



Company: Ariel Corporation
 Quote:
 Case 1:

Ariel Performance

Customer: City of Bossier
 Inquiry:
 Project: Barksdale



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:	95	Calc PS FPM:	887.5

Driver Data:

Type:	Electric
Mfg:	WEG
Model:	444T
BHP:	125
Avail:	125

Services

Gas Model

Service 1

VMG-APRNL2

Stage Data:

	1 (SG)	2	3	4
Target Flow, SCFM	129.697	129.697	129.697	129.697
Flow Calc, SCFM	186.541	186.541	185.887	185.891
BHP per Stage	24.1	20.8	22.9	21.5
Specific Gravity	0.6100	0.6094	0.5994	0.5994
Polytropic Exponent (N)	1.2542	1.2502	1.2820	1.5398
Comp Suct (Zs)	0.9940	0.9839	0.9528	0.8663
Comp Disch (Zd)	0.9918	0.9810	0.9602	1.0150
Pres Suct Line, psig	20.00	N/A	N/A	N/A
Pres Suct Flg, psig	20.00	107.68	351.06	1276.46
Pres Disch Flg, psig	111.11	358.85	1289.73	4545.14
Pres Disch Line, psig	N/A	N/A	N/A	4500.00
Pres Ratio F/F	3.708	3.070	3.574	3.534
Temp Suct, F	80.00	127.00	120.00	124.00
Temp Clr Disch, F	127.00	120.00	124.00	119.00

Cylinder Data:

	Throw 1	Throw 1	Throw 2	Throw 2
Cyl Model	8SP-HE	4-3/8SP-CE	3SG-CE	1-3/4SG-FS-HE
Cyl Bore, in	8.000	4.125	3.000	1.250
Cyl RDP (API), psig	400.0	850.0	2318.2	5545.5
Cyl MAWP, psig	440.0	935.0	2550.0	6100.0
Cyl Action	HE	CE	CE	HE
Cyl Disp, CFM	154.9	38.1	18.7	3.8
Pres Suct Intl, psig	16.57	97.77	343.30	1265.91
Pres Disch Intl, psig	122.78	395.30	1322.55	4589.91
Temp Disch Intl, F	280	299	321	321
HE Suct Gas Vel, FPM	10880	0	0	3018
HE Disch Gas Vel, FPM	9716	N/A	N/A	3369
HE Spcrs Used/Max	0/2	N/A	N/A	N/A
HE Vol Pkt Avail	1.31+59.76	N/A	N/A	No Pkt
Vol Pkt Used	0.00 (V) %	N/A %	N/A %	No Pkt
HE Min Clr, %	19.32	N/A	N/A	29.99
HE Total Clr, %	20.63	N/A	N/A	29.99
CE Suct Gas Vel, FPM	0	10100	5085	0
CE Disch Gas Vel, FPM	N/A	10100	5197	N/A
CE Spcrs Used/Max	N/A	0/2	N/A	N/A
CE Min Clr, %	N/A	19.05	29.45	N/A
CE Total Clr, %	N/A	19.05	29.45	N/A
Suct Vol Eff HE/CE, %	54.3/N/A	N/A/65.9	N/A/42.6	54.6/N/A
Disch Event HE/CE, ms	4.9/N/A	N/A/6.7	N/A/5.2	5.4/N/A
Suct Pseudo-Q HE/CE	9.3/N/A	N/A/7.5	N/A/2.5	1.3/N/A
Gas Rod Ld Comp, %	60.4 C	60.4 C	80.0 C	80.0 C
Gas Rod Ld Tens, %	79.9 T	79.9 T	73.8 T	73.8 T
Gas Rod Ld Total, %	75.2	75.2	83.6	83.6
Xhd Pin Deg/%RvrsI lbf	162/60.7	162/60.7	128/60.9	128/60.9
Flow Calc, SCFM	186.541	186.541	185.887	185.891
Cyl BHP	24.1	20.8	22.9	21.5



