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Commercial , Drilling & Exploration.Co

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در باره شرکت

شرکت حفاری و اکتشاف تلاشگران فرتاک، از شرکت های هلدینگ تلاشگران اقتصاد پایدار میباشد. این شرکت مفتخر است با بهره گیری از پرسنل مجرب و متخصص، همکاری با کمپانی های معتبر اروپایی و آسیایی و با رعایت استانداردهای کیفی، با شتابی هرچه بیشتر از گذشته، جایگاه خود را در حوزه بازرگانی ماشین آلات و اجرای پروژه های حفاری و اکتشاف معادن ارتقاء دهد. زمینه فعالیت شرکت در حوزه های حفاری و اکتشاف معادن ایران، با رویکرد مالکیت ماشین آلات و تجهیزات می باشد. از دیگر حوزه های فعالیت شرکت ارائه خدمات بازرگانی با اخذ نمایندگی از شرکت های معتبر داخلی و خارجی در خصوص تامین ماشین آلات، قطعات، قطعات یدکی و تجهیزات درون چاهی جهت پروژه های داخل و خارج از کشور است. در این راستا شرکت، خدمات پس از فروش و گارانتی مورد نیاز خریداران را با تمرکز در واحد مرکزی خود، در مرکزی مجهز به ابزار و تجهیزات تعمیرگاهی به روز و استاندارد و تیمی مجرب و آموزش دیده، جهت پشتیبانی ماشین آلات عرضه شده و همراهی سایر پیمانکاران جهت تامین قطعات یدکی و تجهیزات درون چاهی مورد نیاز ارائه می نماید. از دیگر فعالیت های شرکت، تامین ماشین آلات تخصصی سنگین معدنی و عمرانی و همچنین تجهیزات، قطعات و لوازم یدکی مورد نیاز این ماشین آلات، می باشد. چشم انداز شرکت در پنج سال آینده قرارگیری در لیست ۳ شرکت برتر فعال در زمینه حفاری و اکتشاف معدن در ایران است. استراتژی شرکت استفاده از تکنولوژی های روز دنیا و همچنین آموزش تخصصی کاربران و اپراتورهای ماشین آلات معادن بصورت علمی و آکادمیک می باشد. این شرکت بعنوان پایه گذار آموزش تخصصی، حرفه ای و آکادمیک اپراتورهای دستگاه های حفاری و ایرلاین و سایر تجهیزات، موجب ایجاد تحولی مثبت و نوین و پایه گذار فعالیت تکنیکال و اصولی در ایران می باشد. در این شرکت کوشش شده است تا اطلاعات اساسی و مورد نیاز در رابطه با حوزه های فعالیت و خدماتی که این شرکت ارائه می دهد در اختیار مشتریان، معدن داران، شرکت های پیمانکار حفاری همکار و کاربران قرار گیرد تا با ارتباطی سازنده از نظرات، پیشنهادات، انتقادات و تجربیات ایشان استفاده شده و انتظارات مشتریان خود را تأمین نماید و در جهت بهبود وضعیت موجود گام های بلندتری بردارد.



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Core Drilling Rigs



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**Core Drilling Rig
EDM1001**



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EDM 1001 with the average of 300 meters (BQ) of drilling capacity can operate in soil exploration and mine drilling

with its light and easy use. It could arbitrarily be mounted on truck platform or tracks.

Optionally:

- Automatic upper jaw
- 80 Lt (T80) or 135 Lt (T135) mud pump
- Wire-Line
- Automatic SPT
- Mechanical or hydraulic brake

DRILLING CAPACITY	BQ-500mt NQ-300mt HQ-200mt
ENGINE POWER	30-70hp diesel engine/electric engine is used arbitrarily
SPINDEL FEATURES	89mm. regulator cover could be applied. Turning angle is 360 degrees Travelling distance is 500 mm.
HYDRAULIC SYSTEM	16cc hydraulic pump, flow rate and pressure Regulated hydraulic spindle stress, 40Lt hydraulic oil tank
GEARBOX	4 or 5 forward, 1 reverse gear
TOWER FEATURES	It has manufactured from hydraulic 40x40x3 mm Profile that can go up and down. 6 cm of height, with 6 pulleys, in 2.30 m. height when the Tower is aslope
CRANE SYSTEM	With planet reducer system, 3000kg of hanging capacity
WIDTH	80 cm
HEIGHT	230 cm
CARRIER	Mobile Skidder, Tracking Pallet. Truck
WEIGHT	1300 Kg



Core Drilling Rig EDM1002



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EDM1002 that has the average drilling capacity of 3700 meters (NQ) can reduce max. of 5000nm torque through its powerful spindle box. EDM1002 that can drill 360 degrees is used in soil exploration, mine and tunnel drilling. It has the standard automatic upper jaw. 135Lt/min (T135) mud pump and wireline. It could arbitrarily be mounted on truck, platform or tracks.

Optionally:

- Automatic SPT
- 250 Lt/min (T250) mud pump
- Mechanical or hydraulic rod brake

DRILLING CAPACITY	BQ-900mt NQ-700mt HQ-500mt PQ-350mt
ENGINE POWER	70-1100hp diesel engine/electric engine can arbitrarily be applied
SPINDEL FEATURES	89mm. regulator cover could be applied. Turning angle is 360 degrees Travelling distance is 700 mm.
HYDRAULIC SYSTEM	hydraulic pump with tandem pump Hydraulic cooling radiator 60Lt hydraulic oil tank
GEAR BOX	5 or 6 forward, 1 reverse gear
TOWER FEATURES	It has manufactured from hydraulic 40x40x3 mm Profile that can go up and down. 6 cm of height, with 6 pulleys, in 2.30 m. height when the Tower is aslope
CRANE SYSTEM	With planet reducer system, 5000kg of hanging capacity
WIDTH	120 cm
HEIGHT	350 cm
CARRIER	Mobile Skidder, Tracking Pallet. Truck
WEIGHT	2550 Kg

EDM1002 TECHNICAL SPECIFICATIONS	HEAVY (TORQUE-KG)	HEAVY (RPM)	FAST (TORQUE-KG)	FAST (RPM)
1. Gear	4900Nm – 500 Kg	25 rpm	1620Nm – 165 Kg	180 rpm
2. Gear	3140Nm – 320 Kg	50 rpm	885Nm – 90 Kg	300 rpm
3. Gear	1960 Nm – 200 Kg	95 rpm	490Nm – 50 Kg	460 rpm
4. Gear	1470Nm – 150 Kg	150 rpm	345Nm – 35 Kg	690 rpm
5. Gear	980 Nm – 100 Kg	210 rpm	200Nm – 20 Kg	1150 rpm



**Core Drilling Rig
EDM1003**



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EDM1003 that has the average drilling capacity of 1000 meters (NQ) can reduce max. of 5000nm torque through its powerful spindle box. EDM 1002 that can drill 360 degrees is used in soil exploration, mine and tunnel drilling. It has the standard automatic upper jaw. 135Lt/min (T135) mud pump and wireline. It could arbitrarily be mounted on truck, platform or tracks.

Optionally:

- Automatic SPT
- Mechanical or hydraulic rod brake

DRILLING CAPACITY	BQ-1000mt NQ-600mt HQ-400mt PQ-200mt
ENGINE POWER	130-180hp diesel engine/electric engine can arbitrarily be applied
SPINDEL FEATURES	PQ pipe could go into hallow (117 mm of hallow interior diameter) Turning angle is 360 degrees Travelling distance is 1000 mm.
HYDRAULIC SYSTEM	hydraulic pump with tandem pump Hydraulic cooling radiator 75Lt hydraulic oil tank
GEAR BOX	5 or 6 forward, 1 reverse gear
TOWER FEATURES	It has manufactured from hydraulic 40x40x4 mm Profile 8m of height, with 6 pulleys, in 2.90 m. height when the Tower is aslope
CRANE SYSTEM	With planet reducer system, 10.000kg of hanging capacity
WIDTH	155 cm
HEIGHT	420 cm
CARRIER	Mobile Skidder, Tracking Pallet. Truck
WEIGHT	4500 Kg

EDM1003 TECHNICAL SPECIFICATIONS	HEAVY (TORQUE-KG)	HEAVY (RPM)	FAST (TORQUE-KG)	FAST (RPM)
1. Gear	12550Nm - 128 Kg	25 rpm	4420Nm - 450 Kg	145 rpm
2. Gear	8050Nm - 820 Kg	50 rpm	2450Nm - 250 Kg	240 rpm
3. Gear	5100 Nm - 520 Kg	65 rpm	1470Nm - 150 Kg	370 rpm
4. Gear	3830Nm - 390 Kg	150 rpm	1200Nm - 130 Kg	680 rpm
5. Gear	2000 Nm - 205 Kg	180 rpm	882Nm - 90 Kg	1150 rpm



Core Drilling Rig EDM3011



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Core Drilling Rig EDM3011

EDM 3011 the smallest and most compact, all hydraulic mechanized core drill in the EDM range.

EDM 3011 is ideal for coring and grout hole drilling in narrow tunnels or galleries as well as in cramped spaces underground. The EDM 3011 drill is equally efficient for surface drilling operations.

As an option the drill unit can be mounted on carriers for special purposes like a; a narrow crawler for underground use, or a wide crawler for surface use.

The drill unit can be powered by an electric motor or diesel engine. When the drill rig is equipped with the electrical power unit, as an optional diesel engine for tramming is available.

The compact design and light weight, makes the EDM 3011 easy and fast to set-up for drilling. This in turn offers quicker moves between drill sites, without disturbing normal production routines in the mine or grouting sequences in dam galleries.

To achieve the best results with regard to:

- high penetration
- optimal core recovery
- and low drilling costs

It is of primary importance that drill rods, core barrels and coring bits are of the right type and quality, matched to the rock drill and to the prevailing rock conditions.

Bearing in mind core drills speed of rotation, its rating and chuck diameter, the EDM 3011 is best suited to drill holes 36-46 mm in diameter (A). The spindle inner diameter is 50 mm (1.97 in) in the A-size rotation unit.



Technical Specifications

Drilling Depth Capacity EDM3011

These figures serve as guidelines only. They are calculated with available pull/feed force, weight of drill string in water filled hole, average WOB and reserve for breaking solid core in rock with 5MPa Tensile Strength. Company cannot guarantee these capacities will be reached in all working conditions due to varying factors such as ITH used, conditions of the ground and differences in operation.

Drill Rod	Vertical Down		Vertical Up	
	Metric	U.S. System	Metric	U.S. System
AO Wireline	180 m	590 ft	150 m	492 ft
AWJ Conventional	120m	393 ft	100m	328ft

Rotation Unit

Rod sizes:	A
Power:	Hydraulic Motor
Max. Torque:	250 Nm (184 ft lbf)
Max. Rotation Speed:	2200 rpm
Type:	Hydraulic Closed, Spring Open
Spindle Inner Diameter:	50 mm (1.97 in)
Chuck axial holding force:	28 kN (6295 lb)

System Power Unit

Electrical Power Unit PU15E	Metric	U.S. System
Power:	15 kW	20 hp
RPM:	1450	1450
Primary Pump:	50 l/min – 210 bar	13.2 gal/min – 3050 psi
Secondary Pump:	5 l/min – 210 bar	1.32 gal/min – 3050 psi
Hydraulic Oil Cooling:	Water	

Feed Frame

Feed Frame	850	
	Metric	U.S. System
Feed Stroke:	850 mm	33.5 in
Thrust Force:	20 kN	4500 lbf
Pull Force:	15 kN	3372 lbf
Max. Feed Speed:	0.8 m/s	2.6 fps

Rod Holder

Rod Holder	Metric	U.S. System
Max. Opening:	52 kN	2.05 lbf
Holding Force:	25 kN	5620 lbf
Type:	Hydraulically open, disc spring close	

Flush Pump

TP45E with 4kW Electric Motor	Metric	U.S. System
Flow:	45 l/min	12 gal./min
Pressure:	45 bar	650 psi







Core Drilling Rig EDM3012



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Core Drilling Rig

EDM3012

The EDM 3012 is an all-hydraulic diamond core drill rig with a wide range of options and accessories. It consists of three main parts: the drill unit a power unit and a control console. As an option the drill unit can be mounted on carriers for special purposes like a; a narrow crawler for underground use, or a wide crawler for surface use. It is suitable for a variety of drilling methods in both underground and surface operations such as core drilling, grout hole drilling, probing etc..

The drill unit can be powered by an electric motor or diesel engine. When the drill rig is equipped with the electrical power unit, as an optional diesel engine for tramping is available.

The EDM 3012 uses the best technology available for diamond core drills. All tube jointing, thread breaking, feeding, wireline hoist sequences are controlled from a control console which can be positioned to suit the setup.

Feeding is done by a direct cylinder and chain system.

The drill can be equipped with three different feed lengths, and two different sizes of rotation units to suit rod size and drilling applications.

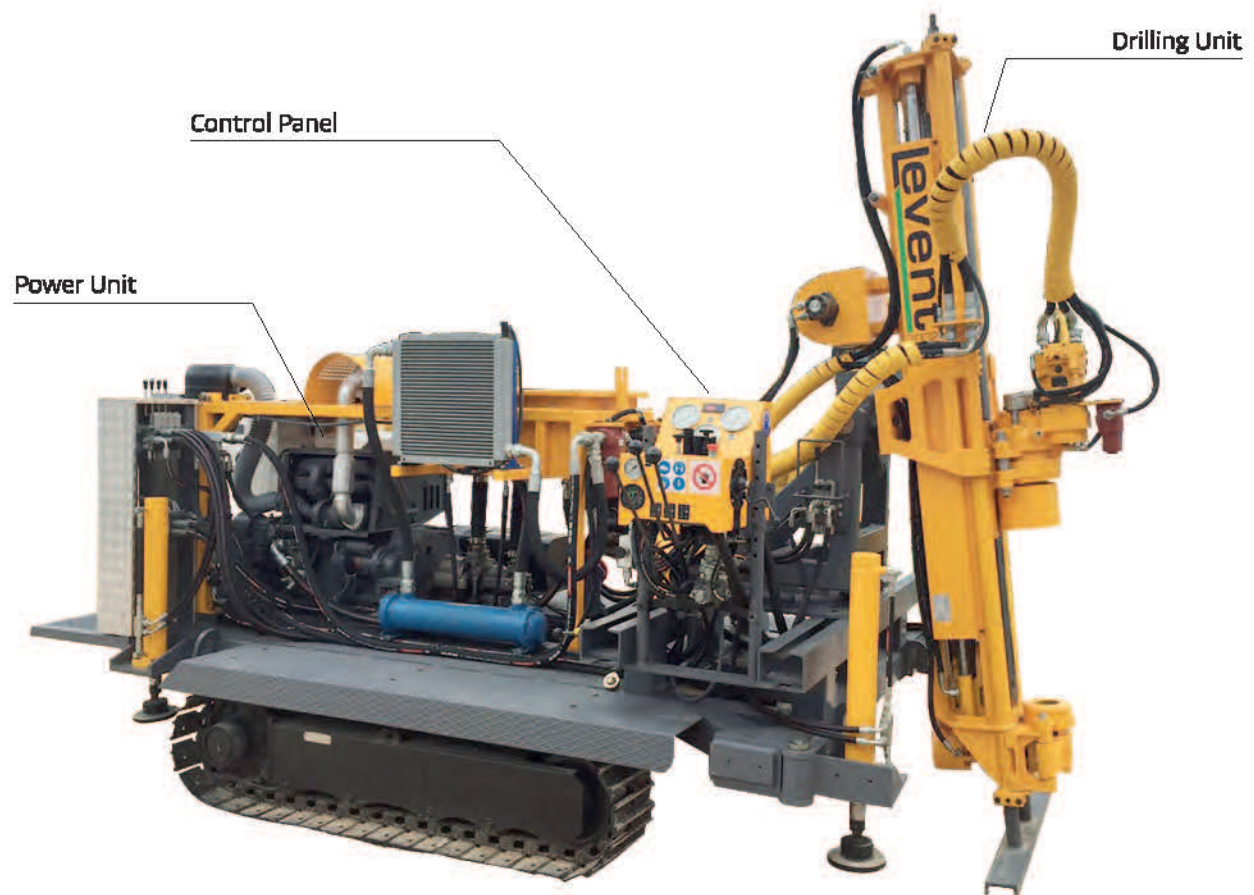
To achieve the best results with regard to:

- high penetration
- optimal core recovery
- and low drilling costs

It is of primary importance that drill rods, core barrels and coring bits are of the right type and quality, matched to the rock drill and to the prevailing rock conditions.

