

**MADE  
IN  
GERMANY**

**Horizontal Directional Drilling Rigs**  
**150 - 600 t**



## HDD-Rigs

**1,500 kN - 6,000 kN pull force (150 t - 600 t)**  
**70 kNm - 180 kNm torque**

PRIME DRILLING® operates worldwide and is specialised in Horizontal Drilling Technology. With our optimised products and many years of experience in the construction of HDD-rigs we have set standards in the international HDD-industry.

### Quality and Reliability "Made in Germany"

Product quality is the highest priority at PRIME DRILLING®. That is why we keep development, manufacture and assembly entirely under one roof at our facility in Wenden, Germany. It enables short development phases and optimised manufacturing processes under compliance with the highest quality standards.

Our qualified and highly motivated employees ensure utmost quality, safety and reliability. Our PRIME DRILLING® modular construction system enables the customer to have flexibility in choosing pull force and torque of the rig.

The first-class quality of design, manufacture and assembly is a guarantee for high technology products with maximum reliability and extra long service life.

Patented technology, robust construction, high torque and years of experience are only a few of the many powerful features that make PRIME DRILLING® the global market leader for HDD-technology.

Whether you are executing projects in the Arctic at -40°C or in the Sahara at +40°C - PRIME DRILLING® Horizontal Directional Drilling Rigs are known for their performances, reliability, low-maintenance designs and easy operation. Our designs and technical features ensure maximum comfort and increased overall productivity.

### Horizontal Directional Drilling Rig, Frame Version

the low cost version



### Horizontal Directional Drilling Rig, Trailer Version

easy transportation to job-site



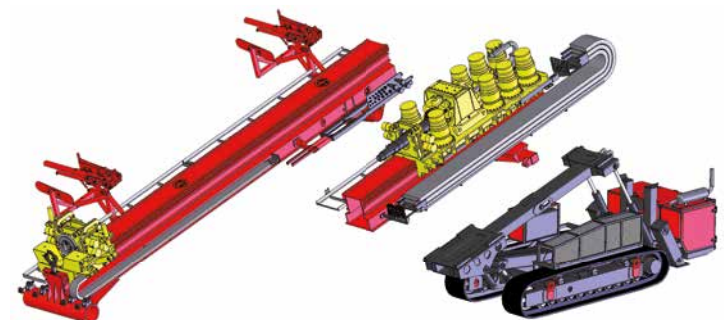
### Horizontal Directional Drilling Rig, Crawler Version

mobile and flexible at job-site



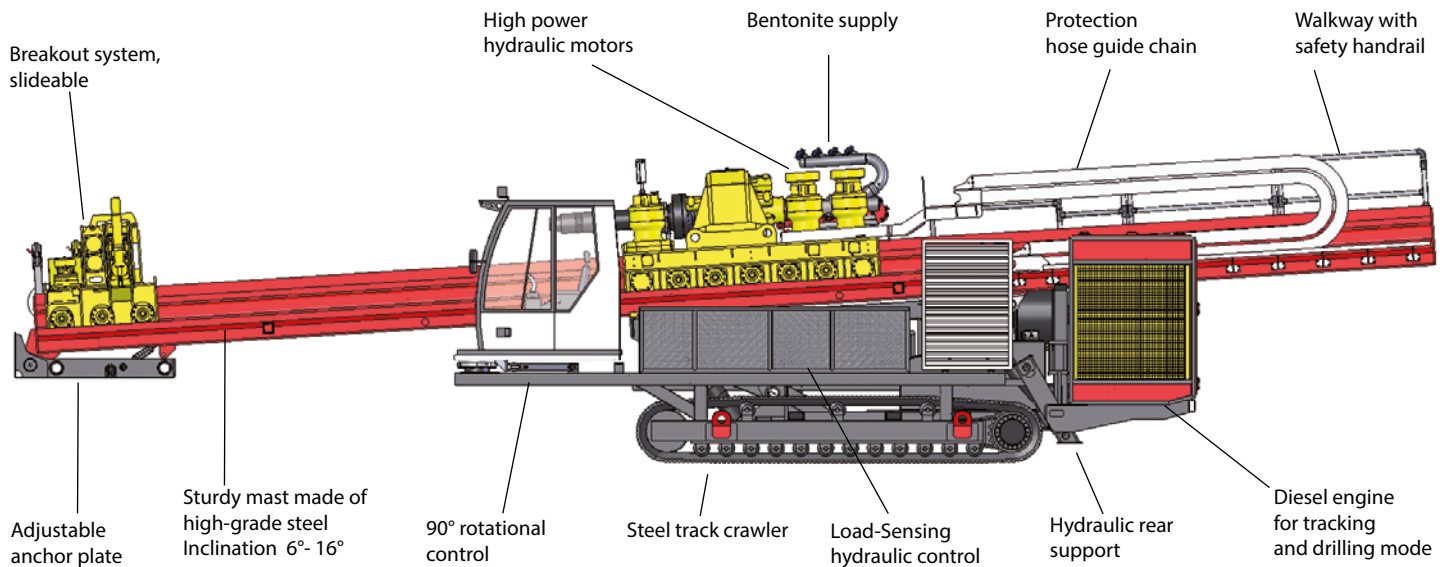
### Horizontal Directional Drilling Rig, Crawler Version with detachable carriage

mobile at job-site and easy transportation



**All versions are also available as modular systems!**





All of our **drilling rigs** are equipped with "Load-sensing Hydraulic Systems", but are also available as crawler versions, trailer versions or frame versions.

