



**GROUNDWAVE**  
**DRILLING SERVICES**  
ANYWHERE, ANYTIME, ANY METHOD



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## Current Drill Fleet

Rig 1



### DELTA BASE 320 SONIC RIG

#### Description

The DB320 is track mounted and can be used on asphalt, concrete or soft and undulating ground. The rig has 4 levelling jacks to provide a fast and safe set up. The drill is hydraulically operated and is fitted with a rod handler, rod & casing clamps with hydraulic breakout and SPT Auto Hammer. A drill string rotation guard is fitted. The support truck carries drill rods, tooling, bits and casing.

Sonic drilling technology can drill and accurately sample sand, gravel, clays, and low to medium strength rock. The standard drilling method is to advance the core barrel 1.5m or 3m, then overrun the core barrel with casing, then extracting the core barrel. It is an ideal drilling method for installing, monitoring and pumping wells as the bore is always cased and drilling can be done without using drilling muds.

#### Specification

Type: Boart Longyear Sonic Delta Base DB320  
Year of manufacture: 2008

#### Capacity

Sonic Core: 85mm (up to 60m plus with casings)\*  
100mm (up to 40m plus with casings)\*  
130mm (up to 30m with casings)\*  
\* Depending on conditions

#### Dimensions

Override Casing: 125mm, 150mm, 178mm, 200mm

**Width:** 1.800 m

**Length:** 6.630m (travelling), 9.500m (operating)

**Height:** 2.860m (travelling with mast down)  
6.630 metres (mast raised in working position)

**Weight:** 8.800 Tonnes

Maximum travel speed: 4 KPH

Maximum ground pressure: 0.194 MPa

#### Applications

Environmental, water bores, small geotechnical projects, mineral exploration, pre-collaring, landfills, earthing structures & dam walls.

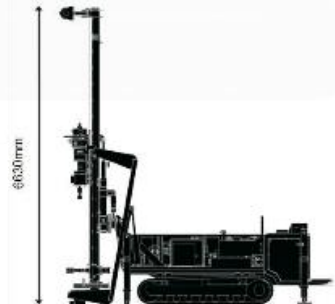
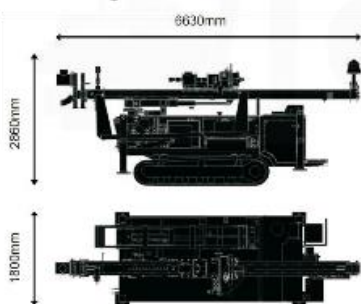
#### Gradeability

Low gear 60% (~ 30 deg.)

#### SPT

Hammer Weight: 63.5KG, Drop Stroke: 760mm

Total Weight: 180KG



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Rig 2



## DELTA BASE 520 ROTARY RIG

### Description

The DB520 is a compact, light weight, multipurpose drill rig designed for geotechnical, environmental and mineral exploration investigations. The DB520 is a track mounted rotary rig and can be used on asphalt, concrete or un-even ground. The DB520 features:

- \*Fast and easy changes between PQ, NQ, HQ and NMLC coring, DTH drilling, mud rotary, and auger drilling
- \*Automatic SPT
- \*Hydraulic mast raising and hydraulic jacks for safe rig stabilisation
- \*Integrated safety cage, with low speed, low torque rotation for safer rod management
- \*Hydraulic make and break clamps

### Specification

Type: Boart Longyear Delta Base DB520  
Year of manufacture: 2008

### Capacity

Diamond Coring: NQ: 210m, HQ: 150m, PQ: 100m  
Augering (100mm): 15-20m  
DTH: 200m using a 76.1mm hammer

### Dimensions

**Width:** 1.900 metres  
**Length:** 6.50 m (travelling), 7.350 m (operating)  
**Height:** 2.47 metres (travelling with mast down)  
6.630 metres (mast raised in working position)  
**Weight:** 6.20 Tonnes  
Maximum travel speed: 1.5 KPH  
Maximum ground pressure: 0.053 MPa

