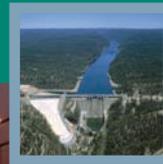


# Civil Engineering



MARKET APPLICATIONS

**CBW**  
ENGINEERING  
Lindapter Distributer Australia  
0414 242 112

**lindapter**<sup>®</sup>  
engineered solutions



## Process/Plant Engineering

The full range of Lindapter products are invaluable within the process environment including petrochemicals, industrial or agrochemicals and the offshore oil and gas industry. They allow connections to be made without hot work permits and without damaging protective coatings. Applications include pipe and cable supports, walkway supports, sprinkler installations and secondary steelwork connections.



## Materials Handling

Lindapter products have a range of applications within the materials handling industry which include conveyor supports, monorail supports, header steelwork connections and lift installations. Because there is no need for drilling or welding, temporary or permanent connections can be made which enable conveyor installations to be re-routed or removed without difficulty.



## Power Generation

Lindapter's capability within the power generation market is extensive, from wind turbines to solar panel mounting, or such diverse projects as decommissioning of nuclear power stations. With Lindapter as a partner, Power Generation projects will be completed with no fuss and peace of mind.



## Oil & Gas

The Lindapter product range is perfectly suited to the harsh environment that comes with offshore rigs. Whether it be fixing a helideck or securing a blastwall with no need to weld or drill it is the safest and easiest way of connecting steelwork. With certifications such as TÜV and DNV Lindapter offer an innovative alternative solution to traditional fixing methods.



## Building Services

Whether fixing to structural sections, hollow sections, composite decking, purlins or light steel framing, Lindapter has the support fixing to suit. The range is fully tested and has been designed to offer savings on installation time & consequently cost. Applications in M & E include installations of sprinklers for fire protection & cabling for detection, ductwork in HVAC systems, tray, basket & ladder for electrical cabling and suspended ceilings.



## Rail

The Lindapter range has numerous applications within the rail industry. Fast and convenient fixings are available for overhead line equipment, trackwork cable troughs, electrification bracketry, station monitors, the holding down of low speed rail lines to name a few and not forgetting our bespoke product range that can be designed and engineered to meet any of your connection needs.



## Telecommunications

With ever increasing demands for information there is a constant requirement for new and upgraded aerials, masts and towers. With Lindapter's range of fixings and clamps it has never been easier to connect to or strengthen your steelwork projects.



# Lindapter<sup>®</sup>

## in the Civils markets

### Lindapter in the Civil Engineering Market

The range of Lindapter Civil Engineering solutions has been specially developed to provide effective steelwork connections in the construction or repair of many civil engineering applications, such as bridges and walkways. For road or rail purposes the flexibility and load bearing capabilities of the range has also led to extensive use in different engineering environments including power stations, water treatment plants, tunnelling and other large scale Civil projects.

### The Lindapter Team

Lindapter's specialist departmental teams have been structured for your convenience. Our technical support staff are available to offer practical help and advice on everything from our standard product range through to non-standard applications and even bespoke product design. We also have regional sales engineers and distributors in many countries who are available for onsite visits to discuss your individual requirements.

### New Products

It is Lindapter's policy to constantly develop new, innovative and cost reducing methods of steelwork fixing and as such our latest products may not be featured in our brochures or on our website - so for the latest fixing technology please contact us directly.

## Securing steelwork in the Civil Industry for over 70 years



# Contents

### Special Finishes

When any of our applications are required to operate in particularly aggressive or unusual environments we are able to produce the full range in a number of alternative surface finishes suited to their individual and specific use. These include:

- Electro Zinc Plated
- Hot Dip Spun Galvanised
- Sheradized
- Continuously Hot Dip Zinc Coated
- Mechanical Galvanised
- Delta Seal

### Lindapter is committed to Customer Service

As a progressive and proactive organisation, we are always delighted to hear your comments, good or bad, on the services we offer. Please feel free to contact us directly with your thoughts and address your communications for the attention of the Marketing Department.

