

E+M

UNIVERSAL DRILLING RIG UH2-R

Fully hydraulic universal drilling rigs
for all drilling methods



Hook load **240 kN**
Torque **14.200 Nm**

E+M DRILLING TECHNOLOGIES GMBH

Tradition - Quality - Innovation - Partnership - Worldwide



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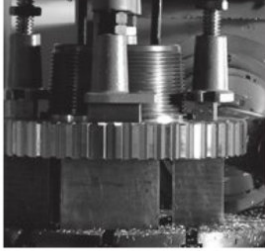


E+M - A COMPANY RICH IN TRADITION. HIGHEST STANDARDS FOR A TOP QUALITY.

From its foundation in 1919, our company has always developed its drilling systems in-house. For many decades, all new and practical experience gained is integrated in the design and production of our drilling technology.

Many national and international drilling companies using E+M systems and equipment for the execution of drilling orders benefit from the advantages offered by our company.





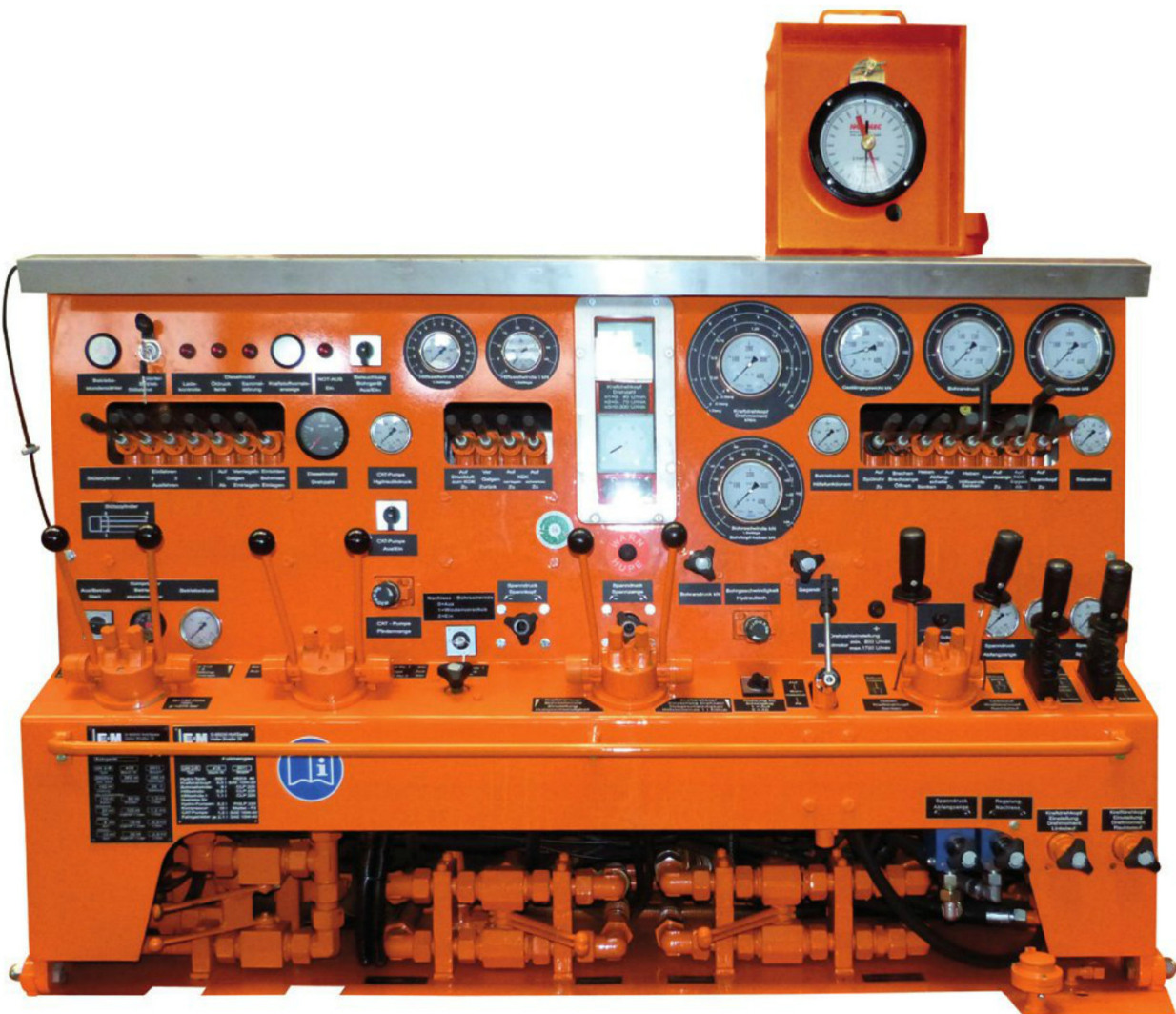
TIDY, WELL-ARRANGED. FULL CONTROL FOR A PRECISE WAY OF WORKING.

