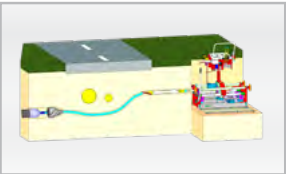




TERRA-PIT Launch Machines HDD Tooling Catalog



TERRA
Trenchless Technologies



TERRA-PIT / MINI-JET
HDD PIT Drilling systems - overview 4 - 5



Pit Launch Machines
TERRA MINI-JET (6 tonnes), road crossings up to 50 m 6 - 7
TERRA-PIT DJ 18 (8 tonnes), pipe laying up to 150 m 8 - 9
Power Packs, Lifting Devices, Crawlers 10 - 11



Mixing and Pumping
Mixing Units, Pumping Units and Accessories 12 - 13



Drill Rods
Drill Rods MINI-JET and DJ 18 PIT, Rod wiper 14 - 15



Drilling Tools
Drilling Tools MINI-JET 16 - 17
Drilling Tools DJ 18 PIT 18 - 19



Pulling Accessories
Reamers ALLROUNDER and ROCK 20 - 21
Reamers FLUTED and KODIAK 22
Reamers FLYCUTTER and MIXER 23



Crossovers
Pulling eyes, Crossovers, Sub savers 24 - 25



Pulling Accessories
Towing heads, Cable pulling socks and shackles 26 - 27



Locating Accessories
Locating Equipment 28 - 29

TERRA-PIT Drills on a Glance

Technical specifications

			
	MJ 1400	MJ 1600	MJLV 1400
OPERATION			
Thrust/Pullback force	6 t	6 t	6 t
Spindle torque, max.	1.400 Nm	1.600 Nm	1.400 Nm
Spindle speed, max.	200 rpm	150 rpm	200 rpm
Carriage travel speed, max.	14 m/min	14 m/min	55 m/min
Backream diameter	250 mm	300 mm	250 mm
Drilling length	50 m	50 m	120 m
POWER			
Engine	Rato	Hatz	Rato
Gross horsepower (Tier 4 final)	23 hp	57 hp	23 hp
Fuel type	Petrol	Diesel	Petrol
Tank capacity	20 l	40 l	20 l
DRILLING FLUID SYSTEM			
Drilling fluid volume, max.	45 l/min	52 l/min	45 l/min
Drilling fluid pressure, max.	55 bar	55 bar	55 bar
Mixing capacity	650 l/min	800 l/min	650 l/min
Drive	14 hp	by Hatz power pack	14 hp
DRILL PIPE			
Length	0.5 m	0.5 m	1.5 m
Diameter	ø 40/30 mm	ø 40/30 mm	ø 45 mm
Bending radius, min.	15 m	15 m	25 m
Weight	3.3 kg	3.3 kg	10 kg
DIMENSIONS AND WEIGHT			
Launching cradle l x w x h	1.2 x 0.6 x 1.3 m	1.2 x 0.6 x 1.3 m	2.3 x 0.6 x 1.2 m
Power pack l x w x h	1.1 x 0.9 x 1.1 m	1.4 x 0.9 x 1.6 m	1.1 x 0.9 x 1.1 m
Mixing + pumping unit l x w x h	1.4 x 1.2 x 0.9 m	1.5 x 0.8 x 1.0 m	1.4 x 1.2 x 0.9 m
Launching cradle weight	325 kg	390 kg	430 kg
Power pack weight	236 kg	490 kg	236 kg
Mixing + pumping unit weight	252 kg	210 kg	252 kg

* Subject to technical changes at short notice without prior notice

Versatile application possibilities

HDD technology is also used successfully and in a resource-efficient manner for the supply of gas, water and electricity. Whether in inner-city or rural areas, TERRA's wide range of products always offers a solution for the optimal laying of supply lines.



TERRA – always one drill ahead

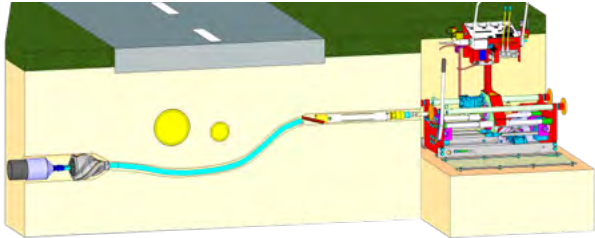
Technical specifications

			
	MJLV 1600	DJ 18 PIT	DJ 18L PIT
OPERATION			
Thrust/Pullback force	6 t	8 t	8 t
Spindle torque, max.	1.600 Nm	3.000 Nm	3.000 Nm
Spindle speed, max.	150 rpm	135 rpm	135 rpm
Carriage travel speed, max.	14 m/min	18 m/min	18 m/min
Backream diameter	300 mm	420 mm	420 mm
Drilling length	120 m	100 m	150 m
POWER			
Engine	Hatz	Hatz	Hatz
Gross horsepower (Tier 4 final)	57 hp	75 hp	75 hp
Fuel type	Diesel	Diesel	Diesel
Tank capacity	40 l	70 l	70 l
DRILLING FLUID SYSTEM			
Drilling fluid volume, max.	52 l/min	95 l/min	95 l/min
Drilling fluid pressure, max.	55 bar	70 bar	70 bar
Mixing capacity	800 l/min	800 l/min	800 l/min
Drive	by Hatz power pack	by Hatz power pack	by Hatz power pack
DRILL PIPE			
Length	1.5 m	1.0 m	1.5 m
Diameter	ø 45 mm	ø 57/51 mm	ø 57/51 mm
Bending radius, min.	25 m	31 m	31 m
Weight	10 kg	10 kg	15 kg
DIMENSIONS AND WEIGHT			
Launching cradle l x w x h	2.3 x 0.6 x 1.2 m	2.0 x 0.9 x 1.3 m	2.5 x 0.9 x 1.3 m
Power pack l x w x h	1.4 x 0.9 x 1.6 m	2.1 x 1.1 x 1.7 m	2.1 x 1.1 x 1.7 m
Mixing + pumping unit l x w x h	1.5 x 0.8 x 1.0 m	1.5 x 0.8 x 1.0 m	1.5 x 0.8 x 1.0 m
Launching cradle weight	430 kg	1.300 kg	1.400 kg
Power pack weight	490 kg	850 kg	850 kg
Mixing + pumping unit weight	210 kg	205 kg	205 kg

* Subject to technical changes at short notice without prior notice

TERRA-PIT Technology

The TERRA MINI-JET and TERRA-PIT are compact, powerful HDD pit launch rigs that enable precise drilling even in hard ground. Thanks to their space-saving design, they offer high power reserves and are ideal for use in confined conditions.





