



Jordan Rail Pty Ltd

PILING CAPABILITY STATEMENT



**Supplier of Specialised Rail and Piling Equipment, Attachments and Experienced Personnel
throughout Australia**

Table of Contents

JORDAN RAIL PILING CAPABILITIES	4
OVERVIEW	4
Piling Attachments	5
PILING PLANT AND EQUIPMENT	6
Mait Ec35 Piling Rig	6
Specifications and Dimensions	6
Hi-Rail & Civil Piling Rig	8
Specifications and Dimensions	8
Bayshore TR60 Piling Rig	10
Specifications and Dimensions	10
PILING ATTACHMENTS	12
Movax KB70s Drilling Attachment	12
Specifications and Dimensions	12
Pendulum Drilling Attachments	13
Specifications and Dimensions	13
Side Grip - Movax SG75V Attachments	14
Specifications and Dimensions	14
Excavator Mounted Vibrators (EMVs)	15
Manipulators	16
SUPPORTING PLANT AND EQUIPMENT	17
Hi Rail Crane – Sennebogen 608 Multicrane	17
Hi-Rail Tippers or Hi-Rail Dumpers	18
Hi-Rail Agitators / Concrete Mixers	18
Tool Trucks and Labour	18
SUPPORTING ATTACHMENTS	19
Augers, Core Barrels & Clean-out Buckets	19
Hi-Rail Trolleys	19
Concrete Kibbles	19
Lifting Jibs	19
Tremie Pipe and Hoppers Systems	20
Casing / Sleeves	20
Fencing and Hole Covers	20
Grabs	20
FURTHER INFORMATION	21

<i>Table 1: Piling Equipment Configuration</i>	<i>5</i>
<i>Figure 1: List of Piling Attachments</i>	<i>5</i>
<i>Figure 1: Mait EC35 Drill Rig Dimensions.....</i>	<i>7</i>
<i>Figure 2: Hi-Rail Drill Rig Dimensions - Max Height</i>	<i>9</i>
<i>Figure 3: Hi-Rail Drill Rig Dimensions - Reach</i>	<i>9</i>
<i>Figure 4: Bayshore Drill Rig Dimensions</i>	<i>11</i>

JORDAN RAIL PILING CAPABILITIES

OVERVIEW

Jordan Rail has vast experience in piling works within the rail corridor and has various plant and equipment to cover all your needs. We have completed work on the most awkward, confined, and difficult sites with no problems or incidents. We can complete works in the most challenging conditions and scenarios, such as:

- Normal conditions
- Rock conditions
- Wet ground conditions
- Drill on raised embankments
- Drill on lower embankments
- Drill under low headroom i.e., under structures, bridges, and overheads.
- Drill close to structures
- Drilling over structures
- Drilling at reach
- Casing/sleeve installation or extraction
- Sheet Piling

The table below lists different piling configurations that can be used:

Description	Hi-Rail	Civil	Size	Drill Depth	Drill Diameter	Comments
Drilling Configurations						
Tracked Excavators with Pendulum Drills	✓	✓	5 – 35T	4 - 10m	150 - 2,000 mm	Includes Telescopic Kelly Bars and Fixed Kelly Bars
Wheeled Excavators with Pendulum Drills	✓	✓	6 – 32T	3 – 8m	150 - 2,000 mm	Includes Telescopic Kelly Bars and Fixed Kelly Bars
Hi-Rail Tracked Excavators with Pendulum Drills	✓		8 – 14T	4 - 8m	150 - 1,500 mm	Includes Telescopic Kelly Bars and Fixed Kelly Bars
Small Drilling Rig (Mait EC35)		✓	14T	16m	450 - 1,050 mm	Low Headroom Interlocking Kelly Bars
Drilling Rig (Bayshore TR60)		✓	45T	24m (Can be increased)	450 - 1,500 mm	Lo Drill Interlocking Kelly Bars Kelly Bar is interchangeable.
Hi-Rail Drilling Rig	✓	✓	27T	12m (Can be increased)	450 - 1,500 mm	Low Headroom Interlocking Kelly Bars Kelly Bar is interchangeable.
Tracked Excavators with Movax Drilling Attachment		✓	25-40T	15m	450 - 1,500 mm	Low Headroom Interlocking Kelly Bars
Wheeled Excavators Movax Drilling Attachment	✓	✓	32T	15m	450 - 1,500 mm	Low Headroom Drill Interlocking Kelly Bars
Pilling Configurations						
Tracked Excavators with Hammer Pile Driver		✓	25-40T			Applications • Sheet pile • H-beam • Tubular steel pile • Precast concrete Pile • Timber pile
Wheeled Excavators with Hammer Pile Driver	✓	✓	32T			Applications • Sheet pile • H-beam • Tubular steel pile

