

SA: SR814PAN
DATE: 2/03/02

SR8 14 4DKE SLIDE RAIL PANEL RATINGS

DESIGN FOR SLIDE RAIL PANEL WITH 4 HORIZONTAL STRINGERS
DOUBLE WALL WITH KNIFE EDGE

ENTER TOTAL HEIGHT OF PANEL IN INCHES 94.25
ENTER HEIGHT OF UPPER TUBE IN INCHES 12.00 (INCLUDES 8X4X1/2 TOP TUBE)
ENTER HEIGHT OF SECOND TUBE IN INCHES 4.00
ENTER HEIGHT OF THIRD TUBE IN INCHES 4.00
ENTER HEIGHT OF BOTTOM TUBE IN INCHES 6.00
ENTER HEIGHT OF KNIFE EDGE IN INCHES 8.00

HEIGHT OF INSIDE SPACE IN INCHES 60.25
ENTER HEIGHT OF UPPER SPACE IN INCHES 22.00 *
ENTER HEIGHT OF MIDDLE SPACE IN INCHES 18.00 * (CHECK MATH !!)
ENTER HEIGHT OF LOWER SPACE IN INCHES 19.00 *

ENTER WIDTH OF TUBE IN INCHES 4.0000
ENTER PLATE THICKNESS IN INCHES 0.2500
WIDTH OF PANEL IN INCHES 4.5000

ENTER TOTAL LENGTH OF PANEL IN INCHES 168.00 14.00 FEET
ENTER LOAD INSET DIMENSION 4.00
LENGTH OF SPAN FOR DESIGN IN INCHES 160.00

ENTER TYPE OF TUBE

UPPER 4X4X1/4 SECOND 4X4X1/4 THIRD 4X4X1/4 LOWER 6X4X5/16

ENTER I FOR EACH TUBE (CAUTION I_x OR I_{yy})

UPPER 8.22 SECOND 8.22 THIRD 8.22 LOWER 28.70 INC. KE I_{yy}

ENTER STEEL STRENGTH IN PSI 55000

PROPERTIES	UPPER	SECOND	THIRD	LOWER
I TOTAL IN ⁴	57.95	63.60	60.21	59.22
S TOTAL IN ³	25.76	28.27	26.76	26.32
P AVERAGE PSF	2212	2279	2298	2212
D AVERAGE INCHES	82.75	59.00	35.00	11.75

STRINGER RATINGS	UPPER	SECOND	THIRD	LOWER	DEPTH (FEET)
AT 25 PSF	2384	2402	2371	2236	89
AT 45 PSF	2523	2500	2428	2256	50
AT 60 PSF	2625	2574	2473	2271	38

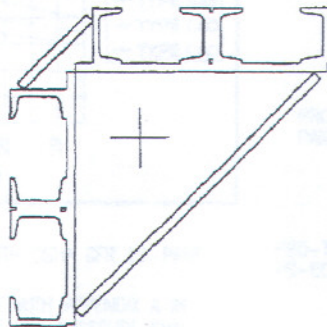
PSF RATINGS

	PSF
AT 25 PSF	2236
AT 45 PSF	2256
AT 60 PSF	2271

THIS PROGRAM COMPUTES THE MAXIMUM PSF AND DEPTH RATINGS FOR THE HORIZONTAL PANEL MEMBERS ONLY. CONSIDERATION OF THE TOP 8X4 TUBE IS NOT INCLUDED. CONSIDERATION OF THE BOTTOM KNIFE EDGE IS INCLUDED.

PRO-TEC - SLIDE RAIL SYSTEM - DOUBLE CORNER - PS-DCP-216

Area: 40.80505072
 Perimeter: 160.00187748
 Bounding box: X: -7.02034000 -- 10.24202399
 Y: -10.24203000 -- 7.02033399
 Centroid: X: -0.00000371
 Y: -0.00000229
 Moments of inertia: X: 1038.43708280 Sx=101.39 in³
 Y: 1038.43708280 Sy=101.39 in³
 Product of inertia: XY: 479.44732960
 Radii of gyration: X: 5.04467431
 Y: 5.04467431
 Principal moments and X-Y directions about centroid:
 I: 558.98975320 along [0.70710678 0.70710678]
 J: 1517.88441240 along [-0.70710678 0.70710678]



Practical Engineering Services, Inc.

7331 Browns Lake Rd.
Jackson, Michigan 49201

P.O.#: PRO-TEC EQUIPMENT INC.

TITLE
MATERIAL PROPERTIES
PS-DCP-216 SLIDE RAIL
CORNER POST

PREPARED UNDER THE RESPONSIBLE SUPERVISION OF

SCOTT M. GILLET P.E.

App. SMG

Date 3/7/01

Dwg# SKETCH

Sht. 1 OF 1