



On-track Equipment

Mechanisation
of rail installation



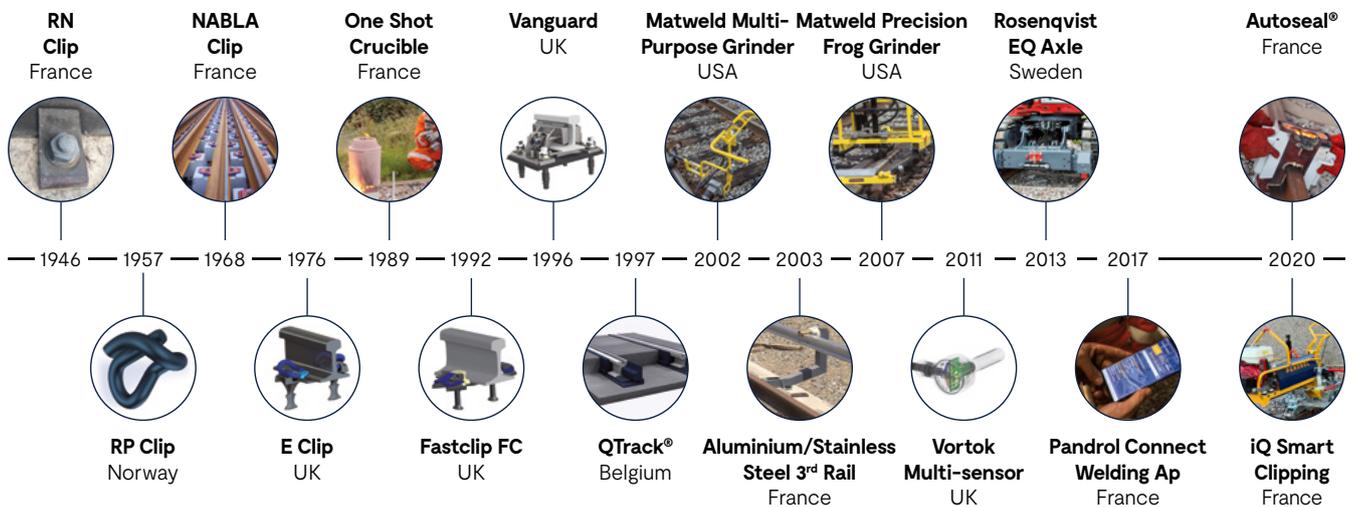
Partners in Excellence

Pandrol defines the industry standard across rail fastening systems and aluminothermic welding. We've created rail infrastructure in more than 100 countries with our products and services extending to designing, developing and manufacturing equipment to make constructing and maintaining railways more efficient. That means we've experienced just about every situation, problem, question and solution before.

Our ranges for installation

Pandrol presents its full range of next-generation Clip Drivers and equipment for rail and sleeper handling. Designed to increase speed and efficiency during installation and maintenance on rail systems, these solutions help our customers keep people off track and improve worker safety. Discover our latest innovations, including the new battery-operated CD100 B for maintenance and the

recently launched IQ range, which features a 'smart system' to provide information on installed and operating clips. Our commitment to enhancing the speed and efficiency of installation and maintenance on rail systems also extends to our Rail and Sleeper Handling and Track Transportation Equipment, providing a holistic solution for your railway infrastructure needs.



A complete end-to-end-service

We are technicians, engineers, developers and designers who solve customers' complex problems using our unique history of innovation and an endless pursuit of new thinking. We support our customers at every stage of the process, from design and installation right through to operation, monitoring and maintenance.



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Selection of clipping equipment

	Model	Usage	Sleepers / min	Installing Clips					
				FC	FE	FCX	e-Clip	PR401	Offset clips
	CD100	Maintenance	Up to 10	Yes	Yes	Yes	No	No	No
	CD100 B	Maintenance	Up to 10	Yes	Yes	Yes	No	No	No
	CD200 iQ	Maintenance / New track	Up to 20 FC,FE,FCX Up to 10 (e-Clip)	Yes	Yes	Yes	Yes	Yes	Yes FC No E-clip
	CD300 iQ / CD300 EC	Maintenance / New track	Up to 40 FC, FE, FCX Up to 20 e-clip	Yes	Yes	Yes	Yes	Yes	E-clips
	CD400	Intensive	Up to 40 FC, FE, FCX Up to 20 e-clip	Yes	Yes	Yes	Yes	Yes	E-clips
	CD400SP iQ	Intensive	Up to 25 FC,FE, FCX Up to 20 e-Clip	Yes	Yes	Yes	Yes	Yes	E-clips

iQ : intelligent control system

Extraction / Declipping						Track gauge	Power	Rail(s) clip(s) at the time	Movement	Lift low-lying sleepers	Weight	Dimensions
FC	FE	FCX	e-Clip	PR401	Offset clips							
Yes	Yes	Yes	No	No	No	Not applicable	Thermic	One rail	Walk-behind machine	10 mm	16 kg (petrol unit) 40 kg (clipping) / 45 kg max (declipping)	Length 1120 mm Width 625 mm Height 910 mm Wheels Ø85
Yes	Yes	Yes	No	No	No	Not applicable	Battery	One rail	Walk-behind machine	10 mm	19 kg (battery unit) 43 kg (clipping) / 48 kg max (declipping)	Length 890 mm Width 650 mm Height 700 mm Wheels Ø85
Yes	Yes	Yes	Yes	No	Yes FC No E-clip	Adjustable from 1000 to 1600 mm (others on request)	Thermic	One rail	Walk-behind machine	50 mm	254 kg (Fasclip) / 272 kg (e-Clip)	Length 2100 mm Width 1980 mm Height 1050 mm Wheels Ø55
Yes	Yes	Yes	Yes	Yes	E-clips	1435 mm	Hydraulic	Both rail	Road-rail vehicle (RRV) attachment	90 mm	975 kg	Width 2250 mm Length 1730 mm Height 1030 mm Wheels Ø 125 mm
Yes	Yes	Yes	Yes	Yes	E-clips	1000, 1067, 1435, 1520, 1600 mm (others on request)	Hydraulic	Both rail	Road-rail vehicle (RRV) attachment	90 mm	1400 kg	Length 2500 mm Width 2100 mm Height 1030 mm Wheels Ø 250 mm
Yes	Yes	Yes	Yes	Yes	E-clips	1000, 1067, 1435, 1520, 1600 mm (others on request)	Thermic	Both rail	Walk-behind machine	90 mm	3075 kg	Length 3220 mm Height 1830 mm from top of rail Width 2290 mm Wheels Ø 250 mm

CD100 B

Fastening Installation Equipment

Adding Value

CD100 B is an emission-free portable clipping machine designed for quick and easy clipping and declipping of the Pandrol Fastclip range.



The CD100 B clipping machine is designed for clipping and declipping Pandrol Fastclips. Compact and lightweight, it is suitable for use by a single operator and can be easily carried onto site.

The CD100 B is composed of three parts: a power pack and two clipping tools. As part of its ergonomic design, a weight-bearing wheel runs along the rail, dramatically reducing the physical strain on the operator. Although optimised for smaller clipping and declipping applications, the CD100 B is versatile and can be coupled quickly and easily to other equipment.

Powered by battery, this emission-free clipping machine is suitable for use in tunnels and stations and in densely populated areas where working safely with low noise and clean air is a priority.