Thrust/Pullback force: 6 t
Rotational torque: 1.600 Nm
Spindle speed: 150 rpm
HATZ Euro Stage 5, 42 kW (57 HP)
Bentonite flow rate: 52 l/min
Drills up to: 50 m / Ø 300 mm



MINI-JET pit launcher - maximum performance in the smallest space

The compact HDD system TERRA MINI-JET is the most powerful and most productive compact HDD system. Powered by a proven 57 HP strong HATZ Diesel engine the MJ 1600 offers up to 6 tons of thrust and pullback force and 1.600 Nm of rotational torque. With a bentonite flow rate of 52 l/min you can drill up to 50 m and backream up to 300 mm (depending on ground). TERRA offers also a high pressure pump with a flow rate of 95 l/min for higher productivity.

Available as a long version (MJLV)

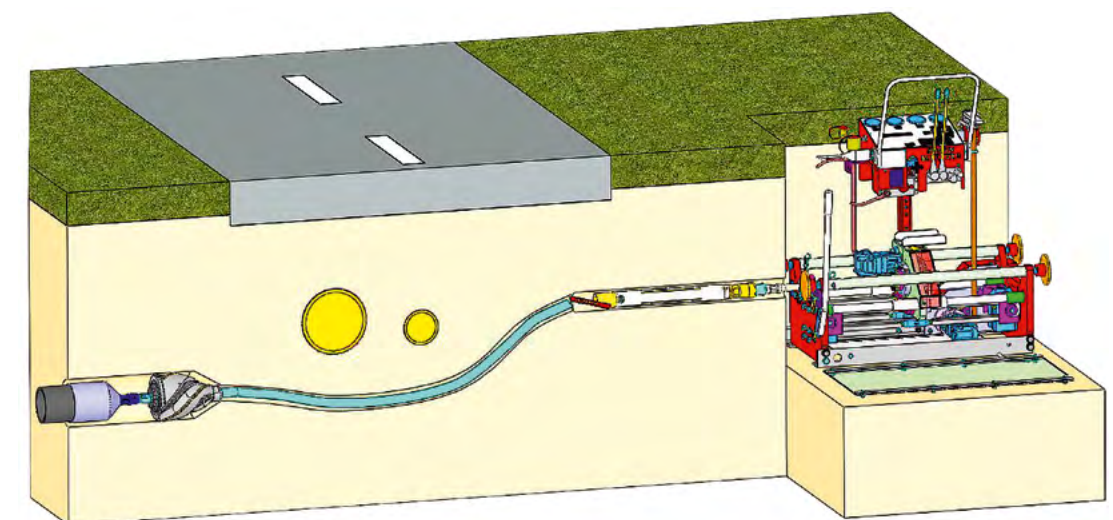
The long version MJLV is one meter longer, the drill rods are 1.5 m long. The max. drilling length is 120 m.

Available as Diesel (MJ 1600) and petrol version (MJ 1400)

The MINI-JET is available as a Diesel version and a petrol version. The Diesel version fulfills the newest emission values Euro Stage 5. It is more silent and offers more torque than the petrol version.

Double cylinder drive (patented)

Thrust and pullback of the driving saddle happens by a direct double cylinder drive. This is free of losses, strong and reliable. This patented idea from TERRA allows maximum productivity. The double cylinder operates in both directions with 6 tons.



TERRA-PIT DJ 18

Pit Launch Machine

Pulling of the pipe right into the machine

The break-apart-system can be moved backwards. Now the backreamer and the new pipe can be pulled into the working pit. All tools can be disassembled in the machine.



Thrust/Pullback force: 8 t
Rotational torque: 3.000 Nm
Spindle speed: 140 rpm
HATZ Euro Stage 5, 55 kW (75 HP)
Bentonite flow rate: 95 l/min
Drills up to: 150 m / Ø 420 mm

