

Oil & Gas

**lindapter**<sup>®</sup>

Technical Innovation in  
Steelwork Connections

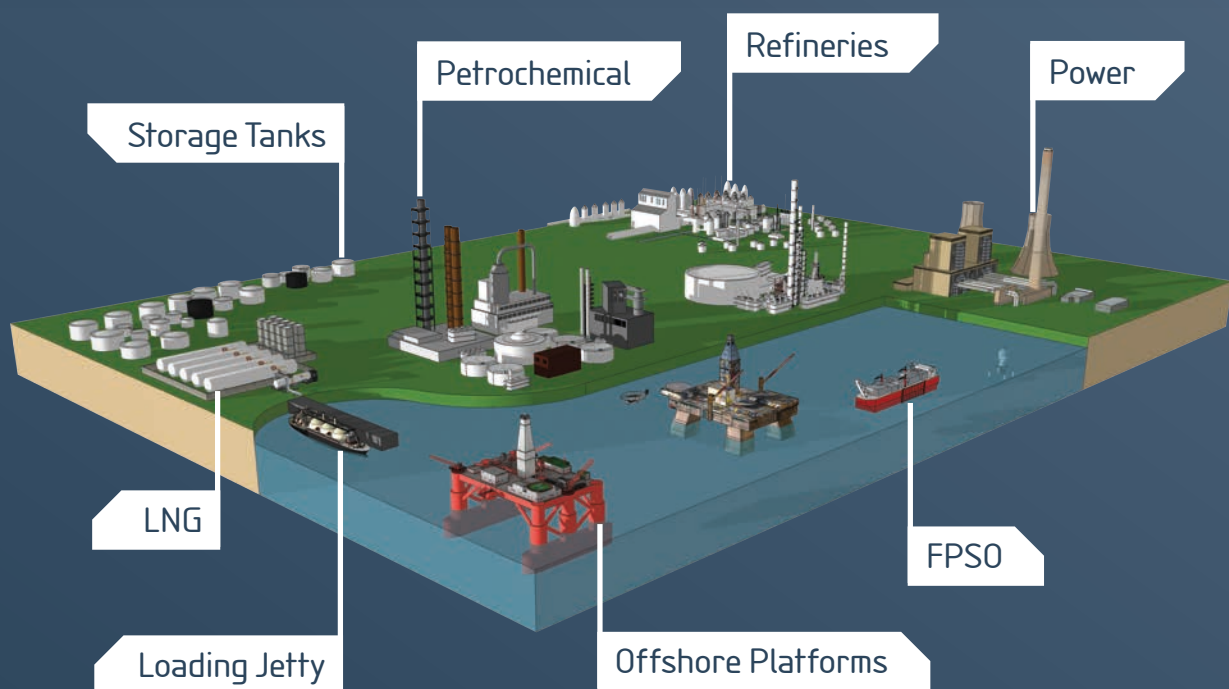


# Welcome



## Safely securing steelwork for over 75 years

Lindapter products are used extensively across the globe in onshore and offshore applications, on new build and refurbishment projects including:



## 10 Reasons to use Lindapter connections

- No on-site drilling or welding
- Reduced installation time and cost (less man hours)
- On-site adjustability (no need for tack welding & grinding)
- No damage to steelwork & coatings
- Hot work permits not required (suitable in hazardous areas)
- Only hand tools needed, power not required
- Sustainable construction (can dismantle for reconstruction or multicycling)
- Technical support includes free connection design
- Independently approved safe working loads
- Product approvals and project experience with major oil & gas companies

**Whether securing structural steel sections, heavy duty pipes, electrical instrumentation or flooring, Lindapter has a proven, accredited connection solution.**

Established in 1934, Lindapter International is the world's innovator of steelwork clamping systems, eliminating the requirement to drill or weld steel. In comparison to traditional methods, hot work permits are not needed. This allows a safer, faster installation in hazardous environments, whilst significantly reducing costs.

Comprehensive technical support from Lindapter's experienced engineers, ensures an efficient specification process with a free design service and even bespoke product development, passionately referred to as 'Engineered Solutions'.

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## The Lindapter design and support service includes:



This brochure provides examples of secondary steelwork assemblies, designed for permanent applications. Please ask Lindapter to design the solution to your connection requirement.



**Disclaimer** Lindapter International supplies components in good faith, on the assumption that customers fully understand the loadings, safety factors and physical parameters of the products involved. Customers or users who are unaware or unsure of any details should refer to Lindapter International before use. Responsibility for loss, damage, or other consequences of misuse cannot be accepted. Lindapter makes every effort to ensure that technical specifications and other product descriptions are correct. 'Specification' shall mean the specification (relating to the use of the materials) set out in the quotation given by the Seller to the Buyer. Responsibility for errors or omissions cannot be accepted. All dimensions stated are subject to production tolerances – if in doubt please check with Lindapter. In the interests of improving the quality and performance of Lindapter products, we reserve the right to make specification changes without prior notice.

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# Piping Support

**Lindapter support assemblies allow piping to be simply clamped onto structural or secondary steel sections, for a safe, fast installation.**

Piping can be installed without drilling or welding and with no interference to plant productivity. The ability to adjust Lindapter assemblies on-site is particularly beneficial as pipes can be easily positioned for speed and convenience.

## Maximum Loads

- 250kN for a standard 4 bolt assembly.  
(Based on M24 Type AF, grade 10.9 bolts)

## Working Temperatures

(dependent on clamp material & bolt grade)

- Minimum -30°C ■ Maximum +350°C

## Vibration Resistance

Assemblies featuring the Lindapter Type A, B, or LR fixings are approved by the Lloyd's Register, following tests of tensile, frictional, vibration and shock performance.

## Corrosion Protection Options

- Bright zinc plated
- Hot dip galvanised
- Stainless steel
- Plastic coated
- Sheradised

## Recommended components for piping applications:



Girder Clamp



Type A



Type B



Type LR



Type AF



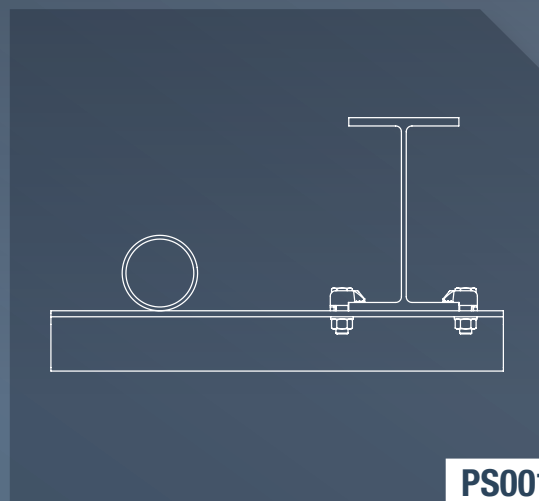
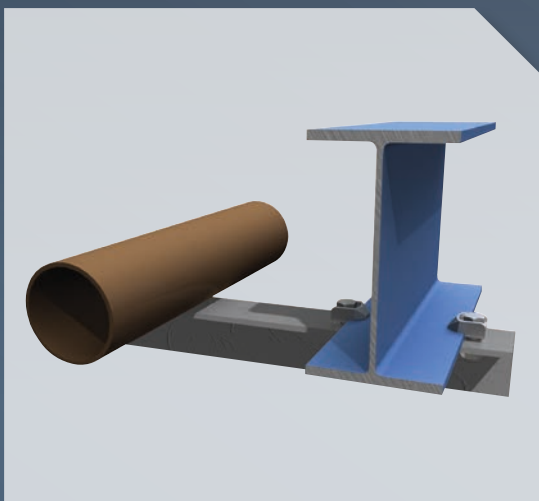
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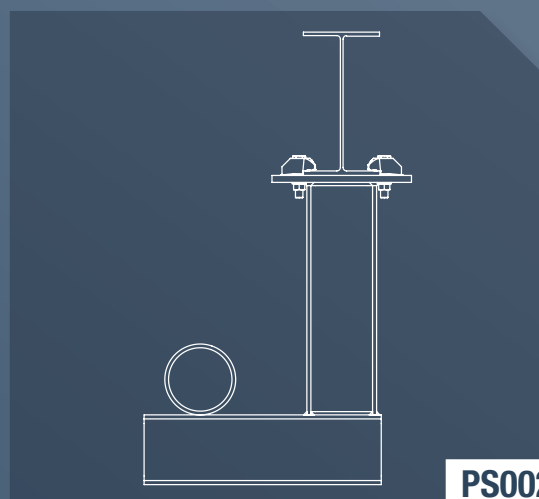
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Please refer to the Lindapter catalogue or website for full product data.

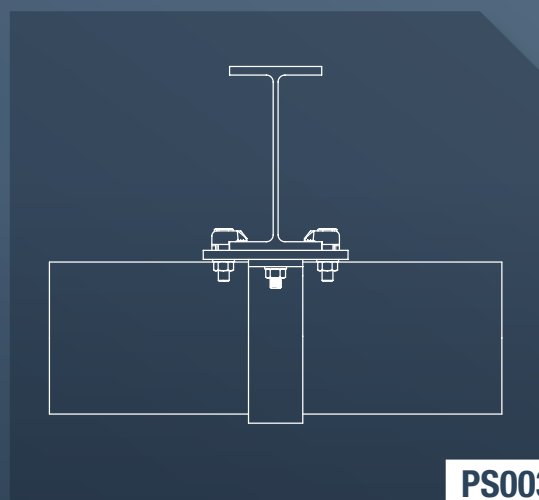
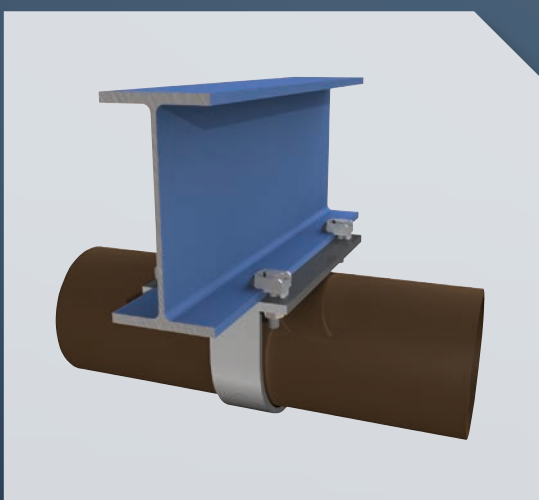




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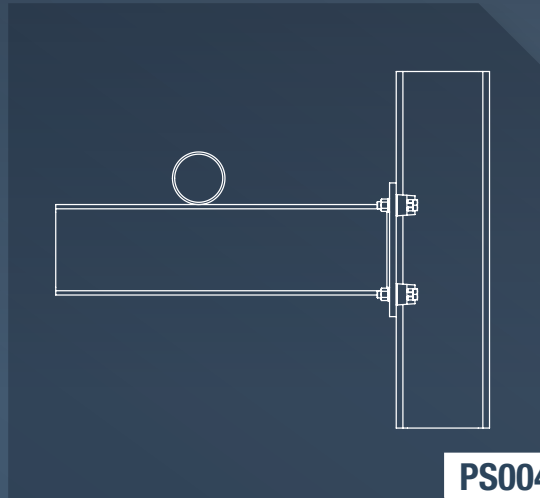
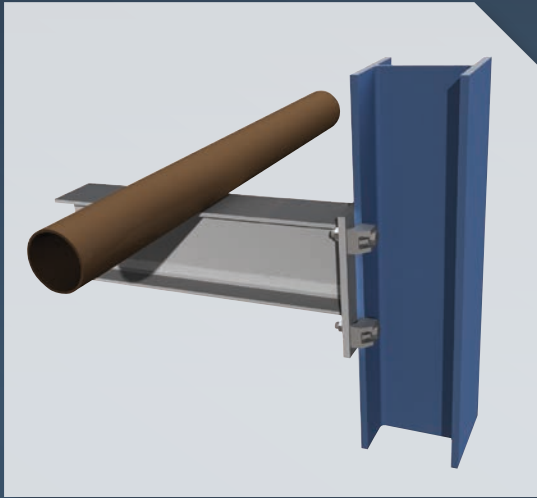