### Applications

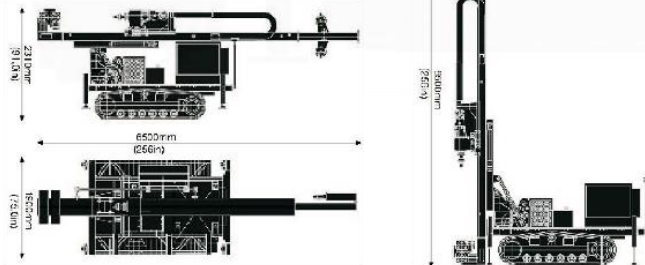
Environmental, water bores, geotechnical projects, mineral exploration, pre-collaring, landfills, earthing structures & dam walls.

### Gradeability

Low gear 60% (30deg)  
Angle drilling: up to 45 from vertical  
Capacity (depends on ground conditions)

### SPT

Hammer Weight: 63.5KG  
Drop Stroke: 760mm  
Total Weight: 180KG



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Rig 3



## FRASTE, TIGHT ACCESS ROTARY RIG

### Description

The Fraste Minidrill track mounted drill rig also includes an onboard mud pump, workshop compressor and auto SPT hammer. With a retractable rubber carriage it can fit through doorways as narrow as 1.05m wide x 1.95m high. Weighing in at 2.75 Tonnes it can be easily lifted and manoeuvred by crane or transported by boat. The rig is fixed to a strong crawler carrier that can be controlled via radio remote. The components and controls are well placed on the main frame, including an umbilical operated control panel that allows the operator full visibility of the drilling area allowing safe and smooth rig operations.

### Specifications

Type: Fraste Year: 2010

### Capacity

Auger (100mm): 15m  
Diamond Coring HQ: 40m, NQ: 50m,  
DTH (hammer 100mm) to 40m  
Angles up to 45 degrees from vertical  
Pull up: 2000kg, Pull down: 1400kg

### Dimensions

**Width:** 1.05m retracted, 1.36m extended  
**Length:** 4.5m with mast extension 3.40m without  
**Height mast up:** 4.5m with mast extension  
**Height without mast extension:** 3.0m  
**Height mast down:** 1.95m cage removed for transport, 2.3m with cage attached  
**Mass:** 2750kg +SPT(200kg)  
**Track ground pressure:** 16.2 kPa

### Applications

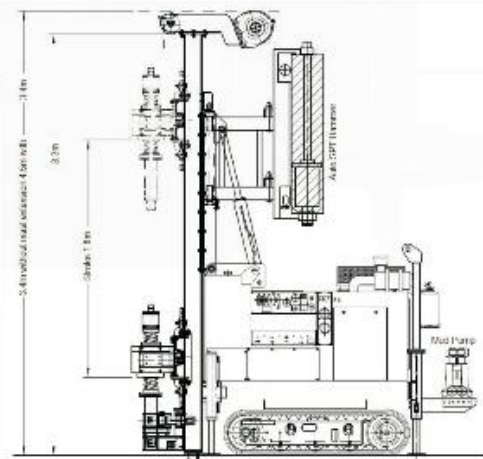
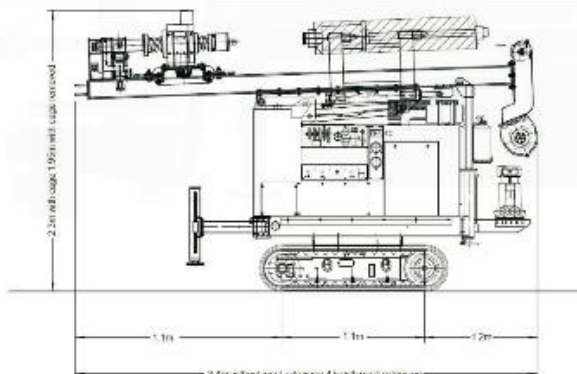
Environmental, Geotechnical and Micro-piling

### Gradeability

Low gear 60% (30deg, depends on ground conditions)

### SPT

Hammer Weight: 63.5KG  
Drop Stroke: 762mm  
Total Weight: 128KG



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Rig 4



**COMACCHIO 205  
TIGHT ACCESS  
MULTI-PURPOSE  
SONIC RIG**

**Description**

The Comacchio 205 multi-purpose rig has the capacity to undertake mud rotary and hammer drilling within low clearance (2.55m) tight access (1.10m width). The C205 also has sonic drilling capabilities that can extract samples from poorly consolidated, friable, indurated sediments to a depth of 20m. The C205 rig also has an SPT hammer for geotechnical testing of soils.