The diesel engine including the hydraulic system can be mounted "on board" or can be provided as a separated power pack (20 ft container) similar to the trailer and frame version. With the separate power pack the customer can choose between **330 kW, 470 kW, 570 kW and 900 kW** engine capacities.

The power rotary head which is driven by hydraulic motors develops a torque rating from **70 kNm up to 180 kNm** and can be selected in two or three different gear steps.

Furthermore the drilling rig is available with drill pipe supply system, hydraulic manipulator, drill pipe crane, camera system, a drill data monitoring system as well as further options.

According to the customer's requirements, the devices are equipped with a mounted control cabin or a separate operating container, which provides the operator an optimal view.

## Options, compatibility and versions

- ✓ Standard equipment
- Optional non standard equipment

	PD 150	PD 200	PD 250	PD 300	PD 400	PD 500	PD 600
On frame	✓	✓	✓	✓	✓	✓	✓
On crawler	✓	✓	✓	✓	✓	✓	✓
On detachable crawler	✓	✓	✓	✓	✓	✓	✓
On trailer	✓	✓	✓	✓	✓	✓	✓
Modular system	✓	✓	✓	✓	✓	✓	✓
External hydraulic unit	●	●	✓	✓	✓	✓	✓
External control cabin	●	●	✓	✓	✓	✓	✓
On board control cabin	✓	✓	✓	●	●	●	●
Drill pipes range 2	✓	✓	✓	✓	✓	✓	✓
Power rating 330 kW	✓	✓	✓	●	●	●	●
Power rating 470 kW	✓	✓	✓	✓	●	●	●
Power rating 570 kW	●	●	✓	✓	✓	✓	✓
Power rating 900 kW	●	●	●	●	✓	✓	✓
Torque 70 kNm	✓	✓	●	●	●	●	●
Torque 90 kNm	✓	✓	✓	✓	●	●	●
Torque 120 kNm	✓	✓	✓	✓	✓	✓	✓
Torque 150 kNm	●	●	✓	✓	✓	✓	✓
Torque 180 kNm	●	●	●	✓	✓	✓	✓





# Standard and optional equipment



Mud swivel with manifold



Drill and measuring data transmission system



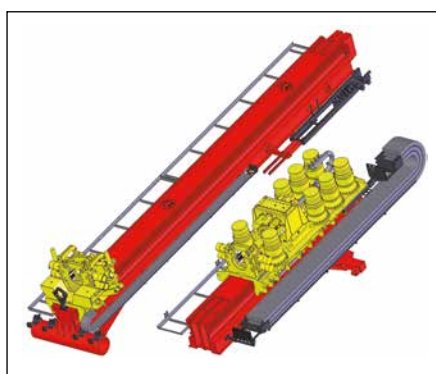
Breakout system at the power rotary head