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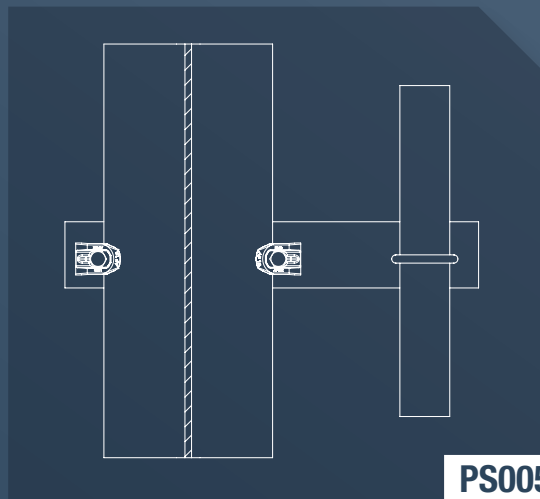
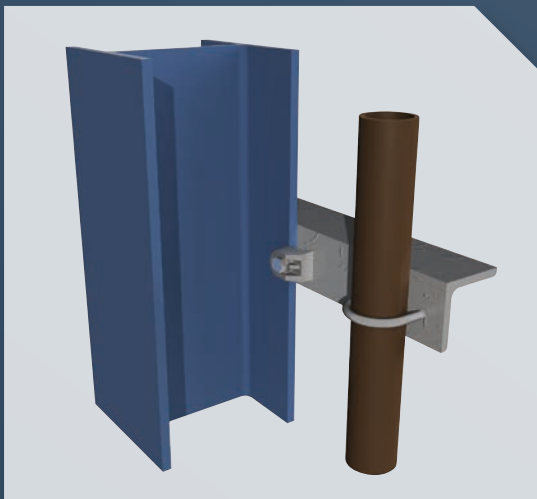


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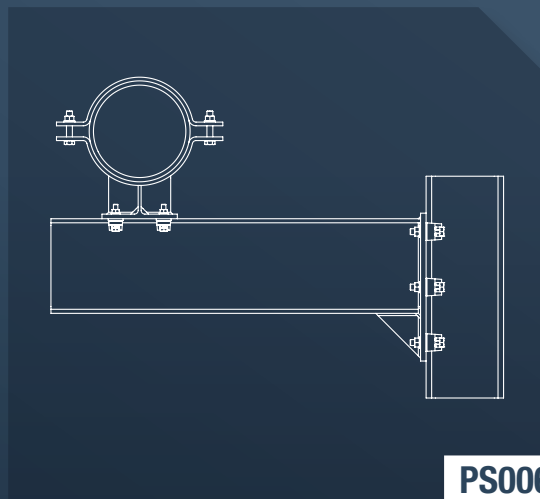
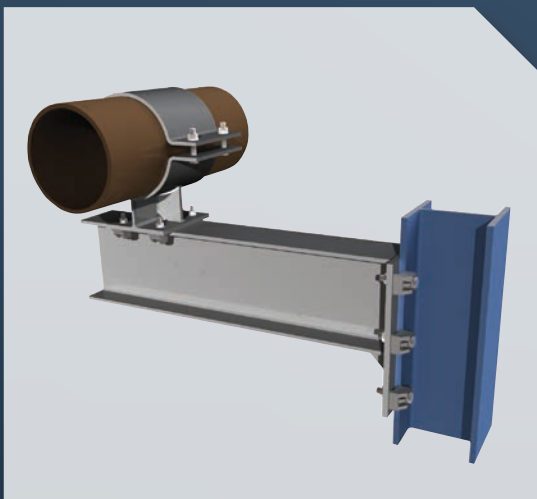
# Piping Support



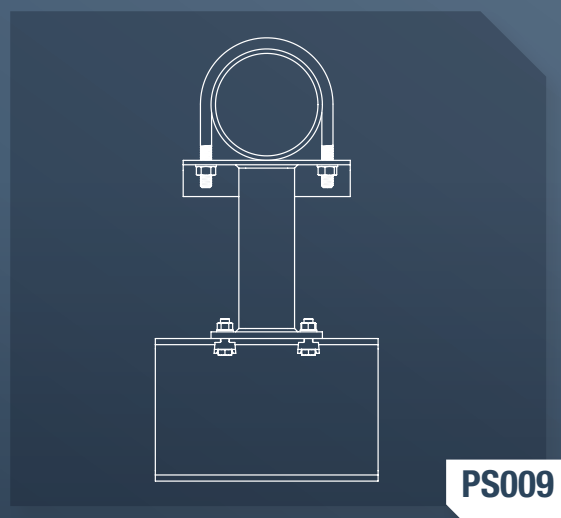
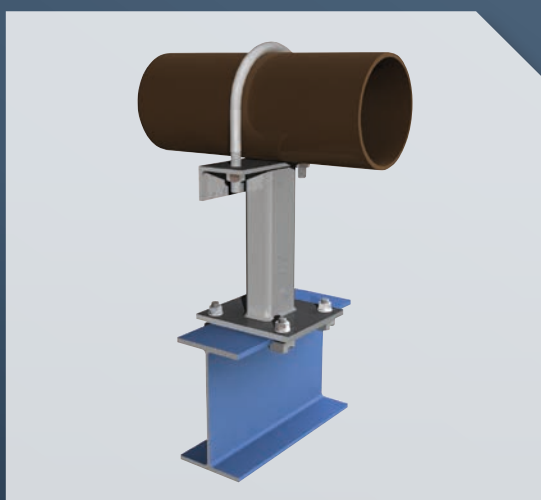
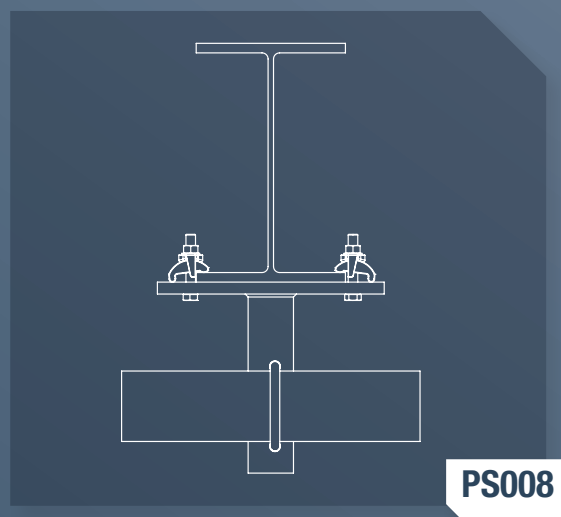
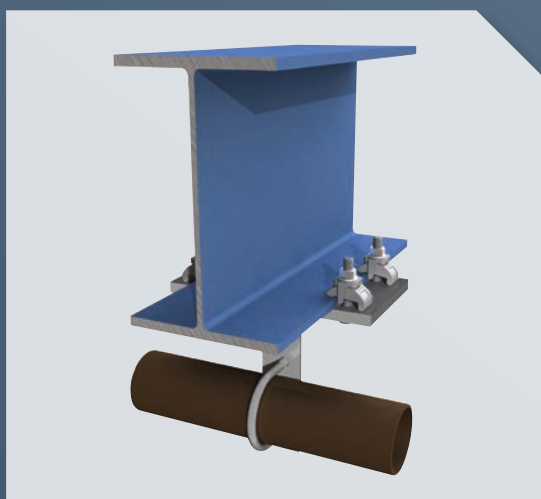
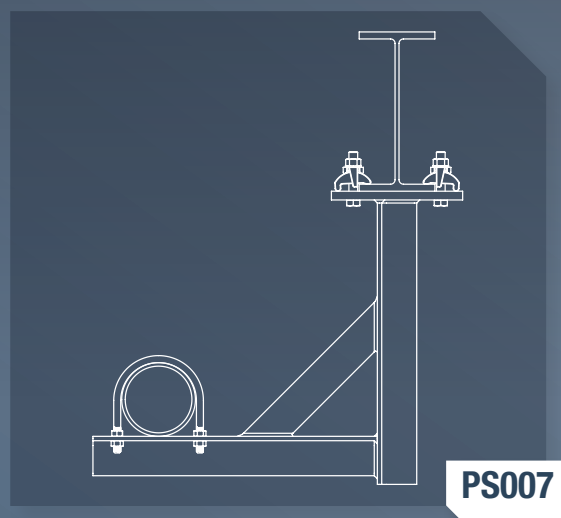
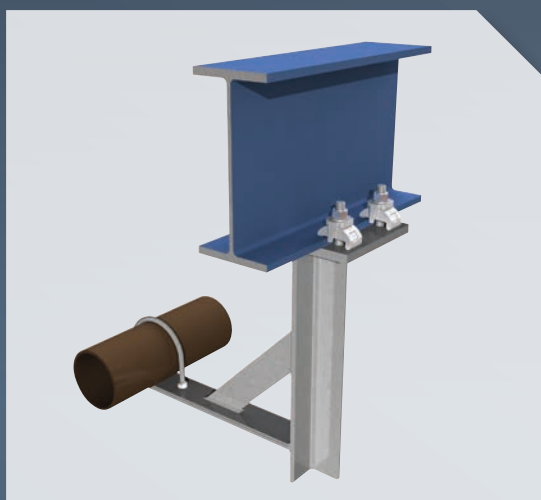
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PS005

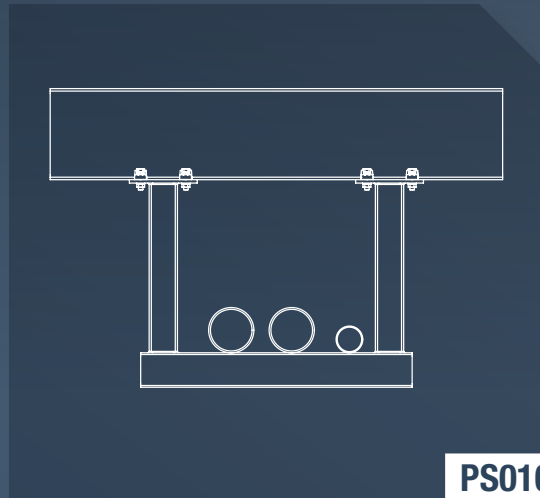
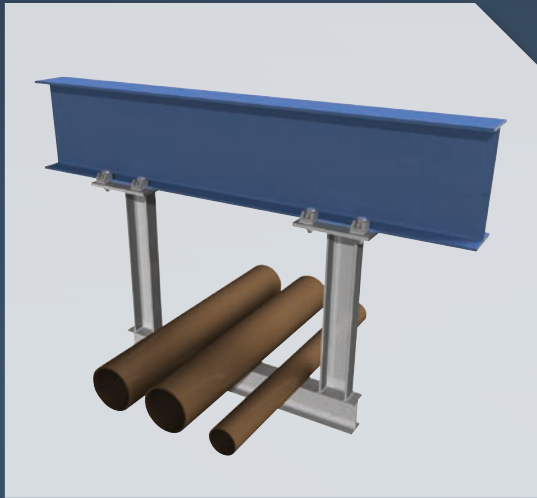


