

MH™ Vertical Pipe Handling System

Our MH™ Vertical Pipe Handling (VPH) System allows highly precise lifting of different stand sizes with one machine only. As part of our pipe racking system, it is normally assisted by an integrated guide arm or separate guide arms to handle stands on every type of rig.

Product description

Our VPH system is designed to lift the stand to and from fingerboard/setback. It is available in two different main versions to suit different finger board and derrick arrangements, XY or parallel racking arrangements. For safe and efficient working conditions all the VPH systems are controlled from the driller's control room (DCR).

Depending on the derrick layout, the following VPH systems are available:

- Vertical pipe racker VPR 100 - mounted at a vertical pedestal between the fingerboard and drillfloor at flush mounted rails
- Bridge crane BRC 100 - mounted between runway beams in the derrick above the fingerboard level and works together with a lower guiding arm LGA mounted at drill floor
- Intermediate racking arm IRA 100 - mounted between the set back at a lower level in the derrick and works together with the upper racking arm (URA)

Benefits

- Updated control system enables optimized curved paths
- Continuous synchronization of the upper and lower arm keeps the stands in a vertical position
- Gripper head can be adjusted in our DrillView™ system to cover a wide range of tubulars
- VPR gripper and guide head can be replaced in less than 15 min
- VPR includes tool to perform horizontal to vertical for size up to 14 in with one machine only

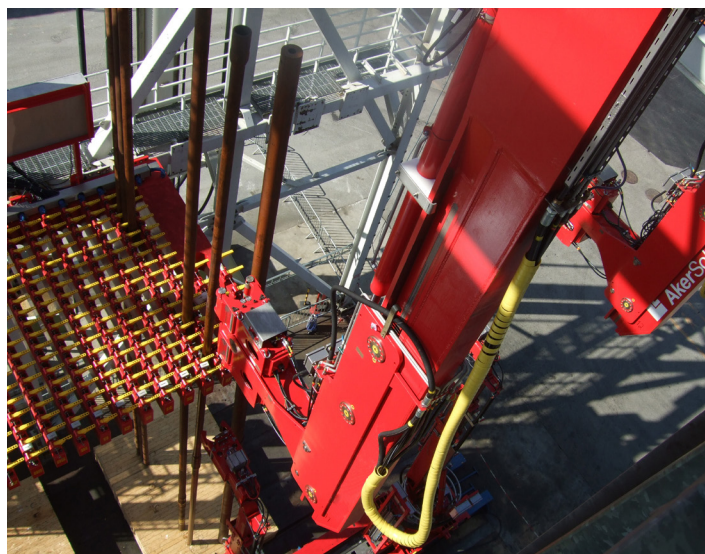
Key features

Sideways travel is performed by rack and pinion system. The VPR hoisting is achieved by an AC-driven winch. For BRC and IRA the lift is completed by cylinders.

Available options

- Radio control
- VPR stand building tool 3 ½ - 13 5/8 in and 14 – 22 in
- VPR grip/guide tool 2 7/8 – 10 in and 14 – 22 in
- Double system
- Stainless steel drag chain
- Substructure considering the rig layout





Technical specifications

	VPR 135 P EL - 24	VPR 90 P EL - 2	BRC 100 x 15 LH 33 - 845	BRC 1000 x 11,5 LH 22 - 847	IRA/URA
Lifting capacity	16.5 short tons @ 0 - 8.9 ft (15.0 mT @ 0 - 2.7 m) 12.1 short tons @ 8.9 - 12.1 ft (11.0 mT @ 2.7 - 3.7 m) 7.7 short tons @ 12.1 - 13.1 ft (7.0 mT @ 3.7 - 4.7 m)	12.7 short tons @ 0 - 8.9 ft (11.5 mT @ 0 - 2.7 m) 10.3 short tons @ 8.9 - 12.1 ft (9.3 mT @ 2.7 - 3.7 m) 7.72 short tons @ 12.1 - 13.1 ft (7.0 mT @ 3.7 - 4.7 m)	16.5 short tons (15.0 mT)	12.7 short tons (11.5 mT)	6.9 short tons (6.3 mT)
Lifting height	57.4 ft (17.5 m)	53.5 ft (16.3 m)	10.8 ft (3.3 m)	7.2 ft (2.2 m)	10.2 ft (3.1 m)
Lifting capacity crane mode, sling	7.7 short tons (7.0 mT)		22.0 short tons (20 mT)	N.A.	
Reach with 14 in casing, min./max.	15.4 ft (4.7 m) 6.89 ft (2.1 m)		N.A. No jib tilt		12.8 ft (3.9 m) 4.3 ft (1.3 m)
Pipe range stand building	3 ½ - 13 5/8 in		3 ½ - 14 in	2 7/8 - 9 ½ in	3 ½- 8 in
Finger board arrangement	Parallel		Parallel/XY	XY	
Stand type	Quad	Triple	Quad	Triple	
Lifting speed	1.3 fps (0.4 m/s)		0.7 fps (0.2 m/s)		1.0 fps (0.3 m/s)
Travel speed	1.3 fps (0.4 m/s)		1.6 fps (0.5 m/s)		1.6 fps (0.5 m/s)
Track length	50.2 ft (15.3 m)	38.2 ft (11.6 m)	19.7 ft (6.0 m) bridge beam	27.7 ft (8.45 m) bridge beam	9.8 ft (3.45 m) beam lay out
Weight excluding track	108 027 lb (49 000 kg)	73 850 lb (33 500 kg)	59 084 lb (26 800 kg)	37 479 lb (17 000 kg)	14 639 lb (6 640 kg)
Height	154.5 ft (48.0 m)	130.0 ft (39.6 m)	47.6 ft (14.5 m)	36.4 ft (11.1 m)	19.4 ft (5.9 m)
Slewing range	270°		210°		
Utility requirement VFD	87.2 gpm (us) (330 L/min) VFD 257.8 hp (190 kW)	63.4 gpm (us) (240 L/min) VFD 140.8 hp (105 kW)	264.2 gpm (us) (1 000 L/min)	92.5 gpm (us) (350 L/min)	42.2 gpm (us) (160 L/min)

Data is subject to confirmation by the manufacturer.

