

HDD Pit Launch Machine  
TERRA MINI-JET MJ 1600

Swiss made



# TERRA MINI-JET MJ 1600

HDD Pit Launch Machine



## SMALL, COMPACT, POWERFUL

The compact HDD system **TERRA MINI-JET MJ 1600** is the most powerful and most productive compact HDD system, which is available worldwide. Powered by a proven 57 HP strong HATZ Diesel engine the **MJ 1600** offers up to 6 tons of thrust and pullback force, 1.600 Nm of torque and a maximum spindle speed of 150 rpm. With its 52 ltr/min high pressure pump you can drill up to 50 m and backream up to 300 mm (depending on ground). Optionally TERRA even offers 95 ltr/min of drilling volume for higher productivity.

The small footprint and the reduced noise level at the operator's ear make the **MJ 1600** user friendly and sustainable. The fast set up time and the increased movability helps you to operate your machine also in urban areas or family's backyard.

## DOUBLE CYLINDER DRIVE (PATENTED)

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



## TERRA MINI-JET MJ 1600

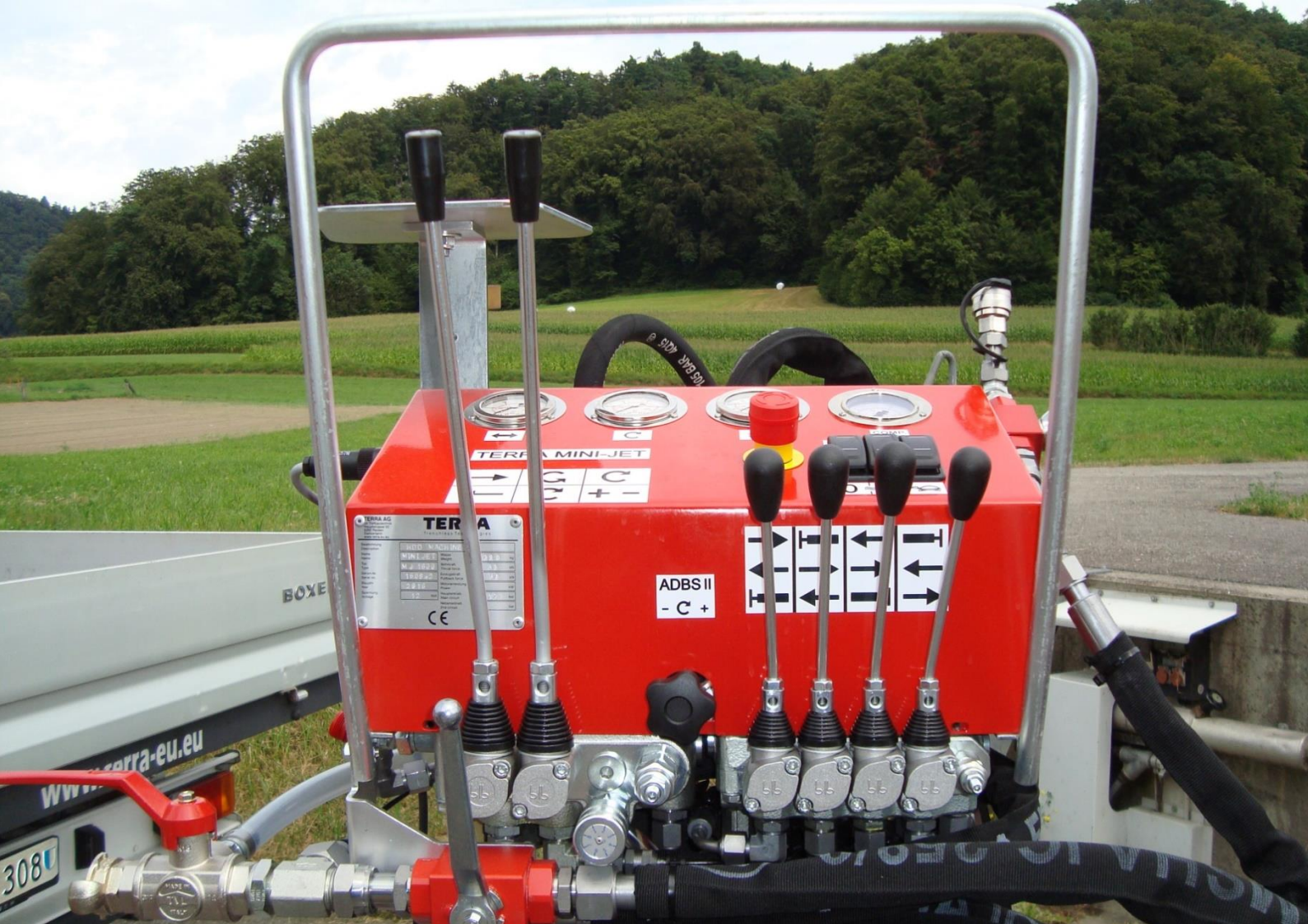
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### SUBSAVER

The drill rod connector is equipped with a subsaver. The replacement of the subsaver goes quick and is inexpensive.