### British Standards Institution

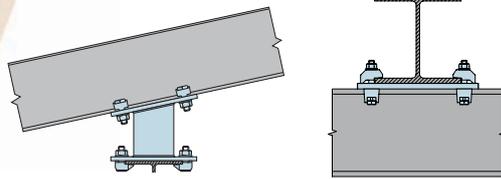
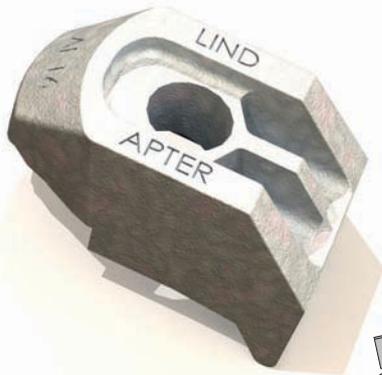
Lindapter is registered under BS EN ISO 9001:2000, as a company with a suitable system of quality management.



Type GC <b>Girder Clamp</b>	4:5
Type AF <b>High friction Clamp</b>	6:7
Type FF <b>FloorFast</b>	8:9
Type HB <b>Bespoke Hollo-Bolt</b>	10:11
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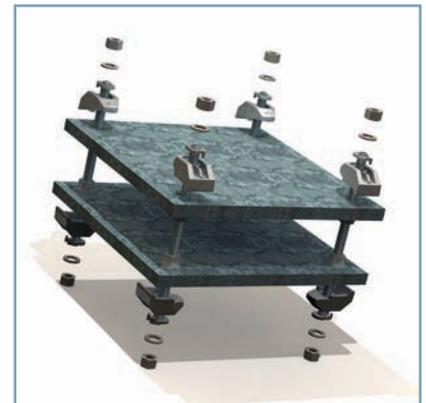
**DISCLAIMER.** Lindapter International supplies components in good faith, on the assumption that customers fully understand the loadings, safety factors and physical parameters of the products involved. Customers or users who are unaware or unsure of any details should refer to Lindapter International before use. Responsibility for loss, damage, or other consequences of mis-use cannot be accepted. Lindapter makes every effort to ensure that technical specification and other products 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 approximate - if in doubt please check with Lindapter.

# Type GC Girder Clamp



## Product Description

The Lindapter Girder Clamp is a unique method of securing secondary steelwork to structural members without the need to drill or weld either section. Manufactured specially to order, they can be supplied to accommodate any size or type of steelwork, including variations in heights, drops, gaps and angles and even in friction load. The main advantages to using Lindapter Girder clamps rather than the more traditional methods are a reduction in installation time and costs, the ability to relocate and no hot working or special tools required.





## Case Study

Name:	Cumberland County Courthouse Clock Tower
Location:	Bridgeton, New Jersey
Product:	Type GC Girder Clamp
Application:	The assemblies were used to construct a temporary steel jacking frame to enable the entire courthouse tower structure to be raised approximately 400mm.

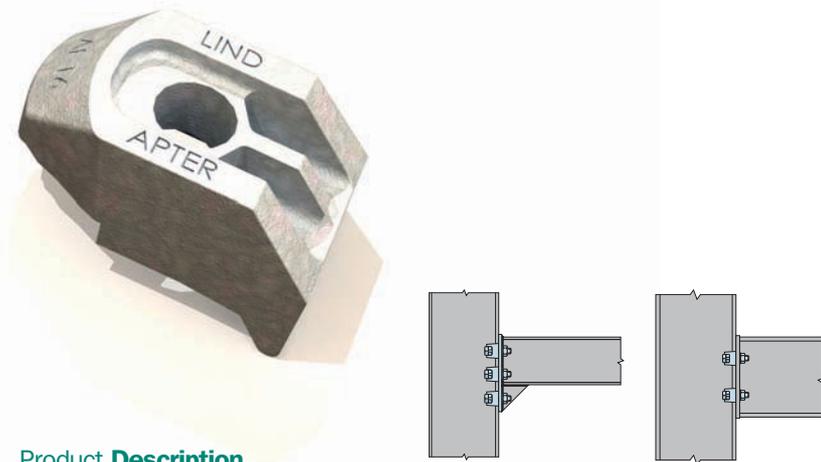
For a full case study and more information on the above application please visit