Bearing in mind core drills speed of rotation, its rating and chuck diameter, the EDM 3012 is best suited to drill holes 48-76 mm in diameter (A-N) using both conventional as well as wire line rods.

The spindle inner diameter is 78 mm (3.07 in) in the N-size rotation unit.



Technical Specifications

Drilling Depth Capacity EDM3012

These figures serve as guidelines only. They are calculated with available pull/feed force, weight of drill string in water filled hole, average WOB and reserve for breaking solid core in rock with 5MPa Tensile Strength. EDM cannot guarantee these capacities will be reached in all working conditions due to varying factors such as ITH used, conditions of the ground and differences in operation.

Drill Rod	Vertical Down		Vertical Up	
	Metric	U.S. System	Metric	U.S. System
AO Wireline	700 m	2296 ft	460 m	1509 ft
BO / BRO Wireline	600 m	1968 ft	400 m	1312 ft
NO / NRO Wireline	400 m	1312 ft	290 m	951 ft
NRO Thin Wall	500 m	1640 ft	325 m	1066 ft

Rotation Unit	Standard Type	High-Speed Type
Rod sizes:	A-N	A-N
Power:	Hydraulic Motor	Hydraulic Motor
Max. Torque:	1350 Nm (995 ft lbf)	680 Nm (501 ft lbf)
Max. Rotation Speed:	900 rpm	2200 rpm
Type:	Hydraulic Closed, Spring Open	Hydraulic Closed, Spring Open
Spindle Inner Diameter:	78 mm (3.07 in)	78 mm (3.07 in)
Chuck axial holding force:	98 kN (22000 lb)	98 kN (22000 lb)

System Power Unit

Electrical Power Unit PU55E	Metric	U.S. System
Power:	55 kW	75 hp
RPM:	1450	1450
Primary Pump:	80 l/min – 260 bar	21 gal/min – 3770 psi
Secondary Pump:	40 l/min – 210 bar	10.5 gal/min – 3045 psi
Oil Tank:	150 liters	40 gallons
Hydraulic Oil Cooling:	Water and Air Oil Cooler	

System Power Unit

Diesel Power Unit PU150D	Metric	U.S. System
Volume:	4.3 liter	1.13 gallons
Power:	78 kW	105 bhp
RPM:	2200	2200
Electrical System:	24V	24V
Cooling System:	Air	
Emissions Certifications:	Stage II	Tire 2
Engine Type:	Turbo Charged, After Cooled Diesel Engine	
Primary Pump:	80 l/min – 260 bar	21 gal/min – 3770 psi
Secondary Pump:	60 l/min – 210 bar	16 gal/min – 3045 psi
Oil Tank:	150 liters	40 gallons
Hydraulic Oil Cooling:	Water and Air Oil Cooler	



Feed Frame Alternatives	850		1800		3300	
	Metric	U.S. System	Metric	U.S. System	Metric	U.S. System
EDM3012						
Feed Stroke:	850 mm	33.5 in	1800 mm	71 in	3300 mm	130 in
Thrust Force:	60 kN	13488 lbf	60 kN	13488 lbf	60 kN	13488 lbf
Pull Force:	60 kN	13488 lbf	60 kN	13488 lbf	60 kN	13488 lbf
Max. Feed Speed:	0.8 m/s	2.6 fps	0.8 m/s	2.6 fps	0.8 m/s	2.6 fps
Drilling Angle	360 degrees					

Rod Holder	Metric	U.S. System
Maximum Rod Size (HO)	114.3 mm	4.5 in
Maximum Inside Diameter (w/o Jaws):	130 mm	5.1 in
Holding Force:	20 kN	4496 lbf
Holding Force with TC Inserts:	30 kN	6744 lbf
Type:	Hydraulically open, disc spring close	

Wireline Hoist	Metric	U.S. System
Drum Capacity (4.76mm – 3/16" wire)	400 m	1312 ft
Line pull min. (full drum)	3.4 kN	765 lb
Line pull max. (bare drum)	5.8 kN	1303 lb
Line speed min. (bare drum)	120 m/min	393 ft/min
Line speed max. (full drum)	250 m/min	820 ft/min

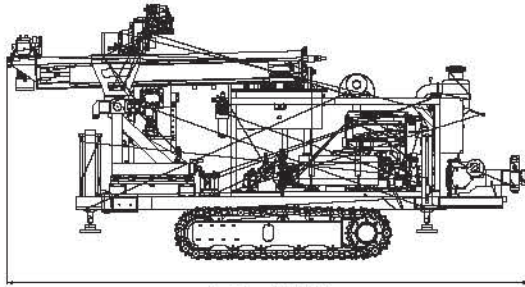
Mud Pump Alternatives

TP80H	Metric	U.S. System
Flow:	80 l/min	21 gal./min
Pressure:	60 bar	870 psi

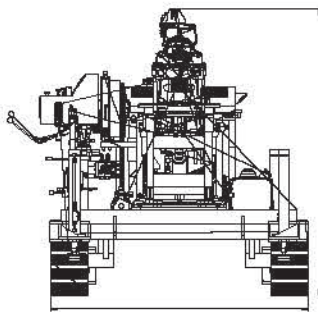
TP135H	Metric	U.S. System
Flow:	135 l/min	35 gal./min
Pressure:	70 bar	1000 psi

Transportation Dimensions

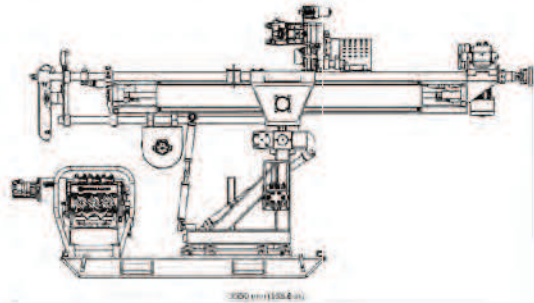
EDM3012 Crawler



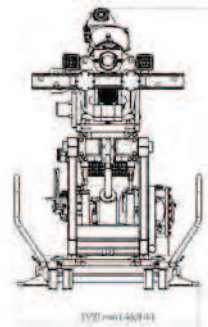
4729 mm (186 in)



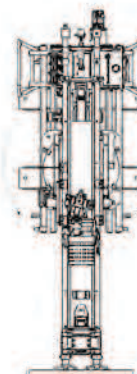
EDM3012 Skid



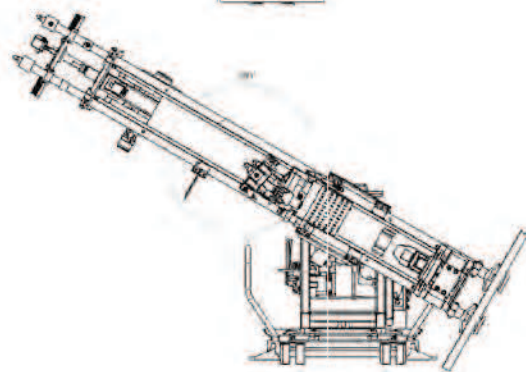
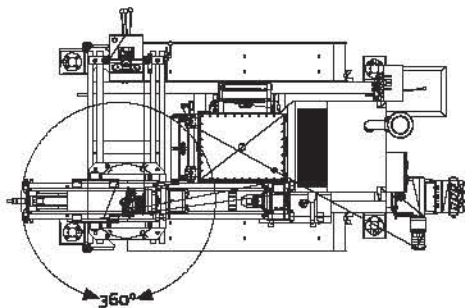
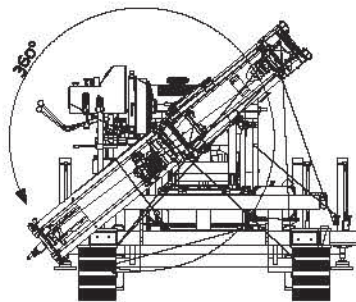
3300 mm (1258 in)



3000 mm (1181 in)



Working Dimensions

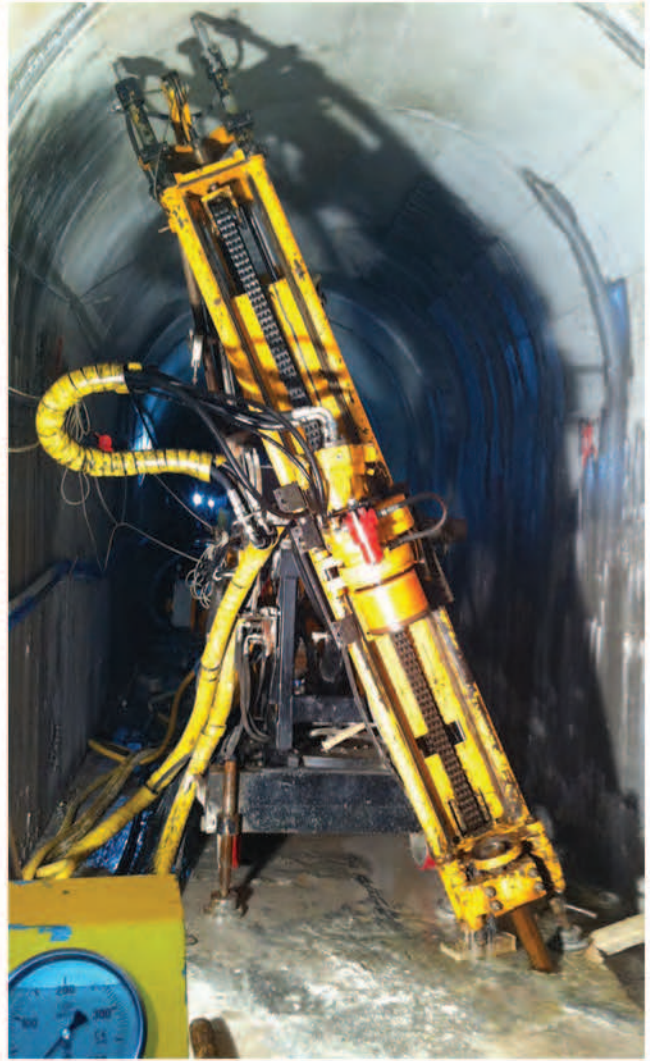


Weight

EDM3012 DC: 4500 kg (9921 lb)
 EDM3012 EC/d: 4800 kg (10582 lb)

Weight

EDM3012 ES: 2560 kg (5644 lb)





Core Drilling Rig EDM3013



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Core Drilling Rig

EDM3013

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The drill unit can be powered by an electric motor or diesel engine. When the drill rig is equipped with the electrical power unit, as an optional diesel engine for tramming is available.

The EDM 3013 uses the best technology available for diamond core drills. All tube jointing, thread breaking, feeding, wireline, hoist sequences are controlled from a control console which can be positioned to suit the setup.

Feeding is done by a direct cylinder, thereby eliminating chains in the feed system.

The drill can be equipped with two different feed lengths, and two different sizes of rotation units to suit rod size and drilling applications.

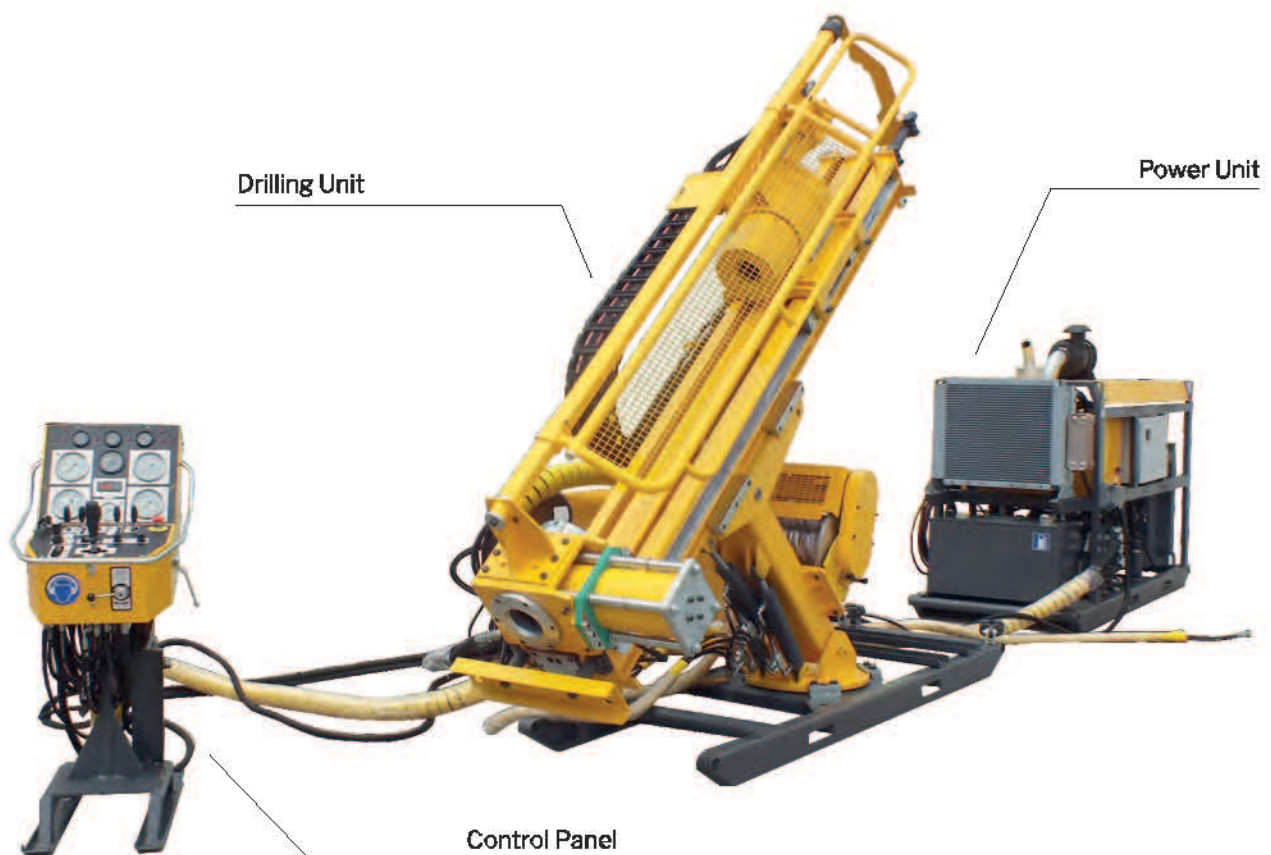
To achieve the best results with regard to:

- high penetration
- optimal core recovery
- and low drilling costs

It is of primary importance that drill rods, core barrels and coring bits are of the right type and quality, matched to the rock drill and to the prevailing rock conditions.