### HYDRAULIC CYLINDERS

The MJ 1600 is fixed with four hydraulic cylinders into the pit. The integrated check valves assure that the machine cannot move in the pit.



## CLEAR CONTROL PANEL

All components of the **MINI-JET** are clearly arranged. The integrated electrical control of the the drilling volume takes place by the control panel. For the locating monitor there is a 12 voltage connection. The launching cradle is equipped with a grounding stake and an electrical strike alarm.

## ADBS II

The automatic drilling and backreaming system adjust the speed within milliseconds to the ground. With this drilling assistant system even difficult drills can be done.

## FLUID ROCK DRILLING

The **MJ 1600** can be equipped with a fluid rock drilling hammer. With this hammer even rock drilling or drilling in mixed ground conditions is no problem. The control panel has an optional integrated connection for the air compressor.

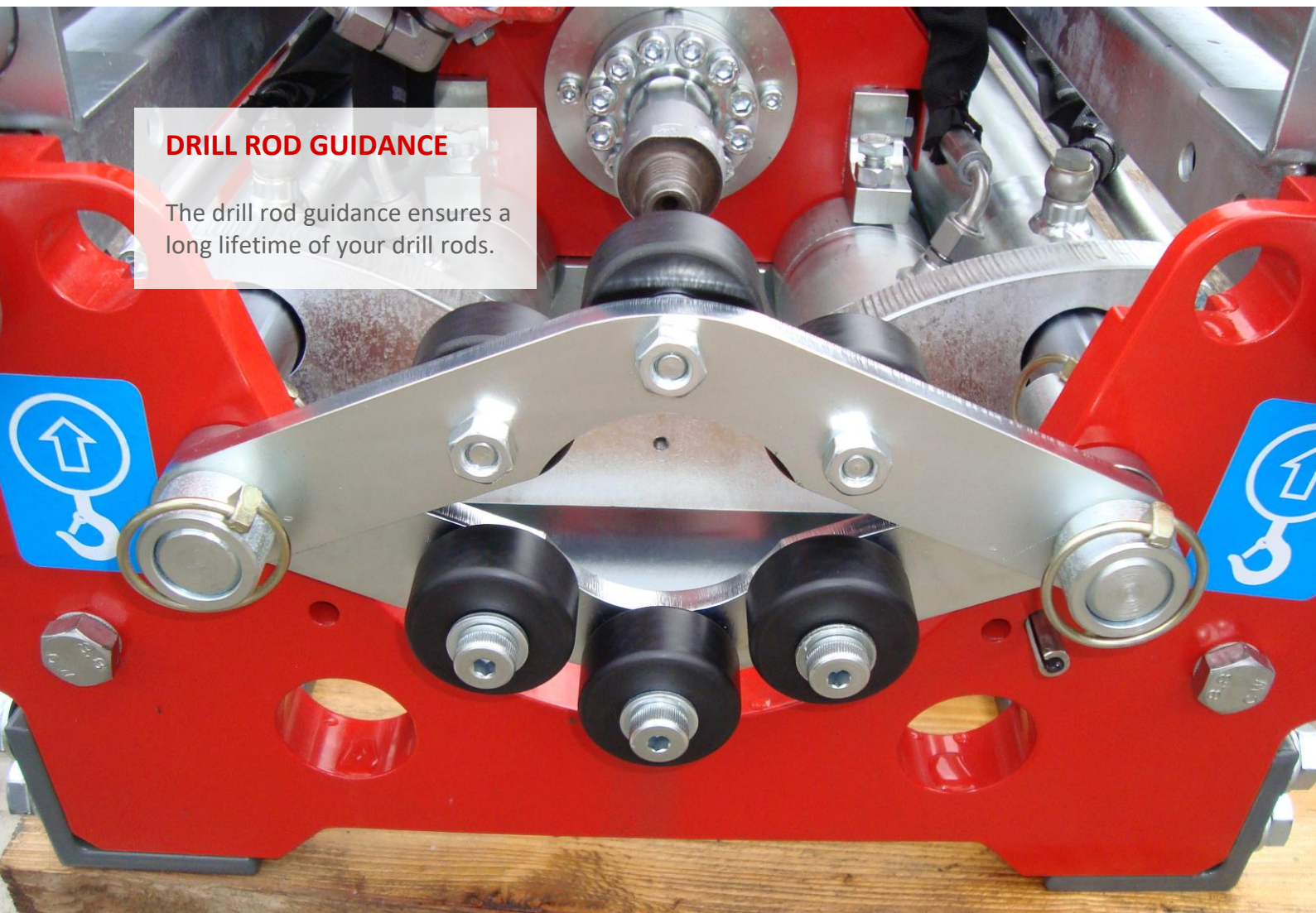
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## HIGH QUALITY DRILL RODS