[www.lindapter.com/casestudies](http://www.lindapter.com/casestudies)

4:5

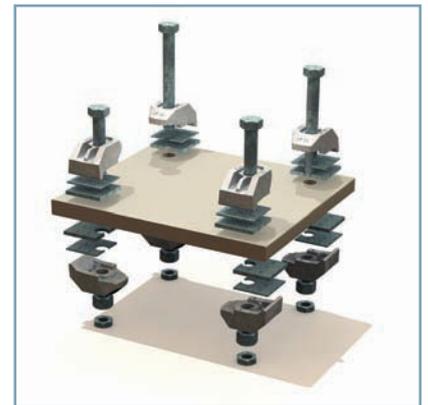
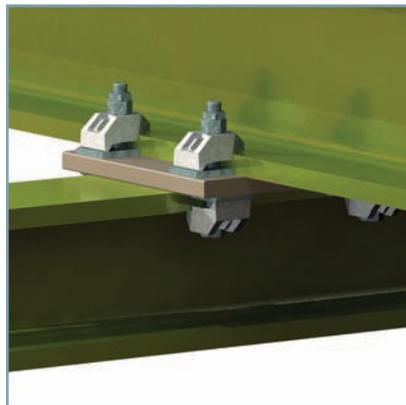
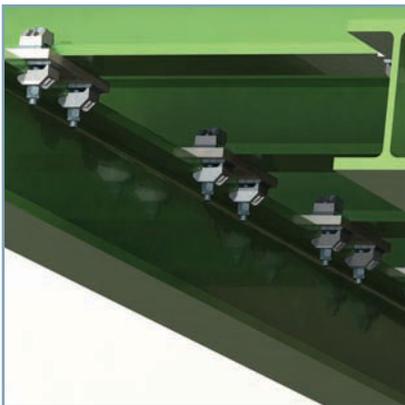


# Type AF High Friction Clamp



## Product Description

The AF Clamp is designed to take significantly increased torque and can therefore be used for applications where high tensile and frictional loads are encountered. With the use of an AFW adapter washer the product can be adapted to suit many different conditions. The profiled nose of Type AF enables various tapers of beam flange to be accommodated to a maximum of 10°.



# TYPE AF



## Case Study

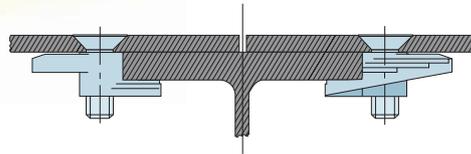
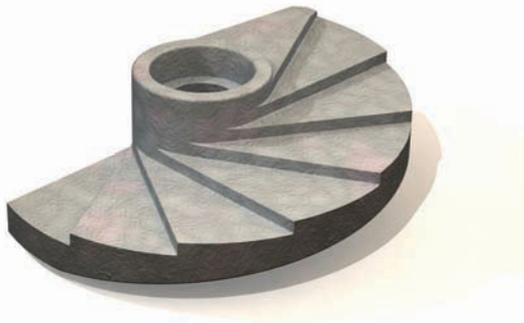
Name:	Mortons Leam Bridge
Location:	Peterborough - Cambridgeshire
Product:	Type AF
Application:	The Lindapter Type AF were used in a Girder Clamp formation for the strengthening work necessary on the up line girders. Lindapters were used as all the work had to be carried out whilst the bridge was still open to rail traffic, ruling out any site drilling of the existing steelwork.

For a full case study and more information on the above application please visit

[www.lindapter.com/casestudies](http://www.lindapter.com/casestudies)