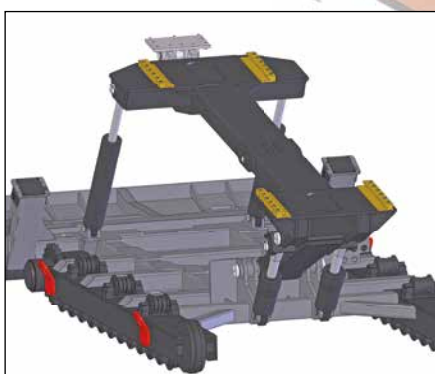
Optimal noise reduction



Drill pipe supply for 5 drill pipes



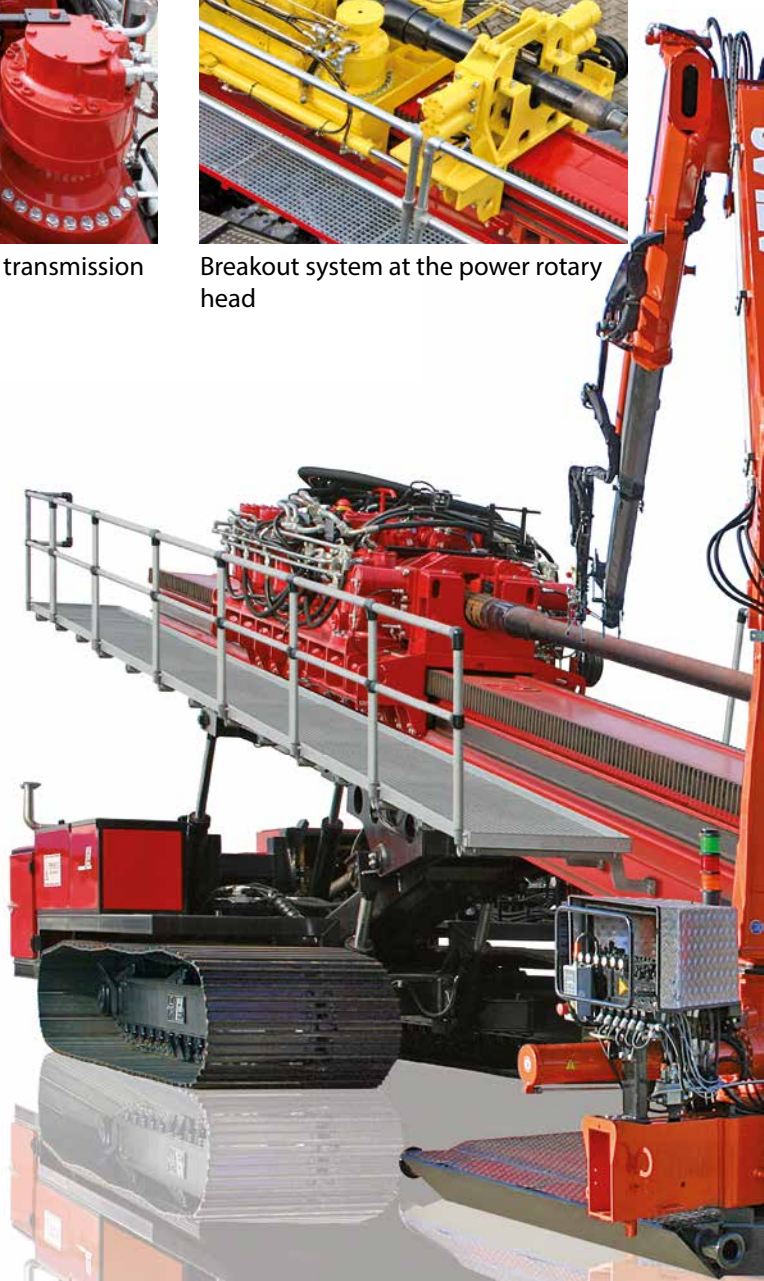
Detachable mast for transportation



Sturdy kinematics for mast setting



Remote control for drive mode





Drill data monitoring system records all drill data parameters



Automatic drill pipe lubrication system



Camera and lights for power rotary head and breakout system



Large control centre with heating and air conditioning



Bentonite supply, hydraulically lockable with by-pass



Drill pipe crane with remote control



Three dimensional drill pipe gripper, rotating and pivoting



Breakout system with easy replaceable and self-centering clamping jaws

# Modular construction



Thanks to their modular construction our rigs are easy to transport.



At customer's request the drill mast has the option to be detached from the undercarriage. This eliminates the requirement for special transport permits.



None of the components weighs more than 20 t to enable transportation by articulated truck.





