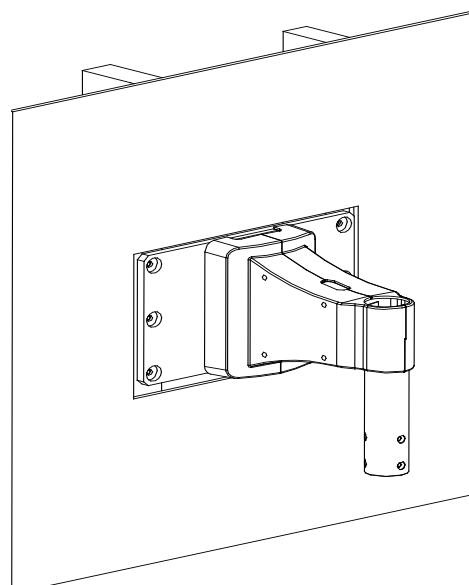
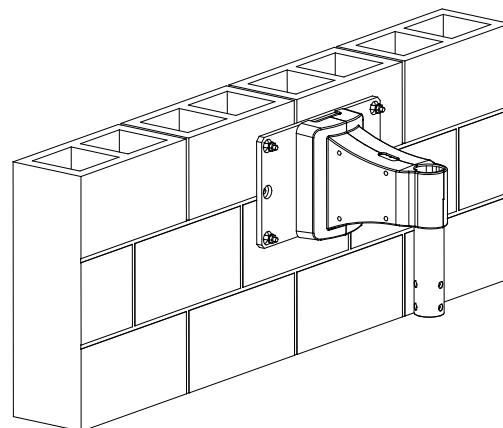
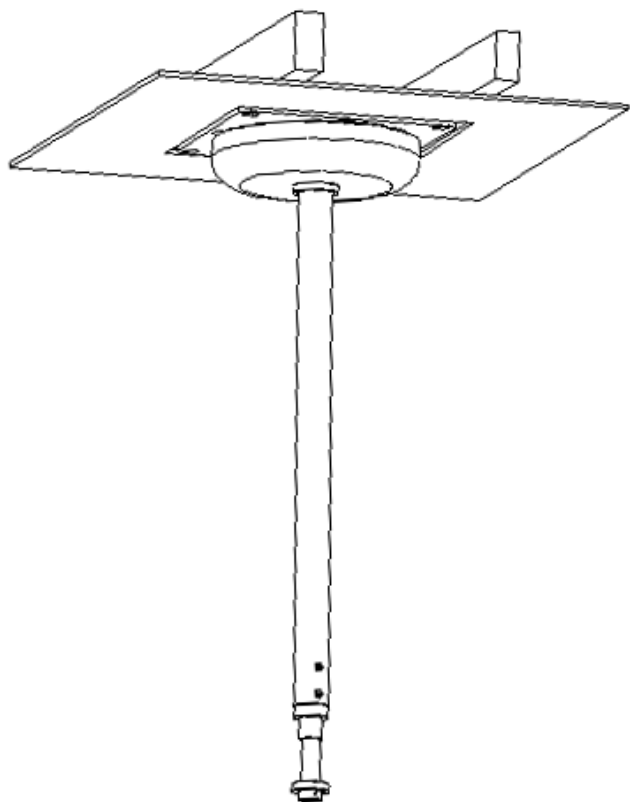


OMS2380 ceiling mount and wall-mounted installation instructions



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1、Ceiling Mount Installation

The roof of a house generally has a keel, and the ceiling is installed under the keel.

The keel is divided into wooden keel and steel keel. Different installation methods are used according to different keels. The center span of keel is generally 406mm



Note: Generally, there are gypsum boards on the ceiling. In order to prevent crushing the gypsum board during installation and loosening the installation, please cut the gypsum board and install it directly on the keel.

Force and torque



be careful !!!

According to the actual situation on the site, your structural engineer must ensure that the keel at the suspension installation can withstand the tension and torque specified below.

The structural engineer must consider other existing loads on the keel where the suspension is installed, and increase the required safety margin in compliance with applicable national regulations.



Important information:

- 800N additional load is included in the vertical force and torque specified below. It is produced by an adult hanging on the end of the cross arm (i.e. microscope). Other safety margins are not considered.



Caution: For OMS 2380 separately installed on the ceiling, the ceiling must be able to withstand the following loads:

- Vertical tension: not less than 4080N
- Torque: not less than 4890Nm

1-1 Ceiling Mount Installation preparation

Find out the position of the keel first and cut a square hole on the ceiling. The square hole must span two keels. The size of the square hole is not less than 500 * 500 (mm). In order to make the ceiling beautiful after installation, use the same color wallpaper to cover the ceiling opening after installing the base plate.

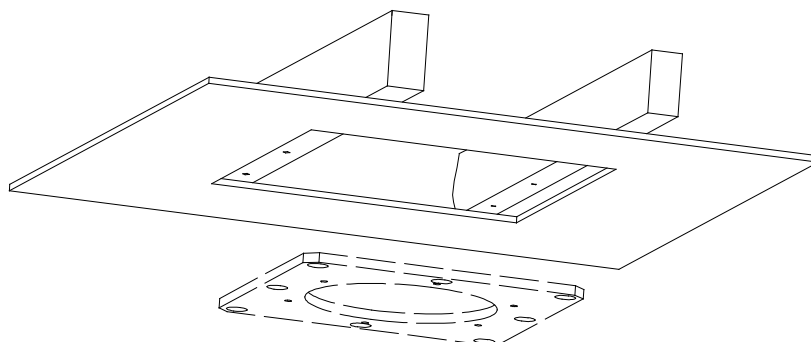


Fig.1

1-2 Wooden keel Ceiling Mount Installation

The first step is to drill holes on the keel with a diameter of 6.5mm and a depth of 80mm (refer to the base plate for the hole size, and try to select the center of the keel for drilling.)

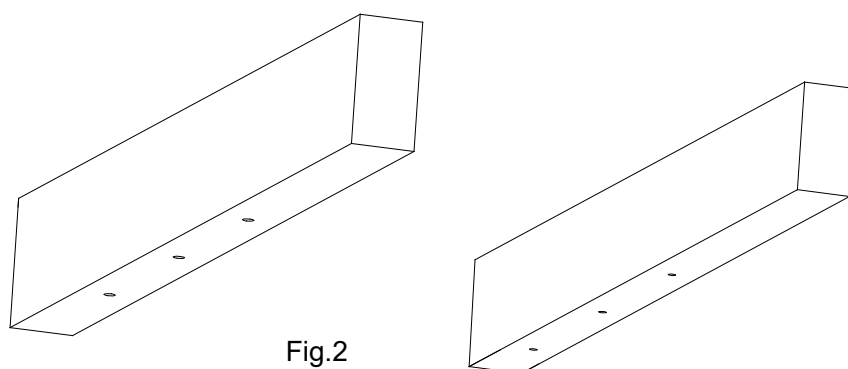


Fig.2

Step 2: use six screws with washers, screw size M8 * 80, install the base plate down the keel.

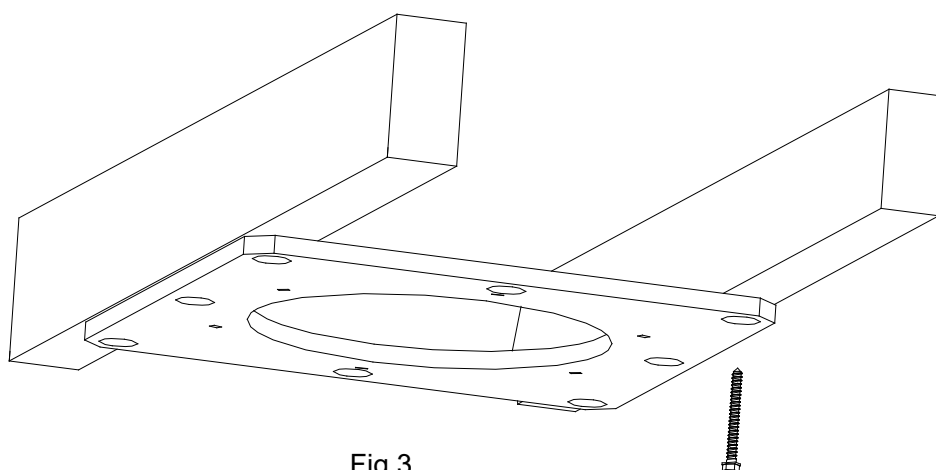


Fig.3

The third step . Refer to the chapter 2 , complete the installation.

use 8 bolts to install the s Ceiling Mount down the base plate. Bolt size: M10 * 30 hex head, grade 12.9.

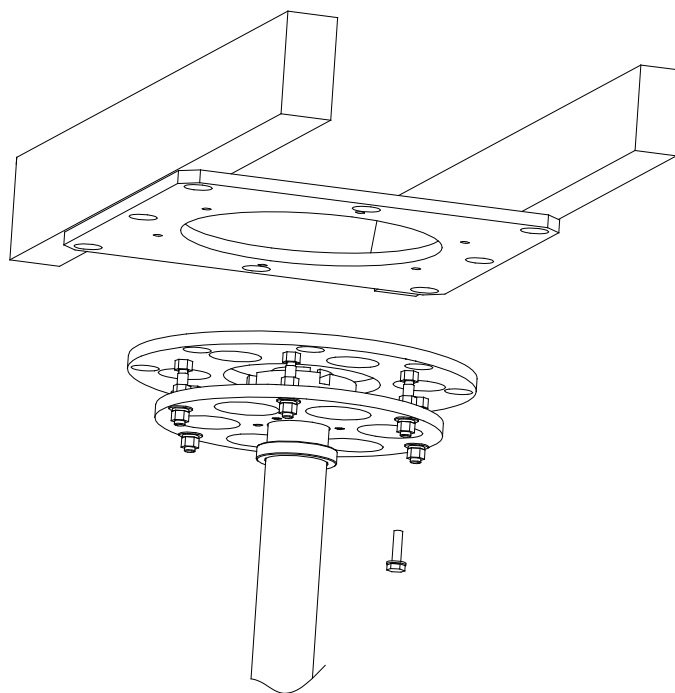


Fig.4

1-3 Steel keel Ceiling Mount Installation

The steel keel is divided into channel steel and square pipe, as shown below.

The first step is to drill holes on the keel, with a diameter of 10mm, through the lower side of the profile. (Refer to the base plate for hole size, and try to select the center position of the keel for drilling.)

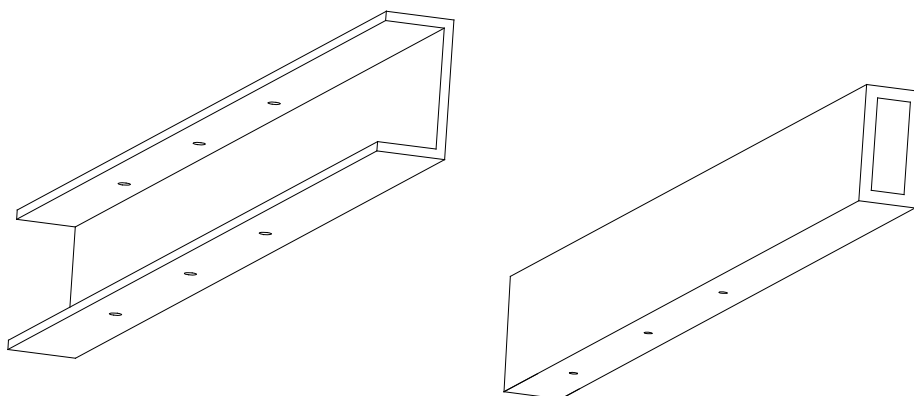


Fig.5

The second step is use six M8 * 50 bolts (grade 12.9) with washers , install the base plate down the keel.

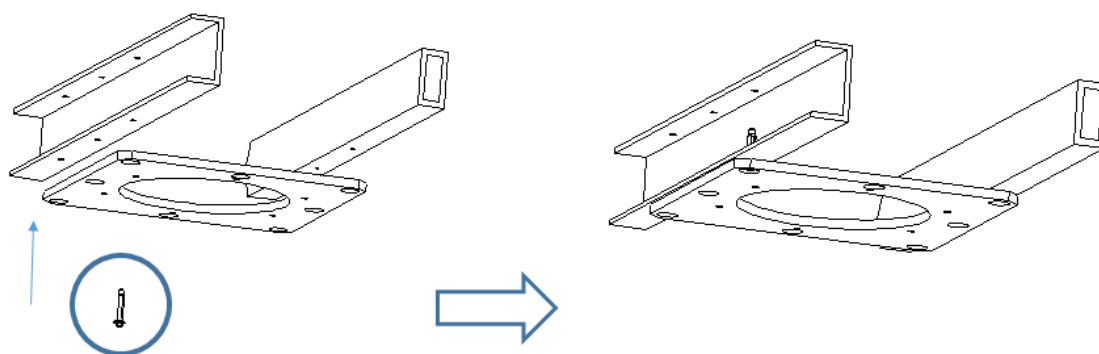


Fig.6

The third step is Refer to the chapter 2 , complete the installation.

use 8 bolts to install the s Ceiling Mount down the base plate. Bolt size: M10 * 30 hex head, grade 12.9.