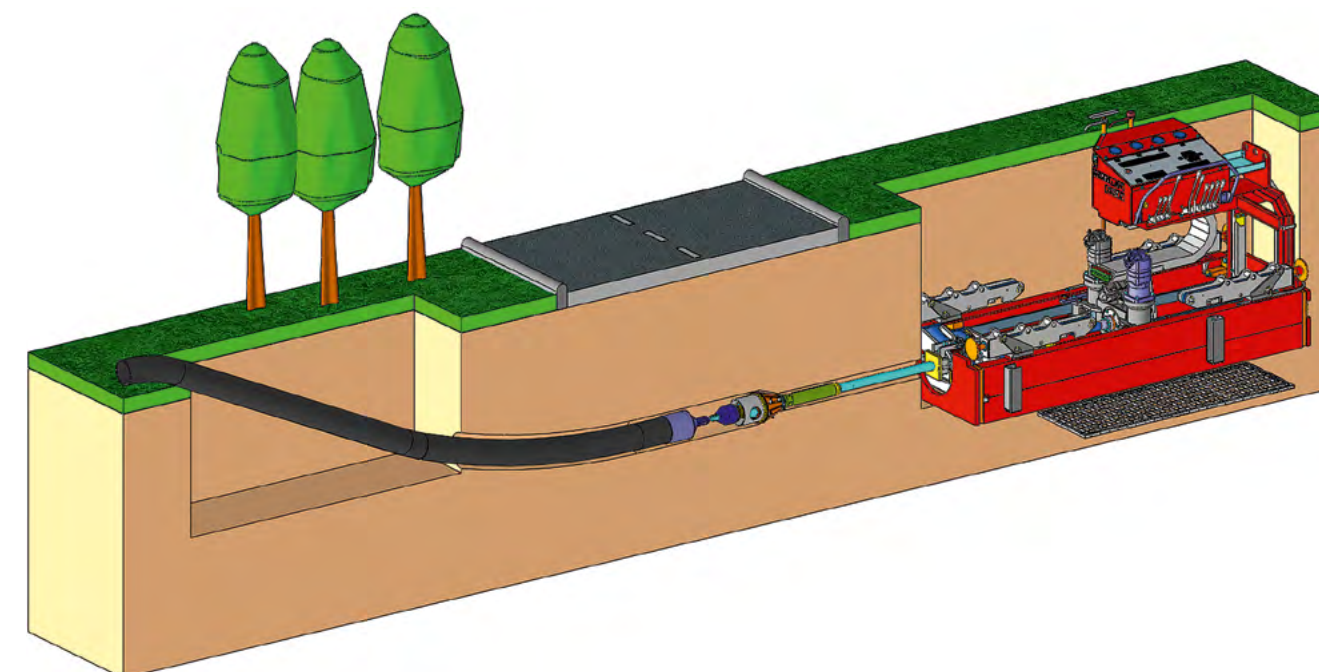


The premier class of pit launch machines

The TERRA-PIT DJ 18 is the most powerful and productive HDD pit launch machine that is available on the world market. Powered by a proven 75 HP HATZ Diesel engine the DJ 18 PIT offers up to 8 tons of thrust and pullback force and 3.000 Nm of torque. With a bentonite flow rate of 95 l/min and a maximum drilling pressure of 70 bar you can backream up to mm over lengths up to 150 m (depending on ground conditions).

Available as a short and long version

The machine is available as a short version (L = 2.0 m) and a long version (L = 2.5 m). With a width of only 0.9 m it fits perfectly in any compact pit. The small footprint and the reduced noise level at the operator's ear make the TERRA-PIT DJ 18 user friendly and sustainable. The short setup time and enhanced mobility make the machine easy to operate even in urban areas.





Diesel Power Pack
The high-quality Diesel power packs from TERRA operate the launching cradle and the mixing and pumping station. Independent circuits ensure full power of thrust, rotation and drilling volume.



Diesel and Petrol Power Packs

TERRA offers Diesel and petrol driven power packs for the pit launch machines. The Diesel power packs are equipped with an integrated Diesel particulate filter and fulfil the newest emission values Euro Stage 5.

Part Number	Description	Power [HP]	Fuel
1955.3002.00	RATO Power Pack MJ 1400	23	Petrol
1931.3001.00	HATZ Power Pack MJ 1600	57	Diesel
1932.3005.00	HATZ Power Pack DJ 18 PIT	75	Diesel



Diesel Power Pack

Intelligent Lifting Device

The lifting device ensures the safe installation of your launching cradle into the pit. It is equipped with one long crossveam and four heavy chains. The length of the chains are 1 m each. The lifting weight is 500 kg.

