

Original user manual

CLAMPS AND COUPLERS



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1. INTRODUCTION

The ADMIRAL CLAMPS and COUPLERS are intended to hang loads from supporting structures generally made out of round tubes. For the ease of reading this manual, the word “CLAMP” is used also for products called “coupler(s)”.

The embossed Working Load Limit (WLL) on the CLAMPS is compliant with the German regulation for loads above persons DGUV 17/8 (formerly known as BGVc1).

ADMIRAL has endeavored to deliver the highest degree of accuracy possible. However continuous improvement of our products is ADMIRAL policy. Therefore product specifications are subject to change without notice. Readers and users are encouraged to notify ADMIRAL of errors and send in suggestions for improvements. All communications will be carefully considered for future iterations of this manual and changes to our products.

2. SAFETY INSTRUCTIONS

This user manual must be read and understood prior to assembly, setup and servicing. All people using and servicing the CLAMPS must familiarize themselves with the safety instructions and user guidelines written in this manual. This manual needs to be available for users at all times.

LEGEND



DANGER

DANGER: Indicates a hazardous situation which, if not avoided, will result in death or serious injury. This signal word is to be limited to the most extreme situations.



WARNING

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



CAUTION

CAUTION: Indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

NOTICE

NOTICE: Addresses practices not related to personal injury.

SAFETY INSTRUCTIONS

SAFETY INSTRUCTIONS: Is used for lists of steps, procedures or instructions that might otherwise substitute a DANGER, WARNING or CAUTION notification. Note that equivalent phrases, such as SAFE OPERATION PROCEDURES or SAFE SHUT DOWN PROCEDURE, can be used in place of the words “SAFETY INSTRUCTION”.



CAUTION

DO NOT lift or load above people without the following precautions:

- The CLAMPS must be taken out of service immediately if, during use, repair or maintenance damages are discovered.
- Remove people from the area during installation.
- Use solely instructed and/or trained personnel.
- Wear appropriate Personal Protective Equipment (PPE) such as hard hats and gloves during installation.
- Make sure there is adequate amount of working light during the installation of the product.

3. SCOPE

The intended use of the CLAMPS is to create a fixing and/or suspension point for loads installed above people from supporting structures within the entertainment industry.

Loads can be truss, sound systems, set pieces or lighting equipment.

Any other way of use is considered to be a case of misuse. Solely the user is liable for any damage or injury resulting from such cases.



WARNING

The use of CLAMPS for scaffolding purposes under EN74 is not allowed.



WARNING

Check local legislation for the application of use.

4. LIMITATIONS OF USE



WARNING

Exceeding the limitations of use can severely endanger the audience and users.



WARNING

Dynamic factor of lifting must be considered separately.

- The CLAMPS can be used on supporting structures with tube diameters which differ per clamp type.
- Make sure the CLAMPS are suitable for the pipe diameter of the support structure.
- Do not overtighten bolts and nuts as this could lead to deformation of the chords of the support structure.
- The CLAMPS can be operated from -20° up to 60° Celsius.
- Do not exceed the maximum WLL (working load limit) or ELL (entertainment load limit) stated on the product.
- Make sure the resulting forces on the supporting structure are approved by a competent person before applying the load.
- To determine the maximum suspended load on the product, all imposed loads shall be considered. e.g. the dynamic factor caused by the lifting machinery.
- Sound systems can be suspended but users must check regularly the integrity of the clamp as severe vibrations could loosen bolts/knobs.
- The CLAMPS must be inspected by a competent person as often as required but with a minimum of 1x per year.
Records of these inspections must be kept.
- Inspect equipment before every use.
Damaged COUPLER shall be taken out of service. Outdoor use shall be approved by a competent person and might influence the load capacity. Do not expose the product to full rain or snow. Outdoor use is the sole responsibility of the operator.
- In case of use in the vicinity of saltwater, the

product shall be rinsed regularly with fresh water to avoid corrosion.

- It is also imperative to observe the local accident prevention regulations and/or occupational health and safety regulations.
- The support structure, on which the CLAMPS are used, must have lightning protection when used outdoors.
- The support structure, on which the CLAMPS are used, might need to have electric potential bonding.
- Do not use the CLAMPS to guide currents for electric potential bonding.
- Make sure the CLAMPS and supporting structure are dry and free of dirt.
- Use appropriate packaging to transport the products. e.g. a flightcase.
- Solely use ADMIRAL approved parts to replace damaged or lost parts.
- Do not re-zinc steel components as they might be subject to hydrogen embrittlement.
- Use solely bolts and nuts of 8.8 quality and correct diameter.

WARNING

If CLAMPS are used to support loads above people it might be needed to secure the load with an additional safety cable. Make sure this cable is attached with as less slack as possible and has the correct load capacity.

In some countries the use of safety cables is not required if the clamp and the load attached to it can only be released by use of tooling. In that case the bolt/nuts must be fastened with a minimum torque setting of 25Nm and the wingnut must be removed in order to create the condition to comply with this regulation (DGUV 215-313).



WARNING

solely apply vertical loads unless approved by a competent person

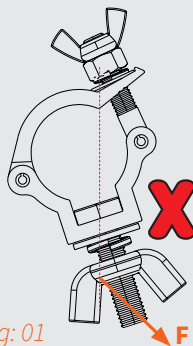


fig: 01

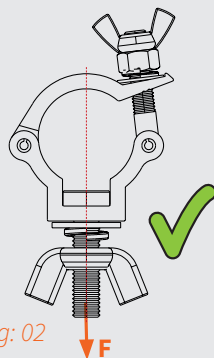


fig: 02



WARNING

The allowable load from CLAMPS also strongly depends on the types of supporting structure. A load that is too heavy can cause the structure to fail.



CAUTION

Do not throw the CLAMPS, as it might damage the product.

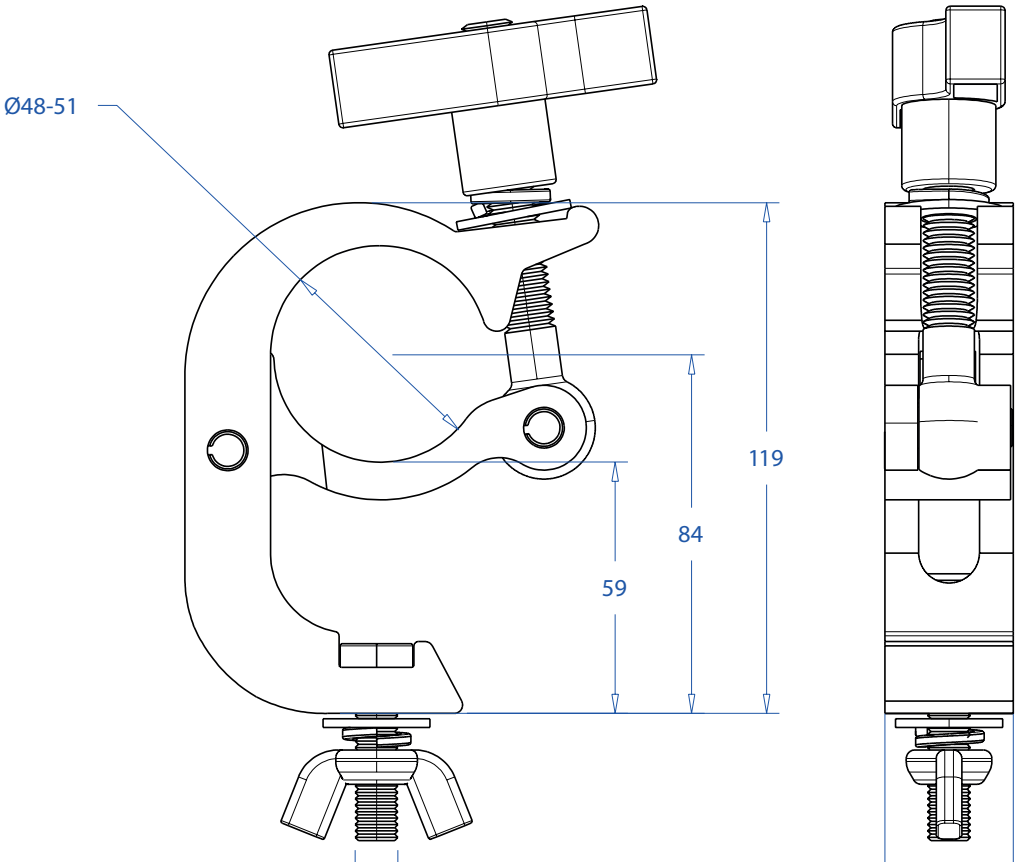
TECHNICAL DATA

Quick coupler

Article code:	RIHAHCA10
EAN:	8720094421285
WLL:	250 kg
Material:	aluminium alloy
Colour:	silver
Diameter tube:	48-51 mm
Weight:	0.47 kg



DIMENSIONS



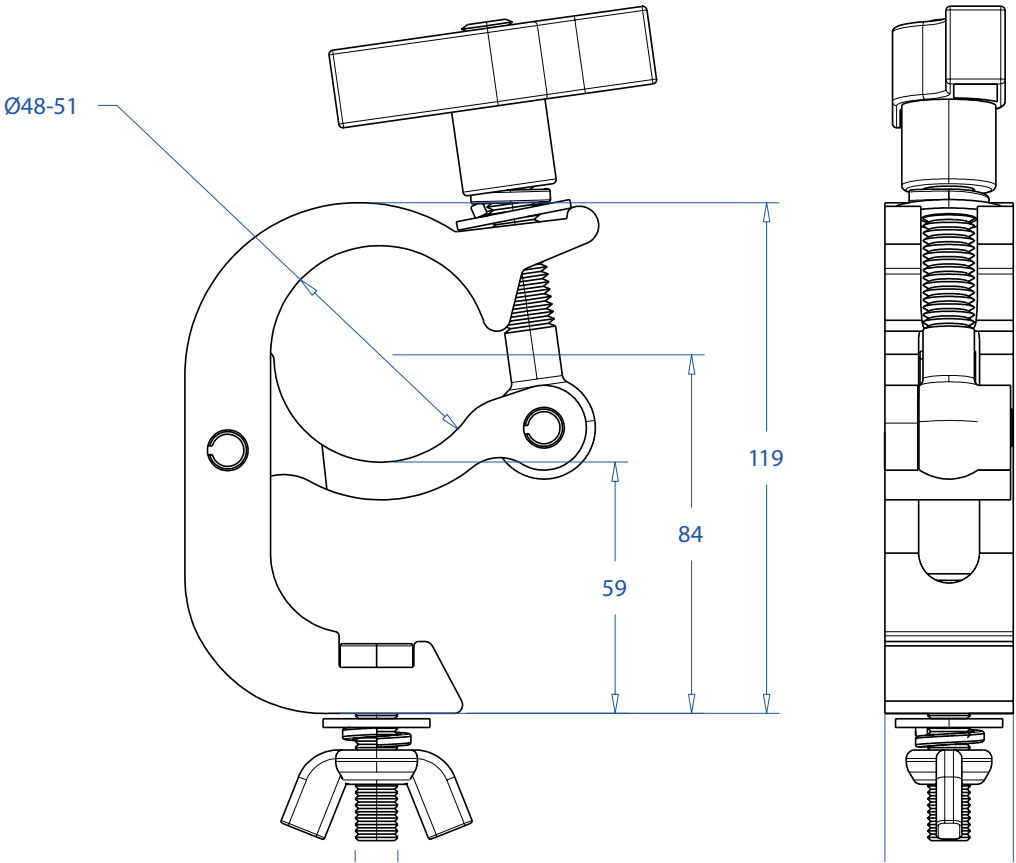
TECHNICAL DATA

Quick coupler

Article code:	RIHAHCA12
EAN:	8720094421292
WLL:	250 kg
Material:	aluminium alloy
Colour:	black
Diameter tube:	48-51 mm
Weight:	0.47 kg



