

**Z5147**

**Rota Clamp**

**Mounting instructions (2.2 EN)**

## Contents

1. Product description.....	3
2. Scope of supply.....	3
3. Load safety information.....	3
4. Weight/Installation height.....	3
5. Assembly.....	3
6. Installation.....	4
7. Operation/Adjustments.....	6
8. Maintenance and care.....	7
9. Disposal/Environmental protection.....	7
10. Manufacturer's declaration.....	8

## General information

Z5147 Rota Clamp  
Mounting instructions

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**Keep this manual with the product or in a safe place so that it is available for future reference.**

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# Z5147 Rota Clamp

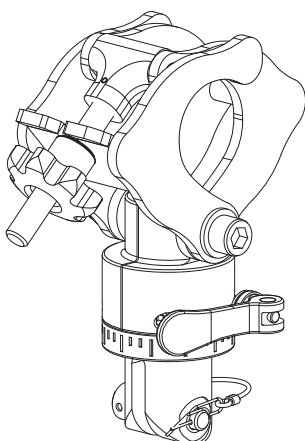


Fig. 1: Z5147 Rota Clamp

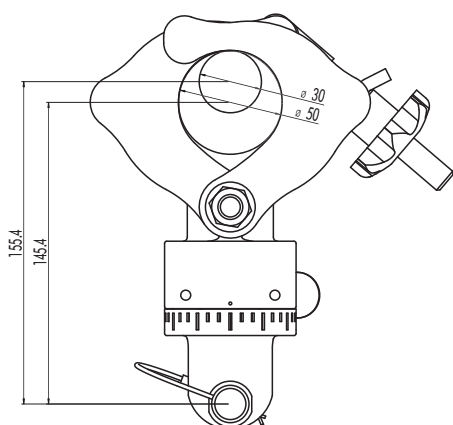


Fig. 2: Z5147 Rota Clamp Installation height

## 1. Product description

Using the Z5147 Rota Clamp loudspeaker arrays or single cabinets can be suspended and horizontally aligned from a single flying point. The Rota Clamp allows the load to be attached to overhead bars or truss with a tube diameter up to 51 mm (2"). It can be used in combination with the following d&b rigging accessories:

- Z5020 Flying adapter 02
- Z5121/22 Flying frame 02 90°/60°
- Z5044 Bracket connector
- Z5145 Ci Mounting frame
- Z5054 Ci Flying adapter
- Z5156 Q Flying adapter
- Z5159 Q Flying frame

Observe the maximum permitted load of the respective accessories as stated in their respective manuals/mounting instructions.

## 2. Scope of supply

The Z5147 Rota Clamp is pre assembled and supplied together with this mounting instructions.

## 3. Load safety information

**The maximum permitted load of the Z5147 Rota Clamp is 500 kg/1100 lb according to the German standard BGV C1. No additional loads must be added.**

**Never fit the clamp at an angle other than straight down.**

## 4. Weight/Installation height

Weight.....2.2 kg/4.9 lb  
Installation height.....155.4 mm/6", related to a tube diameter of 30 mm/1.2"  
.....145.4 mm/5.7", related to a tube diameter of 50 mm/2"

## 5. Assembly

### Safety precautions

The Z5147 Rota Clamp must only be used to suspend d&b loudspeaker cabinets from a single suspension point in conjunction with the recommended d&b rigging accessories.

Installation should only be carried out by fully trained personnel. There are certain rules for installation that must be complied with.

It is the responsibility of the person installing the assembly to ensure that the structure being attached to is suitable for the intended use.

All system components must be inspected for faults before use. Please pay attention to section 8. Maintenance and care on page 7. Damaged components must be withdrawn from use immediately.

## Preparations

The desired position in the rig as well as the total vertical angle of the assembly should be defined in advance. The total vertical angle can be set via the holes grid of the respective adapter or frame.

## Function of the securing pin (Rue ring cotter)

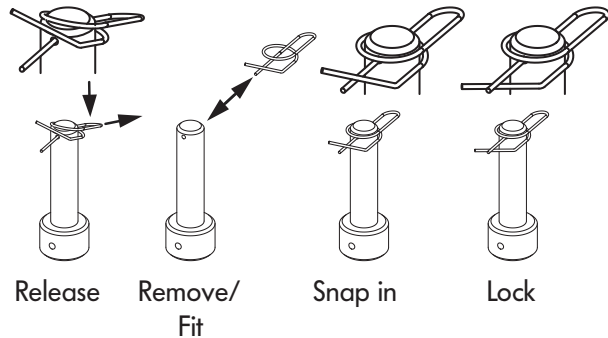


Fig. 3: Function of the Rue ring cotter (schematic diagram)

## Fitting to Flying adapter/Flying frame

1. Unlock and remove the ring cotter [1a] of the fixing bolt and remove the fixing bolt [1b].
2. Attach the Rota Clamp to the respective hole of the flying adapter or flying frame.