**Specifications**

Type: Comacchio 205, Year: 2015

**Capacity** - dependant on conditions

- Auger: 15m
- Diamond Coring: NQ:50m, HQ:40m
- Down Hole Hammer to 40m
- Angles up to 45 degrees from vertical
- Sonic: Up to 15m

**Dimensions**

- Width:** 1.10m retracted, 1.40m extended
- Length:** 4.66m with mast ext. 3.16m without mast ext.
- Height mast up:** 4.660m with mast extension
- Height without mast extension:** 3.16
- Mast height, low clearance:** 2.55m
- Height mast down:** 2.08m cage removed for transport, 2.4m with cage attached
- Mass:** 3150Kg
- Track ground pressure:** 13.6 kPa

**Applications**

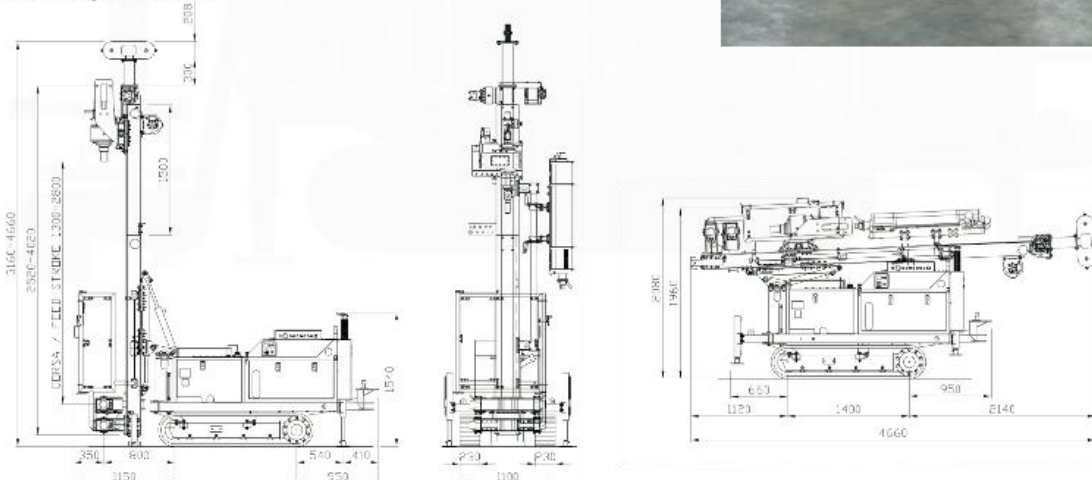
Tight access environmental, geotechnical and micro-pile drilling

**Gradeability**

Low gear 36% (20deg)

**SPT**

- Hammer Weight: 63.5KG
- Drop Stroke: 760mm
- Total Weight: 180KG



Rig 5

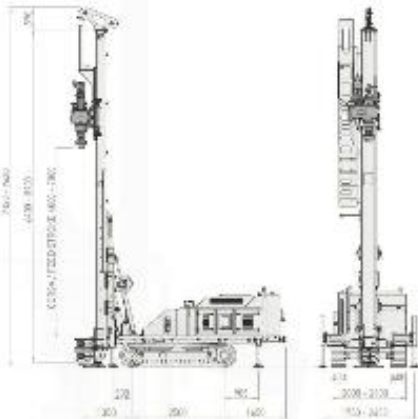


**Specification**

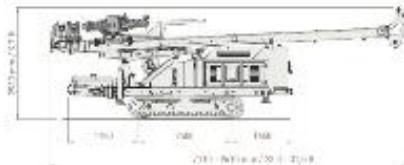
Type: Comacchio MC900P  
Year of manufacture: 2012  
Gradeability: High gear 36% (20 deg)

