



USER MANUAL

Wall & Grid Hangers



Original Instructions

Part No's:

T30405 - T30420

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Part No.	Tube Diameter	Description	Finish	WLL (Kg) Static
T30405	Ø48mm	Grid Hanger	Powder painted silver	200Kg
T30406	Ø48mm	Grid Hanger	Powder painted black	200Kg
T30407	Ø48mm	Corner Grid Hanger	Powder painted silver	200Kg
T30408	Ø48mm	Wall Hanger	Powder painted silver	100Kg
T30409	Ø48mm	Wall Hanger	Powder painted silver	100Kg
T30415	Ø48mm	De-mountable Grid Hanger	Powder painted black	200Kg
T30420	Ø48mm	De-mountable Corner Grid Hanger	Powder painted black	200Kg

The Wall and Grid Hangers range consists of various items used to suspend loads or make structural connections. Wall and Grid Hangers are used in the entertainment market. They can be used for permanent support structures in places of entertainment such as museums, event venues, theatres etc.

Suspending loads is inherently dangerous so Wall and Grid Hangers are strictly for professional use only. Only competent persons are permitted to install and use Wall and Grid Hangers. A competent person in this respect is an individual with relevant technical education, training and/or experience enabling him or her to perceive risks and to avoid hazards occurring during use of a product.

The load capacity differs depending on the model and the safety factor required. Wall and Grid Hangers are suitable to fit steel and aluminium tubes of Ø48mm. Wall and Grid Hangers are available in Powder painted silver or black. Special attention has always been taken to safety and all parts have been tested and rated and are supplied with a maximum WLL.

Special care must always be taken with the mounting of Wall Brackets to walls. The correct fixings must always be used and it is important to remember that the bracket is only as strong as the fixings used and the wall itself. Some models of Wall and Grid Hangers are composed of different elements each with an individual Working Load. The lowest of the working loads determines the overall strength and thus shall be used as max working Load for the application.



Warning

Check local legislation for the application of use and adapt the use where ever necessary.

The intended use of Wall and Grid Hangers is to be used as a suspension accessory to hang loads or create a connection between structural elements. Loads can be, but not limited to, lighting fixtures, video projectors, sound systems and stage sets. Structural elements can be pipes, trusses, tubular frame works or lifting brackets.

Any use other than that mentioned is considered to be a case of misuse. The user/operator and not the manufacturer shall be liable for any damage or injury resulting from such cases of misuse.

Limitations of use

- Wall and Grid Hangers can be operated in -20° Celsius up to +60° Celsius.
- Wall and Grid Hangers are for indoor use only.
- The use of Wall and Grid Hangers is the sole responsibility of the user.
- To use the Wall and Grid Hangers the user must also observe the safety regulation, the assembly and disassembly instructions to be found in this manual.
- All persons who use and service this device have to be acquainted with this manual and must be informed about its potential hazards.
- It is also imperative to observe the local accident prevention regulations and/or occupational health and safety regulations.
- Care must be taken when used in conjunction with thin wall truss.
- The manufacturer is not liable for indirect consequential damage and financial loss. The manufacturer shall not be liable for any changes made to the device nor for any damage resulting from such changes.

The following modifications are allowed to be executed by third parties:

Painting:

- To paint a hanger, cover all bolts and nut with tape.
- Use a wet-paint or powder coating paint system to colour the part.

Safety Instructions:

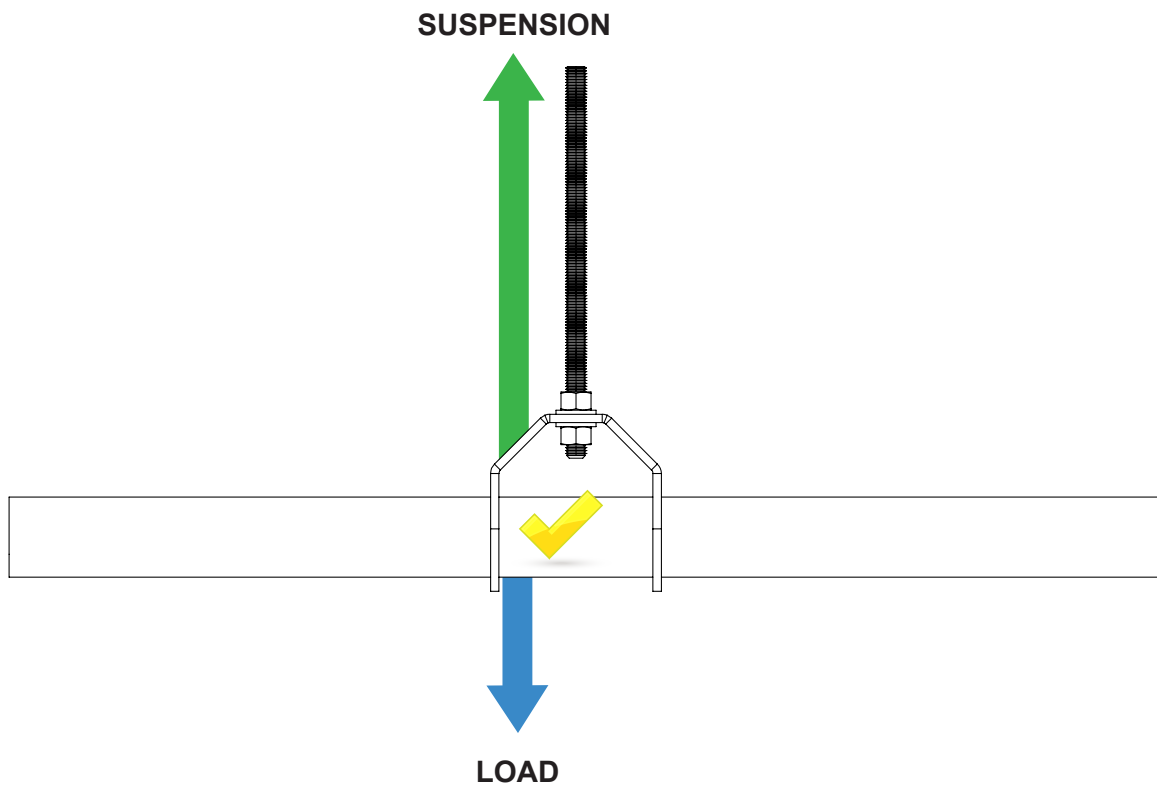
For health and safety reasons people assembling, disassembling, transporting, maintaining and cleaning hangers should wear adequate Personal Protection Equipment such as, but not limited to: gloves, hard hats and safety shoes. In line with the use of PPE organisational measures may need to be implemented to keep the area beneath installations clear of personnel.

- Wall and Grid Hangers shall be solely used for the range of pipe diameters as stated in the manual.
- Do not exceed the working load limit marked on the Wall and Grid Hangers.
- Make sure the resulting forces on the supporting structure are approved by a competent person.
- Wall and Grid Hangers shall be inspected by a competent person as often as required but with a minimum of once a year.
- Inspect equipment before every use. Damaged Wall and Grid Hangers shall be taken out of service.
- Maintenance and repairs can be undertaken only by authorised personnel. If in any doubt contact the manufacturer.
- Do not throw Wall and Grid Hangers.



Warning

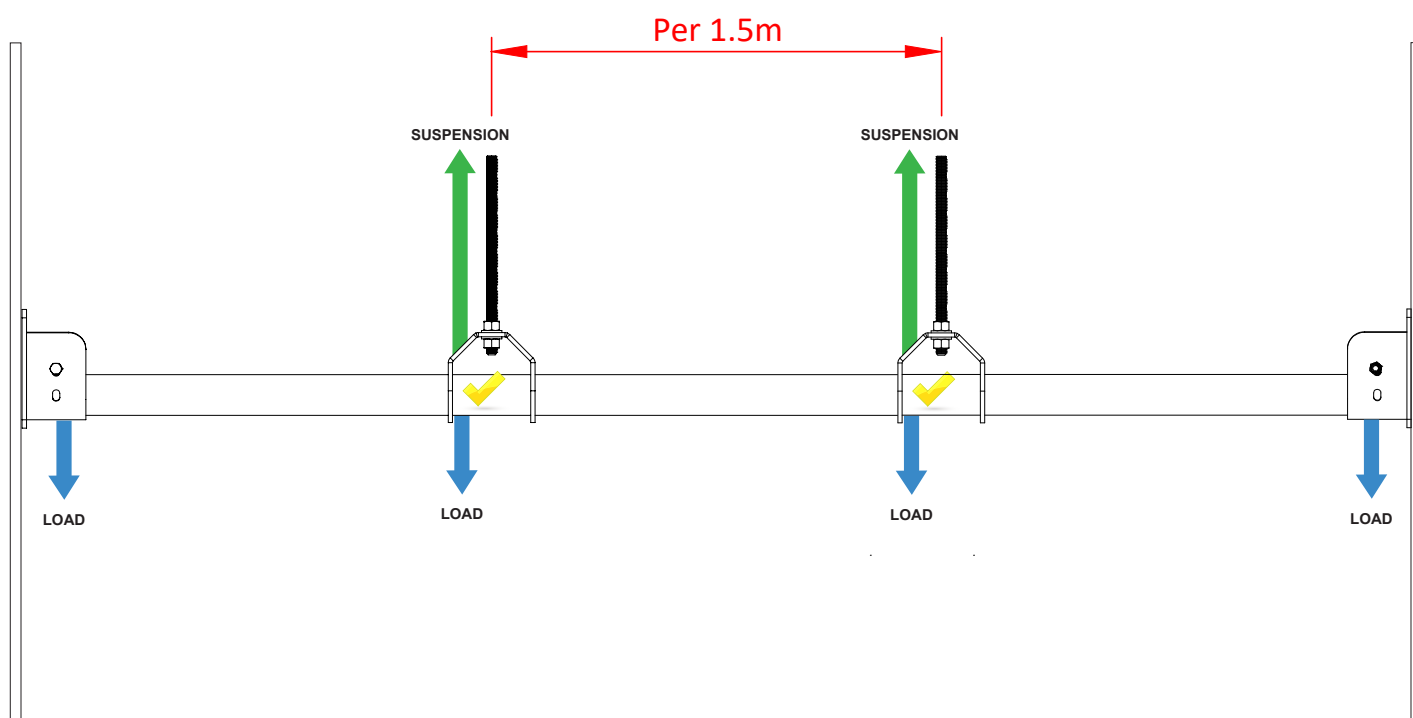
The working load on the grid hanger label is solely for a straight pull between the supporting pipe and connection point on the hanger.