Bearing in mind core drill's speed of rotation, its rating and chuck diameter, the EDM 3013 is best suited to drill holes 60–96 mm in diameter (B–H) using both conventional as well as wire line rods.

The spindle inner diameter is 101.6 mm (4 in) in the H-size rotation unit.



Technical Specifications

Drilling Depth Capacity EDM3013

These figures serve as guidelines only. They are calculated with available pull/feed force, weight of drill string in water filled hole, average WOB and reserve for breaking solid core in rock with 5MPa Tensile Strength. EDM cannot guarantee these capacities will be reached in all working conditions due to varying factors such as ITH used, conditions of the ground and differences in operation.

Drill Rod	Vertical Down		Vertical Up	
	Metric	U.S. System	Metric	U.S. System
AO Wireline	1500 m	4921 ft	900 m	2952 ft
NO / NRO Wireline	850 m	2788 ft	468 m	1535 ft
NRO Thin Wall	1000 m	3280 ft	550 m	1804 ft
HO / HRO Wireline	550 m	1804 ft	303 m	994 ft
HRO Thin Wall	632 m	2073 ft	348 m	1141 ft

Rotation Unit

Rod sizes:	B – H
Power:	Hydraulic Motor
Max. Torque:	2300 Nm (1696 ft lbf)
Max. Rotation Speed:	1200 rpm
Type:	Hydraulic Closed, Spring Open
Spindle Inner Diameter:	101.6 mm (4 in)
Chuck axial holding force:	150 kN (33721 lb)

System Power Unit

Electrical Power Unit PU90E	Metric	U.S. System
Power:	90 kW	122 hp
RPM:	1450	1450
Primary Pump:	200 l/min – 315 bar	52.8 gal/min – 4569 psi
Secondary Pump:	65 l/min – 240 bar	17.2 gal/min – 3481 psi
Oil Tank:	130 liters	34.4 gallons
Hydraulic Oil Cooling:	Water and Air Oil Cooler	

System Power Unit

Diesel Power Unit PU150D	Metric	U.S. System
Volume:	6.7 liter	1.77 gallons
Power:	164 kW	220 bhp
RPM:	1800	1800
Electrical System:	12V	12V
Cooling System:	Water	
Emmissions Certifications:	Stage III	Tire 3
Engine Type:	Turbo Charged, After Cooled Diesel Engine	
Primary Pump:	200 l/min – 315 bar	52.8 gal/min – 4569 psi
Secondary Pump:	85 l/min – 240 bar	23 gal/min – 3481 psi
Oil Tank:	130 liters	34.4 gallons
Hydraulic Oil Cooling:	Water and Air Oil Cooler	



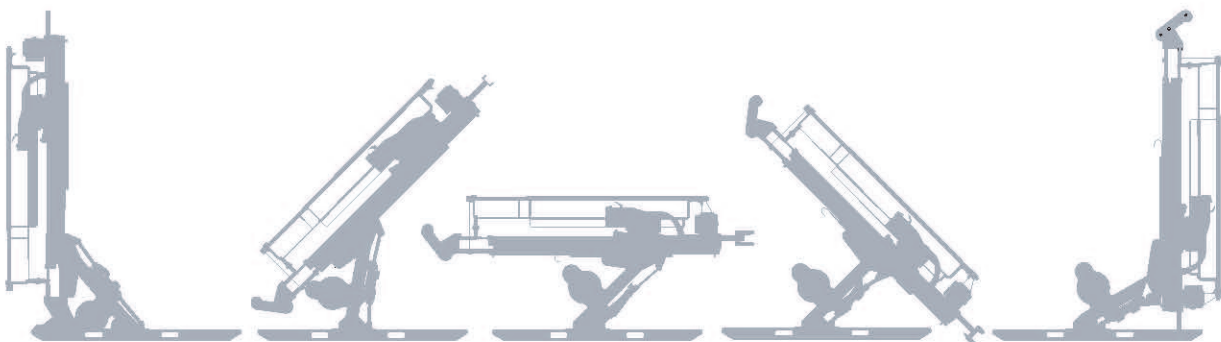
Feed Frame Alternatives	850		1800	
	Metric	U.S. System	Metric	U.S. System
EDM3013				
Feed Stroke:	850 mm	33.5 in	1800 mm	71 in
Thrust Force:	65 kN	14610 lbf	90 kN	20230 lbf
Pull Force:	65 kN	14610 lbf	90 kN	20230 lbf
Max. Feed Speed:	1.0 m/s	3.28 fps	0.8 m/s	2.6 fps
Drilling Angle:	360 degrees			

Rod Holder	Metric	U.S. System
Maximum Rod Size (HO)	88.9 mm	3.5 in
Maximum Inside Diameter (w/o Jaws):	101.6 mm	4 in
Maximum Inside Diameter (w/o Covers):	170 mm	6.7 in
Holding Force:	45 kN	10116 lbf
Holding Force with TC Inserts:	90 kN	20230 lbf
Type:	Hydraulically open, gas pressure close	

Wireline Hoist	Metric	U.S. System
Drum Capacity (4.76mm – 3/16" wire)	1250 m	4100 ft
Line pull min. (full drum)	3.5 kN	668 lb
Line pull max. (bare drum)	11 kN	2665 lb
Line speed min. (bare drum)	85 m/min	278 ft/min
Line speed max. (full drum)	245 m/min	803 ft/min
Level wind angle	Adjustable	

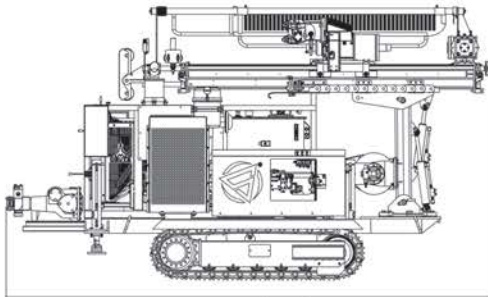
***There is an automatic winding system to prevent rope from making straight or mixed winding.

Mud Pump	Metric	U.S. System
TP135H		
Flow:	1351 l/min	35 gal./min
Pressure:	70 bar	1000 psi

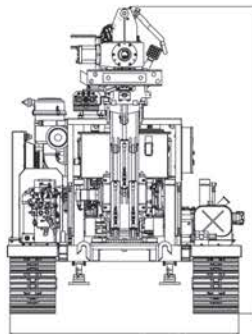


Transportation Dimensions

EDM3013 Crawler



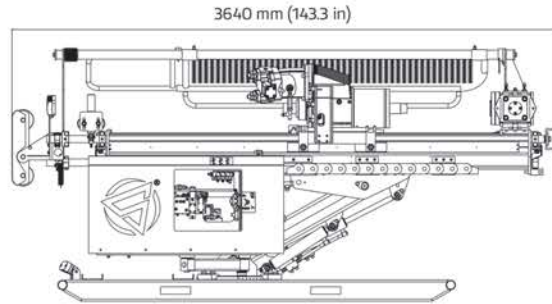
4700 mm (185 in)



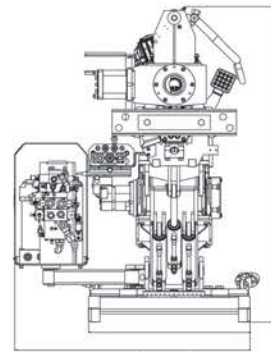
2060 mm (81.1 in)

2750 mm (108.2 in)

EDM3013 Skid



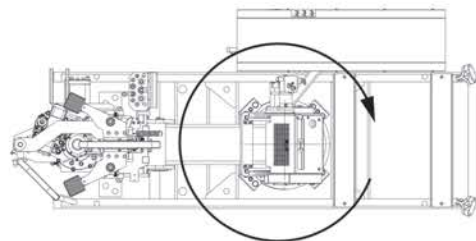
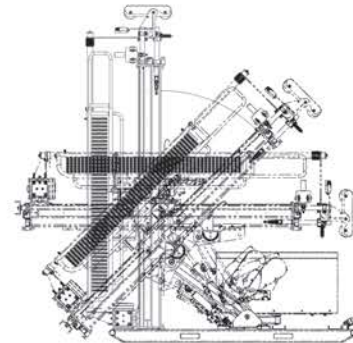
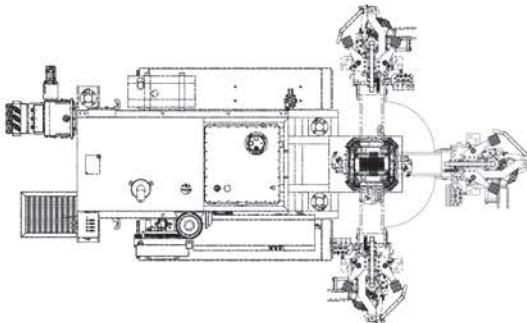
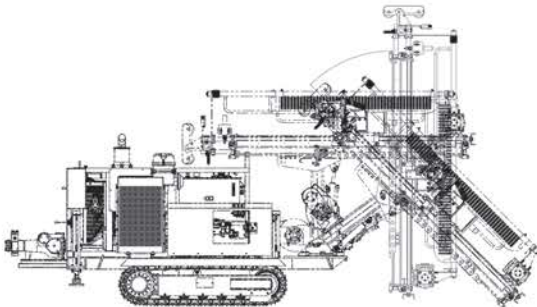
3640 mm (143.3 in)



1240 mm (48.8 in)

1705 mm (67.1 in)

Working Dimensions



Weight

EDM3013 DC: 6700 kg (14770 lb)
EDM3013 EC/d: 6760 kg (14903 lb)

Weight- EDM3013 ES:

Drilling Unit and Control Unit: 4210kg (9280 lb)
Power Unit: 1800 kg (3968 lb)





SURFACE CORING DRILL RIG EDM 3014



Talashgaran Fartak
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www.tfde-co.com

EDM 3014 Surface Coring Drill Rig

EDM 3014 is fully hydraulic diamond core drilling rig, designed for surface research drillings.

It is the perfect combination of the proven EDM concept, combined with new and powerful components.

The EDM 3014 uses well proven technology for diamond core drills combined with new improvements in order to get easy drill operation. Hydraulic jacks, mast dump, hinged top mast and all controls available at the control panel provide the driller an easy set-up. Other features such as the strong main winch, powerful direct feed cylinder, advanced diesel engine, telescopic mast and Hydraulic Rod Holder.

EDM 3014 Coring Rig rotation speed, power and rotation unit aperture diameter is designed to give optimal performance in 60–122.6 mm (B–P) diameter wireline or conventional drilling.

EDM 3014, drilling unit, power unit, wireline unit (automatic winding system), main winch control of the mixer and mud pump are performed from the operator panel.

The gauge located on the operator panel displays, drilling rig advancement position;

- Hold back force,
- Feed force,
- Rotation speed,

It can observe the data and is able to control diesel engine.

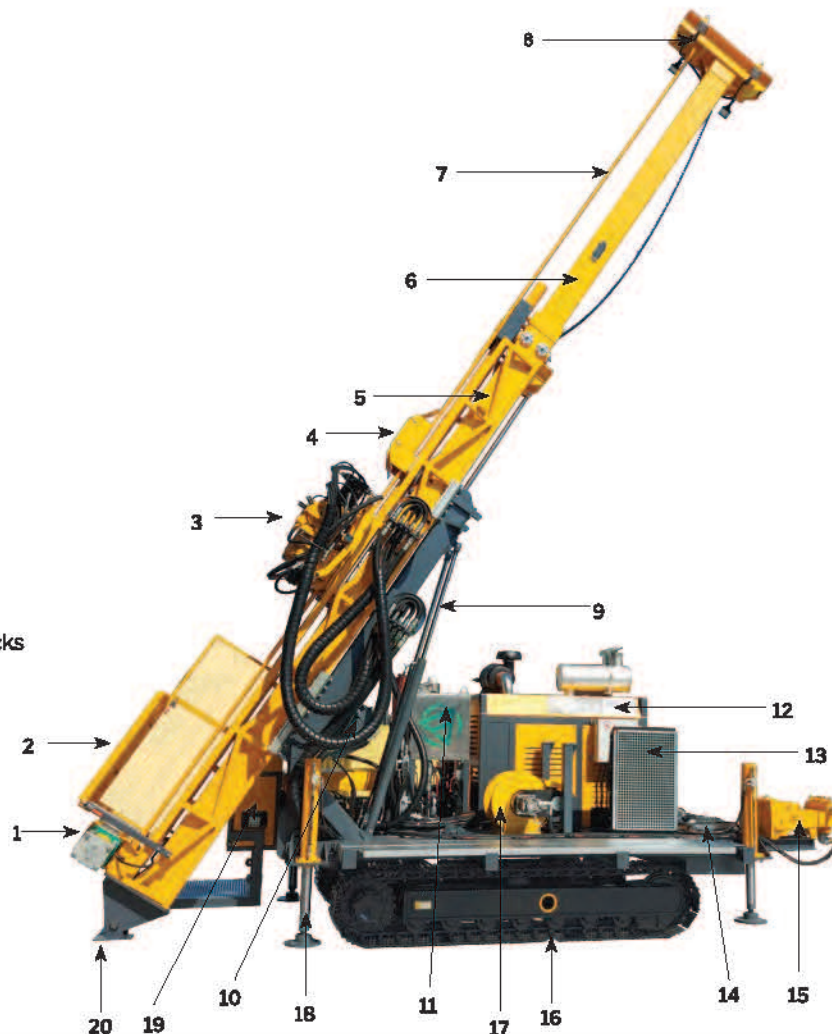
EDM 3014, can be mounted on 3 different chassis.

- Skid frame
- Wheel frame
- Crawler frame

EDM 3014 drilling rig, as progress is being achieved with the drilling rig hydraulic cylinder, more precise settings can be done.

EDM 3014 drilling rig, automatic rod removal and clamping feature allows high progress rate, optimal core percentage and big time save.

1. Rod holder
2. Head guard
3. Rotation unit
4. Rod centralizer
5. Feed frame
6. Telescopic mast
7. Rod guide
8. Crown block
9. Mast raising cylinders
10. Main hoist
11. Hydraulic oil tank
12. Power unit
13. Cooling circuit
14. Fuel tank
15. Fluid pump
16. Carrier
17. Wireline winch
18. Hydraulic leveling jacks
19. Control panel
20. Foot bracket



Technical Specifications

Drilling Depth Capacity EDM3014

These figures serve as guidelines only. They are calculated with available pull/feed force, weight of drill string in water filled hole, average WOB and reserve for breaking solid core in rock with 5MPa Tensile Strength. EDM cannot guarantee these capacities will be reached in all working conditions due to varying factors such as ITH used, conditions of the ground and differences in operation.

