

ENGLISH

## Multigrip Clamp

V1

Product code: 75132

### Preface

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Thank you for purchasing this Showgear product.

The purpose of this user manual is to provide instructions for the correct and safe use of this product.

Keep the user manual for future reference as it is an integral part of the product. The user manual shall be stored at an easily accessible location.

This user manual contains information concerning:

- Safety instructions
- Installation and operation of the device
- Intended and non-intended use of the device
- Maintenance procedures
- Troubleshooting
- Transport, storage and disposal of the device

Non-observance of the instructions in this user manual may result in serious injuries and damage of property.

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## Table of contents

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<b>1. Introduction.....</b>	<b>3</b>
1.1. Before Using the Product .....	3
1.2. Intended Use .....	3
1.3. Text Conventions .....	3
1.4. Symbols and Signal Words.....	3
<b>2. Safety .....</b>	<b>4</b>
2.1. Warnings and Safety Instructions .....	4
2.2. Requirements for the User.....	4
<b>3. Description of the Device .....</b>	<b>5</b>
3.1. Overview.....	5
3.2. Bottom .....	5
3.3. Product Specifications .....	6
3.4. Optional Accessories .....	6
3.5. Dimensions .....	6
<b>4. Installation .....</b>	<b>7</b>
4.1. Safety Instructions for Installation .....	7
4.2. Personal Protective Equipment .....	7
4.3. Mounting.....	7
4.3.1. Mounting on Round Tubes.....	8
4.3.2. Mounting on Flat Surfaces .....	9
4.3.3. Mounting with the Dedicated Spigots .....	10
4.3.4. Mounting Two Devices with the Spigot .....	11
4.3.5. Working Load Limit .....	12
<b>5. Inspection and Maintenance .....</b>	<b>13</b>
5.1. Inspection .....	13
5.2. Corrective Maintenance .....	13
5.3. Basic Cleaning Instructions.....	13
<b>6. Deinstallation, Transportation and Storage .....</b>	<b>14</b>
6.1. Instructions for Deinstallation.....	14
6.2. Instructions for Transportation .....	14
6.3. Storage .....	14
<b>7. Disposal .....</b>	<b>14</b>
<b>8. Compliance .....</b>	<b>14</b>

## 1. Introduction

### 1.1. Before Using the Product



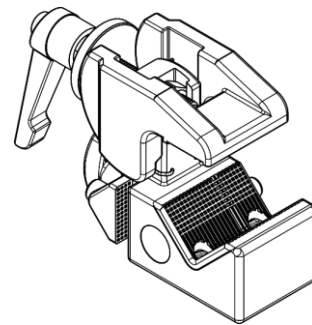
#### Important

**Read and follow the instructions in this user manual before installing, operating or servicing this product.**

The manufacturer will not accept liability for any resulting damages caused by the non-observance of this manual. After unpacking, check the contents of the box. If any parts are missing or damaged, contact your Highlite International dealer.

Your shipment includes:

- Showgear Multigrip Clamp
- User manual



**Fig. 01**

### 1.2. Intended Use

This device is intended for professional use as a connection element for trusses in the entertainment technology. It shall be used only on steel or aluminum round tubes. Any other use, not mentioned under intended use, is regarded as non-intended and incorrect use.

### 1.3. Text Conventions

Throughout the user manual the following text conventions are used:

- References: References to chapters and parts of the device are in bold lettering, for example: "Refer to **2. Safety**", "turn the **adjustment screw (02)**"
- 0–255: Defines a range of values
- Notes: **Note:** (in bold lettering) is followed by useful information or tips

### 1.4. Symbols and Signal Words

Safety notes and warnings are indicated throughout the user manual by safety signs. Always follow the instructions provided in this user manual.



#### DANGER

Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.



#### WARNING

Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.



#### CAUTION

Indicates a potentially hazardous situation, which, if not avoided, may result in minor or moderate injury.



#### Attention

Indicates important information for the correct operation and use of the product.



#### Important

Read and observe the instructions in this document.

## 2. Safety



### Important

**Read and follow the instructions in this user manual before installing, using or servicing this product.**

The manufacturer will not accept liability for any resulting damages caused by the non-observance of this manual.

### 2.1. Warnings and Safety Instructions



### WARNING

**Incorrect installation can cause serious injuries and damage of property.**

This product may be installed only by instructed or skilled persons.

- Do not exceed the working load limit (WLL) as indicated on the device and in this user manual.
- When the device is used together with other accessories, make sure that the working load limit (WLL) of each component is not exceeded.



