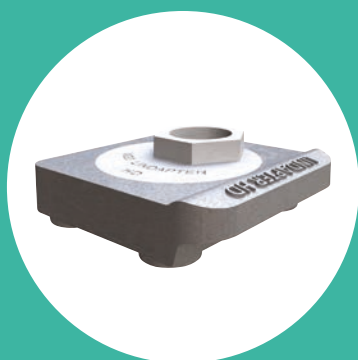




Type HD

by **lindapter**®

The high strength clamp
for low speed rails

www.Lindapter.com





Type HD by Lindapter®

The high strength clamp for low speed rails

Since 1934 Lindapter has been pioneering the design and manufacture of adjustable steelwork fixings as a fast, cost-effective alternative to drilling or welding.

The Type HD is used worldwide to secure sections of rail or crane lines in low speed applications such as ground track, elevated rail and overhead gantries. Lindapter's rail clip features a rotatable central component that provides lateral adjustability. It allows contractors to quickly and precisely align rails before securing them in position using standard hand tools. The clamps are manufactured from high strength SG iron, creating a reliable connection that minimises maintenance requirements.

The clips are used in a variety of environments including train depots, industrial facilities, water treatment plants, dam/dockside cranes, automated warehouses and power stations. Four product variants are available, each in sizes M20 or M24 to meet the diverse requirements of each industry and application.



About Lindapter

Lindapter's distribution network and stock holding facilities have grown hugely over the course of 80 years, allowing us to offer product expertise and delivery worldwide.

Lindapter strictly enforces consistently high manufacturing and environmental standards and we are proud of our green policy which helped us recently achieve zero waste to landfill. All Lindapter products also have full traceability operating to BSI 9001:2015.

Visit www.Lindapter.com for more details.

Pages 4 & 5 Project Examples | **Pages 6 & 7** Technical Data | **Page 8** Approvals & Lindapter's Service

Six reasons to use Type HD



QUICK ALIGNMENT

Convenient lateral adjustability.



REDUCE COSTS

Faster installation saves time and money.



HIGH STRENGTH

High resistance to lateral loads.



EASY TO INSTALL

Using standard hand tools.



NO RAIL DAMAGE

Drilling or welding the rails is not required.



CORROSION RESISTANT

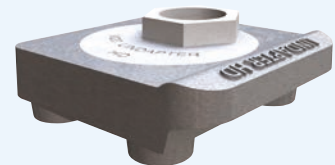
Various protective coatings available.

Four options are available

SOFT

Type HD Soft

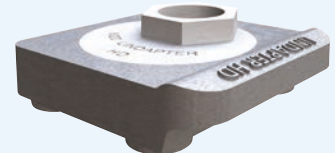
This clip does not touch the top of the rail, which allows the rail to lift slightly to accommodate rail wave, reducing stress and fatigue in the rail and clips.



HARD

Type HD Hard

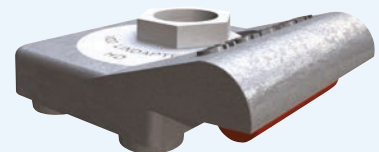
Designed to hold the rail down tightly to prevent rail uplift. Like other Type HD rail clips, it is made from high strength SG iron.



SPRING

Type HD Spring

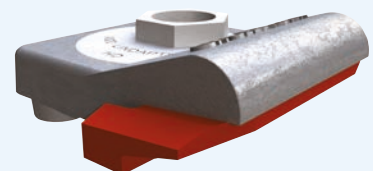
An elastomer spring provides vertical restraint while still allowing the rail to lift with rail wave. It also reduces track running noise.



ISOLATED

Type HD Isolated

For rail applications requiring electrical isolation, this product features a nylon insulator (also known as British Rail Orange).



Please refer to the Product Comparison on [Page 6](#) or the Technical Data on [Page 7](#) for more details.



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lindapter®



Ashford Depot

Kent, UK

APPLICATION

Lindapter's M20 Type HD Isolated Clip was used to secure low speed rails at the train maintenance centre.

PROJECT OVERVIEW

Type HD Isolated Clips, which are supplied with a nylon insulator, were specified for securing UIC60 FB rails along lengths of UKC waybeams, the beams in turn supported on individual reinforced concrete plinths.

The rails run the length of the depot building giving Engineers easy access for repairs and maintenance work on the trains.

Lindapter's Type HD facilitated the precise alignment of the rails, allowing lateral adjustability for the installer's convenience. The quick and easy process helped save time and money on the project.