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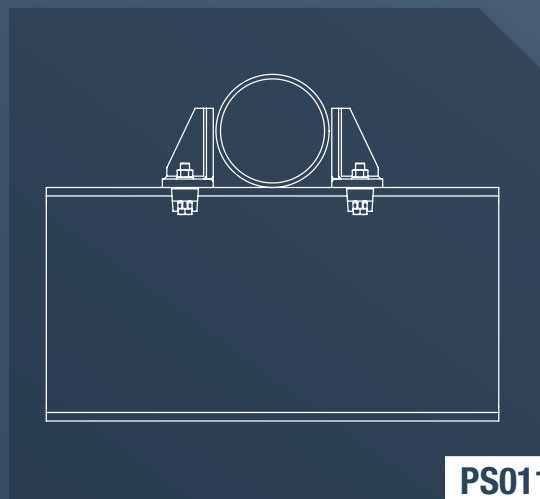
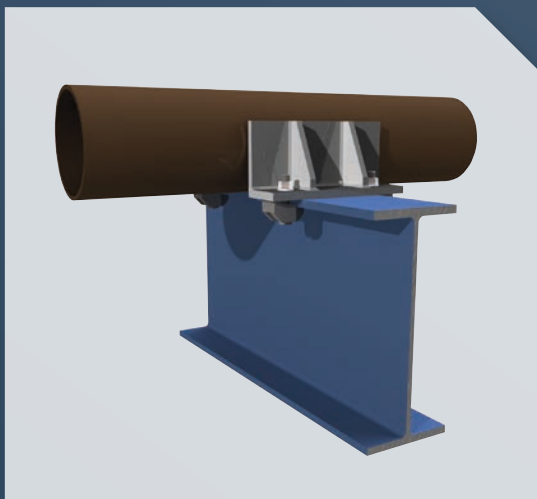




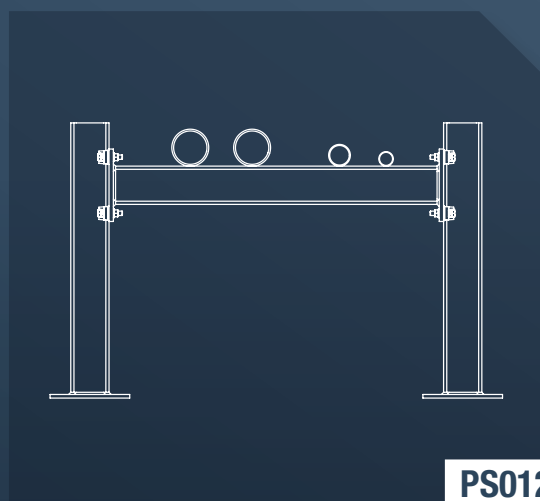
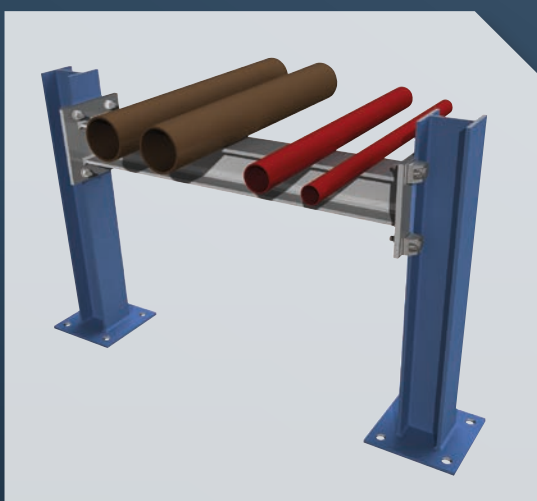
# Piping Support



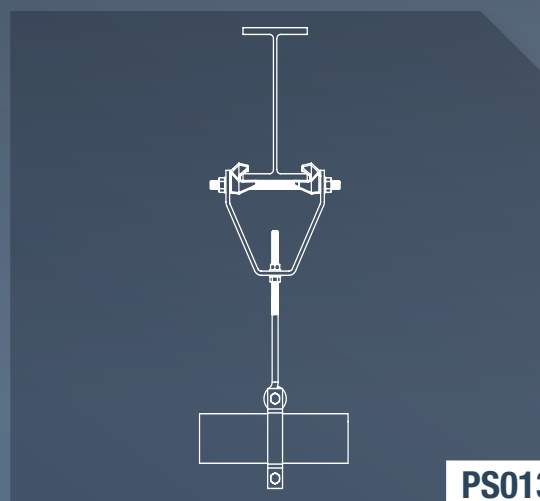
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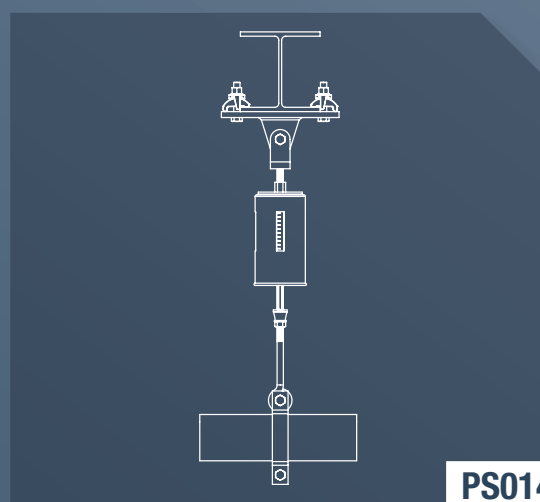
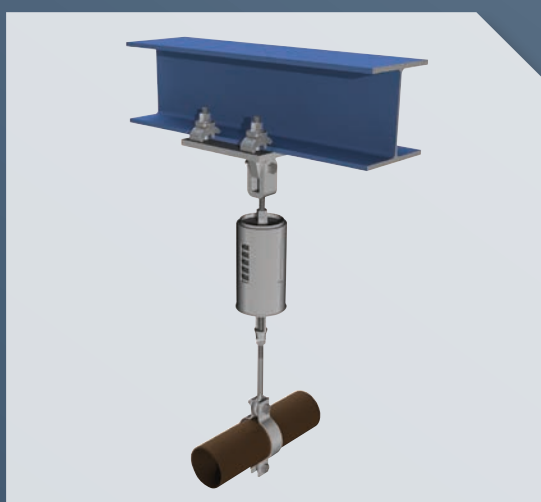
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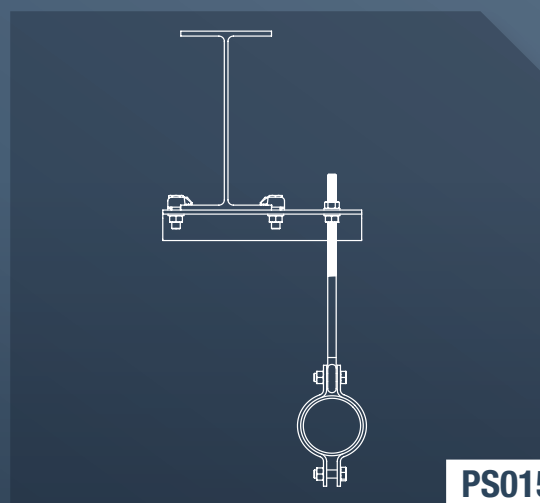
PS012



**PS013**



**PS014**



**PS015**

# Electrical & Instrumentation

**Lindapter provides assemblies for supporting cable trays, cable ladders and electrical equipment from primary or secondary beams.**



Cable trays or equipment can be secured in simple tensile arrangements, or in vertical column applications withstanding frictional loads. Fast adjustability allows multiple cable tray / ladder systems to be easily setup to intersect with each other.

## **Applications include:**

- Cable trays and ladders
- Piping and conduit supports
- Instrumentation and associated cabling
- Junction boxes and cabling

## **Fast, time saving installation**

Lindapter connections reduce the installation time on EPC contracts, subsequently increasing site safety as projects require less man-hours.



## **Recommended components for electrical & instrumentation applications:**



Type A



Type B



Type LR



Type AF



Type F3



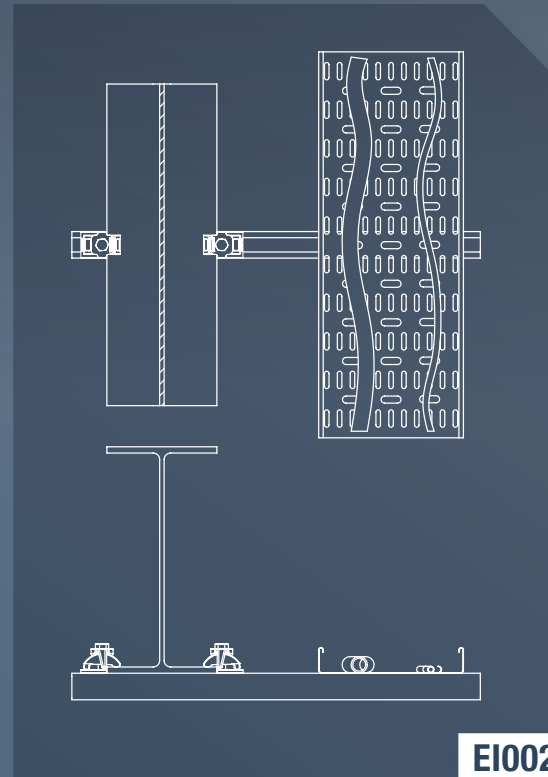
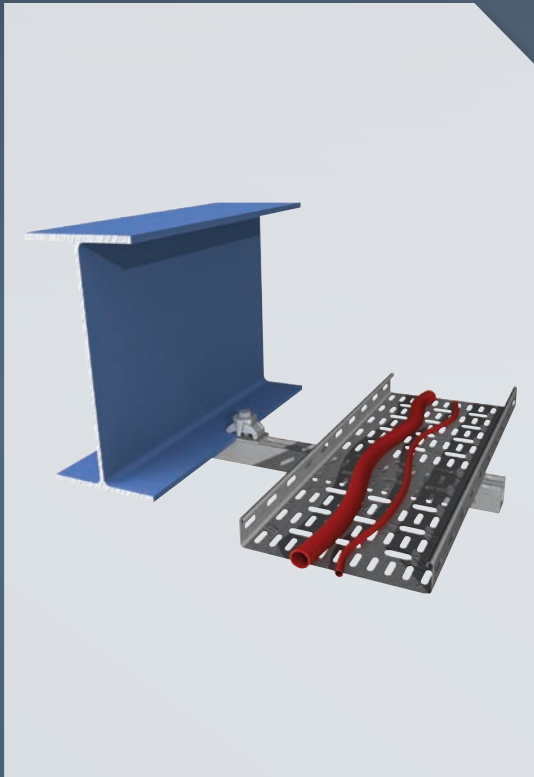
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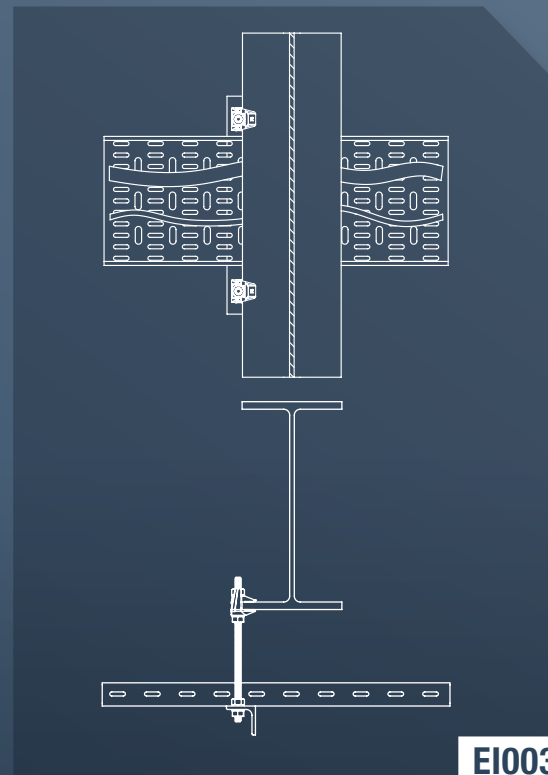
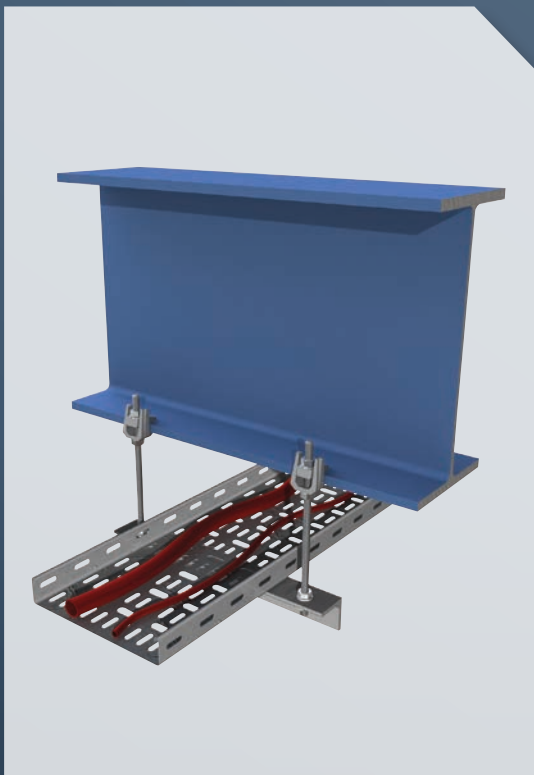
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Please refer to the Lindapter catalogue or website for full product data.