Part Number	Description
1931.9020.00	Lifting device MINI-JET

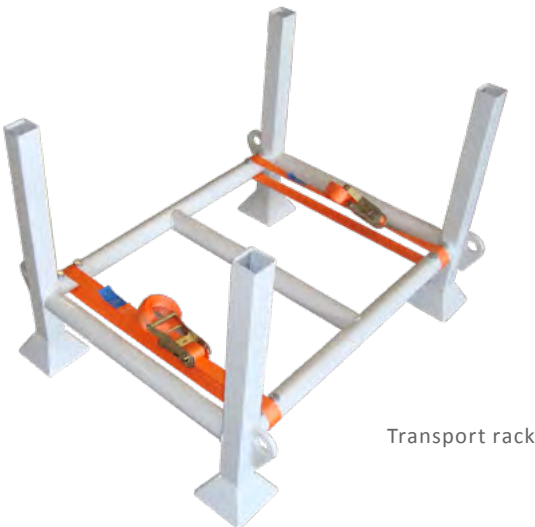


Lifting device

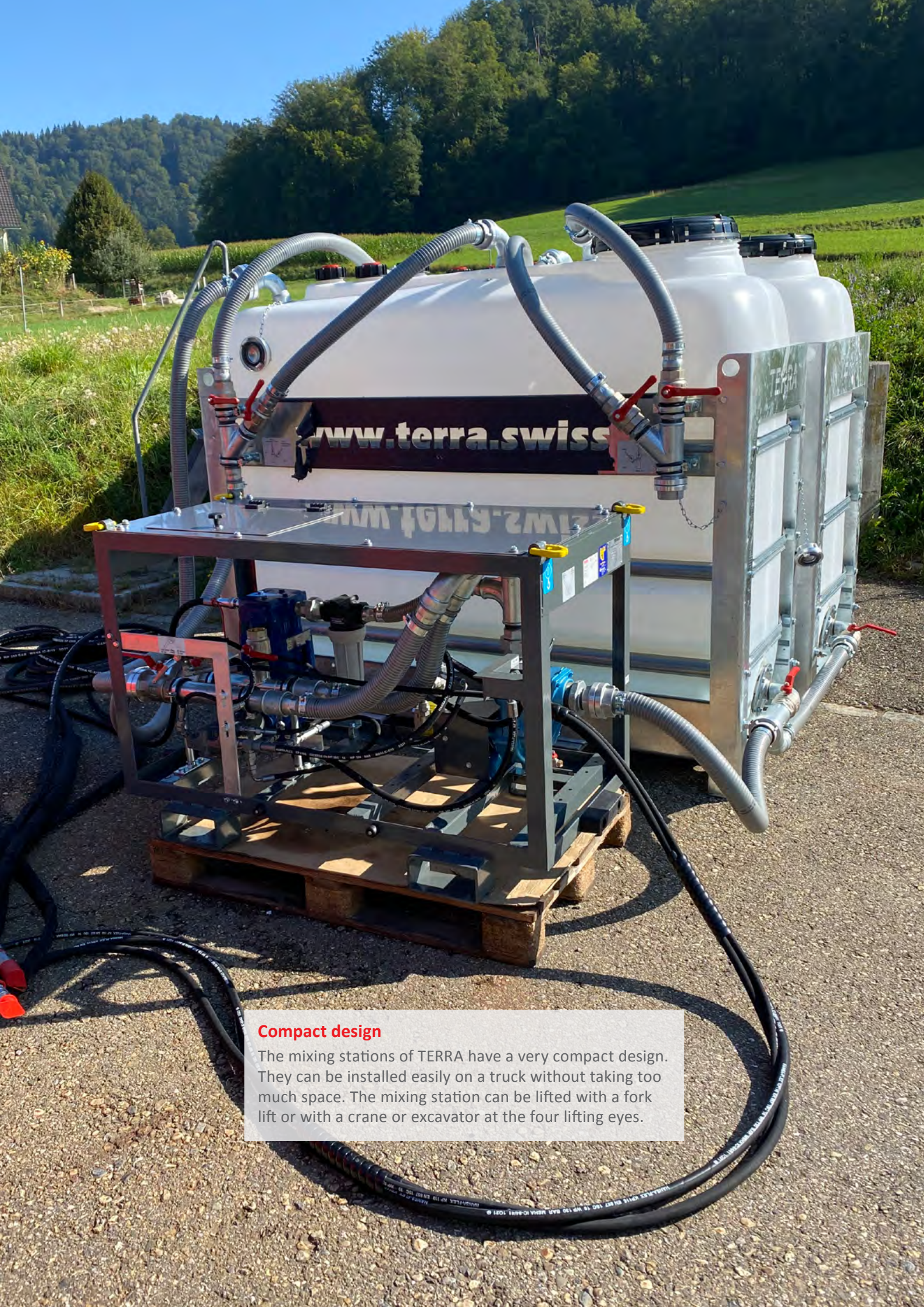
Transport racks

TERRA offers transport racks for the safe transport of the drill rods. The transport racks can be set up directly next to the pit during drilling, to reach the drill rods quickly and safely.

Part Number	Description
0000.6078.00	Transport rack MINI-JET
0000.6077.00	Transport rack DJ 18 PIT



Transport rack



Compact design
The mixing stations of TERRA have a very compact design. They can be installed easily on a truck without taking too much space. The mixing station can be lifted with a fork lift or with a crane or excavator at the four lifting eyes.

Mixing Units

Mixing and Pumping

Mixing and Pumping Stations

The mixing and pumping stations from TERRA are designed to quickly and reliably supply your drilling rig with bentonite.

Equipped with a powerful mixing pump, the mixing station circulates the bentonite and reliably delivers the drilling fluid to your TERRA-JET.



MPS DJ 18
2x 2.000 l Tank

Part Number	Description	Tank [ltr]	Mixing Capacity [ltr/min]	Drilling Volume [ltr/min]	Models
1930.6006.00	Mixing and pumping station MPS 1400	1.100	650	45	MJ 1400
1931.6006.00	Mixing and pumping station MPS 1600	1.100	800	52	MJ 1600
1932.6003.00	Mixing and pumping station DJ 18	1.100	800	95	MJ 1600, DJ 18 PIT
1932.6004.00	Mixing and pumping station DJ 18	2.000	800	95	MJ 1600, DJ 18 PIT
1931.6103.00	Secondary tank	1.100			
1964.6103.00	Secondary tank	2.000			

Mixing and Pumping Accessories

TERRA offers additional accessories for your mixing and pumping station. This ensures you are equipped for any jobsite.

Part Number	Description
1931.8200.00	Submersible pump for Bentonite
1964.8512.00	Mobile High Pressure Cleaner 300-10
1900.8510.01	High pressure cleaning gun Ø 3
1900.8512.00	High pressure hose Ø 13/15 m
1900.8514.00	High pressure hose Ø 13/30 m
1964.6201.00	Fire brigade hose Ø 52/20 m/KA66
1964.6202.00	Fire brigade hose Ø 52/25 m/KA66
1964.6203.00	Fire brigade hose Ø 52/30 m/KA66



Submersible pump
for Bentonite



Fire brigade hose



First class HDD drill rods
TERRA offers premium HDD drill rods. They have a low bending radius and a long lifetime.

Drill rods and Rod wiper

Drill Rods

Drill Rods MINI-JET

The drill rods for the MINI-JET are manufactured from high-grade steel as single-piece units, without any weld seams. With a length of just 0.5 m, they achieve a bending radius of 15 m – a capability unique worldwide!



Single-piece MINI-JET drill rod

Part Number	Description	Ø d ₁ [mm]	Ø d ₂ [mm]	Length [m]	Bending radius [m]	Models
1930.5601.01	Drill rod Ø 43-30 / 0.5 m / API-30	30	43	0.5	15	MJ 1400 / 1600
1930.5600.01	Drill rod Ø 43 / 0.5 m / API-30	43	43	0.5	40	MJ 1400 / 1600
1920.5600.00	Drill rod Ø 45 / 1.5 m / API-36	45	45	1.5	25	MJLV 1400 / 1600

Ø d₁ = diameter rod,
Ø d₂ = diameter coupling

Drill Rods DJ 18 PIT

The drill pipe of the Premium HDD rods are friction-welded. This process ensures a long service life and, thanks to the high-grade steel quality, allows for an exceptionally small bending radius.



Friction welded Premium HDD drill rod

Part Number	Description	Ø d ₁ [mm]	Ø d ₂ [mm]	Length [m]	Bending radius [m]	Models
1932.5678.00	Drill rod Ø 57-52 / 1.5 m / F140	52	57	1.5	31	DJ 18L PIT
1932.5679.00	Drill rod Ø 57-52 / 1.0 m / F140	52	57	1.0	31	DJ 18 PIT

Ø d₁ = diameter rod,
Ø d₂ = diameter coupling

Rod Wipers

Rod wipers ensure that the drill rod remains clean. Soil material and drilling fluid are removed and collected in front of the machine.

Part Number	Description	Rod [mm]
1930.4665.00	Rod wiper MINI-JET	Ø 43/30
1900.4664.00	Rod wiper MINI-JET LV	Ø 50/42
1961.5922.00	Rod wiper DJ 18	Ø 60/54



Rod wiper (closed)



Premium drilling tools

Aggressive drilling tools and reamers are available for all ground conditions. They are designed and produced inhouse at TERRA. Designed to maintain peak performance.