### Attention

**For professional use only**

**This device shall be used only for the purposes it is designed for.**

This device is intended for professional use as a connection element for trusses in the entertainment technology. It shall be used only on steel or aluminum round tubes. Any incorrect use may lead to hazardous situations and result in injuries and material damage.

- Do not use the device on tubes with parameters different from those indicated in this user manual.
- Do not modify the device. Unauthorized modifications to the device will render the warranty void. Such modifications may result in injuries and material damage.
- Use the device only in environments with an ambient temperature between -20 °C and 60 °C.



### Attention

**Before every use, examine the device visually for any defects**

- Follow the inspection schedule established for the site.
- Check the device for damage, cracks and corrosion. If any fault is found, mark the device clearly and remove it from service.
- Do not use the device if it is damaged.

### 2.2. Requirements for the User



### DANGER

**This product may not be used by ordinary persons.**

This product may be used only by instructed or skilled persons. Installation and maintenance may be carried out by instructed or skilled persons. Service shall be carried out only by skilled persons. Contact your Highlite International dealer for more information.

Instructed persons have been instructed and trained by a skilled person, or are supervised by a skilled person, for specific tasks and work activities associated with the installation, service and maintenance of this product, so that they can identify risks and take precautions to avoid them.

Skilled persons have training or experience, which enables them to recognize risks and to avoid hazards associated with the installation, service and maintenance of this product.

Ordinary persons are all persons other than instructed persons and skilled persons. Ordinary persons include not only users of the product but also any other persons that may have access to the device or who may be in the vicinity of the device.

### 3. Description of the Device

The Multigrip Clamp is a connection element for trusses in the entertainment technology. It is suitable for use with steel or aluminum tubes and beams.