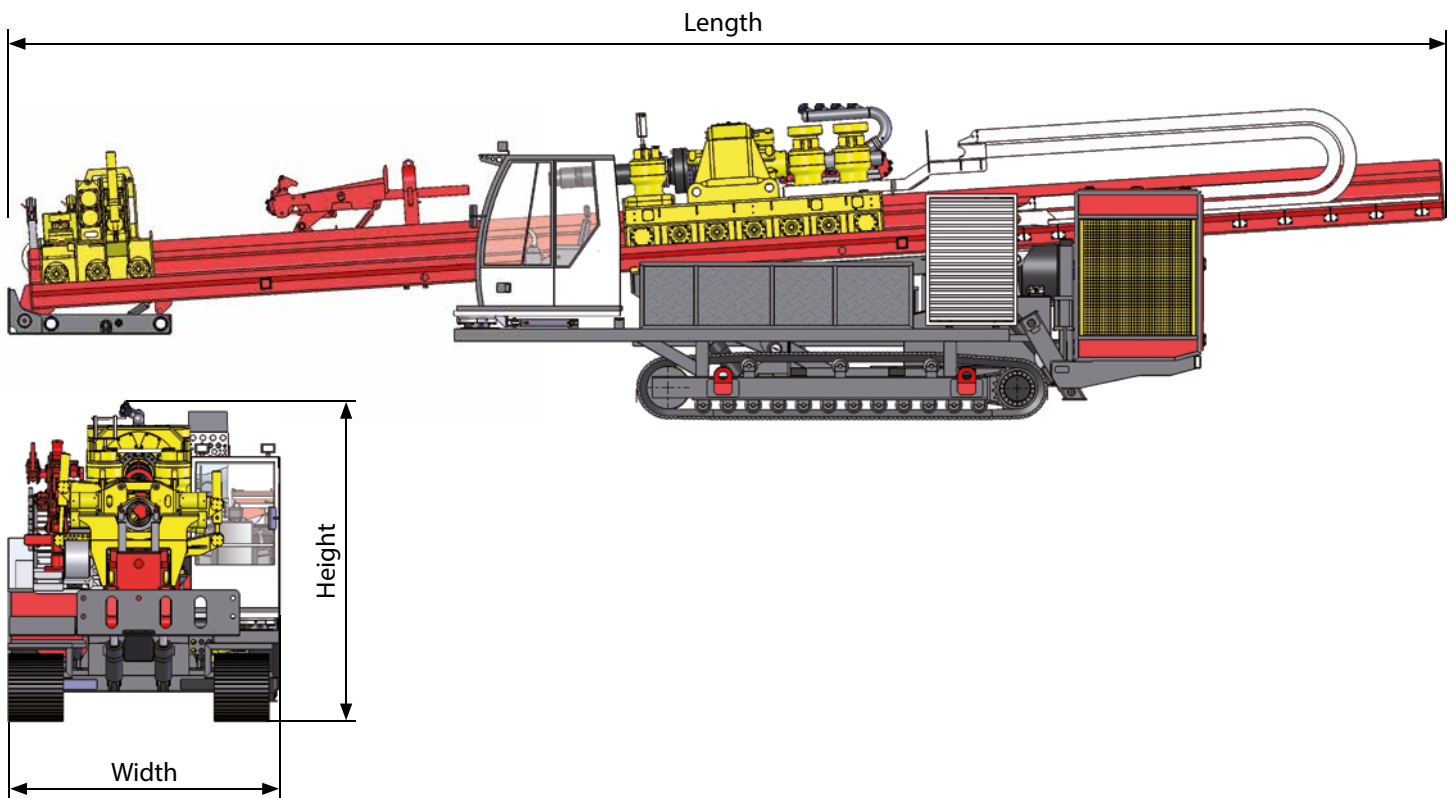






# PD 150 - 600 RP-C on crawler

	PD 150	PD 200	PD 250	PD 300	PD 400	PD 500	PD 600
Pull force	150 t	200 t	250 t	300 t	400 t	500 t	600 t
Torque	70 / 120 kNm	70 / 120 kNm	90 / 150 kNm	90 / 180 kNm	120 / 180 kNm	120 / 180 kNm	120 / 180 kNm
Inclination angle	8° - 16°	8° - 16°	8° - 16°	8° - 16°	8° - 16°	8° - 16°	8° - 16°
Power rating/motor	330 / 470 kW	330 / 470 kW	330 / 570 kW	470 / 570 kW	570 / 900 kW	570 / 900 kW	570 / 900 kW
Noise volume max.	86 dB(A)	86 dB(A)	86 dB(A)	86 dB(A)	86 dB(A)	86 dB(A)	86 dB(A)
Transportation length	15.5 m	15.5 m	16.0 m	16.5 m	16.5 m	17.5 m	17.5 m
Transportation width	2.5 m	2.5 m	3.0 m	3.0 m	3.2 m	3.2 m	3.2 m
Transportation height	3.2 m	3.3 m	3.4 m	3.4 m	3.4 m	3.4 m	3.4 m
Weight	32,800 kg	39,400 kg	39,400 kg	39,400 kg	53,500 kg	53,500 kg	53,500 kg