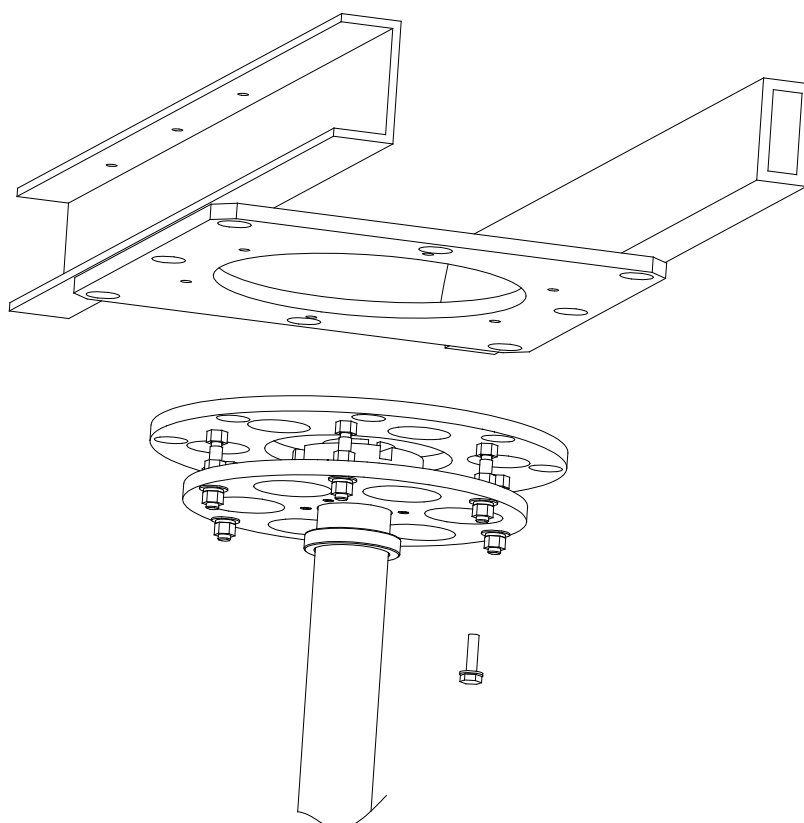
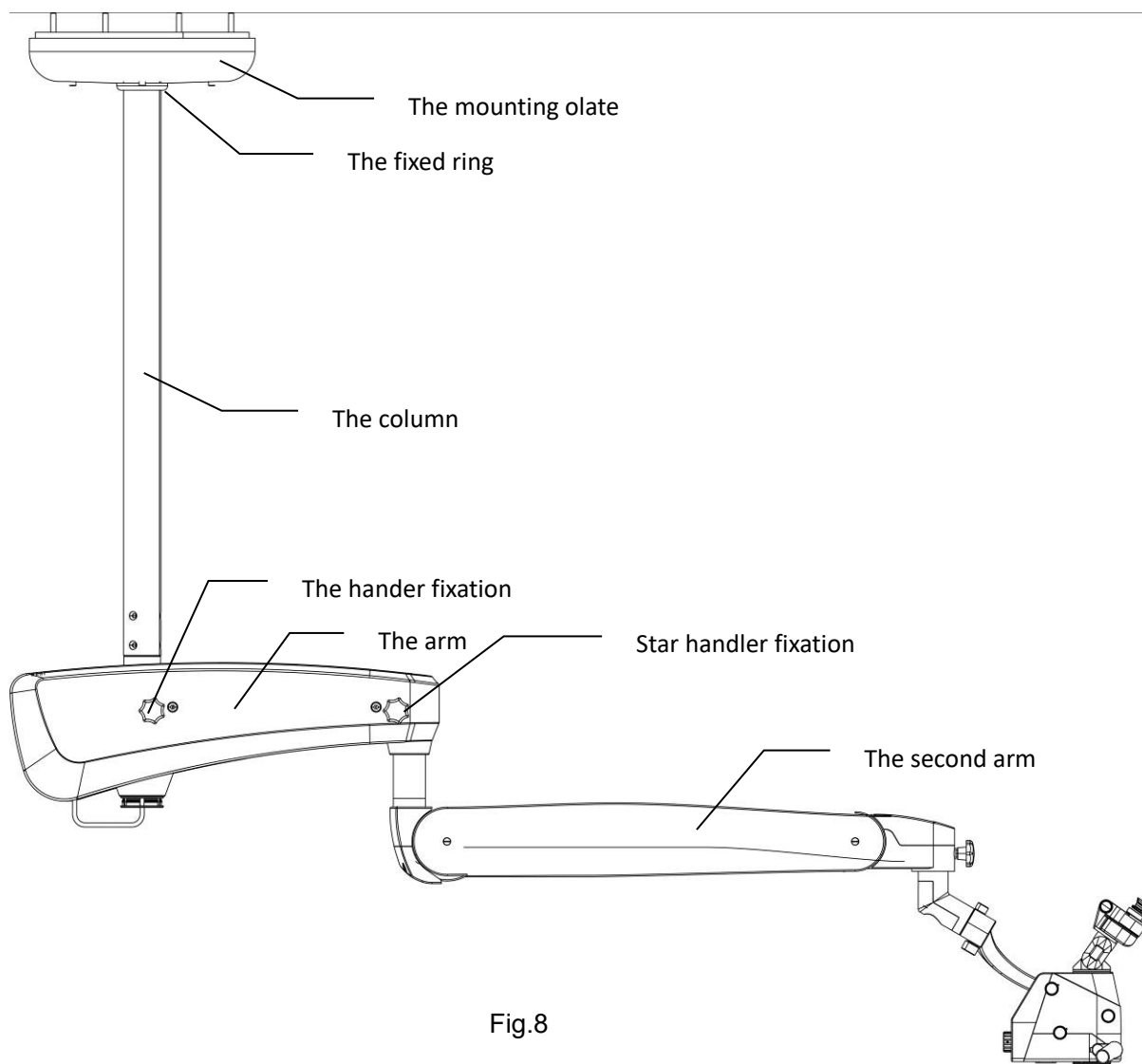


Fig.7

2 OMS2380 Ceiling Mount Installation Instructions

2-1. The name and use of components



2-2. Assembly

This equipment is packed in one package. Please open the package and take out all parts and assemble them according to the following procedures.

2-2.1 Assembly of ceiling bracket

- (1) Ceiling should be concrete block (more than 15cm on center).
- (2) Selecting mounting height (Referred to Fig.8). If the typical position is not available, please locating the microscope by your suitable height. The preferred mounting zone should ensure that there is maximum maneuverability of microscope in all direction.

2-2.1.1 Assembly column to the bracket-B

Tighten the two screws.

Pass a screw through the column hole and make sure it is installed firmly

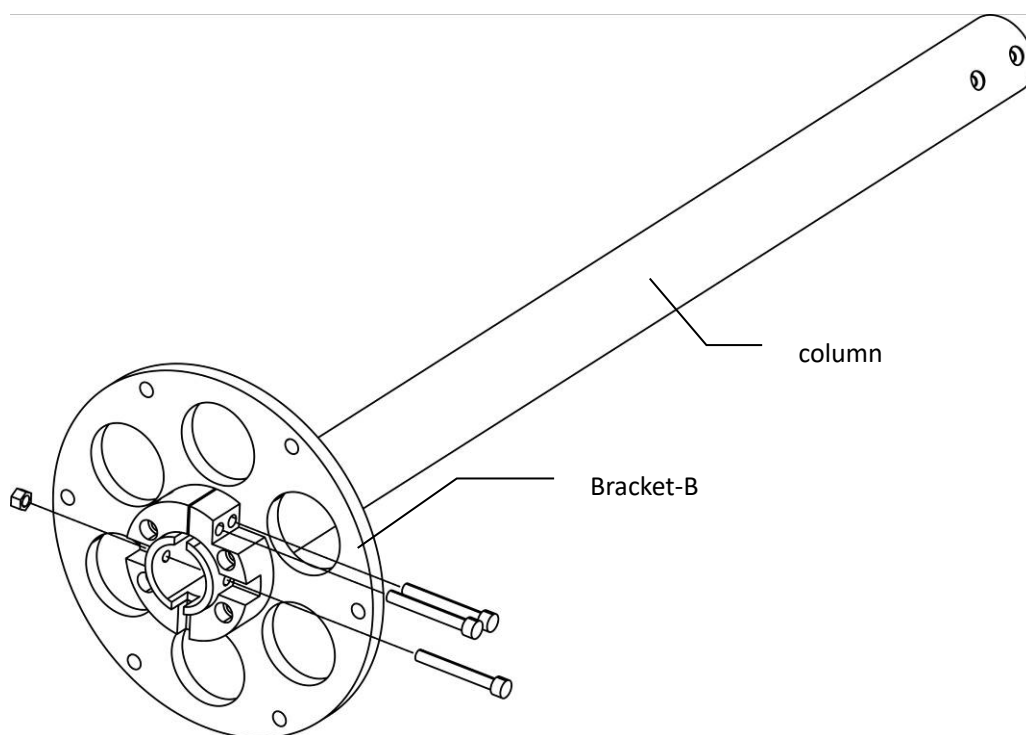


Fig.9 Assembly column to the bracket-B

2-2.1.2 Assembly bracket-A to the ceiling

Drill holes in the ceiling according to the Bracket-A

Drilling 8 holes (diameter 14mm) on the concrete block by electric hammer. The hole-depth is 80mm.

Install Bracket-A to the ceiling and make sure it is firmly installed

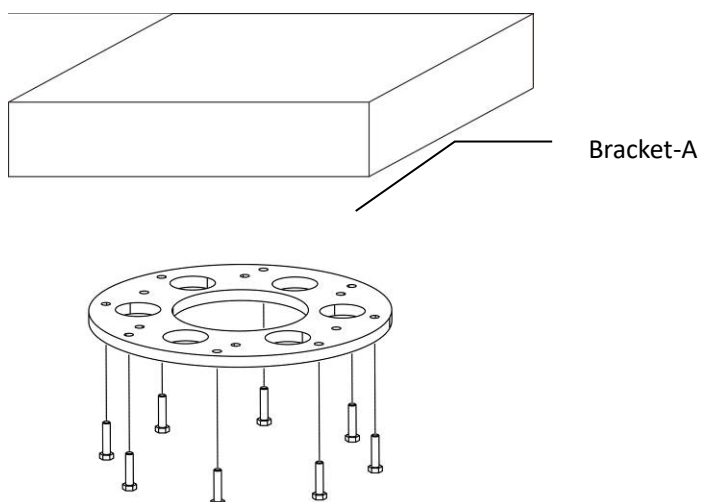


Fig.10 Assembly bracket-A to the ceiling

2-2.1.3 Assembly column to the Bracket-A

Assemble column to Bracket-A, and tighten all the screws,

Adjust the verticality of column to within $\pm 0.5^\circ$

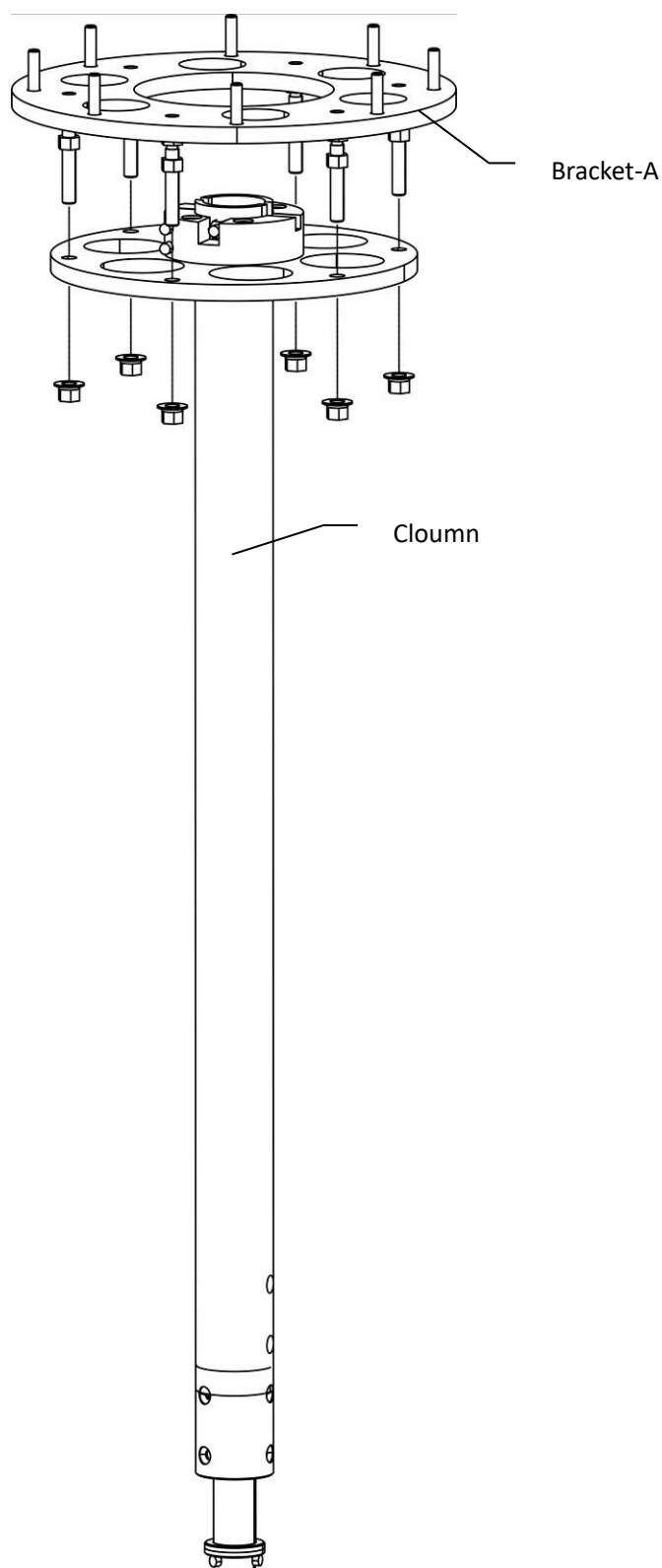


Fig.11 Assembly column to the Bracket-A

2-2.1.4 Assembly plastic cap to the ceiling mount

Fix the plastic cap on the ceiling mount.

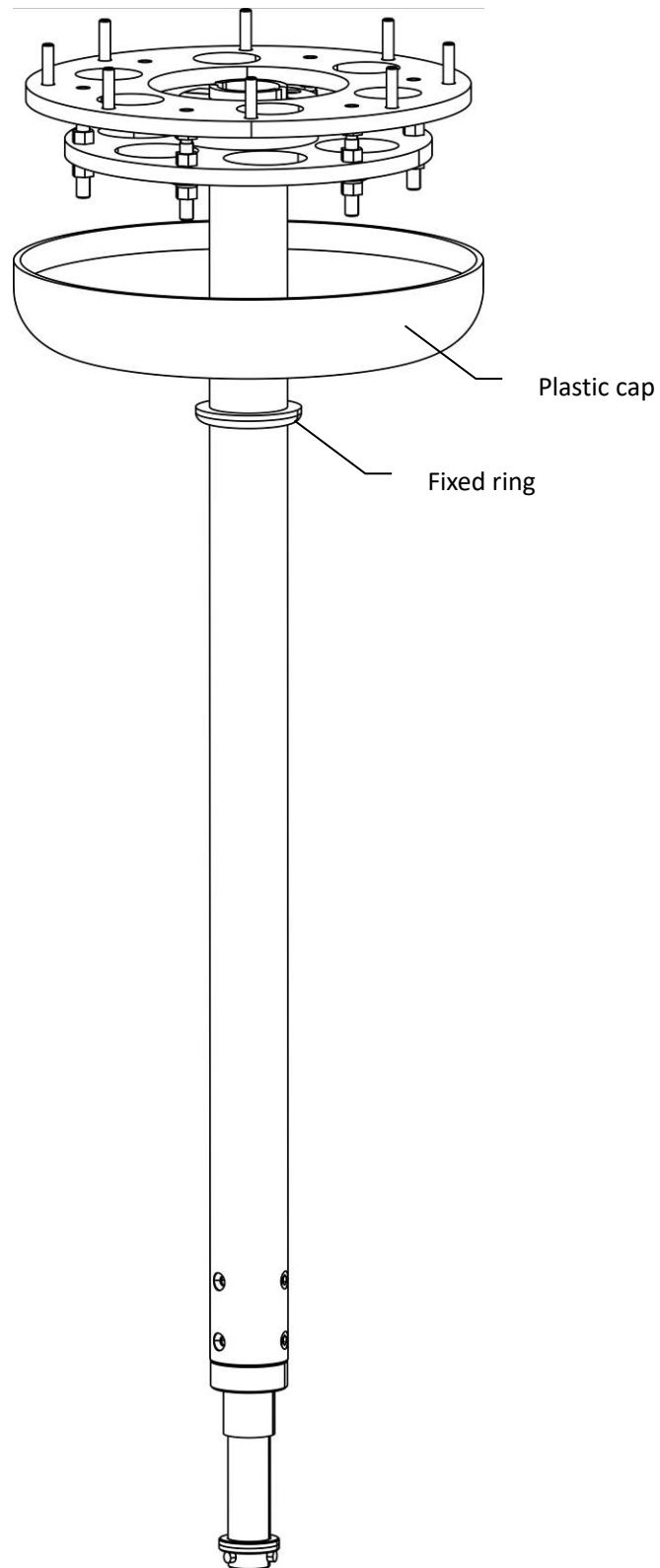


Fig.12 Assembly column to the Bracket-A

2-2.2 Assembly of arm

Take out the arm, please pay more attention, the Star handler fixation screw must be tightened, insert the hole to the Axis, then use the special tool to fix the two axis with spring screw in the circle groove, put on the cover.



