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1. Instructions for Use

1.1. Introduction

The Hutz Medical range of Pendant Service Systems includes a number of variants for different applications. Products with swing arms comprise of an extruded aluminium section for single or double arms with a pillar section fabricated from aluminium frame with aluminium fascia panels which provides medical gas, vacuum and scavenging services as well as electrical services, depending on client specifications. Products without swing arms comprise only of the aluminium frame with aluminium fascia panels. This provides medical gas, vacuum and scavenging services as well as electrical services, depending on client specifications.

The product may be fitted with a medical equipment rail and/or equipment pole to accommodate the carrying of medical attachments such as flow meters, vacuum regulators and the like. As indicated on the medical rail and/or equipment pole, the maximum payload shall not be exceeded.

The Pendant Service Systems are designed to operate continuously.

Carefully read these Instructions for Use to ensure that the product is used in accordance with the intended use and to ensure the user’s safety. Keep these Instructions for Use for future reference pertaining to safety instructions and important information.

Pendant Service Systems may be equipped with other manufacturer’s equipment, therefore it is advised to refer to their operating instructions for that equipment.

1.2. Explanation of Symbols

![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

![Type B Applied Part]

LOT Number

![Manufacturer]

Authorised Representative in the European Community

![European Conformity]

Maximum Payload
1.3. General Safety Instructions

❖ Intended Use

The Pendant Service System is ceiling mounted and is intended to supply one or more of the following medical services via a fixed, or movable service pillar which is attached to a single or double articulated arm:

- Electrical power up to 240 volts;
- Medical gases such as oxygen, nitrous oxide, carbon dioxide;
- Low pressure medical air for patient ventilation;
- High pressure medical air for driving other medical devices;
- Vacuum and/or anaesthetic gas scavenging services.

The unit can be fitted with medical equipment rails and equipment poles for medical equipment, monitors, life support systems, medical accessories etc.

The movable unit is designed to enable the user to move the services to the optimum position for the procedure or treatment to be performed on the patient.

❖ Operating Conditions

Ambient Temperature: 0° C to 40° C
Relative Humidity: 10 to 95%
Atmospheric Pressure: 70 to 110 kPa

❖ Transport and Storage

Operating conditions only apply once transportation and storage is complete. Do not subject the product to severe vibration. Store only in a closed room or undercover.

❖ Connection of Services

Connection of medical gas, vacuum and scavenging services shall be installed and tested in accordance with BS EN ISO 7396-1 and BS EN ISO 7396-2 for fixed models and BS EN ISO 5359 for movable models.

Connections of electrical services shall be carried out by suitably qualified personnel.

❖ Operating

The maximum loading capacity of the medical rail and/or equipment pole shall not be exceeded. Maximum loading capacity is indicated on each individual medical rail and/or equipment pole. Exceeding the maximum loading capacity could lead to serious injury and damage to the product.

Each Pendant Service System has a maximum loading capacity. Maximum loading capacity is indicated on each pillar.

❖ Disposal

Disposal of redundant products and materials is to be done in accordance with the relevant local, regional and/or national environmental regulations. Wherever possible, the materials should be recycled. As used vacuum hoses and terminals may contain body fluids, they should be treated as hazardous medical waste and disposed of accordingly.
2. Types

Pendant Service Systems are manufactured in single and/or double arm configurations with single and/or tandem combinations. Other options include a rotating or fixed service pillar, which may also be combined with a single or double arm configuration.

2.1. Single Arm Mounting Type

Example of an HU6-S1

2.2. Double Arm Mounting Type

Example of an HU6-S2
2.3. Rotating or Fixed Type

Example of an HU8-FFR
3. **Operating the Pendant Service System**

3.1. **Power Supply**

For units installed with socket switches, ensure electrical power is turned off before inserting and removing mains plug to avoid arcing. Do not pull the mains plug out by pulling on the lead but pull only on the mains plug.

Do not insert foreign objects into the socket outlet.

3.2. **Gas Supply**

Gas terminal units and connectors are manufactured with dimensional characteristics which prevent connection with incorrect services.