Drill Rod	Fluid Filled	
	Metric	U.S. System
BO / BRO Wireline	1375 m	4511 ft
NO / NRO Wireline	1050 m	3444 ft
NRO Thin Wall	1190 m	3904 ft
HO / HRO Wireline	720 m	2362 ft
HRO Thin Wall	900 m	2952 ft
PHD / PO Wireline	475 m	1558 ft
PHD Thin Wall	635 m	2083 ft

Rotation Unit

Rod sizes:	B – P
Power:	Hydraulic Motor
Transmission:	Funk 4 speed
Final Drive:	Straight cut gears
Ratio:	2:1
Rotation Unit Opener:	Side shift type – hydraulically actuated
Hydraulic P Chuck	Hydraulic Open, Close by Gas Pressure
Spindle inner diameter:	127 mm (5 in)
Chuck axial holding force:	22 kN (50 000 lb)

Torque and RPM Ratings		Speed	Torque	
Spindle Speeds	Ratio	RPM	Nm	lbft
1st Gear	6.27:1	122–201	5320–3252	3923–2400
2nd Gear	3.12:1	246–403	2647–1620	1962–1195
3rd Gear	1.75:1	437–719	1485–907	1095–670
4th Gear	1.00:1	765–1245	848–520	625–383

System Power Unit

Cummins QSB 6.7 L, turbo charged, after cooled diesel engine.	Metric	U.S. System
Volume:	6.7 liter	1.77 gallons
Power:	164 kW	220 bhp
RPM:	2200	2200
Electrical System:	12V	12V
Cooling System:	Water	
Emmissions Certifications:	Stage III	Tire 3

EDM3014

Hydraulic System	Metric	U.S. System
Primary Pump:	1651 l/min – 310 bar	43.5 gal/min – 4500 psi
Secondary Pump:	65 l/min – 210 bar	17.2 gal/min – 3045 psi
Auxiliary Pump:	43 l/min – 210 bar	11.4 gal/min – 3045 psi
Hydraulic Oil Cooling:	Air	

Mast and Feed System	Metric	U.S. System
Feed Stroke:	3.35 m	11 ft
Thrust Force:	88.4 kN	19880 lb
Pull Force:	167.7 kN	37700 lb
Mast Dump Travel:	2.35 m	7.7 ft
Mast Telescope:	3.35 m	11 ft
Drilling Angle:	45 to 90 degrees	45 to 90 degrees
Rod Pull Length:	3.05 m or 6.09 m on telescopic mast	10 ft or 20 ft on telescopic mast

Rod Holder	Metric	U.S. System
Maximum Rod Size (HWT)	114.3 mm	4.5 in
Holding Force:	178 kN	40015 lb
Type:	Hydraulically opens	

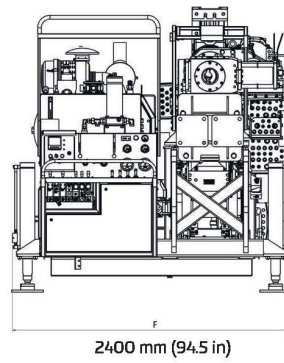
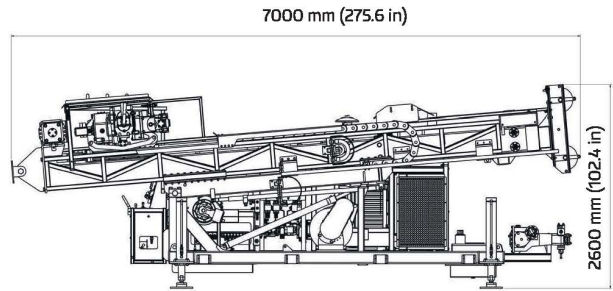
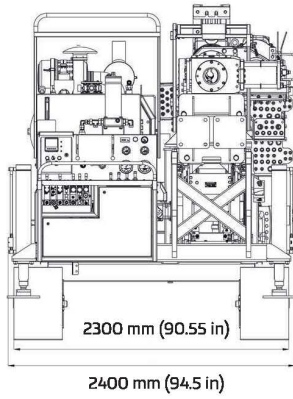
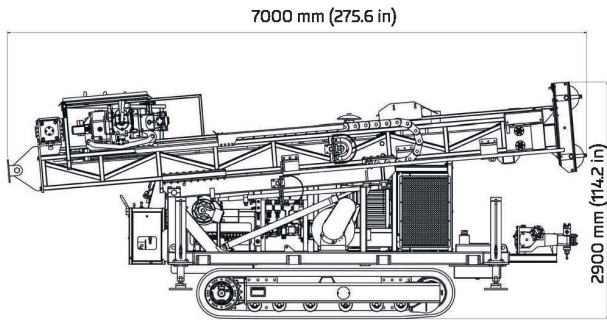
Wireline Holst	Metric	U.S. System
Drum Capacity (4.76 mm – 3.16" wire)	1800 m	5905 ft
Line pull min. (full drum)	3.5 kN	786 lb
Line pull max. (bare drum)	12 kN	2698 lb
Line speed min. (bare drum)	115 m/min	377 ft/min
Line speed max. (full drum)	420 m/min	1377 ft/min

***There is an automatic winding system to prevent rope from making straight or mixed winding.

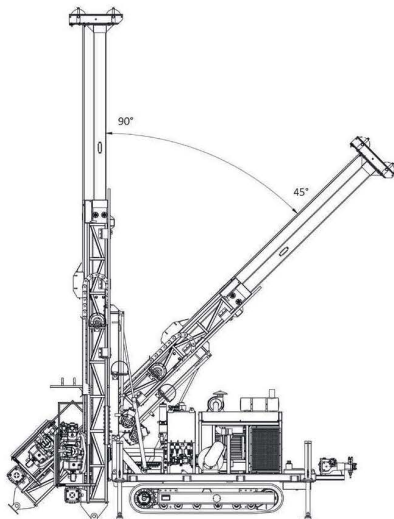
Main Winch	Metric	U.S. System
Single line capacity: (bare drum)	71.2 kN	16000 lb
Line speed: (bare drum)	35 m/min	114 ft/min
Cable size:	15 mm	0.59 in
Cable length:	35 m	114 ft

Mud Pump		
TP135H	Metric	U.S. System
Flow:	1351 l/min	35 gal.min
Pressure:	70 bar	1000 psi

Transportation Dimensions

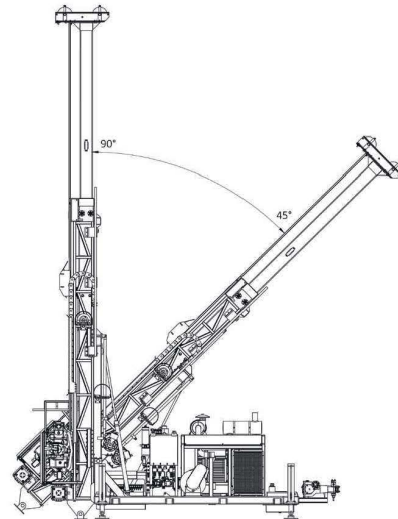


Working Dimensions



Weight

EDM 3014 Crawler: 11000 kg (24250 lb)



Weight

EDM 3014 Skid Frame: 8500 kg (18740 lb)





**SURFACE CORING DRILL RIG
EDM 3015**



Talashgaran Fartak
Commercial , Drilling & Exploration.Co

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EDM 3015 Surface Coring Drill Rig

EDM 3015 is fully hydraulic diamond core drilling rig, designed for surface research drillings.

It is the perfect combination of the proven EDM concept, combined with new and powerful components.

The EDM 3015 uses well proven technology for diamond core drills combined with new improvements in order to get easy drill operation. Hydraulic jacks, mast dump, hinged top mast and all controls available at the control panel provide the driller an easy set-up. Other features such as the strong main winch, powerful direct feed cylinder, advanced diesel engine, foldable mast and Gas Spring Rod Holder.

EDM 3015 Coring Rig rotation speed, power and rotation unit aperture diameter is designed to give optimal performance in 60-122.6 mm (B-P) diameter wireline or conventional drilling.

EDM 3015, drilling unit, power unit, wireline unit (automatic winding system), main winch control of the mixer and mud pump are performed from the operator panel.

The gauge located on the operator panel displays, drilling rig advancement position;

- Hold back force,
- Feed force,
- Rotation speed,

It can observe the data and is able to control diesel engine.

EDM 3015, can be mounted on 3 different chassis.

- Skid frame
- Wheel frame
- Crawler frame

EDM 3015, drilling rig, as progress is being achieved with the drilling rig hydraulic cylinder, more precise settings can be done.

EDM 3015 drilling rig, automatic rod removal and clamping feature allows high progress rate, optimal core percentage and big time save.



Technical Specifications

Drilling Depth Capacity EDM3015

These figures serve as guidelines only. They are calculated with available pull/feed force, weight of drill string in water filled hole, average WOB and reserve for breaking solid core in rock with 5MPa Tensile Strength. EDM cannot guarantee these capacities will be reached in all working conditions due to varying factors such as ITH used, conditions of the ground and differences in operation.

Drill Rod	Fluid Filled	
	Metric	U.S. System
BO / BRO Wireline	1550 m	5085 ft
NO / NRO Wireline	1200 m	3937 ft
NRO Thin Wall	1410 m	4625 ft
HO / HRO Wireline	800 m	2624 ft
HRO Thin Wall	940 m	3083 ft
PHD / PO Wireline	500 m	1640 ft
PHD Thin Wall	665 m	2181 ft

Rotation Unit

Rod sizes:	B – P
Power:	Hydraulic Motor
Transmission:	Funk 4 speed
Final Drive:	Straight cut gears
Ratio:	2.42:1
Rotation Unit Opener:	Side shift type – manual actuated
Hydraulic P Chuck	Hydraulic Open, Spring Closed
Spindle inner diameter:	117 mm (4–5/8 in)
Chuck axial holding force:	181 kN (40 690 lb)

Torque and RPM Ratings

Spindle Speeds	Ratio	Speed	Torque	
		RPM	Nm	lbft
1st Gear	6.63:1	117–196	5113–3051	3771–2250
2nd Gear	3.17:1	246–410	2445–1459	1803–1076
3rd Gear	1.72:1	451–756	1326–792	978–584
4th Gear	1.00:1	776–1300	771–460	569–340

System Power Unit

Cummins QSB 6.7 L, turbo charged, after cooled diesel engine.	Metric	U.S. System
Volume:	6.7 liter	1.77 gallons
Power:	164 kW	220 bhp
RPM:	1800	1800
Electrical System:	12V	12V
Cooling System:	Water	
Emmissions Certifications:	Stage III	Tire 3

EDM3015

Hydraulic System	Metric	U.S. System
Primary Pump:	250 l/min – 280 bar	66 gal/min – 4061 psi
Secondary Pump:	127 l/min – 200 bar	33 gal/min – 2900 psi
Auxiliary Pump:	50 l/min – 200 bar	13 gal/min – 2900 psi
Hydraulic Oil Cooling:		Air

Mast and Feed System	Metric	U.S. System
Feed Stroke:	3.50 m	11 ft
Thrust Force:	60 kN	13480 lb
Pull Force:	138 kN	31000 lb
Mast Dump Travel:	1.20 m	3.9 ft
Mast Telescope:	3.35 m	11 ft
Drilling Angle:	45 to 90 degrees	45 to 90 degrees
Rod Pull Length:	3.05 m or 6.09 m on telescopic mast	10 ft or 20 ft on telescopic mast

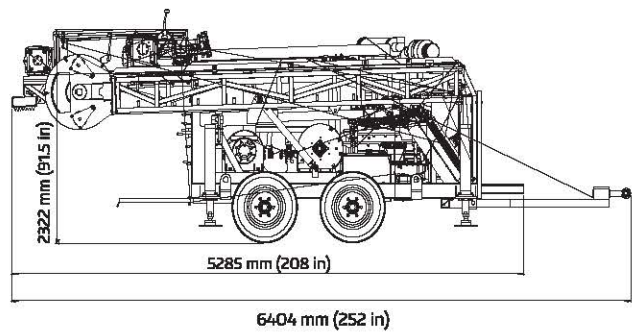
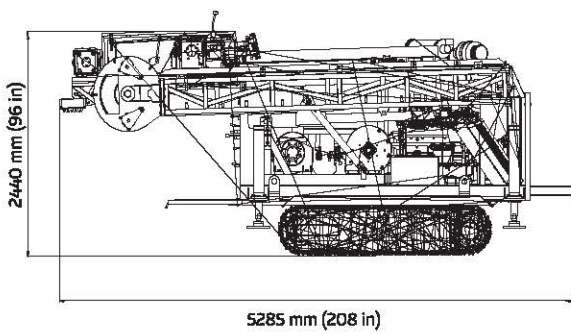
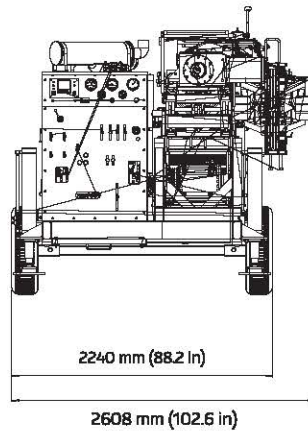
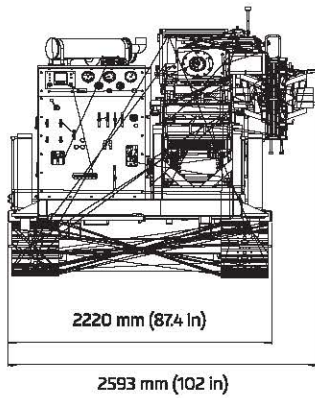
Rod Holder	Metric	U.S. System
Maximum Rod Size (HWT)	114.3 mm	4.5 in
Maximum Inside Diameter:	210 mm	8.3 in
Holding Force:	178 kN	40015 lb
Type:	Hydraulically opens, gas pressure close	

Wireline Holst	Metric	U.S. System
Drum Capacity (4.76 mm – 3.16" wire)	1800 m	5905 ft
Line pull min. (full drum)	3.0 kN	674 lb
Line pull max. (bare drum)	11.9 kN	2675 lb
Line speed min. (bare drum)	115 m/min	377 ft/min
Line speed max. (full drum)	455 m/min	1492 ft/min

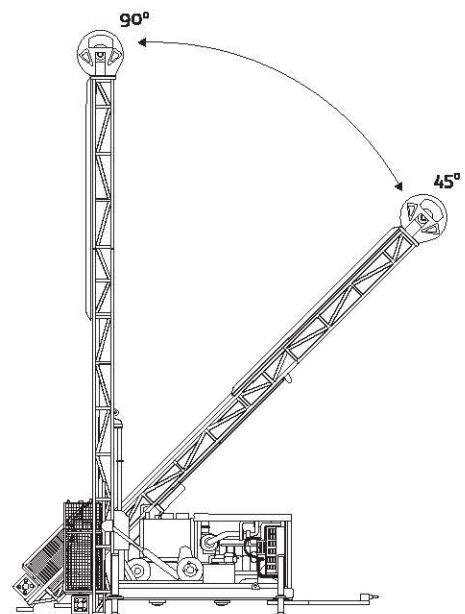
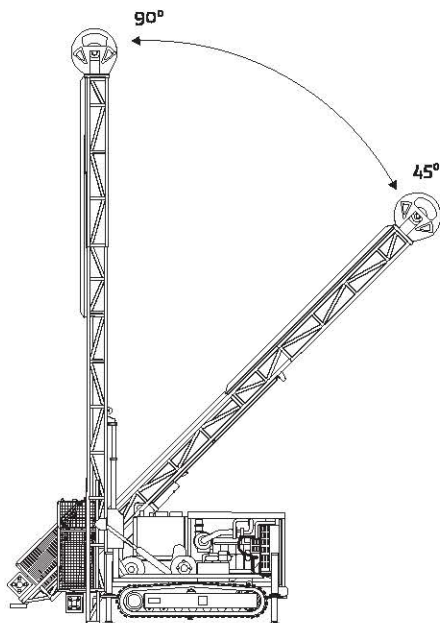
Main Winch	Metric	U.S. System
Single line capacity: (bare drum)	80 kN	18000 lb
Line speed: (bare drum)	43 m/min	141 ft/min
Cable size:	16 mm	10/16 in
Cable length:	35 m	114 ft

Mud Pump		
TP135H	Metric	U.S. System
Flow:	1351 l/min	35 gal.min
Pressure:	70 bar	1000 psi

Transportation Dimensions



Transportation Dimensions



Weight

EDM 3015 Crawler: 9000 kg (18000 lb)

Weight

EDM 3015 Trailer: 7500 kg (16534 lb)