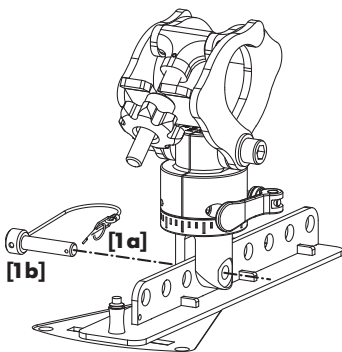


Fig. 4: Z5147 Rota Clamp assembly with Z5156 Q Flying adapter

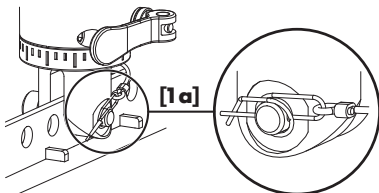


Fig. 5: Fixing bolt secured

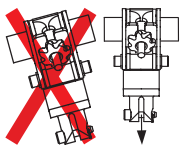
3. Insert the fixing bolt [1b] and secure the bolt with the ring cotter [1a].
4. Recheck your work and ensure the ring cotter [1a] is properly fitted to the fixing bolt - Fig. 5.

## 6. Installation

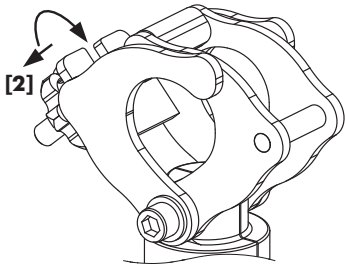
**Installation must only be to horizontal tubes. Never fit the clamp at an angle other than straight down.**

With the Rota Clamp fitted to the assembly as described above, the assembled unit is now ready to install.

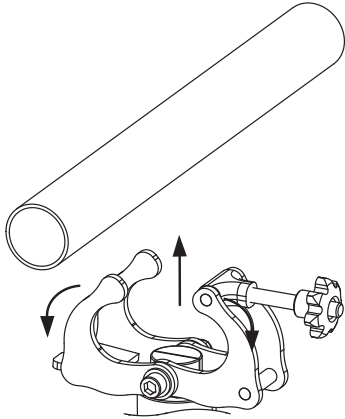
Proceed as follows:



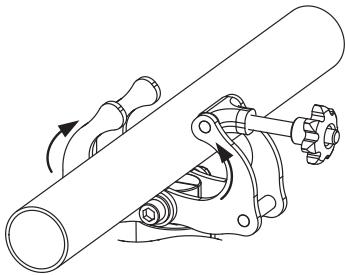
**CAUTION!**



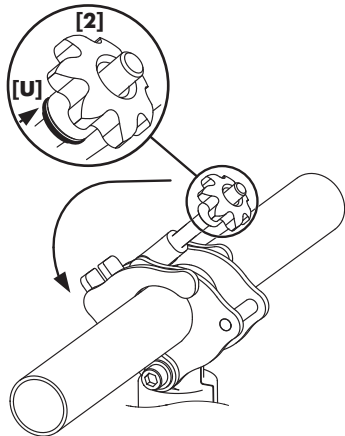
**Fig. 6: Installation - Step 1**



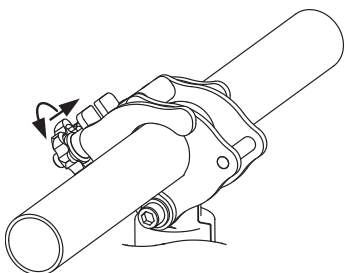
**Fig. 7: Installation - Step 2/3**



**Fig. 8: Installation - Step 4**



**Fig. 9: Installation - Step 5/6**



**Fig. 10: Installation - Step 7**

1 First release the hand wheel **[2]** of the clamping lever until its end-position.

2. Fold out the clamping lever.

3. With the support clamp open, the assembly can now be lifted into position.

4. Close The two halves of the clamp around the bar.

5. Pull back the U-washer **[U]** of the clamping lever to the hand wheel **[2]**.

6. Fold back the clamping lever.

7. Hand-tighten the hand wheel **[2]**.

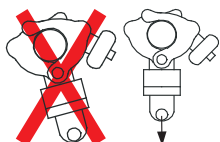
**Safety precaution!**

**No other adjustments should be attempted until the hand wheel has been tightened.**

**A safety wire (secondary safety) should now be fitted to secure the assembly before carrying out either positional or directional adjustments.**



## WARNING!



## CAUTION!

## 7. Operation/Adjustments

Carry out positional and directional adjustments one at a time. Never try to make more than one adjustment without the others being firmly locked off.

### Vertical alignment

The vertical tilt of the load must not be adjusted by turning the Rota Clamp against the supporting tube. The desired total vertical angle is to be set via the holes grid of the respective adapter or frame in advance as described above in section 'Assembly'.

### Positional adjustment (Horizontal position)

If an adjustment of the position on the bar is necessary proceed as follows:

1. Release the locking hand wheel **[2]** only enough to release the grip on the bar.
2. While supporting the weight of the assembly, the positional adjustment can now be made. Observe that you do not damage the tube (notching).
3. Always re-tighten the hand wheel after any adjustments.