6:7

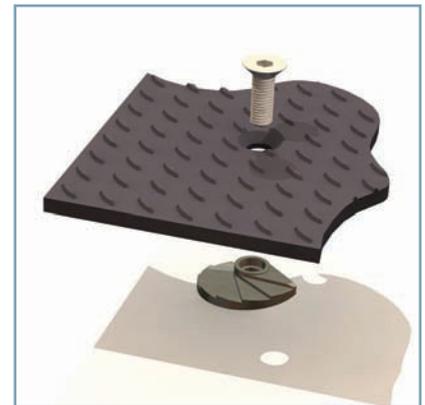
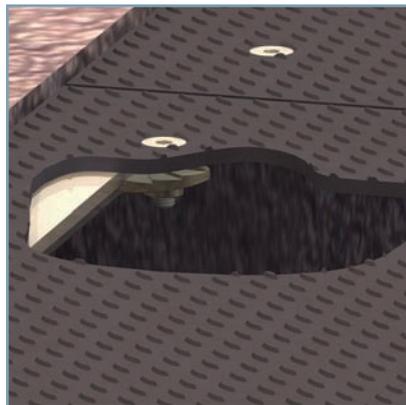
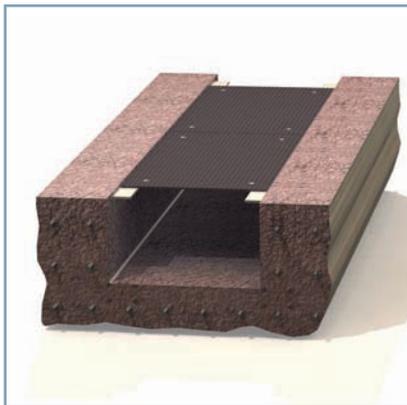
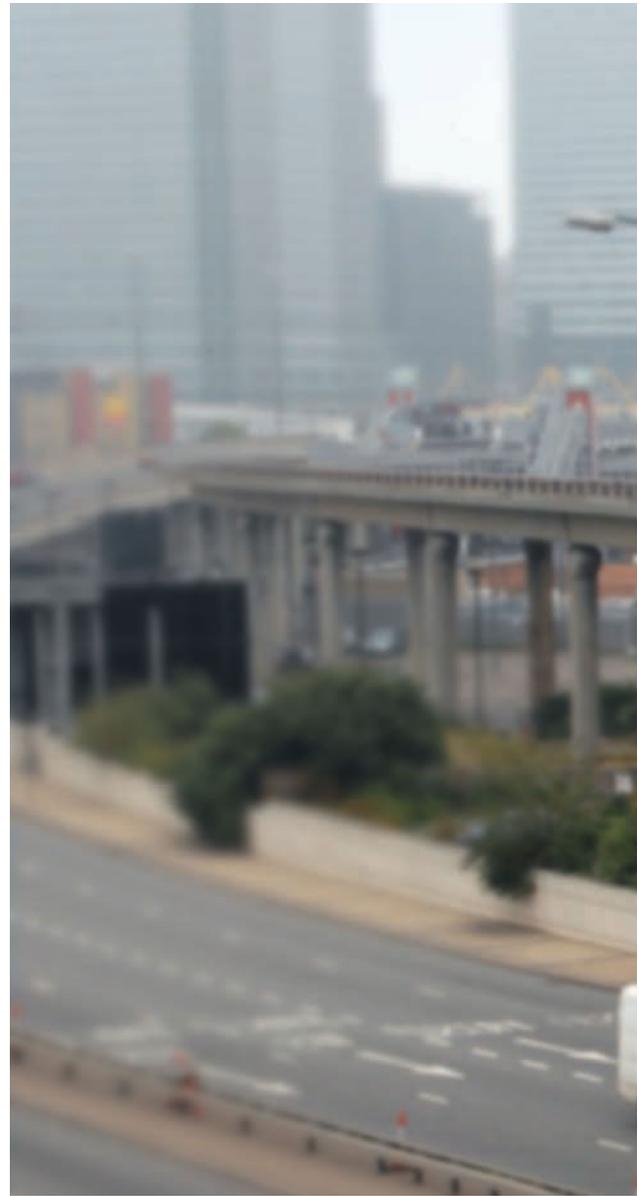
# Type FF FloorFast



