



**SOLIDRIGS™**



Phone: 1300 355 886

Suite 4, 236 Liverpool Road Ashfield, NSW 2131

[www.solidrigs.com](http://www.solidrigs.com)

# About Us



Solid Rigs have been producing drill rigs and drilling tools for both the Civil and Mining Industries since the 1950's.

Our goal is to provide clients with value across our entire range of products and fast turn around times. All without compromising on quality or safety.

The SRD series have been built solid to withstand the demanding conditions of drilling deep holes. In order to support the drilling power of the rigs and the weight of the rod string, we have reinforced both the chassis and the mast with thicker RHS steel (above industry standards) as well as using robust designs such as our fully welded lattice framed mast with cross braces, that can support up to 60 tons (SRD-6C).

To ensure the rigs reliability and ease of service, our components are sources only from trusted manufacturers that include Cummins engines, Sauer Danfoss hydraulic pumps, Braden Winch's, Rexroth motors and Hydro control levers.

All rigs are backed with a 12 month warranty with parts readily available within Australia and nationwide onsite service.



## Designed for Australia:

Solid Rigs understands that not all drillers are the same.

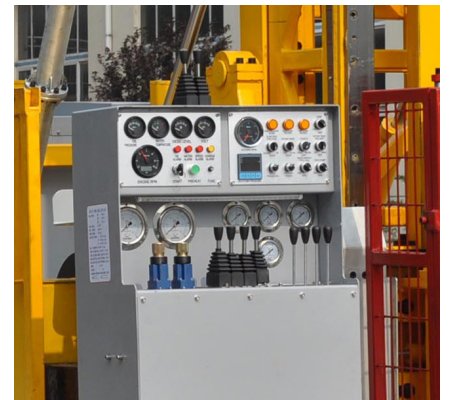
In order to produce a drill rig that is best suited to the Australian drilling conditions, Solid Rigs undertook an 18 month R&D drilling program that brought together some of the industries most outstanding professionals who provided their unique expertise and offerings in improving the SRD series.

The SRD series have been tested and built to withstand the harsh climatic conditions of the Australian outback and have being fitted with an upgraded cooling system, increased hydraulic tank capacity for effective cooling.

## Safety:

Safety is the main priority for any drilling, exploration or mining company. That is why all our rigs are fitted with emergency stops, spin down cage and fire suppression systems as an optional extra.

We can also install any additional customised safety features at your request.



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# Features



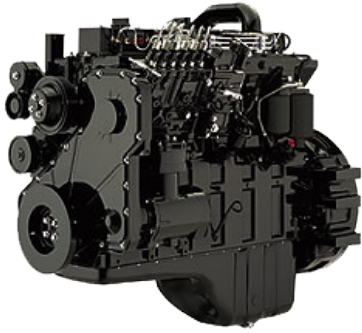
The SRD series is one of the most versatile and cost effective drill rigs in today's market. A heavy duty drill rig that has been designed specifically for drilling deep holes across a wide range of drilling applications such as mineral exploration, directional drilling and geotechnical drilling. It has being designed to reach depths of up to 2,500m NQ, 1,600m HQ and 1,000m PQ.

As a deep hole drill rig, the SRD series requires a more robust and rigid frame, using 220x158mm RHS carbon steel combined with a heavy duty fully welded lattice framed mast with cross braces, that has being rated to hold a maximum load of 60 tons.

Fitted with double locking systems, such as on the jack legs, mast dump and it's heavy duty mast stays, it ensures that the rig remains completely fixed within it's drilling preventing any hole deviations.

With it's compact size and a powerful 15 ton Military Grade 480mm wide steel track under carriage, the SRD rigs have the ability to be agile and yet powerful enough to get through tough unconsolidated terrains.

The SRD series is available in a range of configurations which makes the rig uniquely suitable for various operational and environmental demands. The rigs can be truck mounted for ease of relocating between sites or can be fitted with self propelling crawler tracks for areas with difficult site access.



### **Engines:**

SRD series uses Cummins B and C series engines, a simple and reliable cummins diesel engine.

- SRD-5C: BTA 5.9L turbo diesel engine delivering 132kw.
- SRD-6C: CTA 8.3L turbo diesel engine, delivering 194kw.