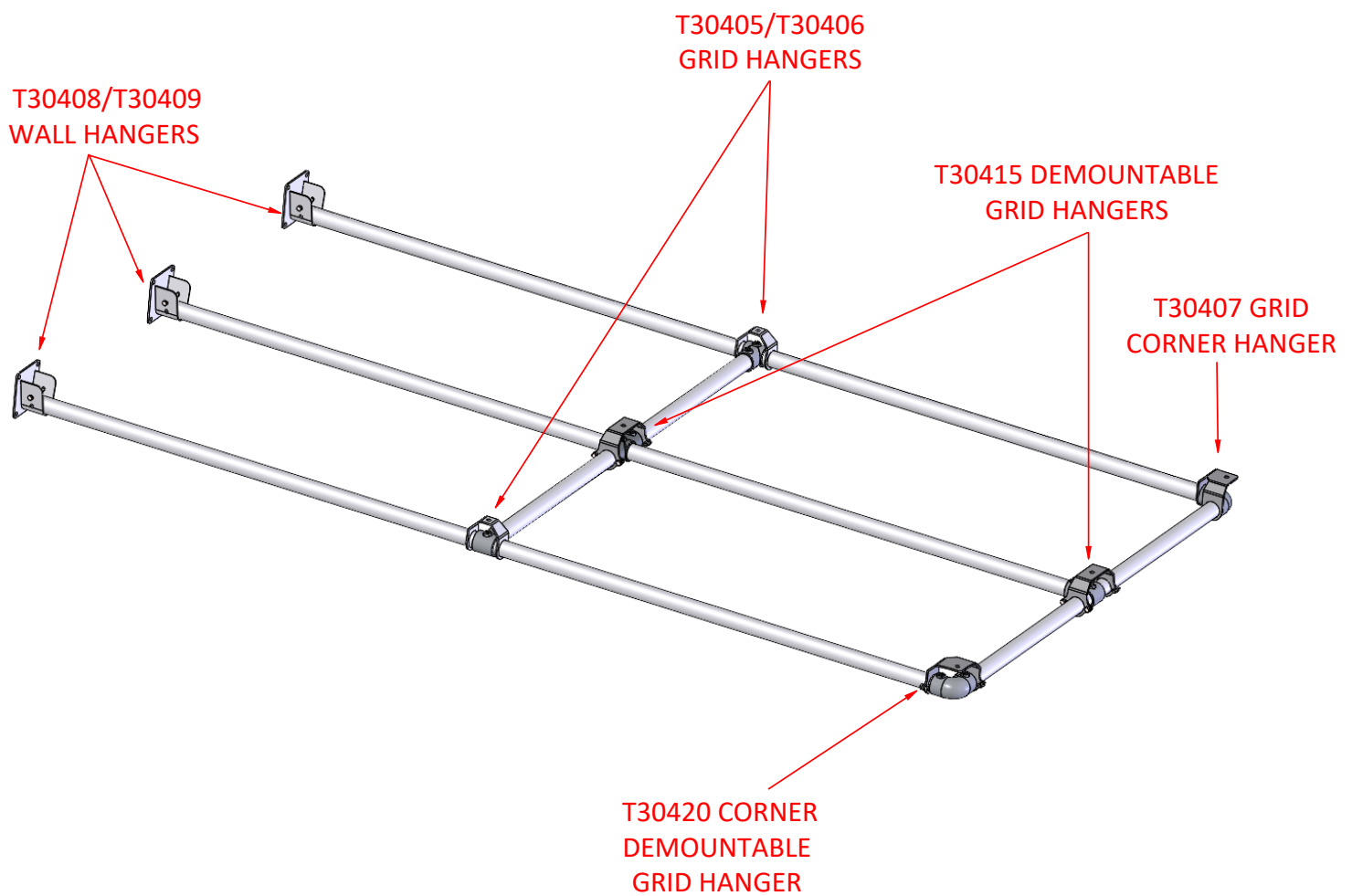


Warning

Please check barrel specification for correct suspension spacing.



Example below shows a barrel grid using wall hangers and a combination of grid hangers.



WALL AND GRID HANGERS USED FOR SUSPENSION:

2006/42/EC - Machinery Directive.

BS7905-1:2001 - Lifting equipment for performance broadcast and similar applications. Part 1 specifications for the design and manufacture of above stage equipment (excluding trusses and towers).

BS7906-1:2005 - Lifting equipment for performance broadcast and similar applications. Part 1 specifications for the design and manufacture of above stage equipment.

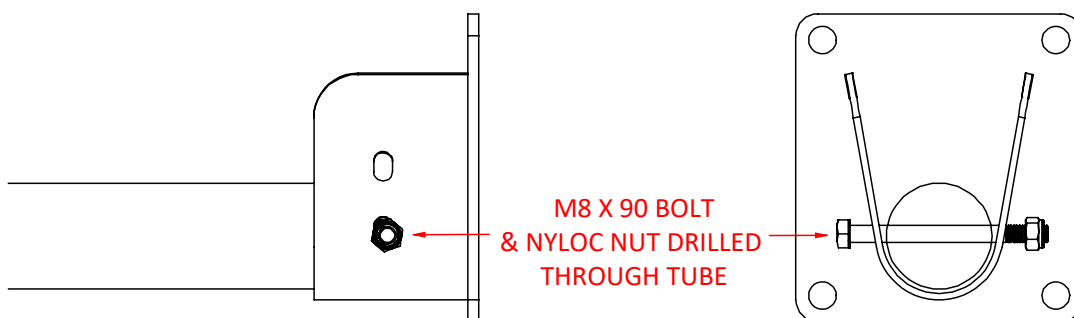