#### 3.1. Overview

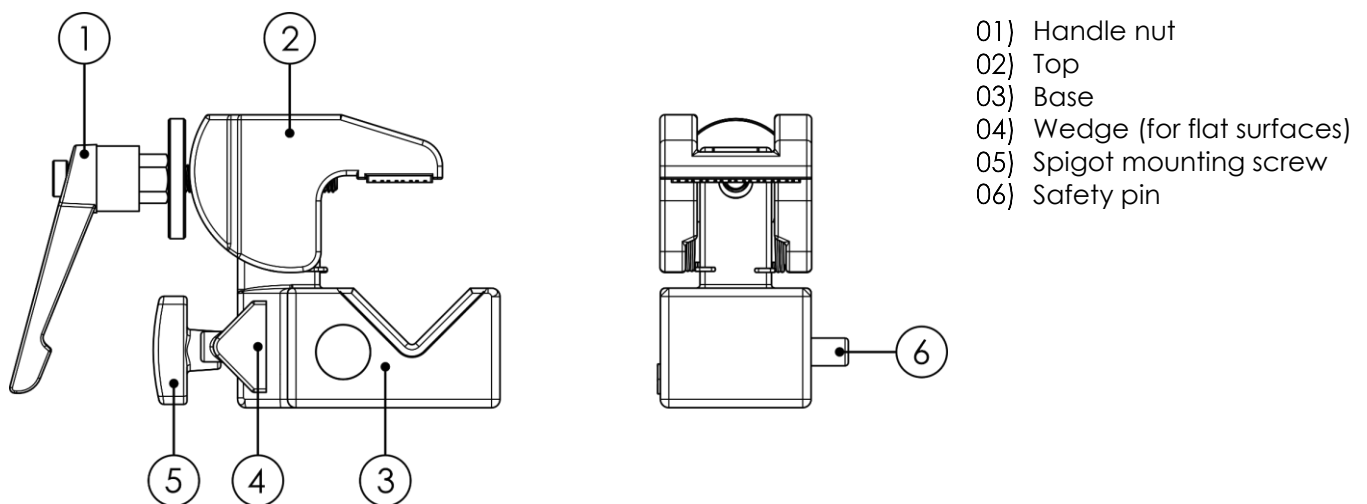


Fig. 02

#### 3.2. Bottom

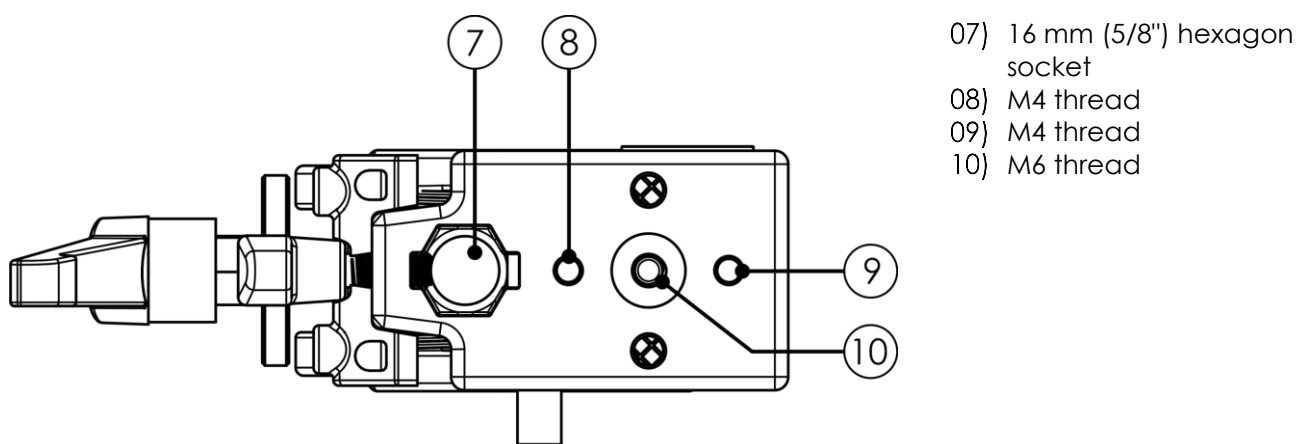


Fig. 03

## 3.3. Product Specifications

Model:	Multigrip Clamp
<b>Physical:</b>	
Dimensions:	135 x 57 x 95 mm (LxWxH)
Weight:	0,44 kg
<b>Mechanical:</b>	
Main tube diameter:	Ø 10–55 mm
Thread:	2 x M4, M6, 16 mm (5/8") hexagon
WLL:	25 kg
<b>Construction:</b>	
Material:	Aluminum
Color:	Black
<b>Thermal:</b>	
Ambient temperature t <sub>a</sub> :	From -20 °C to 60 °C

## 3.4. Optional Accessories

You can additionally purchase the following accessories:

- Product code: [75133](#) (Spigot for Multigrip M10 x 25)
- Product code: [75134](#) (Spigot for Multigrip 3/8" - 16)