						• Precast concrete Pile • Timber pile
Tracked Excavators with Movax Side Grib Pile Driver		✓	25-40T			Applications • Sheet pile • H-beam • Timber pile • Tubular pile, tubes
Wheeled Excavators with Movax Side Grib Pile Driver	✓	✓	32T			Applications • Sheet pile • H-beam • Timber pile • Tubular pile, tubes
Tracked Excavators with EMV	✓	✓	8 – 22T			Applications • Sheet pile • H-beam • Timber pile • Tubular pile, tubes
Wheeled Excavators with EMV	✓	✓	7 – 32T			Applications • Sheet pile • H-beam • Timber pile • Tubular pile, tubes

Table 1: Piling Equipment Configuration

Piling Attachments



Figure 1: List of Piling Attachments

PILING PLANT AND EQUIPMENT

Mait Ec35 Piling Rig

Specifications and Dimensions

The Mait Ec35 piling rig has been specially designed and built to perform in job sites with limited access and space restrictions. The drill rig is mounted on an 8-tonne zero-swing excavator base, which gives it excellent manoeuvrability and allows it to fit into the tightest job sites. This compact drill rig contributes to a safer worksite by utilising a smaller plant with fewer blind spots. The rig sets up over the correct pile location and does not require spotters to keep the excavation straight. Level indicators on the mast let the operator keep the pile perfectly plumb without needing a spotter's directions or repeatedly measuring the position of the Kelly bar or auger; this keeps staff clear of the machine's working area. With the built-in depth gauge, the ground crew can stay safe while the operator drills the hole to depth.



Specs

- 40 – 45 KNm Torque
- 10 – 45 RPM drilling/unloading speed
- Drilling depth 16m
- In-built level and depth gauges
- Low head height, does not require a certified piling pad