## Product Description

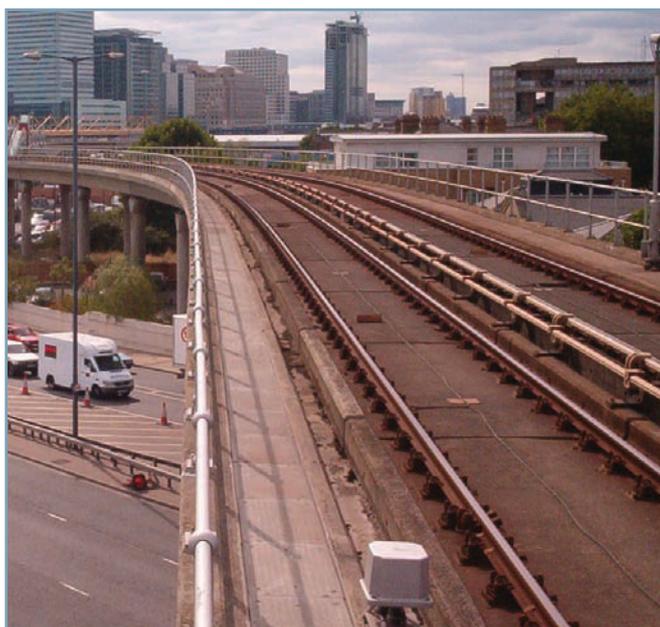
FloorFast is an ingenious design which enables steel floorplates to be fixed from above by one person only using a tee-handled hexagon key. There is no need for access from below and no site drilling or welding is required. The unique eccentric stepped web of the casting guarantees optimum contact with the flange and locks under the steelwork so that it can be used on most thicknesses of flange.

The Type FF has been tested against shock and vibration as part of a Lloyds Type Approval programme, it can be trusted to secure large areas of floor plate without movement.





# TYPE FF



## Case Study

Name:	Docklands Light Railway
Location:	East London
Product:	Type FF - FloorFast
Application:	Lindapter FloorFast was used as a means of securing galvanised Durbar plate to angle without the need for drilling or accessing from below. With FloorFast it's easy to lift and reinstall the flooring surface with only one tool for quick access which was a must for the maintenance engineering team.

For a full case study and more information on the above application please visit

[www.lindapter.com/casestudies](http://www.lindapter.com/casestudies)

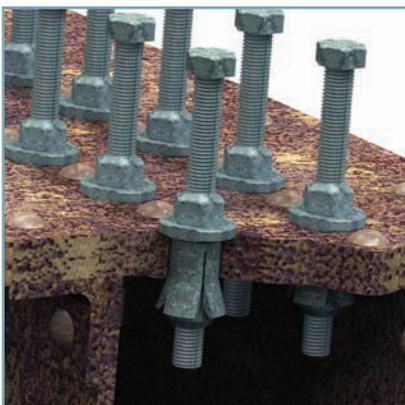
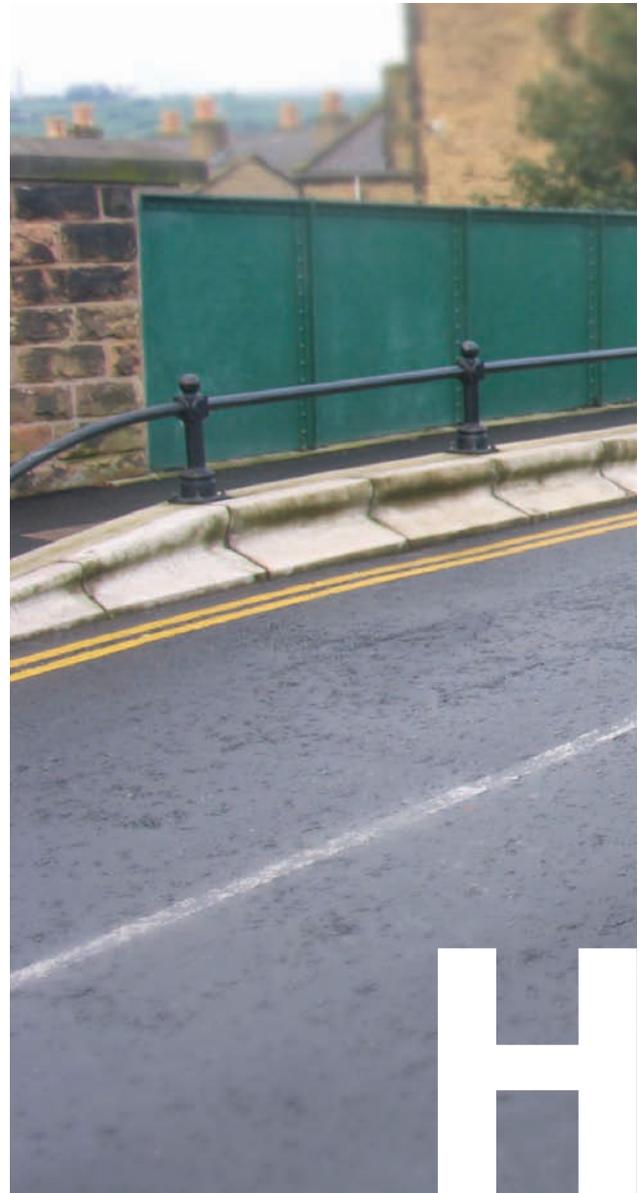
8:9

