

Maintenance and Repair

The REACT 350[®] system, through crash testing, has been shown to be a potentially reusable crash cushion. After those impacts observed within NCHRP Report 350 criteria, it has been observed that, potentially, the bulk of the system can be reused. However, whether or not a system is reusable is the sole discretion of the highway authority specifying their use.



Warning: After an impact, always follow the “Post-Impact Instructions” on page 34.

Estimated Time for Maintenance

An experienced two-person crew with the proper tools and spare parts should be able to complete the work in one to three hours depending on the damage done to the system.

Life Expectancy

Environment

It is anticipated, given typical environmental conditions that the plastic cylinders will survive in a highway environment for a period ranging from 5 to 15 years from the date of deployment unless impact damage renders them otherwise. However, the life of a system in each specific application should be determined by the highway authority specifying their use and maintaining the system.

Impacts

Potential life expectancy of the system is also dependent on the impacts. This includes:

1. The number of impacts to the system
2. The severity of the impacts
3. The temperature at the time of the impacts

The REACT 350[®] system must be inspected after each impact. Depending on the impact, components may get damaged and need replacement. A cylinder requires replacement when the minor axis of the cylinder stays permanently at 460 mm [18"] or less (see Figure 30) or the system does not reach 90% of the original length. It is critical that all cables and anchoring be checked and returned to original assembly conditions. Any parts used in the repair of the system must be original Trinity Highway parts (see p. 3).

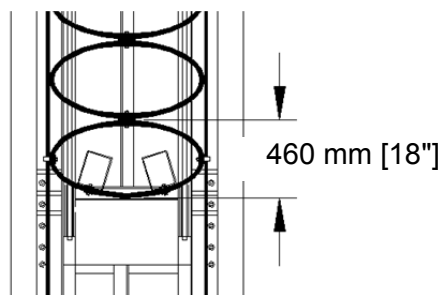


Figure 30 - Measure Minor Axis

Recycling Information

When parts need to be replaced, it is recommended that the old parts be recycled as follows:

Steel should be sold as scrap to a local metal recycler.

HDPE plastic cylinders should be sold to a plastic recycler if available. If a recycler is unavailable, dispose of the material as plastic refuse.

Parts Ordering Procedure

1. Locate the Product Decal attached to the inside of the Rear Cylinder. Copy the sales order information from the decal.
2. Make a list of any damaged parts, using part numbers and descriptions found on the reference drawings included with the REACT 350[®] system.
3. Only parts specified to be used in this system may be used during repair. The use of a part not specified in this system design renders this system as one that HAS NOT BEEN accepted by FHWA for use on the National Highway System and all observed crash testing to determine system performance is negated. The use of a part not contained herein during the repair renders the systems as something other than that which was tested and accepted by the FHWA for use on the national highway system.

Inspections

Inspections by the appropriate highway authority are recommended as determined by that authority based upon volume of traffic and impact history. Visual drive-by inspections are recommended at least once every three months. Walk-up inspections are recommended at least twice a year.



Warning: After an impact, always follow the “Post-Impact Instructions” on page 34.

Visual Drive-By Inspection

1. Check to see if there is evidence of an impact. Check to verify that the REACT 350[®] system is fully extended from the backup. If it is not, a walk-up inspection will be necessary to determine the cause.
2. Note the location and condition of the REACT 350[®] system and the date of visual drive-by inspection on a log sheet.



Warning: Debris, snow, or ice inside the cylinders may prevent the REACT 350[®] system from absorbing the impact of a crash as observed in NCHRP Report 350 compliant crash testing. Perform a walk-up inspection as needed to check for and dispose of any debris inside the Cylinders. Failing to remove this debris or other material infringes upon the performance of the system observed in FHWA accepted crash testing.