



Compact Type 1 Range

Product Guide

manntech
PART OF ALIMAK GROUP

Type 1 Compact Range – Building Maintenance Units

Manntech's Type 1 compact range consists of low-maintenance, durable and fully equipped building maintenance units.

The compact range is suitable for buildings of uniform shape, without major protrusions or recesses and wherever there is sufficient roof space for installation of track systems or load bearing concrete runways.

Unique to Manntech's compact range of products are large traversing wheels to allow for safe and durable use on uneven and solid concrete runways or on free laid tracks. All of Manntech's compact range of facade access solutions are designed and certified according to EN 1808 standard.

NEW Improved Range

The Compact Type 1 range has recently undergone new improvements with its new refined housing made of aluminium panels. The optimised design has resulted in a 20% weight reduction and now has the lowest wheel loads in its class. Accessibility to the safety hoist unit has also been improved with access from back, top and front of the unit. The new hoist unit also allows for operation on a smaller footprint, optimizing roof space.

The rail profiles are also streamlined thanks to the low wheel loads, which means existing rail systems can be used. In addition to the new low weight, the Type 1 range of building maintenance units is now more sustainable thanks to the re-usability of tracks, allowing for new building maintenance units to be installed to existing roof structures and forego structural checks.

Additionally, a new intelligent control system with soft start function increases efficiency by reducing the inrush current by 50% and increasing travelling speed by 25% for maximum operation time.

The Type 1 range of building maintenance units come in three model variations:

Type 1.1 - Compact BMU on a horizontal track system

The Type 1.1 track system can either be independently laid, i.e. without penetration of roof membrane and compression load only on the support points, or implemented as an anchored rail system fixed to the building structure. If required, the entire system can be steered into a garage or other parking position using a shunting car. The BMU can be mechanically anchored in accordance with the required standards specified for that country.

Type 1.2 - Compact BMU on a vertical track system along a roof parapet

The Type 1.2 track-based compact building maintenance unit has the track system anchored to the roof parapet and is suitable for use on buildings with a load-bearing parapet and non-load-bearing roofs and/or insufficient space on the roof. The 1.2 model is also suitable for use on buildings with very high parapets.

Type 1.3 - Compact BMU on a load-bearing concrete runway

The Type 1.3 trackless compact building maintenance unit is used on roofs with a load-bearing concrete runway. The BMU moves on large wheels with durable polyurethane tyres which follow the guide rails or parapet. The driving surface can be designed to allow the BMU to be steered into a parked position away from the building edge. The BMU can be mechanically anchored in accordance with the required standards specified for that country.

Speak with our facade access specialists to provide product selection advice suitable for your building requirements.



Specifications

Design Standard	EN 1808: 2015 / AS1418.13
Maximum Rate Load	250kg
Maximum Drop	125m
Dimensions	800 - 1500mm (Track Gauge) Max. 2900mm (Outreach) 1500 - 2200mm (Min. Passage) 1350mm (Height Engine House)
Wire Rope	7mm, 8mm
Lifting speed	10m/Min
Traversing speed	8m/Min
Hoist Mechanism	Manntech multi-layer safety drum hoist
Cradle Type (standard)	Monocoque design, 2.0m, 2.5m
Tracks	Standard I-beam or trackless, others optional

Standard Features

- Fully galvanized finished
- Track gauge to suit existing and new buildings
- Unique monocoque cradle in different length
- Safety harness point included, certified to EN and AS regulations
- Customisable outreach up to 2.9m
- Shielded and sealed overload protection
- Counterweighted to achieve required stability factor
- IP55 control box protection
- PLC (Programmable Logic Controller)
- Full range of safety devices including overload and overspeed protection, MCB, SCP, hourmeter.
- Optimal accessibility to the hoist and control system from three sides due to the new design housing

Optional Features

- 175m hoisting height
- Painting in RAL 7042 or other standard RAL colours
- Anemometer
- Cable Reeler
- Water bucket in cradle
- Foam roller at cradle
- Manntech intelligent safety control
 - Encoder for precise motion counting
 - Variable Speed drive for softstart and softstop of each movement, monitoring and recording of electrical load values
 - Safety PLC
 - Wifi Router for remote access, usage monitoring and history



Key Benefits



Space saving: The new model grants a 15% space reduction on the roof, limiting the need to move or alter the roof arrangement which allows more space for other purposes such as the installation of terraces, solar panels and heating and cooling units on the roof.