DIMENSIONS



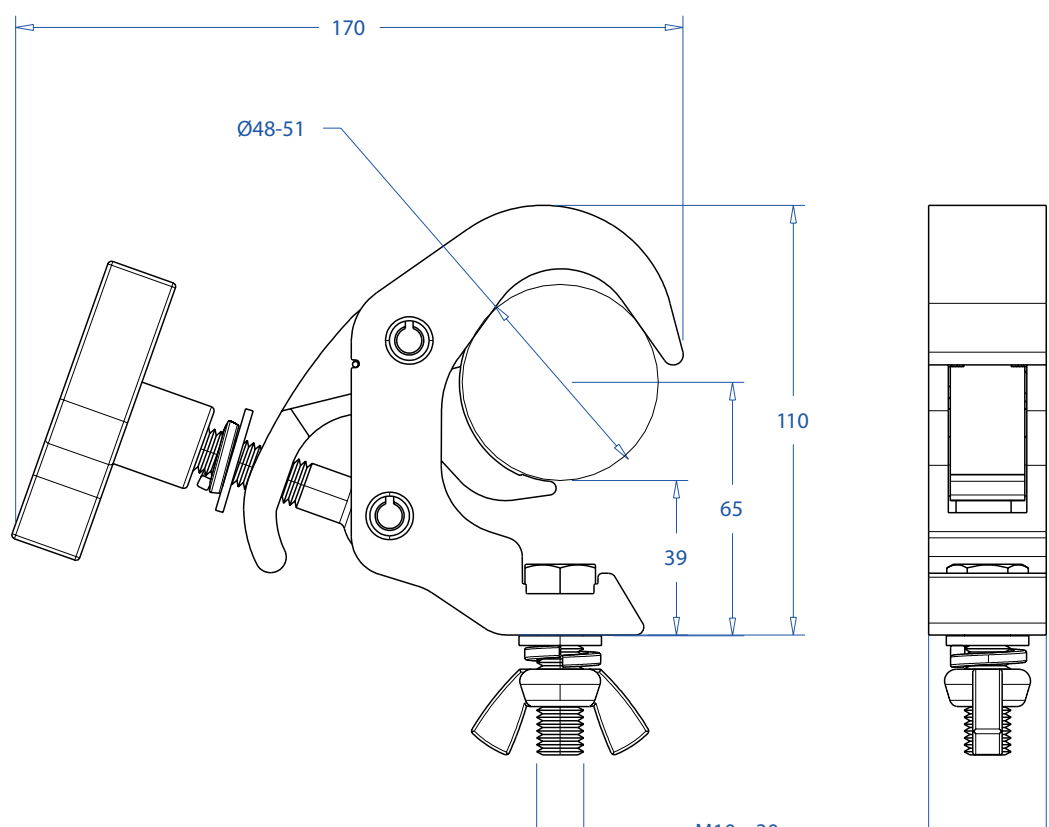
TECHNICAL DATA

Selflock coupler easy

Article code:	RIHAHCA14
EAN:	8720094421308
WLL:	250 kg
Material:	aluminium alloy
Colour:	silver
Diameter tube:	48-51 mm
Weight:	0.50 kg



DIMENSIONS



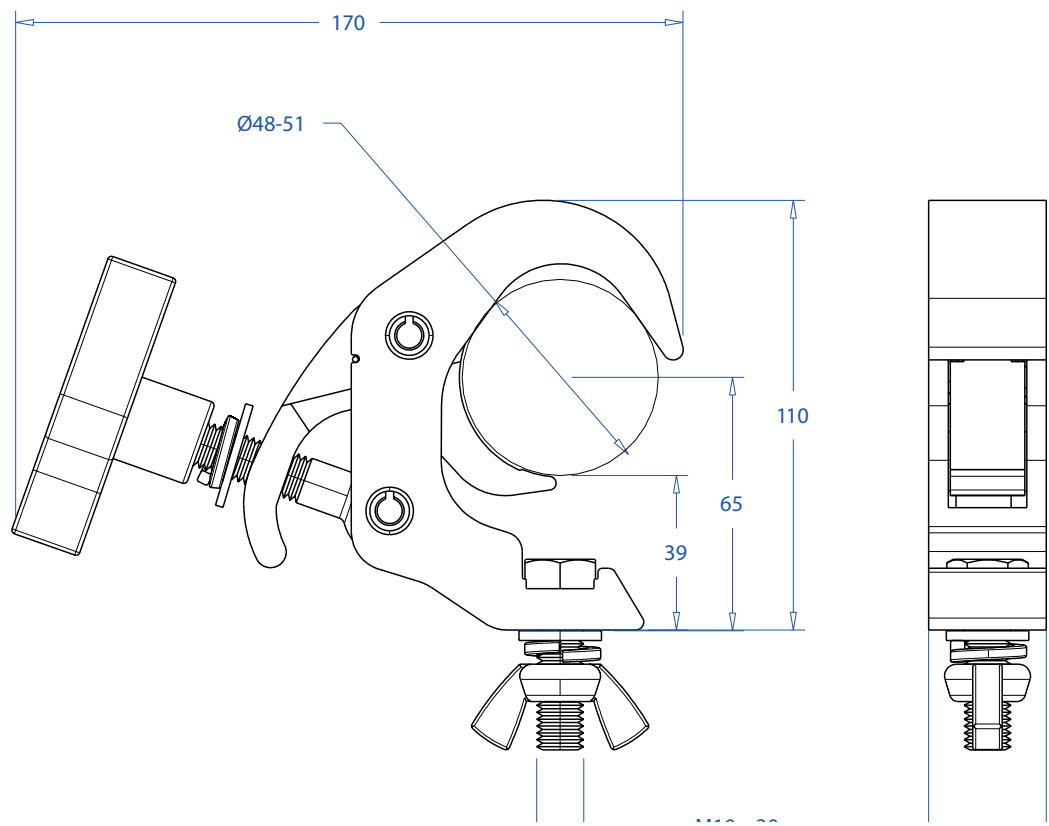
TECHNICAL DATA

Selflock coupler easy

Article code:	RIHAHCA16
EAN:	8720094421315
WLL:	250 kg
Material:	aluminium alloy
Colour:	black
Diameter tube:	48-51 mm
Weight:	0.47 kg



DIMENSIONS



TECHNICAL DATA

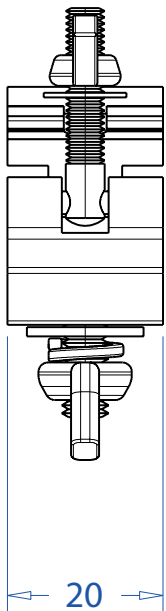
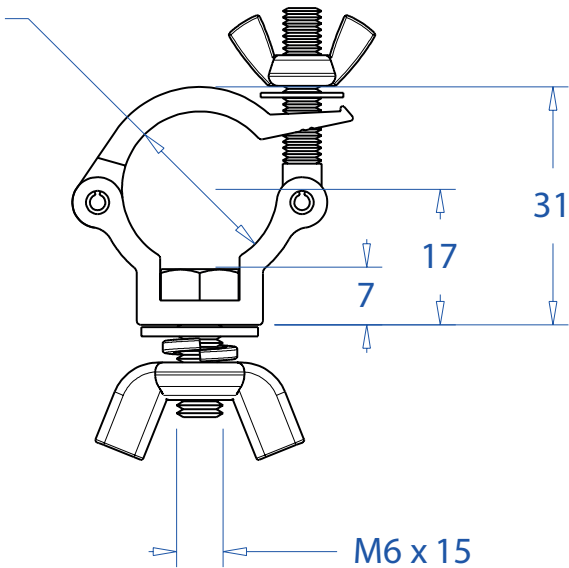
Halfcoupler

Article code:	RIHAHCA22
EAN:	8720094429779
WLL:	10 kg
Material:	aluminium alloy
Colour:	silver
Diameter tube:	18-21 mm
Weight:	0.031 kg



DIMENSIONS

Ø18-21



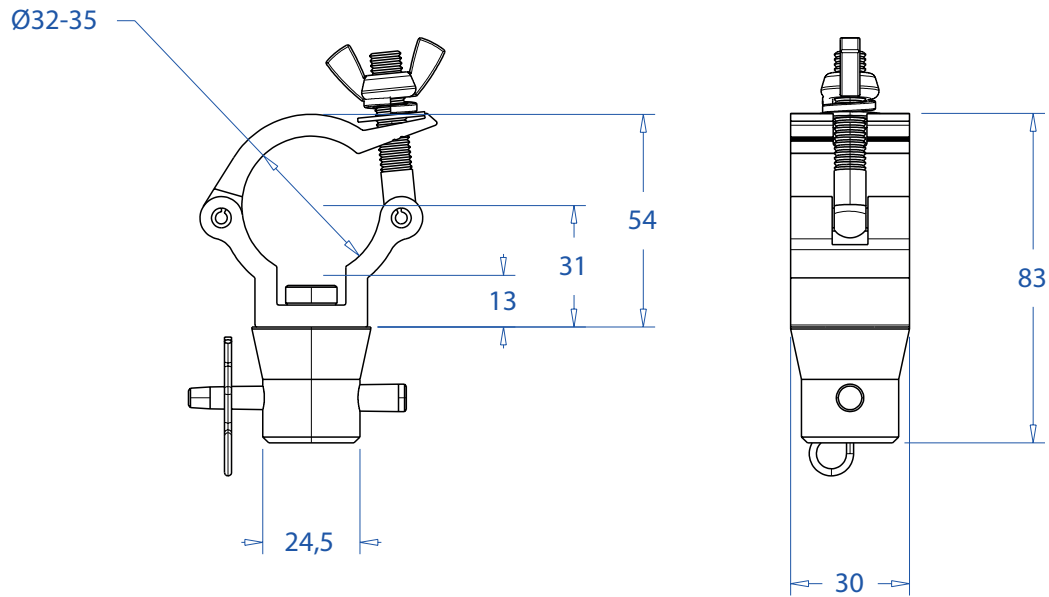
TECHNICAL DATA

Halfcoupler with 25 mm halfcone

Article code:	RIHAHCA26
EAN:	8720094429762
WLL:	50 kg
Material:	aluminium alloy
Colour:	silver
Diameter tube:	32-35 mm
Weight:	0.15 kg