Caution: The Second Arm use the spring to keep the balance. The Star handler fixation screw only to tighten the arm, the arm can not be locked by this screw. The Second Arm must be held before loosen the Star handler fixation screw.

- (1) After loosening the 4 screws, remove the first arm cover. (Remove the case to mount first arm to the ceiling bracket)

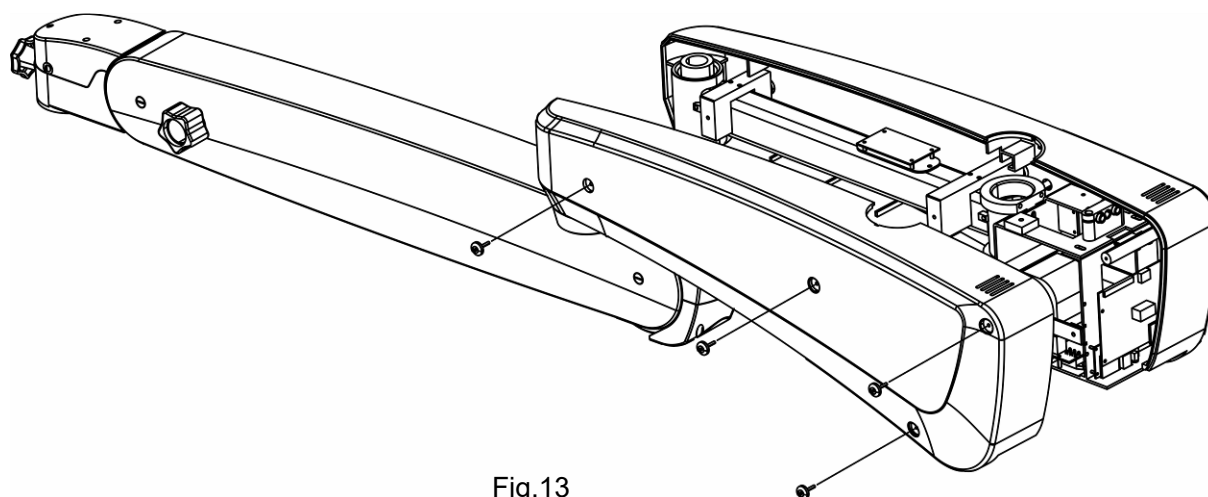


Fig.13

- (2) Install the arm on the ceiling part. Screw the safe ring Use hook spanner to screw tightly the safe ring. Screw on circular column. (Fig 14)

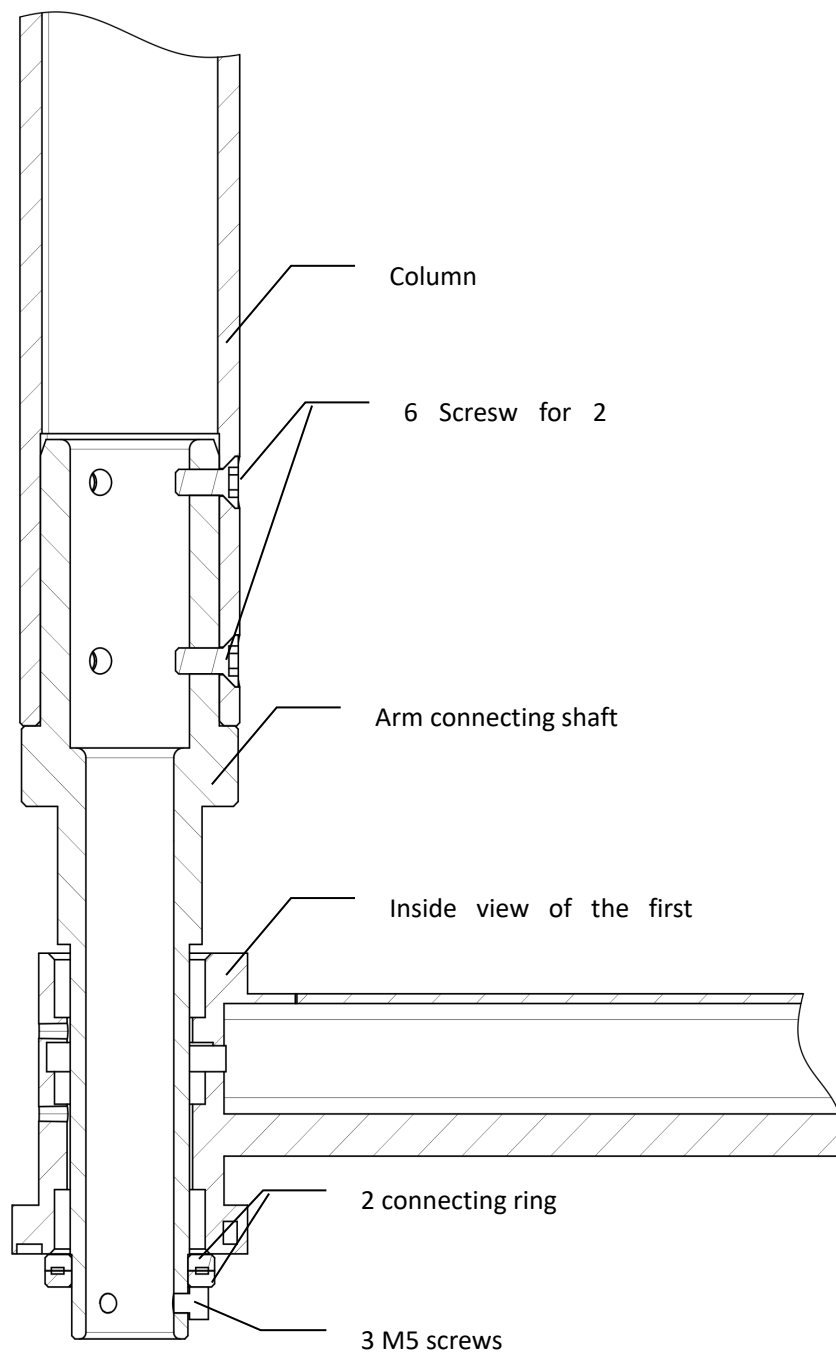


Fig.14

2-2.3 Assembly of cable

Use the wire to pass through the column, hook the cable out and connect it to the corresponding socket on the base.

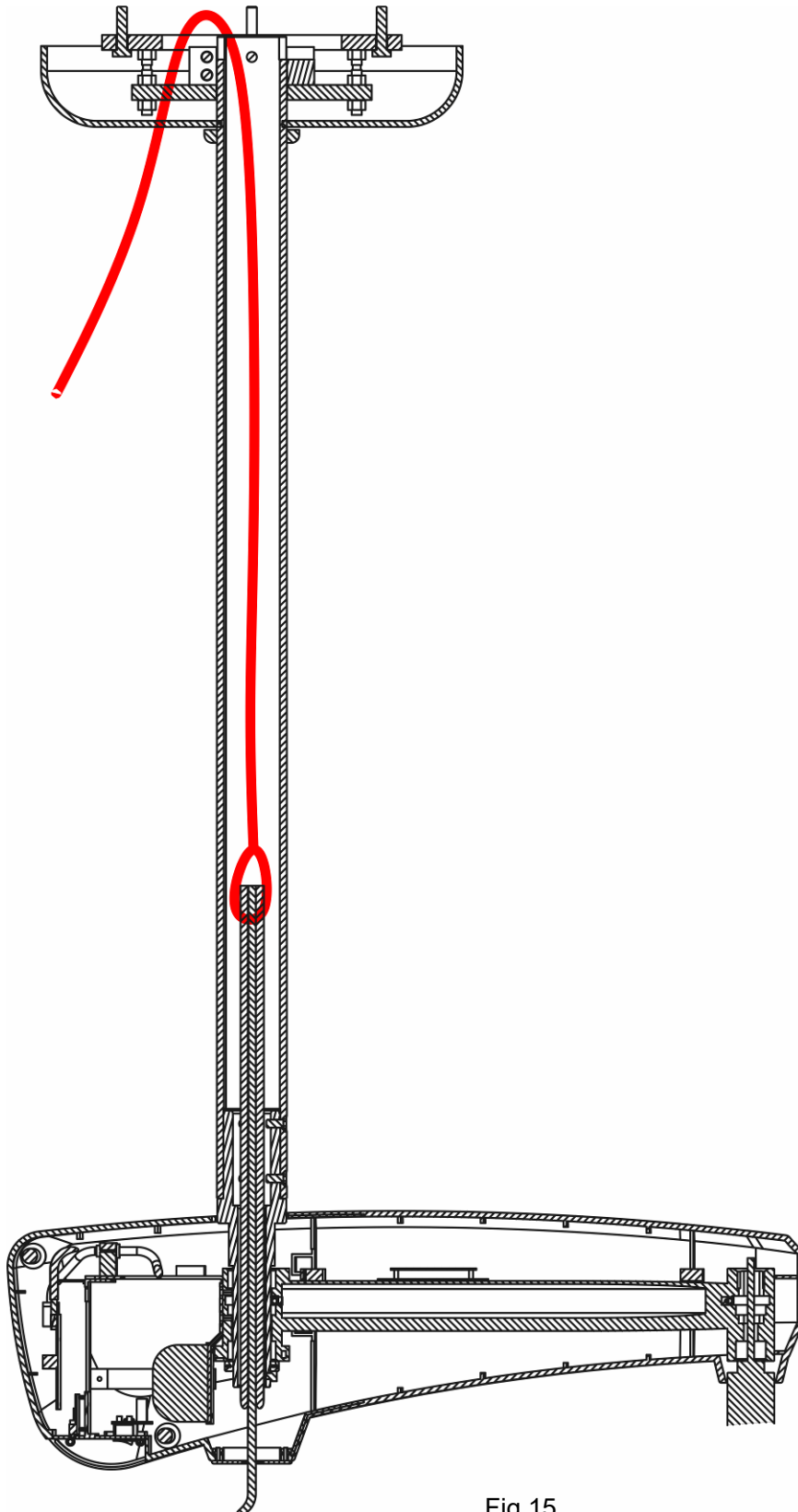


Fig.15

- (1) After connecting the HDMI cable to the HDMI socket, fix the HDMI cable
- (2) After connecting the Internet cable to the socket, fix the internet cable
- (3) After the power cord is plugged into the power outlet, attach the first arm case housing. (Finally lock 4 screws to secure the first arm case)

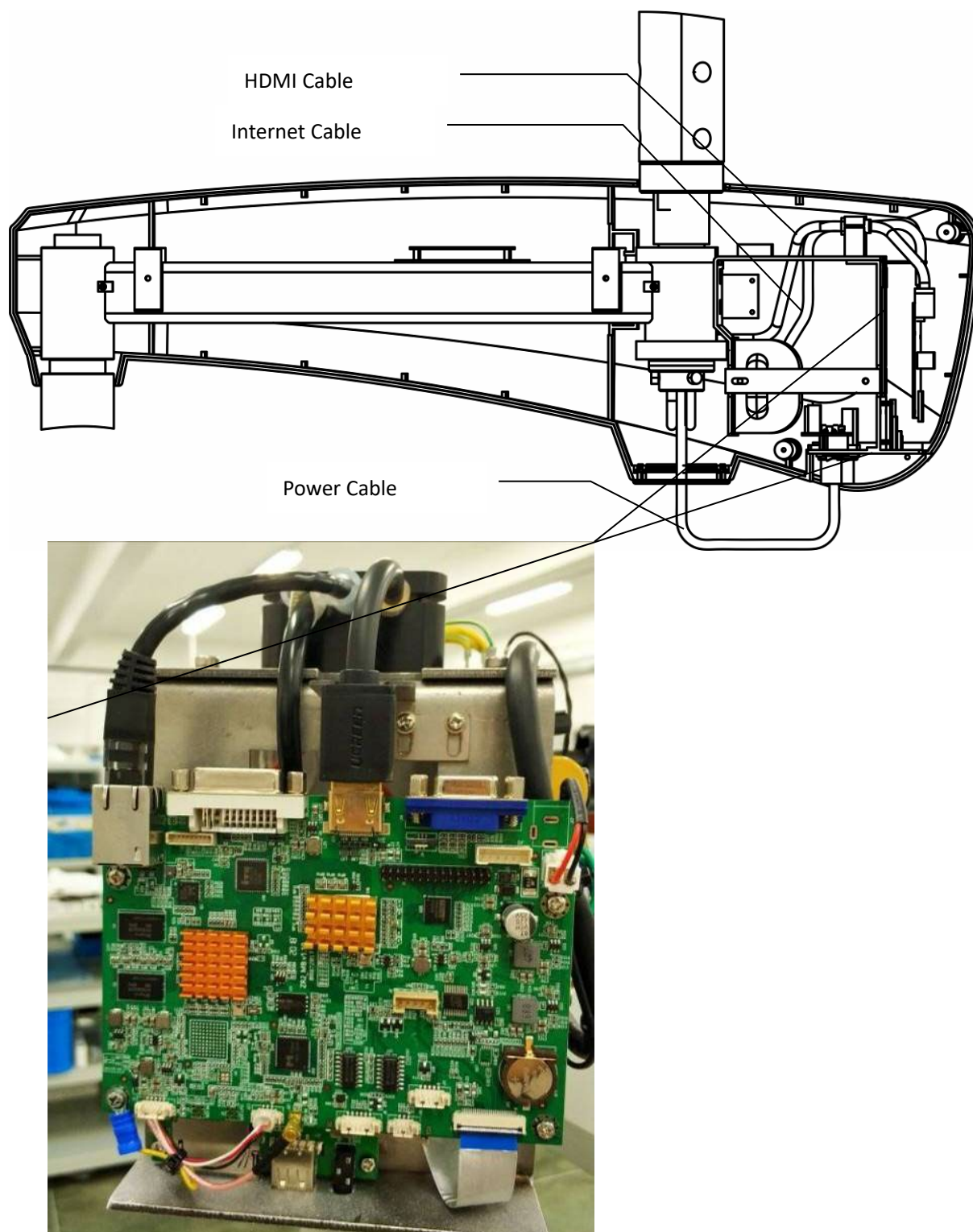


Fig.16

3、 Wall-mounted installation

The installation height of wall-mounted components on the wall shall be determined according to the specific microscope model. The wall construction can be divided into two types, concrete pouring wall and special wall.

Special walls are divided into hollow brick walls, wooden wall columns and steel wall columns. The following describes the wall-mounted installation methods for the three types of walls.



Note: Generally, the wall of wall column structure has gypsum board. In order to prevent crushing the gypsum board during installation and loosening the installation, please cut the gypsum board and install it directly on the wall column.

Force and torque



be careful;

According to the actual situation of the site, your structural engineer must ensure that the wall column or wall at the installation site can withstand the tension and torque specified below.