**Dimensions**

**Width:** 2.00-2.40m  
**Length:** 9.61m (travelling), 5.50m (operating)  
**Height:** 2.98 metres (travelling with mast down)  
7.120-9.620 metres (mast raised in working position)  
**Weight:** 15 Tonnes  
Maximum travel speed: 1.5 KPH



**COMACCHIO MC900P  
SONIC / ROTARY RIG**

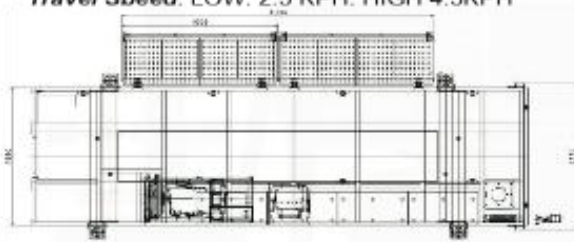


**Specification**

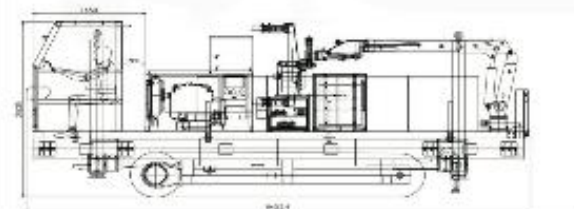
Type: HANJIN D&B Hydraulic Carrier  
Year of manufacture: 2011

**Dimensions**

**Width:** 2.493m  
**Length:** 6.35  
**Height:** 2.54M  
**Weight:** 15 Tonnes  
**Travel Speed:** LOW: 2.5 KPH. HIGH 4.5KPH



**D&B 10 CR ROD CARRIER  
SUPPORT UNIT**



**Summary:**

Comacchio Rig Supported by D&B rod Carrier / Crawler and a 3.5m container that comprises rig tooling, workshop, supplies. Comacchio Rig transportable on 10m flat rack.

Rig 6



## BLY LS250 MULTI-PURPOSE SONIC RIG

### Description

The BLY LS250 multipurpose sonic drill rig offers faster penetration, nearly undisturbed samples using little or no fluids, and its casing advancement system make the LS250 MiniSonic ideal for a variety of drilling applications including: environmental, tunnelling, water management, grade control, and leach pads.

### Specifications

Type: Boart Longyear LS250, 2015

### Capacity - dependant on conditions

Auger: 25m

Diamond Coring: NQ: 150m, HQ: 85m

Down Hole Hammer to 75m

Angles up to 45 degrees from vertical

Sonic: Up to 78m with 121mm (4.75"), up to

61m with 152mm (6"), and up to 50m with 203mm (8")

