

## Tru-Gard™ Bollard Testing and Rating

Tru-Bilt Industries Ltd has engaged third party independent consulting engineers to test Tru-Gard™ Bollard sizes 115mmØ, 165mmØ and 220mmØ. The testing was done to the following standard:

- AS/NZS 1170.1 2002
- Car Parks, Clause 3.8
- 30kN (3000kg) impact at a height of 0.5m above ground level
- 12mm x 150mm Screw Bolts grade 8.8 for bolt down bollards
- Foundation for cast in bollards: when the load is spread across one bollard, a pile foundation of at least 1100mm depth and 250mm diameter is required; when the load is spread across two or more bollards, a pile foundation of 550mm depth and 250mm diameter is required.

Bollard Code	Size	Description	Rating
49-SM115 Y/G/GY	115mmØ x 1100mmH	Standard bolt down bollard	Pass
49-RB115 G/GY	115mmØ x 950mmH	Standard removable bollard	18kN Rated
49-IG115 G/GY	115mmØ x 1630mmH	Standard cast in bollard	Pass
49-SB115-GM	115mmØ x 550mmH	Standard bollard ground mount	Pass
49-SM165 Y/G/GY	165mmØ x 1100mmH	Large bolt down bollard	Pass
49-IG165 G/GY	165mmØ x 1630mmH	Large cast in bollard	Pass
49-LB165-GM	165mmØ x 550mmH	Large bollard ground mount	Pass
49-SM220 Y/G/GY	220mmØ x 1500mmH	XL bolt down bollard	Pass
49-IG220 G/GY	220mmØ x 2250mmH	XL cast in bollard	Pass
49-XLB220 GM	220mmØ x 750mmH	XL bollard ground mount	Pass

<sup>\*</sup> Bollards on Breakaway Mounts not included in testing.