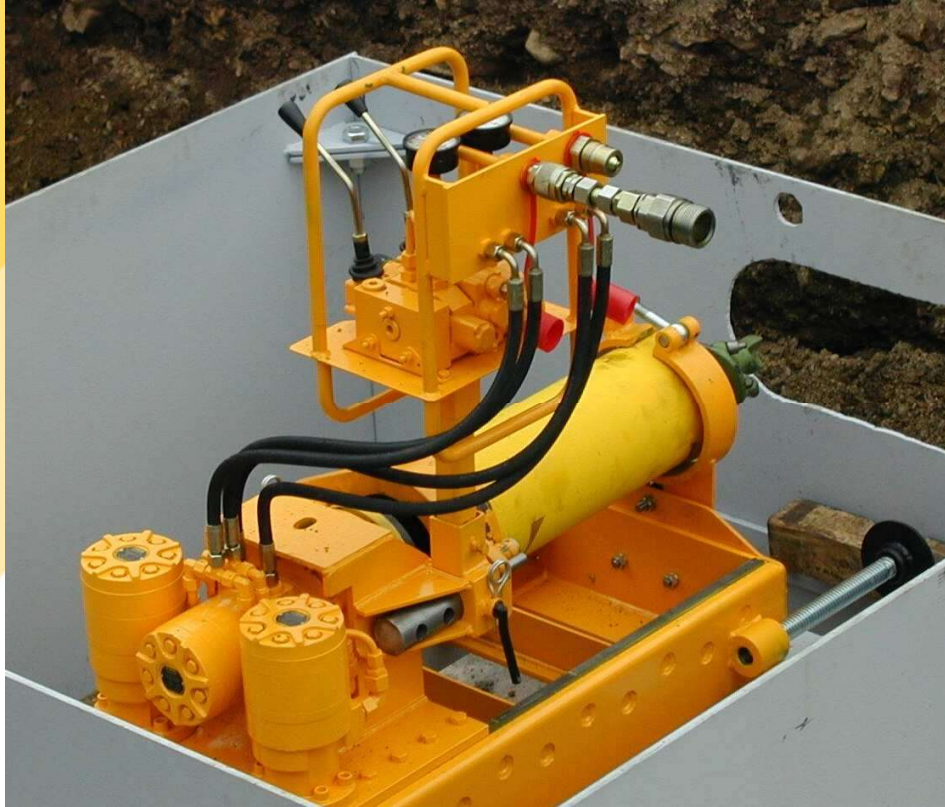


The **TAIFUN Universal Micro drill rig series** currently comprises two drill rigs – the **TAIFUN 5** and the **TAIFUN 15**. Both stand out thanks to their very compact, modular design for universal use.



TAIFUN 5 – short version

The TAIFUN series is versatile when it comes to the trenchless laying of service pipes and can also be used for the longitudinal installation of all types of underground pipes. The compact design is suitable for all inner-city applications as well as crossings in transport infrastructure, such as roads or railway lines.

There are various **possible applications** within the growing range of tasks in infrastructure development:

- Supply networks, such as gas and water pipes
- Sewage and rainwater drainage systems
- Drainage networks and flood relief systems
- District and local heating networks
- Telecommunications networks (FTTH and FTTX)
- Underground cables (high- to low-voltage grids)
- Connections in solar and wind farms
- Charging infrastructure for e-mobility
- Geotechnical applications in tunnelling and well construction, as well as special applications in mining