Dimensions

- Length: 2.86m
- Width: 2.25m
- Height: 4.5 – 6m
- Weight: 14 Ton



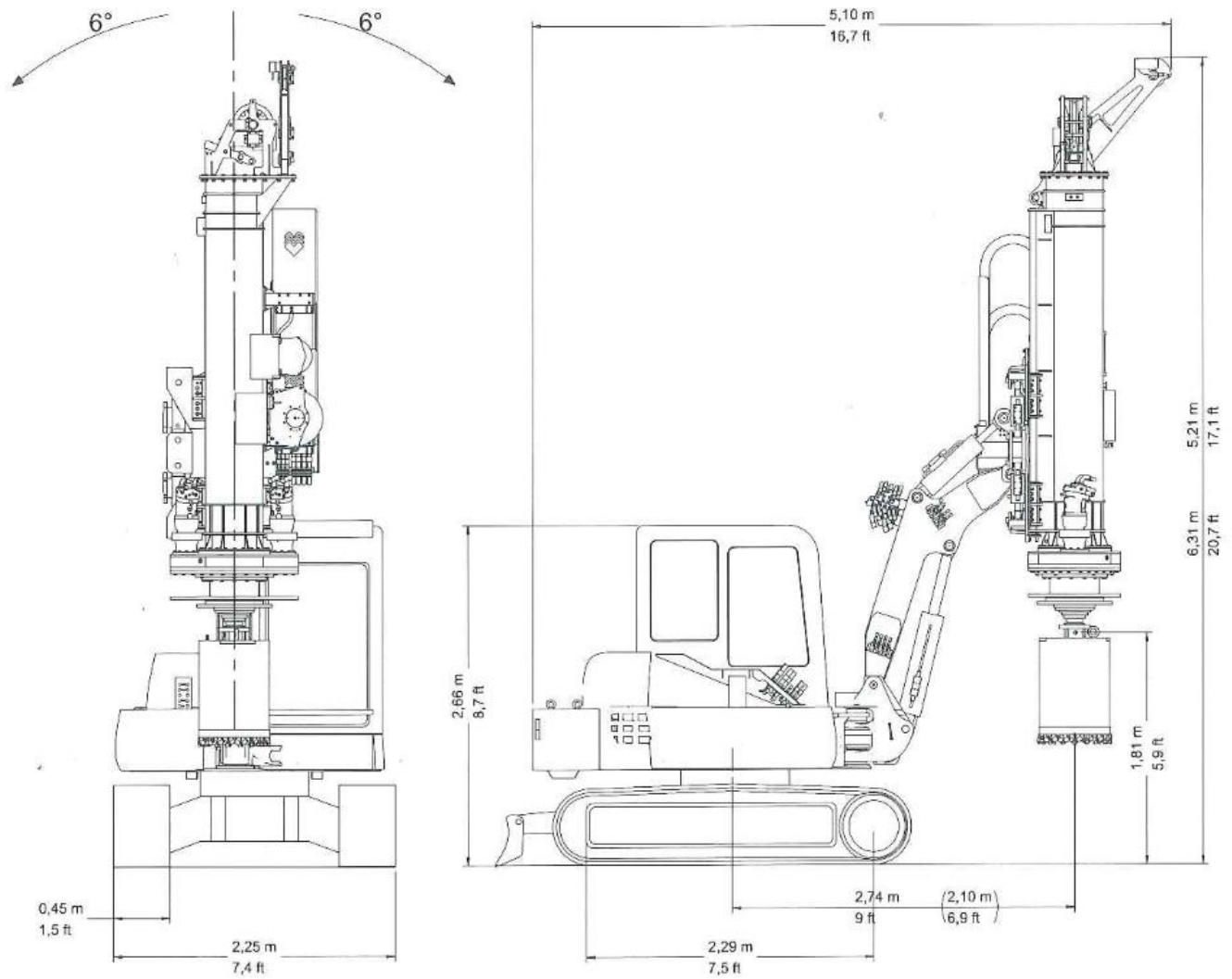


Figure 2: Mait EC35 Drill Rig Dimensions

For more information, please see the plant specification below.

[MAIT EC35 DRILL RIG SPECIFICATION](#)

Hi-Rail & Civil Piling Rig

Specifications and Dimensions

In response to customer requirements and to serve the specialist piling operations Jordan Rail is regularly asked to undertake, we have designed and commissioned a purpose-built hi-rail piling rig. The drill rig is mounted on a 25-tonne zero swing excavator base, allowing access and working range in the tightest of sites and free movement of other rail traffic on adjacent lines.

This rig has excellent reach for reaching up embankments and down into cuttings from off-track in the corridor, enabling work to be undertaken without track possessions where local regulations permit.



Specs

- Torque: 75 KNm
- Max reach: 7.55m
- Drilling speed: 7–16 RPM
- Spin off speed: 70 RPM
- Drilling depth: 12m (Kelly bar interchangeable for depths to 25m)

Dimensions

- Length: 11m
- Width: 3m
- Height: 4.52 – 6.5m
- Weight: 27 tonnes
- Rail Gauge: Broad, Standard & Narrow