Do not force the connector into the incorrect gas terminal unit. If the specific connector cannot be inserted into the required terminal unit, report it immediately to the medical facility’s Maintenance Department. Never use oil or grease on or near the connector and/or terminal unit to avoid explosion. Report any gas leaks or damage to connectors or terminal units to the medical facility’s Maintenance Department.

Provision of the incorrect gas to the patient could prove fatal.

3.3. **Movement**

3.3.1. The HUS series of Pendant Service Systems are manufactured with a friction brake system.

To move the arms and/or pillar into desired position, only moderate force is required. Grasp the equipment poles, or the table handle where fitted, and push or pull the unit into position.
3.3.2. The HU6 series of Pendant Service Systems is manufactured with a pneumatic brake system that allows the arm and pillar to be locked into position. Buttons to activate the braking system are found on the fascia, for units not fitted with a table, and on the table handle where tables are fitted. Should the pneumatic system be inoperable, grasp the equipment poles, or the table handle where fitted, and push or pull the unit into position.

![Fascia Buttons](image1)

![Table Buttons](image2)

3.3.3. All rotating variants have rotational stops fitted during the installation process. These stops prevent the medical flexible hoses and electrical cables from being damaged.

3.3.4. Should excessive force be required to move or rotate the pendant arms and/or pillars, report to the facility’s Maintenance Department.

4. Loading

The Pendant Service System may be fitted with medical rails and/or equipment poles to enable mounting of additional medical devices and/or accessories.

![Warning](image3)

Do not exceed the maximum payload as indicated by the labels on the medical rails and/or equipment poles. Failure to adhere to these requirements may result in injury to patients, user or damage to the unit.

![Warning](image4)

Do not exceed the maximum payload as indicated by the labels on the pillar. Failure to adhere to these requirements may result in injury to patient, user or damage to unit.

5. Cleaning

The unit should always be kept clean. An alkaline based cleaning agent with a pH range of 12 to 13 is recommended.

![Warning](image5)

As the unit is not fully protected against ingress of liquids, use only a slightly damp cloth to avoid electrical shock.
6. Servicing

Only parts approved by HUTZ Medical for servicing, repairs and alterations can ensure the safety, reliability and performance of the units.

Servicing of units should only be carried out by HUTZ Medical or an authorized service agent.

All repairs conducted on the gas system must be re-tested in accordance with BS EN ISO 7396-1 and BS EN 7396-2 for fixed models and BS EN ISO 5359 for movable models. Failure to comply with this requirement may prove fatal.

HUTZ Medical shall not be held liable for any damages or injuries caused as a result of inspection, repairs and/or alterations carried out by unauthorised service personnel or service agents.

7. Technical Data

<table>
<thead>
<tr>
<th>Electrical Data</th>
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<tbody>
<tr>
<td>Mains Voltage</td>
<td>110/240V</td>
</tr>
<tr>
<td>Mains Frequency</td>
<td>50 / 60 Hz</td>
</tr>
<tr>
<td>Nominal Current</td>
<td>Max 16A per circuit</td>
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<table>
<thead>
<tr>
<th>Mechanical Data (Maximum Payload)</th>
<th></th>
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<tbody>
<tr>
<td>Medical Rails ≤ 1000mm</td>
<td>8kg/m</td>
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<tr>
<td>Equipment Poles</td>
<td>20kg</td>
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<table>
<thead>
<tr>
<th>Technical Data For Gases</th>
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</thead>
<tbody>
<tr>
<td>Compressed Gases</td>
<td>4 bar</td>
</tr>
<tr>
<td>Vacuum</td>
<td>-1 bar</td>
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</table>

Gas Types: oxygen, nitrous oxide, entonox, medical air, vacuum

<table>
<thead>
<tr>
<th>Electrical Protection Class</th>
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<tbody>
<tr>
<td>Class I</td>
<td></td>
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<tr>
<td>Applied part type - B</td>
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<table>
<thead>
<tr>
<th>Basic Regulation</th>
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<tbody>
<tr>
<td>BS EN ISO 11197</td>
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<tr>
<td>EN 60601-1</td>
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</tr>
<tr>
<td>EN 60601-1-2</td>
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<td>BS EN ISO 7396-1, BS EN ISO 7396-2, BS EN ISO 5359</td>
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