ratio F/F	4.445	2.639	2.868
Temp Suct, °F	80.00	130.00	125.00
Temp Clr Disch, °F	130.00	125.00	120.00

Cylinder Data

	Throw 2	Throw 1	Throw 1
Cyl Model	3-5/8JG	3SG-CE	1-3/4SG-FS-HE
Cyl Bore,in	3.625	2.750	1.250
Cyl RDP (API),psig	<u>1154.5</u>	<u>2727.3</u>	5545.5
Cyl MAWP,psig	1270.0	3000.0	6100.0
Cyl Action	DBL	CE	HE
Cyl Disp, CFM	60.5	15.2	3.8
Pres Suct Intl, psig	116.31	286.28	773.70
Temp Suct Intl, °F	86	134	129
Suct Zsph	0.9765	0.9285	0.8486
Pres Disch Intl, psig	644.88	801.18	2289.59
Temp Disch Intl, °F	306	277	281
HE Suct Gas Vel, FPM	8712	N/A	3068
HE Disch Gas Vel, FPM	8964	N/A	3332
HE Spcrs Used/Max	0/1	N/A	0/2
HE Vol Pkt Avail, %	1.16+49.54	N/A	No Pkt
HE Vol Pkt Used, %	0.00 (V)	N/A	No Pkt
HE Min Clr, %	14.58	N/A	24.00
HE Total Clr, %	15.74	N/A	24.00
CE Suct Gas Vel, FPM	7873	3779	N/A
CE Disch Gas Vel, FPM	8101	4036	N/A
CE Spcrs Used/Max	0/1	0/2	N/A
CE Min Clr, %	17.79	39.15	N/A
CE Total Clr, %	17.79	39.15	N/A
Suct Vol Eff HE/CE, %	56.6/52.1	N/A/51.1	71.1/N/A
Disch Event HE/CE, ms	4.3/4.8	N/A/5.9	5.9/N/A
Suct Pseudo-Q HE/CE	7.1/5.8	N/A/1.4	1.4/N/A
Gas Rod Ld Comp, %	80.1	79.1	79.1
Gas Rod Ld Tens, %	79.7	54.6	54.6
Gas Rod Ld Total, %	86.6	73.4	73.4
Xhd Pin Deg/%Rvrsl	147/85.6	118/27.3	118/27.3
Flow Calc, SCFM	303.361	303.360	302.734
Cyl BHP	40.5	24.4	25.8

Step: 0 - Adjusted Power: 100.0 BHP

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Ariel Performance



Company: J-W Power Company
Quote: CNG Station B
Remarks: By: Rick Poorman

Customer: Model B
Inquiry: EA-100-3
Project:

7.6.0.1

Compressor Data:

Elevat'n,ft:	2000.00	Barmtr,psia:	13.651	Ambient,°F:	100.00
Frame:	JGP/2	Stroke,in:	3.00	Rod Dia,in:	1.125
Max RL Tot,lbf:	12000	Max RL Tens,lbf:	6000	Max RL Comp,lbf:	7000
Rated RPM:	1800	Rated BHP:	170.0	Rated PS FPM:	900.0
Calc RPM:	1775.0	Calc BHP:	100	Calc PS FPM:	887.5

Driver Data:

Type:	Electric
Mfg:	WEG
Model:	
BHP:	100
Avail:	100 (0)

Service

Stage Data

	1	2	3
Flow Req'd, SCFM	500.000		
Flow Calc, SCFM	332.717	332.725	332.197
Cyl BHP per Stage	41.3	26.4	26.5
Specific Gravity	0.61	0.61	0.61
Ratio of Sp Ht (N)	1.2670	1.2776	1.2726
Comp Suct (Zs)	0.9714	0.9225	0.8410
Comp Disch (Zd)	0.9664	0.9406	0.9954
Pres Suct Line, psig	150.00	N/A	N/A
Pres Suct Flg, psig	150.00	636.58	1669.26
Pres Disch Flg, psig	646.47	1684.20	4545.14
Pres Disch Line, psig	N/A	N/A	4500.00
Pres Ratio F/F	4.034	2.611	2.709
Temp Suct, °F	80.00	130.00	125.00
Temp Clr Disch, °F	130.00	125.00	120.00

