

Materials Services
Infrastructure

Drifter HB48



thyssenkrupp



Drifter HB48

HB48 is a Drifter (top-hammer) especially developed for:

- Micropile drilling up to a casing diameter of 7 inch (ø178 mm)
- Overburden drilling up to an outside casing diameter of 7 inch (ø178 mm)
- Threaded hollow bar drilling (self-drilling anchors) up to a bar diameter of 4 inch (ø103 mm)
- Auger drilling (CFA) up to an auger diameter of 36 inch (ø900 mm)

HB48 has a standard built-in rubber damping mechanism to avoid blank impacts and to allow percussion during retraction of casings and augers; optional with a hydraulic damping mechanism.

HB48 achieves an optimal drilling performance in different types of soil by adjusting the impact frequency and the impact energy, therefore 3 different impact frequencies and impact energies are available.

HB48 offers 3 different ways to switch between the percussion mechanism and the speed of the rotary drive, either electrically or hydraulically or manually (by hand) and it offers 4 different high-speed and high-pressure motors (344 ccm, 480 ccm, 677 ccm, 940 ccm).

Percussion Unit for Anchor Drilling

Operating pressure (kp/cm ²)	180 - 200 bar
Oil flow rate (l/min)	80 - 90 lpm
Impact rate (min ⁻¹)	(20 32 40 Hz) 1,200 1,900 2,400 bpm
Single impact energy (Joule)	840 540 420 Nm

Percussion Unit for Rock Drilling

Operating pressure (kp/cm ²)	180 - 200 bar
Oil flow rate (l/min)	80 - 90 lpm
Impact rate (min ⁻¹)	(40 45 Hz) 2,400 2,700 bpm
Single impact energy (Joule)	420 380 Nm

Shank Adaptors (Striker Bars)

Male thread (standard)	C112 left C112 right
Male thread	T90 left C90 left C90 right
Male thread	R(H)112 left R(H)112 right

Options

- external flushing head for casings and self-drilling hollow bars
- built-in RPM sensor with external box for speed indication
- in the drilling axis freely slideable (60 mm)
- percussion unit for rock drilling
- drifter with hydraulic damping mechanism
- central lubrication system

Rotary Drives

Motor-Version 344 ccm (two-speed)

Pressure at rotary drive		170 bar				200 bar				240 bar				280 bar				
Gear		4 th	3 rd	2 nd	1 st	4 th	3 rd	2 nd	1 st	4 th	3 rd	2 nd	1 st	4 th	3 rd	2 nd	1 st	
Oil flow rate (lpm)	90	Torque (Nm)	1,600	2,600	3,600	5,500	1,900	3,100	4,300	6,600	2,400	3,800	5,200	7,900	2,900	4,500	6,100	9,300
		Speed (rpm)	126	84	63	42	126	84	63	42	126	84	63	42	126	84	63	42
	120	Torque (Nm)	1,200	2,400	3,500	5,400	1,600	2,900	4,200	6,400	2,000	3,600	5,100	7,800	2,500	4,300	6,000	9,100
		Speed (rpm)	168	112	84	56	168	112	84	56	168	112	84	56	168	112	84	56
	170	Torque (Nm)	1,100	2,100	3,300	5,100	1,400	2,600	4,000	6,200	1,900	3,300	4,900	7,500	2,300	4,000	5,800	8,900
		Speed (rpm)	238	158	119	79	238	158	119	79	238	158	119	79	238	158	119	79

1st gear (parallel mode), 2nd gear (parallel + 2-speed mode), 3rd gear (serial mode), 4th gear (serial + 2-speed mode)

Motor-Version HP480 ccm (two-speed)

Pressure at rotary drive		170 bar				200 bar				240 bar				280 bar				
Gear		4 th	3 rd	2 nd	1 st	4 th	3 rd	2 nd	1 st	4 th	3 rd	2 nd	1 st	4 th	3 rd	2 nd	1 st	
Oil flow rate (lpm)	90	Torque (Nm)	2,400	3,600	5,100	7,700	2,700	4,300	6,000	9,100	3,400	5,300	7,300	11,100	4,000	6,200	8,600	13,000
		Speed (rpm)	90	60	45	30	86	60	45	30	90	60	45	30	90	60	45	30
	120	Torque (Nm)	1,800	3,400	4,900	7,500	2,200	4,100	5,900	8,900	2,800	5,000	7,200	10,900	3,500	6,000	8,400	12,800
		Speed (rpm)	120	80	60	40	114	80	60	40	120	80	60	40	120	80	60	40
	170	Torque (Nm)	1,600	2,900	4,600	7,200	2,000	3,600	5,600	8,600	2,600	4,600	6,800	10,500	3,200	5,500	8,100	12,400
		Speed (rpm)	170	114	85	57	170	114	85	57	170	114	85	57	170	114	85	57

1st gear (parallel mode), 2nd gear (parallel + 2-speed mode), 3rd gear (serial mode), 4th gear (serial + 2-speed mode)

Motor-Version HP677 ccm (two-speed) (standard)