## 3.5. Dimensions

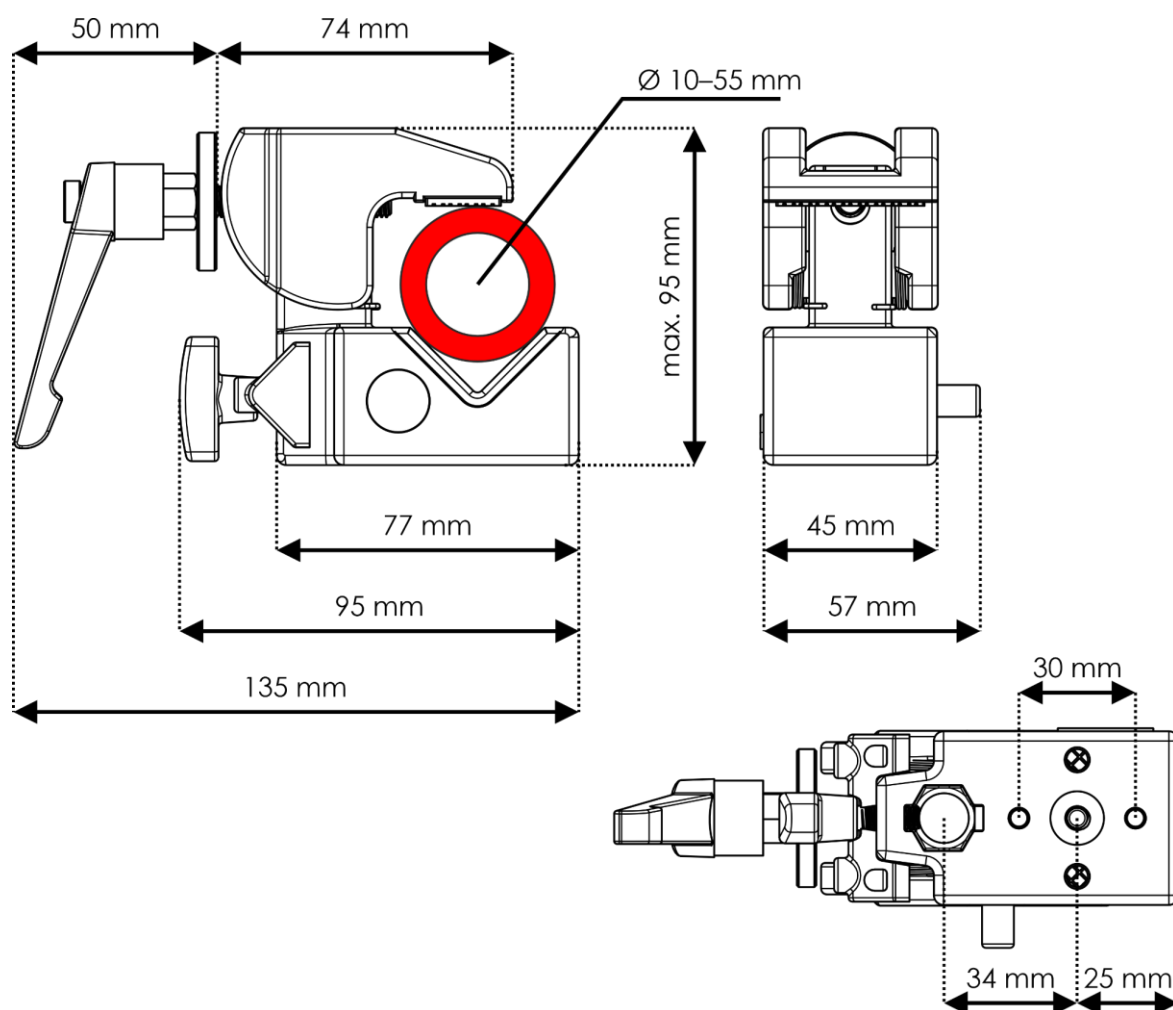


Fig. 04

### 4. Installation

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#### 4.1. Safety Instructions for Installation

**WARNING**

**Incorrect installation can cause serious injuries and damage of property.**

Installation must be carried out only by instructed or skilled persons.

Follow all applicable European, national and local safety regulations concerning rigging and trussing.

#### 4.2. Personal Protective Equipment

During installation and rigging wear personal protective equipment in compliance with the national and site-specific regulations.

#### 4.3. Mounting

**CAUTION**

**Restrict the access under the work area during installation/deinstallation.**

**Attention**

**Do not use brute force when loosening or tightening the nuts/bolts.**

Do not exceed the recommended tightening torque: 30 N m (22 lb-ft).



The device can be mounted on round tubes and flat surfaces (with the supplied wedge or with the optional spigots). You can also attach 2 devices to each other to create a swivel coupler. See **3.4. Optional Accessories** on page 6 for more information. Choose the preferred installation method before mounting the device and use only the accessories suitable for the installation method of your choice. Remove and store the unused accessories.

### Notes:

- Secure the load with a secondary suspension, for example a safety cable. Make sure that the secondary suspension can hold 10 times the weight of the load. If possible, the secondary suspension should be attached to a supporting structure independent of the primary suspension. If possible, put the safety cable through the safety eye.
- Make sure that the WLL of any installed accessory/device is not exceeded.

### 4.3.1. Mounting on Round Tubes

To mount the device, follow the steps below:

- 01) Turn the **mounting screw (01)** counterclockwise, to loosen the device.
- 02) Attach a load to the mounting threads: **16 mm (5/8") hexagon socket (07)**, **M4 threads (08/09)** or the **M6 thread (10)**.
- 03) Put the device, with the installed load, around a tube ( $\varnothing$  10–55 mm).
- 04) Turn the **mounting screw (01)** clockwise, to tighten the device around the tube.