More project examples can be found at www.Lindapter.com





Hitachi® Manufacturing & Assembly Plant

County Durham, UK

APPLICATION

Lindapter's M20 Type HD Hard Clip was chosen to secure low speed rails throughout Hitachi's train manufacturing and assembly plant in Newton Aycliffe.

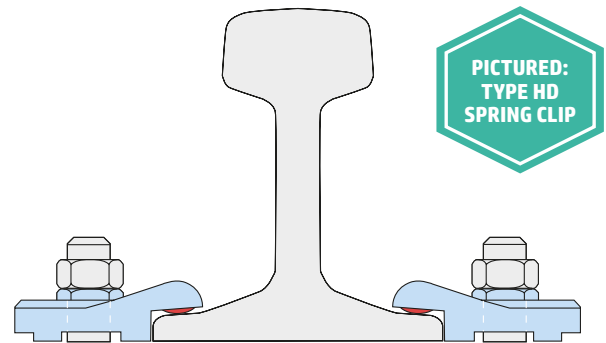
PROJECT OVERVIEW

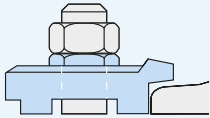
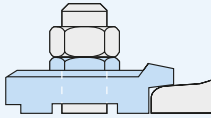
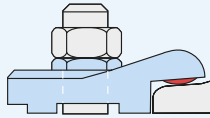
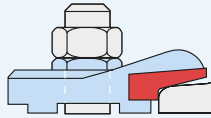
Type HD was used in three different areas of the facility. Firstly, they secured the rails outside the depot building. They were also installed indoors along the edges of the bogie drops to allow Engineers access to work on the underneath of the trains and finally, secured rails onto beams which were in turn supported by plinths.



Product Comparison

The table below shows the four options available. Each product has specific properties, for example a nylon insulator supplied with the Type HD Isolated will allow the product to be electrically isolated from the rails. Please contact Lindapter's Technical Support team if you require further advice.

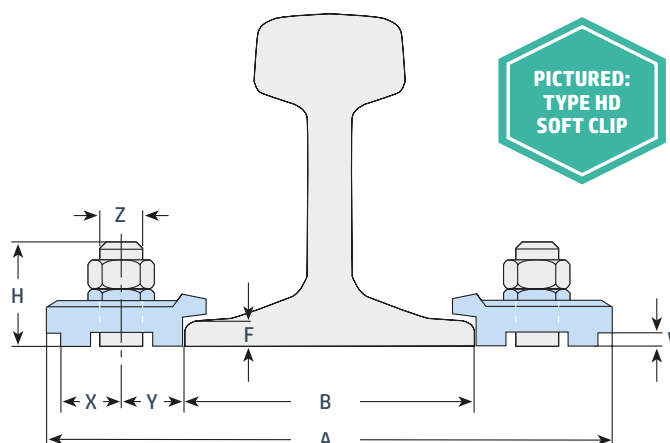


	Product Variants			
	Type HD Soft Allows rail wave  Product codes: HD20S / HD24S	Type HD Hard Clamps the rail down tightly  Product codes: HD20H / HD24H	Type HD Spring Includes an elastomer spring  Product codes: HD20SP / HD24SP	Type HD Isolated Supplied with a nylon insulator (aka British Rail Orange)  Product codes: HD20SPOR / HD24SPOR
Precise lateral adjustability	✓	✓	✓	✓
High strength SG Iron material	✓	✓	✓	✓
Various corrosion protection options	✓	✓	✓	✓
High resistance to lateral loads	✓	✓	✓	✓
Allows vertical movement of rail / rail wave	✓	—	✓*	—
Electrically isolated from the rail	—	—	—	✓
Reduces track running noise	—	—	✓	—
Suitable for use with a resilient pad	✓	—	✓	✓

* The elastomer spring with a Shore A hardness of 90-97 provides some vertical restraint to the rail while still allowing it to lift with rail wave.

Technical Data

Type HD is suitable for all rails with tapered flanges and crane speeds up to **60 metres per minute**. Please contact Lindapter for wheel loads above 400kN or lateral loads higher than wheel loads.



Material: SG iron, corrosion protection as requested.

