

TECHNICAL INFORMATION

M150 HEAVY GROUND MOBILITY SYSTEM



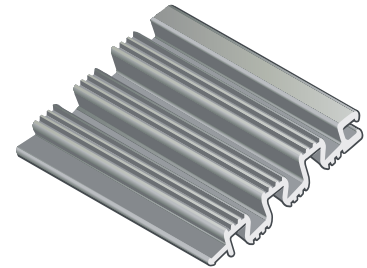
M150 TRACKWAY

FAUN® Trackway M150 Trackway® solutions derives from our original Military Load Classification (MLC) 70 Trackway®. Due to MLC70 having the capability to withstand repeated loads of tracked and wheeled vehicles, the Trackway® has been graded as MLC 70 baseline on a 3% California Bearing Ratio (CBR) ground conditions indefinitely. However, it will support heavier loads up to a military load classification of 150T dependant on the ground condition.

CAPABILITY

The FAUN® Trackway M150 panels are designed to:

- ▶ Creates roadways that can withstand heavy traffic including:
 - ▶ Rubber padded Tracked vehicles, with and without snow crosses;
 - ▶ Tanks with and without snow crosses;
 - ▶ Bridge transporters;
 - ▶ Multiple vehicles.
- ▶ Enables ingress and egress points at bridgeheads to allow vehicles to cross easily;
- ▶ Allows vehicles access across terrain with a low California Bearing Ratio (CBR);
- ▶ Ensures continuous vehicle mobility in any environment including snow, ice, desert, swamp, etc. and limits environmental damage caused by heavy vehicle traffic;
- ▶ Can withstand repeated loads of up to 150T, depending on ground conditions and length of use;
- ▶ Our technology helps to ensure rapid mission completion;
- ▶ The M150 Trackway can also be used for Rapid Runway Repair (RRR), Boat Ramps/Slip Ways, Helicopter Landing Mat (HLM), hard surfacing areas and many other applications.



M150 profile

FEATURES

Our M150 Trackway® has many features including:

- ▶ It is reusable for multi operations in any environment and is deployable by hand;
- ▶ Half panels at 16.5ft (5m) intervals ensure easy assembly, splitting and joining;
- ▶ It can withstand temperatures ranging from -40°F to +140°F for maximum usability;
- ▶ In under six minutes, 98ft (30m) can be deployed by two individuals;
- ▶ It is 95% recyclable and has a residual value at the end of the useful life;
- ▶ It is easily cleaned due to the open nature of the profile, minimizing retention of mud and debris.



SPECIFICATION

Our M150 Trackway® is:

- ▶ Made up of aluminum alloy panels which slide and link together using male/female joints;
- ▶ Has articulated joints which enables the roadway to be laid on undulating ground;
- ▶ Has an open and corrugated profile design which ensures:
 - ▶ The roadway will not float and therefore is suitable for use in flowing, tidal and static water;
 - ▶ Is easily cleaned, minimizing retention of mud and debris;
 - ▶ The panels can be easily inspected and repaired;
 - ▶ Provides a high traction surface to vehicles because it will grip the sub-surface to minimize panel roadway movement on inclines;
 - ▶ Has an optimized thick wall design to ensure no puncturing of the roadway;
 - ▶ Its panels are laterally locked using captive quick release sliding shoot bolts;
 - ▶ No mandatory tools are required for splitting and joining and there are no loose fastenings;
 - ▶ Easy splitting and joining in complete darkness, submerged, or if joints and locks are full of dirt and sand.
- ▶ Trackway® enables wheeled or tracked vehicles to traverse soft ground without bogging down or causing severe damage to the ground surface;
- ▶ Reusable for multi-operations in any environment and is deployable by hand;
- ▶ Supplied with anchors for use on inclines;
- ▶ The assembled Trackway® rolls up for storage and transportation;
- ▶ Anodized as standard for marine environments. Powder coating options are also available;
- ▶ Can be manufactured to any width and length upon your request;
- ▶ Independently climatic tested to MIL-STD 810F for Cold, Humidity, Heat, Solar & Dust, Vibration, Salt Mist and Shock.