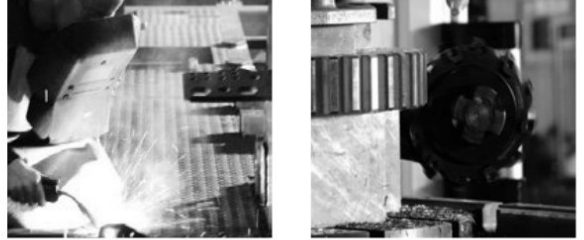
The E+M control panel:

Basic settings, auxiliary controls, system monitoring are arranged on the left side.

The control elements and displays for control at the drilling point are located on the right third of the panel. This enables the machine operator to have the machine and the drilling in view and under control.

The uniform arrangement of all control elements is characteristic for all E+M type series. Additional devices like generators or compressors, which are installed on the machine, can be controlled by means of the control panel as well. Hydraulic measurement connections allow for the constant monitoring of drilling data.





**E+M DRILLING SYSTEMS. FLEXIBLE FOR DAILY PRACTICE.
A ROD BELL OR A CLAMP HEAD CAN BE COUPLED TO
THE TOP DRIVE CONNECTION.**

Speeds and torques can be adjusted hydraulically. Downstream change gears increase the range between min. and max.

Due to a clearance of up to 100 mm in the top drive direct or indirect flush drilling can be performed. The top drive and the drilling cable winch are decisive factors for the versatile application of the universal drilling systems from Hof on the Saale.

- 1) The top drive enables the drilling cable, hydraulically.
- 2) The high overturning torque at the top drive allows for a fast handling of the drill rods.



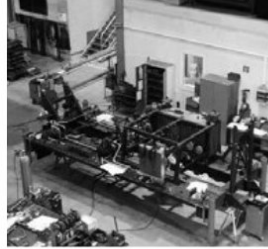


**E+M PIGGYBACK. NOTHING IS MISSING.
FROM WINCHES, MUD PUMPS, COMPRESSOR TO MAINTENANCE LADDERS -
EVERYTHING IS MOUNTED IN A FUNCTIONAL WAY.**

Almost countless details contribute to a trouble-free and long-term operation of the E+M drilling systems. Emphasis has always been placed on detailed work during finishing the systems. This is in evidence in each completion of a system. These details have proven themselves in drilling work for many years. Thus, only one adequately equipped universal drilling system allows for the performance of many drilling tasks.

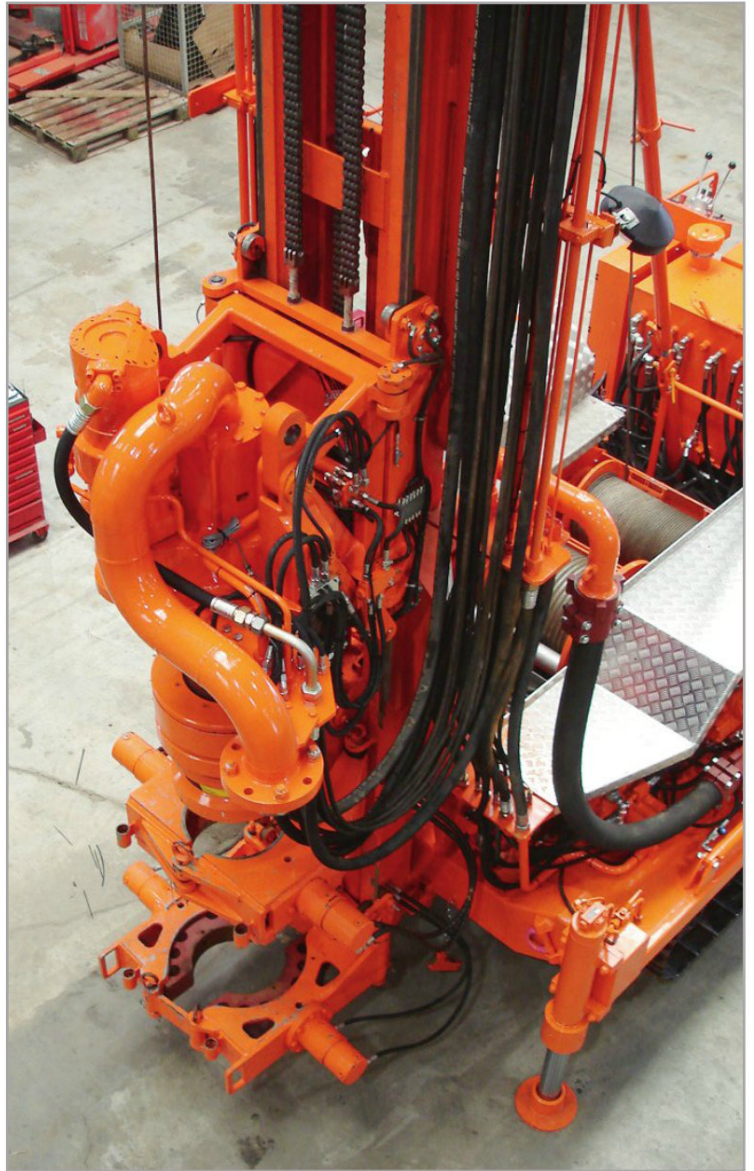
- 1) Safety at the switch point: gratings that are safe to step, firmly fixed.
- 2) Free and safe access to all mounted components.
- 3) Capability of connecting for external compressor or pumps.