Enhanced Efficiency: Our intelligent control system with soft start function increases efficiency by reducing the inrush current by 50% and increasing travelling speed by 25% for maximum usage time. Smaller current peaks require smaller cable diameters and the increased speed maximises usage time for operators such as window cleaners.



Improved lightweight design: The optimised design has resulted in a 20% weight reduction and is suitable for new and existing buildings. The reduction in weight results in less materials being required, making the system more economic and cost effective. The need for structural check is eliminated on existing buildings due to the lighter footprint.



MyBMU connection: Optional connection to MyBMU, a remote monitoring portal that provides key equipment insights in real time, and provides predictive maintenance data remotely. A convenient feature for facility managers who don't need to be on site to check on the equipment status. The application allows them to centralise and compare data. Building owners have visibility to see the technical and functional status of their BMU online to check its readiness for operation.



Enhanced sustainability: Existing tracks can often be reused due to the new low wheel loads, even after applying the latest calculation regulations,* allowing for new building maintenance units to be installed on existing roof structures and foregoing the need for structural checks to a 50+ year old roof where limited data is available.

**(For replacement or refurbishment BMUs)*



Efficient installation: Fast and simple installation without extensive disruption to the site or operations ensure works continue with minimal impact and without complaints from tenants. The ease of installation eliminates the need for using tower cranes for installation on new buildings and mobile cranes for existing buildings.



Safety features: A range of features enhance safety including sealed overload protection and encoders which monitor movements and speed. Safety measures are key to minimizing workplace accidents and can result in lower insurance fees and window cleaning operator charges when safety risks are reduced.



Positioning monitoring: One of the key advantages of position monitoring is the ability to inspect the exact cleaning cycles.* The data collected includes information on when and which facade area has been cleaned, including the time spent on it. This creates an effective cleaning schedule and ensures that all facade areas are cleaned regularly.

**(Only if BMU is equipped with a remote monitoring system)*



Position Monitoring Capabilities

Manntech's position monitoring capabilities offer a number of important advantages for our customers.

With access to building-specific data related to the facade inspection, Manntech can define the exact descent required of each facade and provide accurate and reliable position monitoring capabilities.

One of the key advantages of position monitoring is the ability to inspect the exact cleaning cycles. The data collected by Manntech includes information on when and which facade area has been cleaned, including the time spent on it. This creates an effective cleaning schedule and ensures that all facade areas are cleaned regularly.

Position monitoring also enables the localisation of damage to the facade during the cleaning cycle. This information is stored in the data collected by Manntech, which can be used to inform the operator about the actual condition of the facade at any time. This is vital as it allows for prompt and effective maintenance of the facade, which can assist in preserving its longevity of the facade.



Our Commitment to Sustainability

As part of Alimak Group, Manntech is committed to being a sustainable and environmentally conscious company.

We have developed a framework that encompasses all strategic goals, based on the United Nations Sustainable Development Goals. This framework guarantees that the company acts consciously to meet a goal of reducing our entire carbon footprint by 30% across the value chain by 2025.

Our sustainability framework is centred on three key pillars:

Sustainable Relationships

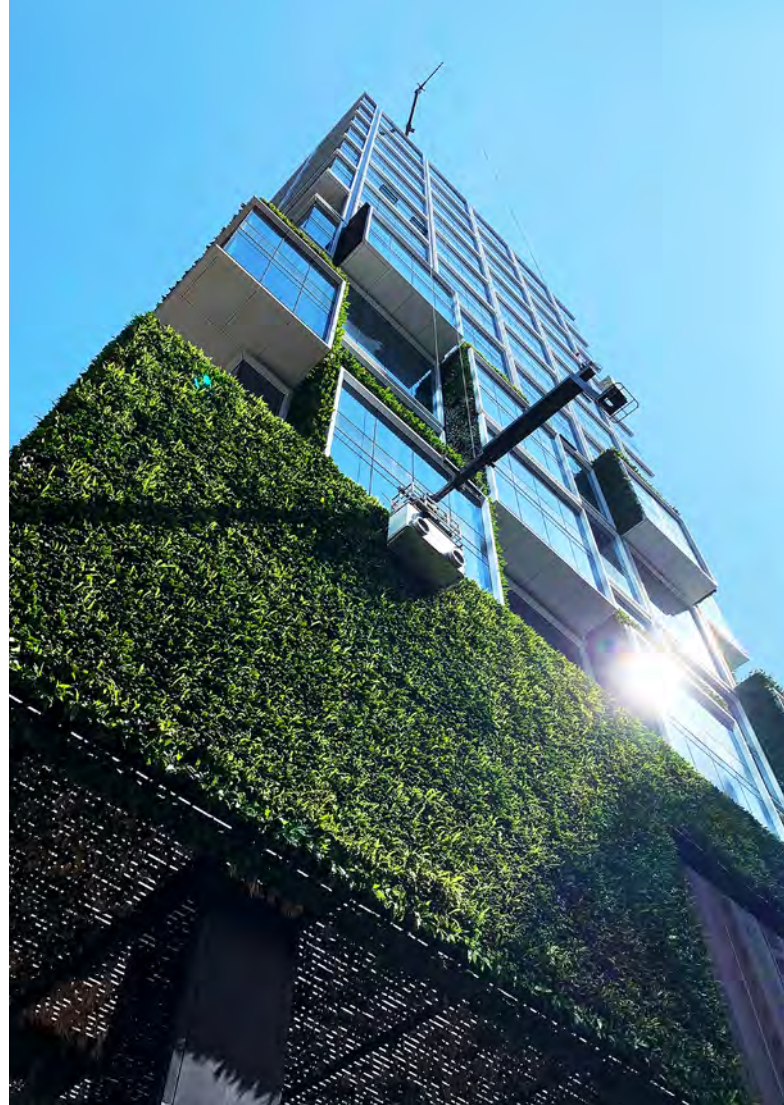
- We responsibly conduct business, promoting an inclusive and engaging workplace, and expect business partners to do the same
- We engage in relevant ecosystems to be part of the transformation towards increased sustainability in the sectors we are active in

Sustainable Solutions

- Our products and solutions are designed to minimise the impact on the environment throughout their lifetime
- We help our customers to increase productivity and minimise their CO2 footprint through innovative products and solutions
- Safe and reliable solutions are part of Alimak Group's DNA and core values

Sustainable Operations

- We minimise the climate impact across all of our operations
- Improving resource efficiency by digital means
- Our workplace is safe, inclusive, and engaging



Goal of 30% reduction in CO2 footprint by 2025

Sustainability initiatives

Further initiatives that Manntech is proud to adopt are the sourcing of steel from suppliers who provide new steel manufactured from reprocessed steel products and the implementation of a waste management program to ensure our total waste and the overall impact on the environment is kept to a minimum.

For more information on Alimak Group's sustainability initiatives please contact info@alimakgroup.com

MyBMU – Remote Monitoring Platform

MyBMU is a customised web-based portal developed by Alimak Group to enhance the safe and efficient use of facade access systems from Manntech. The remote monitoring portal provides users with up-to-date information on their facade access equipment from Alimak Group.

The portal displays various operational information, with data collected and displayed in an easy-to-read format. The benefit of this data is immense to support the overall asset management for owners by anticipating necessary maintenance and repairs as required, enhancing safety, ensuring maximum product uptime, and minimising downtime due to repairs.