SURFACE CORING DRILL RIG EDM 3016



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EDM 3016 Surface Coring Drill Rig

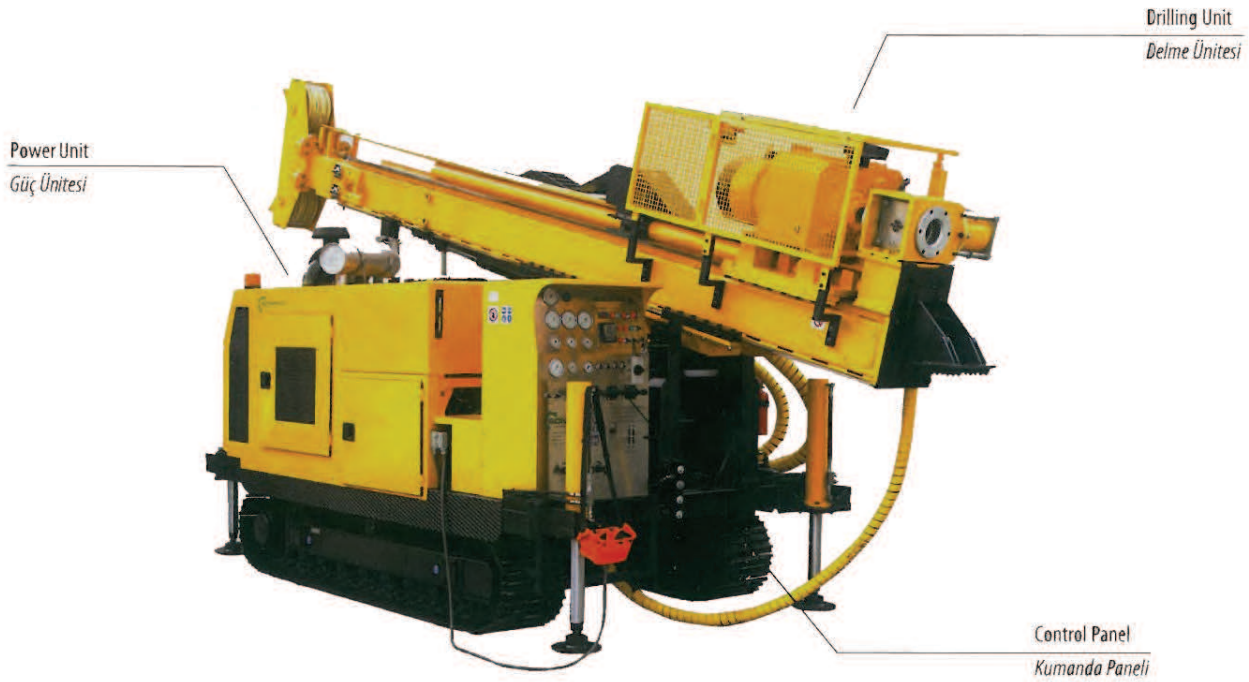
EDM 3016 is fully hydraulic diamond core drilling machine, designed for surface research drillings.

EDM 3016, drilling unit, power unit wireline unit, main winch control of the mixer and mud pump are performed from the operator panel. the gauge located on the operator panel displays, drilling machine advancement position; hold back force, feed force, rotation speed, it can observe the data and is able to control diesel engine.

EDM 3016 can be mounted on different chassis. Skid frame, crawler frame.

EDM 3016 drilling machine, as progress is being achieved with the drilling machine hydraulic cylinder, more precise settings can be done

EDM 3016 drilling machine, automatic rod removal and clamping feature allows high progress rate, optimal core percentage and big time save.



Technical Specifications

Drilling Depth Capacity EDM3016

These figures serve as guidelines only. They are calculated with available pull/feed force, weight of drill string in water filled hole, average WOB and reserve for breaking solid core in rock with 5MPa Tensile Strength. EDM cannot guarantee these capacities will be reached in all working conditions due to varying factors such as ITH used, conditions of the ground and differences in operation.

The below drill depth capacities only serve as guidelines refer to vertical down drilling. Teleshgaren Fartek cannot guarantee that these results can be achieved in all drilling conditions.

Size	Meters	U.S. System (ft)
B Wireline	2000	6561
N Wireline	1500	4921
H Wireline	1100	3609
P Wireline	750	2460

ROTATION UNIT

Power	Hydraulic Motor
Type	Hydraulic Open, Disc Space Closed
Spindle Inner Diameter	121 mm (4.77 in)
Chuck Axial Holding Force	180 kN (35900 lbf)

Rotation Unit Data

Spindle Speed	Ration	Speed	Torque Nm	Torque lbf ft
1st Gear	8.78	161-371	2175-5350	1604-3945
2nds Gear	2.716	488-1200	662-1630	488-1202

WIRELINE HOIST

Capacity	2000 m	6560 ft
Pull min. (empty drum)	11.5 kN	2585 lbf
Pull max. (full drum)	3 kN	668 lbf
Line Speed min. (empty drum)	115 m/min	377 ft/min
Line Speed max. (full drum)	445 m/min	1492 ft/min
Cable Size	4.76 mm	3/16 in
Cable length	1500 m	4905 ft

MAIN HOIST

Capacity	180 kN	40000 lbf
Line Speed (bare drum)	30 m/min.	98 ft/min
Cable Size	16 mm	10/16 in
Cable length	35 m	114 ft

POWER UNIT

Manufacturer	Deutz	
Model	TCD2013 Tire III	
Volume	7.1 lt/6cyl.	
Power	188 kW (240 hp)	
RPM	2200	
Engine Type	Diesel Turbo Charged	
Cooling	Water	
Electrical System	24 V	
Main Pump	Flow	308 l/min.
	Pressure	310 bar (4500 psi)
Service Pump	Flow	1561 l/min.
	Pressure	200 bar (2900 psi)
Auxiliary Pump	Flow	61 l/min.
	Pressure	220 bar (3190 psi)

FEED UNIT

Feed Type	Foldable Mast	Telescopic Mast
Thrust Force	60 kN (13440 lbf)	60 kN (13440 lbf)
Pull Force	160 kN (34906 lbf)	160 kN (34906 lbf)
Feed Retraction	3.5 m (11.5 ft)	3.5 m (11.5 ft)
Mast Dump Travel	1.45 m (4 ft)	1.45 m (4 ft)
Drilling Angle	45 - 90	45 - 90
Rod Pull Length	6m / 9m (20ft / 30ft)	6m / 9m (20ft / 30ft)

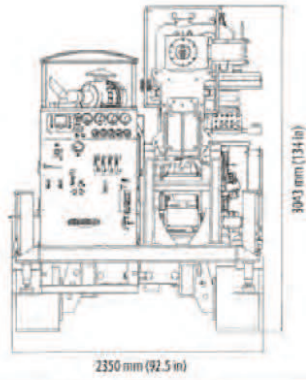
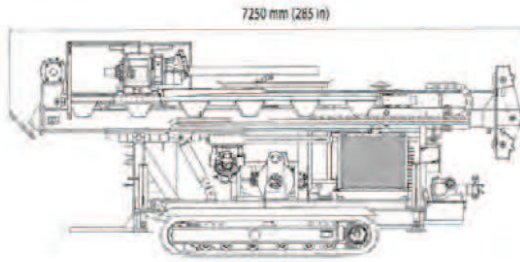
Water Pimp

EDM 3016

Flow	135 l/min (36 gal./min)
Pressure	70 bar (1000 psi)
Weight	209 kg (460 lb)

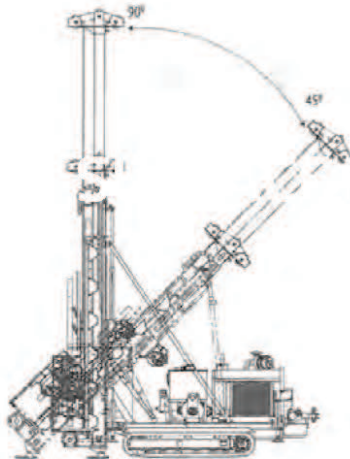
EDM 3016 Diesel Crawler

DIMENSIONS / ÖLÇÜLER mm/in



2350 mm (92.5 in)

WORKING ANGLES / ÇALIŞMA AÇILARI

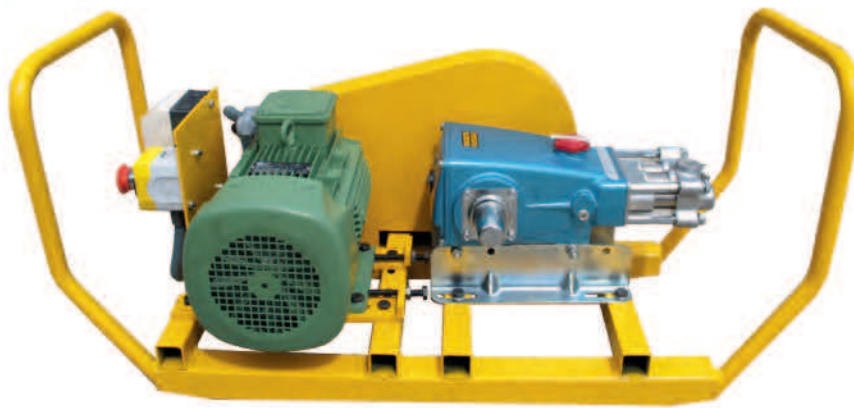


WEIGHT / AĞIRLIK

Levent 2002 DC Diesel Crawler 14500 kg (32000 lb)
Levent 2002 DC Diesel Paletli







MUD PUMPS

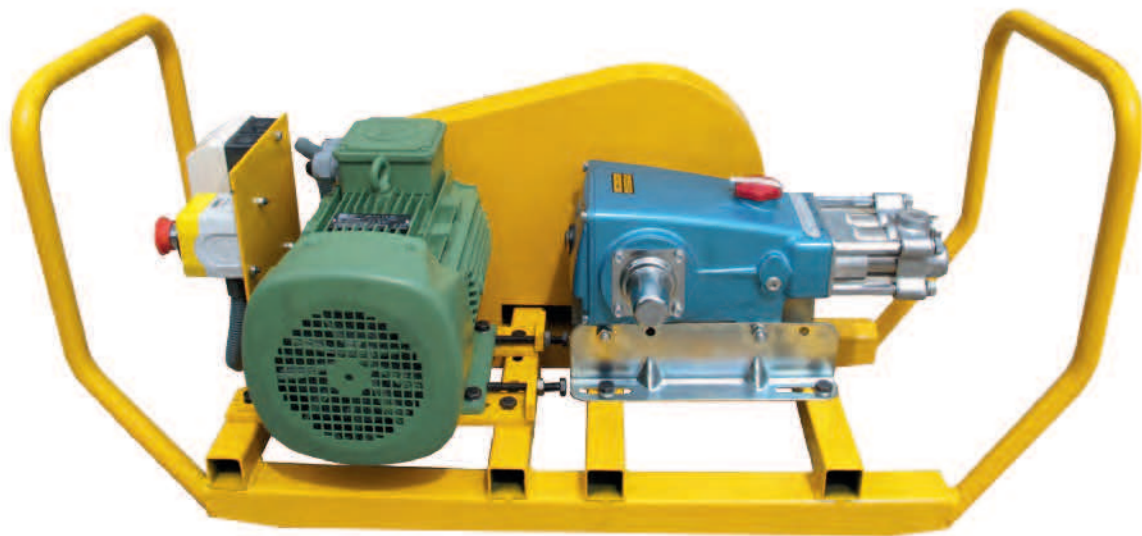


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Commercial , Drilling & Exploration.Co



UTP 450
Triplex Mud Pump

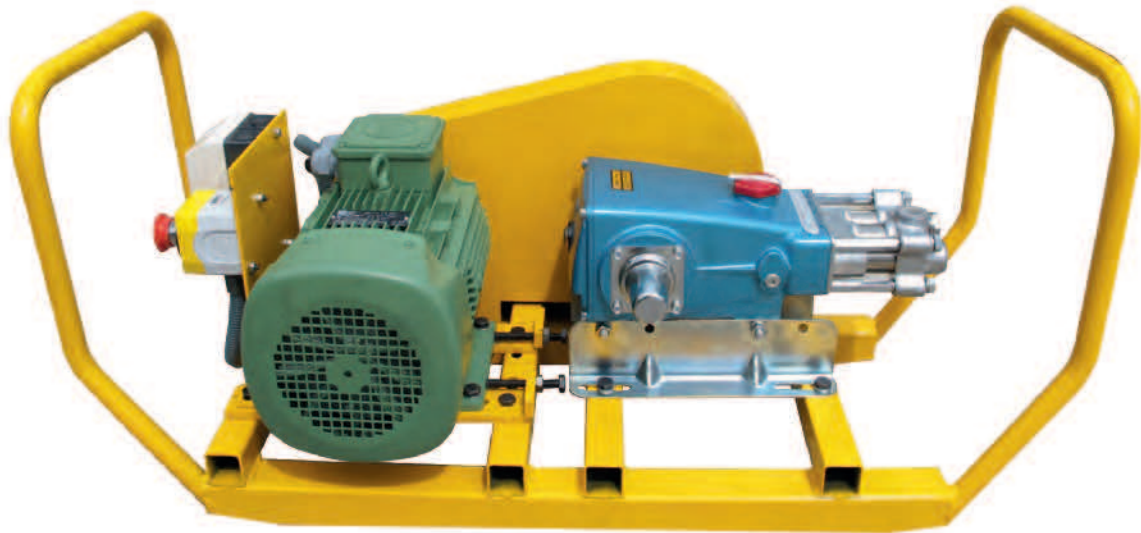


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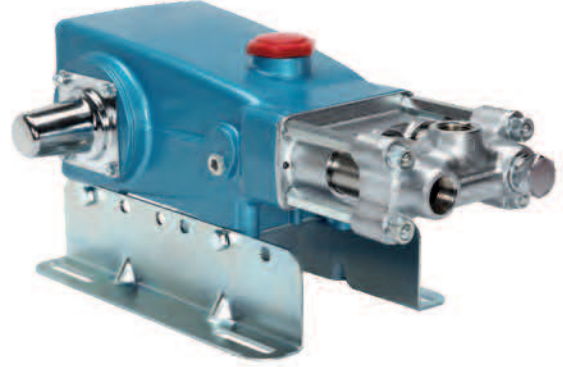
PRODUCT CODE: UTP450

- TP-45 series Triplex Pumps are generally designated to pump clean water.
- They can be equipped in three different ways as Electrical motor, Petrol engine and Hydraulic driven motor.
- Triplex Pumps spare parts, stainless steel cylinders, stainless valves, balls and seals can be easily changed.
- The three cylinders, which are made of steel reinforced stainless steel material, are durable against to corrosion and can be changed easily.
- The valves, which are in the form of ball, are made of stainless steel and the valve seats are manufactured from tempered steel.
- The pump safety valve is adjusted according to 45 bar pressure.
- If the pressure in the system exceeds these values, then the safety valve activates and by means of this the pump housing is protected against to excessive pressure.
- The pump safety valve can be adjusted to lower values mentioned above.
- The pressure values can be observed with a manometer 0-100 bar.