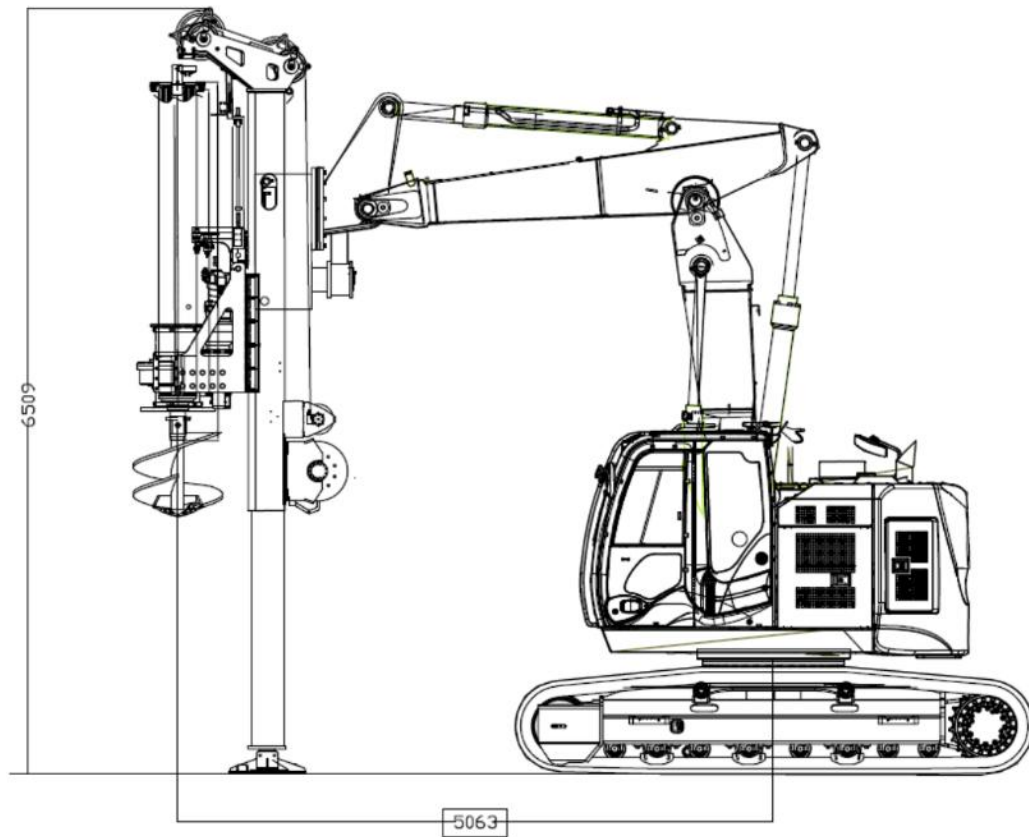


Figure 3: Hi-Rail Drill Rig Dimensions - Max Height

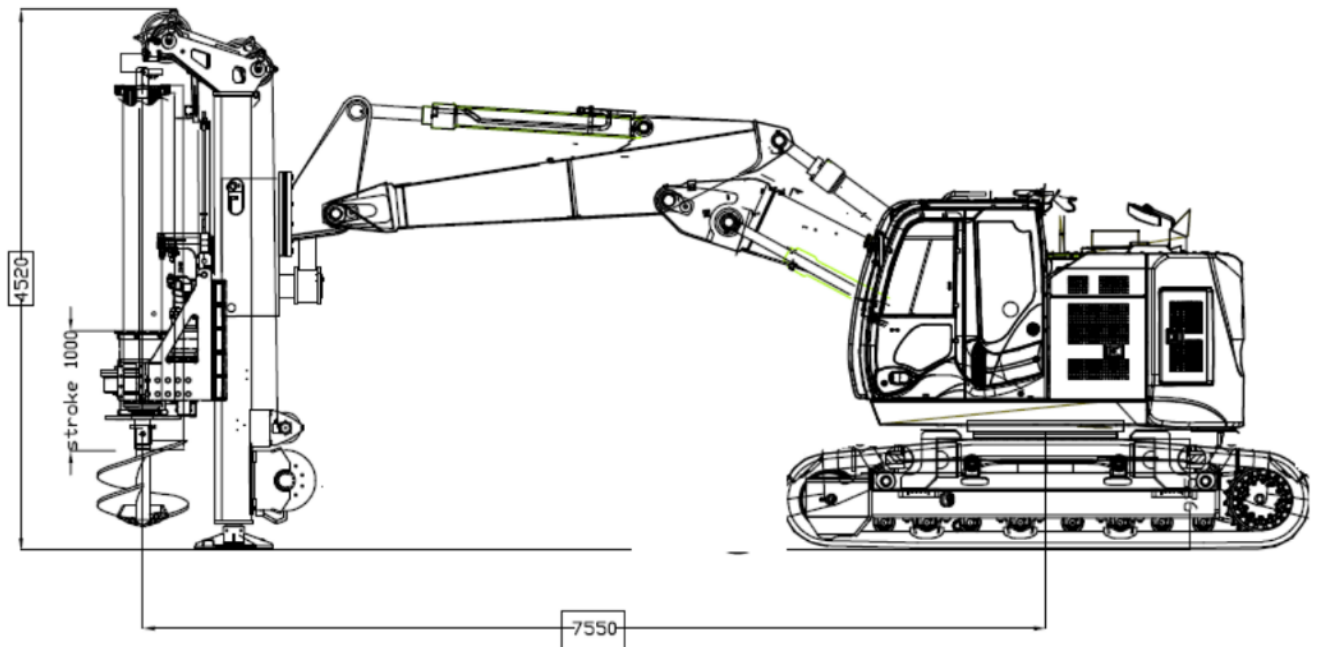


Figure 4: Hi-Rail Drill Rig Dimensions - Reach

For more information, please see the plant specifications below.