Drilling Tools MINI-JET

Drilling Tools

Sonde Housing, front loader

With the front-loading system, the sonde is inserted from the front into the sonde housing and cushioned by shock absorbers at both ends. This dual damping protects the sonde from vibrations during the pilot bore, ensuring it remains undamaged. Compared to the side-loading system, the front loader also provides the highest bending stiffness.

Part Number	Description
1930.5112.00	Sonde housing Ø 50 / 470 / API-30
1900.5109.01	Sonde housing Ø 68 / 570 / API-44
1900.1609.00	Tool kit Sonde housing

Directional Heads

- Typ A: for sand and hard ground conditions, with jet nozzles on both sides
- Typ B: for soft ground conditions
- Typ C: universal head for any ground condition, carbide tipped
- Multipin head: for hard ground conditions, with interchangeable carbide tipped chisels

Part Number	Description	Ø d ₁ [mm]
1930.5120.00	Directional head Typ A (Ø 50)	50
1900.5122.05	Directional head A (Ø 68)	68
1900.5123.05	Directional head Typ B/85	113
1900 5123.10	Directional head Typ B/125	132
1900.5124.15	Directional head Typ C/60	83
1900.5124.05	Directional head Typ C/80	120
1900.5124.20	Directional head Typ C/100	132
1900.5126.00	3 finger head	106
1900.5127.00	Multi pin head	106
Ø d ₁ = drilling diameter		

Double Wrench

The double wrench enables to break-apart the drill rods during the backreaming procedure. It is equipped with a magnet for easy operation.

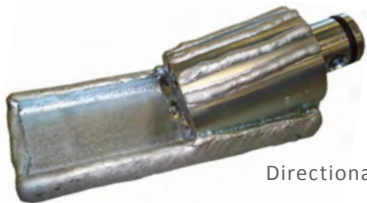
Part Number	Description	Models
1930.4805.01	Double wrench SW 32	MJ 1400 / 1600
1930.4807.00	Double wrench SW 36	MJLV 1400 / 1600
1930.8110.00	Drill rod disassembly tool SW 32	MJ 1400 / 1600
1930.8111.00	Drill rod disassembly tool SW 36	MJLV 1400 / 1600



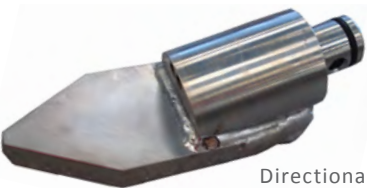
Sonde housing front loader



Directional head Typ A



Directional head Typ B



Directional head Typ C



3 finger head



Double wrench

Sonde Housing (side loader)

The sonde housing is designed as a side loader. The sonde can be positioned in any rolling position. It is very easy to assemble and disassemble the sonde from the sonde housing.

Part Number	Description
1932.5100.00	Sonde housing 76



Sonde housing

3 Finger Head with pulling eye

The 3 finger head is ideal for hard ground conditions. With the pulling eye smaller pipes can be pulled in immediately after the pilot bore.

Part Number	Description	Ø d ₁ [mm]
1932.5125.00	3 finger head	125
1932.5127.00	Pulling eye for 3 finger head	
1932.5126.00	TCI teeth for 3 finger head	



3 Finger Head

Changeable Steering Plates

The changeable steering plates are ideal for soft ground conditions such as clay or sand. The plates are secured with several screws to the blade adapter.

Part Number	Description	Ø d ₁ [mm]
1932.5132.00	Blade adapter 76	
9901.1201.20	Screw for blade adapter	



Blade adapter

Steering Plate STP

The steering plate STP is equipped with small hard metal teeth. This plate is ideal for compact ground conditions and long, straight bores.

Part Number	Description	Ø d ₁ [mm]
1932.5137.00	Steering plate STP/102	102



Steering plate STP

Steering Plate P

The steering plate P has an aggressive, wide steering area with several hard metal teeth. This plate is ideal for soft ground conditions.

Part Number	Description	Ø d ₁ [mm]
1932.5136.00	Steering plate P/102	102



Steering plate P

Steering Plate R

The steering plate P has a wide steering area. The plate is equipped with a tungsten carbide application for soft and sandy ground conditions.

Part Number	Description	Ø d ₁ [mm]
1932.5135.00	Steering plate R/102	102

Ø d₁ = Drilling diameter



Steering plate R

Steering Plate M

The M stands for ‘Monster.’ The M steering plate is the most aggressive of all plates. Equipped with conical carbide teeth, it cuts its way even through hard ground.

Part Number	Description	Ø d ₁ [mm]
1932.5138.00	Steering plate M/102	102

Ø d₁ = Drilling diameter



Steering plate M

Starter Rod

The starter rod is connected in between the first drill rod and the crossover of the sonde housing or reamer. An optional check valve prevents the drilling fluid to flow backwards into the drill rod.

Part Number	Description
1932.5412.00	Starter rod F140/RM14



Starter rod with check valve

Hex Collar (Sleeve)

When assembled, the hex collar transfers the torque and it prevents, that the thread between the reamer and the drill rod is tightened together. The hex collar has several hard metal teeth. It is held in position with two screws. For disassembly both screws are driven out, then the hex collar may be moved backwards. Then you can unscrew the drill head or the reamer manually without any tools.

Part Number	Description
1932.5415.02	Hex Collar RM14T



Sleeve with teeth



High quality reamers for your drilling success

TERRA offers a wide range of high-quality reamers. Depending on the ground conditions, you can choose between reamers for soft ground like sand or clay but also reamers for hard ground like gravel or rock. TERRA also offers push-reamers for the intermediate backreaming procedure.

Reamer Allrounder and Rock

Pulling Accessories

Reamer ALLROUNDER

The ALLROUNDER is equipped with several carbide inserts. It is the ideal reamer for all ground conditions.

