

D-R Size Version
6.5.16.727

PACKAGER:
LOCATION:
JOB/REF:

DRESSER-RAND
A Siemens Business

DESIGN POINT

AMBIENT T (F) : 100.0
REF TEMP. (F) : 60.0
COMPRESSOR DATA
MODEL 5.5 RDS 2
STROKE (IN) 5.500
ROD DIA (IN) 2.125

ALTITUDE (FT) 0
REF PRESS (PSIA) 14.6960
RATED RPM 1000
CALC RPM 800
Calc PS (FPM) 733.33

ATM PRESS (PSIA) 14.6960
LUBRICATED
DRIVER DATA
TYPE Engine
MANUF Waukesha
MODEL F3521GSI

DRIVER (HP) 492
COOLER (HP) 0

Stage Number 1
Gas SWEETNAT
Dry Gas Mol. Weight 17.407
Dry Gas Spec. Gravity 0.601
Cp/Cv @ 14.7/60 1.293
Avg. Temp. Expon. (K) 1.261
Avg. Vol. Expon. (N) 1.270
Gas Crit. Temperature F -96.511
Gas Crit. Pressure PSIA 671.383
Z Standard 0.998
Z Suction 0.976
Z Discharge 0.982
Inlet Temperature F 130.00
Inlet Line Pressure PSIG 250.00
Inlet Press. @ Cyl Flg PSIG 246.18
Interstage Press. Drop % 0.00
Disch. Press. @ Cyl Flg PSIG 758.50
Disch. Line Pressure PSIG 750.00
Ratio of Compression 2.964
Adiabatic Disch. Temp. F 278.88
Est Actual Disch Temp F 297.13
Stg. Piston Displ. CFM 486.9
Stg. Inlet Capacity ACFM 354.7
CAPACITY ACTUAL WET MMSCFD 8.17
CAPACITY ACTUAL DRY MMSCFD 8.10
TOTAL COMPRESSOR POWER HP 575.53

Stage number at (HE/CE) 1/1 1/1
Frame Ext/Cyl. Bore #/IN 1/ 9.500 2/ 6.000
Cylinder Pattern GN2820AA G3806L
RDP PSIG 1000.0 1750.0
MAWP PSIG 1100.0 1925.0
Cyl. Action/HE Rod Dia. Act./IN DA/ 0.00 DA/ 0.00
Brake power / Cylinder HP 414.8 151.2
Capacity Wet/ Cylinder MMSCFD 5.97 2.20
HE Disch. Vol. Eff. % 31.26 30.45
CE Disch. Vol. Eff. % 31.37 29.65
HE Inlet Vol. Eff. % 73.51 71.62
CE Inlet Vol. Eff. % 73.79 69.73
Avg. Inlet Vol. Eff. % 73.65 70.68
HE Clearance Req'd. % 16.10 17.50
HE Clearance Min. % 16.10 17.50
HE Pocket Open % 0.00 0.00
HE Clearance Added IN3 0.0 0.0
CE Clearance Req'd. % 15.90 18.90
CE Clearance Min. % 15.90 18.90
CE Clearance Added IN3 0.0 0.0
Valve Model - HE
Valve Model - CE
Valves/Corner (HES/HED/CES/CED) 1/1/1/1 1/1/1/1
Valve Lift - HE IN 0.080 0.080
Valve Lift - CE IN 0.080 0.080
Valve Lift Area - HE SQIN 7.362 3.626
Valve Lift Area - CE SQIN 7.362 3.626
API Inlet Vlv Vel Avg. FPM 6884.0 5359.7
Internal Gas Load - T LBF 37546 12986
Internal Gas Load - C LBF -41937 -16937
MACGL LBF 44275 44275
Combined Rod Load - T LBF 29952 10587
Combined Rod Load - C LBF -35366 -12634
MACCRL LBF 38500 38500
Recip. Weight @ XHD Pin LB 337.0 337.0
Reversal @ XHD Pin DEG 175.0 175.0