

ARMORBOSS®

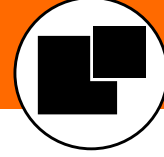
Resilient Tunnel Plug



Point-Of-Use
Storage



Quick Deployment



100%
Customizable

NEW!

ARMORBOSS® RESILIENT TUNNEL PLUG (A-RTP)

PUTS A STOP TO THREATS IN TUNNELS OF ANY SHAPE OR SIZE

The ArmorBoss® Resilient Tunnel Plug is a high-strength inflatable device that rapidly deploys to partition tunnels (of any shape or size) in order to prevent the movement of smoke, chemical/biological agents or people. Similar to how an automobile airbag functions, this device resides in a small container until you pressurize it (either remotely or locally) to shape when an event occurs. Internal pressure exceeds the external pressure to create the barrier, and the plug is held in place with friction. The Resilient Tunnel Plug can also be used for other applications, including the prevention of flooding (including top-down water events).

ArmorBoss® Resilient Tunnel Plug Benefits

- **Point-of-use Storage** - Deploys at the last moment for minimal operational disruption
- **Adaptable** - Conforming inflatable structure can adapt to any tunnel configuration
- **Compact Stowage** - Stores in small spaces
- **Scalable Design** - Can be sized to fit any tunnel
- **Simple Installation** - Requires limited changes to infrastructure to install, resulting in low installation and operational impact costs
- **Blocks Threats** - Weather, smoke, chemicals, people or flooding
- **Customizable** - From its weight and portability to its size and material, it can be customized to stop specific threats





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Resilient Tunnel Plug

Development:

The Resilient Tunnel Plug was developed under a Department of Homeland Security Science & Technology Directorate program. It was originally developed for security applications to protect underground subway systems from flooding caused by damage to an underwater transit tunnel.



System Components:

- 1. Plug** - Plug will be designed and fabricated to meet desired needs and parameters
- 2. Container** - Custom container based on location and use
- 3. Pumps** - Fill the plug with air (or water)
- 4. Control System** - Monitors the health of the system and controls pressure during/after deployment

Configuration Options:

1. Fixed Asset At Point-Of-Use

- Rapid response approach
- Mounted in tunnel
- Pressurization system is remote
- Can be automated or manually activated

2. Transportable System

- Deploy to location when needed
- Mobile platform
- Pressurization system can be remote or local
- Manually positioned for deployment

Testing:

The ArmorBoss Resilient Tunnel Plug has been validated via testing in a 16.5-foot-diameter representative rail tunnel against a 30-foot water head pressure challenge.