The structural engineer must consider the wall column at the installation site or other existing loads on the wall, and increase the required safety margin in compliance with applicable national regulations.



Important information:

- The tension and torque specified below include an additional load of 800N. It is produced by an adult hanging on the end of the cross arm (i.e. microscope). Other safety margins are not considered.



Caution: For OMS 2380 separately mounted on the wall, the wall must be able to withstand the following loads:

- Tensile force: not less than 3680N
- Torque: not less than 5520Nm

3-1 Installation of wall-mounted on hollow brick wall

The first step is to determine the installation position, and then drill holes through the wall according to the base plate. 4 holes with a diameter of 20mm are drilled.

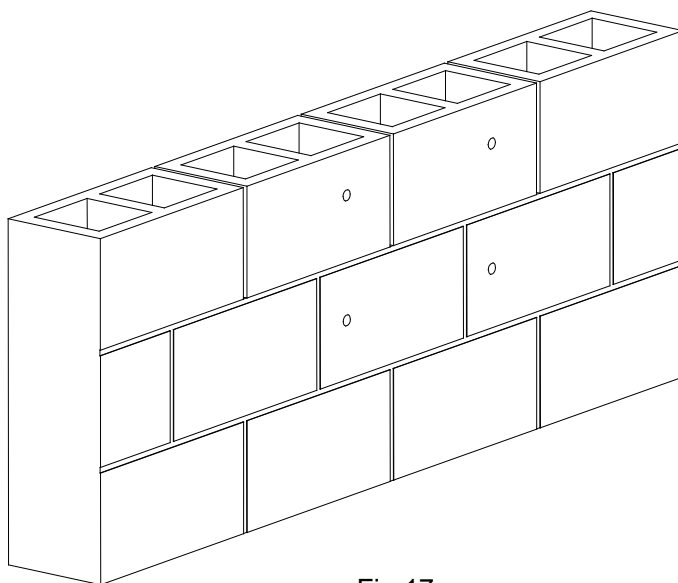


Fig.17

The second step. Place the perforated base plate on the outside of the wall, and the wall-mounted base plate on the inside of the wall, and use 4 longer screws (M10,grade 12.9) to install firmly through the wall. Cut off the excess screw and restore the wall.

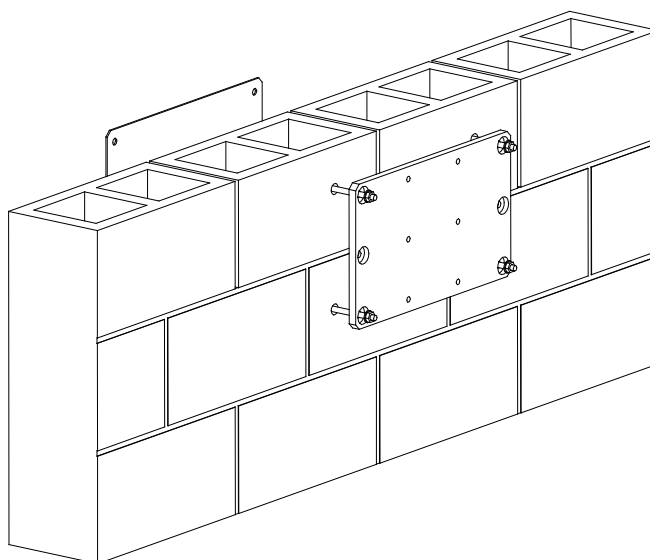


Fig. 18

The third step . Install the wall-mounted assembly on the wall-mounted base plate on the inside of the wall with 6 bolts. Bolt size: M10 * 20mm hex head, grade 12.9.

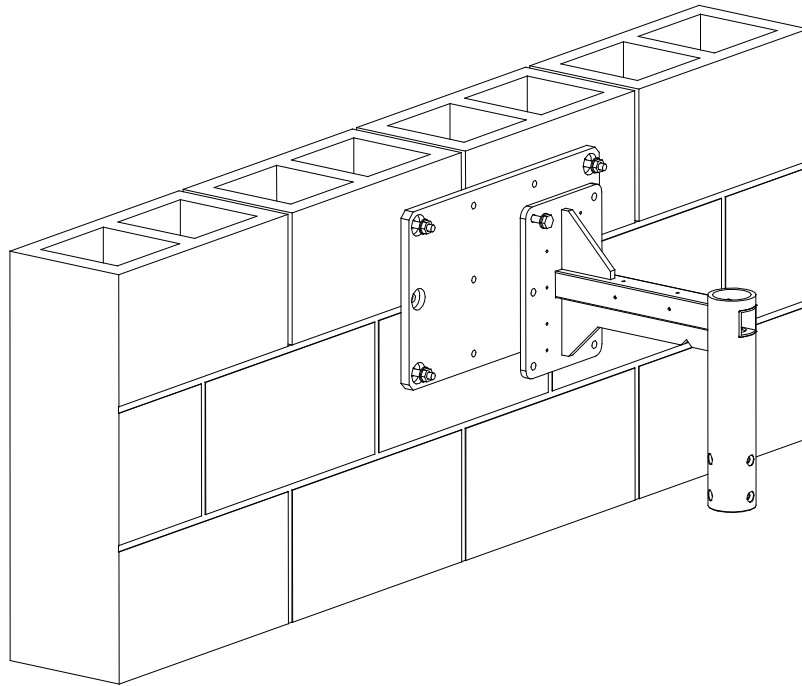


Fig. 19

The fourth step .Refer to the chapter 4 , complete the installation.

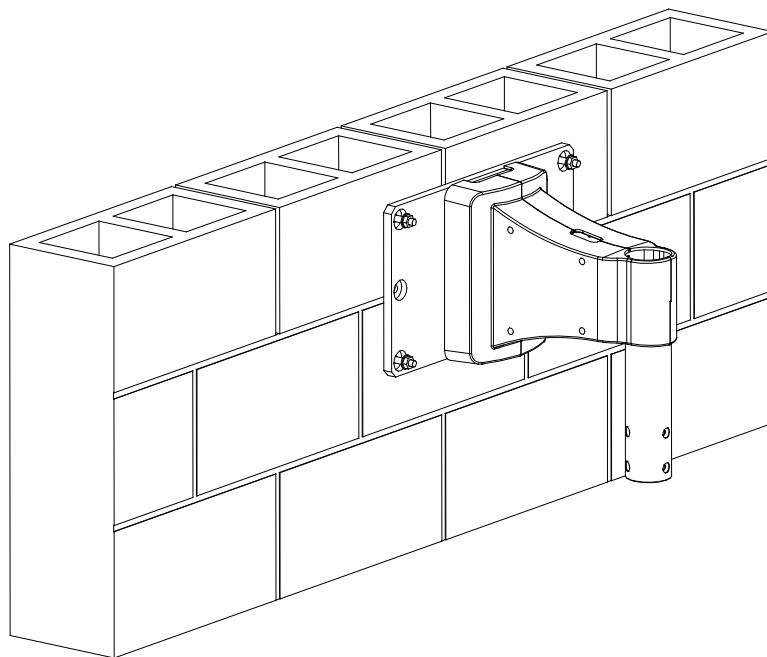


Fig. 20

3-2 Installation of wall-mounted on wooden wall column

There are two kinds of common wall column center spacing: 406 mm and 610 mm, and there are two kinds of wall-mounted base plates.

The first step is to determine the installation position, cut the gypsum board on the wall and expose the wall column (two wall columns must be exposed), and then drill holes on the wall columns according to the installation base plate. 6 holes with a diameter of 6.5 mm and a depth of 80 mm are drilled. Try to drill holes at the center of the wall columns.

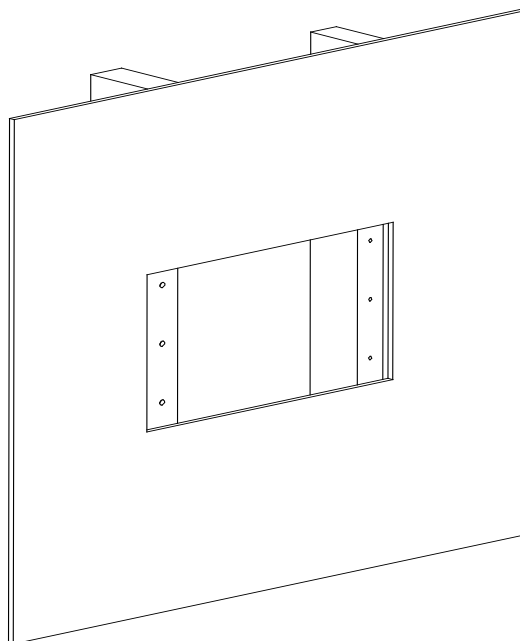


Fig. 21

Step 2. Use 6 screws(M8 * 80mm,grade 12.9) to install the mounting base plate of the wall-mounted on the wooden wall columns.

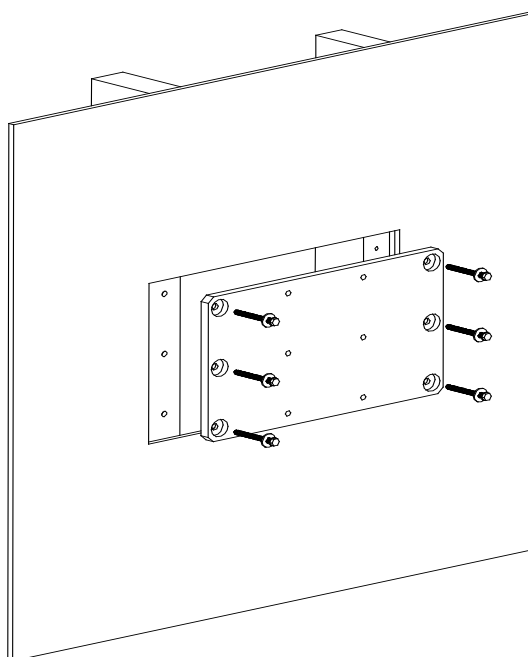


Fig. 22

The third step . Install the wall-mounted assembly on the base plate with 6 bolts. Bolt size: M10 * 20mm hex head, grade 12.9.

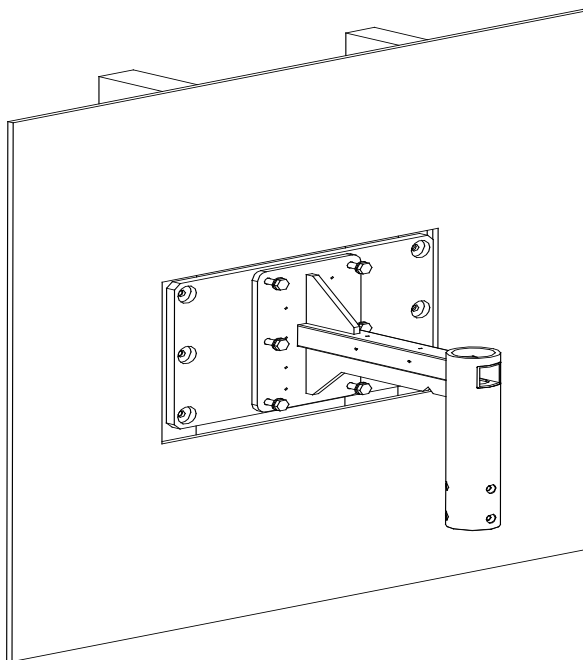


Fig. 23

The fourth step .Refer to the chapter 4 , complete the installation.

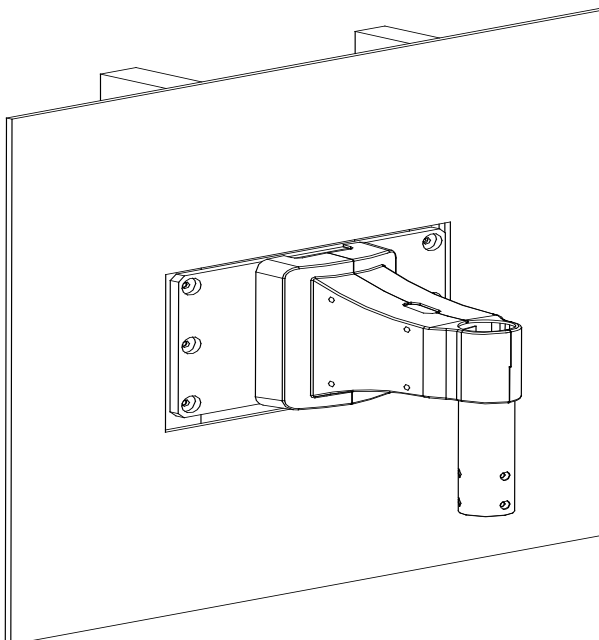


Fig. 24

3-3 Installation of wall-mounted on steel wall column

The first step is to determine the installation position, cut the gypsum board on the wall, expose the wall column (two wall columns must be exposed), and then drill holes on the wall columns according to the wall-mounted base plate, 6 holes with a diameter of 10mm, and try to select the center of the wall column to drill holes.

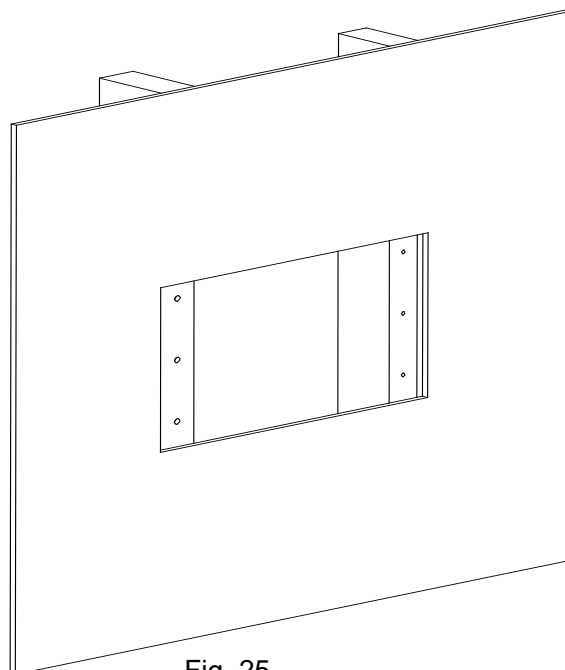


Fig. 25

The second step is to use 6 screws (M8 * 50mm ,grade 12.9) to install the base plate of the wall-mounted on the steel wall columns.

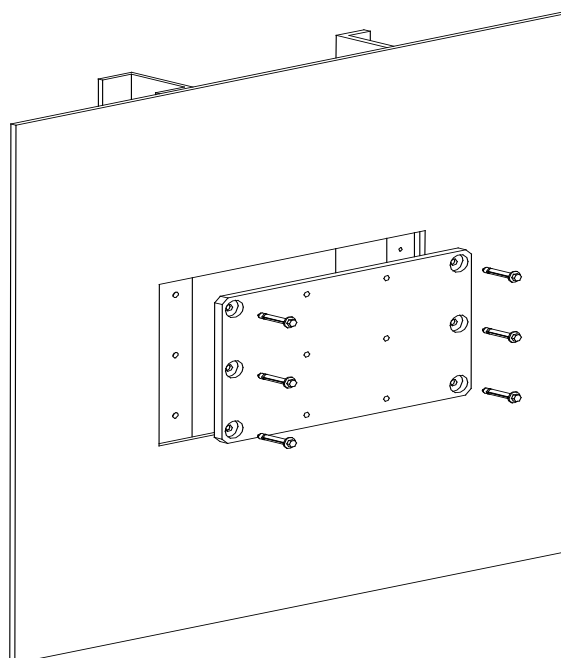


Fig. 26

The third step . Install the wall-mounted assembly on the base plate with 6 bolts. Bolt size: M10 * 20mm hex head, grade 12.9.

