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SECTION 1: SAFETY

Before unpacking and installing the equipment, please carefully read these instructions.

The installation crew should comply with the safety, health and environmental regulations of the site in question.

Installation, commissioning, operation and servicing and maintenance of this equipment are to be carried out by suitably competent personnel only.

Before installing the swing arm(s), ensure that the installation of the Slab to Ceiling Carrier has been signed off by the responsible Installation Team Leader - refer specimen form ASF-26, obtainable from Hutz Medical Service Department. Refer any queries in this regard to the Hutz Medical Service Department (Refer to Cover Page for contact details).

A separate Service / Maintenance Manual will be issued on hand-over of the project.

Contact HUTZ Medical Service Department if there are any queries relating to maintenance of the equipment (Refer to cover page for contact details).

The following symbols are used in these instructions and on the product in question. The meaning of these symbols is defined below:

CAUTION!
Failure to comply with this warning could result in serious or fatal injury

CONSULT INSTRUCTIONS FOR USE!
Failure to comply with this notification could result in injury or damage to product
SECTION 2: DESCRIPTION

The swing arm is an extruded aluminium profile which provides support and mobility for the pendant service pillar, as well as a conduit for the specified electrical, medical gas, scavenging and vacuum services. The swing arm is a single or double articulated.

One steel drop tube for the ‘S’ single arm variants or two steel drop tubes for the ‘T’ tandem arm variants are provided, respectively. The drop tube connects the swing arm to the slab to ceiling carrier (the slab to ceiling carrier would have already been installed according to the slab to Ceiling Carrier Installation Manual).

SECTION 3: TOOLS / EQUIPMENT

The following tools are required for the swing arm installation:

- 6mm hexagonal Allen key;
- Torque wrench, capacity 40Nm, with 6mm hexagonal Allen key socket, and extension to accommodate the drop tube length, viz. approx. 250mm (short drop tube) or approx. 380mm (long drop tube);
- 24mm wrench (Open end);
- 24mm tube socket;
- Torque wrench, capacity at least 120Nm. Impact wrench recommended;
- Spirit level;
- One ton capacity trolley jack and spacers for lifting the drop tube and swing arm assembly to the slab to ceiling carrier plate.
SECTION 4: UNPACKING

4.1 Remove the swing arm(s) and drop tube(s) from the packaging and place on a flat surface or table. The packaging is to be discarded for recycling purposes according to respective National Environmental Regulations.

4.2 The following are supplied already routed through the swing arm(s), according to client specifications:

- Electrical cables;
- PVC pneumatic air pipes;
- Plastic convoluted pipes for data cables.

4.3 The following hardware is included (quantities shown below are for a one piece arm. Bracket quantities are for double swing arms):

4.3.1 Insulation Bush Kit

- M16 x 250mm threaded rod: 6x of (12x)
- Insulation bush: 12x of (24x)
- Fender washer: Ø37mm x IØ17mm: 24x of (48x)
- M16 hexagon nut: 24x of (48x)

4.3.2 Swing Arm Kit (these items are packed in a bag between the Drop Tube Flange and the Cowling – DO NOT LOSE):

- M8 x 30 HTS Socket Head Screws: 12x of (24x)
- M8 Spring Washers: 12x of (24x)
SECTION 5: INSTALLATION INSTRUCTIONS

Note: The images below are for illustration purposes only, however the installation method is common to all variants.

5.1 **Fitment of the swing arm assembly onto the mounting drop tube (use the swing arm kit):**

5.1.1 For the single arm ensure that the Clamp Plate is facing upward

5.1.2 For the double arm place the short arm at the bottom and the long arm at the top as shown below.
5.1.2 Place the drop tube on the bearing and align the holes. Ensure that the ceiling cowling ring is on the ceiling drop tube and that all holes are aligned (hole spacing may not be symmetrical).

Be careful not to damage the cable, pipes etc. protruding from the swing arm.

Section of swing arm shown for illustration purposes

5.1.3 Secure the ceiling drop tube to the swing arm assembly by using the (12x) M8 x 30 socket head screws (4.3.2.1) and (12x) M8 spring washers (4.3.2.2).

5.1.4 Tighten the M8 x 30 HTS socket head screws to a torque of 38Nm.
5.2  **Fitment of the insulation bush kits to the mounting drop tube**: (use installation bush kit)

5.2.1  Fit insulation bushes (6x) (4.3.1.2) into the holes on the top of the drop tube flange plate accompanied by fender washers (6x) (4.3.1.3), as shown below.

5.2.2  Turn M16 nuts (4.3.1.4) onto the threaded rods (4.3.1.1) to a distance of 55mm from the end.
5.2.3 Insert the threaded rods through the fender washer / insulation bushes on the drop tube flange plate from the top. Fit insulation bushes, fender washers and M16 nuts from the bottom as shown below.

5.2.4 Tighten the nuts to a torque of 120 Nm.

5.2.5 Fit a M16 nut and fender washer on each threaded rod to a distance of 80mm from the top.
5.3 **Fitment of the swing arm / mounting drop tube assembly to the carrier ceiling plate:**
(The Slab to Ceiling Carrier would have already been installed according to the Slab to Ceiling Carrier Installation Manual).

In the case of a tandem unit, refer to the Hutz Medical drawing supplied with the unit in order to ensure that the short and long drop tubes are fitted to the correct side of the carrier ceiling plate.
Note: ensure that the correct lifting equipment is available – refer Section 3: (‘Tools / Equipment’)

5.3.1 Lift the swing arm / drop tube assembly so that the threaded rods pass through the pre-drilled holes in the carrier ceiling plate – see diagrams below.

*Carrier Ceiling Plate for tandem variants shown for illustration purposes*

*Carrier ceiling plate for single variant has one set of holes*
5.3.2 Secure the drop tube to the carrier ceiling plate with fender washers (6x) and M16 Nuts (6x) on each Threaded Rod. Lightly “nip” the nuts.

5.3.3 Use a spirit level in 2x positions, 90° to each other, to check that the drop tube is vertical.

5.3.4 To level the drop tube, adjust the M16 nuts that are fastening the drop tube to the carrier ceiling plate.

5.3.5 When the drop tube is perpendicular, torque the top nuts – refer 5.3.4, to 120 Nm.

REFER TO THE PENDANT SERVICE PILLAR INSTALLATION MANUAL FOR THE FINAL STAGE OF THE PENDANT SERVICE SYSTEM INSTALLATION