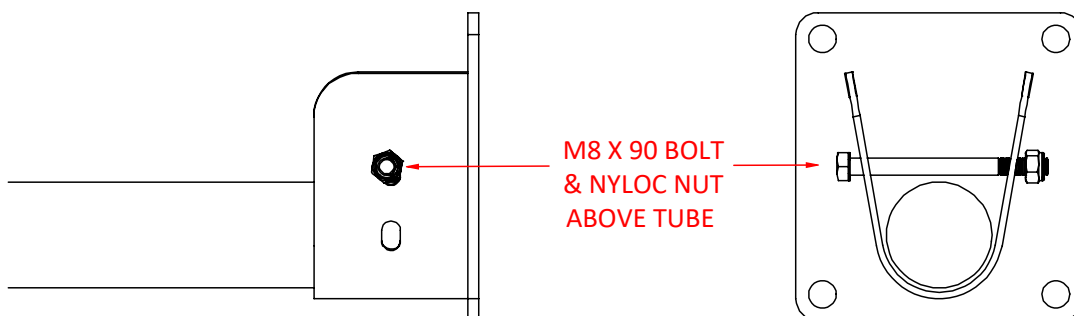
TRANSPORT AND STORAGE

- Due to the relatively high self-weight it is advised to keep storage bins as small as possible in such a manner they can be lifted by one person. Local legislation for maximum load to be lifted by persons shall be adhered to.
- Before Wall and Grid Hangers are put into storage they shall be checked for defects. Defective Wall and Grid Hangers shall be clearly marked and put aside in such a way they cannot be re-used.
- Ensure the product is stored and kept in a dry, ventilated environment to avoid corrosion.
- Use appropriate packaging to prevent damage to parts and threads when transporting clamps and brackets.