Pressure at rotary drive		170 bar				200 bar				240 bar				280 bar				
Gear		4 th	3 rd	2 nd	1 st	4 th	3 rd	2 nd	1 st	4 th	3 rd	2 nd	1 st	4 th	3 rd	2 nd	1 st	
Oil flow rate (lpm)	90	Torque (Nm)	3,200	5,100	7,100	10,900	3,800	6,100	8,500	12,900	4,700	7,400	10,300	15,600	5,600	8,800	12,100	18,300
		Speed (rpm)	64	43	32	21	64	43	32	21	64	43	32	21	64	43	32	21
	120	Torque (Nm)	2,400	4,800	6,900	10,600	3,100	5,800	8,300	12,600	4,000	7,100	10,100	15,500	4,900	8,500	11,900	18,000
		Speed (rpm)	85	57	43	28	85	57	43	28	85	57	43	28	85	57	43	28
	170	Torque (Nm)	2,100	4,100	6,500	10,100	2,800	5,100	7,900	12,100	3,700	6,400	9,700	14,800	4,600	7,800	11,400	17,500
		Speed (rpm)	121	80	60	40	121	80	60	40	121	80	60	40	121	80	60	40

1st gear (parallel mode), 2nd gear (parallel + 2-speed mode), 3rd gear (serial mode), 4th gear (serial + 2-speed mode)

Motor-Version HP940 ccm (two-speed)

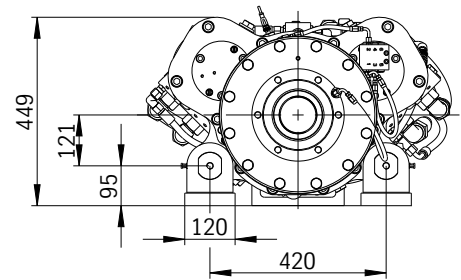
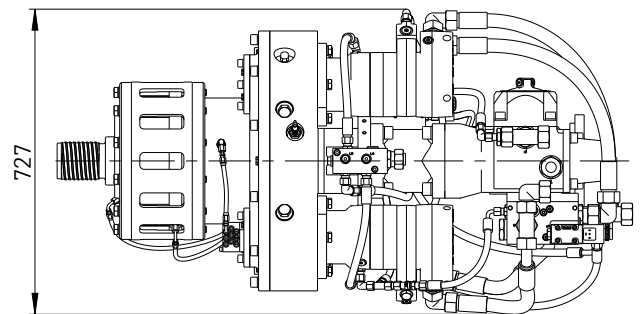
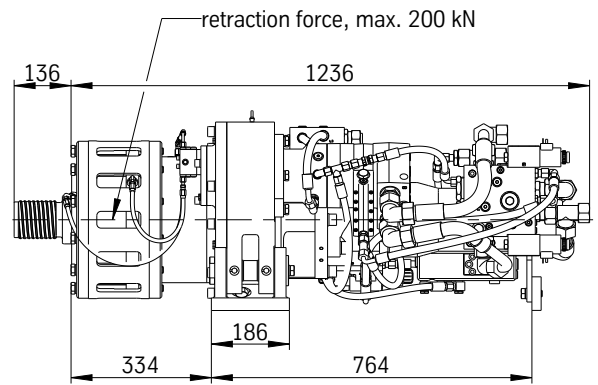
Pressure at rotary drive		170 bar				200 bar				240 bar								
Gear		4 th	3 rd	2 nd	1 st	4 th	3 rd	2 nd	1 st	4 th	3 rd	2 nd	1 st					
Oil flow rate (lpm)	90	Torque (Nm)	4,400	7,000	9,900	15,100	5,000	8,000	11,100	17,000	6,600	10,300	14,300	21,600				
		Speed (rpm)	46	31	23	15	46	31	23	15	46	31	23	15				
	120	Torque (Nm)	3,400	6,600	9,600	14,700	4,000	7,500	10,900	16,600	5,500	9,900	14,000	21,200				
		Speed (rpm)	61	41	31	20	61	41	31	20	61	41	31	20				
	170	Torque (Nm)	2,900	5,700	9,000	14,100	3,600	6,600	10,300	15,900	5,100	8,900	13,400	20,600				
		Speed (rpm)	87	58	43	29	87	58	43	29	87	58	43	29				

1st gear (parallel mode), 2nd gear (parallel + 2-speed mode), 3rd gear (serial mode), 4th gear (serial + 2-speed mode)

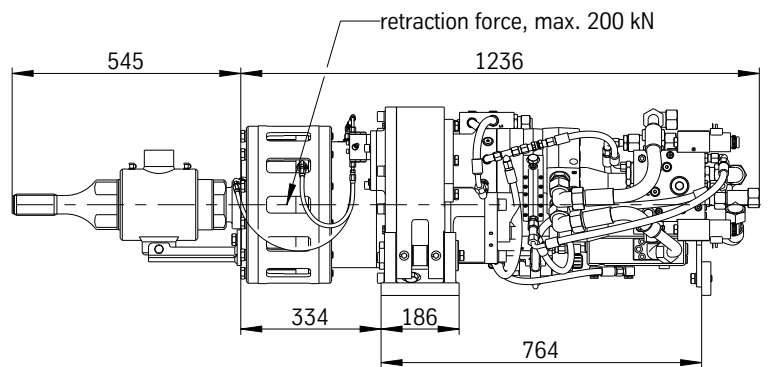
■ Intermittent mode (max. 10% per minute)