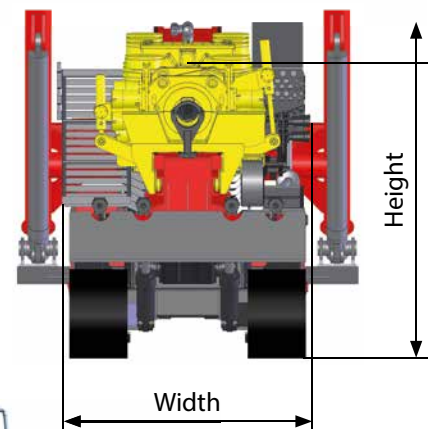
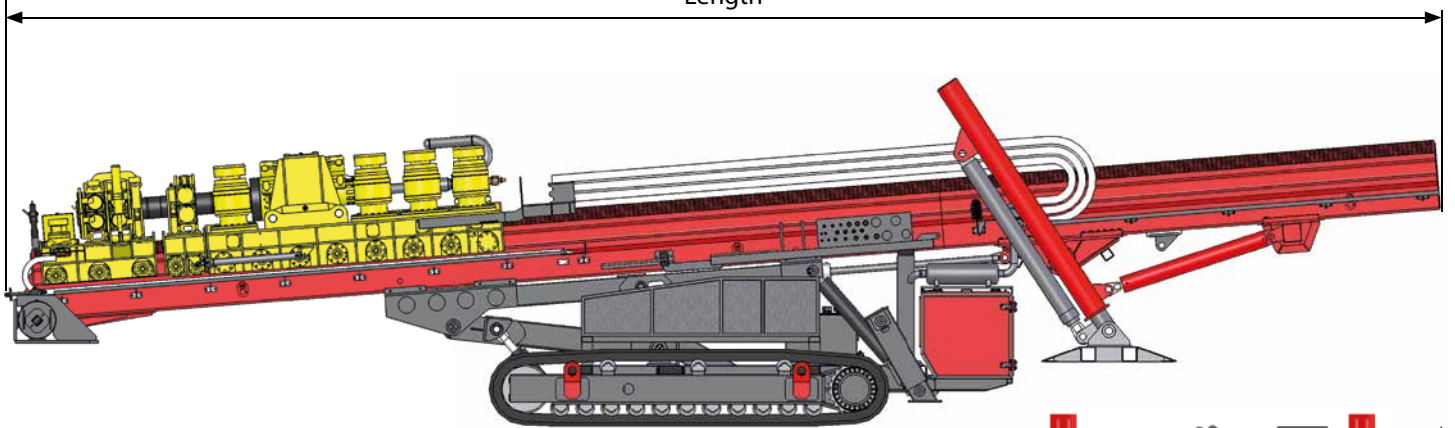