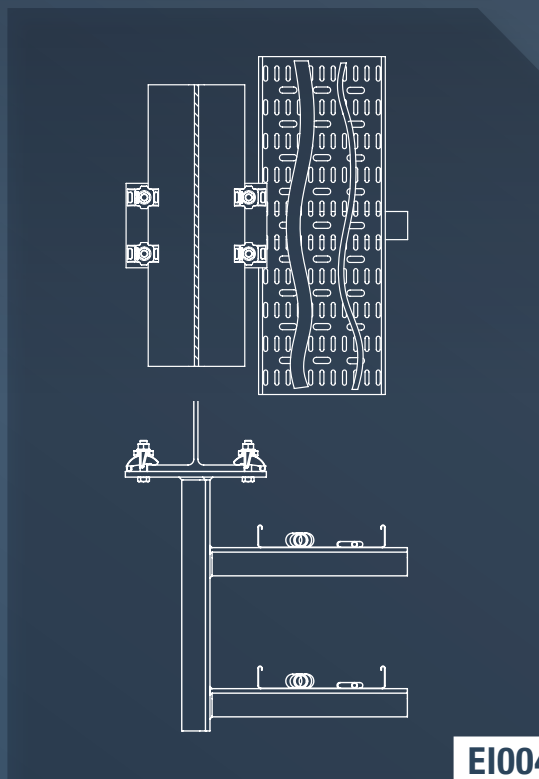
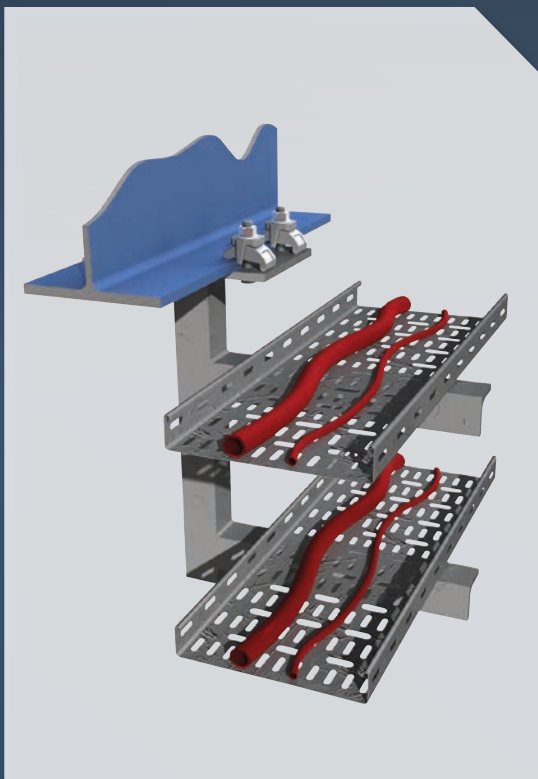




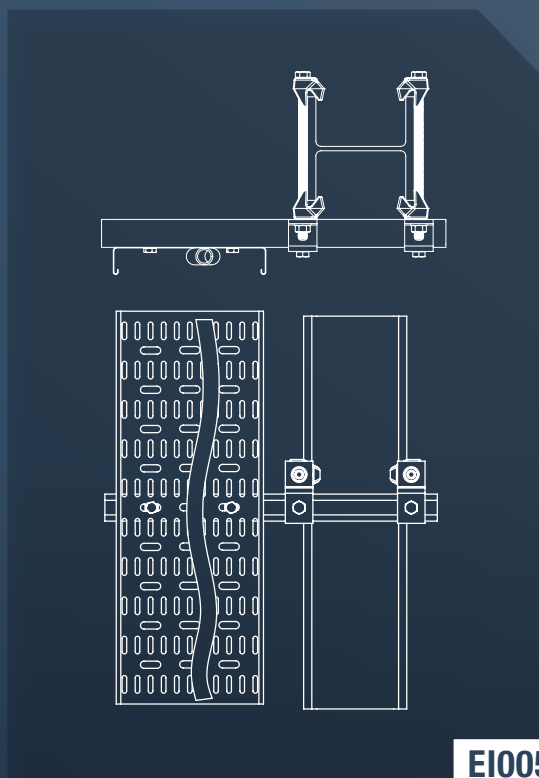
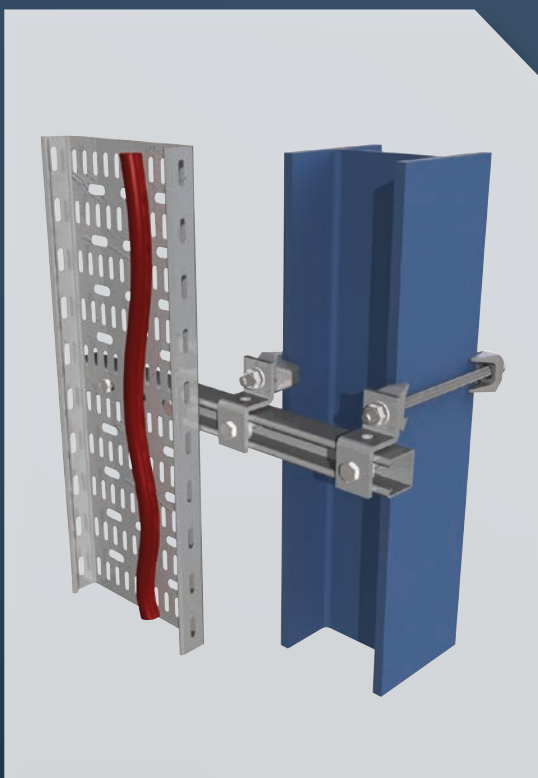
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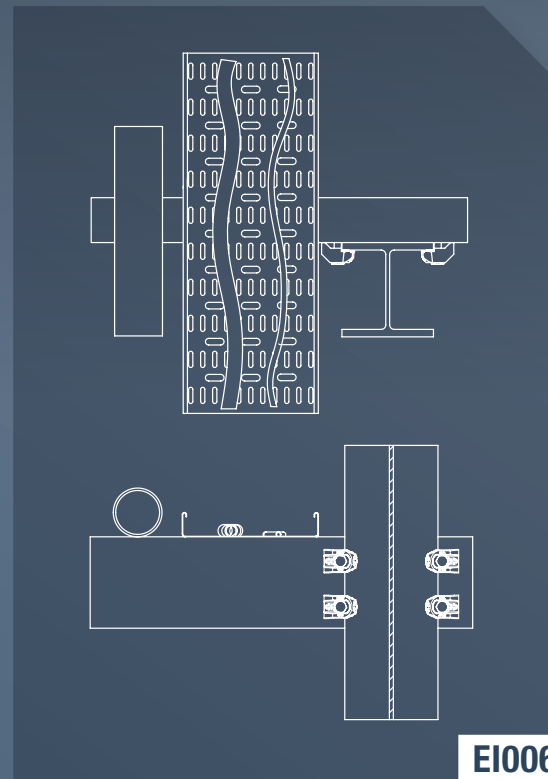
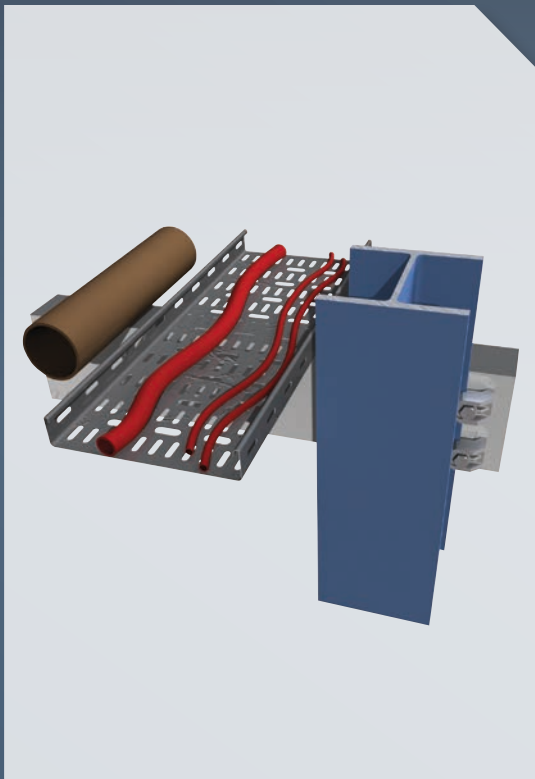
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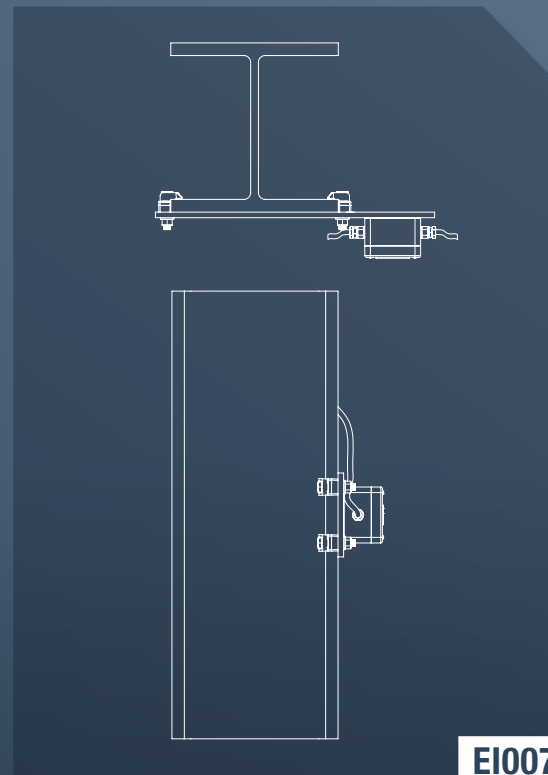
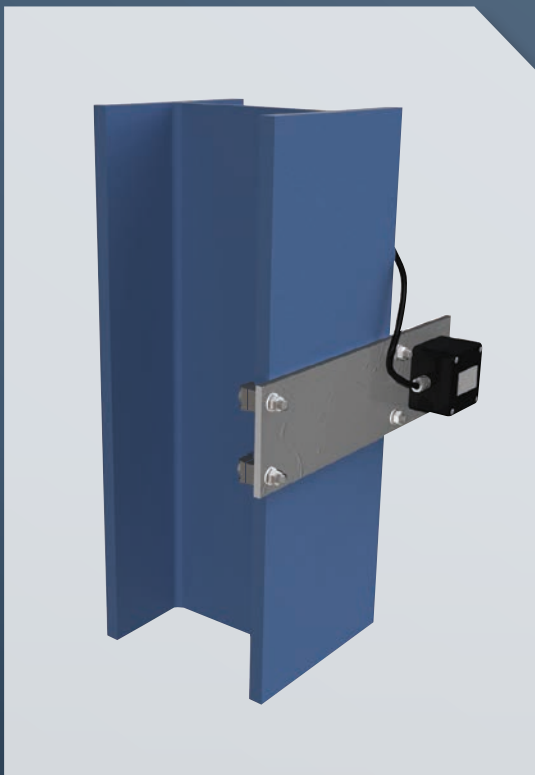
EI004



EI005



**EI006**



**EI007**



# Steelwork

**Remove the need for hot work permits with Lindapter weld-free steelwork fixing systems. Connecting safety with efficiency since 1934.**



The Girder Clamp symbolises the Lindapter philosophy perfectly; boldly challenging the need to drill or weld, when a safe, high strength connection can be quickly accomplished by clamping two steel sections together.