### Dimensions

**Width:** 2.2m retracted,

**Length:** 7.1m with mast fully extended

**Height mast up:** 7.2m with mast extension

**Height mast down:** 2.5m with cage attached

**Mass:** 11500Kg

**Track ground pressure:** 0.28 Bar

### Applications

Tailings dam geotechnical, environmental and mining investigations

### Gradeability

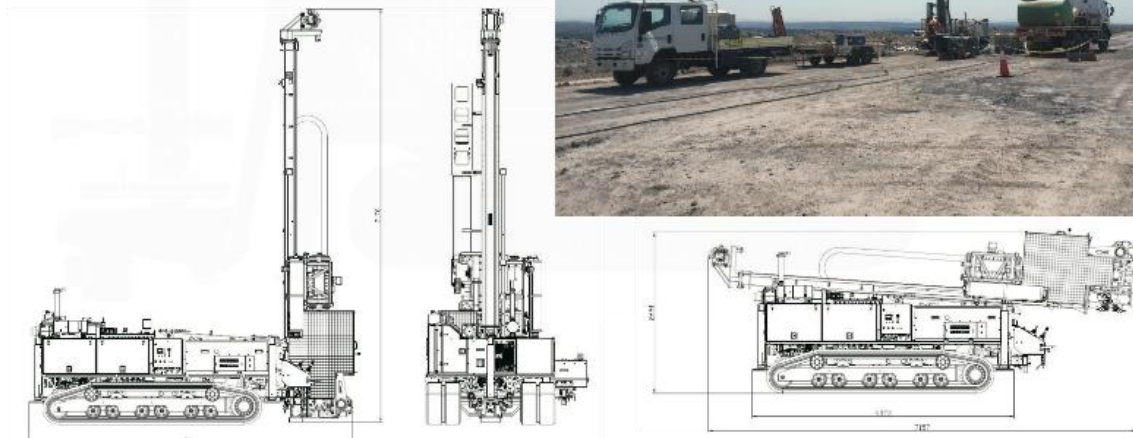
Low gear 29°

### SPT

Hammer Weight: 63.5KG

Drop Stroke: 762mm

Total Weight: 226KG



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Rig 7

### Description

The LS600 Sonic is the perfect rig for a wide variety of ground, drilling projects including environmental, tunnelling, water management, grade control, exploration, waste dumps and leach pads.

- Mining - The mining industry benefits from the LS600 Sonic's extremely accurate sampling of unconsolidated formations. Heap leach and tailing pad sampling, monitoring well installation and water sampling, dewatering applications, waste dump, and exploration sampling are all examples of possible mining applications.
- Environmental and Geotechnical - By continually casing the borehole and using little to no fluid, the LS600 Sonic eliminates the risk of cross contamination and is ideal for environmental and geotechnical work.
- Infrastructure - Precisely drilling straight holes at varying angles makes the LS600 Sonic ideal for infrastructure projects.

With innovative designs and patented technologies, the LS600 drills deeper, produces more accurate samples and serves more markets than any other Sonic rig to date.

The LS600 features a pneumatic isolation system inside the head, preventing resonant energy from transmitting to the drill rig. This directs the maximum amount of energy down the drill string to the face of the bit for improved penetration rates. Our advanced design allows heads to last longer, drill faster and go deeper.

The LS600 drills through and samples overburden and soft rock formations at or near 100% core recovery without the risk of refusal and without the use of fluids. In addition to producing a relatively undisturbed sample, the LS600 drills with as little as one percent deviation to depth enabling the driller to pinpoint exact sampling locations.

Due to its innate ability to penetrate fast, produce a nearly undisturbed sample to depth while using little or no fluid and its unique casing advancement system, the LS600 is ideal for several industries.

### Specification

Type: BLY LS600  
Gradeability: High gear 36% (20 deg)

### Capacity

Sonic Core: 100-200mm up to 250m  
Diamond Core: NQ3, HQ3, PQ3, up to 400m

### Dimensions

**Width:** 2.70 m

**Length:**

10m (travelling),  
9.6m (operating)

**Height:**

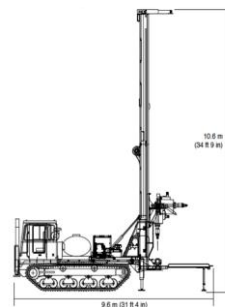
3.5 meters (travelling)  
10.6 meters (working position)

**Weight:**

20 Tonnes  
Maximum travel speed: 12 KPH

### Applications

Environmental, water bores, large geotechnical projects, mineral exploration, pre-collaring, landfills, earthing structures & dam walls.



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Rig 8



## BLYLS600 SONIC RIG, ROTARY RIG

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- Environmental and Geotechnical - By continually casing the borehole and using little to no fluid, the LS600 Sonic eliminates the risk of cross contamination and is ideal for environmental and geotechnical work.
- Infrastructure - Precisely drilling straight holes at varying angles makes the LS600 Sonic ideal for infrastructure projects.

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Due to its innate ability to penetrate fast, produce a nearly undisturbed sample to depth while using little or no fluid and its unique casing advancement system, the LS600 is ideal for several industries.