# Type HB Bespoke Hollo-Bolt



## Product Description

The Hollo-Bolt was invented by Lindapter over 10 years ago as a method of securing to square, rectangular or circular hollow section steel and conventional steelwork where access is available from one side only. Awarded the Design Council's Millennium Products status for innovation in connecting to hollow section, the Hollo-Bolt also has third party endorsements from Corus and the UK's Steel Construction Institute, and is heavily featured in the industry standard Green Book.





# HOLLO-BOLT



## Case Study

Name: Seedhill Bridge

Location: Nelson - Lancashire

Product: Hollo-Bolt

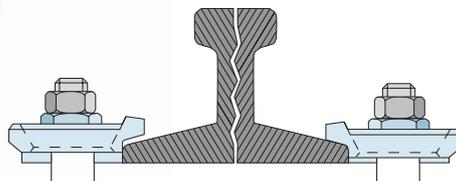
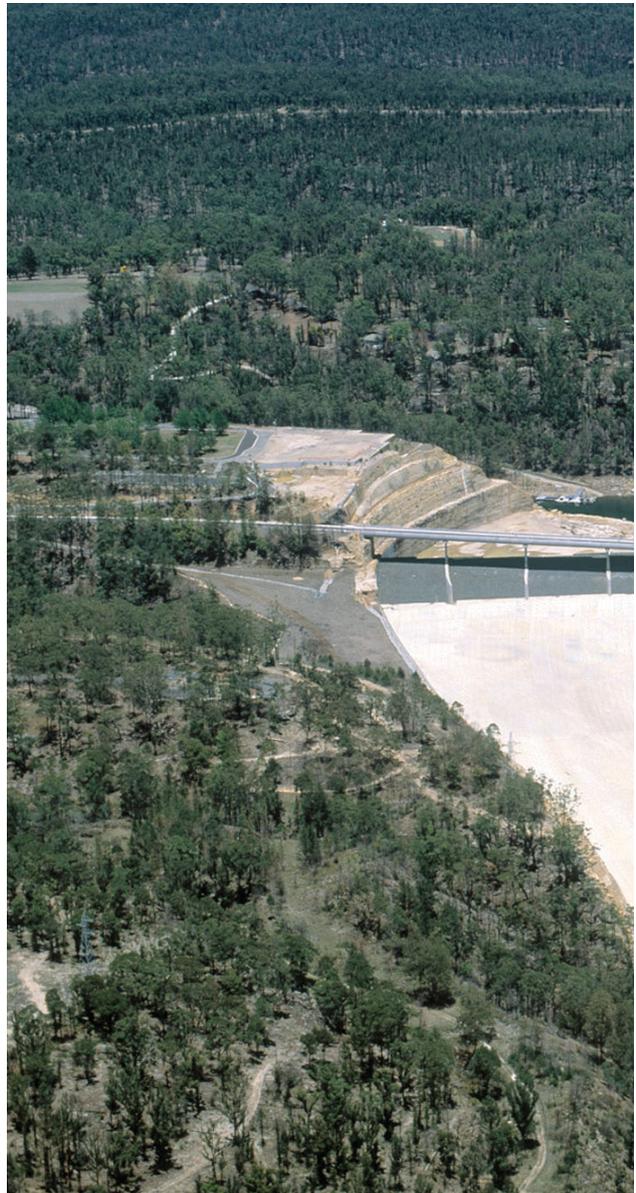
Application: This variation of the Hollo-Bolt was produced with a specially adapted setscrew to ensure the head of the device was located at a fixed height above the fabricated box section, allowing the component to act as a mechanical shear stud.