→ TECHNICAL FEATURES

Compact

The powerful tool's small size means the CD100 B can be stored in the boot of a car and carried onto site by one person for quick intervention and reduced cost.

Ergonomic features

The CD100 B is equipped with an adjustable handle and a weight-bearing wheel that runs along the rail to reduce physical strain on the operator.

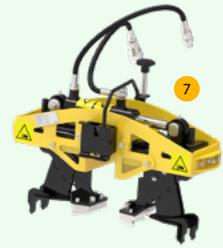
→ ADVANTAGES /

- The CD100 B's compact, portable design means that it can be transported easily and used by a single operator, saving time and labour costs.
- The machine's ergonomic features, including adjustable handle, weight-bearing wheel and light weight, make it safer and more convenient for users.
- An environmentally-friendly, battery-powered tool with no exhaust smoke and reduced noise, the CD100 B makes a positive contribution to clean working environments.
- Because it is emission-free, it is suitable for use in tunnels, stations and densely populated areas.
- The CD100 B replaces the need for manual hand tools for small jobs, eliminating the risk of tools slipping and physical stress injuries.
- The tool has been designed to be extremely versatile. It can be coupled to other equipment and is strong enough to lift a sleeper up to 10mm.



→ COMPONENTS /

1. High-power lithium-ion battery power pack
2. Ergonomic weight bearing wheel
3. Interchangeable clipping tool
4. Adjustable handle
5. Clipping tool for FC / FE / FCX
6. Unclipping tool for FE / FCX
7. Unclipping tool for FC / FCX (complete removal)



→ SPECIFICATIONS /

Technical data				
Description	CD100 B Power Unit	Clipping tool FC/FE/FCX	Unclipping tool FE/FCX	Unclipping tool FC/FCX (complete remove)
Item number	6000617	1100201	5012730	1100058
Pads / Arms	-	Included	Included	Included
Weight	19 kg (without battery)	24 kg	29 kg	24 kg
Height	400 mm	390 mm	450 mm	400 mm
Length	480 mm	580 mm	560 mm	560 mm
Width	260 mm	210 mm	371 mm	270 mm
Max working force	-	33,8 kN	23,9 kN	23,9 kN
Capacity	300 clipping operations	About 10 sleepers / min	About 10 sleepers / min	About 10 sleepers / min
Battery capacity	6 Ah - 82 V (included with charger)	-	-	-

Accessories :

392025 : additional 6 Ah - 82 V battery
 392026 : additional charger
 5012728 : 2 Clipping pads FCX
 5012727 : 2 Clipping pads FE

Standard compliance :

Machinery directive 2006/42/EC
 Low voltage directive 2006/95/EC
 Electromagnetic compatibility (EMC) 2014/30/EU

→ LEARN MORE



CD100 /

Fastening Installation Equipment



The CD100 clipping machine is designed for clipping and declipping Pandrol Fastclips. Compact and lightweight, it is suitable for use by a single operator and can be easily carried onto site.

The CD100 is composed of three parts: a power pack and two clipping tools. As part of its ergonomic design, a weight-bearing wheel runs along the rail, dramatically reducing the physical strain on the operator. Although optimised for smaller clipping and declipping applications, the CD100 is versatile and can be coupled quickly and easily to other equipment.

This version is also available powered by battery, is suitable for use in tunnels and stations and in densely populated areas where working safely with low noise and clean air is a priority.

→ TECHNICAL FEATURES /

Modular design

Designed with a quick connect interface, the patented CD100 comes in three modules: the power pack, the clipping tool and the declipping tool.

Made for Pandrol Fastclip

Compatible with Fastclip FC upto 1500 series of clips (15mm in diameter), Fastclip FE and FCX.

Compact

The powerful tool's small size means the CD100 can be stored in the boot of a car and carried onto site by one person for quick intervention and reduced cost.

Ergonomic features

The CD100 is equipped with an adjustable handle and a weight-bearing wheel that runs along the rail to reduce physical strain on the operator.

→ ADVANTAGES

- The CD100's compact, portable design means that it can be transported easily and used by a single operator, saving time and labour costs.
- The machine's ergonomic features, including adjustable handle, weight-bearing wheel and light weight, make it safer and more convenient for users.
- The CD100 replaces the need for manual hand tools for small jobs, eliminating the risk of tools slipping and physical stress injuries.
- The tool has been designed to be extremely versatile as it can be coupled to other equipment.



→ COMPONENTS

1. Power unit
2. Ergonomic weight bearing wheel
3. Interchangeable clipping tool
4. Adjustable handle
5. Unclipping tool
6. Clipping tool



→ SPECIFICATIONS

Technical data				
Description	CD100 Thermic Power Unit	Clipping tool FC/FE/FCX	Unclipping tool FE/FCX	Unclipping tool FC/FCX (complete remove)
Item number	5014188	1100201	5012730	1100058
Pads / Arms	Not included	Included	Included	Included
Weight	16 kg	24 kg	29 kg	24 kg
Height	400 mm	390 mm	450 mm	400 mm
Length	480 mm	580 mm	560 mm	560 mm
Width	260 mm	210 mm	371 mm	270 mm
Max working force	-	33,8 kN	23,9 kN	23,9 kN
Capacity	-	About 10 sleepers / min	About 10 sleepers / min	About 10 sleepers / min

Accessories :

392025 : additional 6 Ah - 82 V battery
 392026 : additional charger
 5012728 : 2 Clipping pads FCX
 5012727 : 2 Clipping pads FE

Standard compliance :

Machinery directive 2006/42/EC
 Low voltage directive 2006/95/EC
 Electromagnetic compatibility (EMC) 2014/30/EU



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Clip Driver CD200 IQ

Track equipment

Adding Value

Pandrol's first intelligent clipping machine, using an intuitive control system to simplify operation.



The Clip Driver CD200 IQ, the first machine in Pandrol's new IQ range, uses intelligent control systems to simplify operation. The new smart system can provide information on clips installed and number of operating hours, while also preventing incorrect use of the machine.

The modular, lightweight design of the CD200 IQ enables it to be lifted on and off track easily. Thanks to mechanical and hydraulic quick connectors, it is simple to change between the two clipping tools for Fastclip and e-Clip.

The CD200 IQ also has a patented built-in sleeper lift function, enabling the operator to lift low-lying sleepers of 50mm. It is powered using a new power pack and a Honda engine.

→ TECHNICAL FEATURES

Intelligent control system

The CD200 IQ has a new intuitive control system with a digital display that provides information (e.g. number of operating hours, clips installed).

Modular, lightweight design

The clip driver's modular, lightweight design means that it can be lifted on and off the track easily.

Mechanical and hydraulic connections

Mechanical and hydraulic quick connections are used to switch efficiently between the tools for Fastclip and e-Clip.

Clipping speed

The machine clips up to 20 sleepers per minute with Fastclip and up to 10 sleepers per minute with e-Clip.

Built-in sleeper lift function

Enables the CD200 IQ to lift low-lying sleepers of 50mm.

Engine

The clip driver is powered by a Honda petrol engine.

Safety

A fail-safe mechanical brake is available as an option.

→ ADVANTAGES

- The intelligent control system simplifies operations and prevents misuse of the machine.
- The control system logs data on the quantity of clips installed and number of operating hours, allowing the user to monitor their on-track efficiency.
- The CD200 IQ's modular design reduces the weight and lifting requirements for users, making it easier to set up on track.
- Mechanical and hydraulic quick connectors streamline the changeover between Fastclip and e-Clip tools, reducing downtime.