DIMENSIONS

	Single Full Width Panel	Single Half Width Panel	Complete 50m Roadway (164ft)
Width	15ft (4.572m)	7ft 6in (2.286m)	15ft (4.572m)
Length	9in (228mm) Overall 8 ¼in (212mm) Effective	9in (228mm) Overall 8 ¼in (212mm)	167ft (50.9m) Effective
Height	1 ¼in (31mm)	1 ¼in (31mm)	1 ¼in (31mm)
Area	10.3ft ² (0.96m ²) Effective	5.17ft ² (0.48m ²)	2,504.8ft ² (232.7m ²) Effective
Weight	73lbs (33.11kg) Total 7 lb/ft ² (34.1kg/m ²) Area	36.5lb (16.6kg)	17,518lbs (7,946kg) 105lbs/ft (156kg/m) 7lb/ft ² (34.1kg/m ²)
Panel Size	(W) 15ft (4572mm) x (H) 1 ¼in (31mm) x (L) 9in (228mm)	(W) 7ft 6in (2286mm) x (H) 1 ¼in (31mm) x (L) 9in (228mm)	
Panels	231	18	240 rows
NSN	5680-99-931-7923	5680-99-931-7924	-

YOUR OPTIONS INCLUDE

- ▶ Anodized or powder coated to your color specification;
- ▶ 5253497 Green and white sighting rods to aid accurate deployment. We recommend six;
- ▶ 5865172 Anchorage kit to secure the Trackway® on inclines;

Anchors comprise of a hold-fast chain with steel stakes hammered through the chain links into soft ground. A chain is shackled to one end of a hold-fast strap, which in turn is connected to edge holes of the Trackway® by shackles.

Anchors are recommended where there is a side or longitudinal slope. Junction clamps can be used to connect one length of Trackway® to another to create multiple roadways.

Accessories are placed inside the lockers built into the Trackrack.

DEPLOYMENT OPTIONS

M150 Trackway® can be deployed and recovered by numerous methods including:

- ▶ Flat pack;
- ▶ Pushed to form a self-coiled roll by hand (**Pushbar or Parbukling**);
- ▶ Truck based PLS/Hooklift (**Trackrack & Spoolrack**);
- ▶ Truck based ISO frame (**Trackrack-IV**);
- ▶ Wheeled loaded or Telehandler (**Beam Dispenser**);
- ▶ Rough Terrain Container Handler (RTCH) (**ISO Container Deployment**);
- ▶ Bomb Damage Repair Mat (**BDRM Trailer**);
- ▶ Coils of Trackway® can be stored and transported on a **stackrack**.

HEAVY GROUND MOBILITY SYSTEM (HGMS)

TRACKRACK®

HGMS using a Trackrack is a specifically designed launch and recovery system for Trackway® panels. The Trackrack is mounted to any DROPS/PLS enabled vehicle or chassis mounted deployment and recovery system for M150 Trackway®. Trackrack rapidly deploys and recovers the roadway using minimal manpower.

COMPOSITION Steel with hydraulic motor and finished with NATO IRR paint.

OPERATION

Trackway® panels are coiled onto a spool which is part of the Trackrack. The Spoolframe rotates 90° and the vehicle reverses to deploy the Trackway®. The process is reversed to pick up the Trackway® at the end of use, ready to be deployed elsewhere, when and where it is required.

TRACKRACK DIMENSIONS

Width: 7ft 10½in (2,450mm) Length: 19ft 4in (5,890mm) Height: 7ft 9¼in (2,360mm)

TRACKRACK WEIGHT

- ▶ With spool and 164ft (50m) of Trackway®: 28,175lbs (12,720kg)
- ▶ Spool: 1545lbs (700kg)
- ▶ 164ft (50m) M150 Trackway: 17,500lbs (7,940kg)
- ▶ Trackrack: 8,995lbs (4,080kg)



FAUN® Trackway Trackrack and Spoolrack

CAPABILITY

- ▶ Deploys Trackway® quickly and easily;
- ▶ DROPS/PLS;
- ▶ Saves time, and requires minimal manpower (two individuals);
- ▶ Trackrack provides a streamlined deployment system.

TRACKRACK FEATURES

- ▶ Wireless control system (optional);
- ▶ CARC coating (optional);
- ▶ ISO twist-locks for easy transportation by rail or road;
- ▶ 95% recyclable components;
- ▶ Constant tension deployment system.



