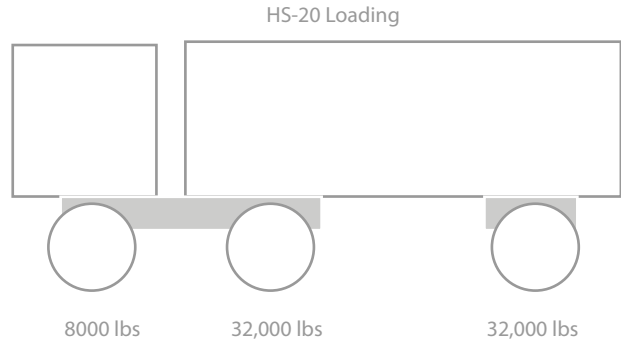
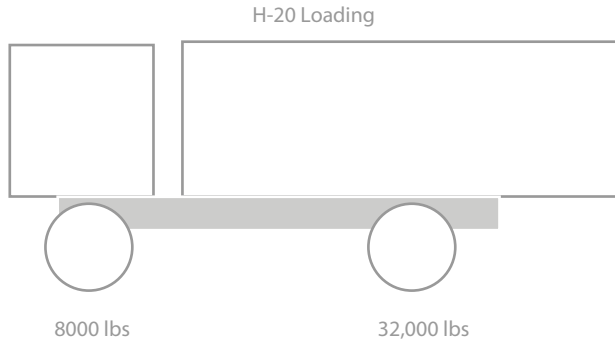


H-20 and HS-20 loading



Dynamic Load Sample Calculation

Wheel load = $W_L = 8000$ lbs (32,000 lb axle / 4)
 Dynamic Force = $F_d = 1.2$ (20% greater than static force)
 Spread Area = $A = 256$ sq in (12" cover w/45 degree angle)
 Weight of base = $d_y = 0.97$ psi (12" road base @ 140 lbs/cf)

$$\sigma_{va} = (W_L \times F_d / A) + d_y$$

$$\sigma_{va} = (8000 \text{ lbs} \times 1.2 / 256 \text{ sq in}) + 0.97 \text{ lbs}$$

$\sigma_{va} = 38.5$ psi load results at top of RS3 Chamber

38.5 psi (256 kPa) on Rainstore3 Chamber with H-20/HS-20 Loads
[47.8 psi (330 kPa with HS-25 Loads)]

Surface Pressure

32,000 lb load for single rear axle

32,000 lbs / 4 tires per rear axle = 8000 lbs per tire

100 sq in = contact area (10" x 10")

8000 lbs / 100 sq inches = 80 psi

80 psi (552 kPa) Static at Top of Cover

Rainstore3 has been independently field and laboratory tested to meet H-20 Bridge Loading.

Lab tests determine average Rainstore3 load capacity to be 93 psi at 2x safety factor.

Grasspave2, Gravelpave2, and Slopetame2 can withstand 15,940 psi with fill material (109,906 kPa) or 2.3 mil lbs/sq ft.



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