Company: Ariel Corporation
 Quote:
 Case 2:

Ariel Performance

Customer: City of Bossier
 Inquiry:
 Project: Barksdale



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:	110	Calc PS FPM:	887.5

Driver Data:

Type:	Electric
Mfg:	WEG
Model:	444T
BHP:	125
Avail:	125

Services

Gas Model

Service 1

VMG-APRNL2

Stage Data:

	1 (SG)	2	3	4
Target Flow, SCFM	129.697	129.697	129.697	129.697
Flow Calc, SCFM	246.984	246.985	246.426	246.427
BHP per Stage	25.7	25.9	28.3	24.2
Specific Gravity	0.6100	0.6099	0.6040	0.6040
Polytropic Exponent (N)	1.2569	1.2522	1.2905	1.5907
Comp Suct (Zs)	0.9905	0.9796	0.9432	0.8532
Comp Disch (Zd)	0.9876	0.9765	0.9547	1.0061
Pres Suct Line, psig	40.00	N/A	N/A	N/A
Pres Suct Flg, psig	40.00	140.61	424.37	1458.29
Pres Disch Flg, psig	145.49	434.22	1473.19	4545.14
Pres Disch Line, psig	N/A	N/A	N/A	4500.00
Pres Ratio F/F	2.966	2.903	3.394	3.097
Temp Suct, F	80.00	127.00	120.00	124.00
Temp Clr Disch, F	127.00	120.00	124.00	119.00

Cylinder Data:

	Throw 1	Throw 1	Throw 2	Throw 2
Cyl Model	8SP-HE	4-3/8SP-CE	3SG-CE	1-3/4SG-FS-HE
Cyl Bore, in	8.000	4.125	3.000	1.250
Cyl RDP (API), psig	400.0	850.0	2318.2	5545.5
Cyl MAWP, psig	440.0	935.0	2550.0	6100.0
Cyl Action	HE	CE	CE	HE
Cyl Disp, CFM	154.9	38.1	18.7	3.8
Pres Suct Intl, psig	34.50	127.95	414.89	1445.97
Pres Disch Intl, psig	161.10	478.71	1511.49	4592.00
Temp Disch Intl, F	244	291	310	295
HE Suct Gas Vel, FPM	10880	0	0	3018
HE Disch Gas Vel, FPM	9716	N/A	N/A	3369
HE Spcrs Used/Max	0/2	N/A	N/A	N/A
HE Vol Pkt Avail	1.31+59.76	N/A	N/A	No Pkt
Vol Pkt Used	25.00 (V) %	N/A %	N/A %	No Pkt
HE Min Clr, %	19.32	N/A	N/A	29.99
HE Total Clr, %	35.57	N/A	N/A	29.99
CE Suct Gas Vel, FPM	0	10100	5085	0
CE Disch Gas Vel, FPM	N/A	10100	5197	N/A
CE Spcrs Used/Max	N/A	0/2	N/A	N/A
CE Min Clr, %	N/A	19.05	29.45	N/A
CE Total Clr, %	N/A	19.05	29.45	N/A
Suct Vol Eff HE/CE, %	44.9/N/A	N/A/68.3	N/A/46.5	62.4/N/A
Disch Event HE/CE, ms	4.8/N/A	N/A/6.9	N/A/5.5	6.2/N/A
Suct Pseudo-Q HE/CE	9.4/N/A	N/A/7.5	N/A/2.6	1.3/N/A
Gas Rod Ld Comp, %	72.0 C	72.0 C	79.9 C	79.9 C
Gas Rod Ld Tens, %	94.4 T	94.4 T	82.2 T	82.2 T
Gas Rod Ld Total, %	89.2	89.2	87.7	87.7
Xhd Pin Deg/%RvrsI lbf	165/75.4	165/75.4	156/57.9	156/57.9
Flow Calc, SCFM	246.984	246.985	246.426	246.427
Cyl BHP	25.7	25.9	28.3	24.2