→ COMPONENTS



1. Height adjustable handlebar
2. Control panel
3. Working light
4. Mechanical and hydraulic quick release couplings
5. Lifting points
6. Main unit
7. Accessory box
8. Slide bar
9. Trolley unit
10. Latch for slide carriage, handle
11. Wheel bracket
12. Powerpack
13. E-clip clipping and unclipping module
14. Fastclip FC/FE clipping and unclipping module
15. Trolley



→ SPECIFICATIONS

Technical Specification	
Length	2100 mm
Width	1980 mm
Height	1050 mm
Weight power pack	103 kg
Weight trolley	54 kg
Weight tool, fastclip	97 kg
Weight tool, e-Clip	115 kg

→ LEARN MORE



Clip Driver CD300 IQ / CD300 EC

Track equipment



Clip Driver CD300 IQ is a high-production clipping machine designed to install Pandrol Fastclip FC and FE fastening systems. Clip Driver CD300 IQ EC is a version specially designed for e-Clip fastening system.

The machine's design is based on the proven technology of Pandrol's Clip Driver CD400, with enhancements adding to its performance. Tools are folded up when not in use, eliminating the risk of collision with shoulders, fishplates and clips in the track. A newly designed intelligent control system monitors the machine's operation and actively controls the clipping operation.

Clip Drivers CD300 IQ and CD300 IQ EC has a quick adjustment for various rail heights and guiding rollers ensure it is centred on the track. Its low weight makes it suitable for use on smaller road-rail machines.

→ TECHNICAL FEATURES

Intuitive control system

Clip Drivers have a new intelligent control system with a display. It is easy to understand and available in different languages. It stores running data for follow-up and shows error codes.

Automated clipping speed

The control system measures the speed of the machine on the track and automatically adjusts the start of the clipping operation to get a perfect result and avoid damage to the machine and/or the track.

Raised tools

Tools are raised when not in use, eliminating the risk of collision with shoulders, fishplates and ballast. It is no longer necessary to remove the clipping pads on the tools when it is not used, which saves time in the track.

Guiding rollers

Guiding rollers ensure the Clip Driver is centred on the track.

Rapid height adjustment

The machine's height can be adjusted quickly and easily for various rail types by moving the position of a pin.

Lightweight design

Clip Drivers weigh less than 1000 kg and can be used with smaller road-rail machines from 6 tonnes upwards.

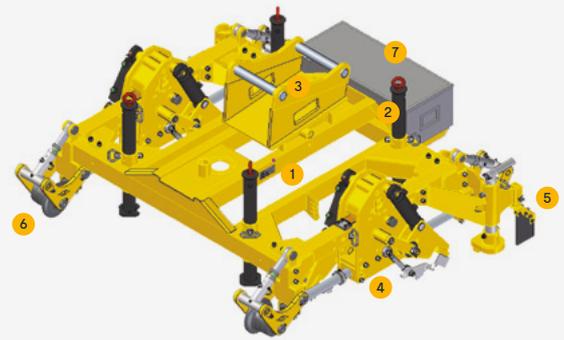
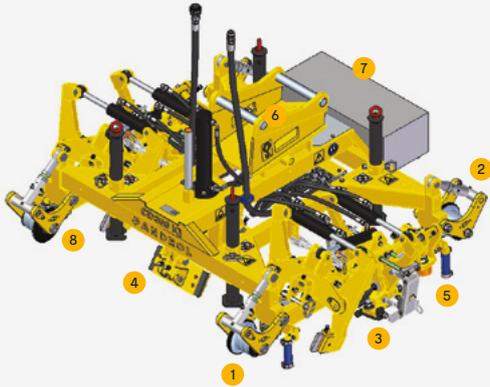
Proven technology

The machine's design is based on the same proven technology as Clip Driver CD400 (clipping tools and sleeper lift). As a result, it is robust and reliable and has reduced need for spare parts.



→ ADVANTAGES

- Clip Drivers intelligent control system makes the machine easy and intuitive to use. The error codes enable faster fault-finding.
- Automated control of the start of the clipping operation prevents faulty installation and damage to the machine and track.
- The machine's light weight makes it easier to lift on and off the track and means that it can be used with a wide range of road-rail machines.
- Risk of damage to the machine and track is further reduced because tools are raised when not in use. This also saves time.
- Quick height adjustment saves a great deal of time, particularly when using the machine on different rails.
- Clip Drivers are reliable and need few spare parts, making it a cost-effective option.



→ COMPONENTS CD300 IQ

- | | |
|-------------------------------|------------------------------|
| 1. Automatic system | 5. Guiding rollers |
| 2. Quick adjustment of height | 6. Machine interface bracket |
| 3. Foldable Fastclip tools | 7. Toolbox |
| 4. Sleeper lift | 8. Supporting legs |

→ COMPONENTS CD300 EC

- | | |
|------------------------------|----------------|
| 1. Identification plate | 5. Clipcatcher |
| 2. Supporting legs | 6. Railwheel |
| 3. Machine interface bracket | 7. Toolbox |
| 4. Clipping/De-clipping tool | |

→ SPECIFICATIONS

Technical data		
Description	CD300 IQ	CD300 EC
Item number	5014400	5014990
Clip	FC and FE	e-Clip and PR clip
Clipping	4 clips per cycle	4 clips per cycle
De-clipping	4 clips per cycle	2 clips per cycle
Capacity	Up to 40 sleepers/min	Up to 20 sleepers/min
Width	2250 mm	2250 mm
Length	1730 mm	1730 mm
Height	1030 mm	1030 mm
Weight	990 kg	840 kg
Wheels	Ø 125 mm	Ø 125 mm
Track gauge	1435 mm	1435 mm

→ ACCESSORIES

5014482	S45 bracket
5014954	S50 bracket
5015480	S60 bracket
On demand	Brackets for lift with forks
5015528	Bluetooth option (only fastclip)
On demand	Remote joystick

→ LEARN MORE



Clip Driver CD400

Track equipment



Pandrol's Clip Driver CD400 is a robust, high-performance clipping machine that clips and unclips Pandrol Fastclips and e-Clips. When fitted with proximity sensors, the CD400 fastens clips automatically, enabling additional productivity and security.

Attached to a railroad vehicle (RRV) and equipped with a sleeper lift, the Clip Driver CD400 can be used to raise low ties for new construction (Fastclip only), harnessing hydraulic power from the RRV. The easily adjustable attachment has a durable frame structure that is fitted with high-quality bearings to ensure longevity and maintain performance levels.

→ TECHNICAL FEATURES

Versatility

The Clip Driver CD400 fits tools for Pandrol e-Clip, Fastclip, Fastclip FE and Deenik and is adjustable for most common track gauges.

Automatic functions

With the option of being fitted with proximity sensors, the CD400 has an intuitive control panel that can be used to fasten clips automatically.

Guiding rollers

Guiding rollers centre the machine in work mode for impressive precision and productivity. Up to 40 Fastclip ties can be clipped per minute.

Attachment to RRV

The CD400 can be connected to a 13-ton carrier machine using an easily adjustable attachment. It then draws on hydraulic power from the RRV to lift sleepers.

Safety features

The Clip Driver has covers and mechanical stop arms to prevent pinch injuries and clips detaching.

