L.A. RAILINGS

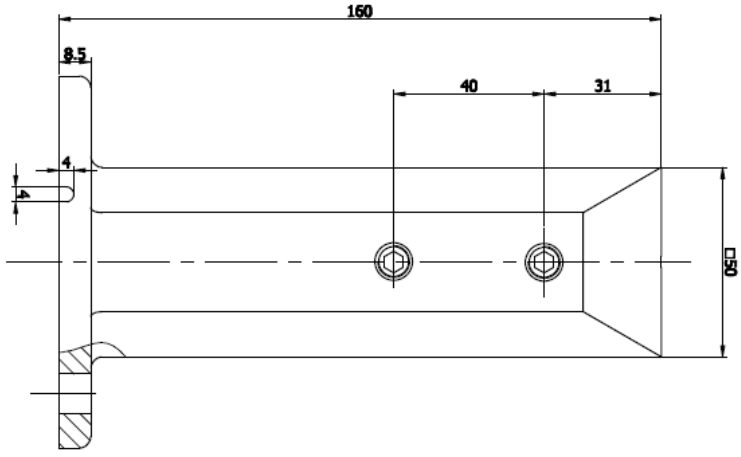
TEST REPORT

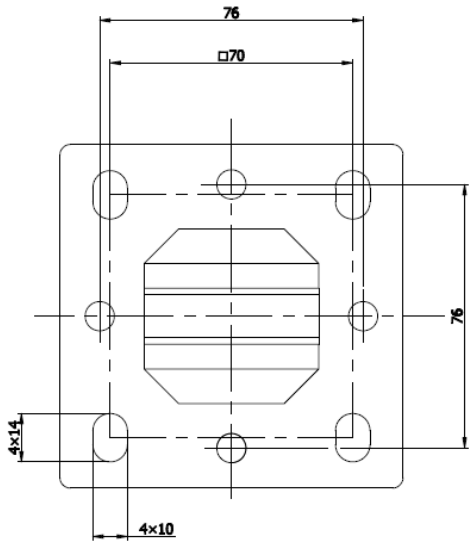
Test Date: 28-March-2020

Product

Duplex 2205 Square Surface Mounted Spigot

Drawings & Dimensions (mm)





Chemical Composition (%)

CHEMICAL COMPOSITION %									
Grade.	**C**	**Si**	**Mn**	**P**	**S**	**Cr**	**Ni**	**Mo**	**N**
GR 2205	0.025	0.88	1.11	0.022	0.009	22.49	5.13	3.59	0.15

Test method

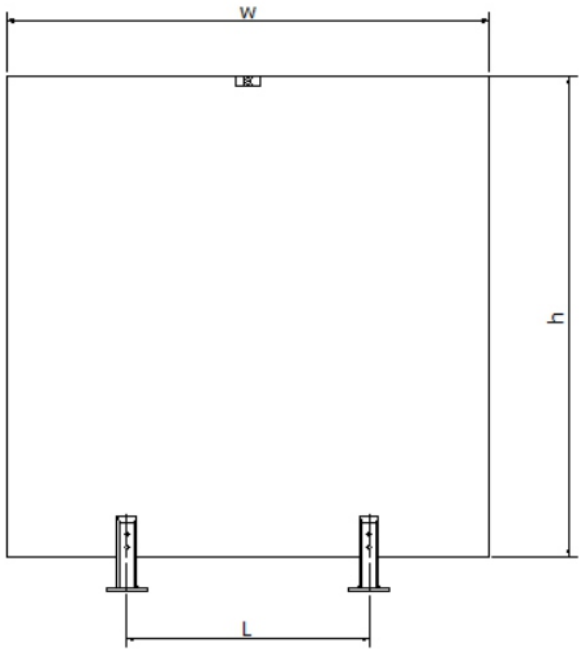
1. Connect the force measuring device to test object.
2. Place the flat end of the test object against the test component at its most flexible point.
3. Using the force measuring device, apply a force of 0.35 kN/m, 0.75 kN/m, 1.0 kN/m for a minimum of 30 seconds. Remove the force and measure the zero load displacement.
4. Inspect the component for –
    (a) breakage or sign of fracture of any component; and
    (b) loosening of any component that will impair the effectiveness of the panel.

Load Test

Glass Panel Size:

1200 mm x 1000 mm x 12 mm (Width x Height x Thickness)

Spigot Spacing: 800 mm



Test Results

Glass Panel	Top-edge Horizontal	Load (in kg) (kN/m x span in m)		Testing Load	Deflection under load (mm)	Permanent deflection after load removed (mm)
		kN/m	kg	kg		
H x W 12 x 1000 x 1200 mm	Outward	0.35	43	41.0	18.56	0.56
		0.75	92	92	51.53	0.92
		1.0	122	121.9	71.65	1.56

(a) No breakage or sign of fracture of any component

(b) No loosening of any component that will impair the effectiveness of the panel.

The deflection at the point of the load must not exceed the effective height of the support divided by 12 when a load of 200 lbs is reached.

$$\frac{h}{12} = \frac{42}{12} = 3.5 \text{ (inch)}$$

Test Picture



Summary

The results of the tests complied with the requirements of National Building Code 9.8.8.2 [2] and Ontario Building Code 4.1.5.14 [1].

Chen Jian / Engineer