

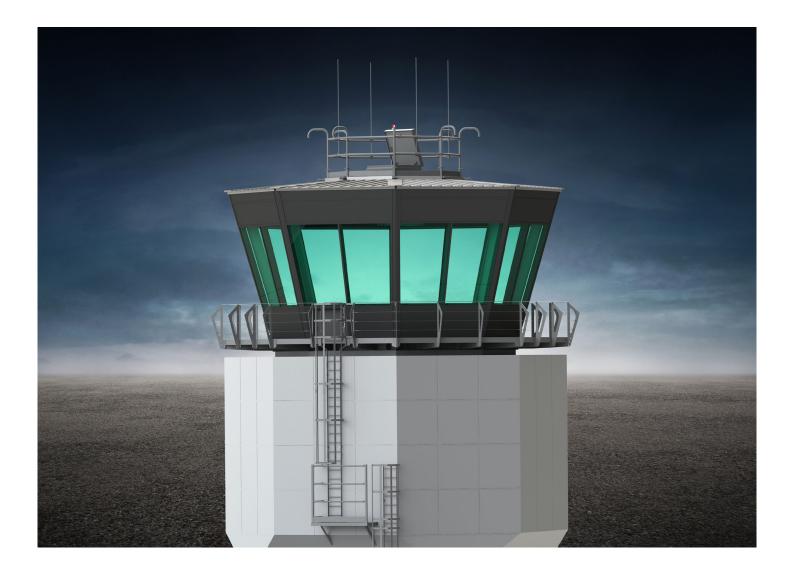
## **MV8 Series**

TEX ATC standard modular air traffic control rooms. Supplied worldwide for rapid installation.









# **MV8 Standard Specification**

The MV8 Series is a range of standard modular air traffic control rooms, designed by TEX ATC and manufactured and supplied worldwide for rapid installation.

Combining the latest architectural concepts and regulations, the MV8 Series specification meets or exceeds all relevant British Standards, outperforms many bespoke designs and offers a comfortable, functional, safe and stylish working environment.

Available in two sizes: 28.7 m<sup>2</sup> (309 ft<sup>2</sup>) and 52.5 m<sup>2</sup> (565 ft<sup>2</sup>).















All components have been specified to withstand demanding environmental conditions therefore, the MV8 series is not only universal for many locations but also extremely durable.

Two sizes are available. The smallest MV8-30 has a floor area of approximately 30m2 and the larger MV8-50 is approximately 50m2.

Feature	MV8-30	MV8-50
Interior floor area	28.7 m² (309 ft²)	52.5 m² (565 ft²)
Number of operators	Max. approx. 5	Max. approx. 9
Width at base	6.17 m (20 ft 3 in)	8.40 m (27 ft 7 in)
Floor-to-ceiling height	3.1 m (10 ft 2 in)	3.1 m (10 ft 2 in)
Total glass area	54.13 m² (583 ft²)	72.46 m² (780 ft²)
Ceiling area	50.42 m² (543 ft²)	80.49 m² (866 ft²)
Weight excluding optional lower walkway (approx.)	23,000 kg (50,710 lb)	29,500 kg (65,040 lb)
Weight including optional lower walkway (approx.)	27,000 kg (59,530 lb)	35,000 kg (77,162 lb)

To assist in the control of reflection, the internal finishes are appropriately angled and finished in matt black to ensure that they are not visible within the glazing. The acoustic ceiling is finished in matt black and all lighting and fittings are recessed to prevent any potential reflection.

#### **Tower Building or Supporting Structure**

The MV8 is our standard air traffic control room. Note that we do not currently construct or supply the tower building or supporting structure; TEX ATC supply the control room (cab) only.



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We supply optional extra consoles but we do not supply operator equipment. The MV8 is octangonal which can be constructed on a square or octangonal tower, or placed on the rooftop of an existing building subject to loading and connection details. Access to the contol room is via a stairwell from the floor below, and this can be situated anywhere on the floor plan to suit your tower building. Normally the stairwell is situated at the back of the room, behind the operators. We can assist resolving the floor plan.

Access to the contol room is via a stairwell from the floor below. We can assist resolving the floor plan.

#### Steel Framework and Lower Walkway

The MV8 Series consists of an octagonal steel framework, assembled in situ and bolted to the concrete slab (or steel frame) of the building beneath. The ring beam supports 8 corner columns, roof beams and a central aperture. The aperture is utilised to gain access to the upper walkway and roof, via a retractable concertina ladder.

The lower ring beam can be fixed using either of two methods:

- Steel-to-steel interface achieved through co-ordination with primary framework designer
- Directly to a preformed concrete upstand/curb (constructed by others) to provide the supporting structure

The ring beam is located by a series of perimeter hold down bolts. The ring beam provides the interface point for the optional 360° cantilevered low-profile lower walkway that is integrated neatly within the design. The walkway is accessed via a hatch from the main VCR floor.