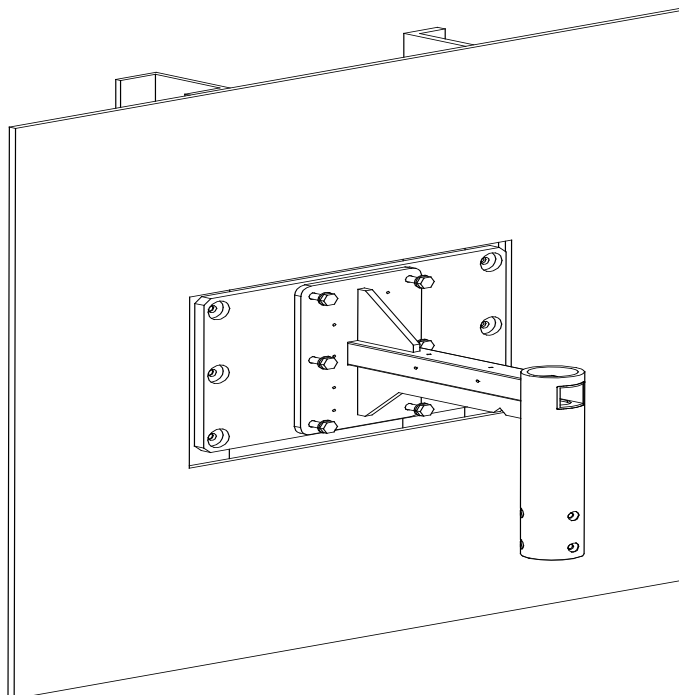


Fig. 27

The fourth step .Refer to the chapter 4 , complete the installation.

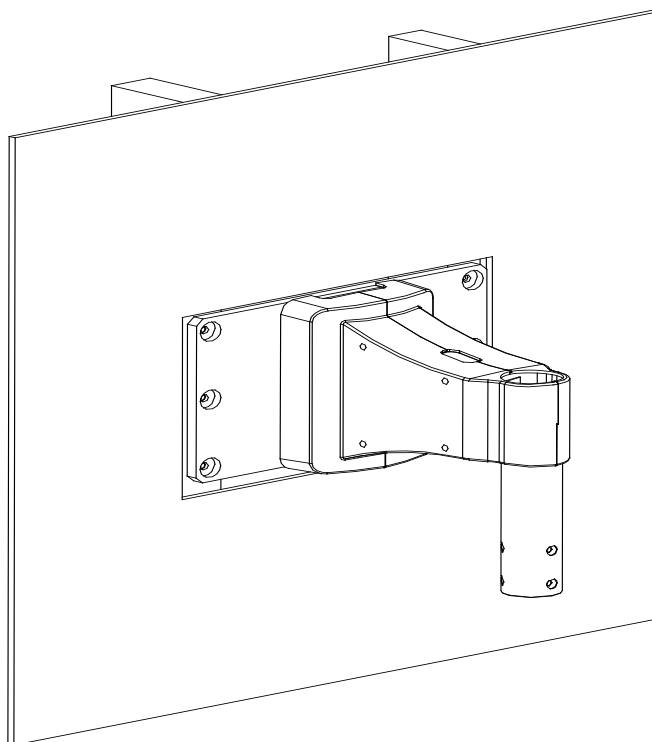


Fig. 28

4 OMS2380 Wall-mounted installation Instructions

4-1. The name and use of components

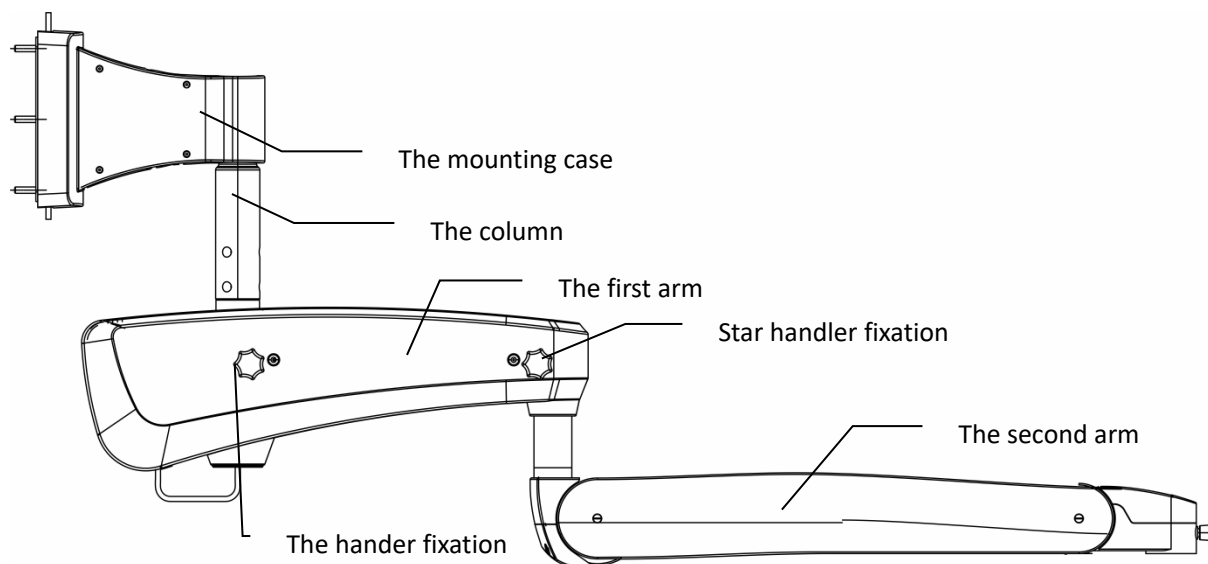


Fig.29 General assembly drawing of microscope

4-2. Assembly

This equipment is packed in one package. Please open the package and take out all parts and assemble them according to the following procedures.

4-2.1 Assembly of wall bracket

- (1) Wall should be concrete block (more than 15cm on center).
- (2) Selecting mounting height (Referred to Fig.29). If the typical position is not available, please locating the microscope by your suitable height. The preferred mounting zone should ensure that there is maximum maneuverability of microscope in all direction.

(3) Drill 6 holes in the wall surface, the hole diameter is 14mm, The hole-depth is 80mm

And Hammer at the anchoring 6 screws into the drilling holes of the wall,

Fasten the mounting plate on the wall making sure tightening all screws with 10mm hexagonal wrench. Fig 30

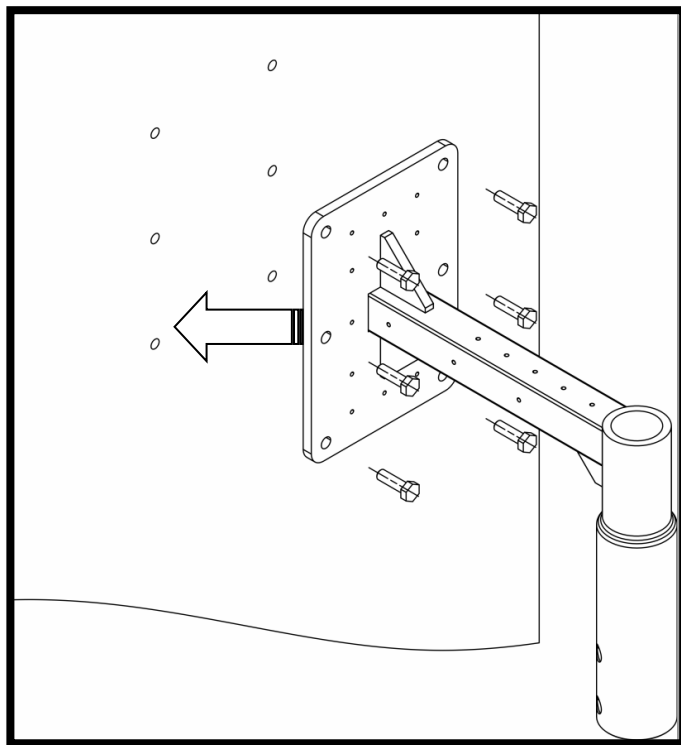


Fig.30 Fasten the mounting plate on the wall

(4) The power cable and HDMI cable are inserted from above or below the base, and are fixed from the column. Assembly the mounting case.

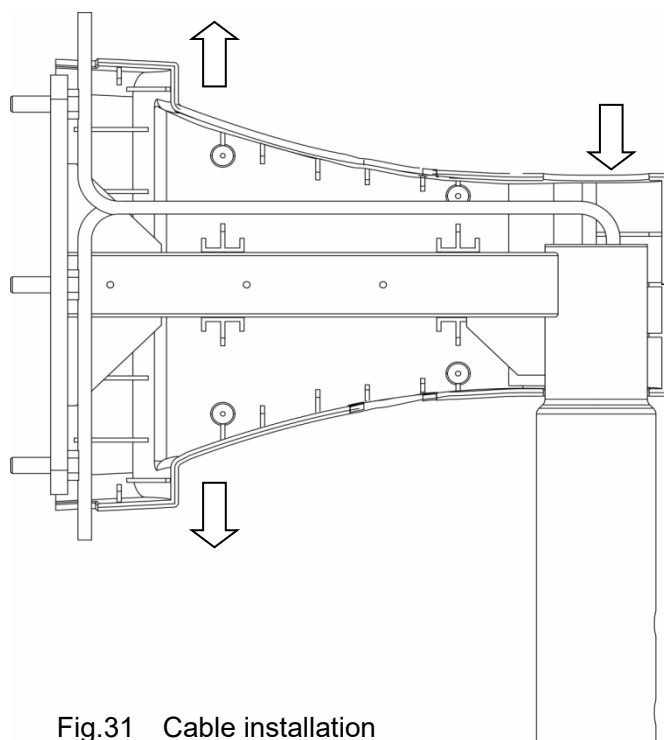


Fig.31 Cable installation

4-2.2 Assembly of arm

Take out the arm, please pay more attention, the Star handler fixation screw must be tightened, insert the hole to the Axis, then use the special tool to fix the two axis with spring screw in the circle groove, put on the cover.



Caution: The Second Arm use the spring to keep the balance. The Star handler fixation screw only to tighten the arm, the arm can not be locked by this screw. The Second Arm must be held before loosen the Star handler fixation screw.

(1) After loosening the 4 screws, remove the first arm cover. (Remove the case to mount first arm to the wall bracket)

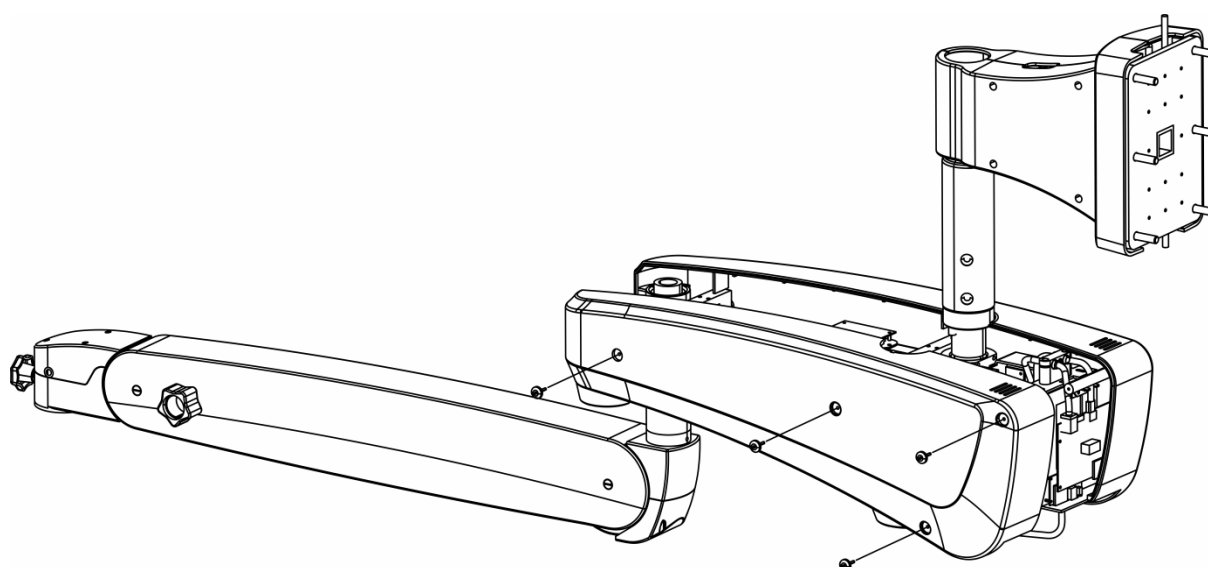


Fig.32

- (2) Install the arm on the ceiling part. Screw the safe ring Use hook spanner to screw tightly the safe ring.
Screw on circular column. (Fig 33)

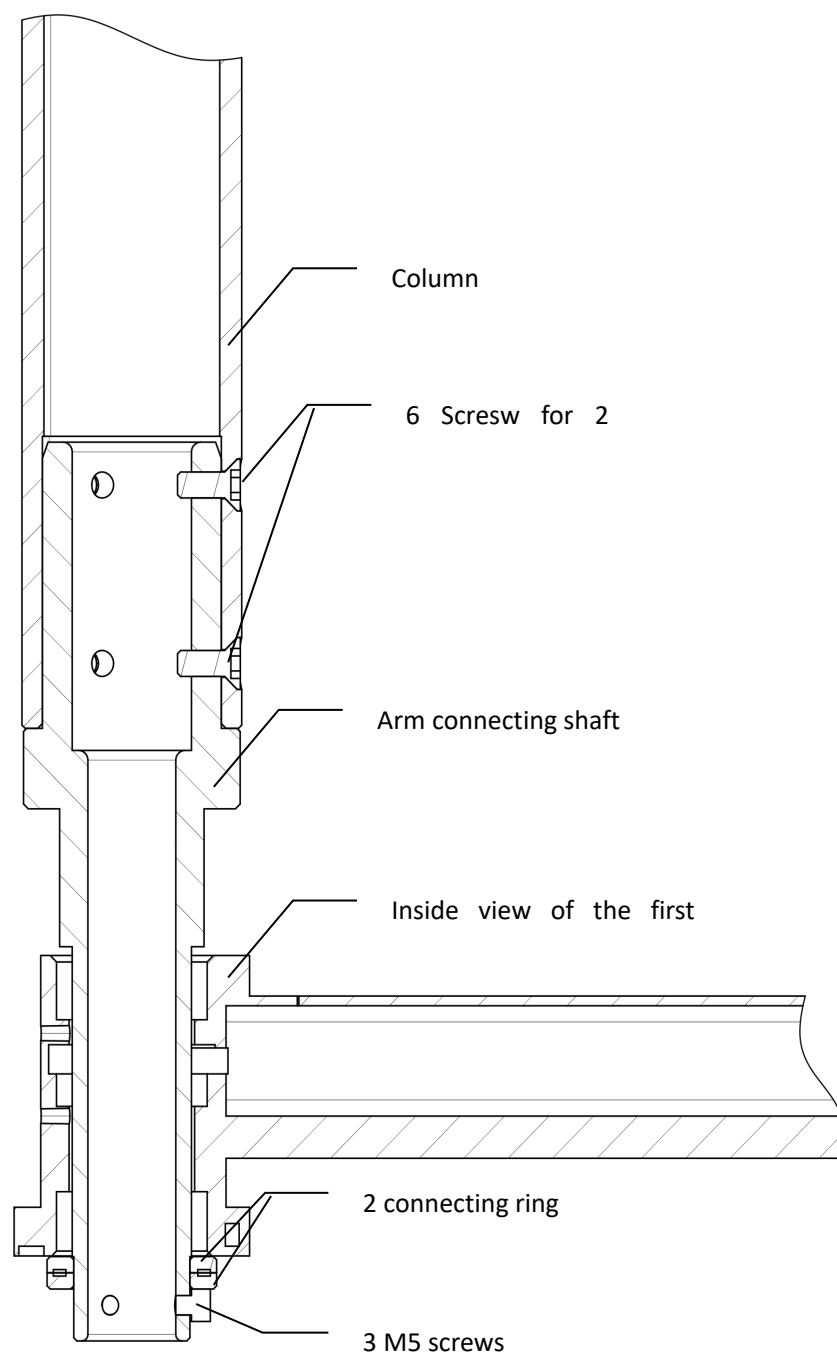


Fig.33

4-2.3 Assembly of cable

- (1) After connecting the HDMI cable to the HDMI socket, fix the HDMI cable
- (2) After connecting the Internet cable to the socket, fix the internet cable
- (3) After the power cord is plugged into the power outlet, attach the first arm case housing. (Finally lock 4 screws to secure the first arm case)