Installation

Wall Hangers are steel wall brackets designed to accept a 48mm diameter tube. Ideal for fixing a tube between two fixed walls. Designed to be used in pairs as part of a fixed grid installation in conjunction with other means of barrel suspension such as T30400 Universal clamps or T30406 Grid hangers. Supplied with an M8 X 90 bolt & M8 Nyloc nut which can be used bolted through the drilled tube using the lower holes or to hold the tube in the Hanger using the top holes.

1. Secure the Wall Hanger to the wall using appropriate anchors or fasteners, ensuring it is level and firmly attached.
2. Undo the nut on the retaining bolt & remove the bolt.
3. Place the end of the tube in the holder with the tube supported in the middle and at the other end.
4. Put the bolt back in & tighten the nut with a spanner.
5. If using the lower holes in the Hanger, drill the barrel in the correct place to accept the M8 bolt. Put the bolt through the lower holes & through the tube & tighten the nut with a spanner.
6. Use a secondary safety as legislation requires.



Standard Grid Hangers are folded steel hangers designed to suspend 48mm diameter tubes from an M12 stud or bolt fixing. They come in straight or corner variations. Ideal for suspending a barrel grid beneath aircon ducting etc. The hanger's width is the correct size to fit over many pipe clamp fittings.

1. Slide the Grid Hanger over the barrel to the required position.
2. Use M12 bolts or threaded rod and nuts to fix from the Grid Hanger to the fixing above.
3. Always use a rated ceiling fixing.
4. Only use M12 bolts or studding.
5. Use a secondary safety as legislation requires.

Demountable Grid Hangers are a folded steel hanger designed to suspend 48mm diameter tube from an M12 stud or bolt fixing. They come in straight or corner variations and have removable sections of the loops to make them easier to rig. Ideal for suspending a barrel grid beneath aircon ducting etc. The hanger's width is the correct size to fit over many pipe clamp fittings.

1. Undo the nut & remove the bolt from one half of each of the lower sections.
2. Loosen the nut and bolt on the other half of each of the lower sections and let the loop swing open.
3. Put the barrel to the required position and swing the loop back into position on each side.
4. Replace the nut and tighten with a spanner.
5. Use M12 bolts or threaded rod and nuts to fix from the Grid Hanger to the fixing above.
6. Always use a rated ceiling fixing.
7. Only use M12 bolts or studding.
8. Use a secondary safety as legislation requires.



Warning

Grid Hangers are only designed to fit Ø48.3mm barrel.

STUDDING TO BE SUITABLY TIGHTENED WITH TOOLS

COMMISSIONING

- Wall and Grid Hangers are not intended to serve as a means to secure electrical bonding and any fixtures must be grounded in accordance with accepted electrical practices.
- Before applying a load check that all connections are properly made.
- Check if all parts are in good order.

DISASSEMBLY INSTRUCTIONS

- Ensure all loads are removed prior to disassembly.
- Check if the Wall and Grid Hangers are in good order.
- If not, mark them clearly and put aside.

All items are to be checked for corrosion, deformation and cracks, and if found, they are to be removed from service.

INITIAL INSPECTIONS - When first acquired, whether they are new or used, Wall and Grid Hangers should be inspected and a record of the inspection maintained.

REGULAR INSPECTIONS - Regular visual inspections should be carried out by a competent person and should be carried out prior to each incident of use.

PERIODIC INSPECTIONS - Periodic visual inspections should be carried out and a record of the inspections maintained. Periodic inspections should be performed by a competent person and should be conducted at least once each year or in accordance with an inspection routine established by a qualified person. Wall and Grid Hangers which are subject to any accident must be inspected according to the requirements per periodic inspection.

INSPECTION FREQUENCY

WALL & GRID HANGERS IN REGULAR SERVICE - Wall and Grid Hangers in regular service should be subjected to regular and periodic inspections.

PERMANENT INSTALLATIONS, STATIONARY - Periodic inspections should be carried out on all clamps and brackets that are permanently installed in a stationary (not moving) configuration. The frequency of inspections should be determined on the basis of the prevalent conditions.

PERMANENT INSTALLATIONS, MOVING - Periodic inspections should be carried out every three months, or in accordance with an inspection routine established by a qualified person, on all Wall and Grid Hangers that are installed in a permanent configuration where movement of the truss system is an integral part of use.

RECORDS - Records of initial inspections and periodic inspections should be kept by the owner for each Wall and Grid Hangers and should be signed and dated by the person carrying out the inspections.



