

MLB Engineers, Inc.

Required Data for Acoustical/Mechanical Piping Analysis/Designs of Reciprocating Compressor Units:

A. COMPRESSOR PERFORMANCE DATA

- Operating conditions - design pressure(s), temperature(s), flow(s) and speed(s) with expected operating ranges
- Design gas composition(s) with expected variations
- Compressor cylinder data - bore(s), stroke, rod diameter, connecting rod length, clearances, etc.
- Compressor cylinder unloading information and data - clearance pockets, valve unloaders, bypass, recycle, etc.

B. COMPRESSOR FRAME/CYLINDER ARRANGEMENT

- Compressor cylinder number and crankshaft throw number location
- Crankshaft phasing data
- Centerline dimensions of compressor cylinder crankshaft throws

C. COMPRESSOR CYLINDER INTERNAL GAS PASSAGE DATA

(If not on file)

D. COMPRESSOR MECHANICAL INFORMATION

(Only for API 618 Design Approach III)

- Crosshead guide - length, weight and mechanical properties (elastic and shear modulus)
- Distance piece - length, weight and mechanical properties (elastic and shear modulus)
- Compressor cylinder - dimensions and weight
- Crosshead guide, distance piece and cylinder support drawings

E. EXISTING AND/OR PROPOSED PIPING CONFIGURATION/DATA

- Piping plan(s) and elevations or sketches showing existing or proposed layout
- Piping isometrics with pipe lengths, sizes, schedules, etc. (if available)
- Bottle data - length, size wall thickness, internal construction, etc.
- Vessel data - length, size wall thickness, internal construction, etc. for filter separator(s), scrubber(s), shell and tube exchanger(s), etc.
- Gas cooler data - header volumes/dimensions - tube number, length and size, number of passes, etc.