- with several carbide inserts
- ideal for pit launch machine MINI-JET
- with integrated swivel



Reamer ALLROUNDER

Part Number	Description	Backreaming-Ø [mm]	for PE Pipes [mm]	Thread	Swivel [t]
1930.5246.00	Reamer ALLROUNDER 090	Ø 90	< 75	API-36	7
1930.5248.00	Reamer ALLROUNDER 115	Ø 115	< 90	API-36	7
1930.5249.00	Reamer ALLROUNDER 140	Ø 140	< 110	API-36	7
1930.5250.00	Reamer ALLROUNDER 160	Ø 160	< 125	API-36	7
1930.5255.00	Reamer ALLROUNDER 215	Ø 215	< 180	API-44	15
1930.5257.00	Reamer ALLROUNDER 260	Ø 260	< 200	API-44	15
1930.5258.00	Reamer ALLROUNDER 300	Ø 300	< 250	API-44	15
1900.5542.00	Swivel 7 t			Pulling eyes	
1961.5942.00	Swivel 15 t			2-3/8" reg pin	

Reamer ROCK

The reamer ROCK is equipped with several conical hard metal teeth. The reamer is ideal for hard ground conditions such as rock of medium strength.

- for rocky ground conditions (medium strength)
- ideal for TERRA MINI-JET



Reamer ROCK

Part Number	Description	Backreaming-Ø [mm]	for PE Pipes [mm]	Thread	Swivel [t]
1961.5810.02	Reamer ROCK 135	ø 135	< 110	API 2"	7
1961.5814.02	Reamer ROCK 160	ø 160	< 140	API 2"	7
1961.5818.02	Reamer ROCK 215	ø 215	< 180	API 2-3/8"	15
1945.5257.02	Reamer ROCK 260	ø 260	< 225	API 2-3/8"	15
1961.5824.00	Reamer ROCK 300	ø 300	< 250	API 2-3/8"	15
1945.5259.01	Reamer ROCK 360	ø 360	< 280	API 2-3/8"	15

Reamer Fluted and Barrel

Pulling Accessories

Reamer FLUTED

The FLUTED reamer is a universal reamer. You can use it in mixed ground conditions. The teeth cut the ground continuously. The longitudinal grooves allow to move the material backwards.

- with several hard metal teeth
- ideal for mixed ground condition
- with integrated swivel



Reamer
FLUTED

Part Number	Description	Backreaming-Ø [mm]	for PE Pipes [mm]	Thread	Swivel [t]
1961.5010.00	Reamer KODIAK 140 (114)	ø 140	< 110	API 2"	9
1961.5014.00	Reamer KODIAK 185 (165)	ø 185	< 140	API 2"	9
1968.5014.01	Reamer FLUTED 220 (152)	ø 220	< 180	API 2-3/8"	6
1968.5018.00	Reamer FLUTED 250 (203)	ø 250	< 225	API 2-3/8"	10
1968.5022.00	Reamer FLUTED 300 (254)	ø 300	< 250	API 2-3/8"	10
1968.5026.00	Reamer FLUTED 350 (305)	ø 350	< 280	API 2-3/8"	20
1968.5030.00	Reamer FLUTED 400 (356)	ø 400	< 280	API 2-3/8"	20
1968.5034.00	Reamer FLUTED 440 (406)	ø 440	< 315	API 2-7/8"	20
1968.5038.00	Reamer FLUTED 457	ø 457	< 355	API 2-7/8"	20
1968.5042.00	Reamer FLUTED 508	ø 508	< 400	API 2-7/8"	20
1968.5044.00	Reamer FLUTED 610	ø 610	< 500	API 2-7/8"	30
1968.5046.00	Reamer FLUTED 711	ø 711	< 630	API 2-7/8"	30

Reamer BARREL

The barrel reamer, with its cylindrical shape, ensures uniform hole enlargement and stable guidance in the bore channel. Its cutting edges and carbide segments continuously remove soil, while the design minimizes vibrations.

- Cylindrical shape for consistent hole enlargement
- Ideal for clay, sand, or mixed soils
- Frequently used as a prereamer



Reamer
BARREL

Part Number	Description	Backreaming-Ø [mm]	for PE Pipes [mm]	Thread
1968.5322.00	Reamer BARREL 325	ø 325	< 250	2x API 2-3/8"
1968.5326.00	Reamer BARREL 355	ø 355	< 280	2x API 2-3/8"
1968.5330.00	Reamer BARREL 426	ø 426	< 315	2x API 2-3/8"
1968.5334.00	Reamer BARREL 455	ø 455	< 355	2x API 2-7/8"

Reamer Flycutter and Mixer

Pulling Accessories

Reamer FLYCUTTER

The FLYCUTTER reams compact ground and soft rock (sand, sandstone, compacted sediments). The reamer is often used as a prereamer. Pulling eye and swivel have to be installed separately.

- for compacted ground and soft rock
- Sand, sandstone, compacted sediments



Reamer
FLYCUTTER

Part Number	Description	Backreaming-Ø [mm]	for PE Pipes [mm]	Thread	Swivel [t]
1968.5210.00	Reamer FLYCUTTER 152	ø 152	< 125	API-2"	6
1968.5214.00	Reamer FLYCUTTER 203	ø 203	< 180	API-2-3/8"	10
1968.5218.00	Reamer FLYCUTTER 254	ø 254	< 200	API-2-3/8"	10
1968.5222.00	Reamer FLYCUTTER 305	ø 305	< 250	API-2-3/8"	20
1968.5226.00	Reamer FLYCUTTER 355	ø 355	< 280	API-2-3/8"	20
1968.5230.00	Reamer FLYCUTTER 405	ø 405	< 315	API-2-7/8"	20
1968.5234.00	Reamer FLYCUTTER 455	ø 455	< 355	API-2-7/8"	20
1968.5238.00	Reamer FLYCUTTER 508	ø 508	< 400	API-2-7/8"	w/o
1961.5940.00	Swivel 7 t			2" IF pin	
1961.5942.00	Swivel 15 t			2-3/8" reg pin	
1961.5944.00	Swivel 25 t			2-7/8" reg pin	

Reamer MIXER

The MIXER is the ideal reamer for clay and tough ground conditions. Due to its aggressive cutting characteristics it reams its way through the ground.