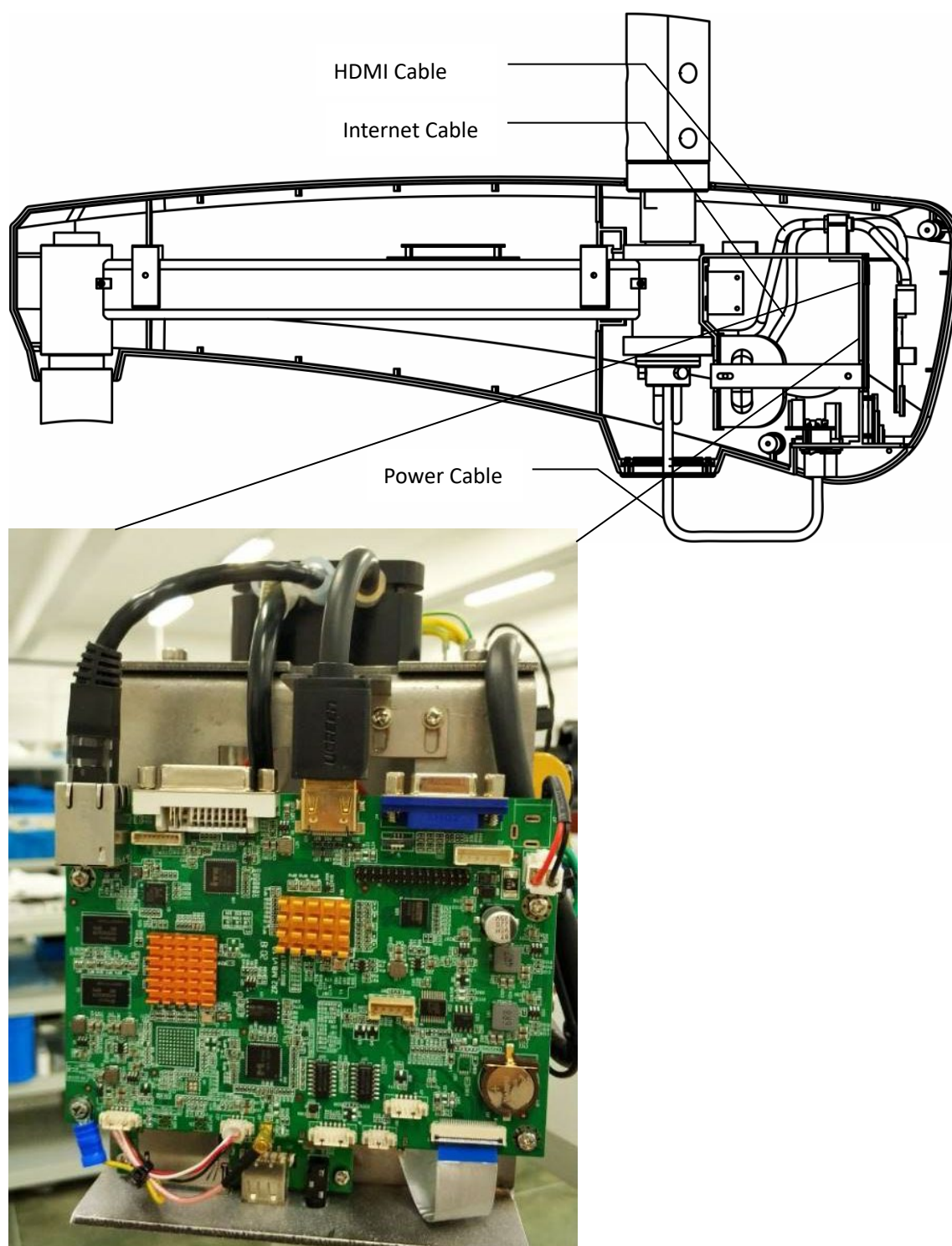
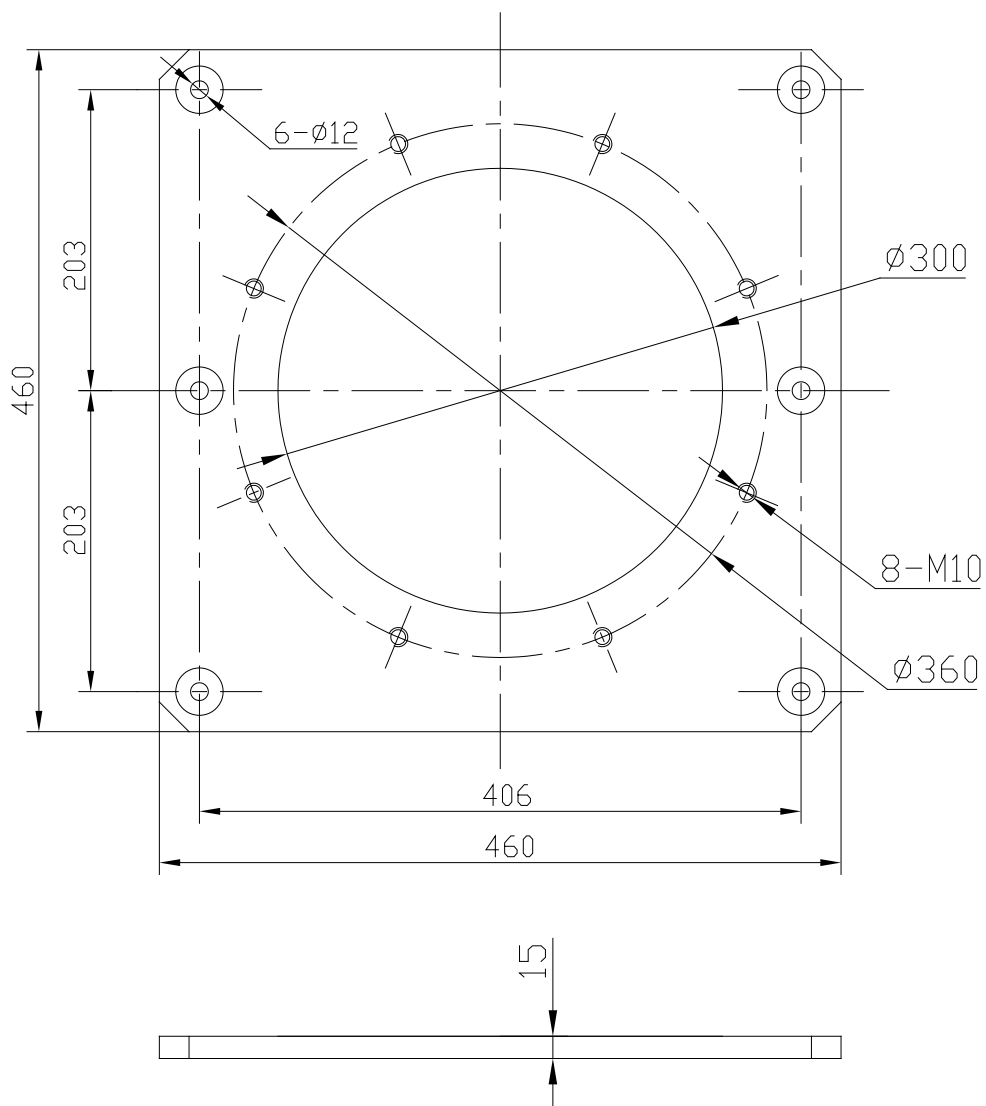


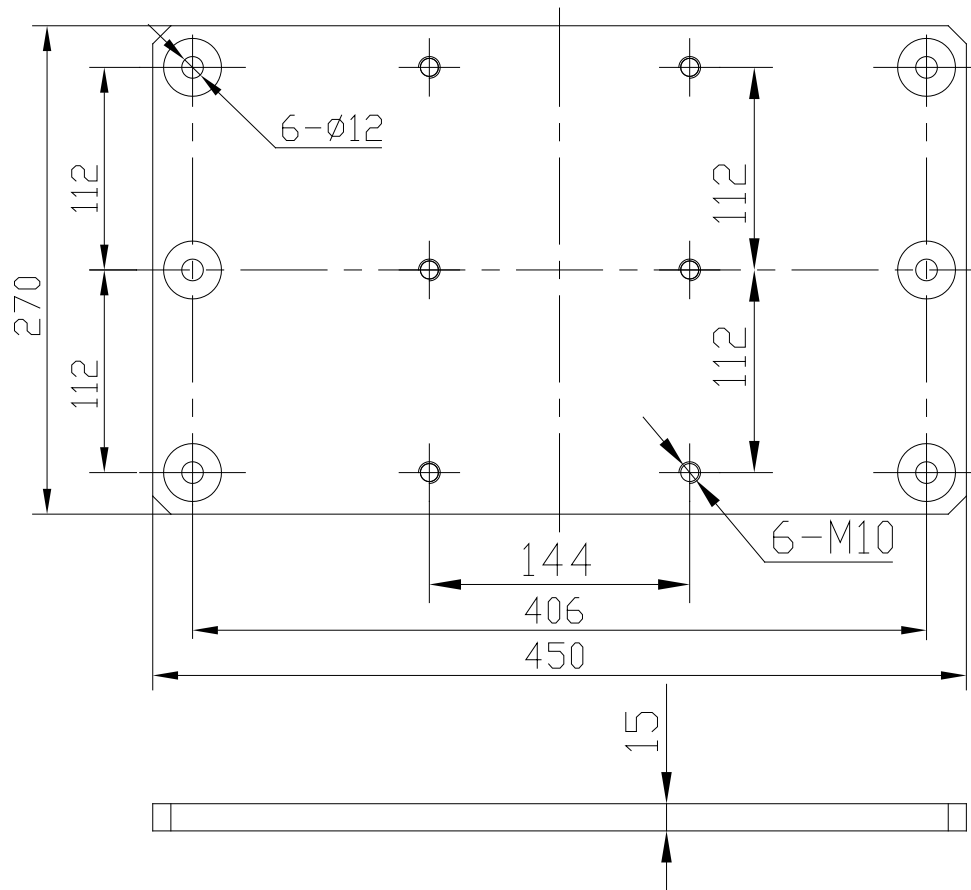
Fig.34

Annex I Mounting base plate of Ceiling installation



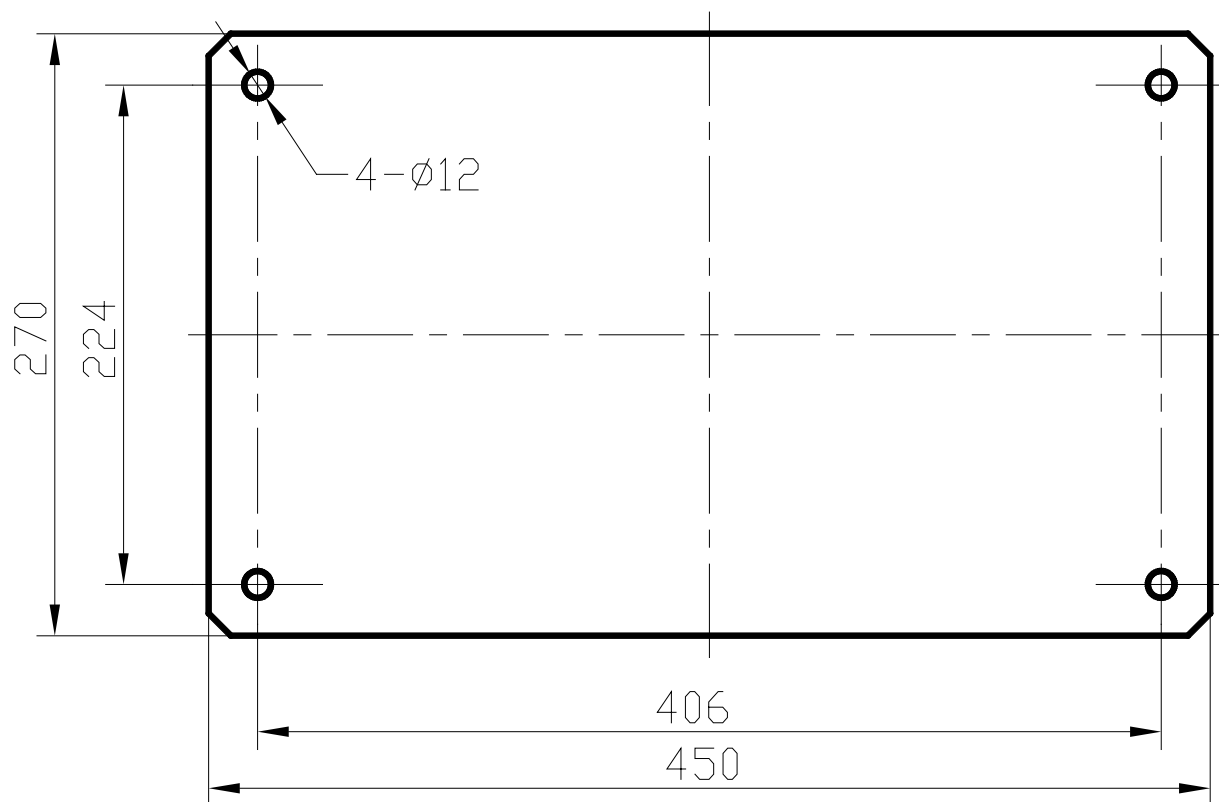
Annex II Mounting base plate of wall-mounted components (1)

(Applicable to wall column center spacing 406mm and hollow brick wall)