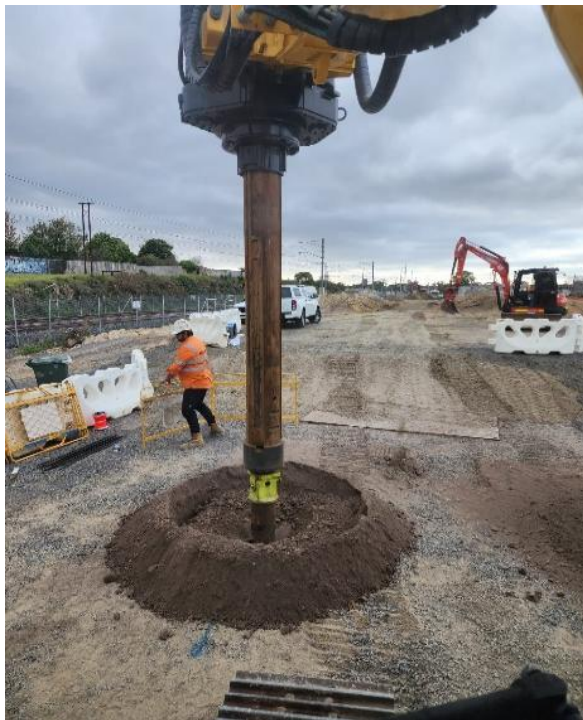
[Hi-Rail Piling Rig Specification](#)

Bayshore TR60 Piling Rig

Specifications and Dimensions

The Bayshore TR60 has an impressive 90 KN-m of rotary torque, a maximum hole depth of 24m, and a fully integrated extendable kelly bar system for the more challenging or deeper piles. The drill rig is mounted on a 29t Komatsu excavator for extra power, stability, and efficiency.

This rig is Ideal for drilling hard rock. It has good reach for reaching up embankments and down into cuttings from off-track in the corridor, enabling work to be undertaken without track possessions where local regulations permit.



Specs

- Base Machine: Komatsu PC290LC-11
- Torque: 90 KNm
- Max Reach: 5.78m
- Drilling depth: 24m
- Hole Diameter: 2700mm
- Kelly winch line pull: 133kn
- Drill Speed Range (LHS): 30/60/100rpm
- Spin off: 100 RPM
- Side Tilt: 13 Degrees Left or Right

Dimensions

- Length: 11m
- Width: 3m
- Height: 5-7m
- Weight: 42 tons
- Transport Height: 3.54m



