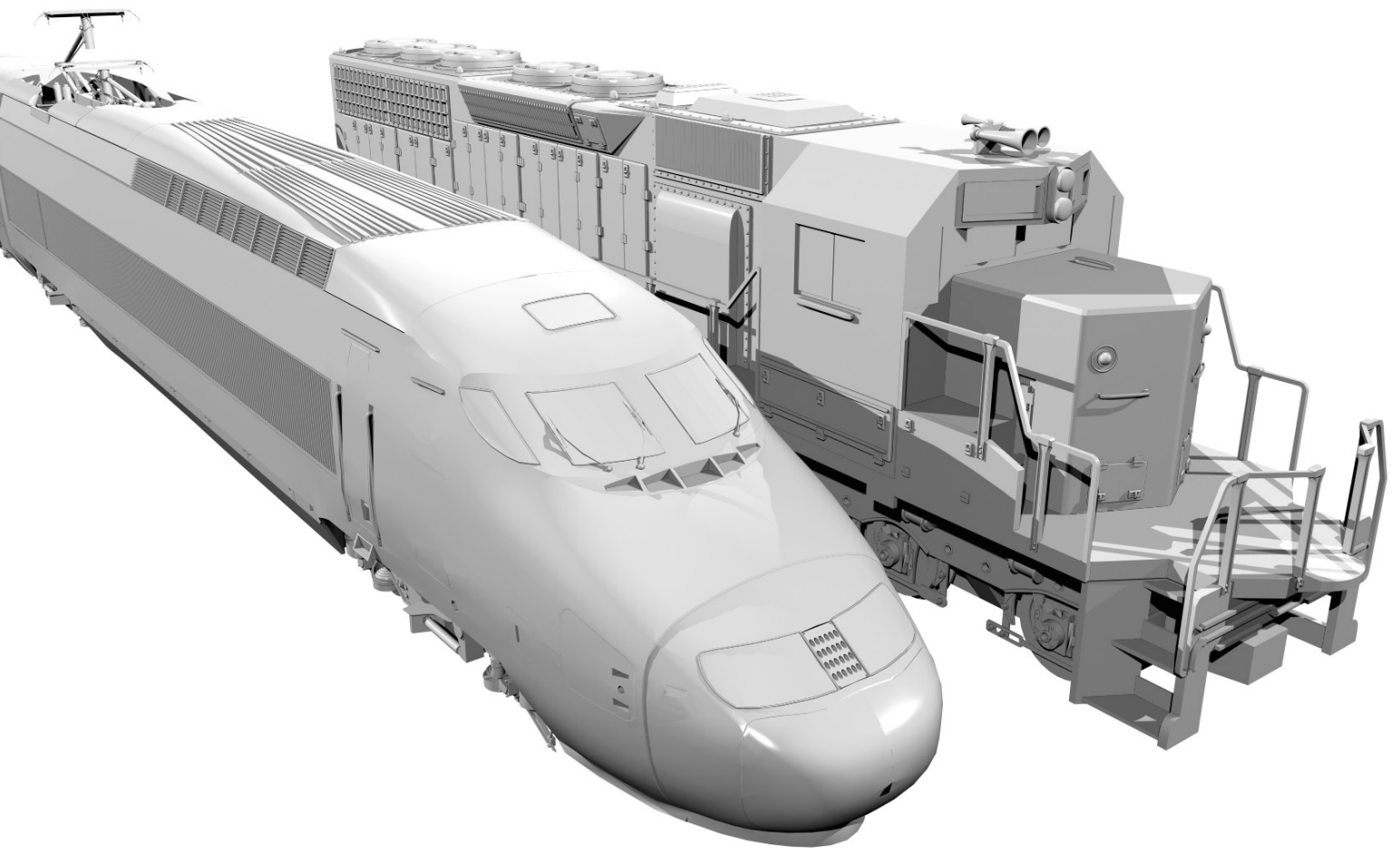




ROTAREX
FIRETEC



FIRE SUPPRESSION SYSTEMS FOR TRAINS

GREAT RISK IN CASE OF FIRE

TRAIN ENGINE COMPARTMENTS ARE HIGH-RISK ZONES



- ★ Diesel Fuel leaks or oil residue on hot surfaces
- ★ Overheating of electric train motors
- ★ Short circuit or overheating of high-voltage electrical contacts
- ★ Fires in Underground train or Tunnels are particularly dangerous