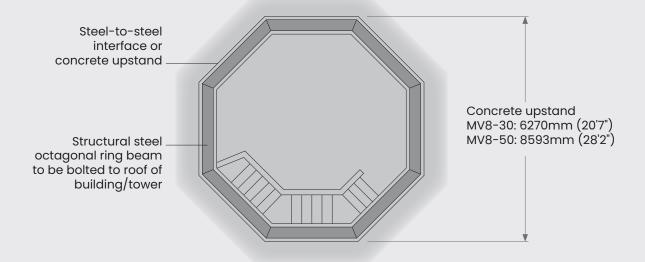
A steel template is provided for accurately positioning the ring beam hold-down bolts.

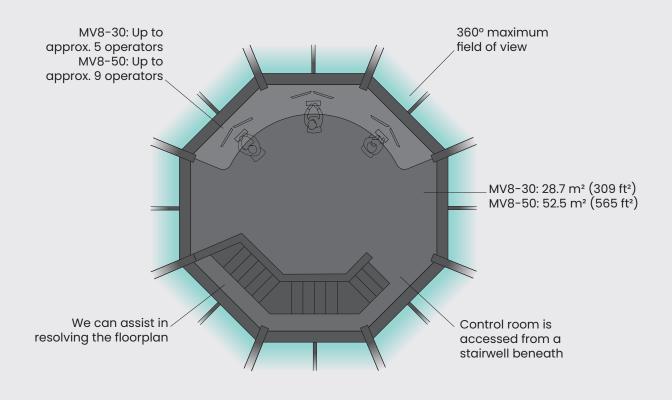






### **MV8 Floorplan**







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#### **Curtain Wall**

The glazing and cladding panels are retained within an architectural curtain wall system that minimises interruptions to the viewing area and provides clean aesthetical lines when viewed from outside.

The system is integrated into the portal steel structure at key load transfer points. These anchor points distribute changing forces and over-pressure through the steelwork as evenly as possible. The uniformity of the structure and method of connection help reduce any stress rises that occur when the structure is exposed to variations of high wind pressure.

The MV8 glazing is inclined outwards at 15° to minimise glare and solar reflections.

Featuring 16 generously-sized trapezoidal glass panels, the MV8 glazing is inclined outwards at 15° to minimise glare and solar reflections. Upper and lower thermal cladding panels provide environmental and acoustic insulation.

The system also facilitates simple and rapid replacement of individual glazing panels in the unlikely event of a breakage.

#### Glazing

Each face of the VCR contains two individual glazing panels. Double glazed panels are supplied as standard, and the specification for these includes a Parsol green glass layer and an argon-filled cavity. A second laminated layer includes a Polyvinyl Butyral interlayer.

The MV8 series can also be supplied with optional Tex Maxiview, heated, laminated glass. Maxiview glazing is tailored specifically to the project to ensure optimum required performance.

Glazing and frame components comply with BS/BS EN Standards or an approved internationally recognised equivalent. International standards are referenced where they either support the design intent or are relevant to the component's country of manufacture. Glass and frames are designed for civilian and military visual control room application. Glass panels are compatible with Aldis lamps and NVG.



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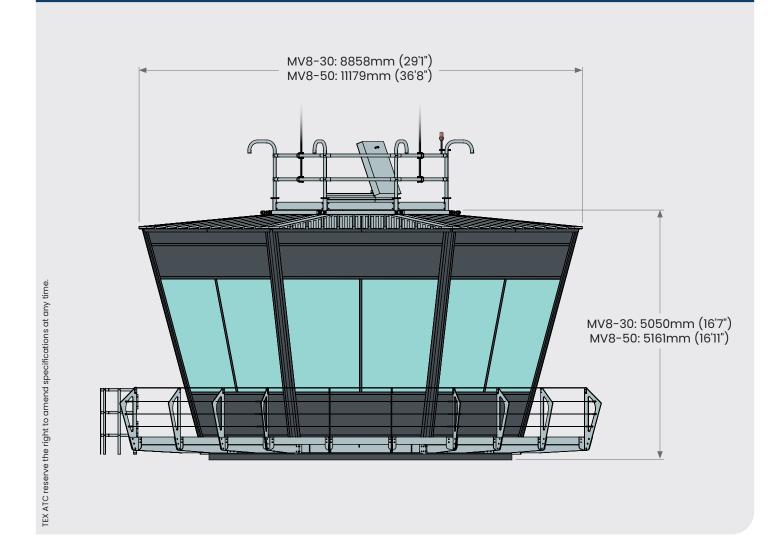








#### **Elevation**



#### Cladding

The upper and lower cladding systems are comprised of composite aluminium panels with integral insulation providing thermal and acoustic attenuation properties suitable for an airport environment. The curtain wall system allows for panels to be replaced quickly and at minimal cost.