Although the concept is simple, Lindapter products undergo complex design and testing as the experienced Research & Development team constantly refine, improve and invent to achieve greater product performance and gain more international safety approvals.

Standard and bespoke assemblies are specified on oil & gas projects around the world, connecting secondary steelwork, whatever shape and size and in a wide variety of applications. Global project success (see page 22–25) demonstrates that Lindapter steelwork connections are ideally suited to new construction and refurbishment of existing structures.

The following pages show typical applications (please refer to the Lindapter catalogue / website for further examples).

## Recommended components for steelwork applications:



Girder Clamp



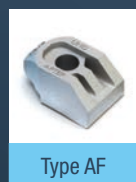
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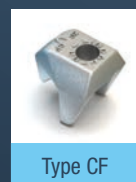
Type B



Type LR



Type AF

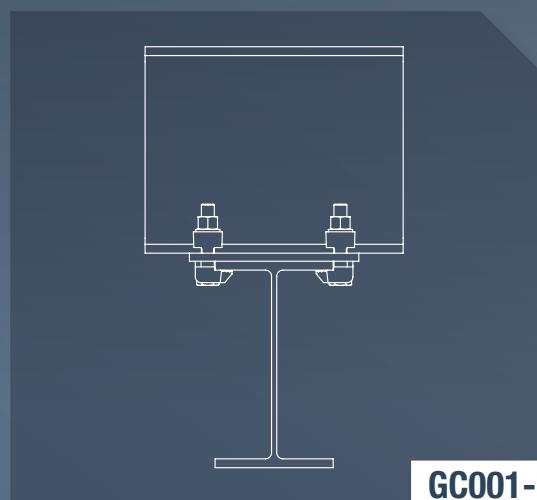
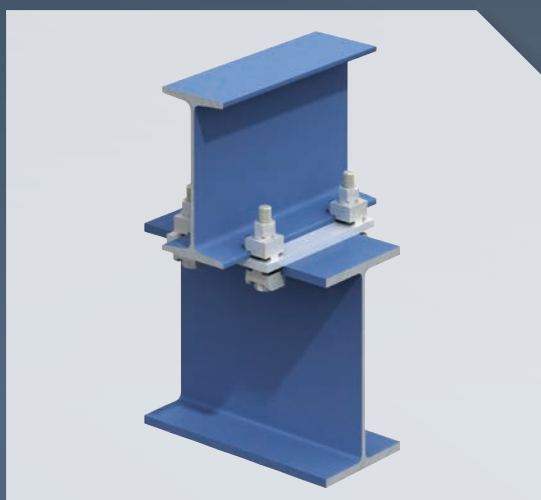


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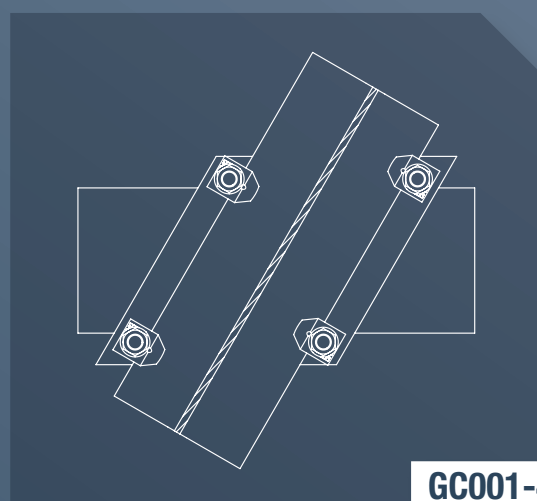
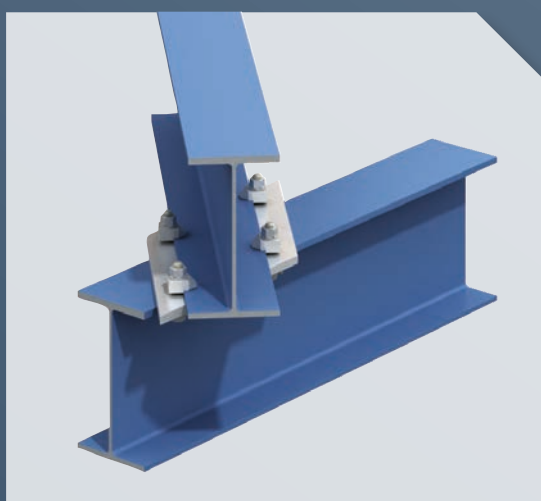


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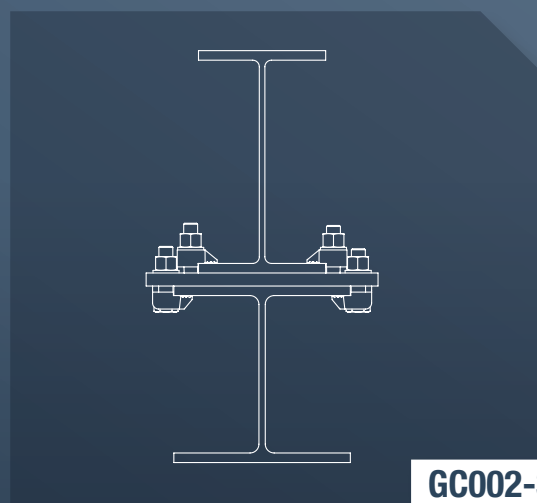
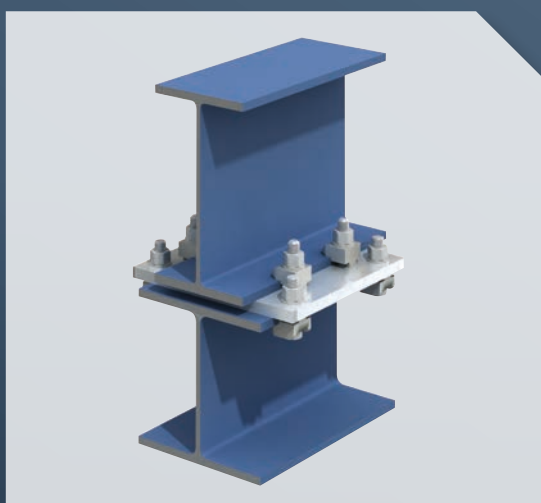
Please refer to the Lindapter catalogue or website for full product data.



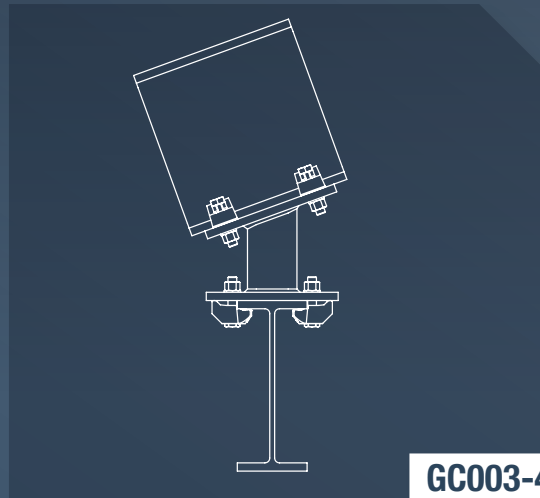
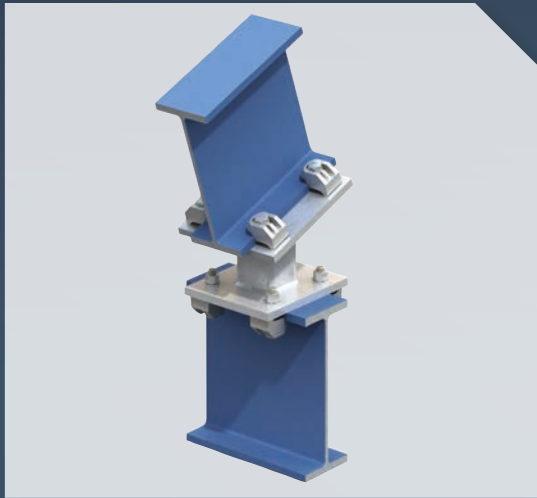
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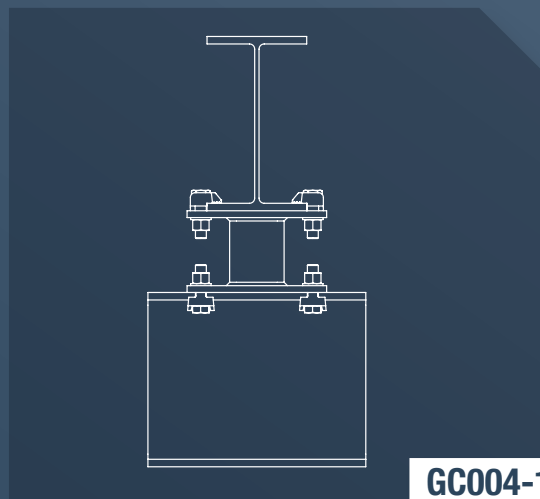
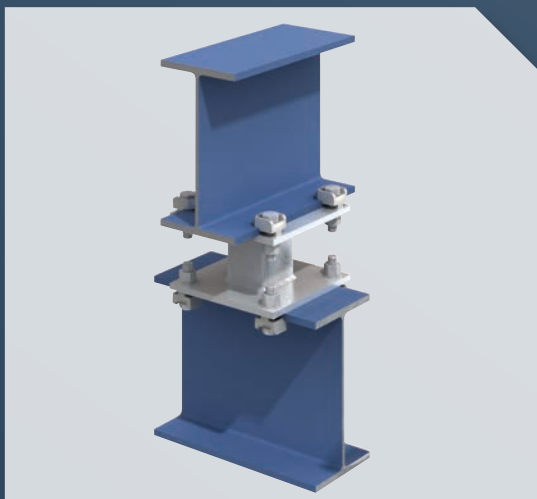
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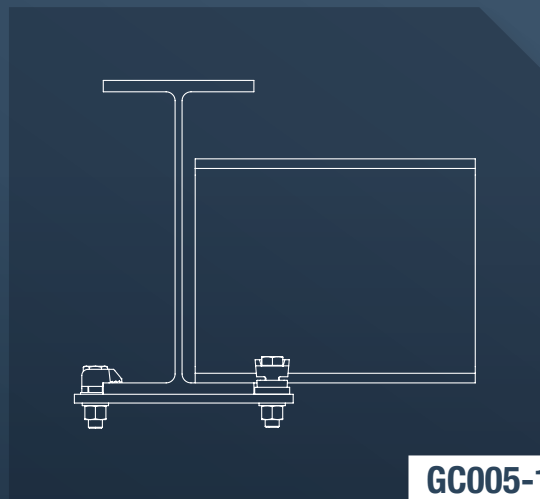
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GC003-4