For a full case study and more information on the above application please visit

[www.lindapter.com/casestudies](http://www.lindapter.com/casestudies)

10:11

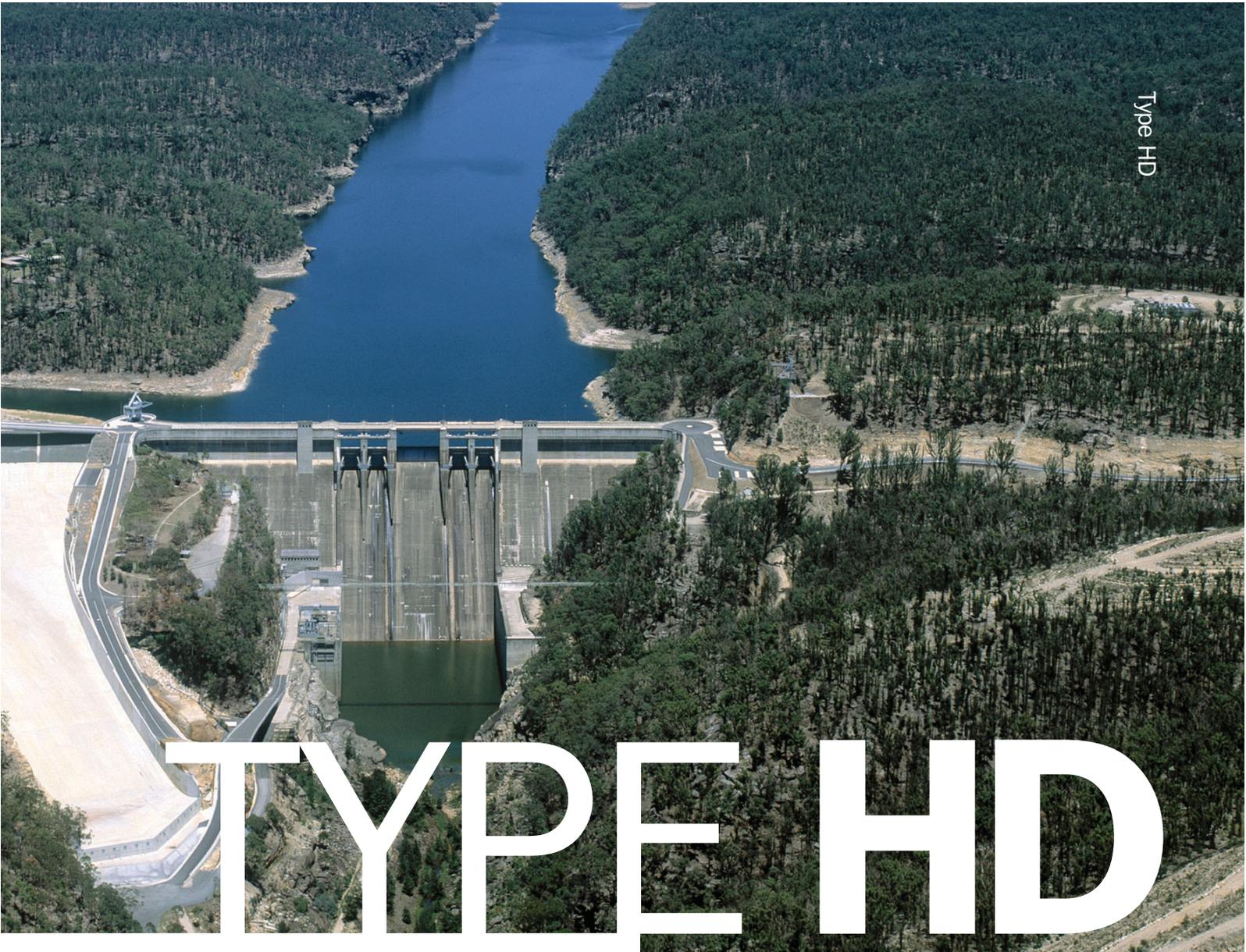
# Type HD



## Product Description

Lindapter's Type HD is a family of three rail clips - 'Spring', 'Hard' and 'Soft', all of which facilitate precise alignment of the rails by allowing a high degree of stepless lateral adjustability. Type HD is a user friendly innovation and will fit most rail types.