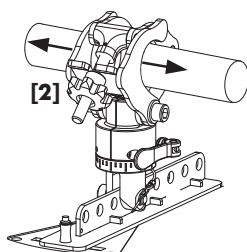


Fig. 11: Horizontal position

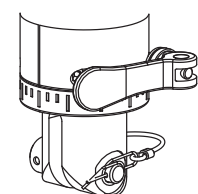
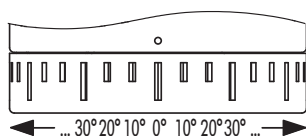
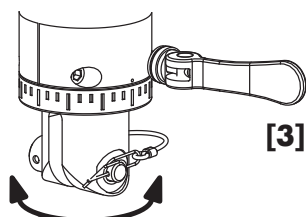


Fig. 12: Z5147 Rota Clamp Horizontal alignment

### Horizontal alignment

Horizontal adjustments can be carried out via the rotatable unit of the clamp. Proceed as follows:

1. Release the excentric lever **[3]** of the clamp-
2. Set the desired horizontal angle.  
The angle can be read from the scale related to the mark (point) of the clamp.  
The scale's increment is 10° for every graduation mark. The taller mark displays an increment of 30°.
3. Close the excentric lever **[3]**.

## 8. Maintenance and care

### Cleaning

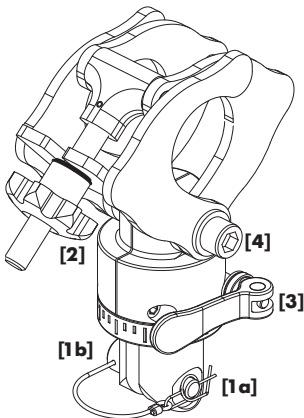
Regularly clean and lubricate the Rota Clamp with WD-40® or a similar product.

### Inspections

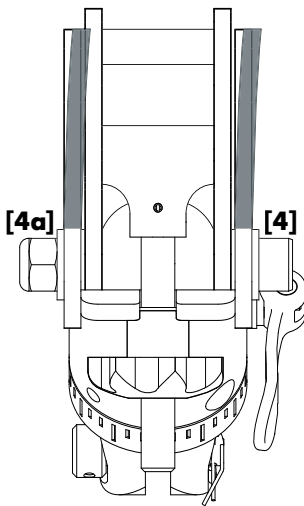
To eliminate the potential risk of accident because of malfunction of a component regularly inspection according to the appropriate regulations for lifting device of all system components is essential.

### Test recommendations

1. Visual inspection of the Rota Clamp regarding obvious deformation and damage (e.g. cracks and corrosion) of the components including all holes of the components.
2. Visual inspection of the fixing bolt **[1b]** regarding deformation (notching) and damage (e.g. cracks and corrosion).
3. Visual inspection of the fastening lever and hand wheel **[2]** regarding deformation and damage (e.g. cracks and corrosion) and inspection of proper function.
4. Functional inspection of the eccentric lever and rotation device (swivel mechanism for horizontal adjustment) of the clamp **[3]**.
5. The connection between the clamp and the rotation device **[4]** is adjusted for proper function by the manufacturer. A visual inspection of the self-locking nut for correct function and an inspection of the clamp mechanism should be carried out regularly. In the case of damage or no proper function (e.g. twisted clamps or rough running mechanism of the clamp) the Rota Clamp should only be repaired by d&b audioteknik.
6. Open the clamp mechanism and check the outer clamps for obvious deformation - Fig. 14. In the case of damage or no proper function (e.g. twisted clamps or rough running mechanism of the clamp) the Rota Clamp should only be repaired by d&b audioteknik.
7. Visual inspection of the Rue ring cotter **[1a]** for obvious damage and deformation. Also carry out a functional test of the locking mechanism. If the ring cotter can no more be properly fitted to the fixing bolt and locked it must be exchanged - Fig. 15.



**Fig. 13: Z5147 Rota Clamp Maintenance and care**



**Fig. 14: Z5147 Rota Clamp Deformation of the outer clamp**



**Ring cotter o.k. Change the ring cotter**  
**Fig. 15: Condition of the Rue ring cotter [1a]**

## 9. Disposal/Environmental protection

The product must be disposed in accordance to the national environmental regulations.

## Manufacturer's declaration

We hereby declare that the equipment designated below is designed and built in the version sold by us in such a way as to comply with the relevant fundamental safety and health criteria of the applicable EC Directive(s). This declaration shall cease to be valid if alterations are made to the equipment without our prior agreement.

### **This declarations covers:**

- **Z5147 Rota Clamp**

To be used as described in this mounting instructions

### **National standards and technical specifications applied, in particular:**

DIN 18800-1, DIN EN 1050, DIN EN ISO 12100

Backnang, 2013-03-27

  
\_\_\_\_\_  
(Frank Bothe, Head of R&D)