SPOOLRACK

FAUN® Trackway Spoolrack is a specifically designed transportation and storage device for Trackway® panels. The Spoolrack is trailer mounted and can be towed behind the vehicles carrying the Trackrack. The Spoolrack enables additional Trackway® to be transferred to the Trackrack for further deployment. Available for both our HGMS and HGMS-IV solutions.

OPERATION

Trackway® panels are coiled onto a spool which is part of the Spoolrack. The 'spool to spool' transfer process takes place when the Trackrack has fully deployed all of the Trackway®. Once the transfer has taken place, the Trackrack deploys the new allocation of Trackway®.

CONSTRUCTION

- ▶ **Spool frame assembly:** A rectangular frame with central pivot locations supported on four double rollers. The Trackway® panel guides rollers and bearers for support during deployment;
- ▶ **Spool assembly:** A braced steel structure onto which a maximum length of 164ft (50m) Trackway® aluminum panels are rolled. The spool assembly has a pair of deployment chains attached to the spool for safe and easy deployment and recovery of the Trackway® panels;
- ▶ **ISO 1496-2/668 twistlock receivers:** Incorporated into the four corners of the main frame so that the Spoolrack can be secured to and transported on a vehicle with ISO fastenings. Tie down loops on the Trackrack provide additional security during transit;
- ▶ Steel finished with NATO green IRR paint;
- ▶ CARC coating (optional);
- ▶ 95% recyclable components.

SPOOLRACK DIMENSIONS

Width: 7ft 10½in (2,450mm)
Length: 19ft 4in (5,890mm)
Height: 7ft 9¼in (2,236mm)

SPOOLRACK WEIGHT

- ▶ With spool and 164ft (50m) of Trackway®: 23,765lbs (10,780kg)
- ▶ Spool: 1,545lbs (700kg)
- ▶ 164ft (50m) M150 Trackway: 17,500lbs (7,940kg)
- ▶ Spoolrack: 4,717lbs (2,140kg)

CAPABILITY

- ▶ Transfers Trackway® quickly and accurately to the Trackrack;
- ▶ Saves time and requires minimal manpower (two individuals);
- ▶ Spoolrack provides a streamlined transportation system for Trackway®.



HEAVY GROUND MOBILITY SYSTEM - INDEPENDENT VARIANT (HGMS-IV)

TRACKACK-IV

HGMS-IV using Trackrack-IV rapidly deploys and recovers M150 Trackway®. Trackrack-IV has its own independent power pack, which means that it does not require hydraulic or electrical power supply from the host vehicle. Trackrack-IV has been designed to allow militaries with 20' ISO 1496 container handling chassis to deploy and recover M150 Trackway®;

Each HGMS-IV unit is equipped with a maximum 30m (98ft) of M150 Trackway®. The roadway can be fully deployed within six minutes by a trained two person team (1 driver and 1 operator);

HGMS-IV hydraulic and electrical requirements are provided by the built-in independent power unit (IPU).

OPERATIONAL PRINCIPLE

- ▶ The Spoolrack rotates 90° to the deployment position and the vehicle reverses to deploy the M150 Trackway® (98ft (30m));
- ▶ The process is reversed to recover the M150 Trackway®.

TRACKRACK

The Spoolframe rotates through 90° from the transit position to the lay/recover position. The movement is carried out by a hydraulic rack and pinion drive. Manual locks secure the Spoolframe in either the transit or lay/recover positions. Hydraulic rollers are lowered to ensure Trackway is guided under the rear of the vehicle without contacting any part of the host chassis. Deployment arm system is used to automatically guide the Trackway to the ground without the need for laying straps.

CONSTRUCTION

Trackrack

Static 20' ISO 1496-2/668 frame with a turntable slew bearing supported on longitudinal and transverse members with hydraulic rear rollers. Twistlock receivers incorporated into the four corners of the main frame for ease of transportation. Tie down and lifting points on the Trackrack-IV provide additional security during transit.

Base:

Spoolframe:

Rotating rectangular frame with spool supporting A-frames, Trackway® panel guide rollers and sacrificial skids for support during deployment.

Spool:

A braced steel structure onto which a maximum length of 98ft (30m) Trackway® panels are rolled. The spool assembly has a pair of deployment chains attached to the spool for safe and ease of deployment and recovery of the Trackway®.