Dimensions

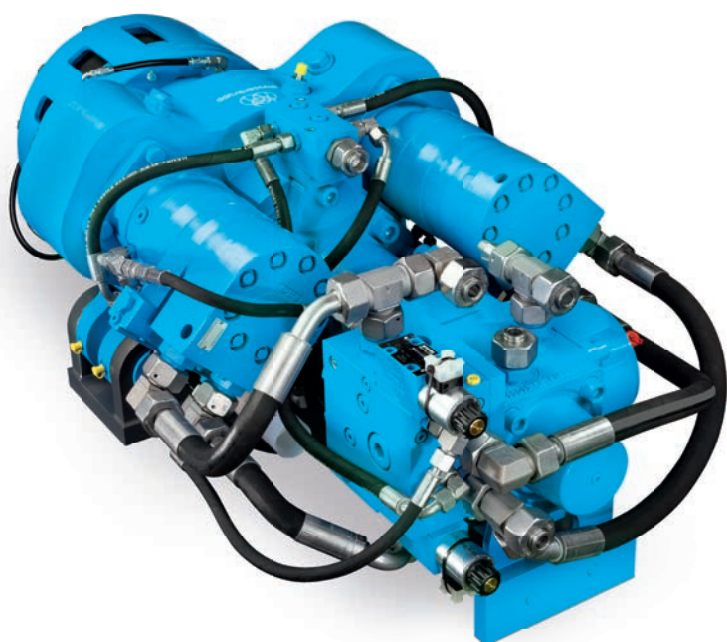
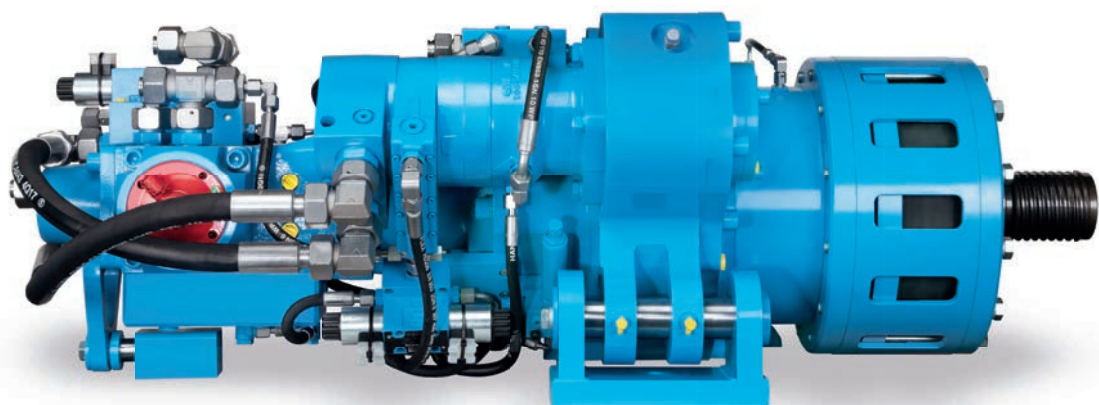
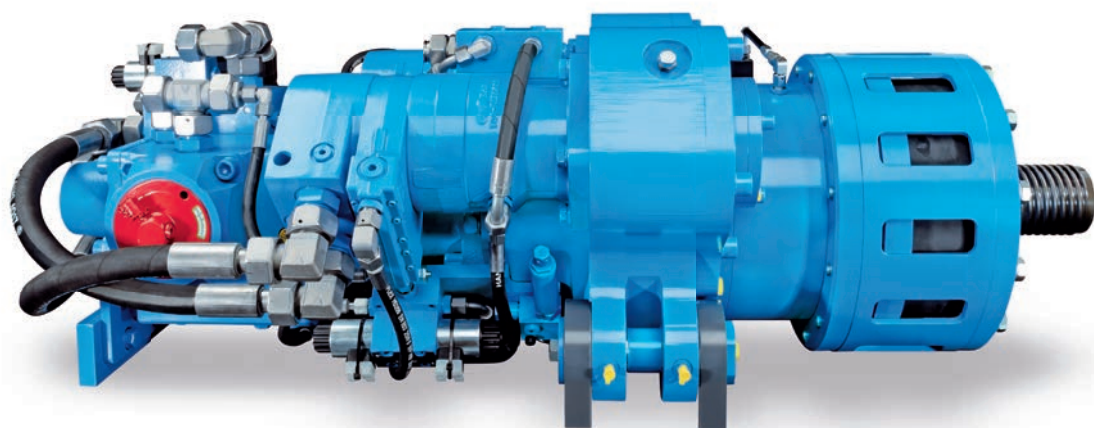
with rubber damping mechanism



with rubber damping mechanism & external flushing head



weight: 710 kg



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