## Case Study

Name:	Warragamba Dam
Location:	Near Sydney - Australia
Product:	Type HD
Application:	As part of the Warragamba Dam auxilliary spillway project, the Lindapter Type HD Rail Clips were used to fix a BHP 60 kg/m rail that will be used to guide a travelling crane.

For a full case study and more information on the above application please visit

[www.lindapter.com/casestudies](http://www.lindapter.com/casestudies)

12:13



CHINA



GERMANY



USA

**Civil Engineering Project Successes**  
 Lindapter applications include the construction or repair of bridges, usually for road or rail purposes. There are also many uses for the full product range within power stations, water treatment plants, and tunnelling projects.



BRAZIL

**Project Name**

**Country**

**Lindapters Used**

Tessendo Chemie	Belgium	HB
Degussa Chemical Plant, Aracruz	Brazil	LR
Fish Processing Plant	Chile	D2, P1L
Chek Lap Kok Airport Term. Build. Walkway (Contract C302) - H. K.	China	GF
Hewlett Packard, Leixlip	Eire	FL, SH, KC
Bluewater Park Retail Development, Dartford, Kent	England	GC, HB, MW2
Frankfurt Airport Cargo Centre	Germany	GC, A, B,
FIAT Auto Factory, Rivalta	Italy	LR
BASF, Kuantan	Malaysia	A, F3
Amoco (operated) Lomond Platform, Texaco Erskine Field	North Sea Oil Field	GC
Statfjord 'C'	Norway	HB
Lombrun Wharf Refurbishment, Port Moresby	Papua New Guinea	A, P1
Majlis for Heir Apparent, Doha	Qatar	LR
Esso (Exxon) Refinery, Mossmorran	Scotland	A, B, D2, FF
Ashgabat Airport Phase 2	Turkmenistan	BR
Aweer Gas Turbine Power Station, Dubai	UAE	D1, D2, F3
Manhattan Bridge, New York (Cabling for Time Warner)	USA	F3, PR
Phu My 1 Combined Cycle Power Project, Ho Chi Minh City	Vietnam	A, CW
TV Comp. Plant (Nippon Electric Glass/Schott Glaswerk jv)	Wales	FF, A, B, MW2, FL, C

# Products

## Steelwork Fixings

Lindapter steelwork fixings securely grip the flanges of most standard steel sections, without the need to drill or weld. Primarily for secondary steelwork, the fixings enable beam to beam connections to be made quickly and easily on site.



## Cavity Fixings

Lindapter cavity fixings give a simple, cost-effective solution when fixing to hollow section steel, or to steelwork where access is available from one side only. They are ideal to use with any steel structures and eliminate the requirement for unsightly welding or strapping.



## Rail Fixings

Lindapter offer a range of rail fixings to suit standard and bespoke low speed applications. The main family of rail clips are the Type HD range, all of which facilitate precise alignment of rails by allowing a high degree of stepless lateral adjustability.



## Floor Fixings

Lindapter Floor Fixings will connect steel flooring to supporting steelwork without the need for site drilling or welding. Access to the underside of the flooring is not required, which eliminates the need for expensive scaffolding or elevated floors and saves on installation time.



## Support Fixings

The Lindapter support fixings range covers all aspects of fixing to or suspending from structural steelwork, providing ideal solutions for the suspension of building services equipment. The range also features products specifically designed to suit a range of composite steel floor decking.



## Engineered Products/ Bespoke Applications

Lindapter realise that not every project is the same, many projects need to be individually assessed. Lindapter will carry out site visits or meet engineers to ascertain the precise requirement and advise on the best solution.



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