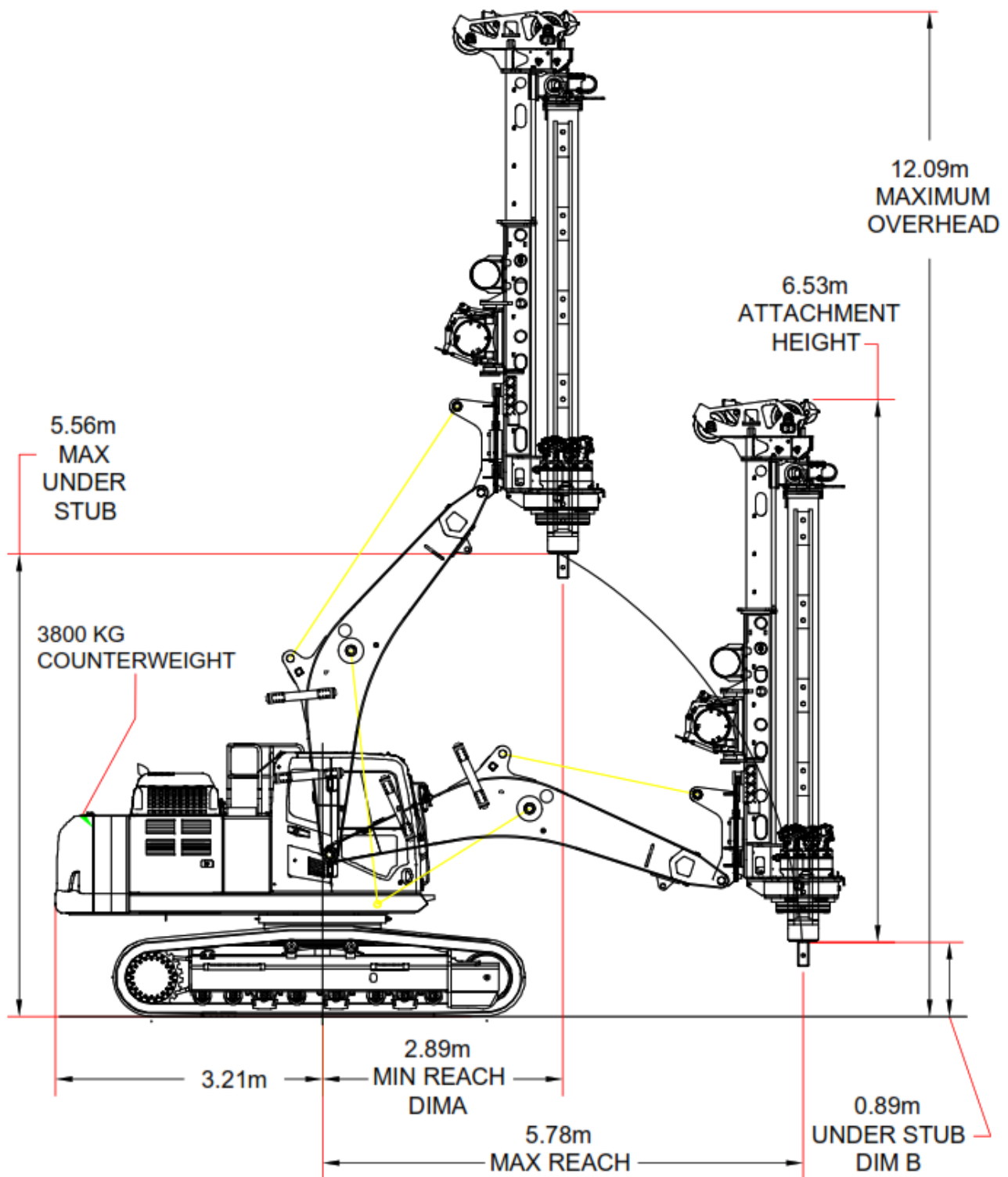


Figure 5: Bayshore Drill Rig Dimensions

For more information, please see the plant specifications below.

[Jordan Rail Specifications and Dimensions](#)

[TR60 Brochure](#)

[Bay Shore Systems Brochure](#)

PILING ATTACHMENTS

Movax KB70s Drilling Attachment

Specifications and Dimensions

The drilling attachment has a working height of 4.5m and is well suited for low headroom drilling under bridges or other existing structures, it can be attached and removed from the excavator at the same time it takes to change a bucket due to the Oil Quick hitch Jordan Rail have specified on all large attachments to save time and money on-site during attachment changes.

Can be used on civil tracked excavators and Colmar heavy lift hi-rail excavators.



Specs

- Torque: 70 KNm
- Drilling speed: 10 – 120 RPM
- Spin off speed: 120 RPM
- Drilling depth: 15m
- Drilling diameter: 420 – 1500mm
- Side tilt angle: 15 Degrees
- Working height: 4.5m
- Weight: 5800 kg
- Hitch type: S70, Oil quick release hitch
- Machine compatible: 35T Volvo tracked excavator
32T Colmar hi-rail excavator



For more information, please see the plant specifications below.

[Movax KB-70S Drilling Rig Attachment Specification](#)

Pendulum Drilling Attachments

Specifications and Dimensions

We use heavy-duty professional piling auger drives for piling in anything from sand to 300 MPA basalt. We have augers, core barrels, clean-out buckets and drilling buckets to suit any ground condition.

Jordan Rail has a wide range of auger drives to suit any job, ranging from 5 to 35t and fitting both civil and hi-rail excavators.



Specs

- Makes: Auger Torque,
Digga
ProDig Direct Drive
- Torque: 10,000 – 150,000 Nm
- Machine Sizes: 5 – 35T

Applications

- Large diameter & deep auger drilling
- Hard Rock Auger drilling
- Core barrel drilling
- Pole and mast installations
- Foundation piles
- Retaining Walls



For more information, please see the plant specifications below.

[Auger Torque Specifications](#)

[Digga Specifications](#)

Side Grip - Movax SG75V Attachments

Specifications and Dimensions

The Movax side grip piling hammer can be used to install tubes, poles, H-beams, SHS, RHS, and sheet piles. Its high-frequency vibration and variable eccentric moment minimise disturbance to the surrounding environment.