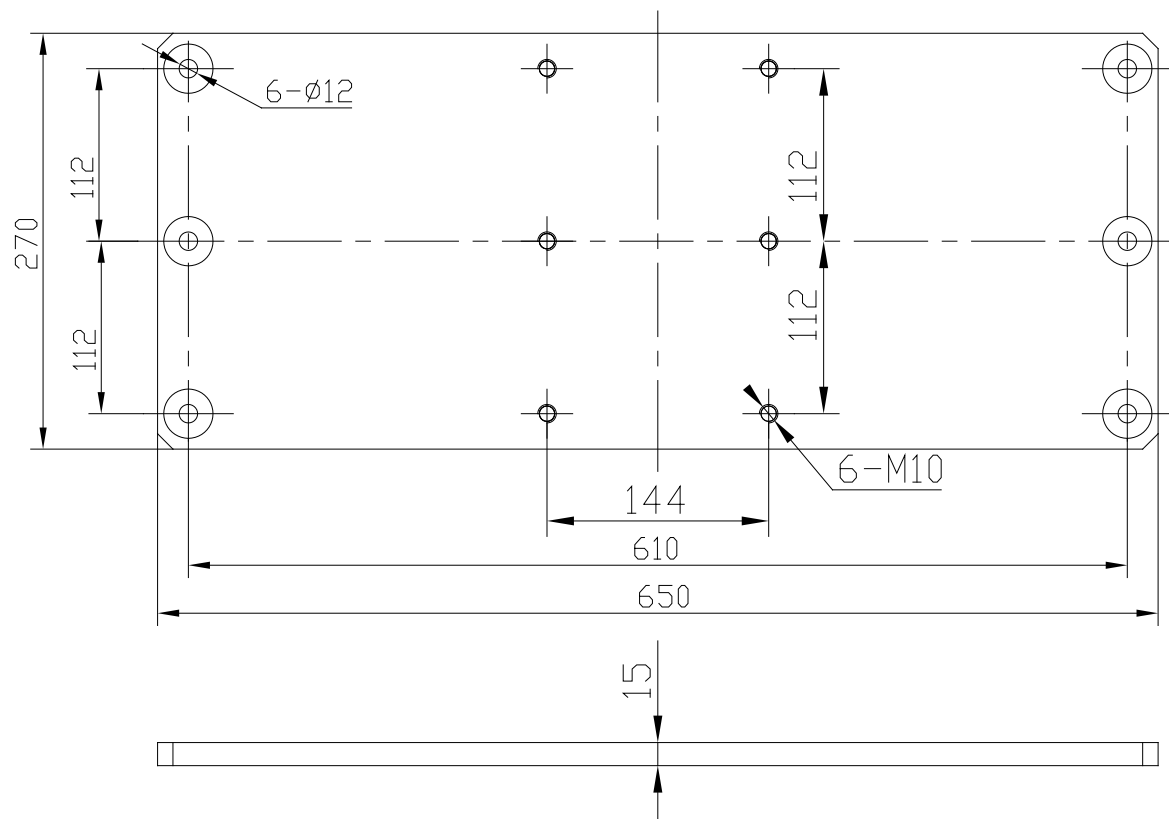
Annex III Wall-mounted component installation perforated base plate

(Applicable to hollow brick wall)



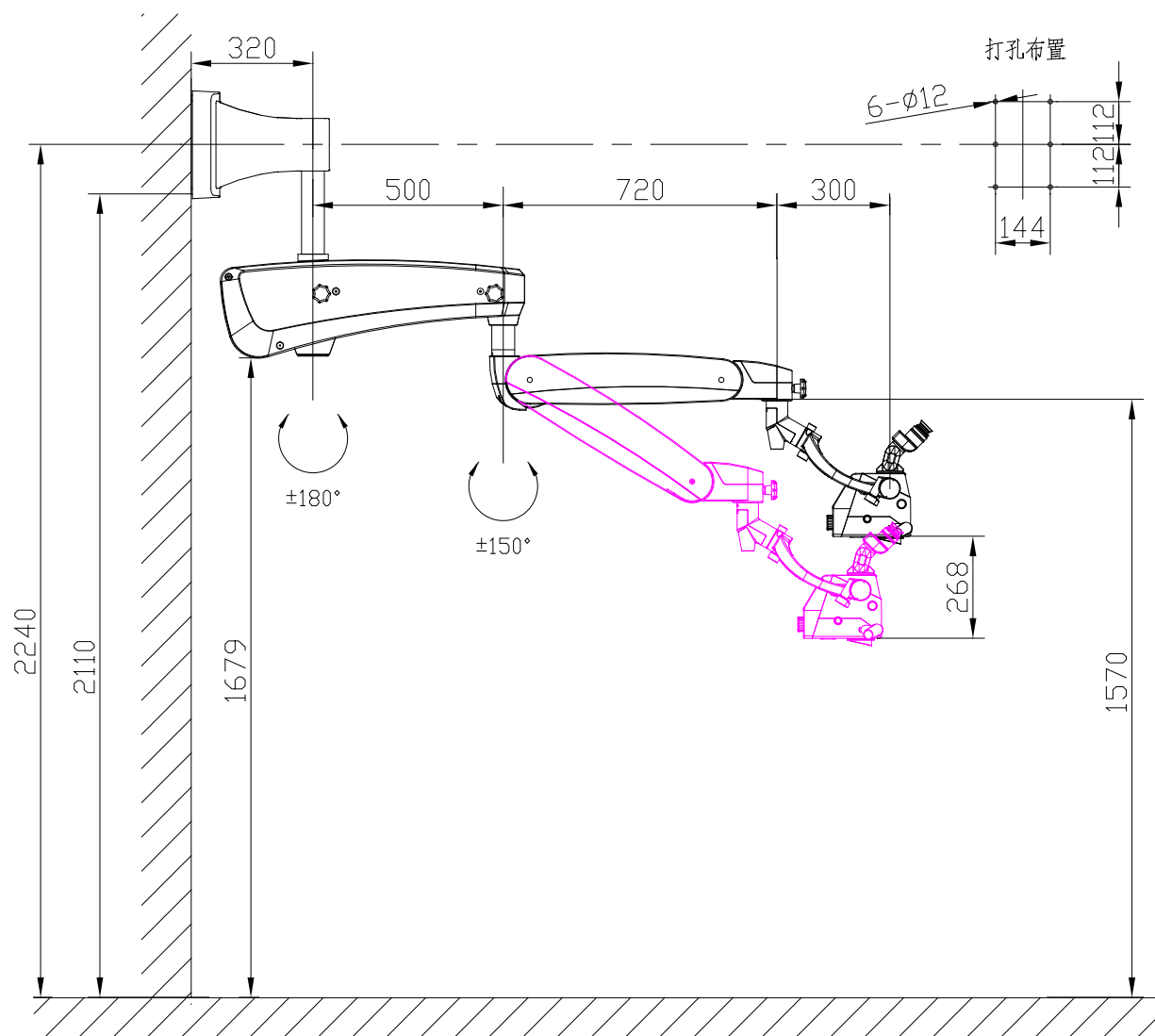
Annex IV Mounting base plate of wall-mounted components (2)

(Applicable to wall with 610mm center spacing between wall columns)



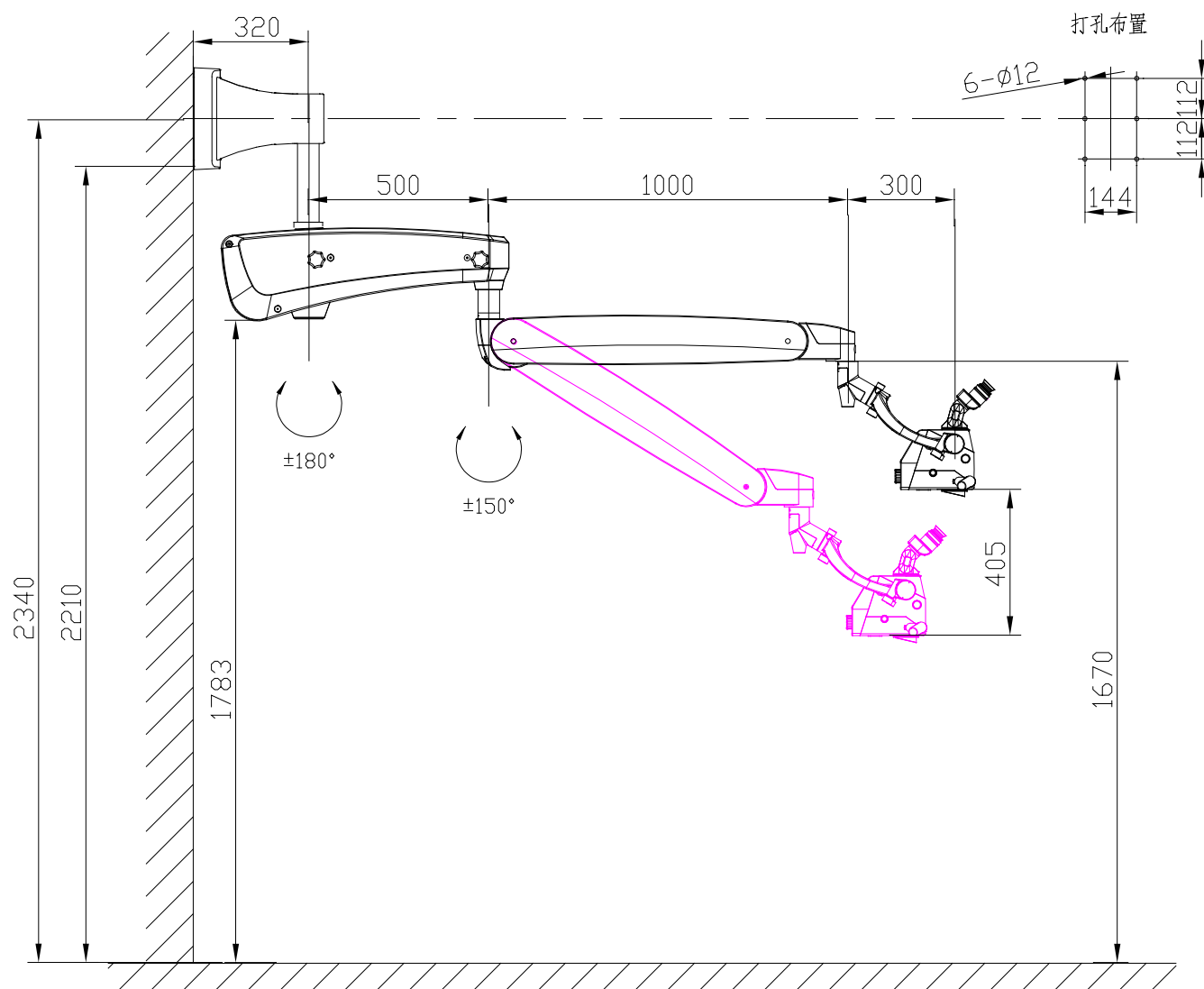
Annex V OMS2380 wall-mounted component installation diagram I

Second cross arm 720mm



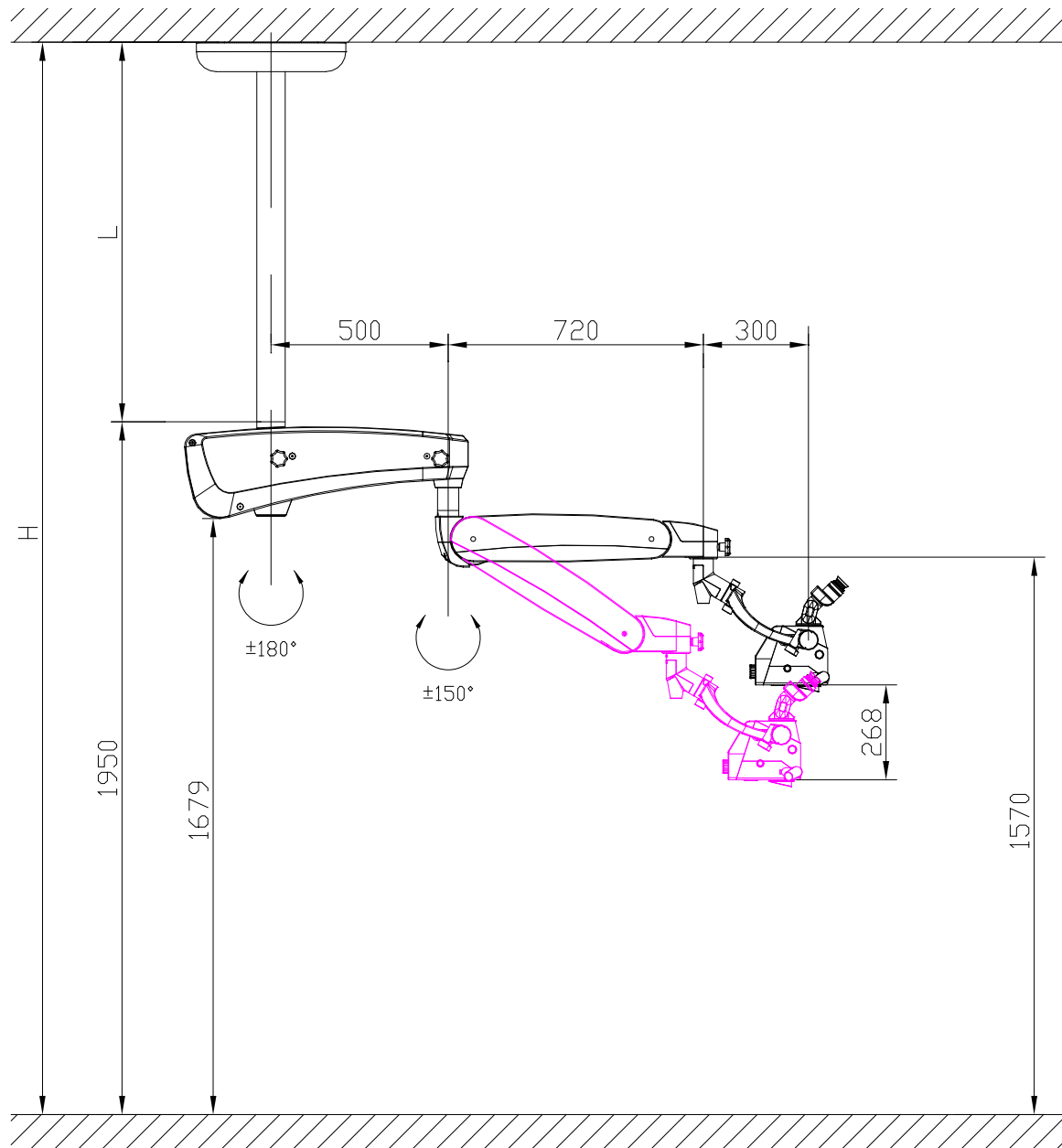
Annex VI OMS2380 wall-mounted component installation diagram II