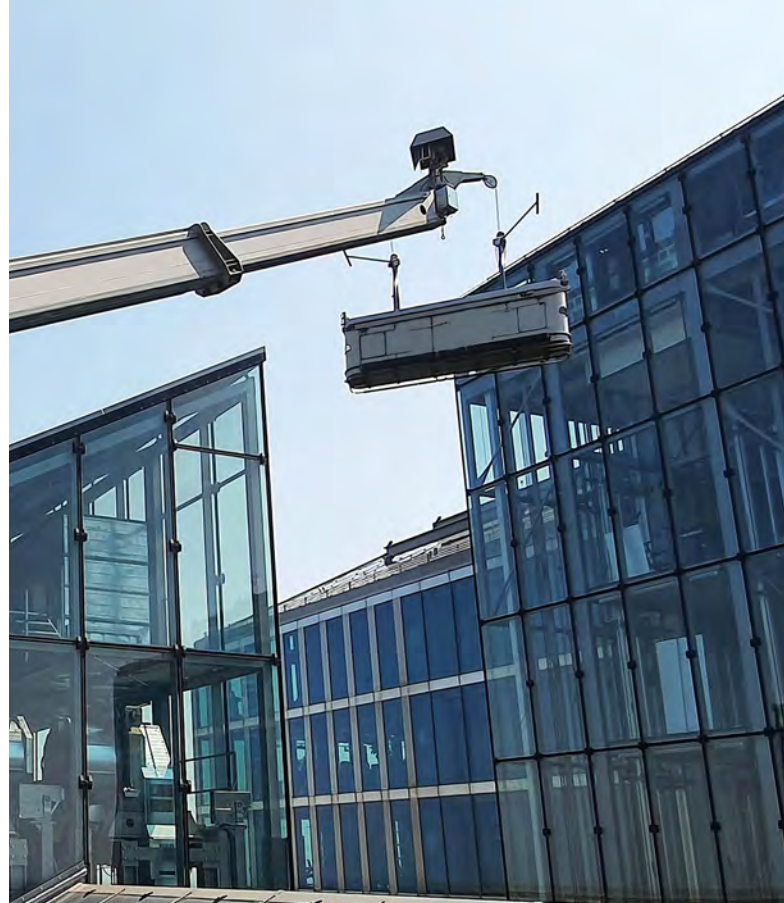
What is MyBMU?

MyBMU will become part of the facade access systems for most of the Manntech product range from 2023. This new tool will provide vital data insights on equipment, eliminating the guesswork of predicting maintenance requirements for building maintenance units.

Information such as the number of starts and hours in operation provides owners with an accurate analysis of how the equipment is utilised.

The MyBMU portal provides the maintenance team, operators, and product owners with access to:

- All standard machine information, including the latest technical documentation, certificates, and potential safety bulletins
- Operational manuals and quick interactive guides
- Access to online training courses
- Machine status position of the building maintenance unit
- Service information and easy access to support
- Remote support from our service organisation
- Statistics of machine usage – hours, drops and coverage of the facade
- Easy to use reporting system for damages to the facade



How does it work?

MyBMU is empowered via remote monitoring of state-of-the-art PLC systems utilised in Manntech building maintenance units (BMUs).

The products are equipped with a router to send data from the BMUs and are certified to ISO 27001, the internationally recognised standard for information security.





A leading approach to quality and service

Aside from product features, which help us address your project's unique circumstance, there are many other reasons why Manntech is the facade access provider of choice for the world's leading developments.

It starts with the design

Using our reference library of thousands of successful jobs and sub-assemblies, Manntech's design engineers create solutions tailored to the variables of your project. This includes the structural heights, shape and nature of exterior surfaces, maintenance cycles, building loads, operational safety, roof access, slopes, protrusions and concealment options.

Using cutting edge 3D Software and advanced BIM capabilities, our clients benefit from early design concept modeling, better coordination and simpler collaboration with all project team members. Using the latest industry-standard softwares such as Revit, Solidworks, and Navisworks, 3D modeling is used to assist with design reviews, coordination and facilitate clash detection.

Critical structures are designed using Finite Element Analysis (FEA) to manage stresses, loads and weight optimisation. Our shared challenge is to ensure your work of art maintains its masterpiece status well into the future.

Service Solutions

As part of the Alimak Group of companies, Manntech provides world-leading product and customer support services to the owners and operators of Manntech vertical access equipment across the globe. In addition, our high level of technical expertise allows us to maintain and support all third party machines to an identical or higher standard than the OEM.

With service support centers in 100 countries and 700 employees, we provide a full range of service, parts and training solutions to ensure the highest levels of product uptime and operator safety over the total lifecycle of the equipment.

Our customers will receive the high-quality spare parts and services of the Manntech brand that they have come to expect, with the added benefits of an increased geographical footprint, added capabilities and even more timely support.

Service Solutions



Service Maintenance

A comprehensive range of service contracts, maintenance programmes and repair solutions



Asset Management

A range of support solutions to manage the total life cycle of Manntech equipment



Genuine Spare Parts

Genuine spare parts prolong equipment life and maximise performance



Refurbishment Solutions

Bring new life to aging systems with a cost-effective refurbishment



Training

Training to support the safe operation, maintenance and installation of equipment



Inspections, Safety & Compliance

Routine inspection programmes to ensure equipment is kept safe and compliant