Due to the Oil Quick hitch, the side grip can be attached and removed from the excavator at the same time it takes to change a bucket. Jordan Rail is specified on all large attachments to save time and money on-site during attachment changes.

This attachment can be used on civil 30 - 35T tracked excavators or Colmar heavy-lift hi-rail excavators.

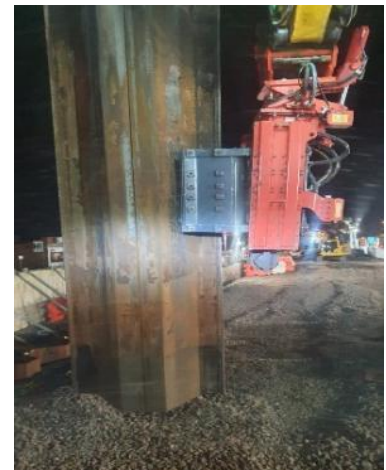


Specs

- Weight: 3500 kg
- Frequency: 2300 – 3000 l/min
- Ground vibration: Low
- Centrifugal force, max: 750 Kn
- Side tilt angle: +/- 0 Degrees
- Swing angle: +/- 360 Degrees
- Tilt angle: +/- 30 Degrees
- Hitch type: S70, Oil quick release hitch
- Machine compatible: 35T Volvo tracked excavator
32T Colmar hi-rail excavator

Applications

- Sheet pile
- H-beam
- Timber pile
- Tubular pile, tubes



For more information, please see the plant specifications

[Movax Pile Driver SG-75V Specification](#)

Excavator Mounted Vibrators (EMVs)

We utilise EMVs to drive steel sleeves into the bad ground when a borehole cannot support itself or where there is excess groundwater which would risk the instability of the borehole. When the bad ground is encountered the excavator attached the EMV and lowers the sleeve into the pilot hole. The excavator/EMV then drives the sleeve to the desired depth or until refusal. The pile can then be augured out to depth safely without the risk of collapse or water ingress. Once at depth, the pile cage is lowered into the borehole and concrete is poured to ground level, the sleeve can be extracted by the EMV and the bolt set and formwork installed on top of the poured pile.



Specs

- Makes: Muller, ICE & Dawson
- Machine Sizes: 14 – 35T

Applications

- Sleeves / Casing install and extraction
- H-beams, poles, SHS, RHS and sheet piles installations
- Pole and mast installations
- Foundation piles
- Retaining Walls



Manipulators

The manipulators can install structures, light poles, electrical poles, etc, with precise handling and positioning. The clamping inserts have soft gripping surfaces to prevent damage and are suitable for a wide range of applications.

The Manipulators' secure retention of loads is thanks to the integrated non-return valve and gripping pads at the tines.

The Manipulators can save time and money by positioning the structures without cranes, EWP or Telehandlers. These attachments can be used on civil or Hi-rail excavators ranging from 14 to 35T.

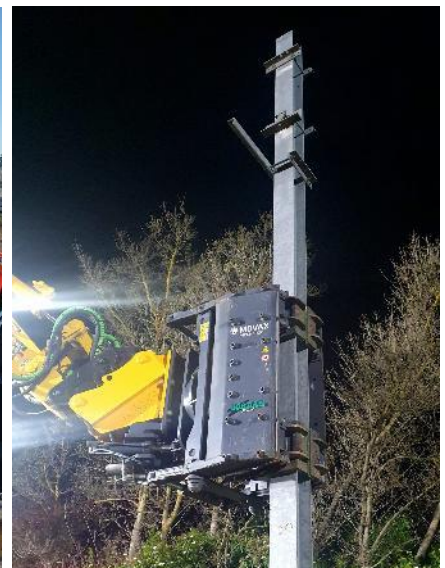


Specs

- Makes: Movax, RV Articulator, Kinshofer
- Capacity: 2 to 5 tonnes, depending on the attachment and host machine
- Machine Sizes: 14 – 35 tonnes

Applications

- Square sections and H-beams
- Tubular sections
- Sheet piles
- Timber poles and piles
- Pole and mast installations
- Overhead structures
- Retaining Walls



For more information, please see the plant specifications

[TheR Articulator - Tick5000 Specification](#)

[Movax Manipulator - MPM-4000 Specification](#)

[Kinshofer Manipulator Specifications](#)

SUPPORTING PLANT AND EQUIPMENT

Hi Rail Crane – Sennebogen 608 Multicrane

Our tri gauge hi-rail crane can utilise a crane winch, fixed jib, EWP basket and forks. It can also be equipped with hi-rail trollies for delivering structures and materials to installation sites.

