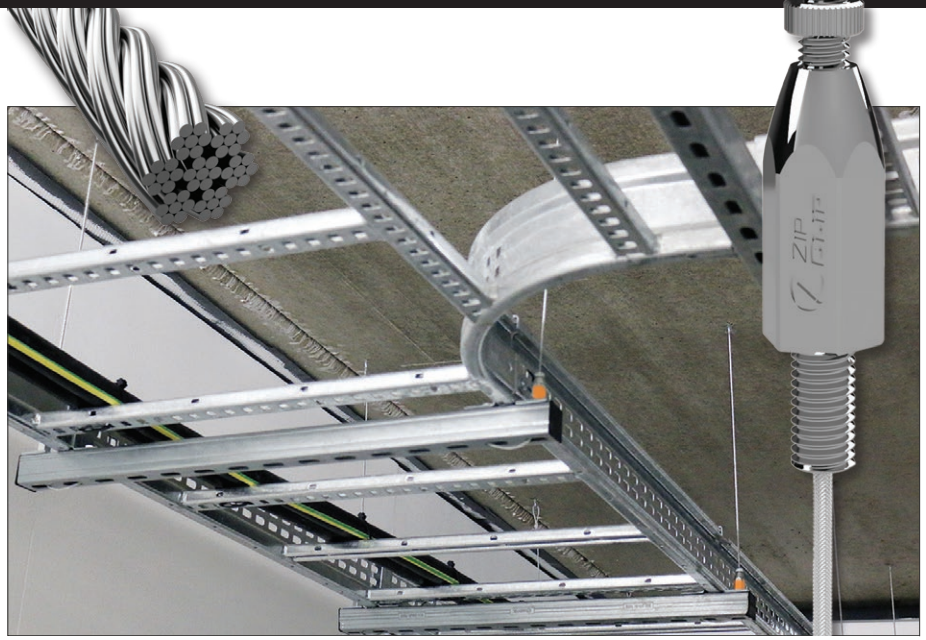
FIRE STRUT-LOCK SYSTEM



THE FIRE STRUT-LOCK SYSTEM utilises stainless steel wire rope to offer optimum performance in fire environments. The system can be used to construct lockable single or multi-tiered trapeze bracketry.

APPLICATIONS

SUITABLE AREAS OF USE INCLUDE, BUT ARE NOT LIMITED TO:

- Installations to Edition 18 of the electrical wiring regulations.
- Single-tier and multi-tier trapeze brackets.
- Electrical and mechanical containment suspension.
- HVAC installations/ductwork suspension.
- Signage and displays.
- Installations above fire escape routes.

SYSTEM	WIRE	SUPPLIED STRUT-LOCK DEVICE	SWL (KG)
TPDM1020/ FSS	Y (SS)	M10	90

FEATURES

- 18th Edition Amendment 2:2022 compliant.
- 90 kg safe working load in ambient conditions.
- Supports loads up to 120 minutes (see load table).
- Secure lock-off.
- All metal construction.
- Identification label.
- Compatible with channel nut or nut and washer (metric).
- Compatible with standard 41×41 and 41×21 profile channels plus other channel types when compatible channel nuts are used.

AVAILABILITY

The Fire Strut-Lock system comprises a predetermined length of **stainless steel** wire from 1 metre to 10 metres, with a Safe Working Load of 90 kg per wire suspension in ambient conditions, and is supplied with the required Zip-Clip locking device. The system offers a choice of either pressed eyelet or pressed M8 × 35 male thread termination.

Note: Fire Strut-Lock is to be used only for static loads that are supported vertically. Always ensure the base material or anchor point are suitable to support the intended load.

FIXING OPTIONS

The Fire Strut-Lock system is available with the following fixing terminations:

- Pressed eyelet – to form choke knot.
- Pressed male thread – M8.

TESTING

FIRE STRUT-LOCK has been subjected to testing for the following:

Tensile strength:
Conducted by SATRA Technologies UK using UKAS calibrated instruments.

Fire Capability:
Conducted by BRE Global UK to British Standards.

STANDARDS FOR FIRE TESTING

Standard fire exposure testing in accordance with:

BS476:20 1987
Fire tests on building materials and structures - Part 20: Method for the determination of the fire resistance of elements of construction (general principles), BSI, London, 1987.