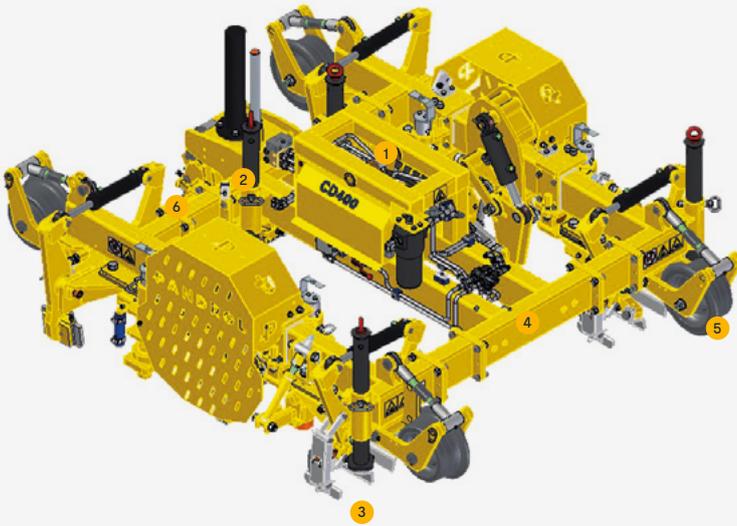
Robust construction

For extra-long life, the Clip Driver CD400 has a durable frame structure and is equipped with high-quality, tapered roller bearings.



→ ADVANTAGES

- Automation options and a user-friendly remote control panel ensure the machine is simple and intuitive to use.
- The CD400 is extremely efficient. With its guiding roller ensuring precision and productivity, the machine can clip up to 40 ties per minute.
- Covers and mechanical stop arms eliminate the risk of pinch injuries and prevent clips flying off, increasing the safety of operators.
- The machine is constructed from high-quality parts, reducing the requirement for maintenance, increasing longevity and saving time and money over the course of its life.
- Suitable for use with Pandrol e-Clip, Fastclip, Fastclip FE and Deenik, and adjustable for most common track gauges, the Clip Driver CD400 offers a versatile clipping option.
- The Clip Driver CD400 is a reliable, robust machine that gets the work done.



→ COMPONENTS

1. Machine bracket
2. Support legs
3. Clipping Tools
4. Frame
5. Wheel
6. Sleeper lift

→ SPECIFICATIONS

Technical data	
Designation	Clip Driver CD400 (Basic)
Item number	21980401
Clipping	FE / FC / e-Clip / PR401
Clip offset	Yes
Capacity	Up to 40 sleepers per minute
Movement	Railroad vehicle attachment
Power	Hydraulic
Track gauge	1,435mm
Sleeper lift	90mm
Wheels	Ø 250mm (9.8in)
Dimensions (l x w x h)	2,500mm (98.3in) x 2,100mm (82.7in) x 1,030mm (9.8in)
Weight	1,400kg (3,087lb), with tools for clipping and declipping of Pandrol Fastclip and sleeper lift

Approved by:

- NWR
- SNCF



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→ ACCESSORIES

5001021S	Clipping tools e-Clips standard
5002484S	Safety cage
5006362S	Safety cage for offset tool
5002775S	Declipping tool e-Clips
5004661S	Clipping/declipping tool offset clips
5007295	e-Clip shoe offset
5003290	e-Clip shoe standard
5003280	e-Clip shoe
5006717	Spacer 56 mm e-Clip offset/standard
5003090	PR 400 series
5003248	S45 machine bracket
5003463	S60 machine bracket
On request	Universal bracket
5006510	For fitting the machine in a boom or equivalent

Clip Driver CD400SP IQ

On-track equipment



The CD400SP IQ is our second generation walk-behind clipping machine, following the original reliable CD400SP.

This robust and efficient self-propelled machine now has an EU Stage 5 diesel engine from Hatz and a new intelligent control system. The CD400SP IQ logs the machine's operational history so the owner can see the running hours and number of clips installed, whilst also monitoring the error log. The machine installs 4 clips simultaneously across two rails and has a sleeper lift function for new construction projects. The maneuvering unit is now cordless to be more flexible for the operator.

→ TECHNICAL FEATURES

Compatible with a broad range of Pandrol clips

Suitable for use with the Pandrol Fastclip, the Pandrol e-Clip, and Pandrol PR-Clips (PR400 Series) there are a wide range of options for automatic clipping.

Whisper quiet operation

Operating at 78.5 decibels (at 1 metre) at full throttle, the CD400SP IQ is easily drowned out by ambient traffic noise (80Db).

Pandrol-quality systems

A reliable and robust machine that gets the work done. With Pandrol quality machinery, a reduced requirement for maintenance saves you time and money.

Transport mode

The machine can be lifted up into a transport mode to prevent collision with sleepers and shoulders.

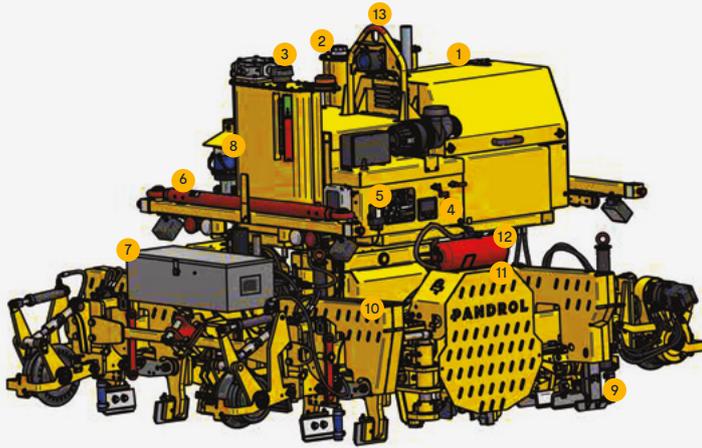
Hydraulic system

Load sensing system that reduces the oil temperature and improves the life cycle of components.



→ ADVANTAGES

- The EU Stage 5 diesel engine increases fuel efficiency, reduces emissions, and dramatically reduces noise.
- Proximity sensors and automatic clipping function simplify the operation and help the operator to optimize the production rate.
- Pandrol's guiding rollers centre the machine in work mode for impressively precise work.
- Uses a wireless control panel.



→ COMPONENTS

- | | |
|----------------------------|---|
| 1. Motor / engine | 8. Emergency operation pump |
| 2. Diesel fuel tank | 9. De-clipping tool Fastclip |
| 3. Hydraulic oil tank | 10. Clipping tool Fastclip |
| 4. Display | 11. E-clip module with de-clipping tool |
| 5. Manual operation levers | 12. Fire extinguisher (option) |
| 6. Tow bar | 13. Lifting point |
| 7. Toolbox | |

→ OPERATION



→ SPECIFICATIONS

Technical Specification	
Description	Clip Driver CD400SP IQ
Item number	014700
Length	3220 mm
Height	From top of rail 1830 mm - work Total when parked alongside track w2110 mm - transport
Width	2290 mm
Weight	3075 kg total weight with tools for clipping and declipping Pandrol Fastclip, sleeper lift and guiding rollers.
Track gauge	1000 mm, 1067 mm, 1435 mm, 1520 mm, 1600 mm (others on request)
Rail wheels U/C	S1002 - profile Ø 250 mm
Clipping / Declipping	4 clips per cycle
Sleeper lift	Grip force, sleeper 1200 - 12000 Kp Lifting force 350 - 3500 Kp Lifts low laying sleepers of 90 mm
Electrical system	24 V
Hydraulic system	LS system Maximum 200 bar
Engine	Hatz diesel type 3H5OT - 70 litres tank
Hydraulic tank	70 litres
Braking distance	Max 5 m
Noise at 1 meter	Full throttle front 78.5 dB (A), Full throttle right 77 dB (A), Full throttle rear 75 dB (A), Full throttle left 6 dB (A)

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Sleeper Replacer SB40/SB60

Rail and Sleeper Handling

Adding Value

Increases safety by reducing the number of people needed to carry out clipping during re-sleeper operations.