Safety Instructions

Although under normal use and environmental circumstances, Wall and Grid Hangers need little maintenance, for safety reasons, all parts must be checked regularly for damage, cracks and corrosion.

NOTICE

Wall and Grid Hangers shall be checked in compliance with the local law by a competent person. Checking shall take place as often as required but at a minimum of once a year. If in doubt contact the manufacturer.

- Approved personnel must carry out a visual and functional test before each use.
- Check all components for damage and corrosion. Damaged and corroded parts shall be exchanged with required approved replacement parts.
- Burrs and sharp edges shall be removed using fine sandpaper or a file. DO NOT use any mechanical abrasive machine to remove sharp edges from the Wall and Grid Hangers.
- Maintenance and repairs must only be carried out by a competent person. If in doubt, contact the manufacturer.
- Only use hot water and soap to remove dirt from clamps and brackets – DO NOT use abrasive fluids.
- Do not re-zinc plate steel parts.
- Approved personnel must carry out more detailed inspection and testing of the product on a regular basis depending on the usage of the product.
- Written records should be kept from the date the product was put into operation.



Warning

- The installer/operator must read and understand the User Manual before using the equipment.
- Operators shall be adequately instructed and fully understand the safe use of the equipment before use.
- Failure to carry out maintenance as necessary, including the replacement of parts to the correct standard could render this equipment unsafe and the manufacturer cannot accept any responsibility in this respect.
- DO NOT modify the equipment as this could lead to a critical failure.
- DO NOT use this equipment for a purpose that it is not intended. This could lead to a failure of the equipment and a risk of falling objects.

REPAIRS AND REPLACEMENT OF PARTS

If the Wall and Grid Hangers are damaged, contact the manufacturer.

DISPOSAL

Products that are no longer needed can be scrapped. Preferably remove all steel parts, store part separately before offering them to a scrapping company. The following materials are used:

- Mild Steel
- Steel Grade 8.8

WARRANTY

- For a period of 12 months we undertake to repair, free of charge any damage attributable to faulty materials or workmanship, provided that the appliance is forwarded, freight paid, to our works or one of the Doughty appointed service agents.
- The guarantee-period begins on the day of the delivery, proven by a purchase receipt like an invoice or delivery note or their copies.
- The guarantee only is applicable for new equipment.
- The guarantee does not cover damage due to transport damage, negligent handling, overload or parts subject to normal wear and tear. Nor damages that originate from a case of misuse because of non-observance of the instructions in this manual.
- The fitting of non-original replacement parts or modifications of design by third parties invalidates the guarantee.
- Guarantee repairs do not renew nor extend the guarantee-period.
- In case of a claim under the guarantee or spare part requirements please contact your Doughty service agent.
- The manufacturer is not liable for indirect consequential damage or financial loss.
- The manufacturer is not liable for any changes made to the Wall and Grid Hangers or for any damage resulting from such changes.



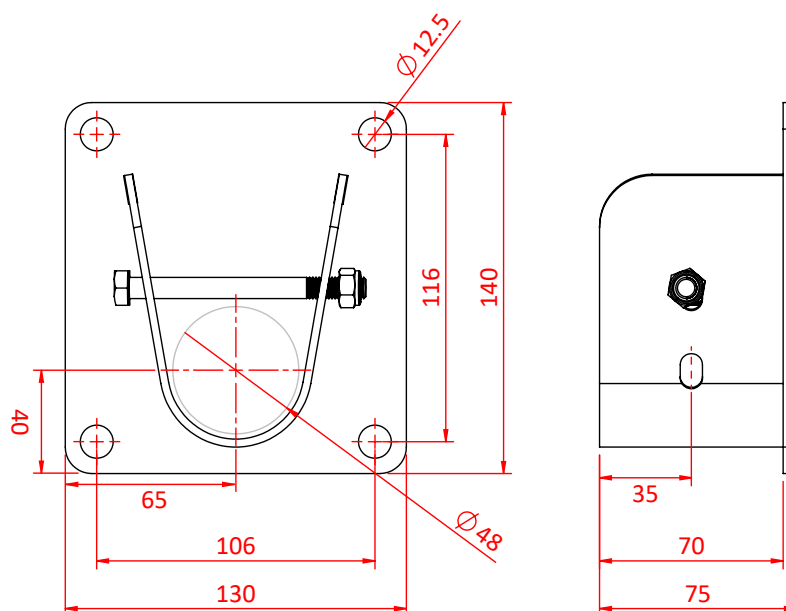
Wall Hanger

Product Data Sheet



The Wall Hanger should be used in pairs to support a Barrel / Tube between two walls.	
Part Nos	T30408 - Silver T30409 - Black
Tube Diameter	Ø48.3mm
Material	S275 Mild Steel Fixings Grade 8.8
Finish	Powder Paint
Weight	1.10Kg
WLL	100kg
Factor of Safety	5:1