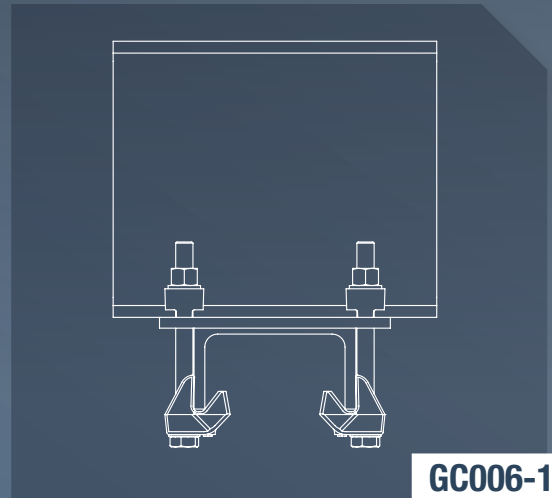
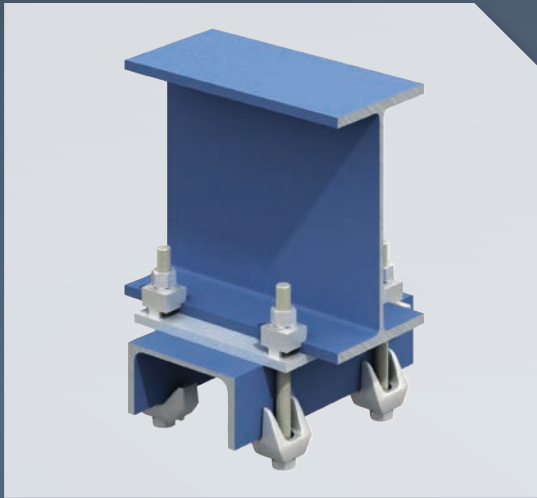


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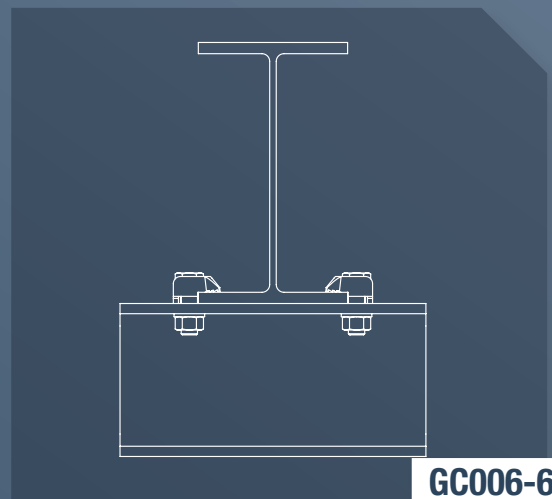
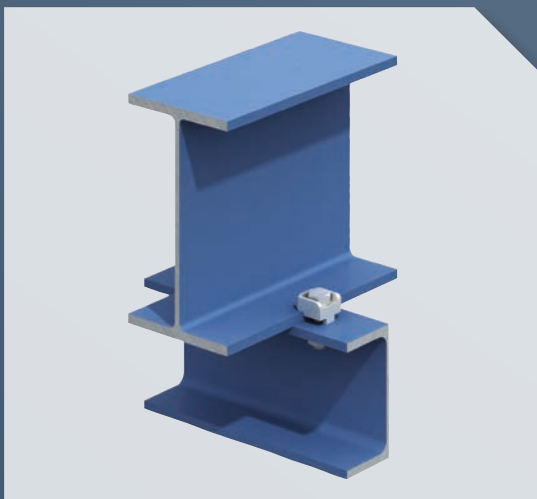


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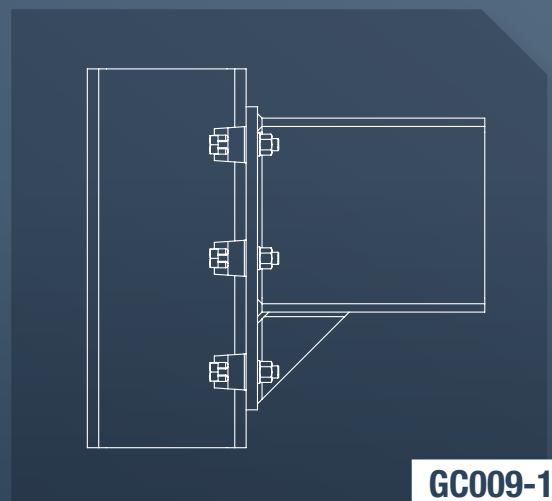
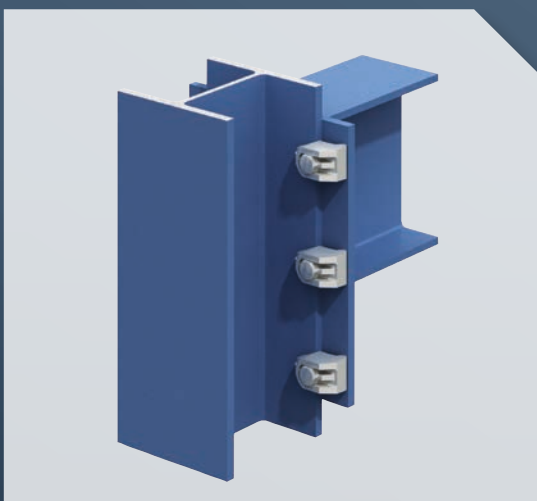




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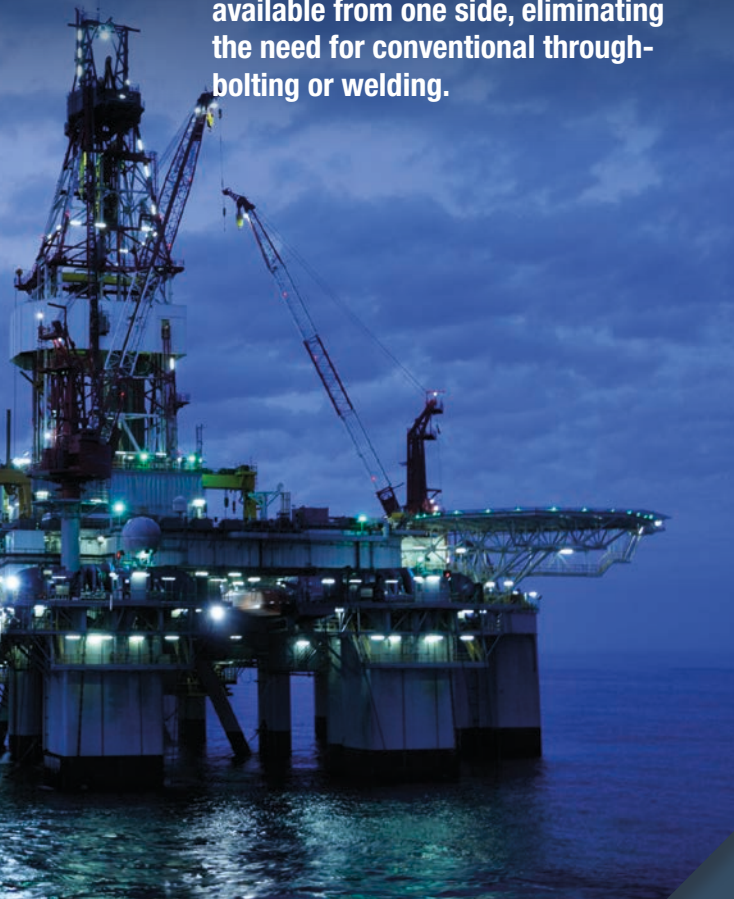
**GC006-6**



**GC009-1**

# Structural Hollow Section

The unique Hollo-Bolt® and Lindibolt® 'blind fixings' are ideal for use on any steel structure where access is only available from one side, eliminating the need for conventional through-bolting or welding.



Installation is carried out quickly and safely by inserting the product into pre-drilled holes then tightening to the recommended torque using only hand tools.

## Applications include:

- Primary Steelwork
- Secondary Steelwork
- Blast wall reinforcement
- Staircases and handrails
- Almost any connection to hollow section
- Can also be used on I beams

## Hollo-Bolt®: Perfect for new-build projects

The Hollo-Bolt is available in a wide range of diameters, lengths, finishes and head types to suit virtually any type of hollow section, including square, rectangular, circular and oval profiles. The Steel Construction Institute (SCI) and British Constructional Steelwork Association (BCSA) recognise the Hollo-Bolt as a primary structural connection, in the design guide 'Joints in Steel Construction – Simple Connections'.

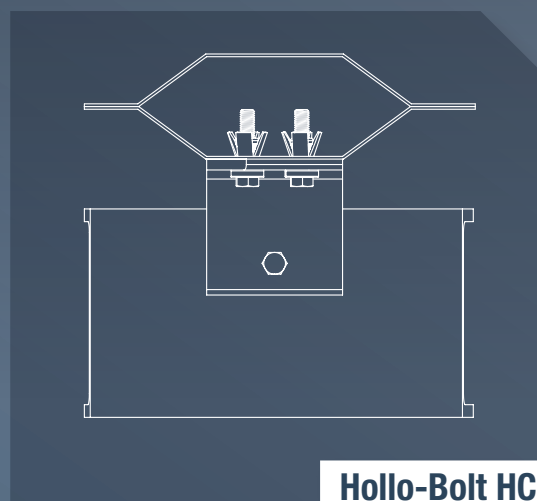
## Lindibolt®: Ideal for refurbishments

The Lindibolt has been designed specifically to be used on refurbishment projects. This unique product will fit into standard pre-drilled steelwork, in typical hole diameters of M10, M12, M16, M20 and M24. The Lindibolt is an incredibly flexible solution as it can be adjusted during installation to fit various thicknesses of steelwork, for example the M24 has a clamping range of 18–72mm.

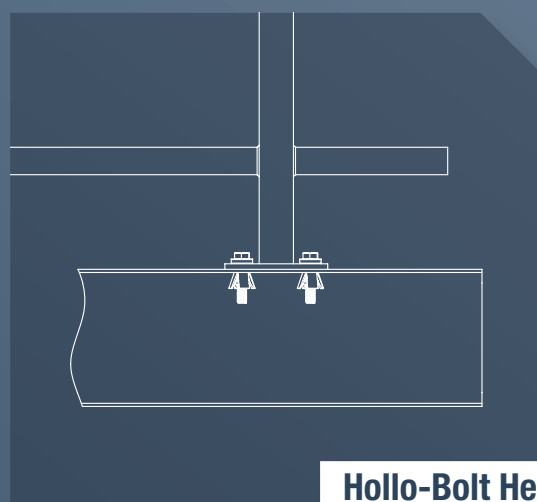
## Recommended components for structural hollow section applications:



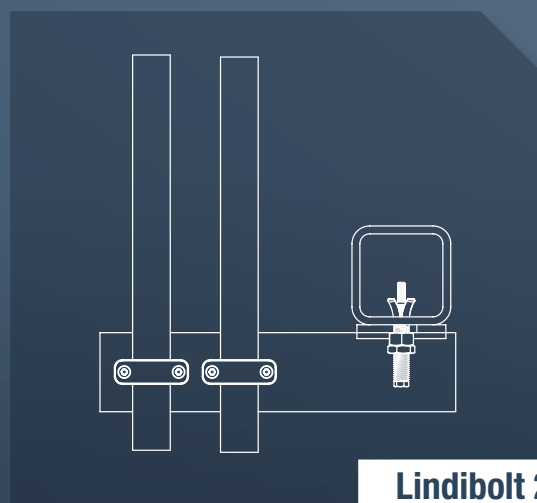
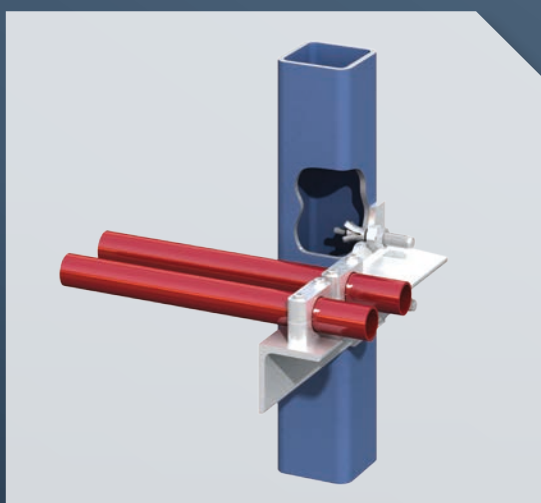
Please refer to the Lindapter catalogue or website for full product data.