Pandrol's SB40 and SB60 Sleeper Replacers are attachments designed to replace sleepers safely and efficiently.

The SB60 has innovative tilt and rotate functions that allow sleepers to be changed from both the middle and the side of the track. The SB40 provides the same cost-effective, safe solution, but has been designed specifically for smaller carrier machines (weighing 8 to 12 tons) that are equipped with a permanently fitted tilt rotator. It is approximately half the weight of the SB60.

Both attachments can be combined with Pandrol's Auto Master clipping attachment for swift, safe installation of Pandrol's FC and FE Fastclips on new sleepers.

→ TECHNICAL FEATURES

Single versatile attachment

The SB40 and SB60 Sleeper Replacers dig out, remove and replace sleepers using a single attachment.

Compatibility

The Sleeper Replacers are compatible with most types of sleepers and are available in various track gauges.

Tilt and rotation

The SB60 Sleeper Replacer can be tilted and rotated, allowing sleepers to be changed from both the middle and side of the track.

Compact design

The Sleeper Replacers are compact in design and the SB40 is particularly lightweight.

Attachments

Several accessories are available for the Sleeper Replacers, including the Auto Master for automatic clipping, a bucket attachment for removing ballast, and a bucket attachment for wet spots.

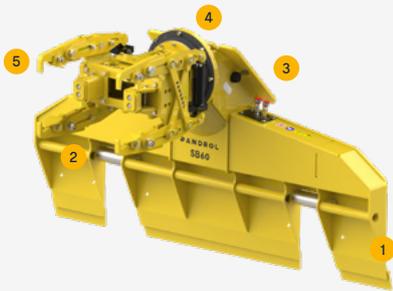
→ ADVANTAGES /

- Pandrol's Sleeper Replacers are high-performance machines that increase productivity and save time.
- Because the Sleeper Replacers can dig out, remove and replace the sleeper with one attachment, they offer a simple, cost-effective option.
- Fewer people are needed on track to carry out sleeper replacement, improving safety.
- When fitted with an Auto Master attachment, the Sleeper Replacers can also be used for fast, efficient installation of Pandrol's FC and FE Fastclips.
- The **SB60's** innovative tilt and rotate functions create maximum flexibility, allowing sleepers to be changed from both the middle and side of the track.
- Because the blade remains stationary and only the grapple rotates, the **SB60** is suitable for use in limited spaces such as station platforms and tunnels.
- The **SB40** has been designed specifically to be lightweight and is the ideal choice for smaller carrier machines weighing 8 to 12 tons.



→ COMPONENTS SB40 /

1. Doozer Blade
2. Adjustable rollers for different rail and sleeper types
3. Sleeper grab



→ COMPONENTS SB60 /

1. Doozer Blade
2. Adjustable rollers for different rail and sleeper types
3. Tilt function (optional)
4. Continuous rotation
5. Sleeper grab

→ SPECIFICATIONS /

Technical data						
Description	SB40 1435 mm	SB60 1435mm	SB60 1000mm	SB60 1067mm	SB60 1520mm	SB60 1600mm
Item number	On demand					
Gauge	1435mm	1435mm	1000mm	1067mm	1520mm	1600mm
Length	1370mm	1545mm	1545mm	1545mm	1545mm	1545mm
Height	1035mm	1695mm	1695mm	1695mm	1695mm	1695mm
Width	2590mm	2590mm	2240mm	2305mm	2755mm	2840mm
Weight	530kg	1075kg	945kg	1030kg	1095kg	1110kg
Rail type	60kg/m 50kg/m	60kg/m 50kg/m	60kg/m 50kg/m	60kg/m 50kg/m	60kg/m 50kg/m	60kg/m 50kg/m
Blade width	2590mm	2590mm	2240mm	2305mm	2755mm	2840mm
Clamping force	1400kg	1400kg	1400kg	1400kg	1400kg	1400kg

Accessories

Auto Master	For automatic clipping of Pandrol's FC and FE Fastclips
Bucket Attachment	For removing ballast
Bucket Attachment	For wet spots

→ LEARN MORE



Auto Master

(For Sleeper Replacers SB40/SB60)

Rail and Sleeper Handling

Adding Value

Increases safety by reducing the number of people needed to carry out clipping during re-sleeper operations.



Pandrol's Auto Master has been developed for use when installing Pandrol FC and FE Fastclip products as part of re-sleeper operations. A carrier-mounted attachment, it is available as an accessory for the Sleeper Replacers SB40 and SB60.

The Auto Master enables clipping to take place automatically, as part of a seamless process. With six to eight fewer people required on track to perform the operation, the machine has a major impact on site safety.

Self-centring and with a high working capacity, the Auto Master is an excellent choice for simplifying and accelerating re-sleeper operations on all standard varieties of rails and sleepers

→ TECHNICAL FEATURES

Automation

The Auto Master installs clips automatically, controlled by the machine's operator from the cab of the carrier machine. New sleepers are clipped onto the rail at the press of a button.

High working capacity

The Auto Master can clip approximately 20 to 30 sleepers an hour.

Clip compatibility

The machine can be adjusted to accommodate a range of different clip assemblies, including Fastclip FC and FE, and Safelok I and III.

Energy use

The machine is hydraulic and requires no extra power from the carrier machine.

Carrier-mounted attachment

The Auto Master is available as an attachment for the Sleeper Replacer SB40 (the unit weighs 220kg) and for the SB60 (weighs 260kg).

→ ADVANTAGES

- The Auto Master is extremely easy to use, enabling new sleepers to be clipped onto the rail at the press of a button.
- With an hourly capacity of approximately 20 to 30 sleepers, the machine improves the rate of operation.
- The machine is versatile and can be used for all standard varieties of rails and sleepers, as well as a range of different clip assemblies.
- The Auto Master is a cost-effective option because it minimises the number of people needed for clipping during re-sleeper operations.
- As a result, it also increases site safety by reducing the number of people on track.