# PD 150 - 600 RP-C with detachable carriage

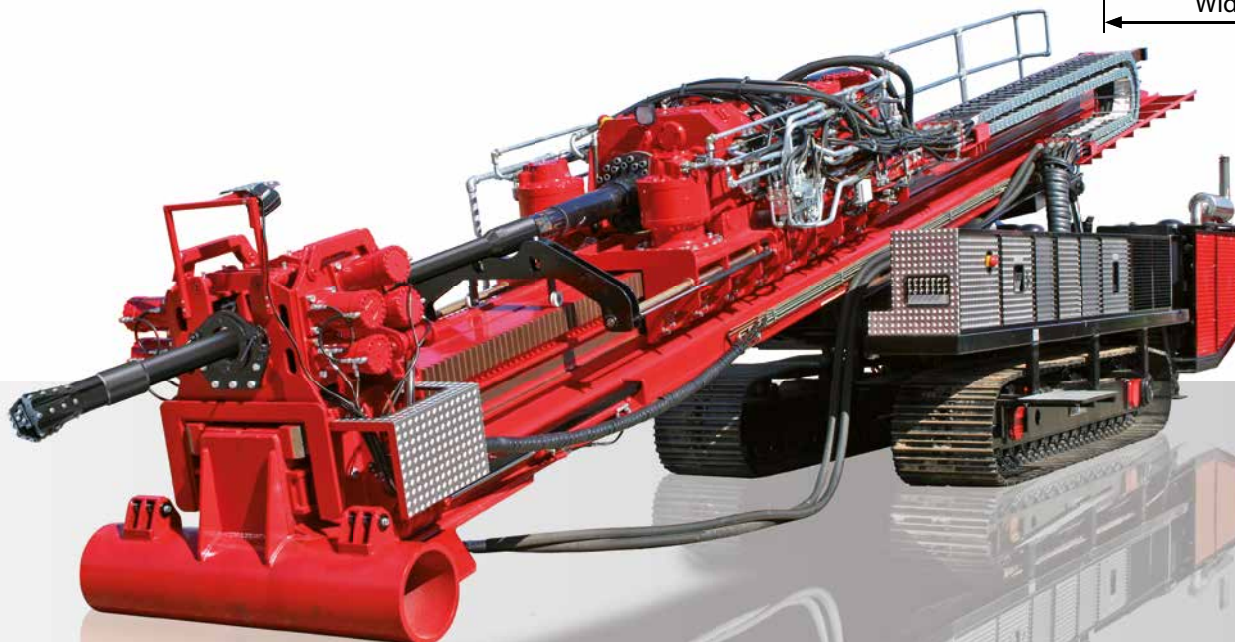


	PD 150	PD 200	PD 250	PD 300	PD 400	PD 500	PD 600
Pull force	150 t	200 t	250 t	300 t	400 t	500 t	600 t
Torque	70 / 120 kNm	70 / 120 kNm	90 / 150 kNm	90 / 180 kNm	120 / 180 kNm	120 / 180 kNm	120 / 180 kNm
Inclination angle	8° - 16°	8° - 16°	8° - 16°	8° - 16°	8° - 16°	8° - 16°	8° - 16°
Power rating/motor	330 / 470 kW	330 / 470 kW	330 / 570 kW	470 / 570 kW	570 / 900 kW	570 / 900 kW	570 / 900 kW
Noise volume max.	86 dB(A)	86 dB(A)	86 dB(A)	86 dB(A)	86 dB(A)	86 dB(A)	86 dB(A)
Transportation length	15.5 m	15.5 m	16.0 m	16.5 m	16.5 m	17.5 m	17.5 m
Transportation width	2.5 m	2.5 m	3.0 m	3.0 m	3.2 m	3.2 m	3.2 m
Transportation height	3.4 m	3.4 m	3.4 m	3.4 m	3.4 m	3.4 m	3.4 m
Weight	35,300 kg	44,300 kg	44,300 kg	44,300 kg	58,400 kg	58,400 kg	58,400 kg

Length

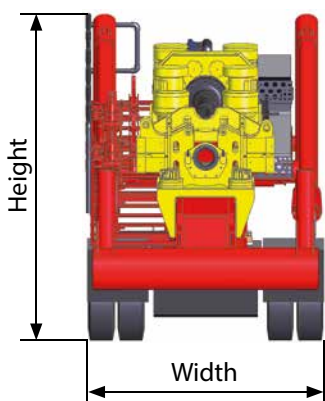
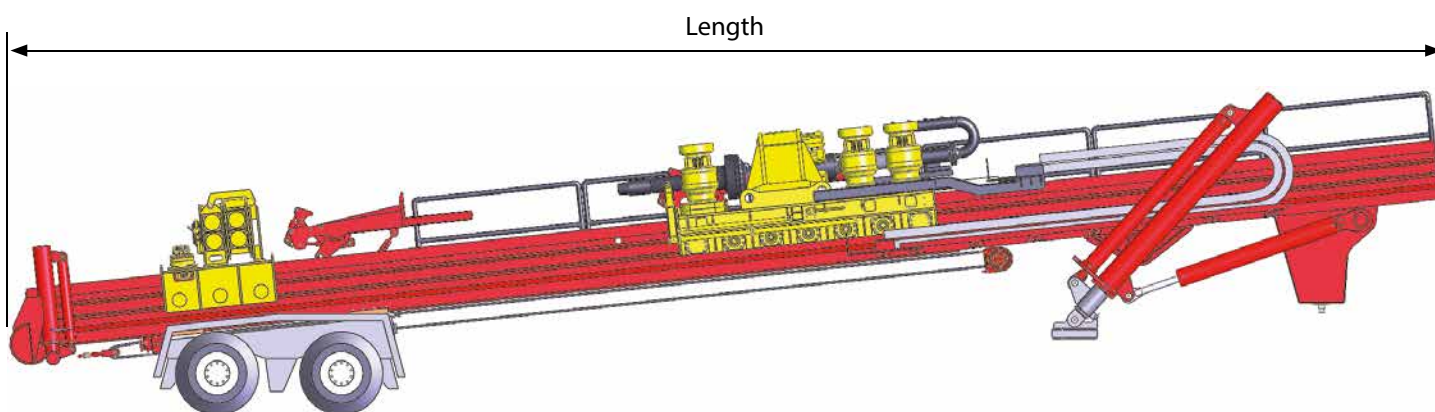