**Hollo-Bolt HCF**



**Hollo-Bolt Hex**



**Lindibolt 2**



# Floor Fixings

**Innovative fixings to connect steel flooring to supporting steelwork without on-site drilling or welding.**

Access to the underside of the flooring is not required, eliminating the need for costly scaffolding or elevated floors. Installation can be carried out quickly and safely from above, often by one person. Lindapter floor fixings significantly reduce installation costs in comparison to other methods such as shot firing.

## Floorfast®

- For chequer plate floor
- Unique stepped design locks under the flange
- Safely removed for maintenance access
- Lloyd's Register Type Approved
- Hot dip galvanised
- Available in stainless steel

## Grate-Fast®

- For open bar grating
- High-strength cast body
- Lloyd's Register Type Approved
- Fits a wide range of beams and grating
- Hot dip galvanised

## Type 1055

- Bespoke product for Amec / Shell
- For fitting solid plate to open-grid flooring
- Plates can be positioned at any orientation
- Permanent or temporary fixing
- Stainless steel

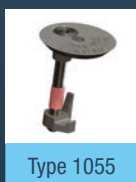
## Recommended components for floor applications:



Floorfast

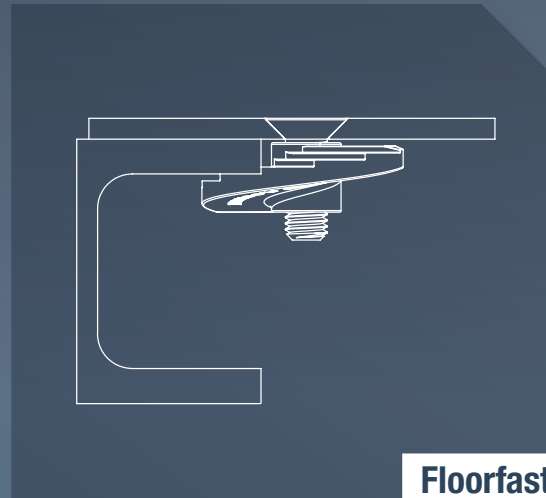
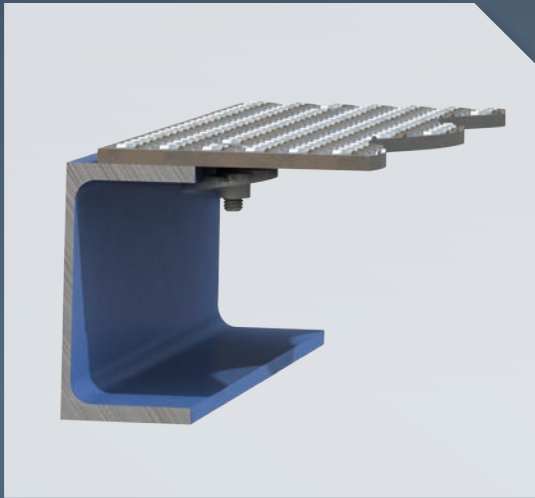


Grate-Fast

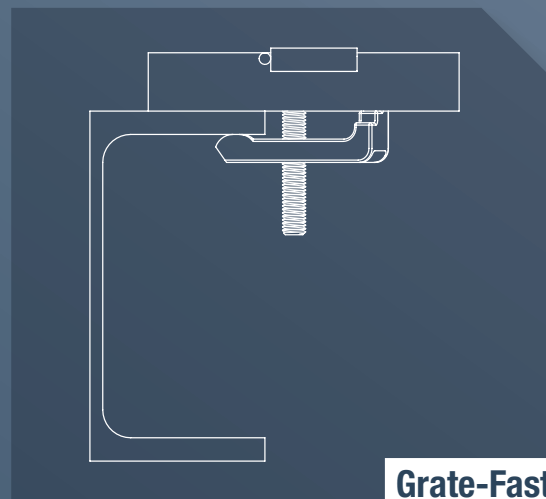
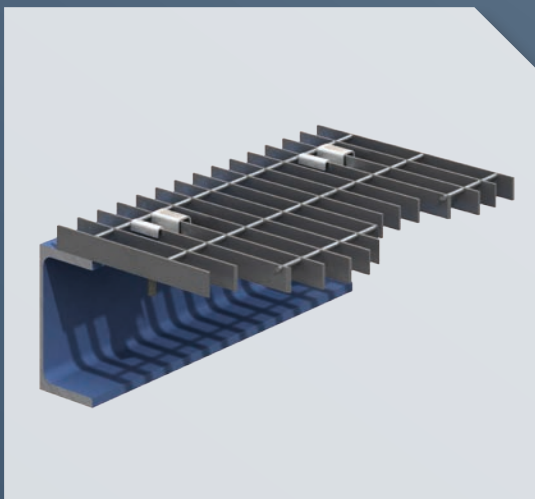


Type 1055

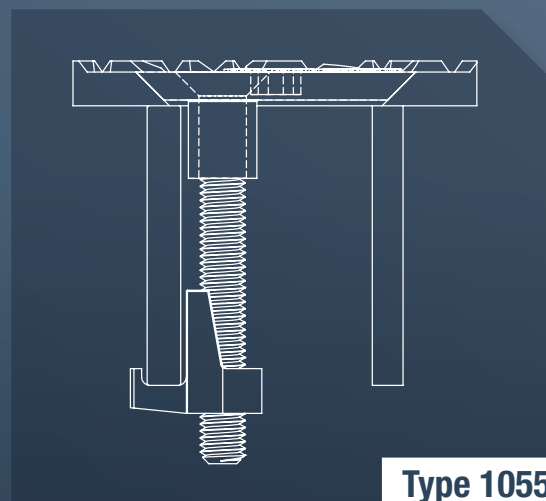
Please refer to the Lindapter catalogue or website for full product data.



**Floorfast**



**Grate-Fast**



**Type 1055**



# Onshore Projects

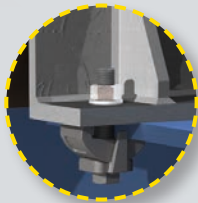
## Experience

Location	Project	End User	Consultant/Contractor	Application	Product
Brazil	Degussa Chemical Plant	Degussa Chemicals	Bragussa Quimicos	Steelwork Connection	LR
Brazil	Petroquímica Suape	Petrobras Química S.A.	Odebrecht	Cable Tray Support	A, P1, P2
Brunei	Brunei Shell Petroleum	Shell	Kenwil Electrical	Conduit Support	F3
Brunei	Brunei Shell Petroleum Loading Pier	Shell	Steen Sehested & Ptrs	New Loading Jetty	GC, A, B
Canada	Land Rig Refurbishments	Various	Nabors Drilling	Pipe Support	A, B
China	Daya Bay Nuclear Power Station, Canton	CLP	GEC Alstom	Steelwork Connection	GC, FL
China	Shajiao 'C' Power Station	ALSTOM	Ove Arup & Partners	Support Fixing	F3, FL, LC
China	Phu My 2 Phase1 Extension Addon Plant	EVN	PECC3/Colonco/Fichtner	Cable Tray Support	AF
Finland	Kaverer Recovery Boiler	BURGORB	Aker Kvaerner	Pipe Supports	LR
Iceland	Fjarðal Smelter Project	ALCOA	Bechtel	Pipe Supports	AF, A, HW
Hong Kong	CL & P Black Point Power Station 'C'	CLP	Mouchel Asia	Steelwork Connection	GC, FL, LR
Hong Kong	CL & P Tap Shek Kok Power Station	CLP	Mouchel Asia	Steelwork Connection	GC, FL, LR
Kuwait	Sabiya Power Station	Sabiya Power Station	Hyundai Eng., Richard Lees	Services Support	A, P1, P2, AW
Kazakhstan	KTL Expansion Project, Enka, Tengiz	Bechtel-BE JV	Bechtel-BE JV	Steelwork Connection	A, C1
Malaysia	Jana Manjung Power Station	Jana Manjung	Alstom USA	Chequer Plate Ins.	FF
Malaysia	Kikeh Project Dry Tree Unit	Petronas	Ranhill Worley	Pipe Supports	LR
Oman	Manah Power Station	United Power Co.	AMEC Power	Support Fixing	F3, A
Qatar	QAPCO Fertilizer Plant	QAPCO	Thyssen Krup	Flooring	FF12
Qatar	QATALUM	QATALUM	K Holm International	Support Fixing	HC, HW
Qatar	RasGas Onshore Operations	RasGas	RasGas Maintenance	Valve Lifting Beams	AF
Saudi Arabia	Saudi Kayan Petrochemical	SABIC	Fluor	Pipe Supports	F9
Saudi Arabia	Saudi Kayan Petrochemical	SABIC	KBR	Radiant Section	HC, HW
Singapore	Shell Eastern Petroleum – Ethylene Cracker	Shell	Toyo Engineering	Pipe Supports	A
U.A.E	Jebel Ali Condensate Refinery	ENOC	Larsen & Toubro	Pipe Supports	B
U.A.E	Aweer Gas Turbine Power Station, Dubai	AWEER	Mitsubishi Heavy Industries	Steelwork Connection	D1, D2, F3
U.A.E	Escravos Gas to Liquid Nigeria	KBR/Chevron	Gulf Piping	Pipe Supports	LR, F9
U.A.E	Borouge Ethylene Plant	Borouge	UTS Kent	Pipe Supports	A, LR
U.A.E	DUBAL	DUBAL	Belleli Energy	Plant Expansion	A
U.A.E	DUBAL	DUBAL	DUBAL Maintenance Team	Conveyor Support	HC, HW
U.A.E	Integrated Gas Development (IGD)	GASCO	UTS Kentz	Cable Ladder Supports	A, B
U.A.E	BP Sharjah - LPG Access Tower Repair	BP Sharjah	MIS	Tank Support	LR
UK	BNFL Sellafield Re-Processing Plant	BNFL	Wormald/AMEC	Chequer Plate Ins	FF, HB
UK	Drax Power Station Gas De-Sulphurisation	Drax	Darchem	Cable Tray Supports	Special Assem
UK	Exxon Chemical Olefins	Exxon Mobile/ ABB	AMEC	Steelwork connections	FF, A, B, D2
UK	Sizewell 'B' Nuclear Power Station	British Energy	N. G. Bailey	Cable Tray Supports	Special 'B'
UK	Shell Corrib Gas Processing Terminal	Shell	SIAC Butler	Grating Fixings	GF
USA	Distrigas LNG Facility	Suez	Fluor	Stair Tower	GC
USA	DuPont Victoria	DuPont Victoria	Fluor Daniel	Girder Clamps	A, B
USA	Shell Narco	Shell Narco	Jacobs Engineering	Pipe Supports	B
USA	Shell Deer Park	Shell Deer Park	S & B Engineers	Pipe Supports	A, B
USA	Valero	Valero	Fluor Corp.	Monorail	C
USA	DuPontt Chemical	DuPontt Chemical	Ford, Bacon & Davis	Flooring	GF
USA	Baytown Texas Refinery	Exxon Mobil	—	Pipe Support	LR
Vietnam	Phu My 1 Combined Cycle Power Project	Mitsubishi Heavy Ind.	Sanyo Engineering & Cons.	Steelwork connections	A, CW



## Case Studies

### ExxonMobil Refinery Pipe Supports

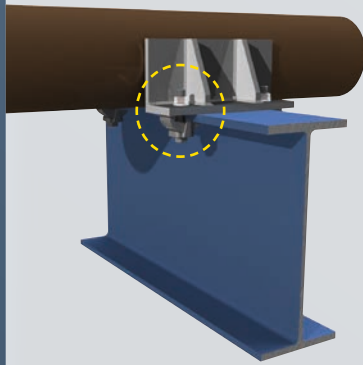


#### Location: USA

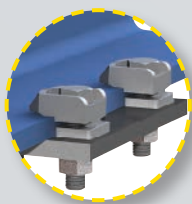
Lindapter's adjustable Type LR steelwork clamps were used to install pipe guides along a new pipeline spanning several thousand feet without any interference to plant production.

The new pipeline was installed running adjacent to the existing piping and supported by existing cantilever beams. The design specified that pipe guides should be installed to prevent any flexing from thermal expansion.

