

MidRotoSonic XL MAX DUO



MRS XL MAX DUO:

- Mineral sampling
- Environmental exploration
- Geotechnical sampling and testing
- Geo-constructional drilling
- Seismic drilling
- Customized solutions

The MidRotoSonic crawler XL MAX DUO (MRS XL MAX DUO) is equipped with a MidRotoSonic 50k drillhead as well as a four speed rotation head. Both heads are mounted on a hydraulic side shift. The MRS XL DUO accelerates drill speed, capacity and boosts your productivity.



| MidRotoSonic Drill head | Metric | Imperial | | |
|--|--------------------|--------------------------|--|--|
| Max. frequency | 0 - 150 Hz | 0 - 150 Hz | | |
| Sonic vibration oscillator output force | 227 kN | 50 k lbf | | |
| 2 eccentrics, mechannically synchronized | | | | |
| Rotation torque: clockwise 0-140 rpm | 5,605 Nm @ 240 bar | 4,134 ft-lbf @ 3,480 psi | | |
| Rotation torque: counter clockwise | 7,200 Nm @ 310 bar | 5,315 ft-lbf @ 4,495 psi | | |
| Head tilt max. | 90° | 90° | | |
| Type of damper / buffer | air cushion | air cushion | | |
| Max. hydraulic pressure on sonic | 310 bar | 5,000 psi | | |
| Mass of head | 1,200 kg | 2,700 lbf | | |
| Pull up force in combination with sonic | 10,000 daN | 22,480 lbf | | |
| Pull down force in combination with sonic | 10,000 daN | 22,480 lbf | | |
| Pull up force static | 10,000 daN | 22,480 lbf | | |
| Pull down force static | 10,000 daN | 22,480 lbf | | |
| Drilling under angle perpendicular driving direction | 10° | 10° | | |
| Advised power from rig engine | 205 kW | 275 HP | | |

| Rig | Metric | Imperial |
|--|--------------------------|--------------------|
| Caterpillar 6 cylinder water cooled engine | 200 kW | 275 HP |
| Dimensions folded (L x W x H) approx. | 8,850 x 2,310 x 2,995 mm | 29' x 7'7" x 9'11" |
| Height (when drilling) max. | 7,500 mm | 24'7" |
| Mass approx. | 15,000 kg | 33,000 lbs |
| Fuel tank (diesel) | 230 liter | 60.5 gallon |
| Load sensing hydraulic system | Yes | Yes |
| Control panel on turning arm | Yes | Yes |
| High pressure water pump | 19 l/min. @ 210 bar | 5 gpm @ 3,045 psi |
| Large flow water pump | 283 l/min. @ 70 bar | 42 gpm @ 652 psi |
| Aluminum water tank | 500 liter | 132 gallon |
| Rubber tracks | Yes | Yes |
| Radio remote for driving | Yes | Yes |
| Work lights | 4 | 4 |

| Mast | Metric | Imperial | |
|----------------------------------|-----------------------------|------------------------------------|--|
| Stroke | 5,200 mm | 17' | |
| Mast dump | 1,000 mm | 3' 31/8" | |
| Pull up | 120 kN | 26,977 lbf | |
| Pull down | 80 kN | 17,984 lbf | |
| Pull up and down speed | 45 m/min | 147 ft/min | |
| Double hydraulic break out clamp | 60 - 350 mm | 2 3/8"- 13 7/8" | |
| Adjustable clamping force of | 250 kN | 56,202 lbf | |
| Break out torque | 78 kNm | 57,530 ft-lbf | |
| Hydraulic break out cylinder | Yes | Yes | |
| Main winch | 1,000 daN, 100 m/min, 100 m | 2,250 ft-lbf, speed 328'/min, 328' | |

| Rod / casing handler | | |
|--|-----|-----|
| Mechanical separators among different rod layers | Yes | Yes |
| Casing or drill rod storage depends on diameter and length | Yes | Yes |