Acoustic attenuation properties suitable for an airport environment.











#### Roof

The roof is composed of triangular decking subassemblies.

Access to the roof is achieved through a ceiling-mounted hatch with integral retractable concertina ladder. An intermediate ladder in the roof void leads to a roof access hatch that is supplied complete with a ladder safety post.

The roof includes a central upper walkway with a safety balustrade system. Eight swan neck posts are incorporated into the balustrade design to facilitate antenna mounting and cable management.

The VCR comes supplied with one low-intensity LED obstruction light that is compliant with CAA and FAA regulations.

#### **Lightning Protection**

The MV8 VCR is provided with a lightning protection system. It is the client's responsibility to define and supply the correct earth rod/inspection pits for the environment in which the tower is sited.

#### **Internal Finishes**

To assist in the control of reflection and to provide a safe working environment, the internal finishes are appropriately angled and finished to ensure that they are not reflected within the glazing. The acoustic suspended ceiling is finished in matt black and all lights and fittings are recessed. MV8s are supplied with dimmable downlights that can be grouped and controlled as required. We recommend that additional swan-neck LED task lights are mounted to consoles to reduce the potential of reflection within the VCR glass at night.

A raised floor and anti-static carpet tiles are provided as standard. Operator console desks and other furniture are not included as standard.

The internal finishes are appropriately finished to ensure that they are not reflected within the glazing.



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#### **Solar Blinds**

Manually operated solar control blinds are provided as standard and electrically operated blinds are available as an optional extra. The blinds run in parallel with the glazing, improve optical clarity and reduce internal reflections.

#### **Air Conditioning**

The MV8 Series is designed to accommodate HVAC systems. Mechanical and electrical services are channelled through the floor and ceiling space.

Below: MV8-30 interior shown with standard finishes, optional extra console desks, and roof access ladder extended.





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## **MV8 Optional Extras**

Choose from optional extras such as intumescent paint, lower walkway, laminated and heated glazing, electric solar blinds and operator consoles.

Our standard specification is suitable for most installations. Depending on the layout of the tower building beneath, the colour scheme of the main building, and the level of comfort or convenience required, you may wish to configure your MV8 to include some of the optional extras listed here.

- Lower walkway (cantilevered off ring beam)
- Walkway gate to roof
- Cat ladder
- Alternative curtain wall and roof colours
- Low level access door from within room to walkway/roof
- TEX MAXIVIEW heated, laminated glazing
- Electrically operated loft ladder
- **Electrically operated solar blinds**
- Intumescent paint to steel framework
- **Operator console desks**
- **Project management**

STANDARD COLOURS

**External cladding: RAL 7015** 

**Outer roofing:** RAL-240-80-85

**Internal flashings: RAL 9011** 

**Manually operated** solar blinds are supplied as standard.







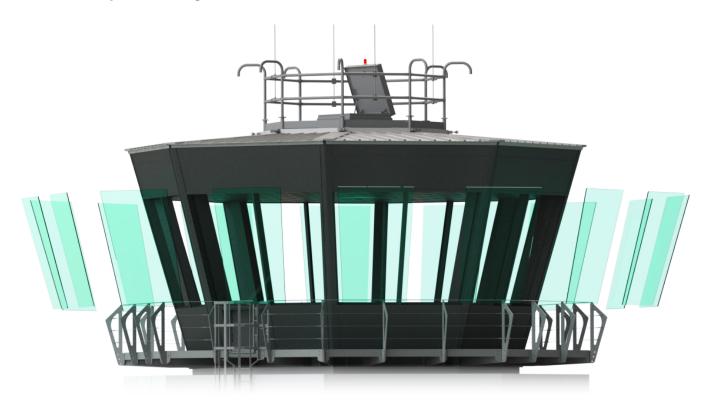
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# **MV8 Installation Options**

MV8 Series air traffic control rooms are available as a kit, complete with detailed assembly instructions. Alternatively, a TEX ATC Project Manager can oversee the installation.



A fully illustrated step-by-step assembly manual is included with every MV8 air traffic control room. Depending on location, a TEX ATC Project Manager can supervise local labour.

The assembly manual identifies the component parts and quantities, and explains the construction process in approximately 40 steps. For example, steps 1-16 explain how to erect the steel frame, and the following steps detail the installation of the roof, curtain wall and glazing. The final steps cover the installation of the interior finishes and solar blinds.

The assembly manual includes a list of the lifting equipment and tools required, the main items being a crane and a glass vacuum lifter. It is expected that assembly may be completed within 8 weeks.



