

**TECHNICAL
BRIEF**

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SPECIFICATION FOR QUICK-LOCK® VARIABLE LENGTH BARRIER

Quick-Lock® Variable Length Barrier (QVLB) shall be fabricated from A36 steel, utilizing all welded construction. Final assemblies may be bolted together. The nominal length of the QVLB shall be 43" (1090 mm) with a maximum length of approximately 50" (1270 mm) and a minimum length of approximately 36" (920 mm) pin-to-pin.

The QVLB shell shall consist of an inner shell and an outer shell, both hot dip galvanized. The minimum weight of the assembled QVLB shall be 750 lb (340 kg).

The maximum outside dimensions of the QVLB shall not exceed the outside dimensions of the standard Quickchange® Moveable Barrier (QMB). The minimum outside cross sectional dimensions of the QVLB inner shell shall not be less than the QMB dimensions by more than 1" (25 mm) at any location. The hinges utilized on the QVLB shall be similar to the hinges used on the remainder of the system. The longitudinal strength of the QVLB under impact shall be consistent with the strength of the standard Quickchange® Moveable Barrier.

When the Quick-lock® Variable Length Barrier is positioned on the road surface, it is held to the correct length by the adjacent barriers. During normal transfers and maneuvers it is free to adjust to keep the system in equilibrium, however in case of an impact at any location on the barrier chain the RTS-VLB it is automatically hydraulically locked. The VLB essentially acts as an expansion joint which allows the system to compensate for changes in length associated with bridge deck expansion joints, transfers on curved alignments or other situations which necessitate the system contract or expand to maintain equilibrium.

The Quick-Lock® Variable Length Barrier can also be used as a variable length connector between sections of QMB or between QMB and an anchorage system. If used in this manner, the QVLB can be extended or compressed as necessary by supplying a tension or compression load with the Barrier Transfer Machine (BTM) or by using manual devices such as a "come-a-long", "port-a-power" or other similar means. Multiple QVLB units can be connected in order to open and close longer sections if the need arises. Depending on the application, some of these may be hydraulically operated to facilitate operational maneuvers. When hydraulically operable the units are referenced as Quick-Lock® Powered Gate VLB's.