

COMPRESSOR FLANGE LOAD LIMITS C404 COMPRESSOR

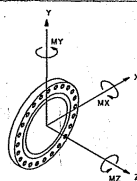
Technical drawings of the Suction/Discharge Port for the F-105 engine.

Left View (Front View):

- Ø 1.62" [41] LIFTING EYE (4) PLACES
- SUCTION
- 2'-10" [864]
- 2'-10" [864]
- 5'-8" [1727]
- 9.3/16" [234]
- DISCHARGE

Right View (Side View):

- 2'-9 11/16" [856] SUCTION/DISCHARGE PORT OFFSET
- 5'-9" [1752]
- 2'-7" [787] MINIMUM CLEARANCE REQUIRED FOR REMOVAL OF DISCHARGE CONE FOR AERODYNAMIC RESTAGE



- $$3FR + MR = K$$

<u>FLANGE</u>	<u>K</u>	<u>SIZE</u>
SUCTION	29659	16
DISCHARGE	29659	16

FR = RESULTANT FORCE, INCLUDING PRESSURE FORCES WHERE UNRESTRAINED
EXPANSION JOINTS ARE USED AT THE CONNECTION IN LB.
MR = RESULTANT MOMENT IN FT-LB.

- A. THE RESULTANTS MUST NOT EXCEED: $2F_c + M_c = 18790$

Fc = COMBINED RESULTANT OF SUCTION AND DISCHARGE FORCES IN LB.
Mc = COMBINED RESULTANT OF SUCTION AND DISCHARGE MOMENTS, AND
MOMENTS RESULTING FROM FORCES IN FT-LB.

- B. THE COMPONENTS OF THESE RESULTANTS SHALL NOT EXCEED:

Fx = 3751 LB Mx = 18783 FT-LB
Fy = 9398 LB My = 9398 FT-LB
Fz = 7516 LB Mz = 9398 FT-LB

X, HORIZONTAL, PARALLEL TO SHAFT
Y, VERTICAL
Z, HORIZONTAL, AT RIGHT ANGLES TO SHAFT

3. SUCTION AND DISCHARGE PIPING SUPPORTS SHOULD BE ANCHORED OFFSKID AND BE POSITIONED TO PREVENT EXCESSIVE LOADS ON COMPRESSOR HEADER CONNECTIONS.