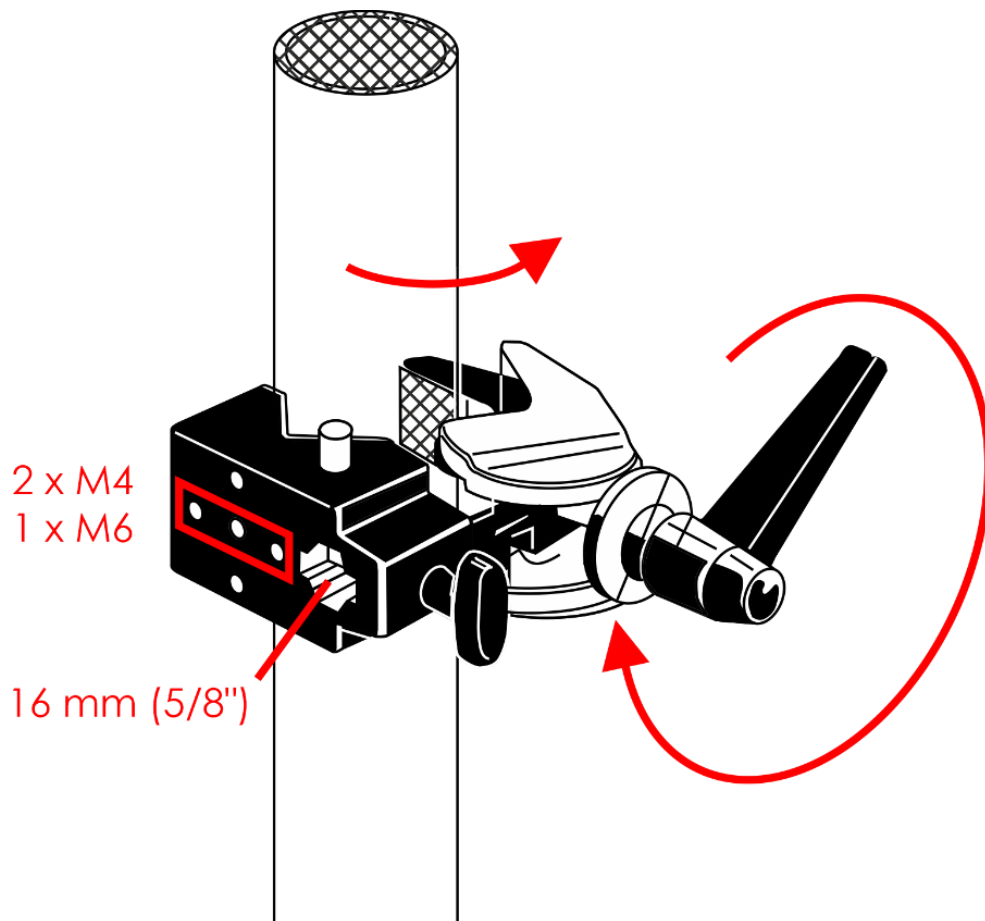


Fig. 05

## 4.3.2. Mounting on Flat Surfaces

It is possible to install the device on flat surfaces with the supplied **wedge (04)**.

To mount the device, follow the steps below:

- 01) Turn the **spigot mounting screw (05)** counterclockwise to remove it.
- 02) Remove the **wedge (04)** located under the **spigot mounting screw (05)**. See Fig. 06.
- 03) Insert the **wedge (04)** into the mounting holes on the device. See Fig. 06.

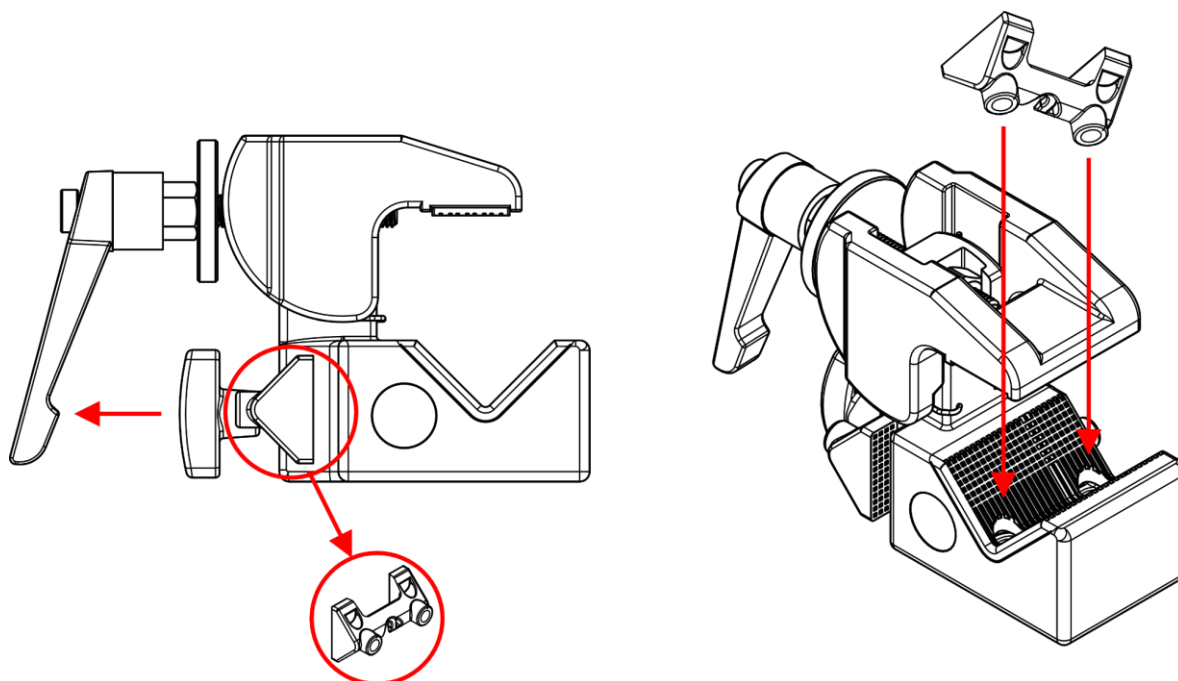


Fig. 06

- 04) Turn the **mounting screw (01)** counterclockwise, to loosen the device.
- 05) Attach a load to the mounting threads: **16 mm (5/8") hexagon socket (07)**, **M4 threads (08/09)** or the **M6 thread (10)**.
- 06) Put the device, with the installed load, around the surface (10–55 mm).
- 07) Turn the **mounting screw (01)** clockwise, to tighten fit the device firmly to the surface. See Fig. 07.