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# MV8 Scope of Work

The MV8 is a standard Air Traffic Control Room (Cab/ Visual Control Room), manufactured by TEX ATC. The tower or structure beneath the air traffic control room is outside our scope of work.

The MV8 is a standard modular air traffic control room designed and manufactured by TEX ATC. It is available in two common sizes and with various optional extras. Typically, our customer is the main contractor responsible for the design and construction of the tower or structure beneath the control room.

Included in our scope of work, is the design development necessary to interface with the tower or structure beneath the air traffic control room. The steel structure of the MV8 is bolted to the concrete or structural steelwork of the main contractor's structure, and we supply a steel template for locating the hold-down bolts.

Access to the air traffic control room is normally via a stairwell from the room beneath. The layout of the stairs is primarily established by the main contractor and is influenced by the field of view and operator positions. TEX ATC liaise with the main contractor to supply drawings of the room layout and floor design for approval.

MV8s are supplied as a kit, complete with detailed assembly instructions. They are available ex works for collection or, for an additional cost, we ship to a port of your choosing. The MV8-30 is shipped in 3 x 40ft shipping containers.

Depending on VCR location, a TEX ATC Project Manager can oversee the installation as an optional extra. This option typically uses local plant and labour supplied by the main contractor.











## **MV8 Programme**

The steel structure of the MV8 is supplied in component form for lifting and site assembly. The curtain wall frames and roof panels are supplied as pre-assembled units.

The MV8 can be supplied as a kit with complete assembly instructions, or for an additional cost we can send one of our Project Managers to expedite the process. Work using local labour is to be undertaken by suitably trained competent professionals.

Depending on the project programme and the optional extras, a workforce of 4 can complete the installation in approximately 8 weeks, with specialist crane and glass manipulator operators as required.

- Verified, compliant design
- 16 weeks manufacture
- Packed in shipping containers
- Ex-works or shipped to port
- 8 weeks installation



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**CASE STUDY** 

# MV8-30 Oman Aviation Academy

The TEX ATC MV8-30 was chosen by Dawood Contracting LLC for the new Oman Aviation Academy at Sohar Airport.

The Oman Aviation Academy in Sohar chose one of TEX ATC's standard MV8 Series control rooms for the new ATC tower.

TEX ATC drew on previous experience of successfully completed projects in Oman including those at Muscat and Thumrait, to inform glazing design and specifications suitable for the location and climate. Optional extras included lower walkway, controller consoles and heated, laminated glazing.

The project management of the installation was carried out by TEX ATC on site over a period of 9 weeks. Close collaboration with the principal contractor ensured the project was completed on time and within budget.

Year: 2022

Height: 33m

Project management by TEX ATC

Installation: 9 weeks





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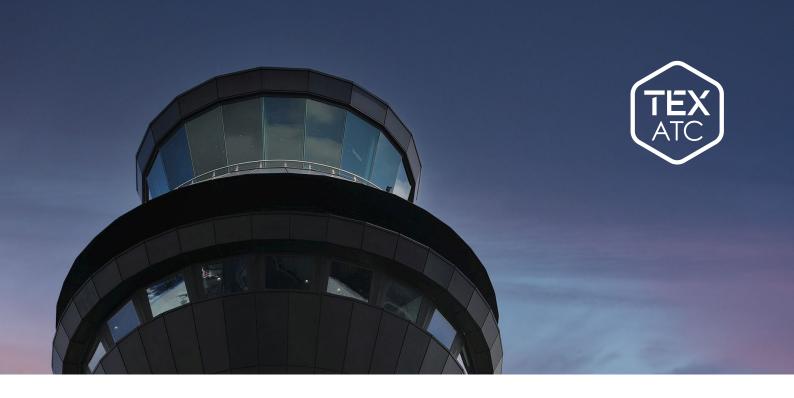


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### **Celebrating 25 Years**

**TEX ATC** is a niche engineering company operating in the aviation sector. We design, manufacture and install standard and site-specific air traffic control rooms. Typically, we work for the main contractor, and our scope of work includes the control room (cab) and operator console desks, but excludes the tower building or supporting structure and avionic equipment. We are based in Great Blakenham, Ipswich (UK). Notable projects include Bagram Airbase, Bangkok International, Manchester Airport (UK), Muscat International, RAF Coningsby, and RAFO Thumrait.













#### **TEX GROUP**

TEX ATC is part of the TEX GROUP and has manufacturing facilities across five UK sites.

- **BSP-TEX** manufactures piling and ground improvement equipment, and road maintenance machinery. The contracted manufacture division designs and manufactures custom trailers and utilities enclosures.
- QK-TEX manufactures lightweight honeycomb panels.
- G&M EUROTEX provides bespoke containerised generators and engine refurbishment.
- TEX PLASTICS produce injection mouldings.
- CAIGATE-TEX provides hybrid energy and smart microgrid solutions.