Second cross arm 1000mm



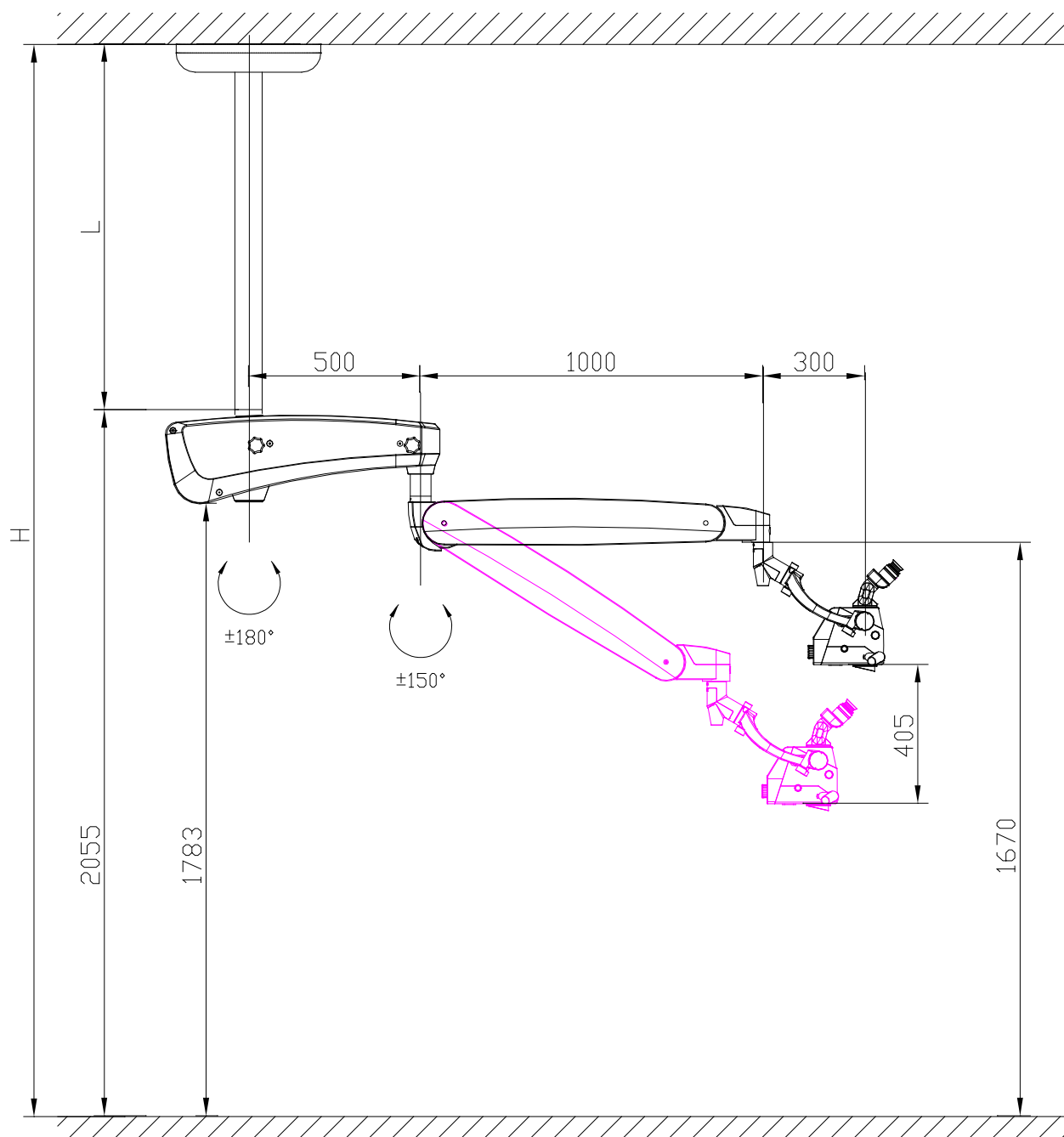
Annex VII OMS2380Ceiling installation diagram I

Second cross arm 720mm



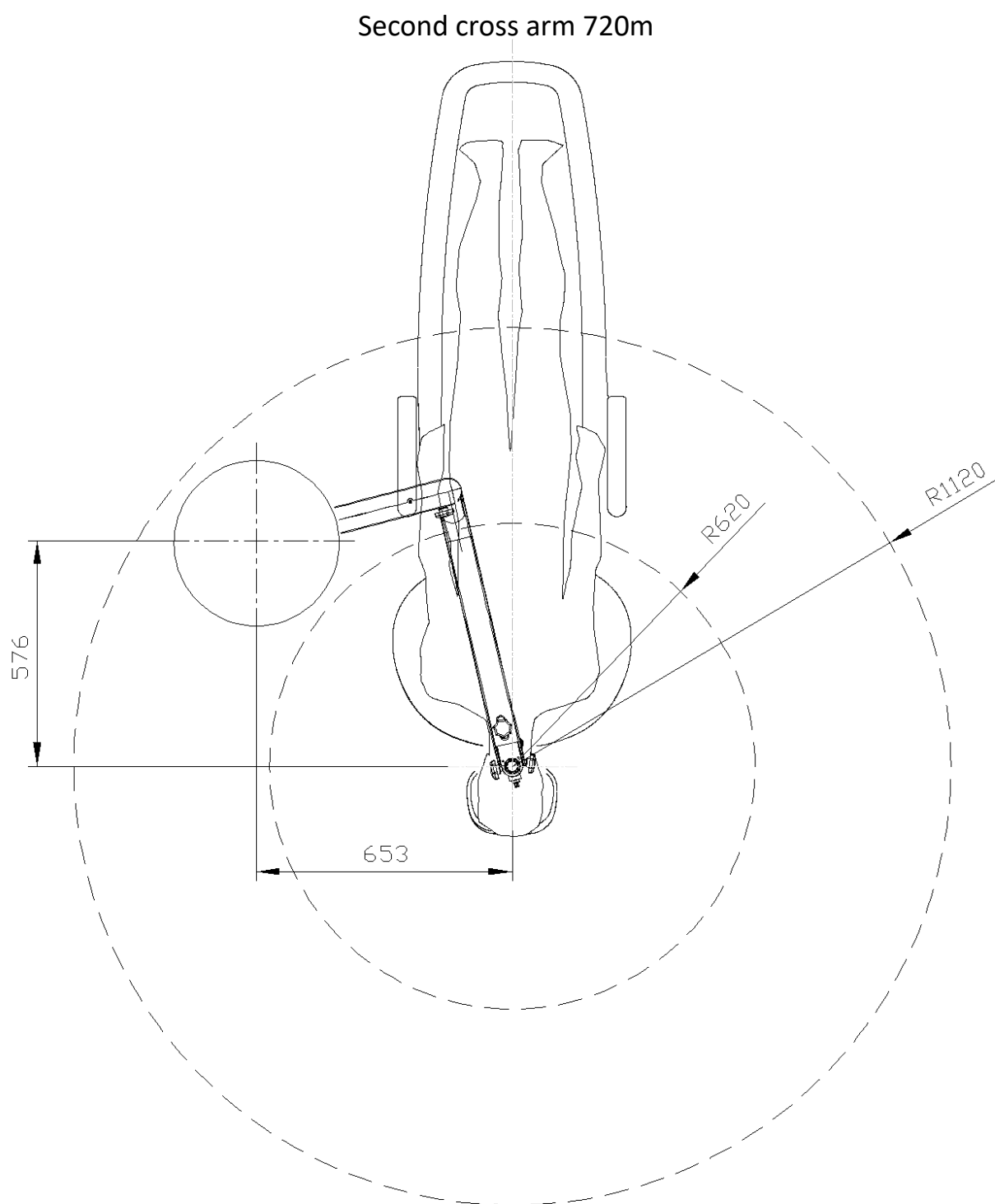
$$L = H - 1950$$

Second cross arm 1000m



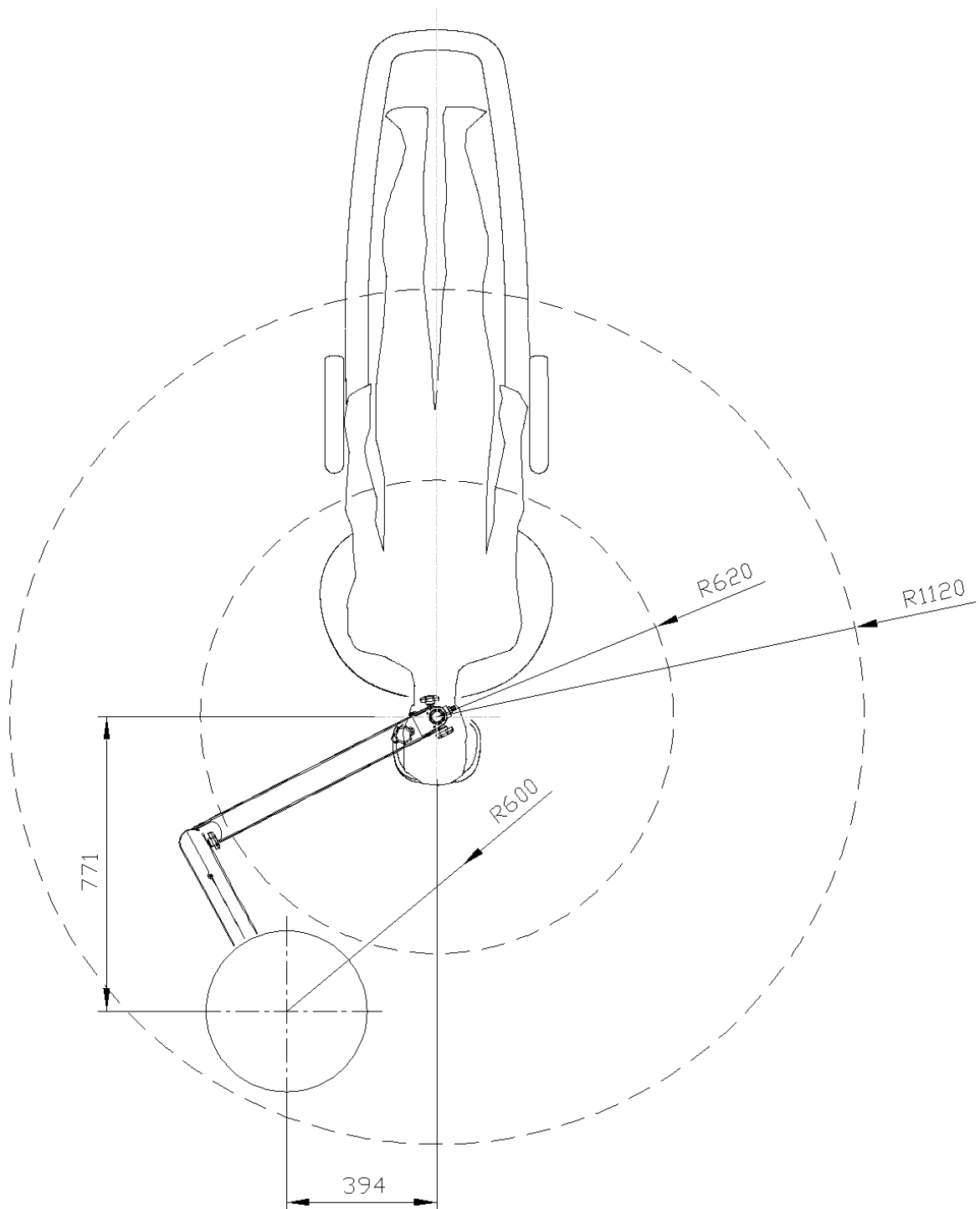
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Annex IX OMS2380 recommended ceiling installation position I



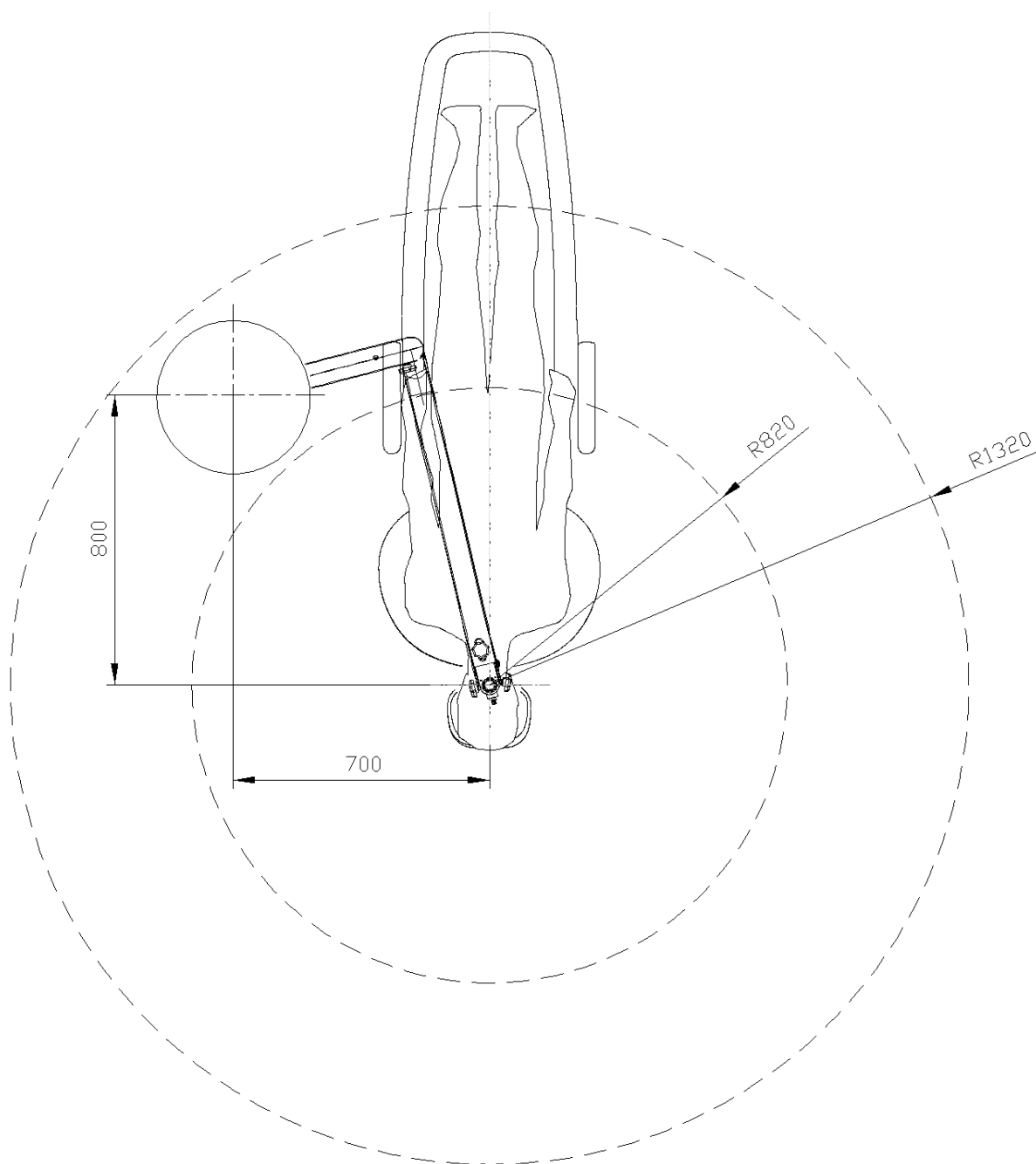
Annex X OMS2380 recommended ceiling installation position II

Second cross arm 720mm



Annex XI OMS2380 recommended ceiling installation position I

Second cross arm 1000mm



Annex XII OMS2380 recommended ceiling installation position II

Second cross arm 1000mm