- for clay and tough ground
- aggressive cutting characteristics



Reamer
MIXER

Part Number	Description	Backreaming-Ø [mm]	for PE Pipes [mm]	Thread	Swivel [t]
1961.5314.00	Reamer MIXER 152	ø 152	< 125	API-2"	1961.5940.00
1961.5318.00	Reamer MIXER 203	ø 203	< 180	API-2-3/8"	1961.5942.00
1961.5322.00	Reamer MIXER 254	ø 254	< 200	API-2-3/8"	1961.5942.00
1961.5326.00	Reamer MIXER 305	ø 305	< 250	API-2-3/8"	1961.5942.00
1961.5330.00	Reamer MIXER 355	ø 355	< 280	API-2-3/8"	1961.5942.00
auf Anfrage	Reamer MIXER 405	ø 405	< 315		
auf Anfrage	Reamer MIXER 455	ø 455	< 355		
auf Anfrage	Reamer MIXER 508	ø 508	< 400		
auf Anfrage	Reamer MIXER 610	ø 610	< 450		
auf Anfrage	Reamer MIXER 660	ø 660	< 500		
1961.5940.00	Swivel 7 t			2" IF pin	
1961.5942.00	Swivel 15 t			2-3/8" reg pin	



Pulling Eyes, Crossovers, Sub Savers

Crossovers

Pulling Eyes

The pulling eye allows to connect new drill rods during the intermediate backreaming.

Part Number	Description
1930.5612.00	Pulling eye API-30 pin
1930.5622.00	Pulling eye API-30 box
1900.5612.00	Pulling eye API-36 pin
1900.5622.00	Pulling eye API-36 box
1964.5610.00	Pulling eye F140 pin
1964.5611.00	Pulling eye F140 box



Pulling eye pin

Crossover

The crossover is connected in between the starter rod and the reamer or sonde housing. TERRA offers several crossovers depending on the threads of the reamer.

Part Number	Description
1930.5682.00	Crossover API-30 box/API-55 pin
1930.5672.00	Crossover API-36 pin/API-30 box
1900.5676.00	Crossover API-36 pin/API-36 box
1900.5672.00	Crossover API-36 pin/API-44 box
1966.5423.02	Crossover API-36 pin/RM13 pin
1930.5673.00	Crossover API-44 pin/API-30 box
1900.5671.20	Crossover API-44 pin/API-36 box
1900.5682.00	Crossover API-44 pin/API-55 box
1932.5424.00	Crossover API-44 pin/RM14 pin
1900.5681.01	Crossover API-55 pin/API-44 box
1930.5682.00	Crossover API-55 pin/API-30 box
1932.5674.00	Crossover API-55 pin/F140 box
1932.5425.02	Crossover API-55 pin/RM14 pin
1961.5012.00	Crossover 2" IF pin/API-30 box
1961.5011.00	Crossover 2" IF pin/API-36 box
1932.5420.02	Crossover 2" IF pin/RM14 pin
1961.5015.00	Crossover 2-3/8" reg pin/API-30 box
1932.5421.02	Crossover 2-3/8" reg pin/RM14 pin
1932.5422.02	Crossover 2-7/8" reg pin/RM14 pin



Pulling eye box



Crossover 2" IF pin/RM14 pin

Drill Rod Connectors and Sub Savers

The drill rod connector is equipped with a sub saver. The changing of the sub saver goes fast and saves money.

Part Number	Description
1931.4330.00	Drill rod connector ø 43/10/API-30pin (MJ)
1930.4377.10	Drill rod connector ø 90/170/API-36pin (MJLV)
1932.4331.25	Drill rod connector ø 60/F140pin (DJ 18 PIT)
1932.4331.26	Sub saver F140pin x F140box (DJ 18 PIT)



Drill rod connector ø90/170/API-36pin (MJLV)



Towing Heads

The TERRA towing heads connect the HDPE pipe to the reamer. They allow a high pulling force.

Cable Pulling Socks and Towing Heads

Pulling Accessories

Cable Pulling Socks, Shackles and Chain Locks

For smaller pipe diameters, TERRA offers pulling socks that make pipe installation easier and more efficient. They can be securely connected using chain locks or shackles.

Part Number	Description	for PE Pipes OD [mm]	Pulling force [t]
1900.5503.08	Cable pulling sock OD 15-20	15-20	
1900.5503.10	Cable pulling sock OD 20-25	20-25	
1900.5503.20	Cable pulling sock OD 25-30	25-30	
1900.5504.00	Cable pulling sock OD 30-40	30-40	
on request	Cable pulling sock up to OD 110 mm		
1960.7004.00	Schackle 3250		3.2
1960.7005.00	Schackle 4750		4.8
1944.5549.00	Schackle 8500		8.5
1960.7002.00	Schackle 12000		12.0
1900.5360.00	Chain lock 10		12.5
1900.5362.00	Chain lock 13		20.0
1900.5366.00	Pulling chain ø 10 mm, 0.3 m		6.4



Chain lock
12.5 t



Cable pulling sock



Shackle
4.75 t



Towing head 110



Towing head

Towing Heads

Part Number	Description	for PE Pipes OD [mm]	Pulling force [t]
1965.5501.00	Towing Head 032	32	0.6
1965.5503.00	Towing Head 040	40	1.0
1965.5505.00	Towing Head 050	50	1.6
1965.5507.00	Towing Head 063	63	11
1965.5509.00	Towing Head 075	75	11
1965.5511.00	Towing Head 090	90	11
1965.5513.00	Towing Head 110	110	25
1965.5515.00	Towing Head 125	125	25
1900.5523.00	Towing Head 132	132	25
1965.5517.00	Towing Head 140	140	25
1965.5519.00	Towing Head 160	160	25
1965.5521.00	Towing Head 180	180	25
1965.5523.00	Towing Head 200	200	25
1965.5525.00	Towing Head 225	225	25
1965.5527.00	Towing Head 250	250	25
1965.5529.00	Towing Head 280	280	25
1965.5531.10	Weld-on Towing Head PE 315	315	16
1965.5533.10	Weld-on Towing Head PE 355	355	16
1965.5535.10	Weld-on Towing Head PE 400	400	16
1965.5537.10	Weld-on Towing Head PE 450	450	24
1965.5539.10	Weld-on Towing Head PE 500	500	24
1965.5541.10	Weld-on Towing Head PE 560	560	24
1965.5543.10	Weld-on Towing Head PE 630	630	32



Locating Systems and Sondes

Locating Accessories

DCI-Locating Systems

TERRA is an official dealer of DCI. The Falcon locating system is one of the most modern locating systems for HDD machines. It is equipped with a remote display, a receiver and a battery charger.