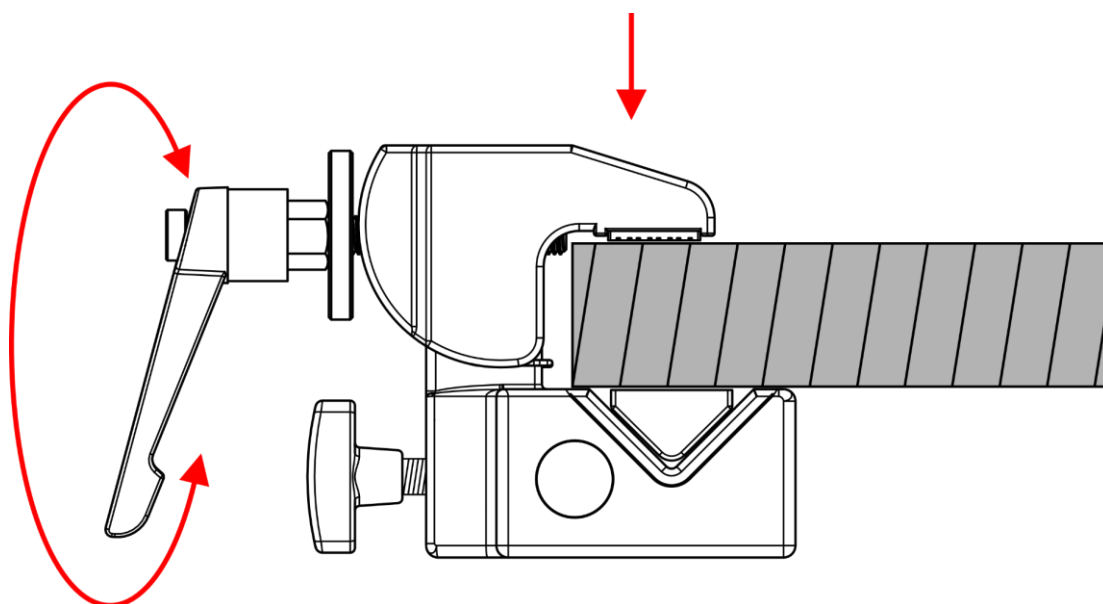


Fig. 07

### 4.3.3. Mounting with the Dedicated Spigots

It is possible to use the device with the optional spigots (75133) and (75134). See **3.4. Optional Accessories** on page 6 for more information

- 01) Mount the device on a tube or a flat surface. See **4.3.1. Mounting on Round Tubes** and **4.3.2. Mounting on Flat Surfaces** on pages 8–9 for more information.
- 02) Mount the spigot on a load.
- 03) Turn the **spigot mounting screw (05)** counterclockwise to loosen it completely.
- 04) Press and hold down the **safety pin (06)** and insert the spigot with the attached load into the **16 mm (5/8") hexagon socket (07)**.
- 05) Release the **safety pin (06)**, to fit the spigot in position.
- 06) Turn the **spigot mounting screw (05)** clockwise, to stabilize the spigot in the **16 mm (5/8") hexagon socket (07)**.