### **Drill Head:**

The SRD-5C & 6C are fitted with our award winning chuck driven rotation head, one of the largest drill heads in it's class range. Powered by a Rexroth variable hydraulic motor which ensures the delivery of constant torque and power output.

The drill head is cased in a single piece of steel alloy die cast, providing a better seal for the gear box thus preventing any contaminants entering the head or any oil leaks.

A self lubricating pump system, keeps the gears well lubricated and cool during operation, extending the longevity of the gears.

### **Mast Design:**

The SRD-5C features a 9.2m and the SRD-6C feature a 11.6m long fully welded lattice frame mast with cross braces. This advance and technical engineering guarantees a more sophisticated and robust mast designed that is tailored for drilling deep holes.

All welds are initially checked and inspected before the mast is stress relieved and straightened, followed by a final weld inspection.

### **Feed/Hold back:**

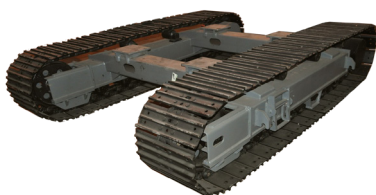
The SRD series features a single 3.5m hydraulic feed ram mounted on CNC machined runners which provides a smoother and more controlled motion.

The micro feed function allows for direct control of the feed speed, used to guide the first bit of core into the inner tube smoothly, preventing any core wedge or inner-tube blockages, improving core recovery.

### **Mount Options:**

Our rigs can be mounted either on Skid, Track or Trailer.

The SRD-5C and SRD-6C are both mounted on military grade 480mm wide steel tracks undercarriage, with a 15 ton hauling capacity, giving you the power and the traction to get through even the roughest terrain.



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# Overview

## Robust and reliable mast

Fully welded lattice frame mast with cross braces:

- Heavy duty mast design
- Stronger than conventional C section type masts
- 11.2m in length (SRD-6C)
- 60 ton max lifting capacity (SRD-6C)

Capable of drilling angle holes between vertical and 45°

1.2m Hydraulic mast dump

- ensures mast makes contact with the ground for stable rig setup
- flexible drilling at acute angles or on uneven drilling pads

Improves productivity

- Pull and set rods/casing at 9m lengths

Foldable upper mast

- Lowers to horizontal position
- Compact size ideal for transportation

## Performance

Peak power rating:

- 132kw SRD-5C
- 194kw SRD-6C
- Low emission output
- Fuel efficient
- Cooling system designed for operating in 52° ambient temperature

Hydraulically powered triplex mud pump:

- SRD-5C 160l/min
- SRD-6C 250l/min
- At pressures up to 1,450psi

**Wired E stop remotes - allows for the staff to safely shutdown the drill rig from a distance in emergency situation (25m)**





**For safety, the rod guards are fitted with sensors which stops the drill head's rotation when it is opened during operation.**

### **Rotation Head**

Driven by variable displacement hydraulic motor

- adjustable torque-speed control
- 3 speed adjustable gear box

Step-less speed control

- Precise control over rotation speed
- Improves bit life

Self lubricating pump

- Improves lubrication
- Prolongs life of gears

**One of the largest and more powerful rotation heads within it's class that delivers more torque, increasing productivity. It's simple design allows for easier maintenance.**

**Rotation head carriage is directly coupled to hydraulic cylinders, providing better and smoother feed speed control, whilst reducing the amount of moving components and reducing downtime.**