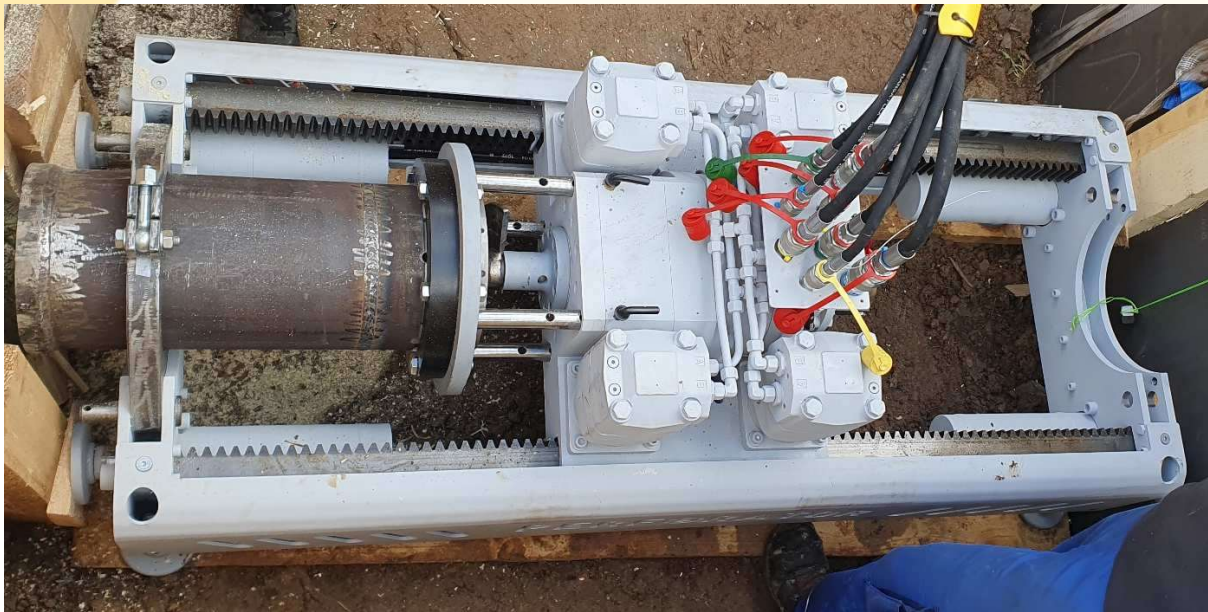


In addition to the wide range of applications, the TAIFUN series can also be used for a variety of **trenchless drilling methods**:

- Horizontal pressing with expansion part (impact drill rig, unguided/guided)
- Horizontal auger boring method (with and without protective pipework)
- Horizontal directional drilling (HDD)
- Pilot pipe jacking with soil displacement (TAIFUN 15 only)

Horizontal pressing with expansion part. Whether unguided or guided, the impact drill rig can be used to lay pipes with a diameter of up to 160 mm in displaceable soils over a length of up to 50 metres. During percussive boring, the rod is pressed into the ground as far as the target range, while the soil is displaced and the product pipe is pulled in with it during retraction. In the guided version, walk-over positioning technology is used for directional control.

Horizontal auger boring method. The drilling equipment is used to drill uncased boreholes with a diameter of up to 280 mm and over a length of 25 m. The augers must be fitted with a supporting edge for this purpose. After drilling, the product pipe is pushed or pulled in. For cased boreholes, a casing pipe remaining in the soil or a recoverable casing pipe is installed at the same time as the augers. The casing pipes are then pushed out with the carrier pipes and reused. The auger boring method is also suitable for DTH percussive drilling in unconsolidated and solid rock.



TAIFUN 15 – press drilling process

Horizontal directional drilling (HDD). Directional drilling equipment enables pipes of up to 280 mm in diameter and 100 m in length to be laid using the HDD method. The system is controlled using walk-over locating technology. After the pilot bore, the expansion bore is carried out using a backreamer and the product pipe is pulled in.