DIMENSIONS



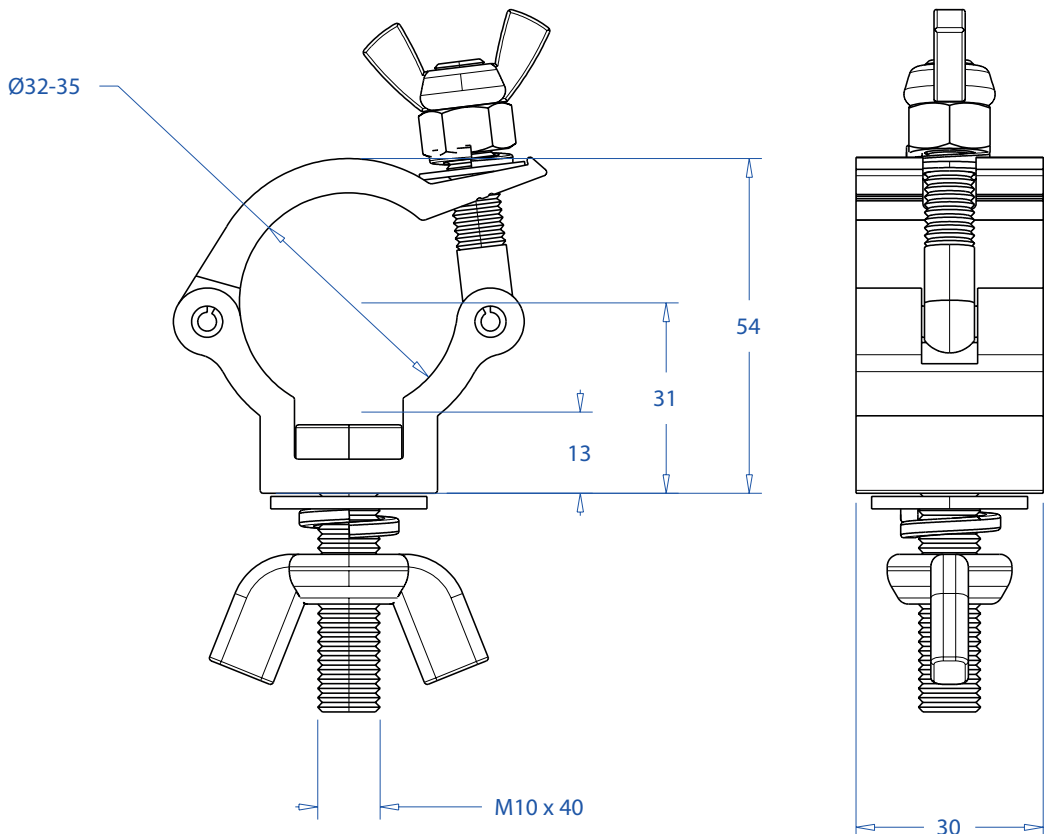
TECHNICAL DATA

Halfcoupler

Article code:	RIHAHCA30
EAN:	8720094421339
WLL:	75 kg
Material:	aluminium alloy
Colour:	silver
Diameter tube:	32-35 mm
Weight:	0.15 kg



DIMENSIONS



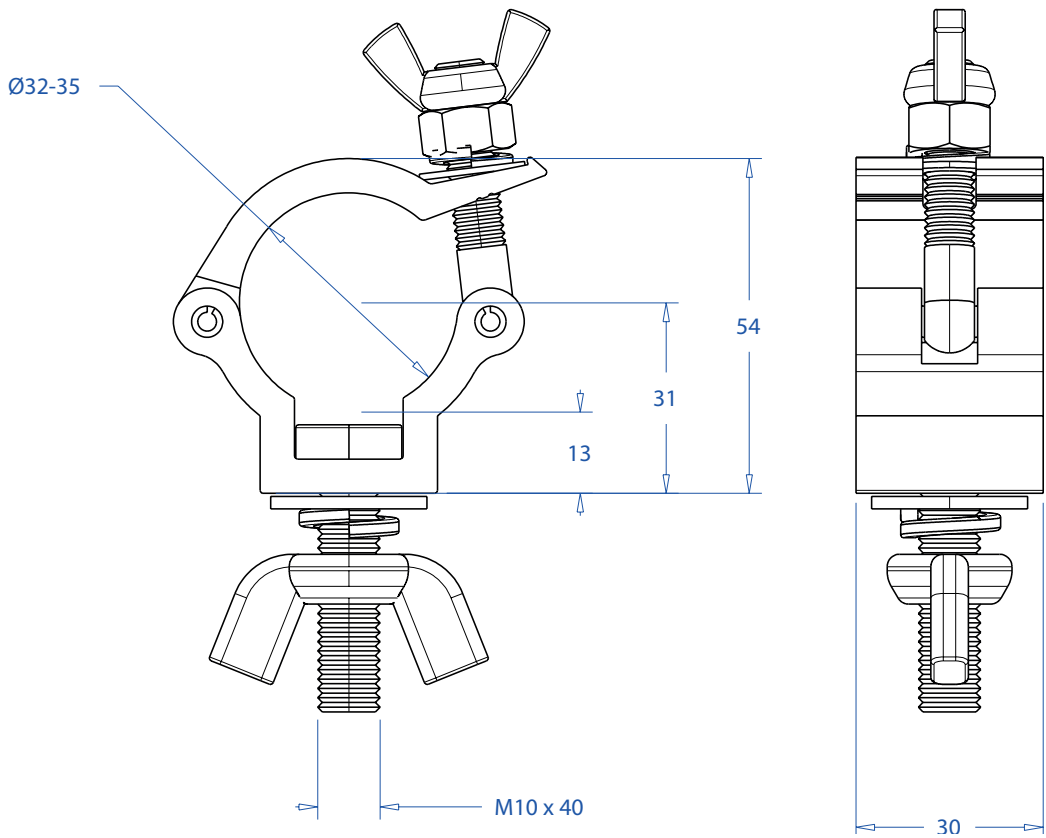
TECHNICAL DATA

Halfcoupler

Article code:	RIHAHCA32
EAN:	8720094421346
WLL:	75 kg
Material:	aluminium alloy
Colour:	black
Diameter tube:	32-35 mm
Weight:	0.15 kg



DIMENSIONS



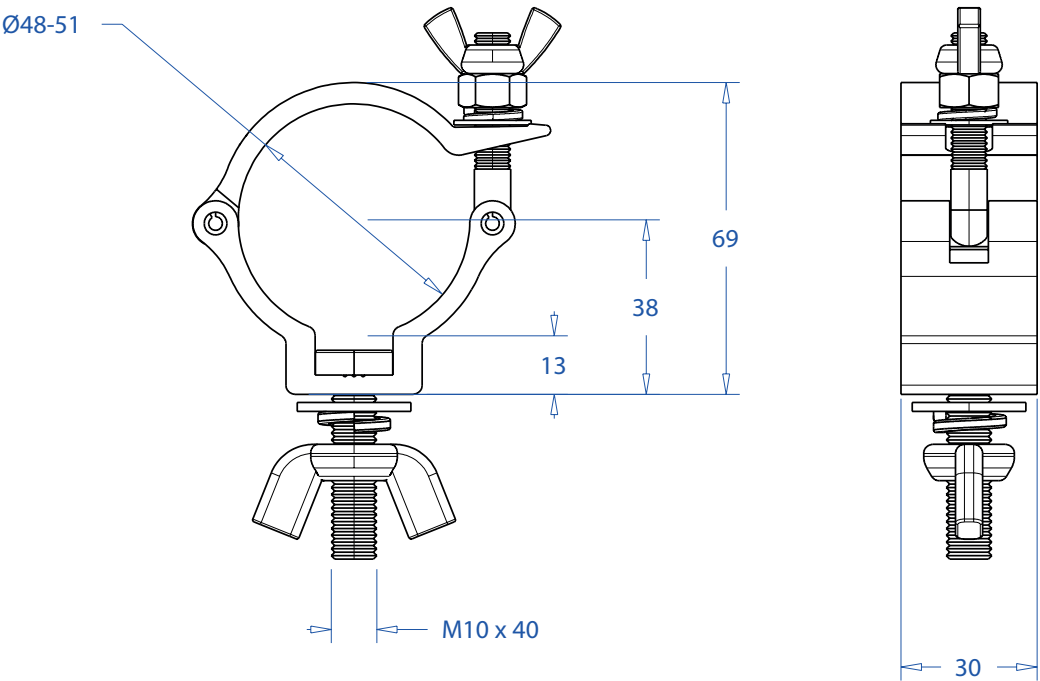
TECHNICAL DATA

Halfcoupler

Article code:	RIHAHCA35
EAN:	8720094421353
WLL:	100 kg
Material:	aluminium alloy
Colour:	silver
Diameter tube:	48-51 mm
Weight:	0.16 kg



DIMENSIONS



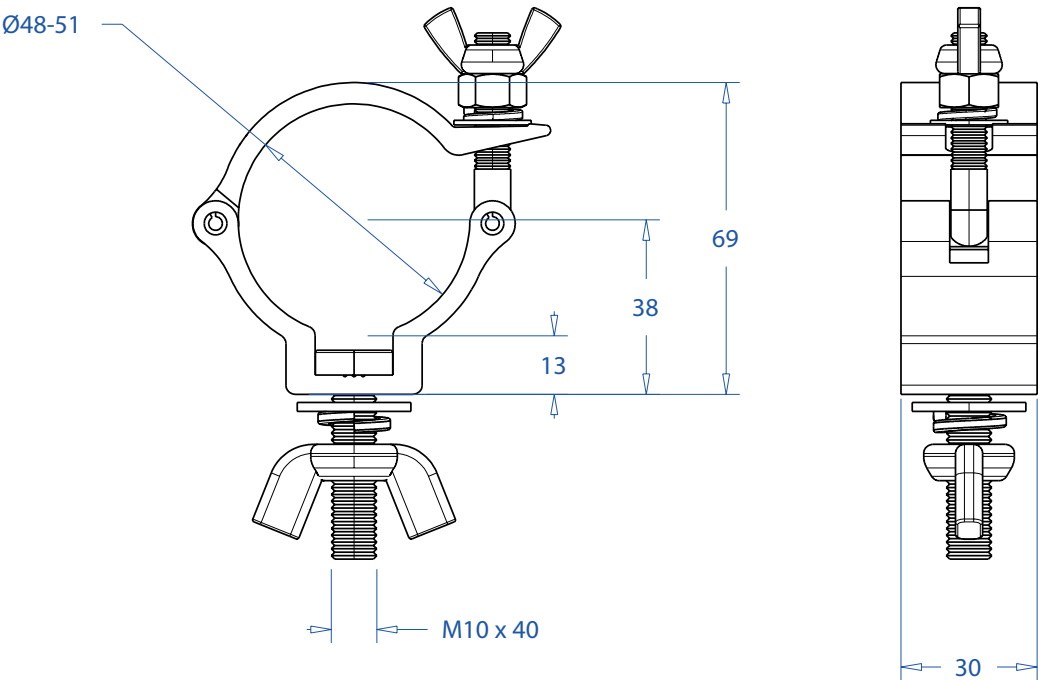
TECHNICAL DATA

Halfcoupler

Article code:	RIHAHCA37
EAN:	8720094421360
WLL:	100 kg
Material:	aluminium alloy
Colour:	black
Diameter tube:	48-51 mm
Weight:	0.16 kg



DIMENSIONS



Halfcoupler

A stainless steel hose clamp, also known as a worm-drive clamp. It features a C-shaped body with two circular holes on the sides for mounting. A threaded rod passes through the bottom hole, secured with a hex nut. A wing nut is attached to the top of the clamp, which is used to adjust the tension. A label on the top of the clamp provides technical specifications, including "304/316", "1/2\"

Technical drawing of a 100A cable bracket. The main view shows a side profile of the bracket with the following dimensions:

- Overall height: 76
- Height from base to the center of the mounting hole: 41
- Height from base to the bottom of the mounting hole: 15
- Mounting hole diameter: $\varnothing 48-51$
- Mounting hole thread: M10 x 35

A side view on the right shows the bracket's profile with a width of 30.