Cylinder Data

	Throw 2	Throw 1	Throw 1
Cyl Model	3-5/8JG	3SG-CE	1-3/4SG-FS-HE
Cyl Bore,in	3.625	2.750	1.250
Cyl RDP (API),psig	<u>1154.5</u>	<u>2727.3</u>	5545.5
Cyl MAWP,psig	1270.0	3000.0	6100.0
Cyl Action	DBL	CE	HE
Cyl Disp, CFM	60.5	15.2	3.8
Pres Suct Intl, psig	139.69	307.36	820.05
Temp Suct Intl, °F	86	134	128
Suct Zsph	0.9724	0.9243	0.8445
Pres Disch Intl, psig	692.64	849.21	2289.98
Temp Disch Intl, °F	293	276	271
HE Suct Gas Vel, FPM	8712	N/A	3068
HE Disch Gas Vel, FPM	8964	N/A	3332
HE Spcrrs Used/Max	0/1	N/A	0/2
HE Vol Pkt Avail, %	1.16+49.54	N/A	No Pkt
HE Vol Pkt Used, %	3.55 (V)	N/A	No Pkt
HE Min Clr, %	14.58	N/A	24.00
HE Total Clr, %	17.50	N/A	24.00
CE Suct Gas Vel, FPM	7873	3779	N/A
CE Disch Gas Vel, FPM	8101	4036	N/A
CE Spcrrs Used/Max	1/1	0/2	N/A
CE Min Clr, %	17.79	39.15	N/A
CE Total Clr, %	25.00	39.15	N/A
Suct Vol Eff HE/CE, %	57.4/42.6	N/A/52.1	73.3/N/A
Disch Event HE/CE, ms	4.5/4.5	N/A/6.0	6.2/N/A
Suct Pseudo-Q HE/CE	7.1/5.8	N/A/1.4	1.4/N/A
Gas Rod Ld Comp, %	84.0	79.0	79.0
Gas Rod Ld Tens, %	83.1	57.3	57.3
Gas Rod Ld Total, %	90.6	74.7	74.7
Xhd Pin Deg/%RvrsI	147/68.3	136/26.9	136/26.9
Flow Calc, SCFM	332.708	332.725	332.197
Cyl BHP	41.3	26.4	26.5

Step: 0 - Adjusted Power: 100.0 BHP

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Ariel Performance



Company: J-W Power Company
Quote: CNG Station B
Remarks: By: Rick Poorman

Customer: Model B
Inquiry: EA-100-3
Project:

7.6.0.1

Compressor Data:

Eleva'n,ft:	2000.00	Barmtr,psia:	13.651	Ambient,°F:	100.00
Frame:	JGP/2	Stroke,in:	3.00	Rod Dia,in:	1.125
Max RL Tot,lbf:	12000	Max RL Tens,lbf:	6000	Max RL Comp,lbf:	7000
Rated RPM:	1800	Rated BHP:	170.0	Rated PS FPM:	900.0
Calc RPM:	1775.0	Calc BHP:	100	Calc PS FPM	887.5

Driver Data:

Type:	Electric
Mfg:	WEG
Model:	
BHP:	100
Avail:	100 (0)

Service

Stage Data

	1	2	3
Flow Req'd, SCFM	500.000		
Flow Calc, SCFM	380.378	380.378	380.105
Cyl BHP per Stage	37.0	29.7	27.3
Specific Gravity	0.61	0.61	0.61
Ratio of Sp Ht (N)	1.2779	1.2816	1.2743
Comp Suct (Zs)	0.9594	0.9173	0.8392
Comp Disch (Zd)	0.9554	0.9412	0.9913
Pres Suct Line, psig	225.00	N/A	N/A
Pres Suct Flg, psig	225.00	706.11	1827.06
Pres Disch Flg, psig	716.11	1844.00	4545.14
Pres Disch Line, psig	N/A	N/A	4500.00
Pres Ratio F/F	3.058	2.581	2.477
Temp Suct, °F	80.00	130.00	125.00
Temp Clr Disch, °F	130.00	125.00	120.00

Cylinder Data

	Throw 2	Throw 1	Throw 1
Cyl Model	3-5/8JG	3SG-CE	1-3/4SG-FS-HE
Cyl Bore,in	3.625	2.750	1.250
Cyl RDP (API),psig	<u>1154.5</u>	<u>2727.3</u>	5545.5
Cyl MAWP,psig	1270.0	3000.0	6100.0
Cyl Action	DBL	CE	HE
Cyl Disp, CFM	60.5	15.2	3.8
Pres Suct Intl, psig	209.75	341.66	898.20
Temp Suct Intl, °F	85	134	128
Suct Zsph	0.9606	0.9193	0.8425
Pres Disch Intl, psig	770.41	930.41	2290.54
Temp Disch Intl, °F	255	276	258
HE Suct Gas Vel, FPM	8712	N/A	3068
HE Disch Gas Vel, FPM	8964	N/A	3332
HE Spcrrs Used/Max	1/1	N/A	0/2
HE Vol Pkt Avail, %	1.16+49.54	N/A	No Pkt
HE Vol Pkt Used, %	60.17 (V)	N/A	No Pkt
HE Min Clr, %	14.58	N/A	24.00
HE Total Clr, %	52.08	N/A	24.00
CE Suct Gas Vel, FPM	7873	3779	N/A
CE Disch Gas Vel, FPM	8101	4036	N/A
CE Spcrrs Used/Max	1/1	0/2	N/A
CE Min Clr, %	17.79	39.15	N/A
CE Total Clr, %	25.00	39.15	N/A
Suct Vol Eff HE/CE, %	21.2/58.6	N/A/53.5	76.5/N/A
Disch Event HE/CE, ms	3.0/6.0	N/A/6.2	6.7/N/A
Suct Pseudo-Q HE/CE	5.5/5.9	N/A/1.4	1.4/N/A
Gas Rod Ld Comp, %	86.2	78.8	78.8
Gas Rod Ld Tens, %	83.1	62.0	62.0
Gas Rod Ld Total, %	91.8	77.0	77.0
Xhd Pin Deg/%Rvrsl	151/84.4	151/27.6	151/27.6
Flow Calc, SCFM	380.380	380.378	380.105
Cyl BHP	37.0	29.7	27.3