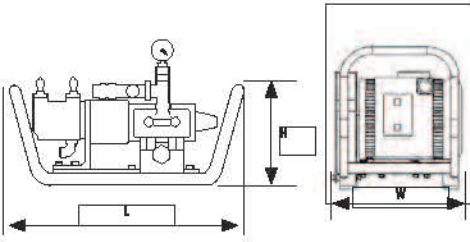
PUMP SPECIFICATIONS / POMPA ÖZELLİKLERİ

Configuration Model	Horizontal Triplex Pump Tripleks Pompa
Number of Pistons Piston Sayısı	3
Stroke Length Strok Uzunluğu	28 mm (1.1 in)
Lube Oil Capacity Yağ Kapasitesi	1.2 l (40 oz) 1.2 R
Lube Oil Type Yağ Tipi	SAE 30
Suction Size Emiş	1" NPT
Discharge Size Çıkış	3/4" NPT
Pump Weight Pompa Ağırlığı	15.7 kg, (34.6 lbs)
Flow Debi	45 l (12 gal.) 45 R
Pressure Range Basınç Aralığı	7 to 50 bar (100 psi to 700 psi) 7 - 50 bar
RPM Devir	900 rpm



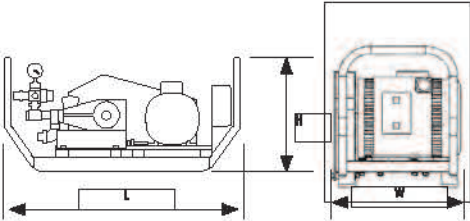
PUMP VARIANT / POMPA ÇEŞİTLERİ

UTP450H



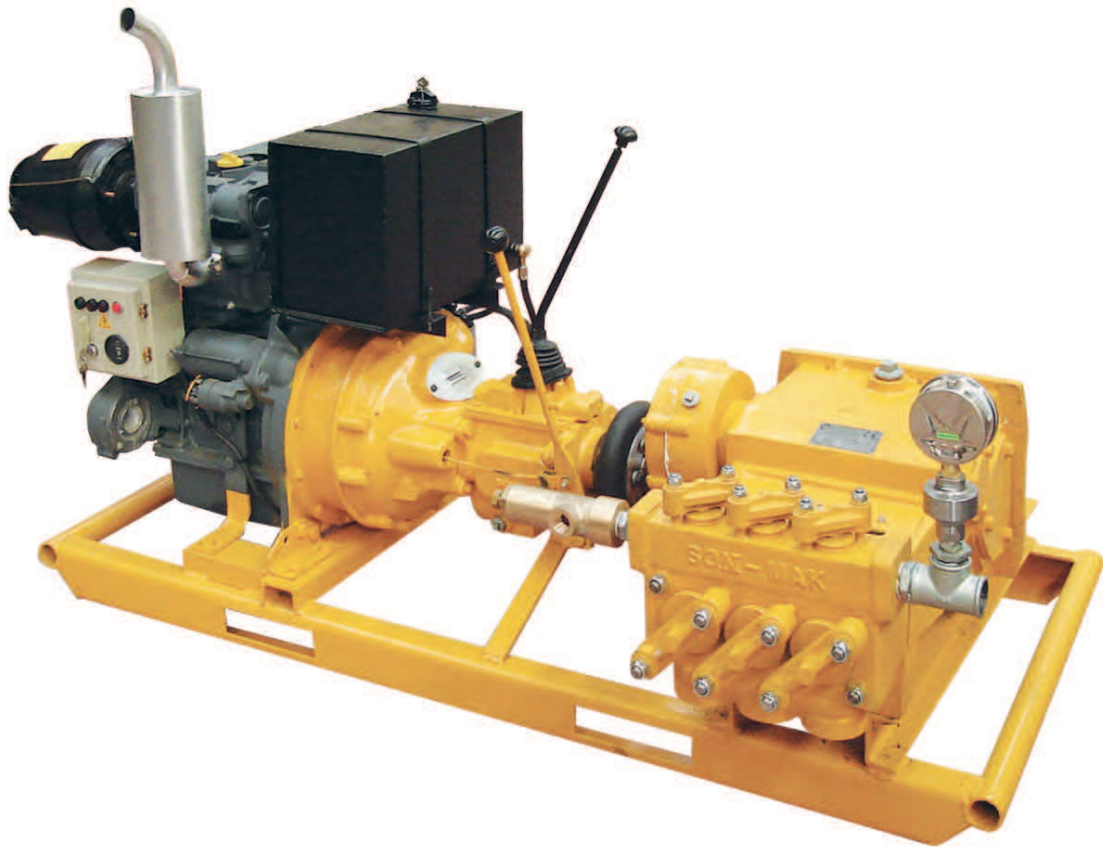
TP-4SH TRIPLEX WATER PUMP / HYDRAULIC MOTOR
TP-4SH TRİPLEKS SU POMPASI / HİDROLİK MOTORLU

UTP450E



TP-4SE TRIPLEX WATER PUMP / ELECTRICAL WITH V-BELT
TP-4SE TRİPLEKS SU POMPASI / ELEKTRİK MOTORLU KAYIŞ KASARLI

	Water Flow l/min Su Debişi lt/dk	Water Pressure Bar Su Basıncı Bar	Transmission Tolerik	Weight Ağırlık	Dimensions Ölçüler		
					L	W	H
UTP450H	45	45		50	680	375	480
UTP450E	45	45	V-belt	50	1050	375	480



UTP 800
Triplex Mud Pump



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UTP800

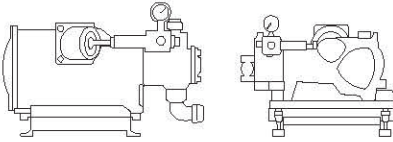
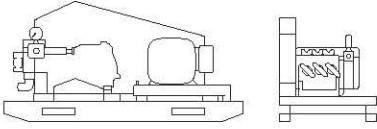
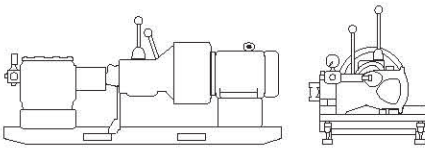
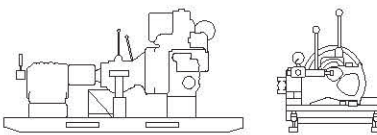
Triplex Water Pump

Product Code: UTP 800

- UTP 800 series Triplex Pumps are generally designated pump water and mud.
- They can be equipped in three different ways as Electrical motor, Diesel engine and Hydraulic driven motor.
- Triplex Pumps spare parts, ceramic cylinders, stainless valves, balls and seals can be easily changed.
- The three cylinders, which are made of steel reinforced ceramic material, are durable against to corrosion and can be changed easily.
- The valves, which are in the form of ball, are made of stainless steel and the valve seats are manufactured from tempered steel.
- The pump safety valve adjusted according to 50 bar pressure.
- If the pressure in the system exceeds these values, then the safety valve activates and by means of this the pump housing is protected against to excessive pressure.
- The pump safety valve can be adjusted to lower values mentioned above.
- The pressure values can be observed with a manometer 0–100 bar.

• Horsepower based on %85 or %90 efficiency. Actual application horsepower requirements can be calculated using equation: BHP = (GPM*PSI) / (1714*0.85 or 0.90)
 • Pump capacities shown are based on %100 volumetric efficiency. • Dimensions shown are for general sizing purposes and should not be used for construction.

PUMP VARIANT / POMPA ÇEŞİTLERİ

PUMP VARIANT / POMPA ÇEŞİTLERİ	Water Flow l/min	Water Pressure Bar	Transmission	Weight	Dimensions		
					L	W	H
UTP800H  TRIPLEX MUD PUMP / HYDRAULIC MOTOR	75	40		117	740	620	450
UTP800E  TRIPLEX MUD PUMP / V-BELT	75	50	V-belt	265	1200	650	850
UTP800EG  TRIPLEX MUD PUMP / ELECTRICAL WITH GEARBOX	16	50	1st Gear	305	1800	800	850
	23	50	2nd Gear				
	38	50	3rd Gear				
	75	50	4th Gear				
UTP800DG  TRIPLEX MUD PUMP / DIESEL WITH GEARBOX	16	50	1st Gear	365	1800	800	950
	23	50	2st Gear				
	38	50	3st Gear				
	75	40	4st Gear				

PUMP SPECIFICATIONS

11.6 BHP Continuous Duty (13.8 BHP Intermittent Duty)

Configuration	Horizontal Triplex piston
Number of Pistons	3
Stroke Length	57.2 mm (2.25 Inches)
Frame Load Rating	1.27 kg (2800 lbs)
Pump Weight	91 kg (200 lbs)
Direction of Rotation	Top of shaft away from head
Internal Gear Ratio	3.6:1
Intermittent Duty Speed Rating	890 rpm
Continuous Duty Speed Rating	750 rpm
Ball Valve Max Speed Rating	625 rpm
Minimum Speed	380 rpm
Mechanical Efficiency	%85
Lubrication System	Splash, Gravity Return
Lube Oil Capacity	2.15 liters (1 Gallon)
Lube Oil Type	SAE 30
Maximum Fluid Temperature	140°F (250°F Capability) 60°C (121 °C Capability)
Minimum Fluid Temperature	0°F (-20°F Capability) -17.8 °C (-28.8°C Capability)
Standard Suction Size	38.1 mm (1.50 Inch NPT)
Standard Discharge Size	25.4 mm (1.00 Inch NPT)
Fluid End Material	Cast Iron
Valve Types	Ball Valves, Disc Valves
Hydraulic Motor Mount	SAE C-4 Bolt with 1.25" -14T



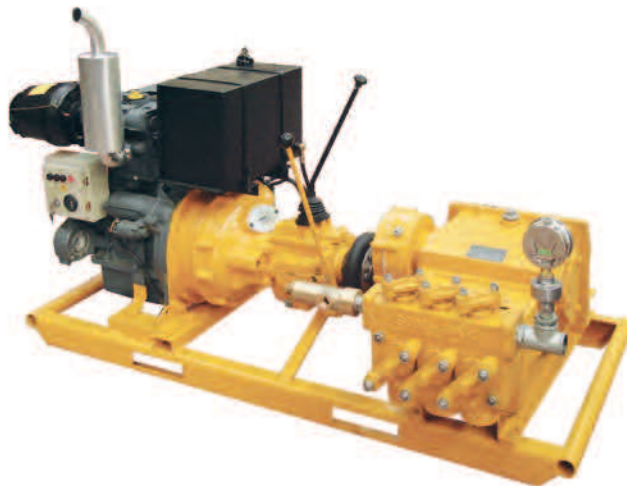
PERFORMANCE RATING

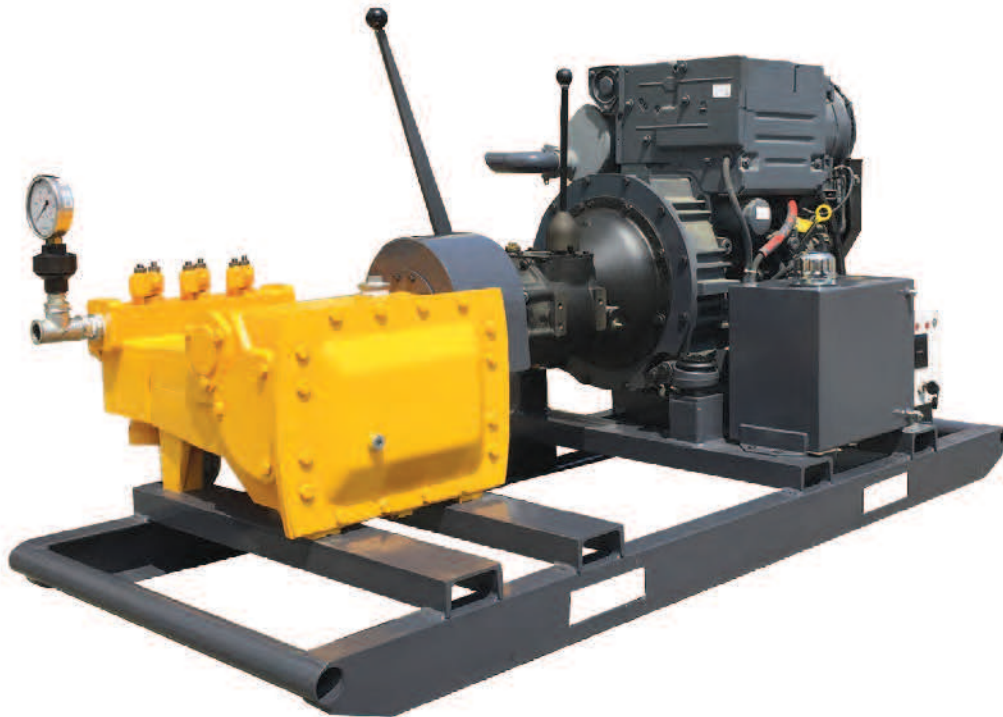
Pump Model	Piston Diameter		Displacement				Maximum Pressure				Pump Capacity at Input Speed (RPM)									
											350 RPM		625 RPM		700 RPM		750 RPM		890 RPM	
											lpm	gpm	lpm	gpm	lpm	gpm	lpm	gpm	lpm	gpm
UTP800	57.2	2.25	0.122	0.0323	48	700	43	11.3	76	20.2	86	22.6	92	24.2	109	28.7				

* Horsepower based on %85 or %90 efficiency. Actual application horsepower requirements can be calculated using equation;
 $BHP = (GPM \cdot PSI) / (1714 \cdot 0.85 \text{ or } 0.90)$

* Pump capacities shown are based on %100 volumetric efficiency.

* Dimensions shown are for general sizing purposes and should not be used for construction. Contact Son-Mak for actual dimensions of pump ordered.





UTP 1350
Triplex Mud Pump



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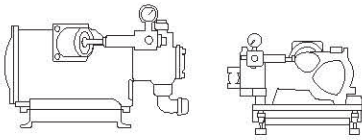
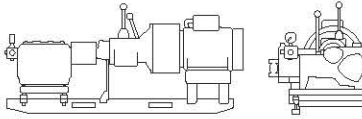
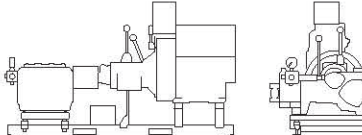
UTP1350 Triplex Water Pump

Product Code: UTP 1350

- UTP 1350 series Triplex Pumps are generally designated pump water and mud.
- They can be equipped in three different ways as Electrical motor, Diesel engine and Hydraulic driven motor.
- Triplex Pumps spare parts, ceramic cylinders, stainless valves, balls and seals can be easily changed.
- The three cylinders, which are made of steel reinforced ceramic material, are durable against to corrosion and can be changed easily.
- The valves, which are in the form of ball, are made of stainless steel and the valve seats are manufactured from tempered steel.
- The pump safety valve adjusted according to 50 bar pressure.
- If the pressure in the system exceeds these values, then the safety valve activates and by means of this the pump housing is protected against to excessive pressure.
- The pump safety valve can be adjusted to lower values mentioned above, however, it should not be adjusted over 70 bar.
- The pressure values can be observed with a manometer 0-100 bar.

*Horsepower based on %85 or %90 efficiency. Actual application horsepower requirements can be calculated using equation; BHP= (GPM*PSI) / (1714*0.85 or 0.90)
* Pump capacities shown are based on %100 volumetric efficiency. * Dimensions shown are for general sizing purposes and should not be used for construction.