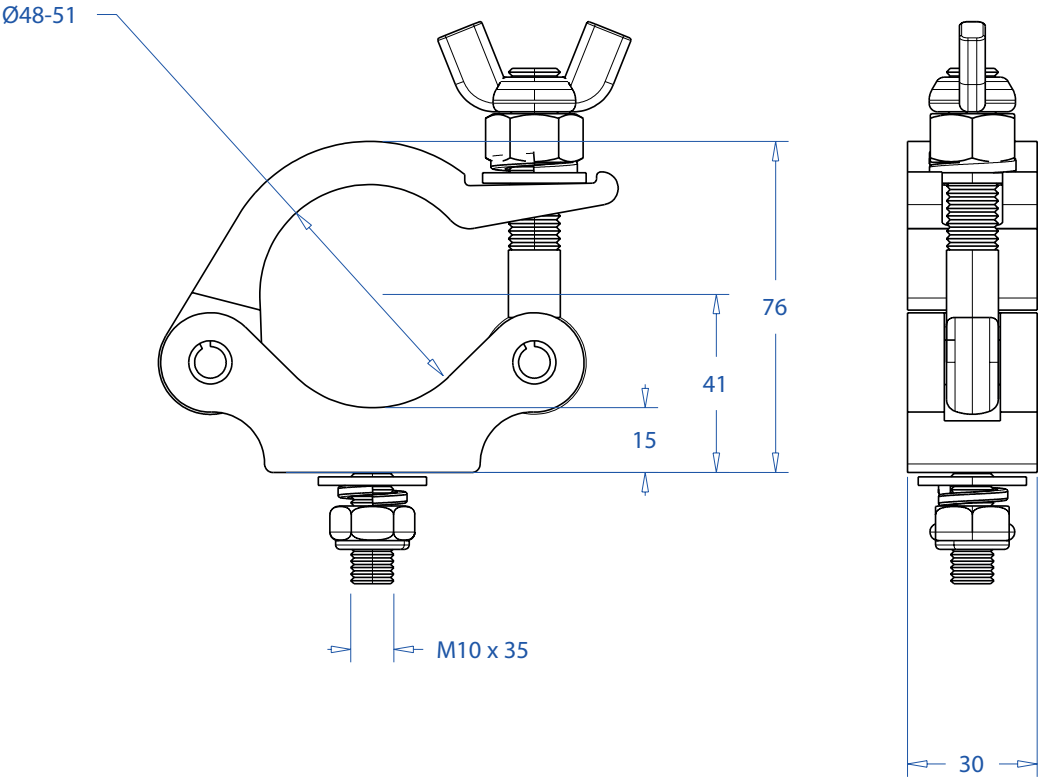
TECHNICAL DATA

Halfcoupler

Article code:	RIHAHCA41
EAN:	8720094421391
WLL:	200 kg
Material:	aluminium alloy
Colour:	black
Diameter tube:	48-51 mm
Weight:	0.37 kg



DIMENSIONS



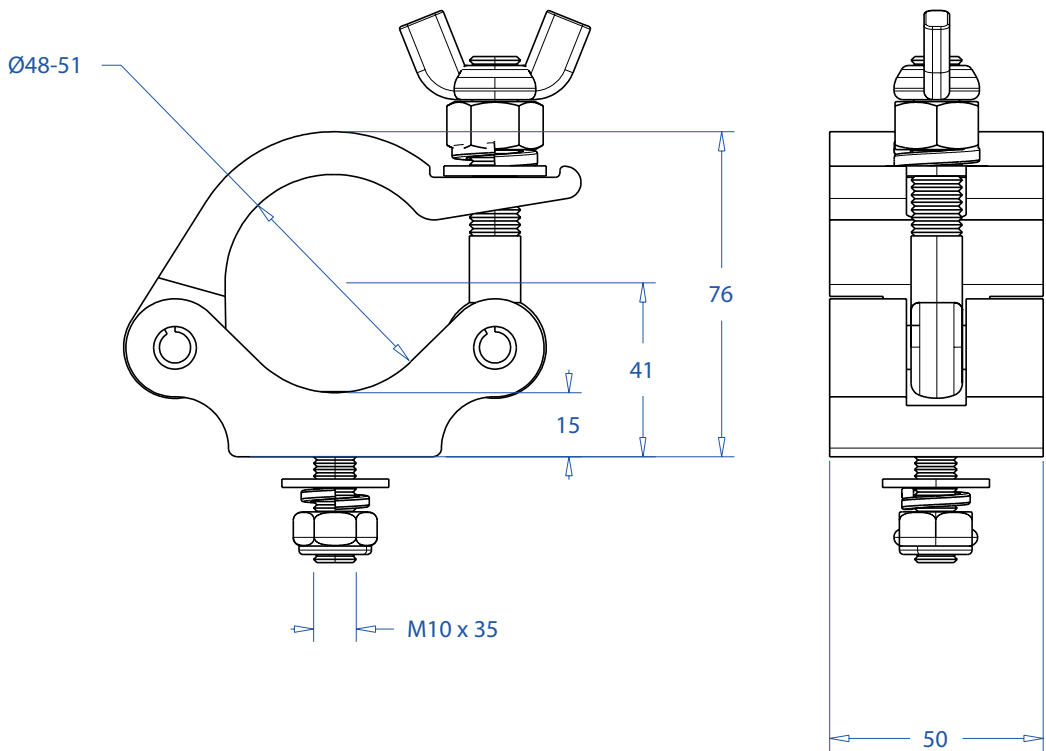
TECHNICAL DATA

Halfcoupler

Article code:	RIHAHCA42
EAN:	8720094421407
WLL:	500 kg
Material:	aluminium alloy
Colour:	silver
Diameter tube:	48-51 mm
Weight:	0.55 kg



DIMENSIONS



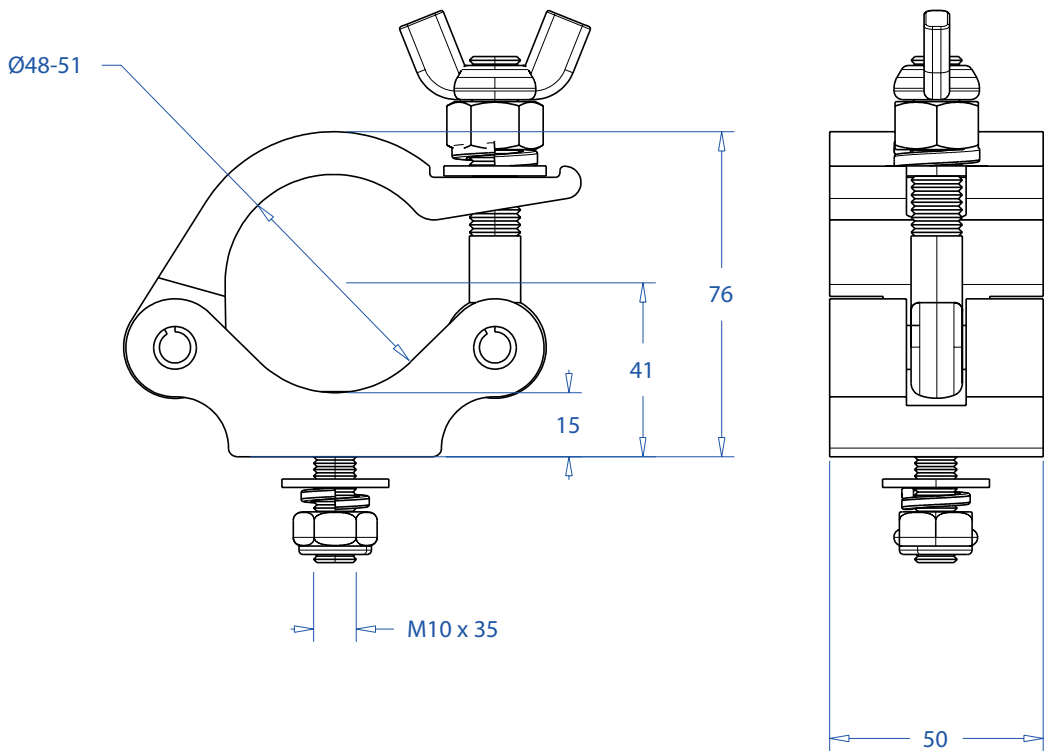
TECHNICAL DATA

Halfcoupler

Article code:	RIHAHCA44
EAN:	8720094421414
WLL:	500 kg
Material:	aluminium alloy
Colour:	black
Diameter tube:	48-51 mm
Weight:	0.55 kg