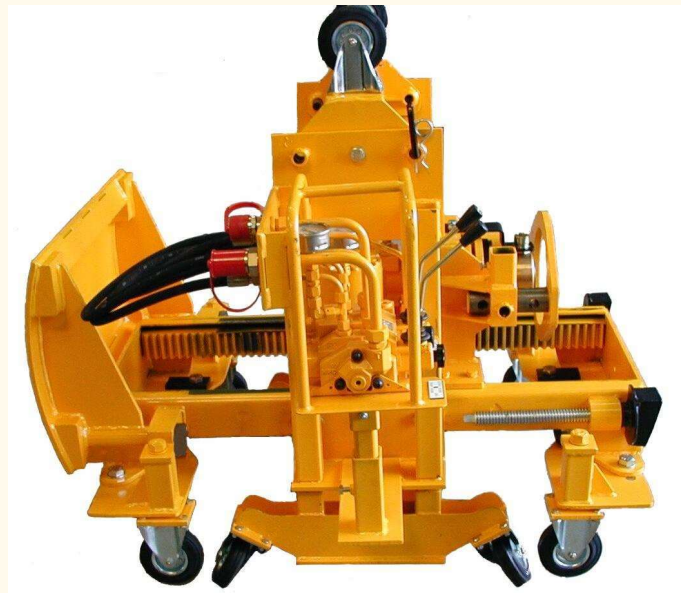
TAIFUN 15 – horizontal directional drilling (HDD)

Pilot pipe jacking with soil displacement (Taifun 15 only): In the first step of this method, a pilot pipe string is jacked by displacement. The position is measured using an optical-electronic navigation system (OEN). Directional corrections are generated via a pilot drill head with a control surface. In the second step, a casing pipe (or, alternatively, a recoverable casing pipe) is then installed and the pilot pipe is pushed out at the same time. In the third step, carrier pipes can be pushed or pulled in.



Universal Micro drill rigs	TAIFUN	5	15
Jacking shaft	[m]	L=1.3/1.7 Ø=1.5	L=1.6/1.9 Ø=2.0
Thrust force	[kN]	54	142
Pullback force	[kN]	54	142
Max. stroke (rack)	[mm]	745/1.240	890/1.140
Max. Torque	[Nm]	980	1.000/3.100
Max. spindle speed	[rpm]	80	160/60
Height of machine axis	[mm]	315	320
Auger connector	[mm]	HEX32	HEX32/41
Max. pipe OD*	[mm]	219	280
Max. pipe length basic frame	[mm]	500/1.000	500/750
HDD rod length	[mm]	500/1000	750/1.000
Length	[mm]	1.205/1.700	1.560/1810
Width	[mm]	718	790
Weight	[kg]	270/290	675/725
Power pack	[-]	Mini excavator HS-1.19D/ HS-1E	Mini excavator HS-1.37D/ HS-1E
*Depending on soil / Data subject to change. We do not take any liability for printed errors and/or mistakes.			

Special applications are also possible. "Berlin" construction method from circular shafts as well as the use of collectors with an internal diameter ≥ 1250 mm for the subsequent construction of service pipes or surface drainage systems.



TAIFUN 5 – collector, 1250 mm version



	Scope		Drilling length max. [m]		Pipe dimension max. [mm]	
	5	15	5	15	5	15
TAIFUN						
Horizontal pressing with expansion part	X	X	15	50	110	160
Horizontal auger boring method	X	X	15	25	219	280
Horizontal directional drilling (HDD)	X	X	30	100	200	280
Pilot pipe jacking with soil displacement	-	X	-	25	-	280
*Depending on soil / Data subject to change. We do not take any liability for printed errors and/or mistakes.						

The **TAIFUN series** stands out above all thanks to its versatile range of applications and processes, while also offering significant advantages:

- Reduces investment in different machine types
- Less maintenance and repair work than with multiple machines, no need for multiple inspections for accident prevention regulations
- Minimises the amount of training required for the drilling crew. Frequent use prevents application errors
- Only one transport concept required
- The hydraulic station is not required for use with mini excavators (required performance must be guaranteed)
- Simple operating concept via hydraulic control block; the TAIFUN 15 even offers this with radio remote control
- Quick and easy conversion between the various drilling variants
- Front and rear supports ensure that the machines are optimally aligned; the TAIFUN 15 even has the option of hydraulic alignment.
- The rack and pinion ensures fast, continuously variable movement of the drill carriage within the carriage.
- Direct-drive rotary motors ensure steady torque delivery and high rotational performance. The TAIFUN 15 has a two-stage rotary drive with up to 160 rpm at 1000 Nm, or 60 rpm at 3100 Nm.

Innovative, high performance, very compact and for universal use – the TAIFUN series from PERFORATOR sets new standards.