Company: Ariel Corporation
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 Case 3:

Ariel Performance

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 Inquiry:
 Project: Barksdale



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:	108	Calc PS FPM:	887.5

Driver Data:

Type:	Electric
Mfg:	WEG
Model:	444T
BHP:	125
Avail:	125

Services

Gas Model

Service 1

VMG-APRNL2

Stage Data:

	1 (SG)	2	3	4
Target Flow, SCFM	129.697	129.697	129.697	129.697
Flow Calc, SCFM	263.290	263.290	263.148	263.148
BHP per Stage	20.1	27.3	29.7	24.8
Specific Gravity	0.6100	0.6102	0.6088	0.6088
Polytropic Exponent (N)	1.2602	1.2528	1.2914	1.6062
Comp Suct (Zs)	0.9869	0.9784	0.9398	0.8477
Comp Disch (Zd)	0.9840	0.9753	0.9521	1.0023
Pres Suct Line, psig	60.00	N/A	N/A	N/A
Pres Suct Flg, psig	60.00	149.39	444.08	1504.98
Pres Disch Flg, psig	154.39	454.08	1521.12	4545.14
Pres Disch Line, psig	N/A	N/A	N/A	4500.00
Pres Ratio F/F	2.282	2.869	3.353	3.002
Temp Suct, F	80.00	127.00	120.00	124.00
Temp Clr Disch, F	127.00	120.00	124.00	119.00

Cylinder Data:

	Throw 1	Throw 1	Throw 2	Throw 2
Cyl Model	8SP-HE	4-3/8SP-CE	3SG-CE	1-3/4SG-FS-HE
Cyl Bore, in	8.000	4.125	3.000	1.250
Cyl RDP (API), psig	400.0	850.0	2318.2	5545.5
Cyl MAWP, psig	440.0	935.0	2550.0	6100.0
Cyl Action	HE	CE	CE	HE
Cyl Disp, CFM	154.9	38.1	18.7	3.8
Pres Suct Intl, psig	52.42	135.99	434.06	1492.09
Pres Disch Intl, psig	171.83	500.72	1561.20	4592.92
Temp Disch Intl, F	204	290	307	289
HE Suct Gas Vel, FPM	10880	0	0	3018
HE Disch Gas Vel, FPM	9716	N/A	N/A	3369
HE Spcrs Used/Max	0/2	N/A	N/A	N/A
HE Vol Pkt Avail	1.31+59.76	N/A	N/A	No Pkt
Vol Pkt Used	75.00 (V) %	N/A %	N/A %	No Pkt
HE Min Clr, %	19.32	N/A	N/A	29.99
HE Total Clr, %	65.45	N/A	N/A	29.99
CE Suct Gas Vel, FPM	0	10100	5085	0
CE Disch Gas Vel, FPM	N/A	10100	5197	N/A
CE Spcrs Used/Max	N/A	0/2	N/A	N/A
CE Min Clr, %	N/A	19.05	29.45	N/A
CE Total Clr, %	N/A	19.05	29.45	N/A
Suct Vol Eff HE/CE, %	34.8/N/A	N/A/68.8	N/A/47.3	64.2/N/A
Disch Event HE/CE, ms	4.7/N/A	N/A/6.9	N/A/5.6	6.4/N/A
Suct Pseudo-Q HE/CE	9.1/N/A	N/A/7.5	N/A/2.6	1.3/N/A
Gas Rod Ld Comp, %	67.7 C	67.7 C	79.9 C	79.9 C
Gas Rod Ld Tens, %	96.2 T	96.2 T	84.3 T	84.3 T
Gas Rod Ld Total, %	87.6	87.6	88.8	88.8
Xhd Pin Deg/%RvrsI lbf	154/83.3	154/83.3	164/57.0	164/57.0
Flow Calc, SCFM	263.290	263.290	263.148	263.148
Cyl BHP	20.1	27.3	29.7	24.8