DIMENSIONS



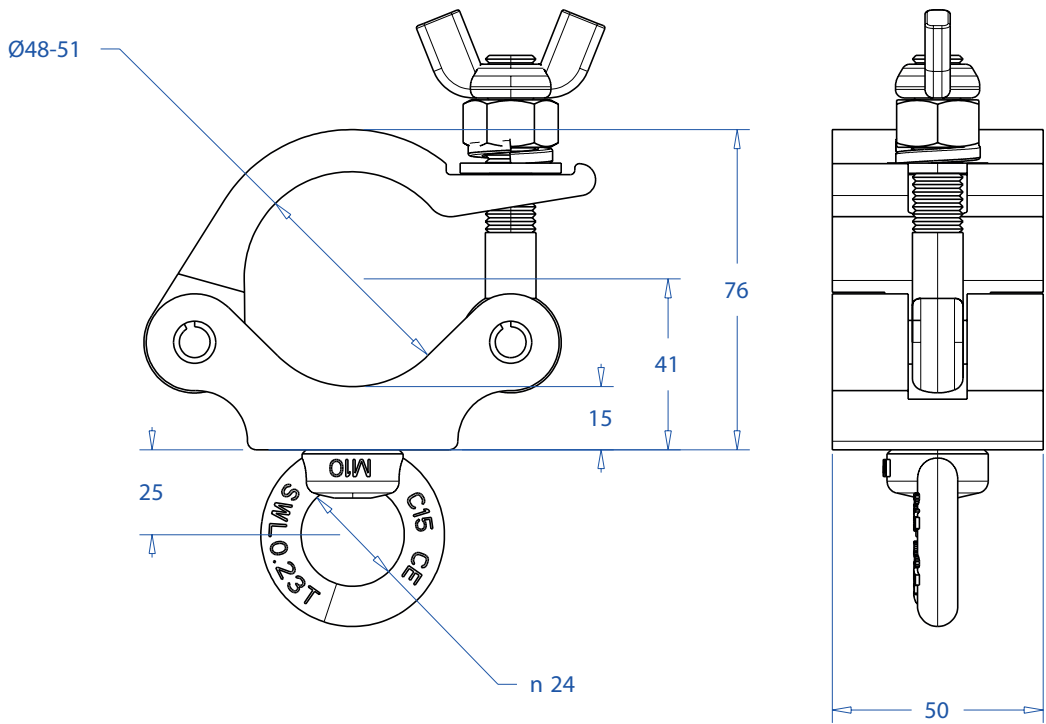
TECHNICAL DATA

Halfcoupler

Article code:	RIHAHCA48
EAN:	8720094421421
WLL:	200 kg
Material:	aluminium alloy
Colour:	silver
Diameter tube:	48-51 mm
Weight:	0.37 kg



DIMENSIONS



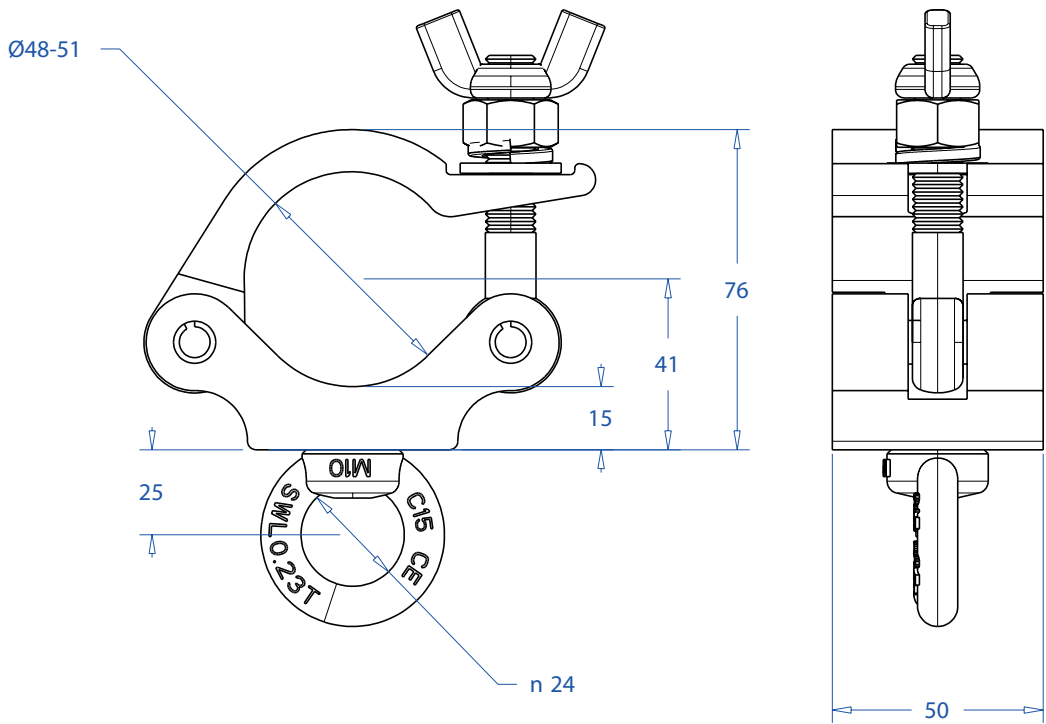
TECHNICAL DATA

Halfcoupler

Article code:	RIHAHCA50
EAN:	8720094421438
WLL:	200 kg
Material:	aluminium alloy
Colour:	black
Diameter tube:	48-51 mm
Weight:	0.37 kg



DIMENSIONS



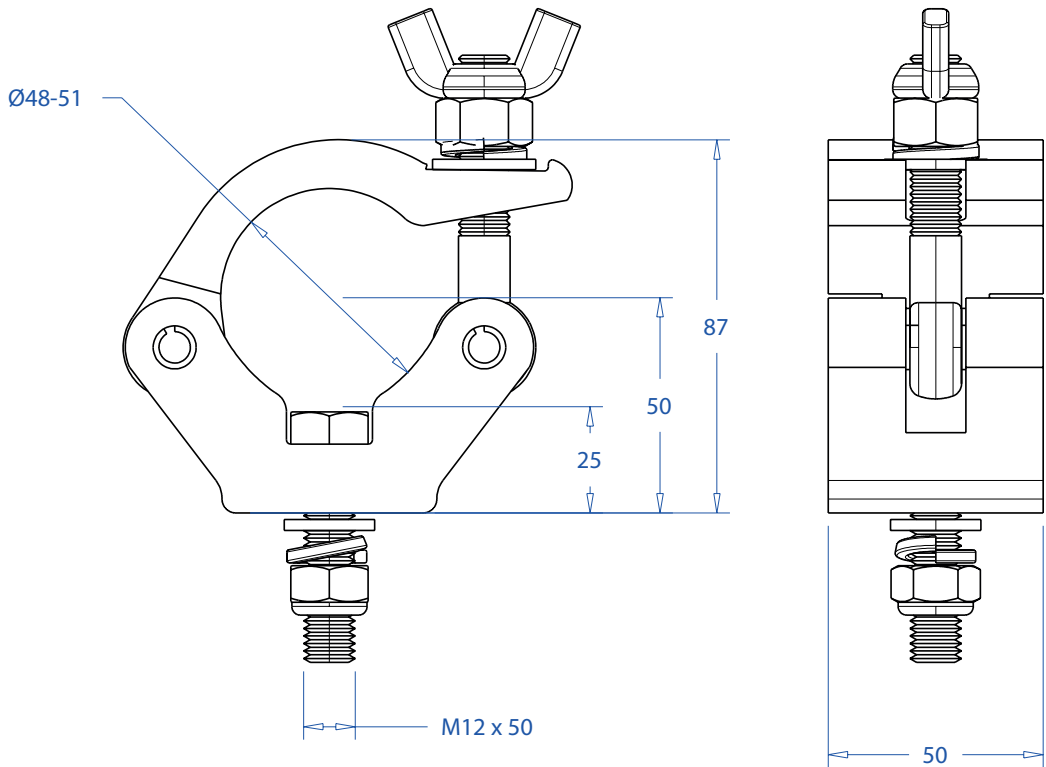
TECHNICAL DATA

Halfcoupler

Article code:	RIHAHCA52
EAN:	8720094421445
WLL:	750 kg
Material:	aluminium alloy
Colour:	silver
Diameter tube:	48-51 mm
Weight:	0.55 kg



DIMENSIONS



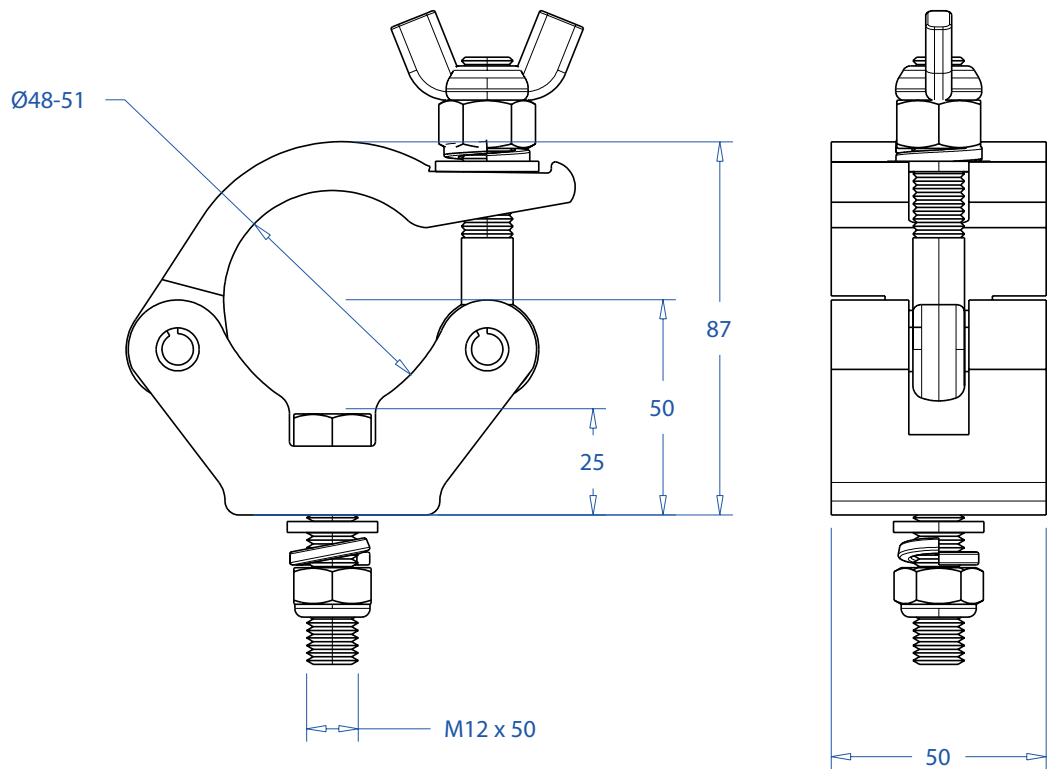
TECHNICAL DATA

Halfcoupler

Article code:	RIHAHCA54
EAN:	8720094421452
WLL:	750 kg
Material:	aluminium alloy
Colour:	black
Diameter tube:	48-51 mm
Weight:	0.55 kg