Detachable support for transportation



# PD 150 - 600 RP-T on trailer

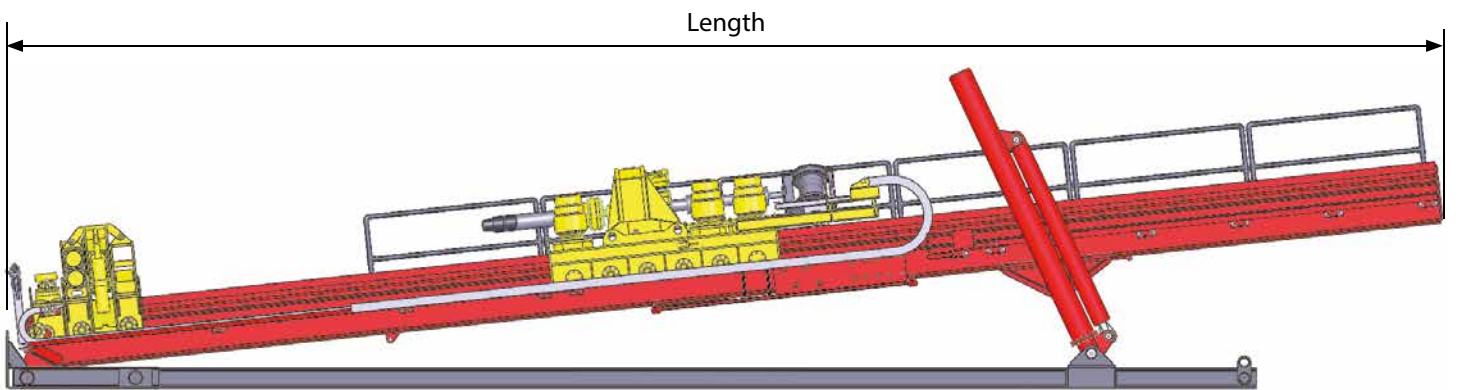
	PD 150	PD 200	PD 250	PD 300	PD 400	PD 500	PD 600
Pull force	150 t	200 t	250 t	300 t	400 t	500 t	600 t
Torque	70 / 120 kNm	70 / 120 kNm	90 / 150 kNm	90 / 180 kNm	120 / 180 kNm	120 / 180 kNm	120 / 180 kNm
Inclination angle	8° - 16°	8° - 16°	8° - 16°	8° - 16°	8° - 16°	8° - 16°	8° - 16°
Power rating/motor	330 / 470 kW	330 / 470 kW	330 / 570 kW	470 / 570 kW	570 / 900 kW	570 / 900 kW	570 / 900 kW
Noise volume max.	86 dB(A)	86 dB(A)	86 dB(A)	86 dB(A)	86 dB(A)	86 dB(A)	86 dB(A)
Transportation length	15.5 m	15.5 m	16.0 m	16.5 m	16.5 m	17.5 m	17.5 m
Transportation width	2.6 m	2.6 m	2.6 m	2.6 m	2.6 m	2.6 m	2.6 m
Transportation height	2.8 m	2.8 m	2.8 m	2.8 m	2.8 m	2.8 m	2.8 m
Weight	29,000 kg	30,500 kg	30,500 kg	30,500 kg	39,000 kg	39,000 kg	39,000 kg



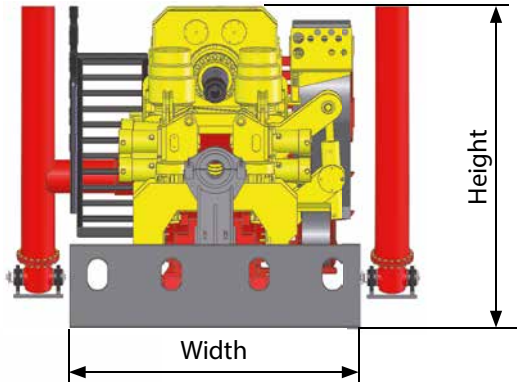
# PD 150 - 600 RP-F on steel frame



	PD 150	PD 200	PD 250	PD 300	PD 400	PD 500	PD 600
Pull force	150 t	200 t	250 t	300 t	400 t	500 t	600 t
Torque	70 / 120 kNm	70 / 120 kNm	90 / 150 kNm	90 / 180 kNm	120 / 180 kNm	120 / 180 kNm	120 / 180 kNm
Inclination angle	8° - 16°	8° - 16°	8° - 16°	8° - 16°	8° - 16°	8° - 16°	8° - 16°
Power rating/motor	330 / 470 kW	330 / 470 kW	330 / 570 kW	470 / 570 kW	570 / 900 kW	570 / 900 kW	570 / 900 kW
Noise volume max.	86 dB(A)	86 dB(A)	86 dB(A)	86 dB(A)	86 dB(A)	86 dB(A)	86 dB(A)
Transportation length	15.5 m	15.5 m	16.0 m	16.5 m	16.5 m	17.5 m	17.5 m
Transportation width	2.4 m	2.4 m	2.4 m	2.4 m	2.4 m	2.4 m	2.4 m
Transportation height	2.8 m	2.8 m	2.8 m	2.8 m	2.8 m	2.8 m	2.8 m
Weight	23,800 kg	32,900 kg	32,900 kg	32,900 kg	47,900 kg	47,900 kg	47,900 kg



Detachable support for transportation



# Prime Drilling Special Rigs



HDD-rig with integrated Pipe Pusher







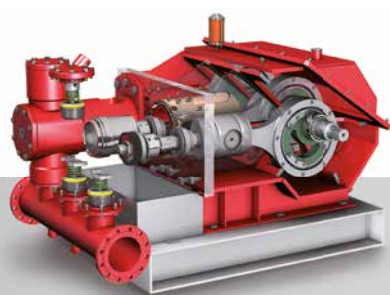
HDD-rig on Pontoon



# Mud components

## Mud pumps

	PD X-2.000 1,6 HD	PD X-2.000 2,1 HD	PD X-2.000 2,4 HD	PD X-3.000 2,7 HD	PD X-3.000 3,0 HD	PD X-3.000 3,5 HD
Power rating/motor	280 kW	330 kW	380 kW	470 kW	520 kW	570 kW
Speed	155 rpm	200 rpm	235 rpm	180 rpm	200 rpm	230 rpm
Volume rate	1,600 l/min	2,100 l/min	2,400 l/min	2,700 l/min	3,000 l/min	3,500 l/min
Pressure max.	120 bar	110 bar	107 bar	113 bar	102 bar	107 bar
Container size	20 ft	20 ft	20 ft	20 ft	20 ft	20 ft