PUMP VARIANT / POMPA ÇEŞİTLERİ

PUMP VARIANT / POMPA ÇEŞİTLERİ	Water Flow l/min	Water Pressure Bar	Transmission	Weight	Dimensions		
					L	W	H
UTP1350H  TRIPLEX MUD PUMP / HYDRAULIC MOTOR	135	35		205	880	775	520
UTP1350EG  TRIPLEX MUD PUMP / ELECTRICAL WITH GEARBOX	30	70	1st Gear	485	1800	1000	850
	45	70	2st Gear				
	75	70	3st Gear				
	135	45	4st Gear				
UTP1350DG  TRIPLEX MUD PUMP / DIESEL WITH GEARBOX	30	70	1st Gear	535	1800	1000	850
	45	70	2st Gear				
	75	70	3st Gear				
	135	45	4st Gear				

PUMP SPECIFICATIONS

30 BHP Continuous Duty (13.8 BHP Intermittent Duty)

Configuration	Horizontal Triplex piston
Number of Pistons	3
Stroke Length	69.9 mm (2.75 Inches)
Frame Load Rating	2.721 kg (6000 lbs)
Pump Weight	210 kg (460 lbs)
Direction of Rotation	Top of shaft away from head
Internal Gear Ratio	3.6:1
Intermittent Duty Speed Rating	275 rpm
Continuous Duty Speed Rating	900 rpm
Ball Valve Max Speed Rating	1050 rpm
Minimum Speed	380 rpm
Mechanical Efficiency	%85
Lubrication System	Splash, Gravity Return
Lube Oil Capacity	3.78 liters (1 Gallon)
Lube Oil Type	SAE 30
Maximum Fluid Temperature	140°F (250°F Capability)
	60°C (121 °C Capability)
Minimum Fluid Temperature	0°F (-20°F Capability)
	-17.8°C (-28.9°C Capability)
Standard Suction Size	63.5 mm (2.50 Inch NPT)
Standard Discharge Size	31.8 mm (1.25 Inch NPT)
Fluid End Material	Cast Iron
Valve Types	Ball Valves, Disc Valves
Hydraulic Motor Mount	SAE C-4 Bolt with 1.25" -14T



PERFORMANCE RATING

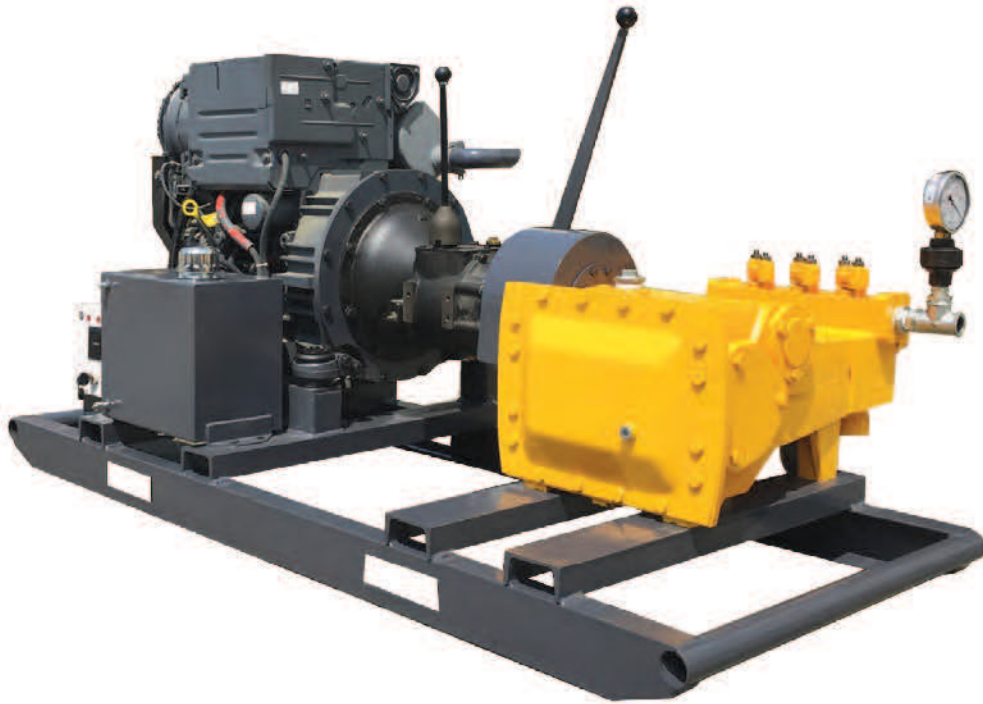
Pump Model	Piston Diameter		Displacement		Maximum Pressure		Pump Capacity at Input Speed (RPM)									
							360 RPM		625 RPM		700 RPM		760 RPM		890 RPM	
							lpm	gpm	lpm	gpm	lpm	gpm	lpm	gpm	lpm	gpm
UTP1350	69.9	2.75	0.223	0.0689	68.95	1000	80.25	21.2	112	29.6	141	37.4	167	44.2	200	53

* Horsepower based on %85 or %90 efficiency. Actual application horsepower requirements can be calculated using equation;
 $BHP = (GPM \cdot PSI) / (1714 \cdot 0.85 \text{ or } 0.90)$

* Pump capacities shown are based on %100 volumetric efficiency.

* Dimensions shown are for general sizing purposes and should not be used for construction. Contact Son-Mak for actual dimensions of pump ordered.





UTP 2200
Triplex Mud Pump



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UTP2200

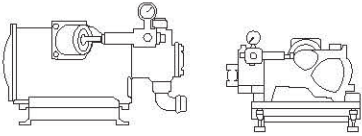
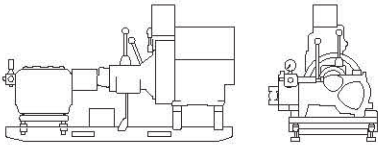
Triplex Water Pump

Product Code: UTP 2200

- UTP 2200 series Triplex Pumps are generally designed pump water and mud.
- They can be equipped in three different ways as Electrical motor, Diesel engine and Hydraulic driven motor.
- Triplex Pumps spare parts, ceramic cylinders, stainless valves, balls and seals can be easily changed.
- The three cylinders, which are made of steel reinforced ceramic material, are durable against to corrosion and can be changed easily.
- The valves, which are in the form of ball, are made of stainless steel and the valve seats are manufactured from tempered steel.
- The pump safety valve adjusted according to 50 bar pressure.
- If the pressure in the system exceeds these values, then the safety valve activates and by means of this the pump housing is protected against to excessive pressure.
- The pump safety valve can be adjusted to lower values mentioned above, however, it should not be adjusted over 70 bar.
- The pressure values can be observed with a manometer 0–100 bar.

*Horsepower based on %85 or %90 efficiency. Actual application horsepower requirements can be calculated using equation; $BHP = (GPM \times PSI) / (1714 \times 0.85 \text{ or } 0.90)$
* Pump capacities shown are based on %100 volumetric efficiency. * Dimensions shown are for general sizing purposes and should not be used for construction.

PUMP VARIANT / POMPA ÇEŞİTLERİ

UTP2200H	Water Flow l/min	Water Pressure Bar	Transmission	Weight	Dimensions		
					L	W	H
 TRIPLEX MUD PUMP / HYDRAULIC MOTOR	200	35		250	880	775	520
UTP2200DG							
 TRIPLEX MUD PUMP DIESEL WITH GEARBOX	50	70	1st Gear	660	1800	1000	850
	70	70	2st Gear				
	110	70	3st Gear				
	220	45	4st Gear				

PUMP SPECIFICATIONS

37 BHP Continuous Duty (13.8 BHP Intermittent Duty)

Configuration	Horizontal Triplex piston
Number of Pistons	3
Stroke Length	69.9 mm (2.75 Inches)
Frame Load Rating	2.721 kg (6000 lbs)
Pump Weight	200 kg (440 lbs)
Direction of Rotation	Top of shaft away from head
Internal Gear Ratio	3.6:1
Intermittent Duty Speed Rating	900 rpm
Continuous Duty Speed Rating	750 rpm
Ball Valve Max Speed Rating	635 rpm
Minimum Speed	360 rpm
Mechanical Efficiency	%85
Lubrication System	Splash, Gravity Return
Lube Oil Capacity	3.78 liters (1 Gallon)
Lube Oil Type	SAE 30
Maximum Fluid Temperature	140°F (250°F Capability) 60°C (121°C Capability)
Minimum Fluid Temperature	0°F (-20°F Capability) -17.8°C (-28.9°C Capability)
Standard Suction Size	50.8 mm (2.00 Inch NPT)
Standard Discharge Size	31.8 mm (1.25 Inch NPT)
Fluid End Material	Cast Iron
Valve Types	Ball Valves, Disc Valves
Hydraulic Motor Mount	SAE C-4 Bolt with 1.25" -14T



PERFORMANCE RATING

Pump Model	Piston Diameter		Displacement		Maximum Pressure		Pump Capacity at Input Speed (RPM)									
							350 RPM		625 RPM		700 RPM		750 RPM		890 RPM	
							lpm	gpm	lpm	gpm	lpm	gpm	lpm	gpm	lpm	gpm
UTP2200	69.9 mm	2.76 inch	0.223 Liter	0.0689 Gallon	68.95 Bar	1000 PSI	80.25 lpm	21.2 gpm	112 lpm	29.5 gpm	200 lpm	53 gpm	234 lpm	61.9 gpm	284 lpm	75.1 gpm

* Horsepower based on %85 or %90 efficiency. Actual application horsepower requirements can be calculated using equation;
 $BHP = (GPM * PSI) / (1.714 * 0.85 \text{ or } 0.90)$

* Pump capacities shown are based on %100 volumetric efficiency.

* Dimensions shown are for general sizing purposes and should not be used for construction. Contact Son-Mak for actual dimensions of pump ordered.





DRILLING EQUIPMENTS



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HEAD ASSEMBLIES & CORE BARREL



Wireline Core Barrel Assemblies

Wireline core barrels, inner tube and inner tube assembly in particular constitute the most important part of these sets. Both ends of the inner tubes are made of male threaded cold-drawn steel tubes. The types of threads at both ends are the same. Since the part where the core is inserted will be eroded faster than the top section, use of the tube by turning upside down from time to time will extend its service life.

The core lifter case where the core lifter (see 8) is inserted is located at the bottom side of the inner tube. There is a case inside the core lifter and just above the part where the core lifter is inserted and the core lifter can be placed there (see 10) . This ring prevents the core lifter to be dragged into the inner tube together with the core.

The inner tube assembly is located at the top of the inner tube.

This assembly is the most important part of wireline system and it includes some systems. When inner tube is inserted into the outer tube, the latches on the inner tube assembly are opened by link affect and are inserted inside the housing on the head of the outer tube. Therefore, the inner tube is prevented to retrocede during progress.

At the end of the progress, when spear head located at the top of the assembly is held and dragged by the overshot, latches retract and close so that the inner tube is released to a free position where it can pass through the rods and be taken upwards.



BO Wireline Core Barrel Kit Selection

1.5 M/5.0 FT & 3.0 M/10.0 FT CORE BARREL

ID #	PART #	DESCRIPTION				
	SM 2500	BO CORE BARREL ASSEMBLY 1.5 M (5')	SM 2500			
	SM 2501	BO INNER-TUBE GROUP 1.5 M (5')		SM 2501		
	SM 2502	BO CORE BARREL ASSEMBLY 3.0 M (10')			SM 2502	
	SM 2503	BO INNER-TUBE GROUP 3.0 M (10')				SM 2503
1	SM 2504	BO HEAD ASSEMBLY				
2	SM 2505	BO INNER-TUBE 1.5 M (5')				
	SM 2505CP	BO INNER-TUBE 1.5 M (5') CHROME PLATED				
	SM 2506	BO INNER-TUBE 3.0 M (10')				
	SM 2506CP	BO INNER-TUBE 3.0 M (10') CHROME PLATED				
3	SM 2507	BO STOP RING				
4	SM 2508SL	BO CORE LIFTER, SLOTTED				
	SM 2508FL	BO CORE LIFTER, FLUTED				
5	SM 2509	BO CORE LIFTER CASE				
6	SM 2510	BO LOCKING COUPLING, FULL HOLE-WITH TANG				
	SM 2510TC	BO LOCKING COUPLING, CARBIDE WITH TANG				
	LC20	BO LOCKING COUPLING, DIAMOND WITH TANG				
	SM 2510/R	BRO LOCKING COUPLING, FULL HOLE-WITH TANG				
	SM 2510TC/R	BRO LOCKING COUPLING, CARBIDE WITH TANG				
	LC20/R	BRO LOCKING COUPLING, DIAMOND WITH TANG				
7	SM 2511	BO ADAPTER COUPLING				
8	SM 2512	BO LANDING RING				
9	SM 2513	BO OUTER-TUBE 1.5 M (5')				
	SM 2513CP	BO OUTER-TUBE 1.5 M (5') CHROME PLATED				
	SM 2514	BO OUTER-TUBE 3.0 M (10')				
	SM 2514CP	BO OUTER-TUBE 3.0 M (10') CHROME PLATED				
10	SM 2515	BO INNER-TUBE STABILIZER				



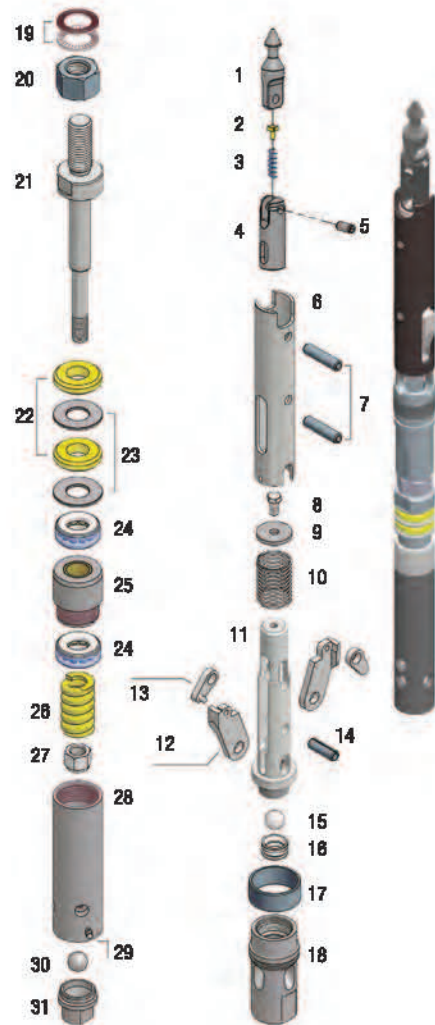
BO Wireline Core Barrel Spare Parts Kit

ID #	PART #	DESCRIPTION	QTY	KG	LB
	K2500	BO Core Barrel Spare Parts Kit			
1	3200500	SPEARHEAD ASSEMBLY, BO	1	1.12	2.47
2	SM 1524	BOLT 3/8" – 16UNC X 3/4"	2	0.10	0.22
3	SM 2524	COMPRESSION SPRING	1	0.05	0.11
4	SM 2526	LATCH	4	0.36	0.79
5	SM 2527	LINK	4	0.08	0.18
6	SM 2528	PIN 3/8" X 1-1/4"	2	0.02	0.04
7	SM 2529	BALL 22MM	1	0.05	0.11
8	SM 2530	LANDING INDICATOR BUSHING	2	0.02	0.04
9	SM 2531	LANDING SHOULDER	1	0.07	0.15
10	SM 2533	LOCKING NUT, 7/8"UNC	1	0.08	0.18
11	SM 2535	SHUT-OFF VALVE	4	0.40	0.88
12	SM 2537	THRUST BEARING	2	0.14	0.31
13	SM 2538	SPINDLE BUSHING	1	0.43	0.95
14	SM 2540	LOCKING NUT, 5/8"UNC	1	0.03	0.07
15	SM 1549	GREASE FITTING	2	0.02	0.04
16	SM 2507	STOP RING	2	0.02	0.04
17	SM 2508	CORE LIFTER	20	0.60	1.32
18	SM 2509	CORE LIFTER CASE	4	0.36	0.79
19	SM 2512	LANDING RING	2	0.14	0.31
20	SM 2515	INNER-TUBE STABILIZER	2	0.10	0.22