FULLY HYDRAULIC DRILLING MAST - FROM A TO Z.

From the swivel arm to the gripper - all functions can be precisely controlled from the control panel. For this, a good visibility is essential - even when it is raining or cold. The high performance density of the hydraulic system allows for small and rugged control and drive components. This also applies to the components mounted on the platform. At E+M performance distribution is a matter of experience.





E+M insight





Drilling Accessories



Three-legged trestle with striking mechanism and winch for the education of well borers in Rostrup (Bau ABC)



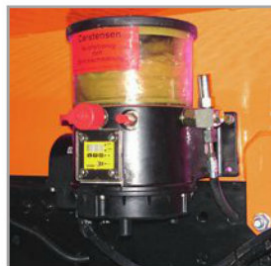
Halogen lights



Heating jacket for piston pump



Discharge hose, freely suspended



Central lubrication unit



Compressors / Generators



Rod clamp / Casing clamp



Weather-proof housing



Rod bell



Oscillating tubing machine up to \varnothing 832 mm



Tension meter



Recording instrument for tension meter



Auxiliary heating



Casing rotator up to \varnothing 445 mm



Striking mechanism



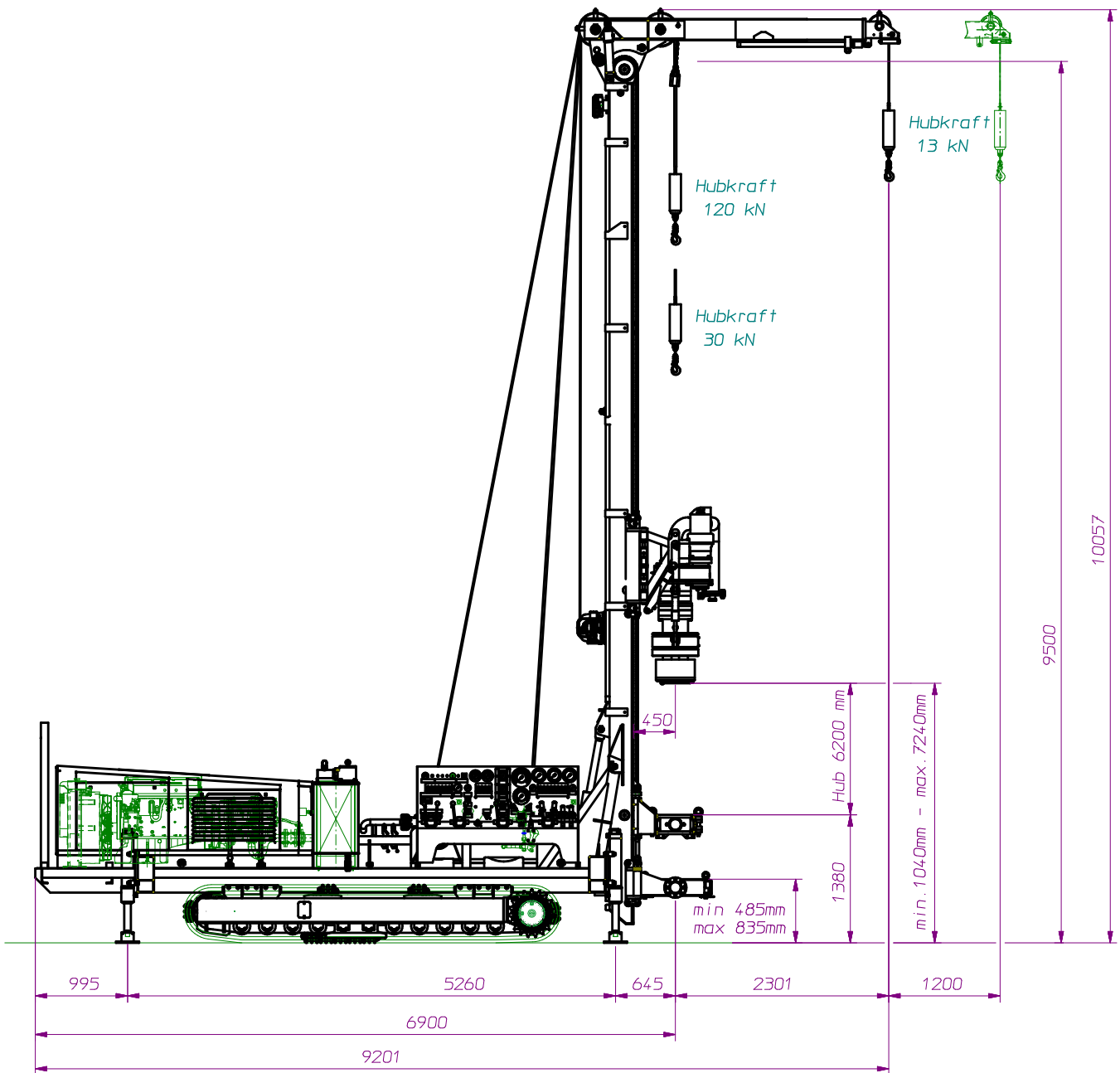
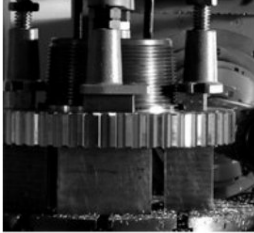
Centrifugal pump



OVERVIEW - TECHNICAL DATA

Construction series		UH2-R	UH3	UH4
Derrick with hydraulic feeding unit				
Free mast height max.	[mm]	9.500	11.600	11.900
Top drive stroke max.	[mm]	6.200	7.600	7.600
Pressing force max.	[kN]	50	75	80
Traction force max.	[kN]	110	150	200
Hook load max.	[kN]	240	320	500
Mast extension max.	[mm]	-	3.000	5.000
