

# HS-25 Loading Table

## HS-25 Loading - Single Lane Traffic

Item	Cover Depth (inches)											
	6	19	24	36	48	60	72	84	96	108	120	144
Axle Load (lbs)	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000
Tire Load (lbs)	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000
Tire Contact Area (10" x 20" = 200 inch <sup>2</sup> )	200	200	200	200	200	200	200	200	200	200	200	200
Area of Applied Load at 33% Angle of Repose (inch <sup>2</sup> )	416	1,131	1,496	2,576	3,944	5,600	7,544	9,776	12,296	15,104	18,200	25,256
Unmodified Wheel Load Applied to R-Tank	48.08	17.68	13.37	7.76	5.07	3.57	2.65	2.05	1.63	1.32	1.10	0.79
Impact Factor (per AASHTO Standard)	62.95	22.36	16.68	9.37	5.91	4.01	2.87	2.13	1.63	1.27	1.01	0.66
Cover Material Pressure at 130 lbs/cf (psi)	0.45	1.43	1.81	2.71	3.61	4.51	5.42	6.32	7.22	8.13	9.03	10.83
Total Load Applied to R-Tank (psi)	<b>63.40</b>	<b>23.79</b>	<b>18.48</b>	<b>12.07</b>	<b>9.52</b>	<b>8.53</b>	<b>8.29</b>	<b>8.45</b>	<b>8.85</b>	<b>9.39</b>	<b>10.04</b>	<b>11.49</b>
Ultimate Bearing Capacity of R-Tank Unit (psi)	320.00	42.90	33.40	33.40	33.40	33.40	33.40	42.90	42.90	42.90	320.00	320.00
Safety Factor	<b>5.05</b>	<b>1.80</b>	<b>1.81</b>	<b>2.77</b>	<b>3.51</b>	<b>3.92</b>	<b>4.03</b>	<b>5.08</b>	<b>4.85</b>	<b>4.57</b>	<b>31.89</b>	<b>27.84</b>

- R-Tank<sup>HD</sup>
- R-Tank<sup>SD</sup>
- R-Tank<sup>XD</sup>