Dimensions in mm



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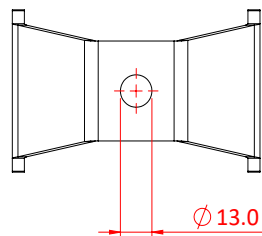


Grid Hanger

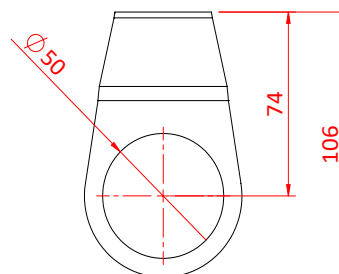
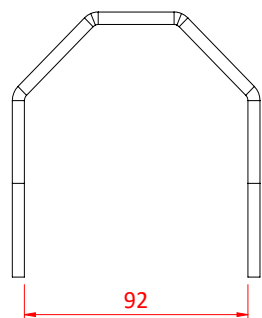
Product Data Sheet



The Grid Hanger enables a barrel to be suspended from a stud drop	
Part Nos	T30405 - Silver T30406 - Black
Tube Diameter	Ø48.3mm
Material	S275 Mild Steel Fixings Grade 8.8
Finish	T30405 - Silver Powder Paint T30406 - Black Powder Paint
Fixings	To be used with M12 Studding
Weight	0.35Kg
WLL	200kg
Factor of Safety	5:1



Dimensions in mm

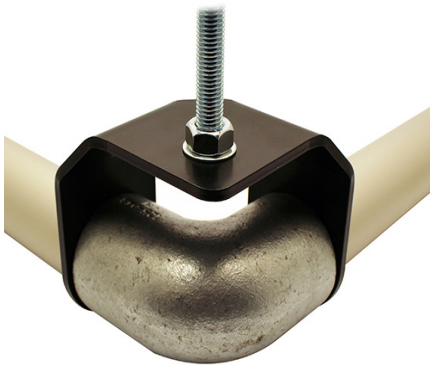


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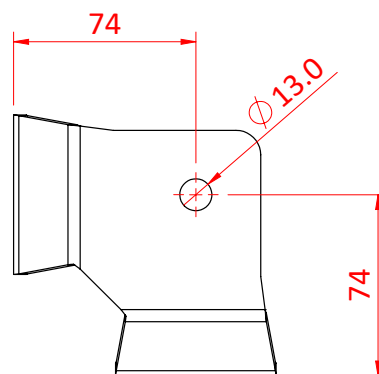
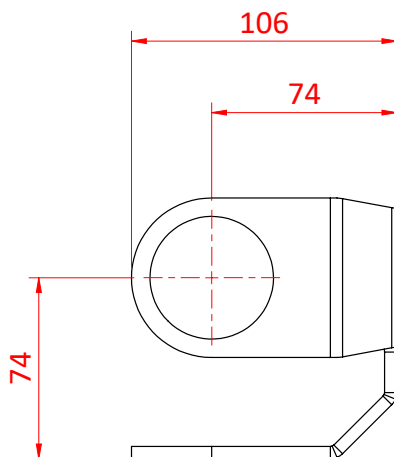
Corner Grid Hanger

Product Data Sheet



The corner Grid Hanger enables a corner grid point to be suspended from a stud drop	
Part Nos	T30407
Tube Diameter	Ø48.3mm
Material	S275 Mild Steel Fixings Grade 8.8
Finish	Black Powder Paint
Fixings	To be used with M12 Studding
Weight	0.35Kg
WLL	200kg
Factor of Safety	5:1

Dimensions in mm



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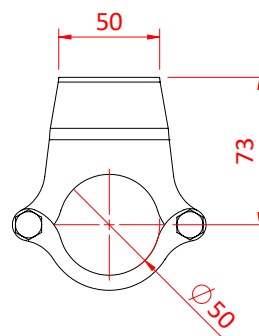
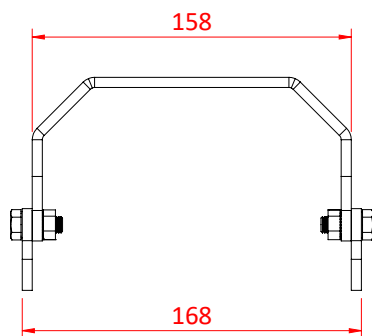
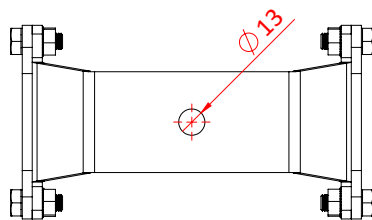
Demountable Grid Hanger

