Manfred Frank Micromaster Hinge

Award winning concealed panel hinging

Variable Geometry Concealed Hinges
Manfred Frank rewrites panel-hinging technology. As the world leader in advanced hinging solutions, the award-winning Manfred Frank MFH hinges are unparalleled in their respective industries. They achieve this through a number of features:

- Single person instant panel adjustment under full load (300kg), without any lifting support equipment

- Installation cost savings of up to 70% - **A perfect fit in record time every time**

- Patented precision controlled 3D, self-locking adjustment features. Physically impossible for any of the adjustments to be affected by even the heaviest panels and therefore **no creep or slippage possible**

- Complete access with full 90° opening

- Maintenance free & Self-lubricating

- **Ultra-Wide** panel applications

- Fully exposed frameless glass-to-glass mounting

- Single point panel mounting side-hung and top-hung installations

- Wide range of accessories for all types of installations including active and motorised facades. Can also be adapted to accommodate curved panels and to incorporate spring loading

- Highly effective 3D opening and closing motion prevents any seal damage

- Made from Investment cast CD4-MCU Duplex Stainless Steel and AISI 316 Stainless Steel

- Exceeds the requirements of ISO 9227 and BS EN 1670:1998 corrosion resistance
Applications for the Micromaster Hinge

The Manfred Frank Hinge supports numerous applications and custom solutions.

- Museums
- Malls / Shop-Fitting
- Glazed Lift Shafts
- Facades, Glass and Stone
- Airports / Transit Terminals
- LED Screens
- Residential and Commercial
- Marine Industry
Hinge Models – MFH200 & MFH300

Micromaster Hinges are available in two different models MFH 200 and MFH 300. Both models are produced by using the same production methods, identical materials and finishes.

Main Differences

- The MFH 200 is rated for a maximum panel weight of 200kg.

- The MFH 200 is adjusted by using an 11mm open ended spanner (in /out & side to side) and a 4mm Allen Key tool (height).

- The MFH 300 is rated for a maximum panel weight of 300kg.

- The MFH 300 is adjusted by using a 5mm Allen Key tool (in /out & side to side) and a 4mm Allen Key tool (height).

By following this link to the Manfred Frank website you will be able to determine what hinge model will meet your requirements http://www.manfredfrank.com/find-model
Castings

Material: CD4-MCU Duplex Stainless steel

Process: Lost wax / Investment cast

Treatment: Heat treated

Finish: Shot blast natural

Machined components

Material: AISI 316 Stainless Steel

Finish: Electro polished

Bushes & Bearings

Material: AISI 316 Stainless Steel- Teflon coated / self lubricating

Adjuster mechanisms

Material: AISI 316 Stainless Steel - Nylon / self locking

Corrosion

Micromaster Hinges meet and exceed the requirements of ISO 9227 and BS EN 1670:1998 - Continuous, Neutral Salt Spray Test.

All existing frame mounting and door mounting options can be combined with both models. The trajectory/geometry and movement is identical for both hinge models.
Panel Size Possibilities

The following illustrations are indicative of the panel sizes that can be incorporated using two hinges per panel with single point fixing/mounting. The MFH200 hinge is rated for maximum panel weights of 200kg and the MFH300 hinge for 300kg. There is no other product available that can accommodate these loads or panel sizes using a single point connection.

In addition to glass, the hinges can be used for doors and panels made of other materials.

The charts set out within the Manfred Frank website via this link http://www.manfredfrank.com/products/hinge/panel-size-charts detail the maximum size panels / loads that can be installed using two micromaster hinges. Examples are provided for the MFH200 and MFH300 hinges with different glass thicknesses.
Hinge Adjustment

Micromaster hinges feature an ingenious and unique adjustment principle which is protected by worldwide patents.

The result is always a perfect fit in record time

- Full 3D adjustment
- Panels are adjusted under full load without any support or lifting equipment
- A single person can quickly and easily precision adjust even the largest panels.
- Self-locking adjustment screws can be turned with minimum force to align any size panel in a totally controlled process by a fraction of a millimetre.
- No special tools required
- It is physically impossible for any of the adjustments to be affected by even the heaviest panels.
- No creep or slipping possible.
Detailed instructions on how to adjust the MFH200 and MFH300 hinges can be found on the Manfred Frank website by following this link http://www.manfredfrank.com/products/hinge/adjustment
Hinge Mounting Options

As a world first a completely frameless glass side to glass door fully exposed hinge mounting is made possible by using a range of MFH fittings.

Micromaster hinges are suitable for all common applications of panel mounting.

Door Mounting Options
Door Mounting Options (Cont’d)

**Frame Mounting Options**

**Clamping Plate – Glass**

- M8 Csk Cap Screw
- Clamping Plate
- 0.6mm LDPE Washer
- MPH Micromaster Hinge
- Acetal Bush CG15 ID = 6.5
- Glass Frame Panel

**Clamping Plate – Non Glass**

- M8 Csk Cap Screw
- Clamping Plate
- Non Glass Frame Panel
- MPH Micromaster Hinge
- M6 Std Washer
- M6 Nylock Nut
Frame Mounting Options (Cont’d)

Bolted

NOTE: HINGE CAN BE ATTACHED BY THROUGH BOLTS AS SHOWN OR THE FRAME CAN HAVE TAPPED HOLES FOR BOLTING THE HINGE TO.

Door Installation Types

INSET DOOR EXAMPLE

OVERLAY DOOR EXAMPLE
Installation manuals for the different mounting options / type of installation can be downloaded from the Manfred Frank website by following this link http://www.manfredfrank.com/products/hinge/installation-manuals
Custom Solutions

Micromaster Hinges can be customised and adapted to fulfill even the most demanding requirements. Among the many solutions for Micromaster Hinges are motorized glass facades, slide and rotate systems for ultra thick panels with almost zero gaps (large LED Module screens) and others.

Glass Facade Customisation
Pull and Slide Customisation for LED Screen Modules
Extrusion Mounted Solution (Laminated Example)

**Extrusion Mounted Micromaster**

- Setting blocks required to position laminated glass in extrusion.
- Use a structural silicone adhesive to attach glass to extrusion.
- Door mounting extrusion utilizing a "tee slot" for mounting to micromaster which conceals the fasteners used for attaching to the hinge.
- Structural steel frame member.
Manfred Frank products are being used in a large number of prestigious international institutions and architectural projects including:

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