Avoiding hot work permits and related fire hazards of traditional welding and drilling methods, Lindapter provided the ideal solution with its Type LR that enabled pipe guides to be installed with simple hand tools and minimal interference. The Type LR is suitable for various beam thicknesses and slopes which enabled the contractor to use a single product across the entire length of the pipeline.



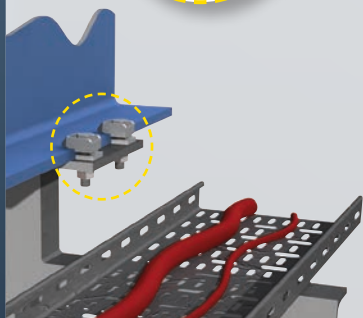
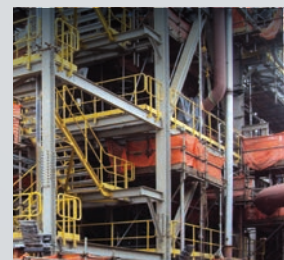
### Petroquímica Suape PTA Plant Electrical & Instrumentation



#### Location: Brazil

Lindapter Type A fixings were specified and installed throughout the new PTA plant of Petroquímica Suape, set to become the most important integrated complex for polyester production in Latin America.

The Type A steelwork fixings were used in a variety of applications across the plant to secure cable tray supports and instrumentation. Specified for its on-site adjustability and its no-weld no-drill installation, the fixings could be installed without any requirement for hot work permits, saving both time and money.



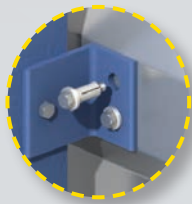
# Offshore Projects

## Experience

Location	Project	End User	Consultant/Contractor	Application	Product
Angola	Kizomba Gas Gathering	ExxonMobil	AMEC Paragon	Tray Supports & Ins Supports	LR, GF
Australia	North Rankin Platform	Woodside	Woodside	Handrail Support	HB
Australia	North West Shelf Development Project	Bhp Billiton	Woodside Energy	Cable Tray Supports	A
Australia	North West Shelf Development Project	Bhp Billiton	Woodside Energy	Platform Mounted Lighting	LR
Brunei	Brunei Liquefied Natural Gas Jetty	Minconsult	Sahid Sendirian	GC (Special)	A, B, BR, HB
Canada	Terra Nova Platform	Petro-Canada	PSN Services	Structural Hollow Section	HB, GF
Canada	Hibernia Topsides, Grand Bank	Hibernia	KBR	Structural Hollow Section	HB
Malaysia	Sarawak Shell Berhad - M1 Expansion	Shell	Technip-Coflexip	Temporary Platform Expansion	GC
Malaysia	Talisman BKA Platform	Talisman	Talisman	Pipe Supports	A, LR
Malaysia	Bongkot Fields	PTTEP	PTTEP	Pipe Supports	LR
Malaysia	Malaysia Platform Crane Installation	Various	Favelle Favco	Monorails – Offshore Cranes	A, B
Norway	Eldfisk Modification Project	Philips Petroleum	KBR	Steelwork Connection	A, B
Norway	Froy Tie In	Pertra/DNO	Aker Offshore Partnership	Steelwork Connection	A, B, F9, LB
Norway	Gullfaks 'A' Modifications	Statoil	Kværner Installasjon	Steelwork Connection	A, B, LB, HB
Norway	Gullfaks 'C'	Statoil	HMV	Steelwork Connection	A, B, LR
Norway	Norge Shell Troll Kollsnes Topsides	Shell	Kværner Engineering	Steelwork Connection	A, B, LR
Norway	Oseberg 'A' and 'B'	StatoilHydro	HMV	Steelwork Connection	A, B, LR
Norway	Oseberg Øst-EPC Topside	StatoilHydro	Kværner Engineering	Structural Hollow Section	HB (st.st)
Norway	Sleipner 'A' Platform	Statoil	ABB Offshore Technology	Runway Beam	AF
Norway	Snorre 'B' Platform	Statoil	ABB Offshore Technology	Handrail Installation	HB
Qatar	RasGas Offshore	RasGas	J Ray McDermott	Pipe Supports	HB
Saudi Arabia	Karan Offshore Subsea Project	Saudi Aramco	J Ray McDermott	Grating Fixings	GF
Trinidad	Angostura Field Development	Bhp Billiton	Worley Parsons	Pipe Supports	A
Trinidad	BGTT HIBISCUS	BG	Fluor	Pipe Supports	AF
Tunisia	Gas Miskar Compression Unit	BG	British Gas	Cable Ladder Support	A
U.A.E	Platform Refurbishment	Petrofac	Dubai Petroleum/OIL	Riser Winch Support	LB, HB
U.A.E	Platform Refurbishment	Hurcules Drilling	Maritime Industrial Services	Recon Beacon Installation	HB
U.A.E	Falah B ESP Installation	Petrofac	Dubai Petroleum/OIL	Pipe Supports	LR, LB
UK	Piper Bravo Platform	Talisman	AMEC	Floor Fixings	Floor Fixing
UK	Tern Alpha Production Platform	Shell	J. Ray McDermott	Strengthening Blast wall	HB
UK	Eider Platform	Shell	J. Ray McDermott	Structural Hollow Section	LB
UK	Production Flowline For Wellhead 16	Shell	Shell	Pipe Supports	A
UK	Britannia Ship to Shore	Britannia Project	KCA Drilling	Pipe Supports	LB, B,
UK	Shell Central FPSO Dev	Shell	Rockwater	Beam Mounted Transporter	A
UK	Condensate Pipework Replacement	Shell	Sigma3	Pipework Replacement	A, AF
UK	Auk Jubilee Project	Shell	KBR	Cable Tray Supports	B
UK	Elgin Puq	Total	Sparrows Offshore	Comp. Bundle Removal Beams	AF
UK	Maersk Giant Winch Re-locations	Maersk	Fabricom	Reloc. of B.O.P Winches	A
UK	NCP Rig Skidding Improvements	CNR	KCA Deutag	Rig Skidding Improvements	A
UK	Sarawak Shell Berhad	Shell	Samsung /Technip/KBR	Integral Deck Fixing	A
UK	Leman B Platform	AMEC	Carpenter & Paterson	Hanger Assembly	A
UK	Duba Offloading Platform	KW Consultants	PMS	Pile Template struc. & Guide Assy	AF
UK	Amoco (operated) Lomond Platform	Texaco	Kværner H & G Offshore	Steelwork Connection	GC
USA	Exxon/Mobil Baytown	Exxonmobil	GDS Engineers/Fluor/KBR	Pipe Supports	D2, D3, LR
USA	BP - Mardi Gras Platform	BP	Paragon Engineering	Girder Clamps	A, B
USA	MEGI FPU Tanker	MEGI	Albert Garaudy Engineers	Pipe Supports	AF, AH
USA	BP	BP Tanker	Albert Garaudy Engineers	Girder Clamps	A, B
USA	Exxon Heritage Platform	Exxon	Albert Garaudy Engineers	Diluent Skid & Pipe Supports	GC

## Case Studies

### Shell Tern Alpha Project Blast Wall Reinforcement

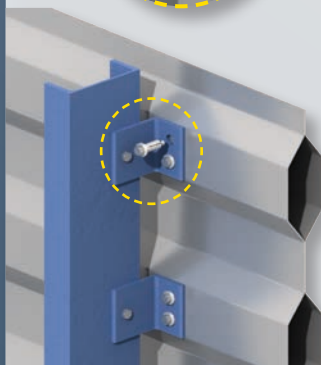


#### Location: UK North Sea

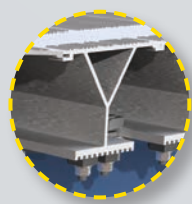
A safety upgrade required the original 3mm corrugated steel plate of the north wall on the Shell Tern Alpha platform to be strengthened.

Engineers selected the easy to install Holo-Bolt to avoid disruption and maintain the integrity of the structure. Access was only required from the internal side and the 'blind' fixings' high load bearing capabilities ensured the horizontal cladding rails remained safely secured.

The reinforcing blast wall was then connected to the cladding rails, strengthening the original wall. Lindapter M16 Holo-Bolts proved ideal for this application, allowing the new blast wall to be simply bolted to the existing structure.



### Centrica Rough Platform 47/8A Helideck Refurbishment

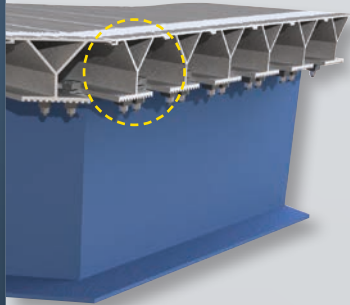


#### Location: UK North Sea

Lindapter Girder Clamps were used to permanently secure a refurbished helideck to the Centrica Offshore Platform.

Lindapter provided a bespoke connection solution featuring synthetic polymer coatings to eliminate electrical contact between the structural steel and aluminium deck, avoiding galvanic corrosion between the dissimilar metals. Configured with Type A and B clamps, the system featured on-site adjustability for precise alignment of the helideck's interlocking parts and required no welding or drilling for minimal interruption to productivity.

The products supplied were calculated to withstand dynamic loads associated with the landing and take-off of helicopters and their rapid installation had minimal impact on the rig's output, creating significant cost savings.





# Approvals

## Quality

Accredited to ISO 9001 since 1986, Lindapter strictly enforces a quality management system that includes vigorous product testing to ensure consistently high manufacturing standards.



## Environment

Lindapter operates an ISO 14001 certified environmental management system and constantly monitors and improves aspects of the business that may have an impact on the environment, including the use of natural resources, the handling and treatment of waste, and energy consumption.



## Approvals

Lindapter has manufactured to the highest standard for over three quarters of a century, earning a multitude of independent approvals and a reputation synonymous with safety and reliability. Current accreditations include:

### CE Marking

For Lindapter products in compliance with the provisions of the EC Construction Product Directive 89/106/EEC, please refer to the website: [www.lindapter.com/about/ce](http://www.lindapter.com/about/ce)



### Deutsches Institut für Bautechnik

is a body that approves construction products for use in structural and civil engineering industries in Germany.



### Lloyd's Register Type Approved

products have been subjected to tensile, frictional, shear, vibration and shock tests, witnessed and verified by Lloyd's Register.



**TÜV NORD** is the certifying authority for safety, quality and environmental protection in Germany.



**Det Norske Veritas** has approved the use of Lindapter products in lifting applications. This includes their use on both mobile and fixed offshore installations.



**Factory Mutual**, the American insurance organisation, offers an approval which is recognised by the fire protection industry world-wide.



### Verband der Schadenversicherer e.V.

is one of Germany's leading independent testing institutions for products used in fire protection applications.



Lindapter is a member of the following organisations:



British Constructional  
Steelwork Association



The Steel Construction  
Institute



American Institute of  
Steel Construction

## Technical Support

Experienced engineers offer an unrivalled support service, including free design and bespoke new product development. Lindapter's philosophy is to deliver the highest quality at every stage of the service, from initial connection design to installation guidance.

- Specialist advice from experienced engineers
- Free connection design based upon your requirements
- Bespoke drawings delivered in 2D and interactive 3D formats
- CAD files available to import into all major software applications
- Contractor training and on-site visits (where required)

## Engineered Solutions

- Design and development of custom products, manufactured to Lindapter's exacting standards
- Thoroughly tested with detailed reports



*(Above)* One of two 1000kN testing machines in Lindapter's Research & Development Facility

*(Left)* An example of Lindapter's bespoke interactive 3D drawings, just one part of the connection design service on offer



**Ask Lindapter to design a solution to your connection requirements:**

**Tel:** +44 (0) 1274 521 444

**Fax:** +44 (0) 1274 521 130

**General Enquiries:** [enquiries@lindapter.com](mailto:enquiries@lindapter.com)

**Technical Support:** [support@lindapter.com](mailto:support@lindapter.com)



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