Part Number	Description
1961.7131.00	Falcon F1 + FCD
1961.7132.00	Falcon F1 + AF8
1961.7133.00	Falcon F1 + AF10
1961.7150.00	Falcon F2 + FCD
1961.7151.00	Falcon F2 + AF8
1961.7152.00	Falcon F2 + AF10
1961.7160.00	Falcon F5 + FCD
1961.7161.00	Falcon F5 + AF8
1961.7162.00	Falcon F5 + AF10

Sonden und Longlife-Batterie Sonde and Long Life Battery

The sonde allows the locating of your drill head. It works with a wide range of frequencies from 4,5 kHz up to 45 kHz. It scans for active interference. With the long life battery you can work up to 120 h.

Part Number	Description	Length [mm]	Frequency [kHz]	Locating depth [m]
1961.7138.00	F1	381	9.5-13	15
1961.7137.00	F1	203	9.5-13	7
1961.7154.00	F2+/F5+	381	4.5-45	30
1961.7153.00	F2+/F5+	203	4.5-45	7
1961.7164.00	F5+, Pressure	381	4.5-45	30
1961.7166.00	F5+, Pressure	482	4.5-45	38
1961.7165.00	F5+, Rebar	381	0.3-0.7	30
1961.7163.00	F5+, Rebar	203	0.3-0.7	7
1900.7183.00	Longlife-Batterie, for sonde L = 380			
1961.7136.00	Battery for F1 sonde, CR123A			
1932.4553.00	Adapter cable cigare (pin) / 4-pol (box)			
1961.7145.00	Yagi Antenna, for Falcon F1, F2, F5			

Zip Level Pro-2000

The Zip Level allows the level measurement up to 12 m in a circel of 60 m.

Part Number	Description
1921.6040.00	Zip Level Pro-2000



Falcon F5
with colour display



Falcon F2
with colour display



Sondes
+ long life battery



Level measurement
Zip Level
Pro-2000

Complete service for trenchless technology

Always One Drill Ahead



Technicians on site

Our experienced technicians provide professional on-site support. Our service is provided directly from the manufacturer's factory at standard regional conditions or by qualified authorized dealers. You have direct access to the TERRA service hotline, where we connect you to our service team. A service package is offered with every machine to ensure a long lifetime of your machine. You have very low follow-up costs or repair costs. Swiss Made Quality requirements instead of expensive repair costs - that is our claim for Trenchless Technology.



Long-term spare parts service - High investment protection

We keep a huge stock of spare parts. Through intelligent digital control, essential spare parts are immediately available. We keep spare parts even 20 years after delivery of your machine. Within Europe we deliver spare parts within 24 hours. Lean logistics and a fast process organization make this possible. With every machine delivered, you receive spare parts catalogs and operating manuals. If service is required, our team of experts can help you quickly and competently.



Service hotline

Our service hotline connects you directly to the service department with a technician. Thanks to good documentation, we can quickly help you with your service problem. Even with machines that have been in use for a very long time, good documentation ensures that we can continue to help you even years later. This offers you a high level of investment protection.



Fleet management (telematics)

TERRA offers fleet management for all HDD machines. This allows you to keep track of your TERRA machine. With the telematics, all machine data is transferred to a cloud, which can be viewed on your tablet or mobile phone. Thanks to this intelligent solution, you can intervene quickly in the event of an emergency. The data is directly connected to our service department, where experts can help you quickly and reliably.



Training with TERRA certificate

Our experienced staff offers training for your crews available on the jobsite or in the classroom. With our insider knowledge we make you run your drill like no one else. Your crew will be faster, more productive and more efficient on the jobsite. After the successful training you will receive a TERRA certificate which allows you to operate the machine on its best.



Theory and practice

Well-trained operators are an important cornerstone for successful deployment. The comprehensive theoretical training in the training room includes topics on process engineering, machine technology and how to handle your newly acquired machine. Your crew will be made familiar on request at the site. Well-trained staff pays off for your investments in machines.



Lucrative financing offers

TERRA offers lucrative financing offers for new and used machines. Whether you want an operate lease, finance lease or installment plan - talk to our experts about the best solution for you. Even repurchases of existing equipment can be discussed individually.

More TERRA Products

The World of Trenchless Technology

Piercing Tools

TERRA-HAMMER Series T / TU



Horizontal Directional Drills

TERRA-JET



Rod Bursters

TERRA-HYDROCRACK



Cable Bursters

TERRA-EXTRACTOR



Steel Pipe Ramming Systems

TERRA-HAMMER Series TR



www.boreshop.com

HDD, Burst Tooling & Accessories Warehouse

TERRA

Trenchless Technologies



HDD drilling tools, bursting tools and earth rockets available online.

www.boreshop.com

HDD, Burst Tooling & Accessories Warehouse



Search function and easy navigation.



There for you 24 hours, 365 days – so you don't waste any time on your construction site.

TERRA - always one drill ahead!



HIGH-QUALITY TOOLS

Drilling tools are a matter of trust. Different ground conditions require a wide range of drilling heads and reamers.



DCI-LOCATION SYSTEM

TERRA is an official dealer of DCI. With the new Falcon system you can even locate in areas with high interferences.



MIXING STATIONS

The mixing stations from TERRA enable mixing of the bentonite. They are quiet, efficient and have a high mixing capacity.



CUSTOMER SERVICE

Satisfied clients worldwide and a great customer service are the result of our constant progress. The TERRA-JET Directional Drill is a must have for every contractor!