Auxiliary extension				
Displacement path max.	[mm]	1.200	1.200	1.200
Load max.	[kN]	13	50	40
Top drive / power swivel				
Torque max.	[Nm]	14.200	21.000	30.000 / 51.000
Revolutions per minute max.	[min-1]	300	320	367/140
Clearance max.	[mm]	100	123	140
Tilting / swivelling angle max.	[°]	70	85/102	85/106
Tilting moment max.	[kNm]	36	59	59
Drilling cable winch, hydraulic, traction force max.	[kN]	120	80	125
Wire line winch, hydraulic, traction force max.	[kN]	30	20	20
Auxiliary cable winch, hydraulic, traction force max.	[kN]	13	30	30
Rod screwing device				
Rod bell, mechanical Ø max.	[mm]	200	250	250
Clamp head, hydraulic Ø max.	[mm]	200	200	200
Rod clamp, hydraulic				
Clearance, opened / closed Ø max.	[mm]	630-330	1.150-300	1.450-330
Collet Ø max.	[mm]	324	273	324
Casing clamp, hydraulic				
Clearance, opened / closed Ø max.	[mm]	523	1.150-420	-
Collet Ø max.	[mm]	508	419	-
Break tong, hydraulic				
Collet Ø max	[mm]	273	273	273
Breaking force max.	[Nm]	34.000	34.000	34.000
Rotary casing rotator,-machine, hydraulic		-	possible/possible	possible/possible
Striking mechanism, hydraulic, load / number of impacts	[kN/i]	-	-	-
Mud pumps, delivery rate / pressure max.	[L/min] / [bar]	280/18	750/20	750/20
Compressors / generators		possible/possible	possible/possible	possible/possible
Carrier vehicle / Chassis		All types are possible.		

All values are maximum values. These and the equipment elements are options. They also can exclude each other.



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