BO Core Barrel Head Assembly

ID #	PART #	DESCRIPTION	QTY
	SM 2504	BO Core Barrel Head Assembly	
1	SM 2516	SPEARHEAD POINT	1
2	SM 2517	COMPRESSION SPRING	1
3	SM 2518	DETENT PLUNGER	1
4	SM 2519	SPEARHEAD BASE	1
5	SM 2520	SPIROL PIN 7/16" x 1-3/4"	1
6	SM 2521	LATCH RETRACTING CASE	1
7	SM 2522	SPRING PIN 3/8" x 1-3/4"	2
8	SM 1524	BOLT 3/8" – 16UNC x 3/4"	1
9	SM 2523	WASHER	1
10	SM 2524	COMPRESSION SPRING	1
11	SM 2525	UPPER LATCH BODY	1
12	SM 2526	LATCH	2
13	SM 2527	LINK	2
14	SM 2528	SPIROL PIN 3/8" x 1-1/4"	1
15	SM 2529	BALL 22 mm	1
16	SM 2530	LANDING INDICATOR BUSHING	1
17	SM 2531	LANDING SHOULDER	1
18	SM 2532	LOWER LATCH BODY	1
19	SM 1538	WASHER NORD-LOCK 7/8"	1
20	SM 2533	HEX NUT 7/8" UNC	1
21	SM 2534	SPINDLE	1
22	SM 2535	SHUT-OFF VALVE, HARD	2
23	SM 2536	VALVE ADJUSTING WASHER	2
24	SM 2537	THRUST BEARING	2
25	SM 2538	SPINDLE BUSHING	1
26	SM 2539	COMPRESSION SPRING	1
27	SM 2540	LOCKING NUT 5/8" UNC	1
28	SM 2541	INNER-TUBE CAP	1
29	SM 1549	GREASE FITTING	1
30	SM 2551	BALL 3/4"	1
31	SM 2544	CHECK VALVE BODY	1

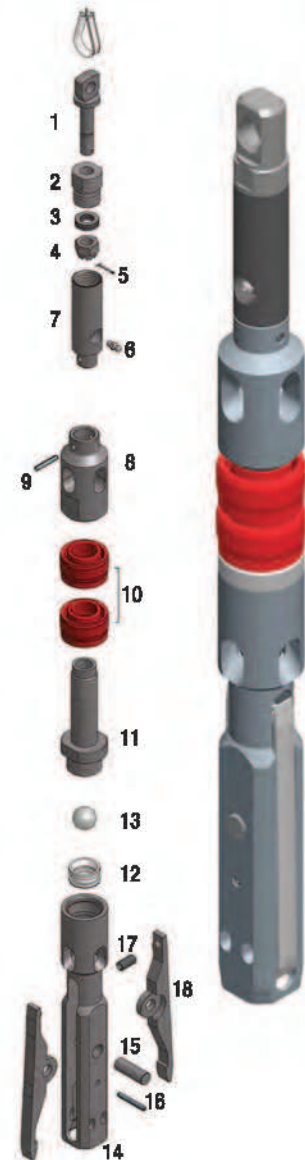


OVERSHOTS



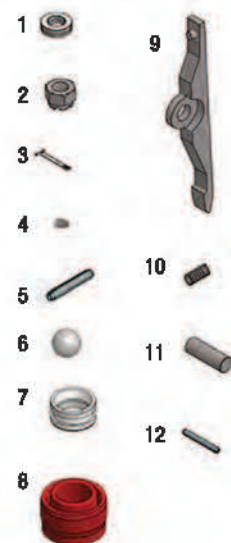
BO-U Overshot Assembly

ID #	PART #	DESCRIPTION	QTY	KG	LB
	OVSU7500	BO-U Over-Shot Assembly		2.82	6.21
1	OVS6501	CABLE SWIVEL EYE BOLT	1	0.11	0.24
2	OVS6502	CABLE SWIVEL COLLAR	1	0.11	0.24
3	OVS6503	THRUST BEARING	1	0.01	0.02
4	OVS6504	CASTLE NUT 1/2" UNF	1	0.02	0.04
5	OVS6505	COTTER PIN 3/32" X 3/4"	1	0.01	0.02
6	SM 1549	GREASE FITTING	1	0.01	0.02
7	OVSU6518	CABLE SWIVEL BODY	1	0.27	0.59
8	OVSU7519	OVERSHOT UPPER BODY	1	0.30	0.66
9	OVSU6520	SPIROL PIN 3/16"X1-1/8"	1	0.01	0.02
10	SM 2549	SEAL	2	0.06	0.13
11	SM 2550	SEAL SEAT	1	0.60	1.32
12	SM 2530	LATCH INDICATOR BUSHING	1	0.01	0.02
13	SM 2529	BALL 22MM	1	0.10	0.22
14	OVSU7523	OVERSHOT HEAD	1	0.80	1.76
15	OVS7514	SPIROL PIN 1/2"X1-1/2"	1	0.05	0.11
16	OVS7515	SPRING PIN 3/16"X1-3/8"	1	0.01	0.02
17	OVS7512	COMPRESSION SPRING	1	0.02	0.04
18	OVS7513	LIFTING DOG	2	0.32	0.70



BO-U Overshot Spares

ID #	PART #	DESCRIPTION	QTY	KG	LB
	KBOU65	BO-U Over-Shot Spare Parts Kit		0.66	1.45
1	OVS6503	THRUST BEARING	1	0.01	0.02
2	OVS6504	CASTLE HEX NUT 1/2" UNF	1	0.02	0.04
3	OVS6505	COTTER PIN 3/32" X 3/4"	1	0.02	0.04
4	SM 1549	GREASE FITTING	1	0.01	0.02
5	OVSU6520	SPIROL PIN 3/16" X 1-1/8"	2	0.02	0.02
6	SM 2529	BALL, 22MM	1	0.05	0.11
7	SM 2530	INDICATOR BUSHING	2	0.02	0.04
8	SM 2549	SEAL	2	0.12	0.26
9	OVS7513	LIFTING DOG, BO	2	0.32	0.07
10	OVS7512	COMPRESSION SPRING	1	0.02	0.04
11	OVS7514	PRESS – FIT PIN 1/2" X 1-1/2"	1	0.05	0.11
12	OVS7515	SPRING PIN 3/16" X 1-3/8"	1	0.01	0.02



DIAMOND PRODUCTS



EAGLE IMPREGNATED DIAMOND BIT

EAGLE IMPREGNATED DIAMOND bits are the most widely used IMPREGNATED DIAMOND BITS in the core drilling operations by adjusting the combination of metal powders and diamonds in the matrix. EAGLE IMPREGNATED DIAMOND BITS can be manufactured to maximize penetration rates and bit life in a variety of rock formations.

As drilling progresses, the crown is slowly worn away exposing new diamonds on the cutting surface. When the wear rate between the matrix material and the diamonds is balanced, optimum penetration rates and bit life will be achieved.

EAGLE Bits are offered as a non-customizable design with a standard crown height and waterways.

EAGLE Bits offer a great combination of quality and value.















IMPREGNATED DIAMOND BIT SERIES GUIDE

Eagle Bit's are typically designated by series. Each series is designed to work under specific condions of ground hardness and abrasiveness.

Please refer to the selection table to identify the appropriate series for your drilling conditions.

- SERIES 1/2** 1/2 Series for abrasive formations and most fractured formations. Is also a good choice for cutting concrete with reinforcing.
- SERIES 3/4** 3/4 Series is a good choice for cutting soft to medlum formations. Recommended for low powered drills only.High loads will seriously reduce bit life.
- SERIES 5/6** 5/6 Series is a general purpose formula for cutting formations in the medium hard range. This series bit is less susceptible to over-drilling at high loads than series 3/4.
- SERIES 7/8** 7/8 Series is a general purpose bit for cutting hard formations.For hard competent and nonabrasive formations. This free cutting bit requires high rotational speeds and light bit loads for best performance.
- SERIES 9/10** 9/10 Series is a free cutting formula for cutting very hard and ultra hard formations. High rotational speeds and light bit loads.
- SERIES 11/12** 11/12 Series is made to cut ultra hard fine grain formations. Needs high rotation speeds and low thrust.

WEAR RESISTANT / ABRASIVE					
					
					
SOFT			MEDIUM	MEDIUM HARD	HARD
GYPSUM POTASH SHALE SANDSTONE TALC CALCITE			LIMESTONE PERIDOTITE SERPENTINE HARD SHALE SILTSTONE SANDSTONE	DOLOMITE SANDSTONE PEGMATITE SCHIST DIABASE ANDESITE	ANDESITE BASALT GABBRO QUARTZ GRANITE GNEISS
FREE CUTTINGS / COMPETENT			VERY HARD	EXTREMELY HARD	
			GNEISS GRANITE QUARTZITE RHYOLITE DIORITE JASPERITE	CHERT IRONSTONE JASPERITE GLASSY QUARTZITE TUFF	

IMPREGNATED DIAMOND BIT / EMPRENYE ELMAS MATKAP

EAGLE REAMING SHELLS & DIAMOND LOCKING COUPLINGS

EAGLE Reaming Shells complete line of reaming shells are produced with premium natural diamonds to ensure great wear resistance while providing consistent hole diameter and helping to maintain drill string stability.

The reaming shell is used to maintain a specified hole diameter as the rod string descends. In addition the reaming shell helps to stabilize the rod string.

DIAMOND REAMING SHELLS (RS) / ELMASLI PORTKRON

SIZE	PART	DESCRIPTION	AÇIKLAMA
AWL	RS100	A-WL DIAMOND REAMING SHELL	A-WL ELMASLI PORTKRON
BWL	RS200	B-WL DIAMOND REAMING SHELL	B-WL ELMASLI PORTKRON
NWL	RS300	N-WL DIAMOND REAMING SHELL	N-WL ELMASLI PORTKRON
HWL	RS400	H-WL DIAMOND REAMING SHELL	H-WL ELMASLI PORTKRON
PWL	RS500	P-WL DIAMOND REAMING SHELL	P-WL ELMASLI PORTKRON

REAMING SHELL / PORTKRON



RODS & CASINGS



CONVENTIONAL DRILL RODS SPECIFICATIONS

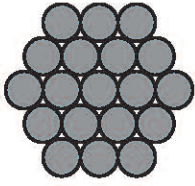
SIZE	METRIC SYSTEM			U.S. SYSTEM			
	DIAMETER (mm)		WEIGHT (kg)	DIAMETER (in)		WEIGHT (lb)	THREADS
	OUTER	INNER	3.0 m	OUTER	INNER	10 ft	pitch (in)
AW	44.40	30.9	19.7	1.75	1.25	44.0	3.0
BW	54.00	44.5	18.2	2.12	1.75	40.0	3.0
NW	66.70	57.1	23.3	2.62	2.25	51.0	3.0
AWJ	44.50	34.9	14.7	1.75	1.37	33.0	5.0
BWJ	54.00	44.5	18.2	2.13	1.75	40.0	5.0
NWJ	66.70	57.1	24.6	2.62	2.25	55.0	4.0

CONVENTIONAL DRILL RODS /GELENEKSEL SONDAJ TLERİ

SIZE	PART*	DESCRIPTION	AÇIKLAMA
AW	AW150	AW CONVENTIONAL ROD 1.5 MT / 5 FT	AW T 1.5 MT / 5 FT
	AW300	AW CONVENTIONAL ROD 3.0 MT / 10 FT	AW T 3.0 MT / 10 FT
BW	BW150	BW CONVENTIONAL ROD 1.5 MT / 5 FT	BW T 1.5 MT / 5 FT
	BW300	BW CONVENTIONAL ROD 3.0 MT / 10 FT	BW T 3.0 MT / 10 FT
NW	NW150	NW CONVENTIONAL ROD 1.5 MT / 5 FT	NW T 1.5 MT / 5 FT
	NW300	NW CONVENTIONAL ROD 3.0 MT / 10 FT	NW T 3.0 MT / 10 FT
AWJ	AWJ150	AWJ CONVENTIONAL ROD 1.5 MT / 5 FT	AWJ T 1.5 MT / 5 FT
	AWJ300	AWJ CONVENTIONAL ROD 3.0 MT / 10 FT	AWJ T 3.0 MT / 10 FT
BWJ	BWJ150	BWJ CONVENTIONAL ROD 1.5 MT / 5 FT	BWJ T 1.5 MT / 5 FT
	BWJ300	BWJ CONVENTIONAL ROD 3.0 MT / 10 FT	BWJ T 3.0 MT / 10 FT
NWJ	NWJ150	NWJ CONVENTIONAL ROD 1.5 MT / 5 FT	NWJ T 1.5 MT / 5 FT
	NWJ300	NWJ CONVENTIONAL ROD 3.0 MT / 10 FT	NWJ T 3.0 MT / 10 FT



CONVENTIONAL DRILL RODS BUNDLE SPECIFICATIONS



AWJ CONVENTIONAL ROD BUNDLE SPECIFICATIONS

1.5M / 5FT ROD BUNDLE - 19 RODS

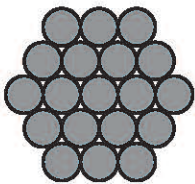
DIMENSIONS (L - W - H) : 1600 mm X 200 mm X 200 mm / 5.24 ft X 0.8 ft X 0.8 ft

WEIGHT: 150 kg / 330 lb

3.0M / 10FT ROD BUNDLE - 19 RODS

DIMENSIONS (L - W - H) : 3200 mm X 200 mm X 200 mm / 10.3 ft X 0.8 ft X 0.8 ft

WEIGHT: 290 kg / 637 lb



BWJ CONVENTIONAL ROD BUNDLE SPECIFICATIONS

1.5M / 5FT ROD BUNDLE - 19 RODS

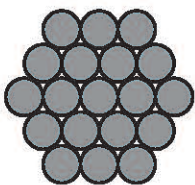
DIMENSIONS (L - W - H) : 1600 mm X 300 mm X 300 mm / 5.24 ft X 1.0 ft X 1.0 ft

WEIGHT: 188 kg / 415 lb

3.0M / 10FT ROD BUNDLE - 19 RODS

DIMENSIONS (L - W - H) : 3200 mm X 300 mm X 300 mm / 10.3 ft X 1.0 ft X 1.0 ft

WEIGHT: 365 kg / 800 lb



NWJ CONVENTIONAL ROD BUNDLE SPECIFICATIONS

1.5M / 5FT ROD BUNDLE - 19 RODS

DIMENSIONS (L - W - H) : 1600 mm X 300 mm X 300 mm / 5.24 ft X 1.0 ft X 1.0 ft

WEIGHT: 270 kg / 593 lb

3.0M / 10FT ROD BUNDLE - 19 RODS

DIMENSIONS (L - W - H) : 3200 mm X 300 mm X 300 mm / 10.3 ft X 1.0 ft X 1.0 ft

WEIGHT: 480 kg / 1058 lb





تلاشگران فرتاک



شرکت بازرگانی ، حفاری و اکتشاف

تهران، میدان جهاد (فاطمی)، ابتدای اتوبان شهید
گمنام، خیابان جهانمهر، نبش کوچه بوعلی سینا غربی، پلاک ۷،
طبقه اول، کد پستی: ۱۴۳۱۶۵۳۵۶۱

تلفن: ۸۸۹۷۳۶۲۶ / ۸۸۹۸۱۰۶۶ (۰۲۱)

واتس آپ: ۰۹۹۱ ۶۹۴۱۲۲۴

فکس: ۸۸۹۵۰۷۳۱ (۰۲۱)



Quality Management System
Full compliance with an
ISO 9001:2008



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