The crane has an MRC of 8T. The unique expanding track system on the crane enables it to extend the tracks out beyond the rail lines and drop down onto the ballast to perform lifting duties with full civil crane lift chart capabilities without the need for crane pads or outriggers. The crane then lowers the rail gear, retracts the undercarriage, and continues to the next site, it is a very effective time-saving feature when doing multiple installs.



Specs

- Make: Sennebogen 608
- Rail Gauge: Narrow, Standard & Board
- Weight: 34T
- Boom Height: 20m
- Lift Capacity: 8T
- Attachments available:
 - 8T winch and hook
 - Extendable jib
 - Forks
 - Extendable work platform
 - Rail trailers (multiple trailers)

Applications

- Deliver structures and materials to installation sites
- Install cages in the bored hole
- Lift and position casings/sleeves



Hi-Rail Tippers or Hi-Rail Dumpers

Jordan Rail has a large variety of hi-rail tip trucks and dumpers for moving materials or spoil to and from the installation sites.

This is a very effective way of moving spoil during an occo. Jordan Rail can supply hi-rail or civil articulated dumpers ranging from 6 – 12t. We can also supply hi-rail or civil rigid tipper trucks.



Hi-Rail Agitators / Concrete Mixers



Jordan Rail has several Hi-Rail Agitators / Concrete Mixers with a capacity of up to 5.5m³. These agitators are a very efficient way of transporting concrete to its location and discharging its load. It is Ideal for sites only accessible from track or tunnel works. These agitators have the following:

- Dual gauge – Standard and Broad
- Full spec for Rail Network and Tunnel
- Twin steer axles
- Up to 5.5m³ capacity
- Mixing drum is on a 180° turntable – Drum can turn to the left or right for easy discharging
- 6m reach from the centre of the track

Tool Trucks and Labour

Jordan Rail has tool trucks and labourers available for setting up piles. The tool trucks come with:

- Laser Levels
- Power Tools
- Hand Tools
- Concreting tools



SUPPORTING ATTACHMENTS

Augers, Core Barrels & Clean-out Buckets

Jordan Rail has a large variety of Augers, Core Barrels & Clean-out Buckets ranging from 150mm to 1,500mm



Hi-Rail Trolleys



Rail Trolleys are very handy for transporting materials and equipment to the work site. Materials and equipment such as:

- Cages
- Casing / Sleeves
- Tools
- Plant and equipment
- Consumables

There are a number of different sizes ranging from 3 to 6m and the trailers can be connected together creating more deck space.

Concrete Kibbles

Jordan Rail have concrete kibbles available in 0.5m³, 1.0m³ & 1.5m³.



Lifting Jibs



Jordan Rail has a selection of lifting jibs available for different sizes of machines. The lifting capacity ranges from 2T to 10T.

These are ideal for lifting in the cages into the bored hole and for handling materials around the site.

Tremie Pipe and Hoppers Systems

Jordan Rail has Tremie Pipe and Hoppers Systems available on request.



Casing / Sleeves



Jordan Rail has a large number of reusable steel casings available for hire. The casings vary in size and length. The size varies from 450mm to 1,200mm.

Fencing and Hole Covers

Jordan Rail has a large number of exclusion zone safety fencing and hole covers available on request.



Grabs



Jordan Rail has grabs available for lifting casings, cages and other materials around the site.

FURTHER INFORMATION

For further information, please contact:

Tomas Jordan	Director	0401 913 652	Tomas@jordanrail.com.au
Padraig Jordan	Operations Manager	0476 112 583	Padraig@jordanrail.com.au
Daniel Merchan	Operations Scheduler	0455 460 086	Daniel@jordanrail.com.au

For more information:

Website - www.Jordanrail.com.au

Capability Statement - [Jordan Rail's Capability Statement](#)

[Capability Statement - Overview](#)

[Hi-Rail Capability Statement](#)

[Civil Capability Statement](#)

[Heavy Haulage Capability Statement](#)