Independent Power Unit (IPU):

When supplied with the IPU the Trackrack becomes completely independent of the chassis. The IPU supplies all electrical and hydraulic requirements of the chassis to operate. The IPU can be removed within ten minutes for ease of maintenance.

COMPOSITION

- ▶ Steel Flatrack painted to customer requirements;
- ▶ 98ft (30m) of M150 Trackway® coiled onto a spool on the Trackrack-IV, which is crane mounted to a container frame chassis;
- ▶ Deployment and recovery accessories;
- ▶ Anchorage accessories.

FEATURES

- ▶ Transports, stores, deploys and recovers up to 98ft (30m) of M150 Trackway® per unit;
- ▶ Built on a 20ft ISO frame with tie down and lifting points to MIL-STD 209K for real ease of transportation;
- ▶ Secured to the chassis using ISO 1161 twist locks;
- ▶ Trackrack-IV has hydraulically powered rear rollers for ease of use;
- ▶ Independent power pack which is replaceable within five minutes for ease of maintenance;
- ▶ Full redundancy back-up system;
- ▶ Constant tension deployment system;
- ▶ Compatible with Spoolrack which carries up to an additional 164ft (50m) of Trackway®.

SPECIFICATION

TRACKRACK-IV

- ▶ Has been designed to withstand the rigours of any Military environment;
- ▶ Human Interfaces comply with MIL-STD 1472;
- ▶ System is CE marked (optional);
- ▶ Diesel IPU;
- ▶ Emergency electrical override system;
- ▶ Mechanical recovery system (optional);
- ▶ System operational by one operator (two recommended);
- ▶ 30m can be deployed from arrival on site in just six minutes;
- ▶ Its constant tension deployment ensures Trackway® is deployed under control without undulations and in sync with the vehicle;
- ▶ The patented deployment arm system allows for immediate deployment of Trackway® without the requirement of using straps to pull the Trackway®;
- ▶ Wireless control system (optional);
- ▶ Finished to customer requirements, with IRR and CARC coating both available;
- ▶ 95% recyclable components;
- ▶ Transportable by road, air and rail;
- ▶ Lifting and tie down points to MIL-STD 209K;
- ▶ Independently tested to MIL-STD 810F for Cold, Humidity, Heat, Solar, Sand and Dust, Vibration, Salt Mist and Shock;
- ▶ Tested to DEF STD 00-35, Battlefield Missions;
- ▶ Withstands temperatures ranging from -40F to +140F for maximum usability;
- ▶ Self extinguishing electrical system;
- ▶ 4 x storage boxes with internal lighting;
- ▶ Black-out lighting system;
- ▶ Optional weather cover.

CAPABILITY

- ▶ Deploys M150 Trackway® quickly and easily;
- ▶ Twist lock mounted to container frame vehicles;
- ▶ Requires minimal man power;
- ▶ Trackrack-IV is a streamlined transportation system for M150 Trackway®.

DIMENSIONS

Width: 8ft (2,437mm)
Length: 19ft 10in (6,057mm)
Height: 6ft 7in (2,010mm)

WEIGHT

▶ With spool and 98ft (30m) of Trackway®: 22,928lb (10,400kg)
▶ Trackrack-IV: 10,877lb (4,934kg)
Chassis requirement: ISO 20' 1496-2/668 torsion free frame or flat bed

TESTING

Trackrack-IV has been rigorously tested independently to the following standards:

- ▶ MIL-STD-810F Method 506.4 Procedure 2 for Rain;
- ▶ MIL-STD-810F Method 502.4 Procedure 2 for Cold;
- ▶ MIL-STD-810F Method 507.4 for Humidity;
- ▶ MIL-STD-810F Method 501.4 Procedure 1 for Heat;
- ▶ MIL-STD-810F Method 505.4 Procedure 1 for Solar;
- ▶ MIL-STD-810F Method 510.4 Procedure 2 for Sand & Dust;
- ▶ MIL-STD-810F Method 514.4 Procedure 3 for Vibration;
- ▶ MIL-STD-810F Method 509.4 for Salt Mist;
- ▶ MIL-STD-810F Method 516.4 Procedure 1 for Shock;
- ▶ DEF-STAN 00-35 Part 3 Issue 4 Test M14 for Battlefield Missions.





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