**Rotation head can be side racked for convenience when pulling out rods and seating casings.**

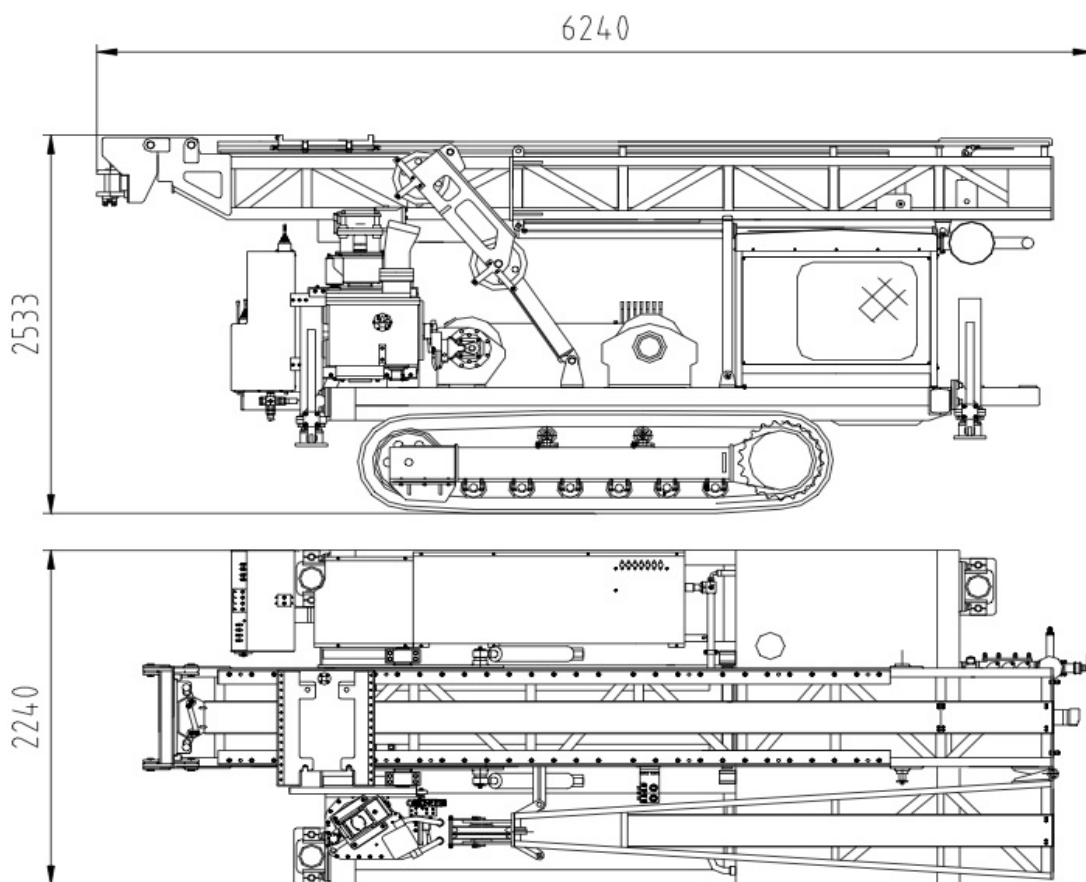


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# Specifications





	<b>SRD-5C</b>	<b>SRD-6C</b>																														
Drill Mast	Fully welded lattice framed mast with cross braces. 6m (20ft) rod pull capacity 9.2m (30'2") long Efficient two section folding mast for ease of transport 1.2m (4ft) Hydraulic Mast dump	Fully welded lattice framed mast with cross braces. 9m (20ft) rod pull capacity 11.6 m (30'2") long Efficient two section folding mast for ease of transport 1.2m (4ft) Hydraulic Mast dump Max load weight: 60 tons																														
Rotation Head	Stepless speed control 3 speed manual gear box  <table border="1"> <thead> <tr> <th colspan="3">Drill Head Specs</th> </tr> <tr> <th>Speed</th> <th>rpm</th> <th>Torque N.m</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>40-510</td> <td>2200</td> </tr> <tr> <td>2</td> <td>70-880</td> <td>1,270</td> </tr> <tr> <td>3</td> <td>45-1,000</td> <td>960</td> </tr> </tbody> </table>	Drill Head Specs			Speed	rpm	Torque N.m	1	40-510	2200	2	70-880	1,270	3	45-1,000	960	Stepless speed control 3 speed manual gear box  <table border="1"> <thead> <tr> <th colspan="3">Drill Head Specs</th> </tr> <tr> <th>Speed</th> <th>rpm</th> <th>Torque N.m</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>10-480</td> <td>2700-5000</td> </tr> <tr> <td>2</td> <td>30-800</td> <td>1600-3100</td> </tr> <tr> <td>3</td> <td>45-1,000</td> <td>1300-2300</td> </tr> </tbody> </table>	Drill Head Specs			Speed	rpm	Torque N.m	1	10-480	2700-5000	2	30-800	1600-3100	3	45-1,000	1300-2300
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Head Traverse	Controlled by single hydraulic feed ram 3.5m (11.5ft) Traverse Pull Down 50kN (11,240lbf) Pull Back 150kN (33,721lbf)	Single hydraulic feed ram 3.5m (11.5ft) Traverse Pull Down 80kN (11,240lbf) Pull Back 240kN (40,465lbf)																														
Wireline Winch	1,600m capacity of 6mm (1/4") Max pull 12kN (2,697lbf) Bare drum Speed 25-210m/min	3,000m capacity @ 6mm (1/4") Max pull 18N (4,046lbf) Bare drum Speed 25-200m/min																														
Main Winch	<b>Single rope pull</b> Max 95kN (21,356lbf) Max speed 43.5m/min <b>Double rope pull</b> Max 190kN (42,713lbf) Max speed 21.75m/min	<b>Single rope pull</b> Max 192kN (43,163lbf) Max speed 35.5m/min <b>Double rope pull</b> Max 384kN (86,326lbf) Max speed 17.75m/min																														
Water Pump	160 l/min (42 gpm) up to 1,450 psi	250 l/min (66.04 gpm) up to 1,450 psi																														
Diesel Engine	6BTA 5.9L Cummins Turbo Diesel 132 kw (179 hp) @ 1,800 rpm	6CTA 8.3L Cummins Turbo Diesel 194kw (260 hp) @ 1,800 rpm																														

