Ariel Performance

Company: Ariel Corporation | Customer: Shell Perdido
Quote: | Inquiry:
7.7.7.2 | Case 23: Dec 2020 SVU's | Project: Perdido VRU

Compressor Data:

Elevation,ft:	120.00	Barmtr,psia:	14.631	Ambient,F:	100.00	**Driver Data:**	
Frame:	JGC/6	Stroke, in:	6.50	Rod Dia, in:	2.500	Type:	Electric
Max RL Tot, lbf:	114000	Max RL Tens, lbf:	57000	Max RL Comp, lbf:	60000	Mfg:	
Rated RPM:	1000	Rated BHP:	6210.0	Rated PS FPM:	1083.3	Model:	
Calc RPM:	892.0	BHP:	1852	Calc PS FPM:	966.3	BHP:	2500
						Avail:	2500

Services	**Service 1**			**Service 2**		
Gas Model	VMG-APRNGL2			VMG-APRNGL2		
Stage Data:	**1**	---	---	**1**	---	---
Target Flow, MMSCFD	9.600	---	---	18.300	---	---
Flow Calc, MMSCFD	9.930	---	---	15.718	---	---
BHP per Stage	661.8	---	---	1139.0	---	---
Specific Gravity	*1.3631*	---	---	1.1713	---	---
Ratio of Sp Ht (N)	1.1296	---	---	1.1650	---	---
Comp Suct (Zs)	0.9667	---	---	0.9323	---	---
Comp Disch (Zd)	0.9351	---	---	0.8662	---	---
Pres Suct Line, psig	37.50	---	---	104.00	---	---
Pres Suct Flg, psig	35.50	---	---	102.00	---	---
Pres Disch Flg, psig	122.00	---	---	375.00	---	---
Pres Disch Line, psig	122.00	---	---	375.00	---	---
Pres Ratio F/F	2.725	---	---	3.341	---	---
Temp Suct, F	139.00	---	---	106.97	---	---
Temp Clr Disch, F	120.00	---	---	120.00	---	---

Cylinder Data:	**Throw 1**	**Throw 3**	**Throw 5**	**Throw 2**	**Throw 4**	**Throw 6**
Cyl Model	14-1/8C	14-1/8C	14-1/8C	14-1/8CU	14-1/8CU	14-1/8CU
Cyl Bore, in	14.125	14.125	14.125	13.625	13.625	13.625
Cyl RDP (API), psig	577.3	577.3	577.3	577.3	577.3	577.3
Cyl MAWP, psig	635.0	635.0	635.0	635.0	635.0	635.0
Cyl Action	DBL	DBL	DBL	DBL	DBL	*CE(HEVU)*
Cyl Disp, CFM	1035.1	1035.1	1035.1	962.0	962.0	472.7
Pres Suct Intl, psig	30.26	30.26	30.26	91.65	91.65	92.81
Temp Suct Intl, F	144	144	144	113	113	135
Pres Disch Intl, psig	135.78	135.78	135.78	406.34	406.34	404.22
Temp Disch Intl, F	233	233	233	236	236	261
HE Suct Gas Vel, FPM	7622	7622	7622	7416	7416	5705
HE Disch Gas Vel, FPM	6579	6579	6579	6121	6121	N/A
HE Spcrs Used/Max	0/4	0/4	0/4	0/2	0/2	N/A
HE Vol Pkt Avail	0.69+39.04	0.69+39.04	0.69+39.04	0.74+41.95	0.74+41.95	N/A
Vol Pkt Used	0.00 (V) %	0.00 (V) %	0.00 (V) %	0.00 (V) %	0.00 (V) %	N/A %
HE Min Clr, %	14.08	14.08	14.08	16.28	16.28	N/A
HE Total Clr, %	14.77	14.77	14.77	17.02	17.02	N/A
CE Suct Gas Vel, FPM	7383	7383	7383	6853	6853	6853
CE Disch Gas Vel, FPM	6373	6373	6373	5915	5915	5915
CE Spcrs Used/Max	0/4	0/4	0/4	0/4	0/4	0/4
CE Min Clr, %	14.96	14.96	14.96	17.27	17.27	17.27
CE Total Clr, %	14.96	14.96	14.96	17.27	17.27	17.27
Suct Vol Eff HE/CE, %	72.7/72.4	72.7/72.4	72.7/72.4	59.2/58.7	59.2/58.7	N/A/58.7
Disch Event HE/CE, ms	11.6/13.3	11.6/13.3	11.6/13.3	9.3/11.0	9.3/11.0	N/A/11.0
Suct Pseudo-Q HE/CE	9.6/9.0	9.6/9.0	9.6/9.0	9.1/7.2	9.1/7.2	N/A/7.0
Gas Rod Ld Comp, %	27.9 C	27.9 C	27.9 C	77.3 C	77.3 C	5.4 C
Gas Rod Ld Tens, %	27.8 T	27.8 T	27.8 T	77.0 T	77.0 T	75.5 T
Gas Rod Ld Total, %	28.6	28.6	28.6	79.1	79.1	40.6
Xhd Pin Deg/%Rvrsl lbf	168/81.8	168/82.7	168/82.4	164/93.4	164/93.3	78/35.5
Flow Calc, MMSCFD	3.310	3.310	3.310	6.374	6.374	2.970
Cyl BHP	220.6	220.6	220.6	446.7	446.7	245.6