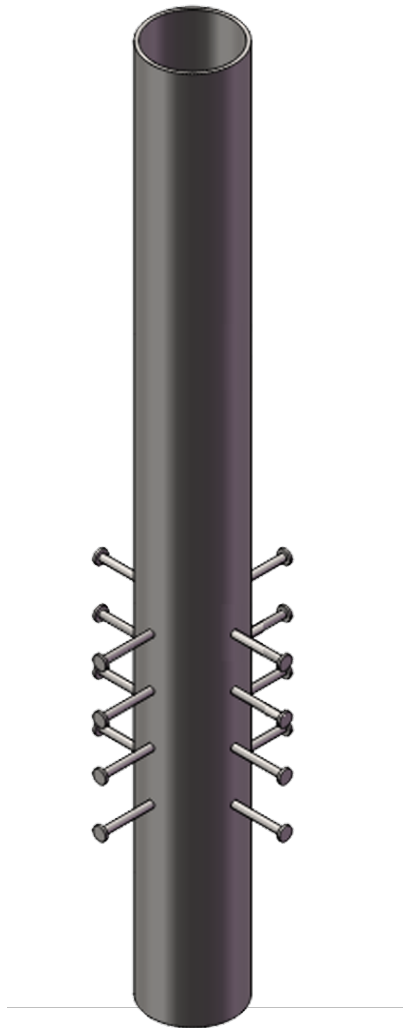


150/C40FX 900

Proudly designed, engineered and manufactured in Canada, the fixed 150/C40FX 900 bollard exceeds the ASTM F2656-P1 standard and has been awarded a SC40-P1 certification.



150/C40FX 900

4455 Genesee Street, Buffalo, New York 14225 | Phone: 716.632.7500 | Fax: 716.631.6969 | www.calspan.com



Calspan Test No.: BR0110
Test Standard: ASTM F2656-20
Impact Condition Designation: SC40
Client: Ontario Bollards
Model: Bollard 150/C40FX 900
Product Rating: SC40 – P1

March 30, 2022

To whom it may concern:

This letter is to certify that the subject barrier, the Bollard 150/C40FX 900 provided by Ontario Bollards, was tested to the requirements of the ASTM standard F2656-20, with SC40 impact condition designation. This was the standardized Test Method for Vehicle Crash Testing of Perimeter Barriers, at the time the barrier test was performed.

Testing performed at Calspan Corporation, on March 29, 2022, for Ontario Bollards. The Ontario Bollards, Bollard 150/C40FX 900 was impacted by a SC small car, weighing 1,109.3 kg (2,445 lbs.) travelling at 64.5 kph (40.1 mph). Post-test measurements of the dynamic movement of the test vehicle's leading edge of the base of the "A" pillar show that the left and right leading edge of the base of the "A" pillar, were stopped at – 79mm and -56 mm respectively, before the leading edge (reference line) of the impacted test article. As such, based on the test vehicle mass, impact velocity and penetration into the protected zone, the barrier rating per the ASTM standard F2656-20, is SC40 – P1.

Calspan accredited to ISO/IEC 17025:2017 to perform ASTM F2656-20 testing by Perry Johnson Laboratories Accreditation, Inc. (PJLA) under Certificate Number L18-546-R2 and Accreditation Number 76654.

Respectfully,

A handwritten signature in blue ink that reads "David Casey".

David Casey
Test Director

Safer Highways...Safer Skies

Aerospace Sciences | Crash Research | Flight Research | Transportation Research

150/C40FX 900

BOLLARD MATERIAL	NORMAL STEEL / OPTIONAL GALVANIZED STEEL
CYLINDER DIAMETER	168MM
CYLINDER HEIGHT (ABOVE GRADE)	900MM
COVER OPTIONS	PAINTED ANY RAL COLOR
	HDPE PLASTIC BOLLARD COVER
	BURSHED GRADE 316 STAINLESS STEEL COVER
	AVAILABLE IN FLAT, ROUNDED, SLOPED TOP
IMPACT RESISTANCE (WITHOUT DEFORMATION)	175,000 J
BREAKOUT RESISTANCE	525,000 J

ASTM standard test method for perimeter barriers designates C40 as the rating for a barrier that stops a 1,100 kg vehicle moving at 64 Km/h. It is tested with a compact-car equivalent test vehicle.

Many parking lots have curbs, speed bumps, or parking stops and are generally busy. In these conditions, the average vehicle speed is slow. The installation of C40 bollards, will generally be enough to stop accidents caused by driver inattention, medical issue, or pedal confusion.

Similarly, provided that there are very few straight segments where a car can pick up speed, and if the area is inaccessible to large vehicles, then the C40 bollards can be used to protect store front against driver error or intentional ram raid. ANNT C40 bollards are tested and certified to ASTM F2656-20 standards and have achieved a SC40-P1 certification.

ANNT C40 bollards are proudly designed, engineered and manufactured in Canada.