TRAIN FIRES CAN:

- Injure or kill passengers
- Make expensive damage to equipment
- Ignite hazardous cargo - explosion, poisonous fume hazard
- Destroy the train tracks - requiring costly downtime for repairs
- Spread to start a bushfire (remote areas far from help)

HIGH VALUE LOSS

THE LOSSES ARE NOT LIMITED TO THE TRAIN

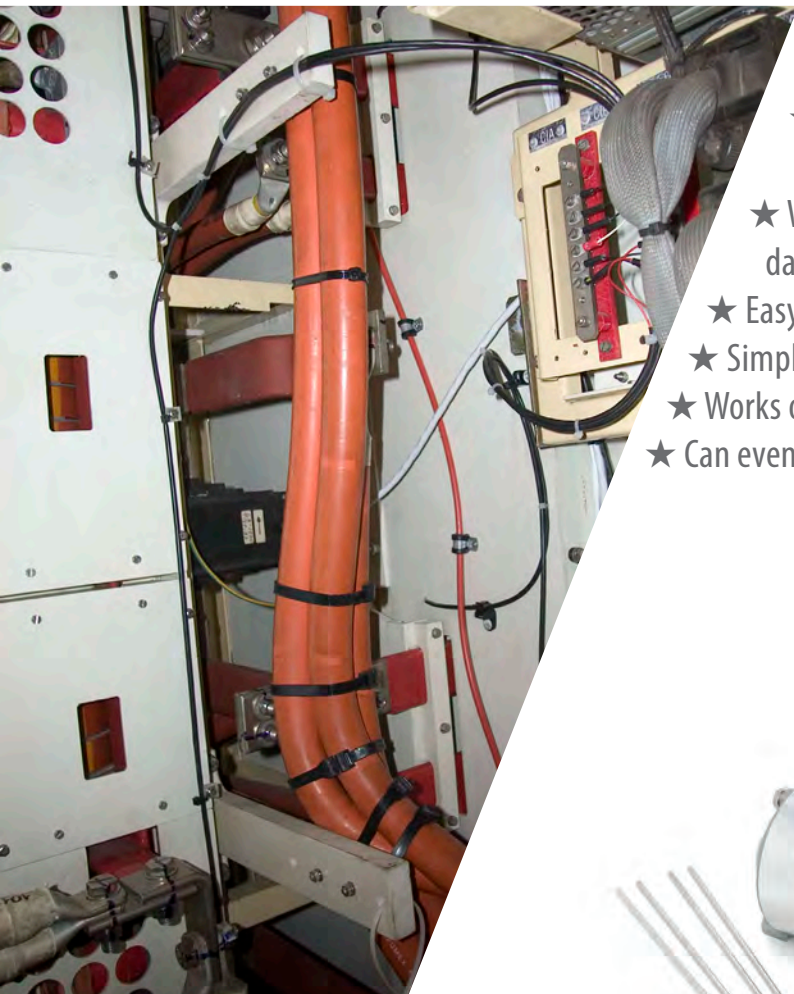


- ★ The loss of a train is a high value loss
- ★ The destruction of the merchandise can represent a higher loss
- ★ The shutdown of an entire railway for days will be an even greater loss
- ★ A fire could even destroy an entire train station with many trains, buildings, warehouses, infrastructure and merchandise

... DON'T LET THIS HAPPEN TO YOU!

