

Product Performance Summary

050-1900 8mm Single Rotary Latch

Cycle Test:

The 050-1900 8mm Single Rotary Latch had minimal amount of wear seen after 100,000 cycles and the examples were cycle tested up to a 80 lbf (36 kgf) door seal load.

TriMark recommends a door seal load of 40-50 lbf (18-22 kgf).

The 050-1900 8mm Single Rotary Latch is able to withstand over 300,000 cycles while subject to a dust environment simulating conditions similar to that of an agricultural or construction environment. This testing was done with the same seal conditions as the standard cycle test above.

FMVSS 206 Tests:

Latch meets load requirements of FMVSS 206 in transverse and longitudinal orientations, in both primary and secondary positions, when paired with approved TriMark Striker Bolts in accordance with SAE J839.

The FMVSS206 strength requirements are listed below.

Transverse Primary 9000N (2023 lbf) Secondary 4500 N (1112 lbf)
Longitudinal Primary 11000 N (2473 lbf) Secondary 4500 N (1112 lbf)

Impact Testing:

The 050-1900 8mm Single Rotary Latch was impact tested for rotor and latch integrity at an ambient lab temperature of 70° F (21° C).

The results showed no concerns of strength during impacting situations where the latch rotor is subject to a door slam event, simulating the rotor being closed and then struck by the striker. The mean impact energy achieved by the rotor was that equivalent to a 170 lb (77 kg) door being slammed at a rate of 5.58-6.56 ft/sec (1.7-2.0 m/sec).

Functional Corrosion Test:

The 050-1900 8mm Single Rotary Latch remains operational and functions properly at the end of 144 hrs of salt spray testing per ASTM B117 neutral salt spray test methods.

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Axle Torque Test:

The axles used in the 050-1900 8mm Single Rotary Latch are capable of withstanding a maximum recommended latch mounting torque value of 230 in lbf (26 N-m).

(Latch must be used with a TriMark approved striker bolt - 070-1000 8mm Diameter Striker Bolt)

Note: Additional testing information is available upon request.

The Product performance values shown are intended to be applied as a general guideline only, as specific applications and installation may affect the results. It is recommended that the Customer request a sample and conduct their own testing to determine the suitability of the Product for the intended purpose and specific application. Strength data is given as maximum loads at which the product is operable, however no safety factor has been applied.

Additional Testing information is available upon request.



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