Step: 0 - Adjusted Power: 100.0 BHP

COND. 4 OF 5

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Company: J-W Power Company
Quote: CNG Station B
Case 1:

Ariel Performance

Customer: Model B
Inquiry: EA-100-3
Project:



Compressor Data:

Elevation, ft:	2000.00	Barmtr, psia:	13.651	Ambient, °F:	100.00
Frame:	JGP/2	Stroke, in:	3.00	Rod Dia, in:	1.125
Max RL Tot, lbf:	12000	Max RL Tens, lbf:	6000	Max RL Comp, lbf:	7000
Rated RPM:	1800	Rated BHP:	170.0	Rated PS FPM:	900.0
Calc RPM:	1775.0	BHP:	99	Calc PS FPM:	887.5

Driver Data:

Type: Electric
Mfg: WEG
Model:
BHP: 100
Avail: 100 (0)

Services

Stage Data:

	1	2	3
Flow Req'd, SCFM	500.000	500.000	500.000
Flow Calc, SCFM	417.756	417.767	417.633
Cyl BHP per Stage	33.7	32.0	27.7
Specific Gravity	0.61	0.61	0.61
Ratio of Sp Ht (N)	1.2829	1.2807	1.2706
Comp Suct (Zs)	0.9454	0.9092	0.8295
Comp Disch (Zd)	0.9412	0.9363	0.9823
Pres Suct Line, psig	300.00	N/A	N/A
Pres Suct Flg, psig	300.00	756.81	1935.06
Pres Disch Flg, psig	766.81	1953.62	4545.14
Pres Disch Line, psig	N/A	N/A	4500.00
Pres Ratio F/F	2.488	2.553	2.339
Temp Suct, °F	80.00	130.00	125.00
Temp Clr Disch, °F	130.00	125.00	120.00

Cylinder Data:

	Throw 2	Throw 1	Throw 1
Cyl Model	3-5/8JG	3SG-CE	1-3/4SG-FS-HE
Cyl Bore, in	3.625	2.750	1.250
Cyl RDP (API), psig	1154.5	2727.3	5545.5
Cyl MAWP, psig	1270.0	3000.0	6100.0
Cyl Action	CE(HEVR)	CE	HE
Cyl Disp, CFM	28.7	15.2	3.8
Pres Suct Intl, psig	289.66	366.64	951.59
Temp Suct Intl, °F	88	134	128
Suct Zsph	0.9480	0.9113	0.8327
Pres Disch Intl, psig	562.75	986.26	2291.14
Temp Disch Intl, °F	229	274	247
HE Suct Gas Vel, FPM	N/A	N/A	3068
HE Disch Gas Vel, FPM	N/A	N/A	3332
HE Spcrs Used/Max	N/A	N/A	0/0
HE Vol Pkt Avail, %	N/A	N/A	No Pkt
Vol Pkt Used, %	N/A	N/A	No Pkt
HE Min Clr, %	N/A	N/A	24.00
HE Total Clr, %	N/A	N/A	24.00
CE Suct Gas Vel, FPM	7873	3779	N/A
CE Disch Gas Vel, FPM	8101	4036	N/A
CE Spcrs Used/Max	1/1	0/2	N/A
CE Min Clr, %	17.79	39.15	N/A
CE Total Clr, %	25.00	39.15	N/A
Suct Vol Eff HE/CE, %	N/A/68.0	N/A/54.4	78.4/N/A
Disch Event HE/CE, ms	N/A/7.1	N/A/6.2	6.9/N/A
Suct Pseudo-Q HE/CE	N/A/6.0	N/A/1.4	1.5/N/A
Gas Rod Ld Comp, %	7.2 C	78.7 C	78.7 C
Gas Rod Ld Tens, %	76.6 T	65.1 T	65.1 T
Gas Rod Ld Total, %	42.5	78.5	78.5
Xhd Pin Deg/%RvrsI lbf	95/47.2	178/31.0	178/31.0
Flow Calc, SCFM	417.756	417.767	417.633
Cyl BHP	33.7	32.0	27.7

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