Auto Master with SB60



→ COMPONENTS

- | | |
|--|---|
| 1. Clipping cylinder | 5. Stop and transport lock (bolt) |
| 2. Clipping pad
Adjustable height +20mm | 6. Turn cylinder |
| 3. Support roller
Adjustable height +20mm | 7. Mounting plate |
| 4. Bracket
Gradually adjustable in height +25mm | 8. Adjustable stop with spring damping (2X) |
| | 9. Block for setting clamp measure |

→ SPECIFICATIONS

Technical data		
Description	Auto Master SB40	Auto Master SB60
Item number	5012300	5004540
Dimensions	40mm (20.9") x 2530mm (99.6") x 495mm (19.5")	540mm (20.9") x 2530mm (99.6") x 500mm (19.7")
Weight	485 lb (220 kg)	575 lb (260 kg)
Maximum rail height	213mm (8.4")	213mm (8.4")
Maximum tool grapple opening over rail	610mm (24")	610mm (24")
Installation force	40kN (190 bar)	40kN (190 bar)

→ LEARN MORE

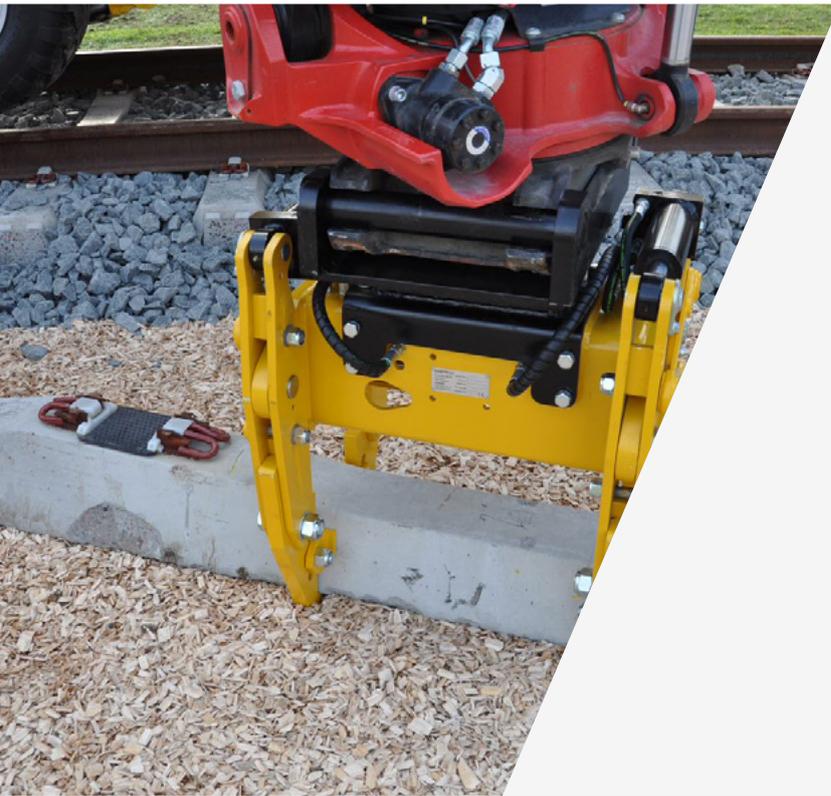


Sleeper Grabber SG60

Rail and Sleeper Handling

Adding Value

Capable of handling both sleepers and rail, the Sleeper Grabber improves installation efficiency and sleeper reuse.



Pandrol's Sleeper Grabber SG60 is a high-performance tool for heavy-lifting track procedures.

The Sleeper Grabber has been specifically developed to handle sleepers and rail sections efficiently. By avoiding damage to sleepers, it facilitates their reuse.

The Sleeper Grabber's design is based on Pandrol's Sleeper Replacer SB60, which has a time-tested track record for reliability.

→ TECHNICAL FEATURES

Fast operation

The Sleeper Grabber SG60 can handle both sleepers and rail in the same set-up, increasing productivity.

Interchangeable arms

Interchangeable grab arms enable the SG60 to accommodate different types of sleepers.

Secure grip

The machine's secure grip minimises the risk of damage to sleepers during maintenance, enabling their reuse.

Hydraulics

The Sleeper Grabber SG60 requires one double-acting hydraulics outlet (two hoses).

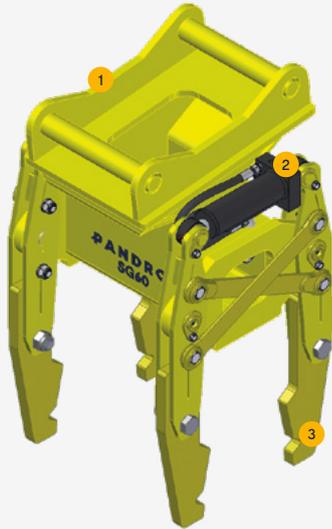
Safety features

The Sleeper Grabber has been designed with safety in mind – workers do not have to put their hands near the sleepers/grip.



→ ADVANTAGES /

- The Sleeper Grabber SG60 streamlines the complex sleeper handling procedure, lifting both sleepers and rail sections.
- Secure and gentle handling of sleepers means more can be reused during maintenance, reducing wast.
- Track workers' safety is increased as they do not need to put their hands near the sleepers/grip when using the Sleeper Grabber SG60.
- Based on Pandrol's time-tested Sleeper Replacer SB60, the Sleeper Grabber is a reliable, cost-effective option.



→ COMPONENTS /

1. Machine bracket
2. Gripping cylinder
3. Gripping arm

→ SPECIFICATIONS /

Technical data		
Description	SG60	SG60
Item number	5012836	5014872
Machine bracket	Type S45	Type S60
Weight	305kg	305kg
Height	1128mm	1128mm
Width	540mm	540mm
Hydraulics required	One double-acting outlet (two hoses)	One double-acting outlet (two hoses)
Clamp force	1400kg	1400kg
Rail type	European standard 60kg/m, 50kg/m	European standard 60kg/m, 50kg/m

→ LEARN MORE



Rail Trailers RT3230/RT3235

Track Transportation Equipment



Pandrol's Rail Trailers RT3230 and RT3235 are designed to transport materials and equipment between railway work sites.

Suitable for towing by a railroad vehicle, with a tow bar and a parking/emergency brake, Pandrol's Rail Trailers provide a safe method of moving goods between work locations.

→ TECHNICAL FEATURES

Safety features

Pandrol's Rail Trailers are equipped with lights and a parking/emergency brake to increase operator safety.

Durable tow bar

A durable tow bar is fitted as standard.

Removable panels

The Rail Trailers have removable panels that allow for easier loading and unloading.

Lifting features

Safer lifting is enabled by integrated lifting ears in each corner and rectangular pipes underneath the Rail Trailers' flatbed.

Stakes

Stakes for holding cargo are included with the RT3230 model.

Lightweight version

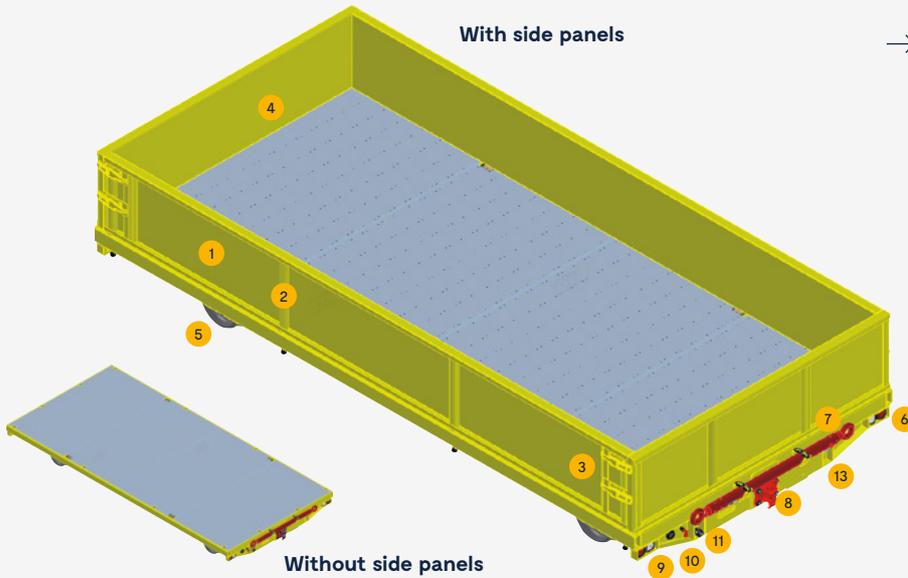
The Rail Trailer RT3235 has been engineered as a lighter weight alternative to the RT3230..