## Mud mixing units

	PD M-2.000 1,6 E	PD M-2.000 2,1 E	PD M-2.000 2,4 E	PD M-3.000 2,7 E	PD M-3.000 3,0 E	PD M-3.000 3,5 E
Mixing pump	22 kW	45 kW	45 kW	45 kW	75 kW	75 kW
Transfer pump	22 kW	45 kW	45 kW	45 kW	45 kW	45 kW
Mixing volume	1,600 l/min	2,100 l/min	2,400 l/min	2,700 l/min	3,000 l/min	3,500 l/min
Container size, mixing cube	10 ft	10 ft	10 ft	10 ft	10 ft	10 ft
Container size, per tank	20 ft	3 x 20 ft	3 x 20 ft	40 ft	40 ft	40 ft



## Mud recycling systems

	PD R-2.000 1,6 E	PD R-2.000 2,1 E	PD R-2.000 2,4 E	PD R-3.000 2,7 E	PD R-3.000 3,0 E	PD R-3.000 3,5 E
Loading pump	55 kW	55 kW	55 kW	75 kW	75 kW	75 kW
Transfer pump	22 kW	22 kW	22 kW	45 kW	45 kW	45 kW
Recycling power rate	1,600 l/min	2,100 l/min	2,400 l/min	2,700 l/min	3,000 l/min	3,500 l/min
Container size, platform	2 x 15 ft	2 x 15 ft	2 x 15 ft	2 x 15 ft	3 x 15 ft	3 x 15 ft
Container size, tank	20 ft	20 ft	20 ft	20 ft	20 ft	20 ft









## Directional drill pipes

Size	Drill pipe length	Thread type	Weight
3 1/2"	5,000 mm	2 7/8" IF	115 kg
3 1/2"	6,000 mm	2 7/8" IF	130 kg
3 1/2"	5,000 mm	3 1/2" IF	125 kg
3 1/2"	6,000 mm	3 1/2" IF	140 kg
5"	5,000 mm	4 1/2" IF	190 kg
5"	6,000 mm	4 1/2" IF	205 kg
5"	9,600 mm	4 1/2" IF	315 kg
6 5/8"	9,600 mm	6 5/8" FH	397 kg
7 5/8"	9,600 mm	6 5/8" FH DS	485 kg

## Barrel reamer / Fly cutter

Diameter	Thread type pin x box	Thread type pin x box	Thread type pin x box	Thread type pin x box
300 mm	2 7/8" IF	3 1/2" IF		
400 mm			4 1/2" IF	
400 / 600 mm			4 1/2" IF	
450 mm	2 7/8" IF	3 1/2" IF		
450 / 600 mm	2 7/8" IF	3 1/2" IF		
600 mm				6 5/8" FH
600 / 750 mm	2 7/8" IF	3 1/2" IF		
600 / 800 mm			4 1/2" IF	6 5/8" FH
750 / 900 mm	2 7/8" IF	3 1/2" IF		
900 / 1,050 mm		3 1/2" IF		
800 / 1,000 mm			4 1/2" IF	6 5/8" FH
1,000 / 1,200 mm			4 1/2" IF	6 5/8" FH
1,200 / 1,400 mm			4 1/2" IF	6 5/8" FH
1,400 / 1,600 mm			4 1/2" IF	6 5/8" FH
1,600 / 1,800 mm				6 5/8" FH

## Swivel spade-internal thread

Tensile load max.	Thread connection Ø	Weight
30 t	3 1/2" IF	80 kg
40 t	4 1/2" IF	82 kg
60 t	4 1/2" IF	114 kg
80 t	4 1/2" IF	177 kg
100 t	4 1/2" IF	190 kg
150 t	6 5/8" Reg	260 kg
200 t	6 5/8" Reg	390 kg
300 t	7 5/8" Reg	770 kg
400 t	7 5/8" Reg	1,230 kg
500 t	7 5/8" Reg	1,740 kg
600 t	7 5/8" Reg	1,880 kg

## Our philosophy is SAFETY FIRST

**PRIME DRILLING®** guarantees with its HDD-drill technical components utmost safety for trouble-free operation on site. **PRIME DRILLING®** supplies a wide range of accessories. You will find details in our catalogue.



Welding works



Assembly works



Hydraulic assembly of a control stand



Final installation of a drill mast



Space- saving electronic assembly



Final inspection and testing of a drilling rig at **PRIME DRILLING®**



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**PRIME DRILLING®** has been manufacturing high-quality Horizontal Directional Drilling Rigs and components on its 4,000 m<sup>2</sup> production area and 800 m<sup>2</sup> office area with more than 70 employees since the year 2000.

11/2015