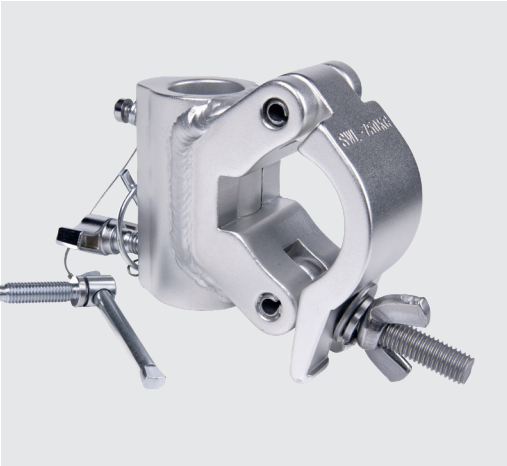
DIMENSIONS



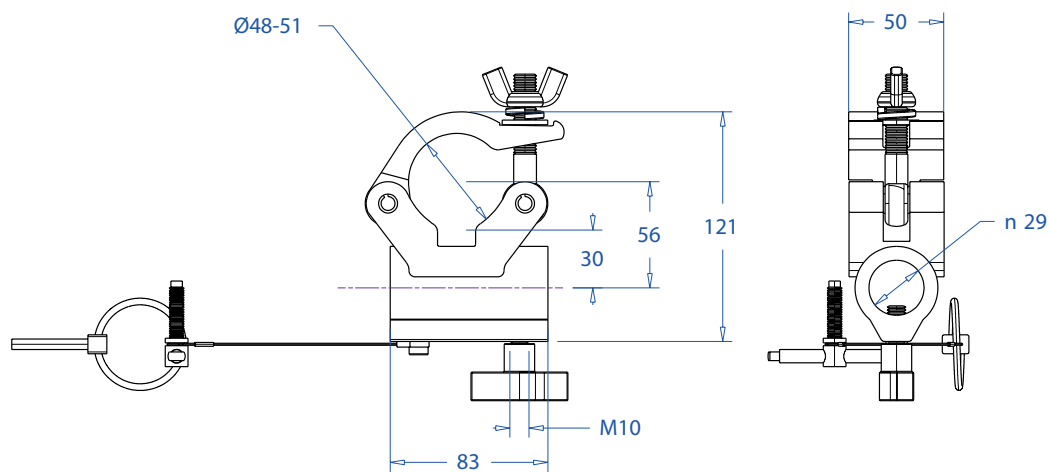
TECHNICAL DATA

Halfcoupler with spigot mount

Article code:	RIHAHCA56
EAN:	8720094429786
WLL:	100 kg
Material:	aluminium alloy
Colour:	silver
Diameter tube:	48-51 mm
Weight:	0.33 kg



DIMENSIONS



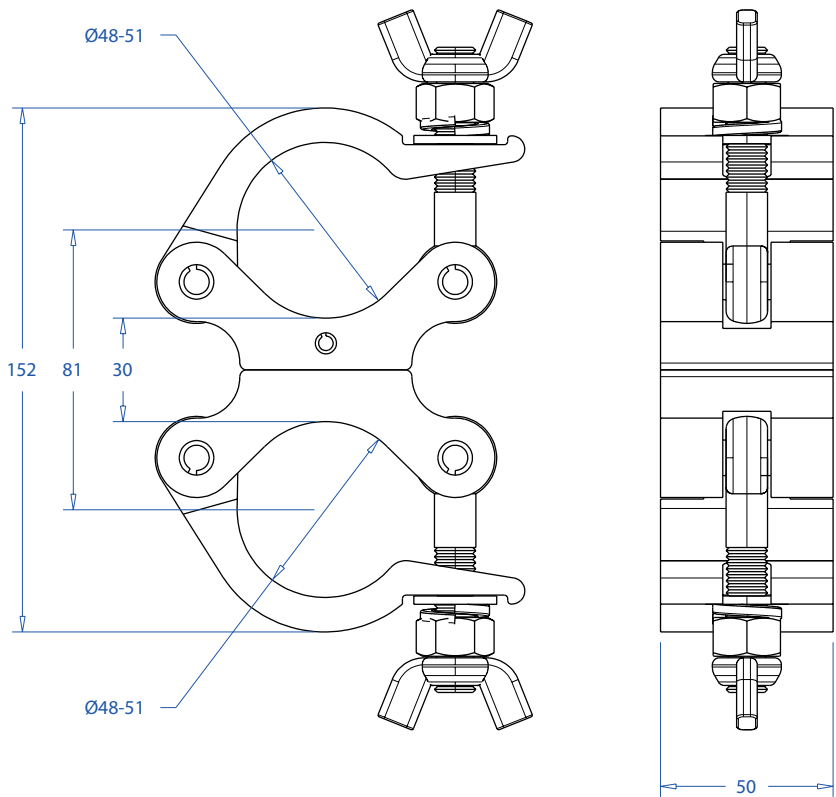
TECHNICAL DATA

Swivel coupler

Article code:	RIHAHCA60
EAN:	8720094421469
WLL:	500 kg
Material:	aluminium alloy
Colour:	silver
Diameter tube:	48-51 mm
Weight:	1.07 kg



DIMENSIONS



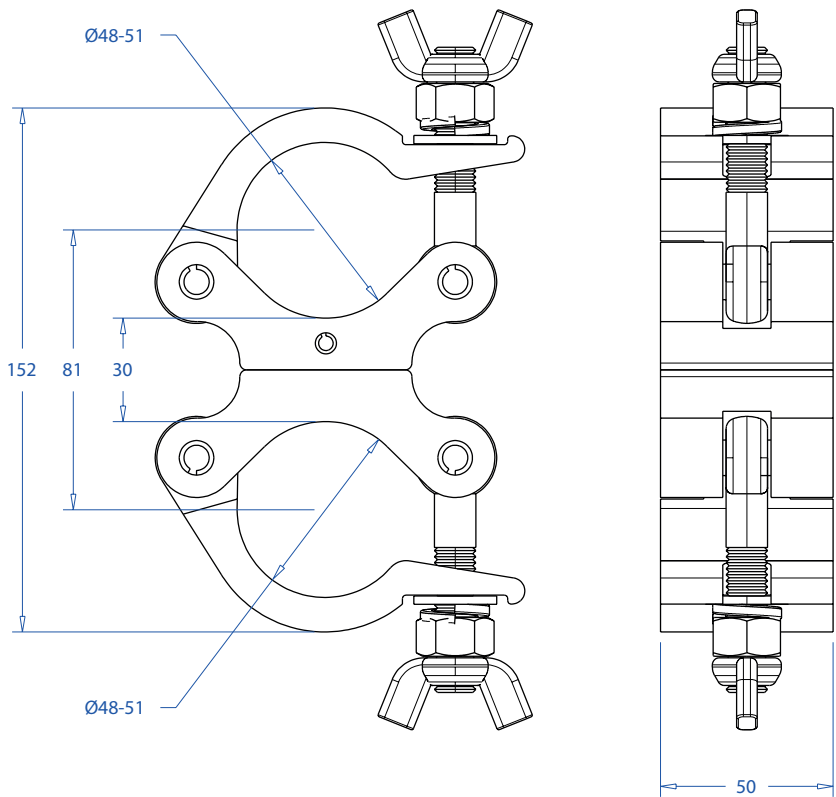
TECHNICAL DATA

Swivel coupler

Article code:	RIHAHCA62
EAN:	8720094421476
WLL:	500 kg
Material:	aluminium alloy
Colour:	black
Diameter tube:	48-51 mm
Weight:	1.06 kg



DIMENSIONS



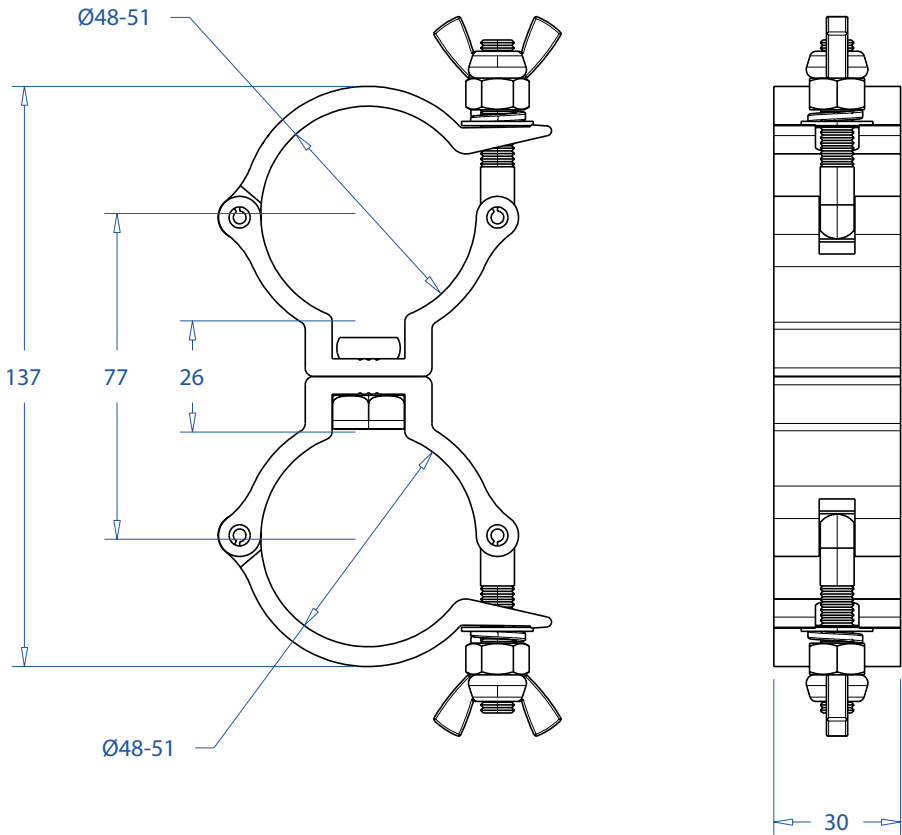
TECHNICAL DATA

Swivel coupler

Article code:	RIHAHCA64
EAN:	8720094421483
WLL:	100 kg
Material:	aluminium alloy
Colour:	silver
Diameter tube:	48-51 mm
Weight:	0.25 kg



DIMENSIONS



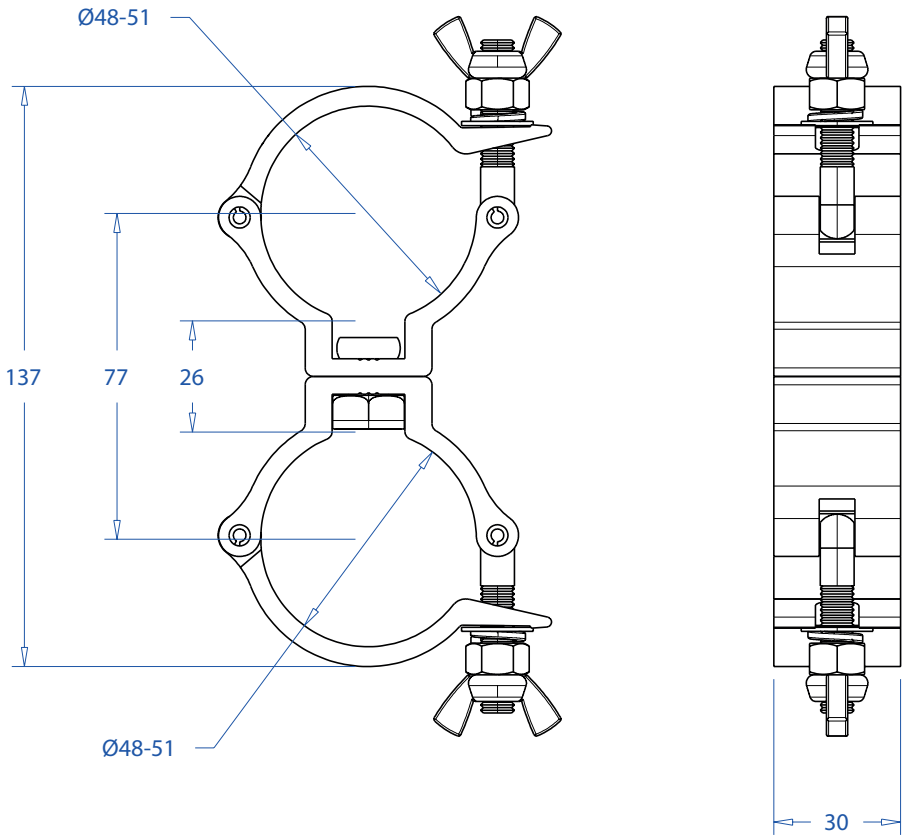
TECHNICAL DATA

Swivel coupler

Article code:	RIHAHCA66
EAN:	8720094421490
WLL:	100 kg
Material:	aluminium alloy
Colour:	black
Diameter tube:	48-51 mm
Weight:	0.25 kg