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→ ADVANTAGES

- Pandrol's Rail Trailers are strong, robust and durable, making them a cost-effective, long-lasting solution.
- They come in two sizes, with high loading capacities to cover most requirements.
- Lights and a parking/emergency brake increase operator safety on site.
- Removable side panels allow for ease of loading and unloading.
- The Rail Trailers streamline strenuous track maintenance and transportation tasks.



→ COMPONENTS

- | | |
|---------------------------------|----------------------|
| 1. Side panels | 7. Towing bar |
| 2. Stakes | 8. Towing attachment |
| 3. Side panel lock | 9. Volt meter |
| 4. Front/rear panel | 10. Main switch |
| 5. Rail wheels (w brakes) | 11. Servo pressure |
| 6. Direction lights (white/red) | 12. Lights switch |
| | 13. Battery charging |

→ SPECIFICATIONS

Technical data				
Description	RT3230 with side panels	RT3230 without side panels	RT3235 with side panels	RT3235 without side panels
Item number	5010520	5010525	32350001S	32350002S
Weight	2685kg	2295kg	820kg	700kg
Length	5500mm	5500mm	2500mm	2500mm
Width	2560mm	2560mm	1800mm	1800mm
Loading height	5500mm	5500mm	2500mm	2500mm
Gauge	1435mm	1435mm	1435mm	1435mm
Loading capacity	17000kg	17000kg	3500kg	3500kg

→ LEARN MORE



Sleeper Layer Attachments

SL400/SL450/SL550/SL650/SL850

Rail and Sleeper Handling



Pandrol's range of carrier-mounted Sleeper Layers achieve fast, accurate sleeper laying and spreading, with an easily adjustable tool designed to fit most kinds of sleepers. The SL400 can handle four sleepers simultaneously, while the SL850 can handle up to eight at a time.

A telescopic frame makes the Sleeper Layers compact and safe to operate. A unique, patented linkage system ensures that the centre of gravity does not change during sleeper spreading. The SL400 and SL450 work in hydraulic sequence and no electricity is required on the carrier machine.

→ TECHNICAL FEATURES

Telescopic frame

A telescopic frame structure makes the Sleeper Layers compact and easy to manoeuvre safely.

Easy-to-change components

Quick-change gripping claws make changing components quick, simple and safe.

Compatibility

The Sleeper Layers are prepared for both rotator and rototilt and can be easily adjusted to fit most types of sleepers.

High-speed installation

When operated by a fully-trained, skilled operator working under optimal conditions, the Sleeper Layers can cover from 60 to 80 metres per hour (the SL400) to 120 to 150 metres per hour (the SL850).

Precision gauging hydraulic system

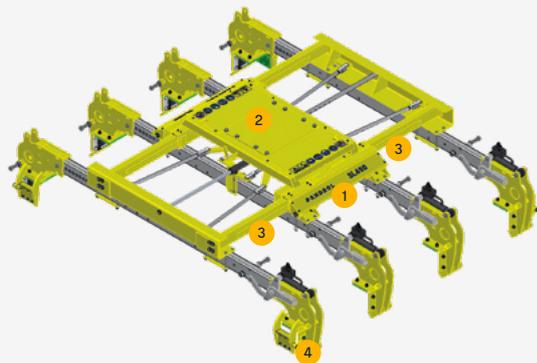
A precision gauging hydraulic system ensures the correct placement of sleepers, which can be set at 300–750mm. No electricity is required on the carrier machine.

Linkage system

A linkage system ensures that the Sleeper Layer's centre of gravity does not change during sleeper spreading.

→ ADVANTAGES

- Pandrol's Sleeper Layers achieve a high output of sleeper laying, from 60 to 150 metres per hour (dependent on the model).
- A precision gauging hydraulic system enables the accurate placement of sleepers.
- The Sleeper Layers' unique linkage system ensures their centre of gravity does not change while spreading sleepers.
- The attachments are compact and easy to manoeuvre safely.
- Easy-to-change components increase efficiency and save time.
- Unlike similar tools, there is no risk of the unit hanging over adjacent track when grabbing sleepers from a rail cart.



→ COMPONENTS

1. Fixed frame
2. Installation plate
3. Telescopic frame
4. Grapple arms

→ SPECIFICATIONS

Technical data					
Description	SL400	SL450	SL550	SL650	SL850
Item number	14300001	5007750	5013260	5008200	5008600
Number of sleepers (Max)	4 pcs	4 pcs	5 pcs	6 pcs	8 pcs
Length	1000 – 2585 mm (39.7 – 101.7 in)	1120 – 2640 mm (44.1 – 103.9 in)	1790 – 3770 mm (70.4 – 148.4 in)	2000 – 4475 mm (78.8 – 176.1 in)	2800 – 6015 mm (110.2 – 236.7 in)
Height – Standard	655 mm (25.8 in)	780 mm (30.7 in)	945 mm (37.2 in)	945 mm (37.2 in)	945 mm (37.2 in)
Height with tilt rotator	N/A	N/A	1400 mm (55.1 in)	1400 mm (55.1 in)	1400 mm (55.1 in)
Height with tilt rotator & bracket (150 mm)	N/A	N/A	1550 mm (61 in)	1550 mm (61 in)	1550 mm (61 in)
Width standard gauge	2 705 mm (106.5 in)	Min. 2 855 mm (112.4 in) Max. 3 170 mm (124.8 in)	Min. 2855 mm (112.4 in) Max. 3170 mm (124.8 in)	Min. 2855 mm (112.4 in) Max. 3170 mm (124.8 in)	Min. 2855 mm (112.4 in) Max. 3170 mm (124.8 in)
Width broad gauge	N/A	N/A	Min. 2965 mm (116.7 in) Max. 3335 mm (131.2 in)	Min. 2965 mm (116.7 in) Max. 3335 mm (131.2 in)	Min. 2965 mm (116.7 in) Max. 3335 mm (131.2 in)
Weight	820 kg (1810 lbs) w/o rotator/tilt rotator	1060 kg (2335 lbs) w/o rotator/ tilt rotator	1595 kg (3515 lbs) w/o bracket 1670 kg (3680 lbs) w bracket 1870 kg (4120 lbs) w tilt rotator and bracket	1860 kg (4100 lbs) w/o bracket 1935 kg (4265 lbs) w bracket 2210 kg (4870 lbs) w tilt rotator and bracket	2350 kg (5180 lbs) w/o bracket 2425 kg (5345 lbs) w bracket 2700 kg (5950 lbs) w tilt rotator and bracket
Lifting capacity	Max. 1250 kg (2755 lbs)	Max. 1800 kg (3970 lbs)	Max. 2250 kg (4960 lbs)	Max. 2700 kg (5950 lbs)	Max. 3600 kg (7935 lbs)
Sleeper distances	750 mm (29.5 in)	750 mm (29.5 in)	762 mm (30 in)	762 mm (30 in)	762 mm (30 in)
Sleeper lengths	Per request	STD: 2490–2800 mm (98 – 110.2 in) Narrow: 2220–2530 mm (87.4 – 99.6 in) Broad: 2490–3000 mm (98 – 118.1 in)	STD: 2410–2800 mm (94.8 – 110.2 in) Narrow: 2145–2530 mm (84.4 – 99.6 in) Broad: 2410–3000 mm (84.4 – 118.1 in)	STD: 2410–2800 mm (94.8 – 110.2 in) Narrow: 2145–2530 mm (84.4 – 99.6 in) Broad: 2410–3000 mm (84.4 – 118.1 in)	STD: 2410–2800 mm (94.8 – 110.2 in) Narrow: 2145–2530 mm (84.4 – 99.6 in) Broad: 2410–3000 mm (84.4 – 118.1 in)
Performance: any suitably excavator	Up to 60m/h (200 ft/h)	Up to 60m/h (200 ft/h)	Up to 90 m/h (240 ft/h)	Up to 110 m/h (300 ft/h)	Up to 150 m/h (410 ft/h)
Performance: any suitably front end loader	Up to 40m/h (110 ft/h)	Up to 40m/h (110 ft/h)	Up to 60 m/h (160 ft/h)	Up to 75 m/h (200 ft/h)	Up to 100 m/h (330 ft/h)

