

VALVE DYNAMICS ANALYSIS

Job/Quote Reference: 11721-3 MOP-SYN

Stage: 3

Cylinder Bore (in) 5
Stroke (in) 20
Rod Diameter (in) 3
Crankshaft Speed (RPM) 290
Suction Pressure (psig) 2085.3
Discharge Press. (psig) 4785.3
Suction Temp.(F) 86
Mole Weight 8.7
Gas Description Hydrogen Mix

Prepared By:

Tom Dunn

18-Apr-11

Notes:

Suction: (4) 18#6 spring; 0.625 pocket
Discharge: (4) 18#6 spring; 0.625 pocket

Lift Area: 3.52 in²
EFA: 2.28 in²

	Head End		Crank End	
	Suction	Discharge	Suction	Discharge
Mean Pressure Drop (psi)	11.31	15.33	4.54	6.49
Peak Pressure Drop (psi)	15.31	24.92	6.27	10.21
Opening speed (fps)	1.08	2.38	1.45	2.38
Valve power loss (hp)	2.88	2.00	0.78	0.57
Volumetric Efficiency (%)	84.13	43.18	89.02	45.69
Crankshaft Angle (deg)	28	93	44	99

Total Valve Power Loss (hp) 6.24