<b>SRD-5C</b>	<b>Drilling Specification</b>	
Drilling Capacity	Rod Diameter BQ(φ55.5mm): NQ(φ71mm): HQ(φ89mm): PQ(φ114mm):	Drilling Depth 1600m 1200m 700m 400m
Power Pack CUMMINS	Model: Power: Rotation rate: Displacement: Type: Cooling:	6BTA5.9 – C180 132KW 2200r/min 5.9L Turbo Charge Water
Hydraulic System	Main Pump Pressure: Cooling:	4,061 psi Air
Drill Head	Drive method: Chuck diameter: Hold torque: Feed Capacity: Pull Capacity: Feed Stroke: Gear box:	Hydraulic 94mm 3,200 N m 50KN 150KN 3,500mm 3gears
Mast	Mast Type: Drilling Angle: Mast Height: Max Load: Hoisting Length:	Two sections, manually folding 45-90° 9.1m 40 Tons 9.2m lenghs
Wireline Winch	Drive method: Pull: Speed: Rope Diameter: Rope Length:	Hydraulic 1200 Kg (bare drum) 25-210m/min 6mm 1600m
Main Winch	Drive method: Hoisting force (single wire): Hoisting Speed (single wire):	Hydraulic 8,100kg 8-60m/min
Track	Max Gradient: Walking Control Method: Walk Speed:	27° Manual 4km/h
Weight	Gross Weight:	10,500kg
Dimensions	Length: Width: Height:	6240mm 2240mm 2533mm

<b>SRD-6C</b>	<b>Drilling Specification</b>	
Drilling Capacity	Rod Diameter BQ(φ55.5mm): NQ(φ71mm): HQ(φ89mm): PQ(φ114mm):	Drilling Depth 3000m 2500m 1600m 1000m
Power Pack CUMMINS	Model: Power: Rotation rate: Displacement: Type: Cooling:	6CTA8.3-C260 194KW 2200r/min 8.3L Turbo Charge Water
Hydraulic System	Main Pump Pressure: Cooling:	30 MPA (4351 psi) Air
Drill Head	Drive method: Chuck diameter: Max torque: Feed Capacity: Pull Capacity: Feed Stroke: Gear box:	Hydraulic 94mm 5000 N m 80KN 240KN 3,500mm 3gears
Mast	Mast Type: Drilling Angle: Mast Height: Mast Load: Hoisting Length:	Two sections, manually folding 45-90° 11.6 m 60 Tons 9 m lengths
Wireline Winch	Drive method: Pull: Speed: Rope Diameter: Rope Length:	Hydraulic 1800 Kg (bare drum) 25-200m/min 6mm 3000m
Main Winch	Drive method: Hoisting force (single wire): Hoisting force (double wire): Hoisting Speed (single wire):	Hydraulic 19,200 kg 38,000 kg 8-36 m/min
Track	Max Gradient: Walking Control Method: Walk Speed:	30° Manual 4km/h
Weight	Gross Weight:	11,500kg
Dimensions	Length: Width: Height:	6240mm 2240mm 2533mm

# Contact Us

For further details, please contact us:

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