DIMENSIONS



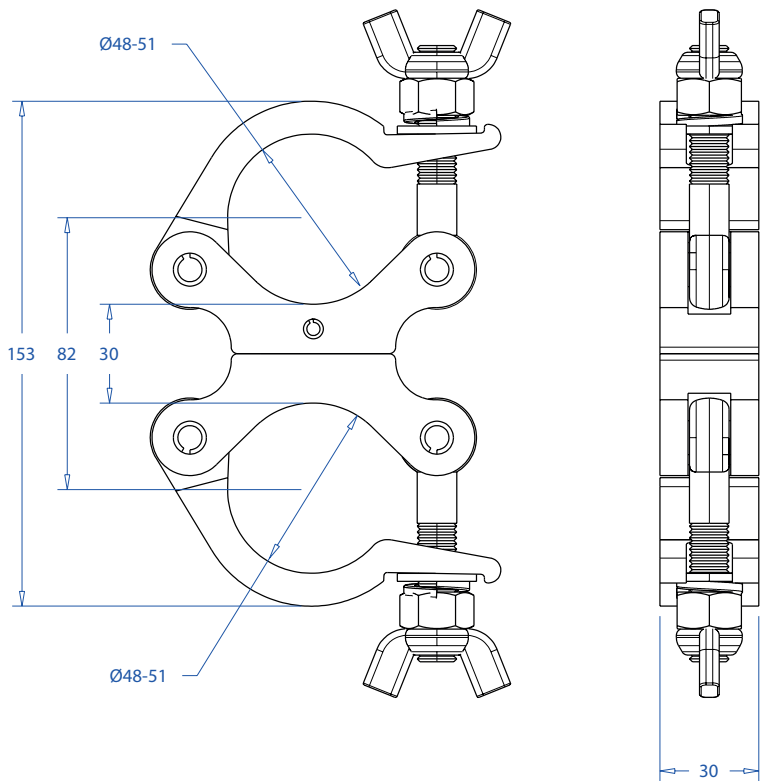
TECHNICAL DATA

Swivel coupler

Article code:	RIHAHCA67
EAN:	8720094421506
WLL:	200 kg
Material:	aluminium alloy
Colour:	silver
Diameter tube:	48-51 mm
Weight:	1.07 kg



DIMENSIONS



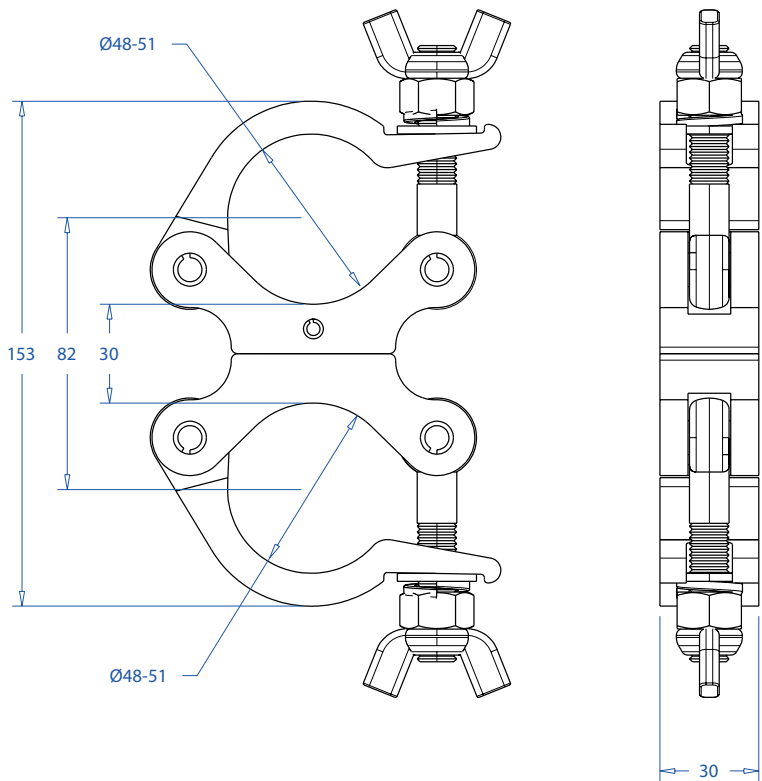
TECHNICAL DATA

Swivel coupler

Article code:	RIHAHCA69
EAN:	8720094427768
WLL:	200 kg
Material:	aluminium alloy
Colour:	black
Diameter tube:	48-51 mm
Weight:	1.07 kg



DIMENSIONS



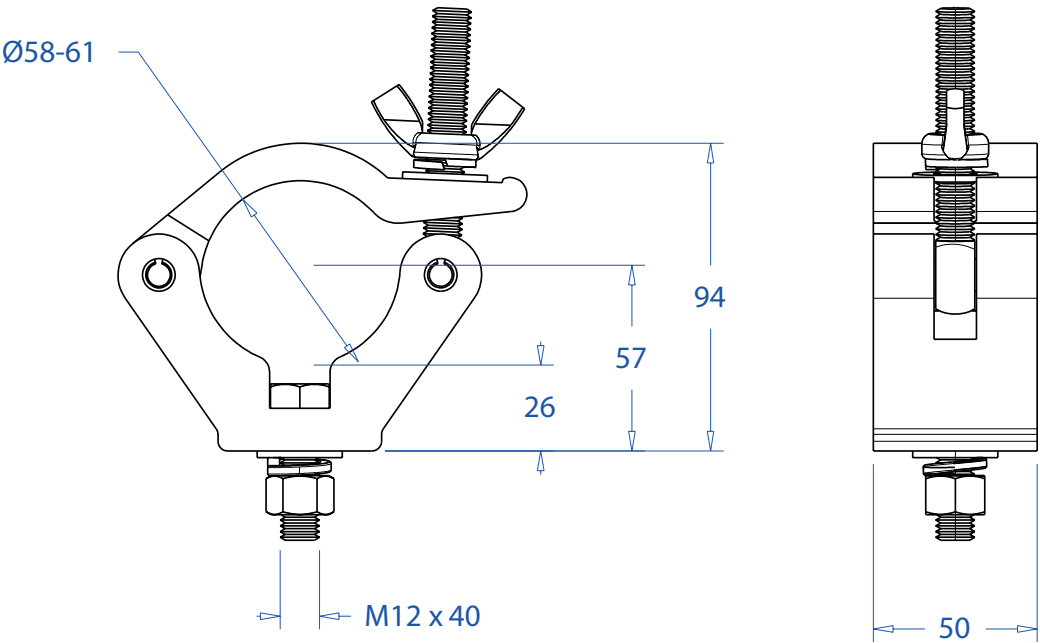
TECHNICAL DATA

Halfcoupler

Article code:	RIHAHCA70
EAN:	8720094421513
WLL:	750 kg
Material:	aluminium alloy
Colour:	silver
Diameter tube:	58 - 61 mm
Weight:	0.73 kg



DIMENSIONS



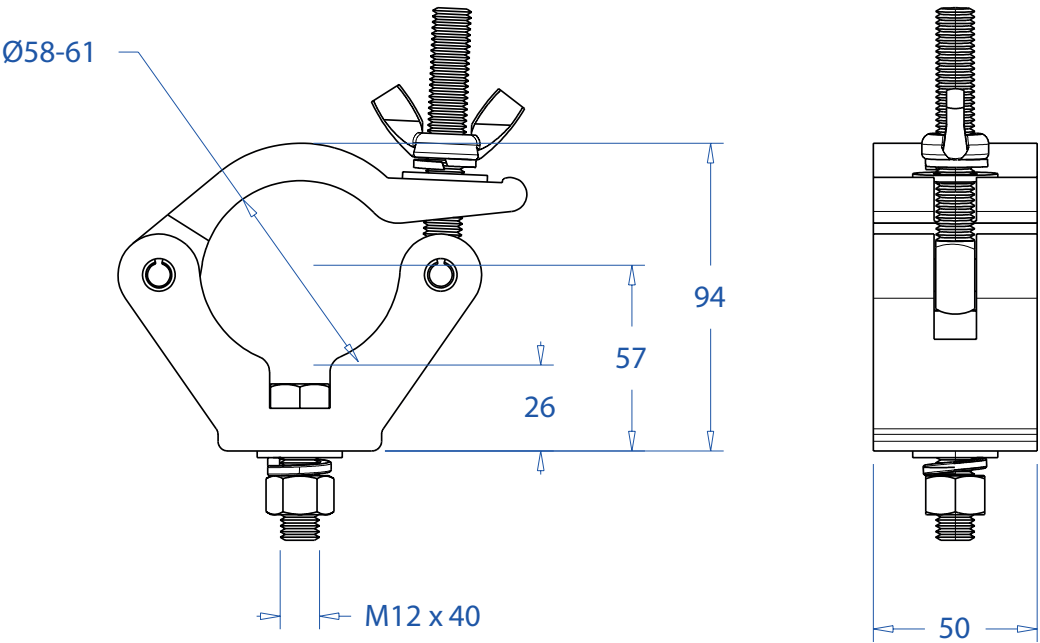
TECHNICAL DATA

Halfcoupler

Article code:	RIHAHCA72
EAN:	8720094421520
WLL:	750 kg
Material:	aluminium alloy
Colour:	black
Diameter tube:	58 - 61 mm
Weight:	0.73 kg



DIMENSIONS



Applicable Directives, Regulations, Standards and Information Papers

The following directive is applicable
2006/42/EC Machinery directive

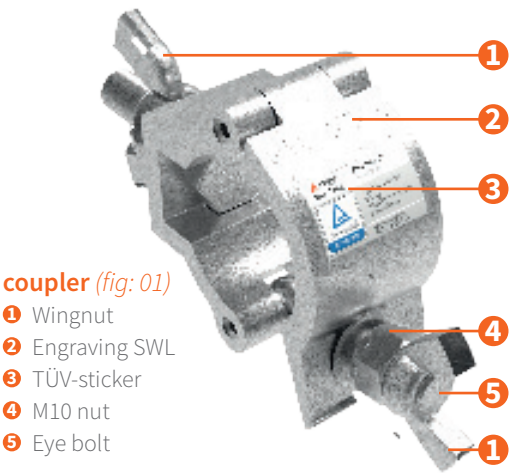
The following regulation is used
DGUV regulation 17 Regulations for stages and studios (formerly known as BGVC1)