| Options | Metric | Imperial | | | |
|--|----------------------|-----------------------|--|--|--|
| Remote control for all drilling functions | | | | | |
| SPT auto drop hammer with blow counter on control panel | | | | | |
| Casing lifter mounted on break out clamp | 200 kN stroke 300 mm | 45,000 lbs stroke 12" | | | |
| Pneumatic separators among different rod layers | | | | | |
| Duplex mud pump | 570 liter @ 45 bar | 150 gallon @ 652 psi | | | |
| SPX40 hose pump | 114 l/min @ 9.6 bar | 30 gpm @ 140 psi | | | |
| Steel tracks | | | | | |
| Triple floatable clamp | | | | | |
| ManipAll 250 (magnetic rod loading arm; remote controlled) | | | | | |
| Safety cage | | | | | |
| Rotatable jibboom with second winch | | | | | |



The DUO option will allow sonic drilling in all overburden and prove bedrock. To go deep into the bedrock a 4 speed rotary head allows diamond coring with the same sonic drill rig. This 4 speed rotary head will be positioned next to the sonic drill head and will side shift over the bore hole in case it will be used.

4-speeds rotary head:

- Consisting of steel construction with transmission gears and oil bath bearings.
- Driven by two hydraulic motors.
- Four-speeds selection by two mechanical gears and serial/parallel hydraulic motors connection from the control panel.

Inner dump shaft is equiped with a spring shock absorber. Air/mud injection swivel with internal passage 35 mm.

Speeds and torques settings depend on the chosen motor setup. There is 6 different motors to be chosen from to set up the rotary head. The motor that will be selected will have 4 speeds:

| | 1 st S | peed | 2 nd s | peed | 3 rd s | peed | 4 th S | peed |
|---------------|-------------------|------|-------------------|------|-------------------|------|-------------------|------|
| | daNm | rpm | daNm | rpm | daNm | rpm | daNm | rpm |
| Motor setup 1 | 35 | 950 | 70 | 425 | 125 | 270 | 250 | 135 |
| Motor setup 2 | 42 | 860 | 84 | 430 | 150 | 240 | 300 | 120 |
| Motor setup 3 | 55 | 700 | 110 | 350 | 190 | 200 | 370 | 100 |
| Motor setup 4 | 68 | 540 | 136 | 270 | 240 | 150 | 480 | 75 |
| Motor setup 5 | 80 | 430 | 160 | 215 | 290 | 120 | 580 | 60 |
| Motor setup 6 | 100 | 340 | 200 | 170 | 355 | 100 | 710 | 50 |

| 4-Speed rotary drill head | Metric | Imperial | | |
|--|---------------------|-------------------------|--|--|
| Hydraulically driven in serial or parallel mode mechanical 2 speed selection | | | | |
| Shock absorber | | | | |
| Sub saver from rotary spindle | | | | |
| Air / Mud swivel, inlet available | 35 mm | 1 3/8" | | |
| Torque / speed to select from | 450 Nm @ 840 rpm to | 331 ft-lbf @ 849 rpm to | | |
| | 5,600 Nm @ 65 rpm | 4,130 ft-lbf @ 65 rpm | | |

Eijkelkamp Customer Service Agreement

Royal Eijkelkamp provides the possibility to add a tailor fit service contract to the extensive range of machines we offer. We call these the Eijkelkamp Customer Service Agreements. We have three types of Customer Service Agreements called Start, Pro and Royal. The Royal type is a service contract that can be tailor fit to the needs of the customer. All Eijkelkamp Customer Service Agreements will be delivered with the Eijkelkamp Service Assistant, this is an advanced track & trace system that is available for use by customer and driller on site via the mobile phone application and web browser.

For more information on demos, pilot projects or personal advice contact our sales department!

For urgent service calls and/or technical information contact or special service telephone: +31 313 800 967



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