Clip Type	Product Code	Bolt 8.8 Z	Normal Lateral Conditions		High Lateral Conditions		Leg Length ³⁾ V	Stud Length ³⁾ H	Dimensions		Distances ¹⁾		Width
			SWL (FOS 4:1)	Torque*	SWL (FOS 4:1)	Torque*			Lateral Adjustment L	Plate Width min. A	Y	X	
	HD20S	M20	22.5	185	46.0	450	F - 4	F + 40	+/- 11.5	B + 137	30	27	74
	HD24S	M24	40.0	320	60.0	760	F - 4	F + 43	+/- 8	B + 130	30	27	74
	HD20H ²⁾	M20	22.5	185	46.0	450	F - 8	F + 38	+/- 11.5	B + 137	30	27	74
	HD24H ²⁾	M24	40.0	320	60.0	760	F - 8	F + 41	+/- 8	B + 130	30	27	74
	HD20SP	M20	22.5	185	46.0	450	F - 7	F + 40	+/- 11.5	B + 137	30	27	74
	HD24SP	M24	40.0	320	60.0	760	F - 7	F + 43	+/- 8	B + 130	30	27	74
	HD20SPOR	M20	22.5	185	46.0	450	F - 6	F + 42	+/- 11.5	B + 147	35	27	74
	HD24SPOR	M24	40.0	320	60.0	760	F - 6	F + 45	+/- 8	B + 140	35	27	74

1) Based on the plug set at the 3 o'clock position (see below).

2) Not suitable for use with a resilient pad.

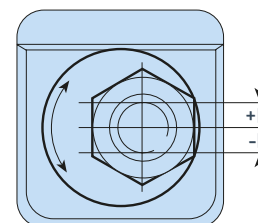
3) Please specify the required leg length (V) when ordering. If you are using a resilient pad, increase the leg length and stud length (H) by the thickness of the pad.

* Torque figures are based on bolts / setscrews in an unlubricated condition. For further information on lubricated fasteners please contact Lindapter.

Install in three easy steps

Pre-Installation

Ensure the hexagon of the plug is at the 3 o'clock position before tightening (as shown). Doing so allows lateral adjustment (L) towards and away from the rail.



- 1) Position the HD clip on the bolt or stud, ensuring the plug is at the 3 o'clock position, place a hexagon nut and loosely tighten.
- 2) Rotate the plug in a clockwise direction to locate the clip against the rail. Laterally adjust the rail if required.
- 3) Tighten the hexagon nut to the recommended torque.



 The full installation video can be viewed at www.Lindapter.com

Network Rail Approved

In 2005, Lindapter's Type HD Spring Clip gained the **PADS approval** following extensive use of the product on projects such as Merseyrail and Kirkdale light maintenance depot. For further information see certificate number 0057/007061.

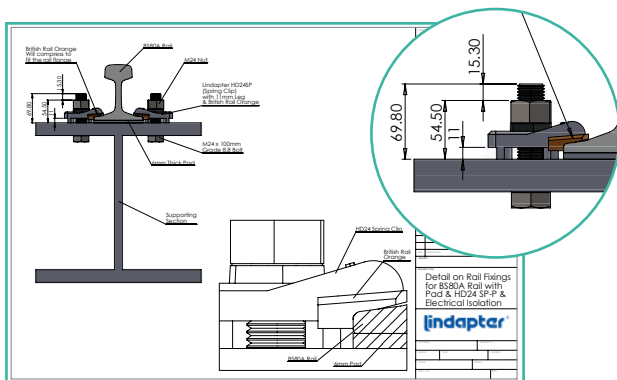
PADS NO.
0057/007061

The Lindapter Service



FREE CONNECTION DESIGN

Lindapter Engineers can advise a solution for you free of charge, providing drawings in 2D or 3D formats as well as CAD files that are compatible with all major software applications.



ENGINEERED SOLUTIONS

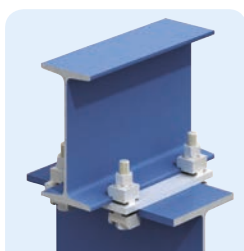
The Research & Development team boasts unique expertise and equipment that facilitates a bespoke product design service.

If you would like Lindapter to design a solution that satisfies your connection demands please email support@Lindapter.com

Right: One of two 1000kN testing machines in Lindapter's R&D facility.



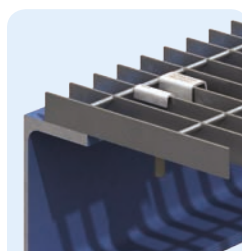
Also available from Lindapter



Girder Clamps



Hollo-Bolt®



Floor Fixings



Support Fixings



Decking Fixings