### Specification

Type: BLY LS600  
Gradeability: High gear 36% (20 deg)

### Capacity

Sonic Core: 100-200mm up to 250m  
Diamond Core: NQ3, HQ3, PQ3, up to 400m

### Dimensions

**Width:** 2.70 m

**Length:**

10m (travelling),  
9.6m (operating)

**Height:**

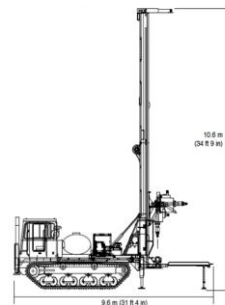
3.5 meters (travelling)  
10.6 meters (working position)

**Weight:**

20 Tonnes  
Maximum travel speed: 12 KPH

### Applications

Environmental, water bores, large geotechnical projects, mineral exploration, pre-collaring, landfills, earthing structures & dam walls.



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Due to its innate ability to penetrate fast, produce a nearly undisturbed sample to depth while using little or no fluid and its unique casing advancement system, the LS600 is ideal for several industries.

### Specification

Type: BLY LS600

Gradeability: High gear 36% (20 deg)

### Capacity

Sonic Core: 100-200mm up to 250m

Diamond Core: NQ3, HQ3, PQ3, up to 400m

### Dimensions

**Width:** 2.70 m

**Length:**

10m (travelling),

9.6m (operating)

**Height:**

3.5 meters (travelling)

10.6 meters (working position)

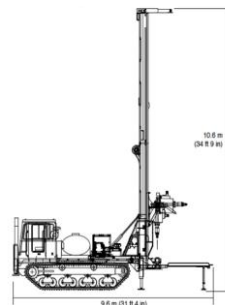
**Weight:**

20 Tonnes

Maximum travel speed: 12 KPH

### Applications

Environmental, water bores, large geotechnical projects, mineral exploration, pre-collaring, landfills, earthing structures & dam walls.



### Description

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Due to its innate ability to penetrate fast, produce a nearly undisturbed sample to depth while using little or no fluid and its unique casing advancement system, the LS600 is ideal for several industries.

### Specification

Type: BLY LS600

Gradeability: High gear 36% (20 deg)

### Capacity

Sonic Core: 100-200mm up to 250m

Diamond Core: NQ3, HQ3, PQ3, up to 400m

### Dimensions

**Width:** 2.70 m

**Length:**

10m (travelling),

9.6m (operating)

**Height:**

3.5 meters (travelling)

10.6 meters (working position)

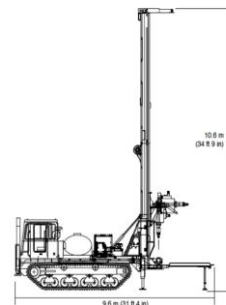
**Weight:**

20 Tonnes

Maximum travel speed: 12 KPH

### Applications

Environmental, water bores, large geotechnical projects, mineral exploration, pre-collaring, landfills, earthing structures & dam walls.



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### Specification

Type: BLY LS600

Gradeability: High gear 36% (20 deg)

### Capacity

Sonic Core: 100-200mm up to 250m

Diamond Core: NQ3, HQ3, PQ3, up to 400m

### Dimensions

**Width:** 2.70 m

**Length:**

10m (travelling),

9.6m (operating)

**Height:**

3.5 meters (travelling)

10.6 meters (working position)

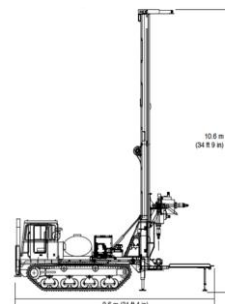
**Weight:**

20 Tonnes

Maximum travel speed: 12 KPH

### Applications

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Gradeability: High gear 36% (20 deg)

**Capacity**

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Diamond Core: NQ3, HQ3, PQ3, up to 400m

**Dimensions**

**Width:** 2.70 m

**Length:**

10m (travelling),  
9.6m (operating)

**Height:**

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10.6 meters (working position)

**Weight:**

20 Tonnes  
Maximum travel speed: 12 KPH

**Applications**

Environmental, water bores, large geotechnical projects, mineral exploration, pre-collaring, landfills, earthing structures & dam walls.