Parts of the following standards and information papers are used
DGUV Information Safety at productions and events for television, radio, film, theatre, 215-313 exhibitions: Loads above persons (formerly known as BGI 810-3)

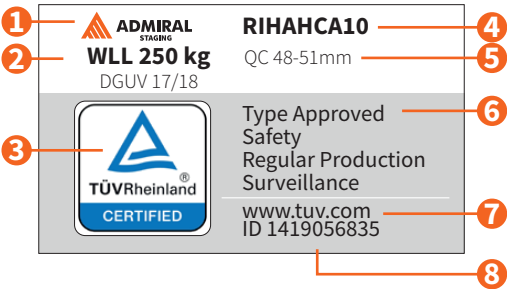
EN 17206:2020 Lifting and load bearing equipment for stages and other production areas within the entertainment industry

BS 7905-1:2001 Lifting equipment for performance broadcast and similar applications. Part 1 specifications for the design and manufacture of above stage equipment

6. IDENTIFICATION



7. EXPLANATION OF THE TÜV-sticker



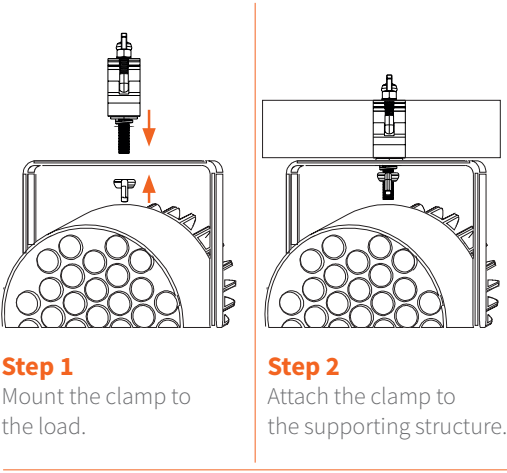
coupler engraving (fig: 02)

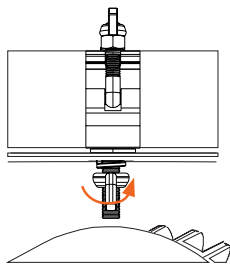
- 1 Brand name
- 2 Working Load Limit
- 3 TÜV logo
- 4 Article number
- 5 Article description
- 6 TÜV information
- 7 TÜV website
- 8 ID-number

8. ASSEMBLY INSTRUCTIONS

WARNING

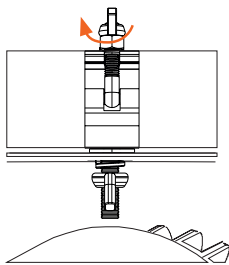
Inspect the CLAMPS before use. Make sure all components are in place and in good order. If damaged, mark the item clearly and take out of service*. Make sure the CLAMPS and supporting structure are dry and free from dirt. *See chapter 11 for further instructions!





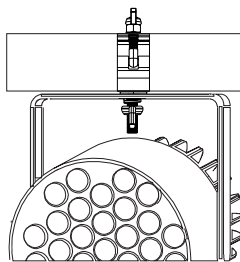
Step 3a

Tighten the wingnut.



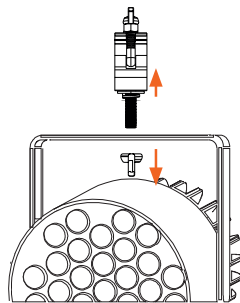
Step 3b

Tighten the wingnut.



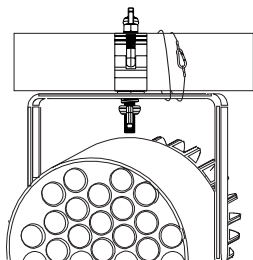
Step 3

Remove the clamp from the supporting structure.



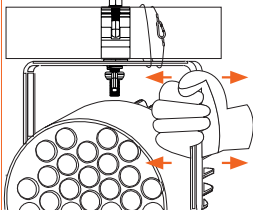
Step 4

Remove the clamp from the load.



Step 4

Mount the safety cable.



Step 5

Check if object is securely fastened.

10. STORAGE

The CLAMPS must be stored in a dry, non-aggressive environment.

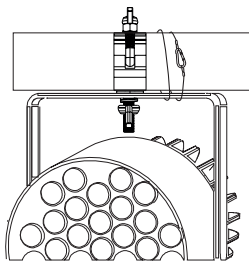
- Make sure the parts cannot bend.
- Avoid vibrations. Rubbing parts can cause excessive wear and tear.



WARNING

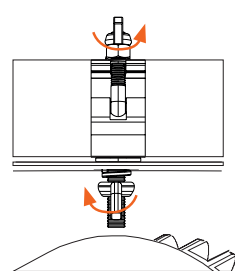
Check the integrity of the CLAMPS after severe vibrations caused by sound systems or if the supporting structure was subject to severe movement e.g. due to heavy winds.

9. DISASSEMBLY INSTRUCTIONS



Step 1

Unmount the safety cable.



Step 2

Unscrew both of the wing nuts.

11. MAINTENANCE & REJECTION CRITERIA

SAFETY INSTRUCTIONS

The CLAMPS hardly need any maintenance under normal use and environmental circumstances.

For safety reasons however, all parts must be checked regularly for dirt, damages, loss and corrosion.

The CLAMPS shall be checked in compliance with the local law by a competent person. Checking shall take place as often as required but with a minimum of 1x per year. In case of doubt contact ADMIRAL.



WARNING

If damaged, mark the item clearly and take it out of service.

- Missing or damaged bolts and nuts should be replaced by genuine ADMIRAL bolts and nuts only. Tighten the bolts and nuts with a torque wrench set at 25 Nm.
- Check all components for damages like cracks, deformations, scratches and corrosion. Damaged and corroded parts shall be rejected and thrown away.
- In general, scratches > 10% of the wall thickness mean the product needs to be rejected from use.
- In general, deformations > 10% of a straight line from the outer surface mean the product needs to be rejected from use.
- Remove all sharp and rough feeling edges and surfaces by using sand paper or a file.
- Check roll pins and welds for cracks. If cracked, replace.

12. WARRANTY

- For a period of 24 months we will repair, free of charge, any damage attributable to faulty materials or workmanship under the condition that the equipment is forwarded, freight paid, to our warehouse or one of the ADMIRAL distributors' warehouses.
- The warranty-period begins with the day of the delivery, proven by a purchase receipt like an invoice or delivery note or their copies.
- The warranty does not cover damage due to transport, negligent handling, overloading the equipment or parts subject to normal wear and tear signs.
- Nor damages that originate from a case of misuse because of nonobservance of the safety regulations in this instruction manual.
- The warranty will be invalid when other parts than the original ADMIRAL parts have been used or modifications of our design have been made by third parties.
- Warranty repairs do not renew nor extend the warranty-period.
- In case of a claim that falls under the warranty, e.g. a malfunction or spare part requirements please contact your point of sale or ADMIRAL.
- The manufacturer is not liable for indirect consequential damage and financial loss.
- The manufacturer shall not be liable for any changes made to the CLAMPS parts nor for any damage resulting from such changes.

13. TÜV CERTIFICATE

Zertifikat

Certificate



Zertifikat Nr. *Certificate No.*
R 50404270

Blatt *Sheet*
0001

Ihr Zeichen *Client Reference*

Unser Zeichen *Our Reference*
05-LRW-50126508 001

Ausstellungsdatum *Date of Issue*
04.04.2018 (day/mo/yr)

Genehmigungsinhaber *License Holder*

Fertigungsstätte *Manufacturing Plant*

Prüfzeichen *Test Mark*

Geprüft nach *Tested acc. to*
2 PFG 1230/02.16



Zertifiziertes Produkt (Geräteidentifikation)
Certified Product (Product Identification)

Lizenzentgelte - Einheit
License Fee - Unit

Schraubzwinge (Aluminum Clamp)

Bezeichnung: (Type Designation)	Zulässige Belastung: (Permissible Load)
RIHAHCA10, RIHAHCA12	250kg
RIHAHCA14, RIHAHCA16	250kg
RIHAHCA22,	10kg
RIHAHCA26, RIHAHCA32	50kg
RIHAHCA30,	75kg
RIHAHCA35, RIHAHCA37	100kg
RIHAHCA40, RIHAHCA41	200kg
RIHAHCA42, RIHAHCA44	500kg
RIHAHCA48, RIHAHCA50	200kg
RIHAHCA52, RIHAHCA54	750kg
RIHAHCA60, RIHAHCA62	500kg
RIHAHCA64, RIHAHCA66	100kg
RIHAHCA67, RIHAHCA69	200kg
RIHAHCA70, RIHAHCA70	750kg

ANLAGE (Appendix): 1

Dem Zertifikat liegt unsere Prüf- und Zertifizierungsordnung zugrunde und es bestätigt die Konformität des Produktes mit den oben genannten Standards und Prüfgrundlagen. Zusätzliche Anforderungen in Ländern, in denen das Produkt in Verkehr gebracht werden soll, müssen zusätzlich betrachtet werden. Die Herstellung des zertifizierten Produktes wird überwacht.
This certificate is based on our Testing and Certification Regulation and states the conformity of the product with the standards and testing requirements as indicated above. Any additional requirements in countries where the product is going to be marketed have to be considered additionally. The manufacturing of the certified product is subject to surveillance.

TÜV Rheinland LGA Products GmbH, Tillystraße 2, 90431 Nürnberg

Tel.: +49 221 806-1371 e-mail: cert-validity@de.tuv.com
Fax: +49 221 806-3935 http://www.tuv.com/safety

Zertifizierungsstelle



Shaobo Chen

14. EC DECLARATION OF CONFORMITY



EC-DECLARATION OF CONFORMITY FOR MACHINERY (2006/42/EG Annex II)

Rolight Theatertechniek
Josink Kolkweg 10
7545 PR Enschede
The Netherlands

Herewith declares that:

ADMIRAL "CLAMPS & COUPLERS"; all codes starting with RIHAHCA***

- is in compliance with the Machinery Directive 2006/42/EwC annex II
- the following harmonized standards have been applied (or parts/clauses of): EN 12100-1-2010
- Part/clauses of the following technical regulations , standards and information papers have been used: German DGUV 17-18, German DGUV 215-313, EN 10204:2004, EN 17206 :2020, BS 7905-1 :2001

Signed and approved by the Legal Representative as the person authorised to create the technical file.

Enschede , The Netherlands 9-Oktober-2023

Ms. E. Dijk
Owner Rolight Theatertechniek b.v.



Rolight