Product Data Sheet



A Steel Grid Hanger which can be installed without dismantling the grid	
Part Nos	T30415
Tube Diameter	Ø48.3mm
Material	S275 Mild Steel Fixings Grade 8.8
Fixings	To be used with M12 Fixings
Finish	Powder Painted Black
Weight	0.40Kg
WLL	200kg
Factor of Safety	5:1

Dimensions in mm



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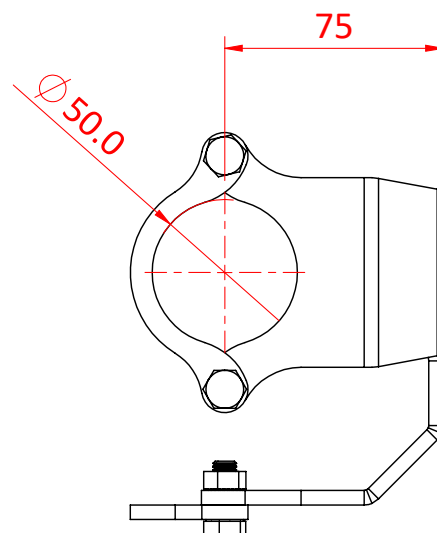
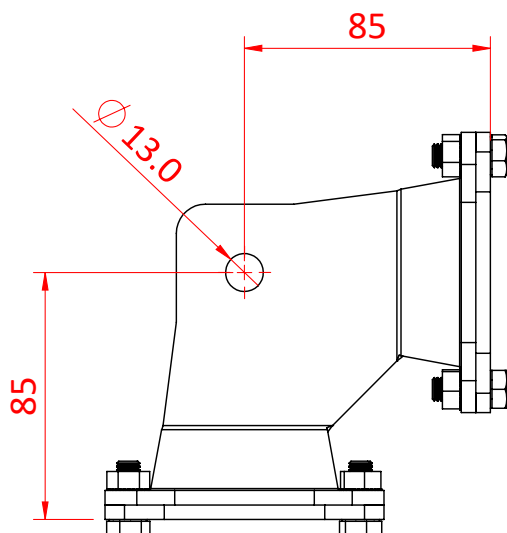
Product Data Sheet

Demountable Corner Grid Hanger



A Steel Corner Grid Hanger which can be installed without dismantling the grid	
Part Nos	T30420
Tube Diameter	Ø48.3mm
Material	S275 Mild Steel Fixings Grade 8.8
Fixings	To be used with M12 Fixings
Finish	Powder Painted Black
Weight	0.40Kg
WLL	200kg
Factor of Safety	5:1

Dimensions in mm



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Inspection List

ITEM	FAULT	REPAIR	DATE	SIGNATURE



Engineering Ltd

EC-DECLARATION OF CONFORMITY

According to the Machinery Directive 2006/42/EEC Annex II

Doughty Engineering Ltd

Crow Arch Lane
Ringwood
Hampshire
BH24 1NZ

Herewith declares that:

T30405, T30405, T30407, T30408, T30409, T30415 & T30420

Wall and Grid Hangers

Are in compliance with the following harmonized standards/standards/regulations.

Machinery Directive 2006/42/EEC annex II

- Machinery Directive 2006/42/EC;
- BS EN 12100:2010 – Safety of Machinery – General Principles for Design – Risk Assessment and Risk Reduction.
- BS 7906-1:2005 - Lifting Equipment for Performance, Broadcast and Similar Applications;
- DGUV 17 – Regulations for Stages and Studios
- DGUV Information 215-313

Signed for and behalf of **Doughty Engineering Ltd**

Name **Dan Phillips**

Position **Company Director** being the person responsible appointed by the manufacturer.

Company Registration No. London 972614
Registered Office: Crow Arch Lane, Ringwood, Hants, BH24 1NZ
Directors: J.C.G. Chiverton. S.C. Wright. D. Phillips. D.M. Chorley



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Note: Whilst every effort has been made to ensure that the information contained within this manual is correct, Doughty Engineering does not accept any liability for errors or omissions. Specifications and technical data are intended for guidance purposes only and may vary.