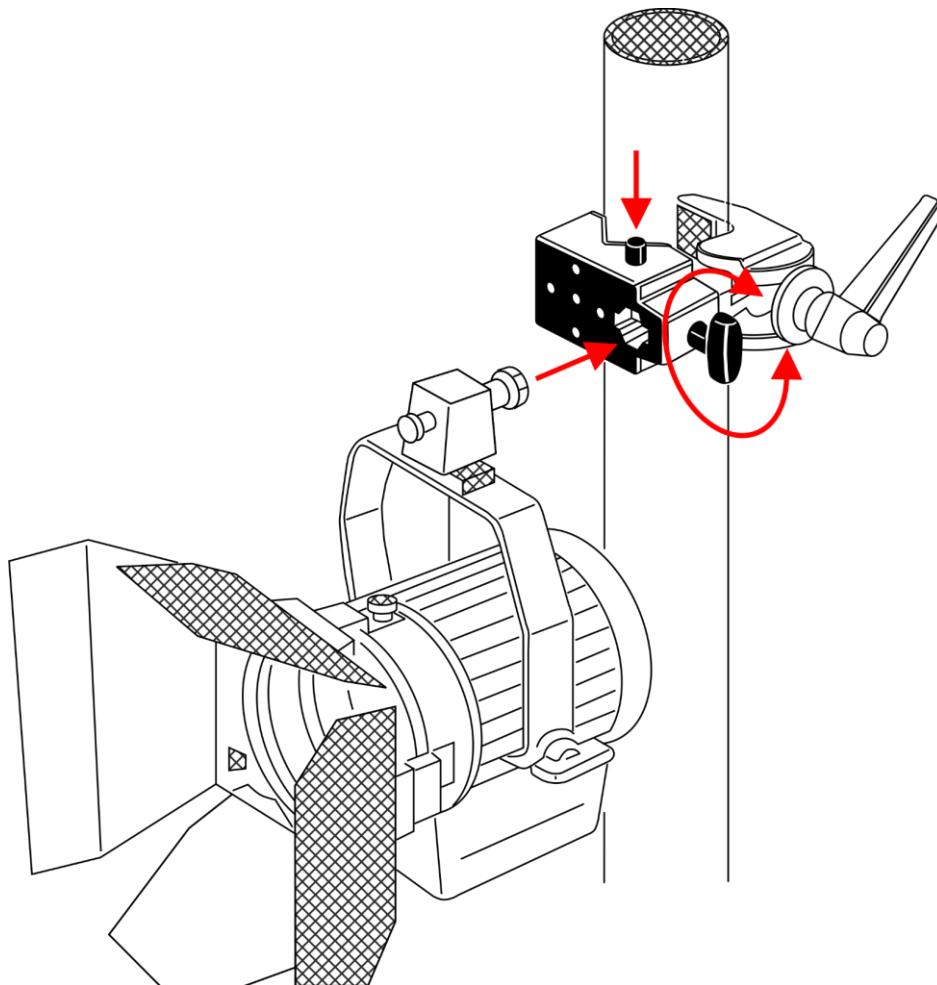
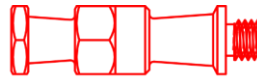


Fig. 08

### 4.3.4. Mounting Two Devices with the Spigot

It is possible to connect 2 devices with the spigot (75134), to create a swivel coupler.

- 01) On both devices, turn the the **spigot mounting screws (05)** counterclockwise, to loosen them completely.
- 02) On one of the 2 devices, press and hold down the **safety pin (06)**.
- 03) Insert the spigot into the **16 mm (5/8") hexagon socket (07)**.
- 04) Release the **safety pin (06)**, to fit the spigot in position.
- 05) Turn the **spigot mounting screw (05)** clockwise, to stabilize the spigot in the socket.
- 06) On the other device, press and hold down the **safety pin (06)**
- 07) Attach the previously mounted spigot to the **16 mm (5/8") hexagon socket (07)**.
- 08) Release the **safety pin (06)**, to fit the device to the spigot.
- 09) Turn the **spigot mounting screw (05)** clockwise, to stabilize the device on the spigot. Both devices are connected and form a swivel coupler.



Spigot for Multigrip Clamp (3/8"-16)

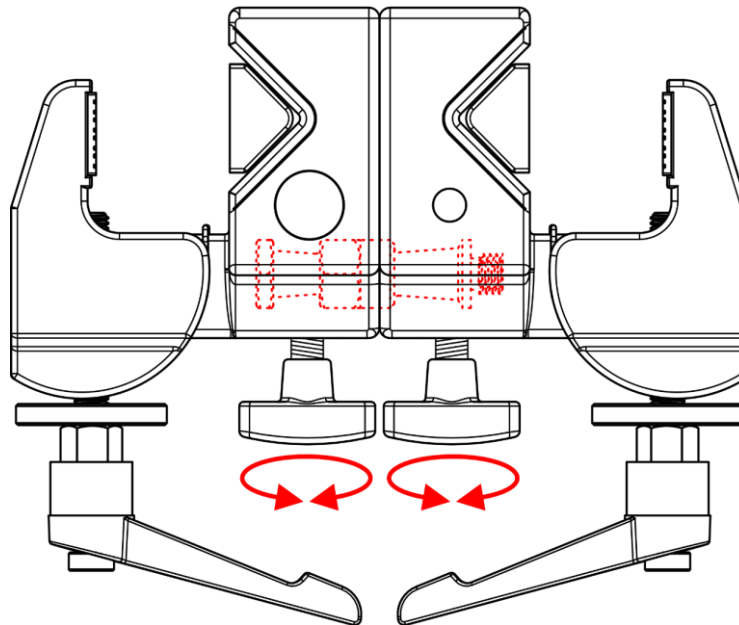


Fig. 09

- 10) Set the connected devices to the desired position and angle.