The special drill rods of the **MINI-JET** are 0,5 m long. They are milled out of one single piece of steel. A **bending radius of 15 m** can be achieved – this is unique worldwide.



## DRILL ROD GUIDANCE

The drill rod guidance ensures a long lifetime of your drill rods.

# HATZ Diesel Power Pack

## HDD Pit Launch Machine



### **HATZ DIESEL POWER PACK + MIXING AND PUMPING UNIT MSP 1600**

- with 3 cylinder HATZ Diesel engine with 42 kW (57 HP)
- the Diesel engine operates at 2'050 rpm
- electrical adjustment of the engine speed
- low Diesel fuel consumption
- with 2 independent hydraulic circuits
- 70 ltr/min @ 205 bar for the pit frame
- 28 ltr/min @ 125 bar for the mixing and pumping station
- box for documents
- large oil cooler with 14 kW cooling power, allows even tropical and desert operation
- service friendly
- environmentally friendly
- It is supersilent and it fulfils today's Emission Standards Euro Stage 5
- 12 Volt plug with 5 A (60 W)

# TERRA MINI-JET MJ 1600

## Technical Specifications

LAUNCHING CRADLE MJ 1600	METRIC	IMPERIAL
Thrust force	60 kN (6 to)	13,200 lbs
Pullback force	60 kN (6 to)	13,200 lbs
Spindle torque, max.	1.600 Nm	1,180 ft.lb
Spindle speed, max.	150 rpm	150 rpm
Carriage thrust travel speed, quick gear	14 m/min	46 ft/min
Carriage thrust travel speed, at full load	2,5 m/min	8 ft/min
Ø pilot bore	60 – 110 mm	2.5 - 4" mm
Backreamer diameter, max. *	300 mm	12"
Maximum drilling length *	50 m	165 ft
Drill rods, length	0,5 m	1.65 ft
Drill rods, diameter	Ø 40/30 mm	Ø 1.6"/1.2"
Bending radius, min.	15 m	50 ft
Dimensions L x W x H	1,22 x 0,60 x 1,27 m	3.7 x 1.9 x 4.2 ft
Weight	390 kg	860 lbs

POWER PACK	METRIC	IMPERIAL
Diesel engine HATZ Euro Stage 5	42 kW (57 HP)	42 kW (57 HP)
1. hydraulic circuit: MJ 1600	70 ltr/min @ 205 bar	19 gpm @ 2,110 psi
2. hydraulic circuit: mixing and pumping	28 ltr/min @ 125 bar	7.5 gpm @ 1,800 psi
Diesel tank	40 ltr	10 gal
Hydraulic oil tank	40 ltr	10 gal
Dimensions L x W x H	1,42 x 0,85 x 1,60 m	4.7 x 2.8 x 5.3 ft
Weight	490 kg	1,080 lbs

MIXING AND PUMPING SYSTEM	METRIC	IMPERIAL
Mixing capacity	800 ltr/min	210 gpm
Drilling fluid volume, max.	52 ltr/min @ 55 bar	14 gpm @ 800 psi
- optionally	95 ltr/min @ 70 bar	24 gpm @ 1,120 psi
Tank volume	1.100 ltr	290 gal
- optionally	2.000 ltr	530 gal
Dimensions (without tank) L x W x H	1,45 m x 0,75 m x 1,00 m	4.6 x 2.5 x 3.3 ft
Weight (with empty tank)	210 kg	462 lbs

\* All data depending on ground conditions. Technical Data may change without prior notice.

## TERRA – always one drill ahead!



### PREMIUM DRILLING TOOLS

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



### DCI LOCATING EQUIPMENT

TERRA is an official dealer of DCI. With the new Falcon system even challenging ground conditions with high interferences can be successfully done.



### MIXING SYSTEMS

The mixing systems from TERRA allow a fast and efficient mixing of the drilling volume. They are quiet, easy to handle and offer a high capacity of your drilling volume.



### 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!