→ LEARN MORE



Rail Tongs

RG2500, RG3000 AND RG4800

Rail and Sleeper Handling



Pandrol's Rail Tongs are used to install and maintain continuous welded rail (CWR). The Rail Tongs clip automatically onto the rail being moved and are designed to be fastened to all types of hauling and rail removal equipment.

Three models are available: RG2500, RG3000 and RG4800.

The RG2500 rail grip model, which has an integrated towing support welded onto the side, enables rails to be towed.

The RG3000 has two towing supports and is compliant to AREMA requirements.

The RG4800's four-roller grip design is specifically intended to help prevent damage to rail sections that need to be removed or moved as a single, unified section of rail. Its rolling design enhances overall reliability and minimises potential points of failure. Its high-quality cam bearings are built to last.

→ TECHNICAL FEATURES

Automatic clipping

The tongs automatically clip onto the rail, minimising the risk of damage. This unique design also makes it easy to apply and remove.

Towing Rail

The **RG2500** allows the towing of rails due to the towing support welded onto the side of it. When towing rails, turn the support in the towing direction.

Efficient handling of long rails

When replacing rails on an existing track, the **RG2500** and **RG3000** tool can be used to both remove the old rails and roll the new ones into position. While being lightweight and easy to use, it offers the same power as more traditional alternatives.

Manoeuvrability

When using the roller grip **RG4800**, the rails only need to be raised very slightly off the ground to enable a proper grip. This uses the weight of the rails themselves, while allowing them to be moved sideways at the same time.

Lightweight and portable

The rail grip are made of high-tensile Swedish steel, with a minimal number of moving parts. As a result, the **RG2500** and **RG3000** Rail Grip are extremely lightweight, making it easier to move to and from site.

Durability and testing

With high-quality, reliable components, the **RG4800** requires very little maintenance throughout its life. It has been tested thoroughly and is supplied with CE certification.



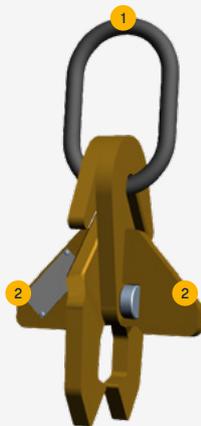
→ ADVANTAGES

- The rail tongs are designed for fast and easy sideways positioning of rails and enables them to be handled smoothly and safely.
- Automatic clipping allows for quick and easy fixing to the rail and minimises the risk of damage.
- Made of high-tensile Swedish steel, the rail tongs are lightweight and portable, easy to move on and off site.
- The rail tongs are compatible for use with all types of hauling and rail removal equipment.
- As a tool it is robust, long-lasting and requires minimal maintenance. As a result, it is more cost-effective than other rail handling systems.

RG2500



RG3000



RG4800



→ COMPONENTS

RG2500

1. Lifting eye
2. Towing support

RG3000

1. Lifting eye
2. Towing support

RG4800

1. Lifting frame
2. Lifting arm
3. Shackle
4. Cam bearing complete

→ SPECIFICATIONS

Technical data			
Description	RG2500 Rail Grip	RG3000 Rail Grip	RG4800 Roller Grip
Item number	20610001	5013433	20200009
Weight	5kg (11lb)	7,1 kg (15.7lb)	28kg (62lb)
Maximum load	2500kg (5510lb)	3000kg (6614lb)	4800kg (10580lb)
Height	270mm (10.6in)	270mm (10.6in)	335mm (13.2in)
Width	160mm (6.3in)	160mm (6.3in)	310mm (12.2in)
Application rail type	50 E3, 50 E4, 60 E1, 56 E1	132RE, 136RE, 141RE, TR68	Vignol Rail
Surface treatment	Linseed oil	Linseed oil	Solid Paint RAL1004 Yellow

Standard compliance

Machinery directive 2006/42/CE

AREMA (RG3000 only)

RG2500



RG3000



RG4800



→ LEARN MORE

Rail fastening systems

Pandrol's extensive rail fastenings portfolio extends across all market segments and can be adapted to all rail networks, climates, and operating conditions.

We offer threaded and non-threaded rail fastening solutions with options for high output mechanised track fastening installation and extraction. Our range includes track systems suitable for heavy haul (>40 T axles) through to metro, conventional, light rail, and semi to full high-speed applications (250< kph). Pandrol fasteners allow rail operators to maximise operational availability, safety, and life-time value through the deployment of optimum materials and world leading engineering design.



Pandrol track fastenings are precisely engineered to optimise track performance and longevity. We offer complete systems for concrete, timber, composite, steel and pre-cast blocks, and ballastless concrete slab track. Pandrol is a global systems provider, supporting train operators around the world.

- Our solutions offer a high level of safety, reliability, and predictability for network operators – customers know what to expect when buying from Pandrol.

- We offer fastening systems for mechanised installation, saving time and manpower with their value-engineered design.
- Pandrol deliver innovative fastening solutions for track challenges including noise and vibration control, low carbon, and anti-theft. We also offer support services, tools, mechanised equipment, and special solutions for ports, turnouts, embedded rail, and depots, as well as treatments for anti-corrosion environments.

Sustainable Resilient Systems

Track resilience plays a key role in the vibration mitigation and longevity of railway infrastructure, resulting in reduced maintenance costs. Pandrol is a leading provider of Sustainable Resilient Systems based on recycled rubber technology – we provide solutions for rail networks across the globe for noise & vibration control and embedded rail systems, offering the lowest CO2 footprint in the market.



Long-term planning of railway network systems is placing increased emphasis on eco-friendly railed public transportation. This involves connecting more towns and cities with high speed, conventional, metro, and light trains. Pandrol Sustainable Resilient Systems are being adopted by rail network operators across the world thanks to their resilience properties and green credentials. Enhance the lifespan of your infrastructure and protect surrounding buildings from vibration whilst also making rail greener.

Our systems are able to:

- Reduce the life cycle costs associated with the track and maintenance
- Improve the railway track life thanks to a sustainable recycled technology that helps rail networks meeting their CO2 targets
- Meet the vibration control demands of all types of track

Partners in excellence

Contact your local team to discuss your requirements

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