## 4.3.5. Working Load Limit

When the device is installed in a vertical position, its WLL (Working Load Limit) is 25 kg.

This installation method does not put any additional strain on the system.

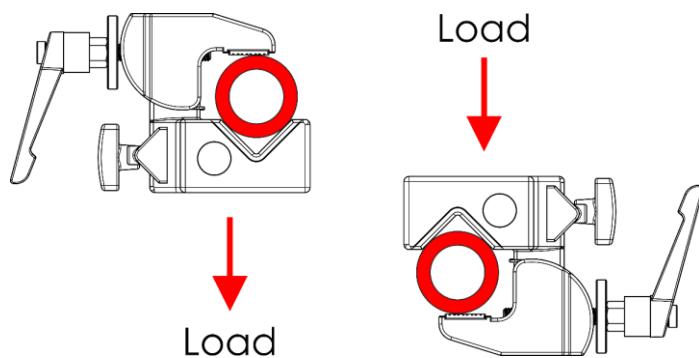


Fig. 10

When the device is installed in a non-vertical position, its WLL becomes lower than 25 kg.

The actual WLL value differs per situation because it depends on many variables (e.g., the tube's surface finish, the torque applied when tightening the device, the inclination angle, etc.)

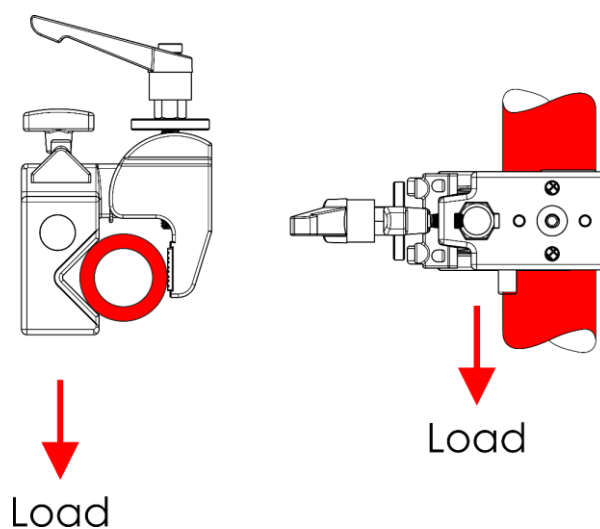


Fig. 11

### 5. Inspection and Maintenance



**Attention**

Inspection and maintenance may be carried out only by instructed or skilled persons.  
Service shall be carried out only by skilled persons.

#### 5.1. Inspection



**Attention**

Before every use, examine the device visually for any defects

Regular and periodic inspections shall be carried out throughout the period of service of the device. The frequency of the inspections depends on the inspection schedule established for the site where the device is installed.

- Check the device for damage, cracks and corrosion. If any fault is found, mark the device clearly and remove it from service.
- Do not use the device if it is damaged.

#### 5.2. Corrective Maintenance

- Do not modify the device.
- Refer repairs and servicing to skilled persons. Contact your Highlite International dealer for more information.

#### 5.3. Basic Cleaning Instructions

- Use a damp cloth to clean the device.
- Do not use alcohol, solvents or abrasive agents.

## 6. Deinstallation, Transportation and Storage

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### 6.1. Instructions for Deinstallation



**WARNING**

Incorrect deinstallation can cause serious injuries and damage of property.

- Restrict the access under the working area during deinstallation.
- Always observe the national and site-specific regulations during deinstallation of the device.
- Wear personal protective equipment in compliance with the national and site-specific regulations.

### 6.2. Instructions for Transportation

Make sure that appropriate measures are taken to prevent damage to the device during transportation.

### 6.3. Storage

- Inspect the device for defects before storing. See **5.1. Inspection** on page 13 for more information.
- Clean the device before storing. Follow the cleaning instructions in chapter **5.3. Basic Cleaning Instructions** on page 13.
- Store the device in a dry, ventilated environment to avoid corrosion.

## 7. Disposal

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After the device is removed from service it can be disposed of as scrap.

## 8. Compliance

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Check the respective product page on the website of Highlite International ([www.highlite.com](http://www.highlite.com)) for an available declaration of conformity.



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