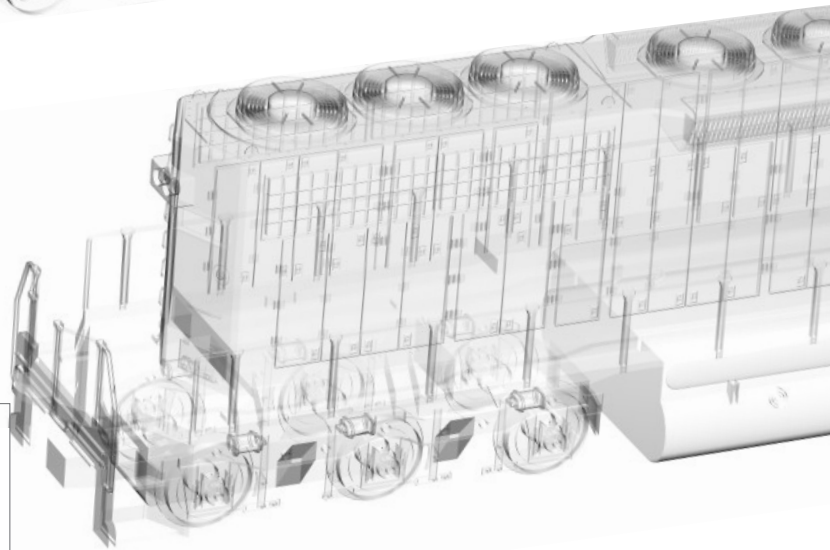
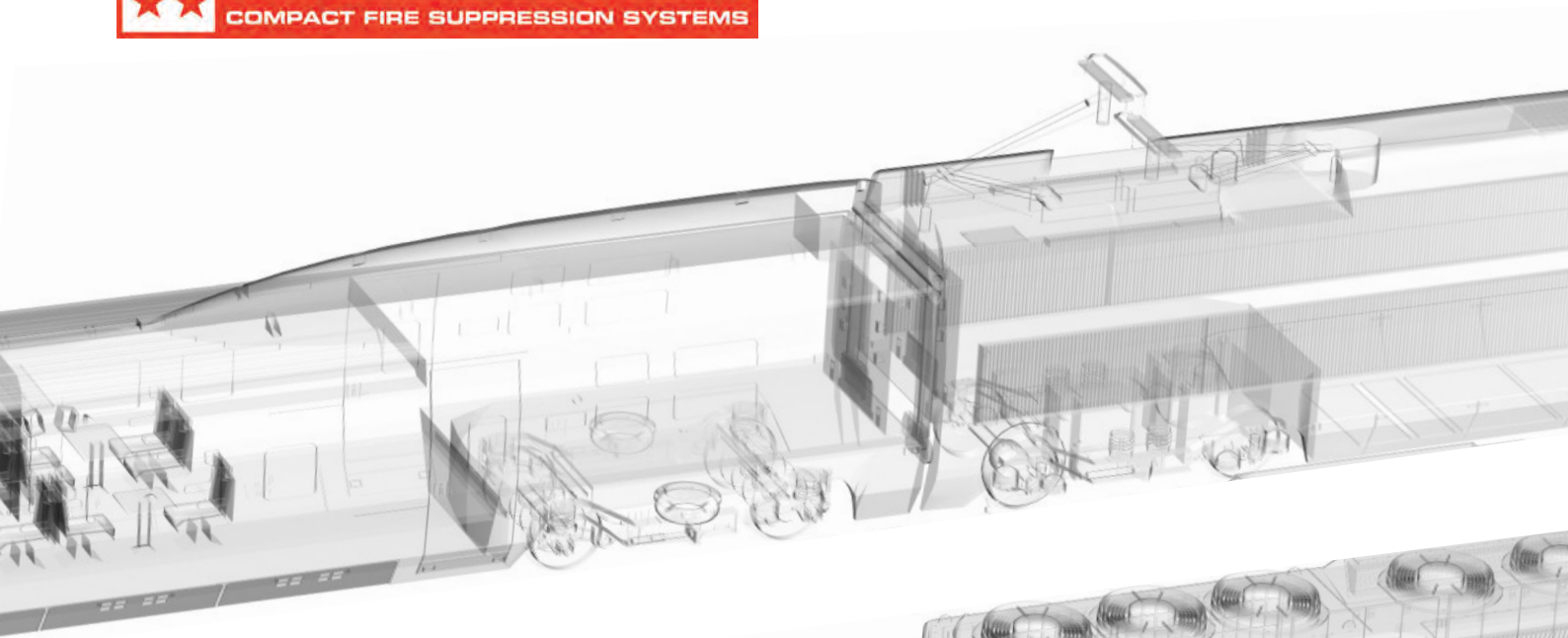
INTRODUCING