BS EN 13631:2012
Fire resistance tests – Part 1: General requirements, BSI, London 2012.

DIN 4102 Part 2
Fire behaviour of Building Materials and Components, Building components, Definitions, Requirements and Tests, Deutsche, Berlin, September 1977.

INSTALLATION

Locating a Strut-Lock device into channel – building a single-tier trapeze bracket:

1. Couple with square washer and channel nut.
2. Position assembly into desired channel location.
3. Tighten into position using a 17 mm spanner, turning clockwise.
4. Back-off the locking collar and depress plunger. Do not undo fully.
5. Insert wire rope through the plunger at the top of the device.
6. Adjust the position by depressing the plunger and moving along on the wire.
7. Once the trapeze bracket is in position, release the plunger and wind the locking collar up to the shoulder.
8. Lock the trapeze position by turning the locking collar clockwise.

Repeat steps 1 - 8 to build a multi-tier bracket.

Torque setting: It is recommended that the Fire Strut-Lock device is not over-tightened during installation. If it is possible to apply a torque value during installation, this should be no more than 15 Nm.

TO UNDO:

1. Undo locking collar.
2. Depress plunger.
3. Reposition device to required height.
4. Re-lock collar.

PLEASE NOTE:

Load should always be supported before actuating the plunger and performing adjustment.

DESIGNED TO BUILD WIRE ROPE SUSPENSIONS THAT HAVE PROVEN RESISTANCE TO FIRE

CODE	DESCRIPTION	SWL	PACK QTY
NM10Z	M10 channel nut		10
WM10S	M10 square plate		10
TPDM1020ZLY1/FSS	1 m eyelet stainless steel suspension system complete with M10 Strut-Lock, 90 kg SWL in ambient conditions	90 kg	10
TPDM1020ZLY2/FSS	2 m eyelet stainless steel suspension system complete with M10 Strut-Lock, 90 kg SWL in ambient conditions	90 kg	10
TPDM1020ZLY3/FSS	3 m eyelet stainless steel suspension system complete with M10 Strut-Lock, 90 kg SWL in ambient conditions	90 kg	10
TPDM1020ZLY4/FSS	4 m eyelet stainless steel suspension system complete with M10 Strut-Lock, 90 kg SWL in ambient conditions	90 kg	10
TPDM1020ZLY5/FSS	5 m eyelet stainless steel suspension system complete with M10 Strut-Lock, 90 kg SWL in ambient conditions	90 kg	5
TPDM1020ZLY10/FSS	10 m eyelet stainless steel suspension system complete with M10 Strut-Lock, 90 kg SWL in ambient conditions	90 kg	5
TPDM1020TH35Y1/FSS	1 m threaded stainless steel suspension system complete with M10 Strut-Lock, 90 kg SWL in ambient conditions	90 kg	10
TPDM1020TH35Y2/FSS	2 m threaded stainless steel suspension system complete with M10 Strut-Lock, 90 kg SWL in ambient conditions	90 kg	10
TPDM1020TH35Y3/FSS	3 m threaded stainless steel suspension system complete with M10 Strut-Lock, 90 kg SWL in ambient conditions	90 kg	10
TPDM1020TH35Y4/FSS	4 m threaded stainless steel suspension system complete with M10 Strut-Lock, 90 kg SWL in ambient conditions	90 kg	10
TPDM1020TH35Y5/FSS	5 m threaded stainless steel suspension system complete with M10 Strut-Lock, 90 kg SWL in ambient conditions	90 kg	5
TPDM1020TH35Y10/FSS	10 m threaded stainless steel suspension system complete with M10 Strut-Lock, 90 kg SWL in ambient conditions	90 kg	5

FIRE PERFORMANCE LOADINGS

Safe Working Load per wire suspension is 90 kg with a designed-in safety factor in ambient temperatures. Installations built with exact fire performance in mind must utilise the SWL for fire and use the correct amount of supports necessary to hold to loads safely.

EYELET:		
LOAD (kg)	TIME (min)	TEMP (°C)
30	30	842
15	60	945
10	90	1006
10	120	1049
Note: Loads are per wire suspension.		

MALE THREAD (M8×35):		
LOAD (kg)	TIME (min)	TEMP (°C)
40	30	842
18	60	945
10	90	1006
10	120	1049
Note: Loads are per wire suspension.		