

1. Report No.		2. Government Accession No.		3. Recipient's Catalog No.	
4. Title and Subtitle ASTM F2656-15 TEST M30 ON TILT-AWAY MODEL PSB M30 HYDRAULIC VERTICAL PIVOT GATE				5. Report Date November 2018	
				6. Performing Organization Code	
7. Author(s) William F. Williams, Wanda L. Menges, and Bill L. Griffith				8. Performing Organization Report No. Test Report No. 690900-IMI4	
9. Performing Organization Name and Address Texas A&M Transportation Institute Proving Ground 3135 TAMU College Station, Texas 77843-3135				10. Work Unit No. (TRAIS)	
				11. Contract or Grant No. Contract No. 1805717	
12. Sponsoring Agency Name and Address Ideal Manufacturing, Inc. 2011 Harnish Boulevard Billings, Montana 59101				13. Type of Report and Period Covered Test Report: May – October 2018	
				14. Sponsoring Agency Code	
15. Supplementary Notes Research Study Title: ASTM F2656 M30 Crash Test of the Tilt-A-Way Model PSB M30 Hydraulic Vertical Pivot Gate Name of Contacting Representative: Tom Henry					
16. Abstract <p>The objective of the test reported herein was to determine if the Tilt-A-Way Model PSB M30 Hydraulic Vertical Pivot Gate is capable of arresting a 15,000 lb (6800 kg) truck traveling at 30 mi/h (50 km/h) according to Condition Designation M30 of <i>ASTM F2656-15</i>. This condition designation requires the gate to withstand nominal kinetic energy of 451 kip-ft (656 KJ).</p> <p>This report presents the construction details of the Tilt-A-Way Model PSB M30 Hydraulic Vertical Pivot Gate, details of the impact vehicle used in the test, details of the test performed, and the assessment of the test results.</p> <p><i>ASTM F2656-15</i> provides a range of vehicle test designations and penetration levels that allow agencies to select perimeter security devices that satisfy their specific facility needs. The amount of vehicle penetration of the security device at the required impact velocity determines the dynamic penetration rating for each condition designation.</p> <p>The leading edge of the cargo bed did not penetrate beyond the attack side of the Tilt-A-Way Model PSB M30 Hydraulic Vertical Pivot Gate, but stopped 17 inches (432 mm) before the reference line at the back of the gate arm. According to <i>ASTM F2656-15</i>, the Tilt-A-Way Model PSB M30 Hydraulic Vertical Pivot Gate meets Condition Designation/Penetration Rating M30/P1, which allows penetration of ≤ 3.3 ft (≤ 1 m) when impacted by the medium duty truck with a diesel engine at a nominal speed of 30 mi/h (50 km/h).</p>					
17. Key Words anti-ram; perimeter security; crash testing; barriers; gates; fences; homeland security			18. Distribution Statement Copyrighted. Not to be copied or reprinted without consent from Ideal Manufacturing, Inc..		
19. Security Classif.(of this report) Unclassified		20. Security Classif.(of this page) Unclassified		21. No. of Pages 60	22. Price