FIRE SUPPRESSION SYSTEMS FOR TRAINS



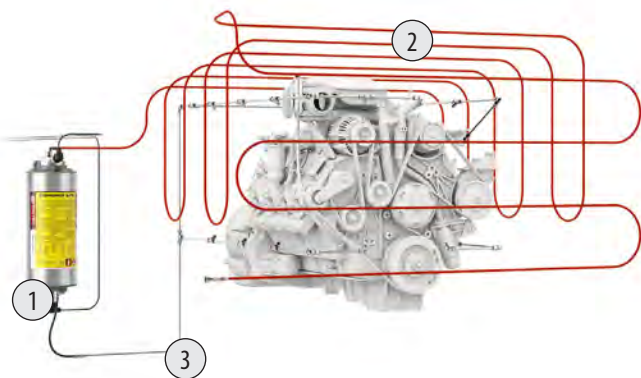
- ★ Automatically detects and suppresses engine and mechanical fires
- ★ Installs directly around the engine closer to where a fire can start
- ★ Works quickly, before a fire can damage equipment
- ★ Easy / Flexible installation
- ★ Simple design - no electrical supply needed
- ★ Works on all railway vehicles (train, metro, tram..)
- ★ Can even protect a freight wagon separately, autonomously





HOW IT WORKS

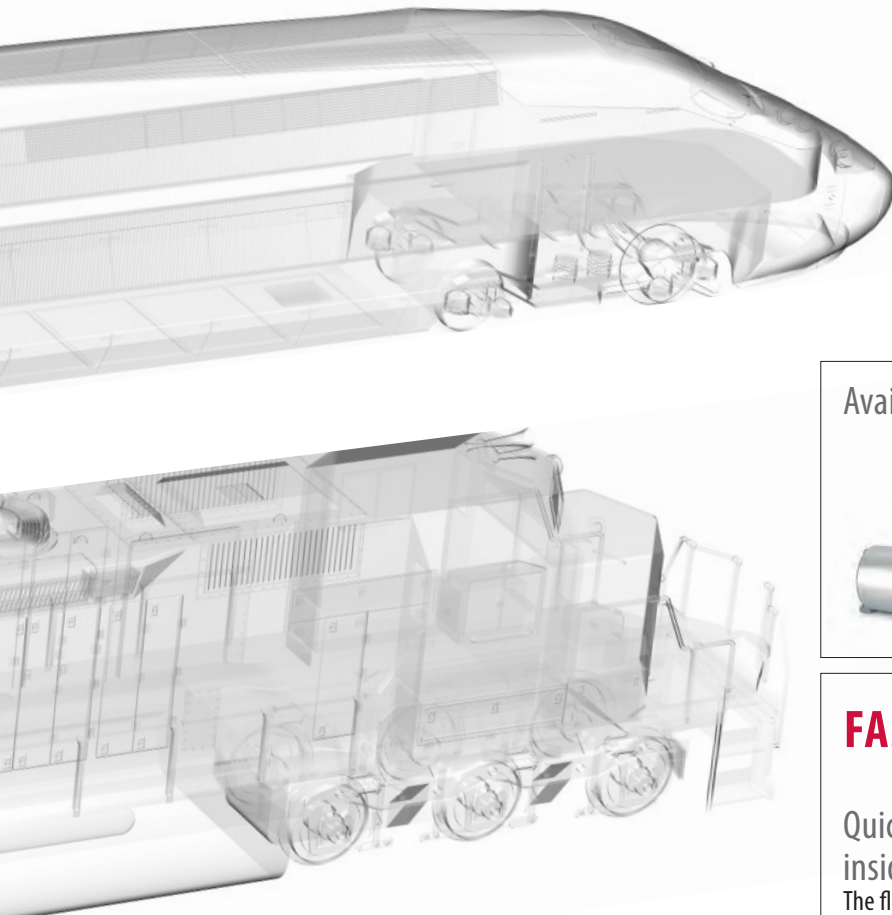
CRITICAL ZONE TO PROTECT: ENGINE, GENERATORS, ELECTRICAL SYSTEMS, HYDRAULICS



- ① **FIREDETEC DUAL CHAMBER CYLINDER**
Mounts in any position
- ② **FIREDETEC PNEUMATIC DETECTION TUBING**
Weaves around and above critical risk areas - even in small and hard to reach places.
- ③ **FIREDETEC DISCHARGE TUBING AND NOZZLES**
Up to 10 nozzles placed above critical risk areas to instantly flood the zone with extinguishing agent and suppress the fire.

PATENTED DUAL-CHAMBER CYLINDER

- ★ WITHSTANDS VIBRATIONS AND WAVE MOVEMENT
- ★ ALLOWS VERTICAL OR HORIZONTAL MOUNTING
- ★ SUPERIOR SAFETY AND LEAK PREVENTION



Available in two sizes:



7L for small engines

12L for large engines

FAST AND EFFECTIVE

Quick & Easy installation directly inside engine compartments:

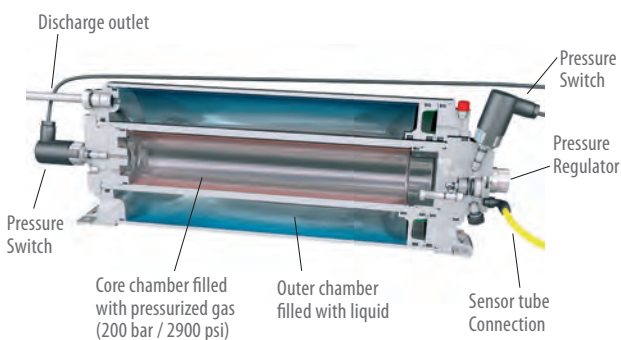
The flexible sensor tubing is easily installed directly above and around the engine - closer to where a fire could start. When in service, the tubing is pressurized with dry nitrogen to 16 bar. The dynamics of pressurization make the tubing more reactive to heat.

Early fire detection:

If a fire occurs, the heat of the fire causes the pressurized sensor tube to burst at the hottest spot (approx. 110°C)

Instant suppression:

The sudden tube depressurization actuates the special pressure differential valve and instantly floods the entire engine compartment with FireDETEC® TS55 ea extinguishing agent. The fire is quickly suppressed just moments after it began... minimizing damage and downtime.



- For safety, extinguishing liquid and pressurized gas are in separate chambers
- When activated, the pressurized gas is released into the outer chamber forcing against a piston.
- The piston pushes the liquid out through the discharge tube
- A built-in pressure regulator ensures a constant and sustained discharge



QUICK AND EFFECTIVE SUPPRESSION



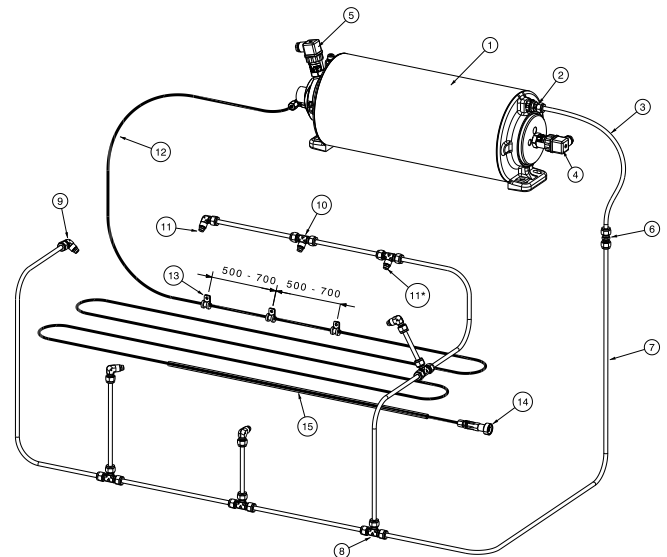
- ★ 24/7 protection
- ★ Keeps your train and track operational
- ★ Minimizes repairs
- ★ Prevents major salvaging operations
- ★ Prevents damage to other equipment
- ★ Prevents injuries

A COMPLETE SYSTEM SOLUTION

- ★ Everything you need in one box
- ★ Easy to install
- ★ Easy to Maintain

Pos.	Qty.	Description
1	1	Special IHP cylinder/valve unit (unfilled)
2	1	Tube fitting
3	1	Rubber hoses
4	1	Pressure switch (160 bar)
5	1	Pressure switch (5 bar)
6	4	Tube fitting - straight
7	5	Stainless steel pipe (1 meter)
8	4	Tube fitting - tee
9	5	Nozzle fitting - threaded elbow
10	2	Nozzle fitting - threaded tee
11	7	Spray nozzle
12	1	FireDETEC® tube (black, 10m)
13	30	Screw clip for tube attachment
14	1	End of line adapter
15	1	Protection spring for sensor tubing

*Mount nozzles with PTFE band



PROVEN EFFECTIVE

**FIREDETEC VEHICLE ENGINE SYSTEMS HAVE
BEEN THOROUGHLY TESTED AND VALIDATED**

WORLDWIDE INSTALLATIONS



WORLDWIDE HEADQUARTERS

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IDEAL FOR ALL VEHICLES, MACHINERY & HEAVY EQUIPMENT

