

A large red and white industrial machine, the Iron Roughneck HV-IR120, is shown in an outdoor industrial setting. The machine is mounted on a white base and features a complex arrangement of hydraulic lines, hoses, and mechanical components. A large red arm extends from the top, and a black track system is visible on the right side. The background shows a white industrial building and a clear blue sky.

**IRON ROUGHNECK HV-IR120**

# PERFORMING AND HIGHLY EFFICIENT IRON ROUGHNECK

## Iron Roughneck HV-IR120

- › Handles API and premium connections and other extended length threaded tool joints
- › Standard hydraulic pilot operated controls (electrical version available)
- › Stepping guide
- › High torque spinner
- ›  $\pm 120^\circ$  torque rotation
- › Three jaw torquing system
- › Spinning wrench thread compensation

**AUTOMATED  
RIG TECHNOLOGY**



# Iron Roughneck HV-IR120

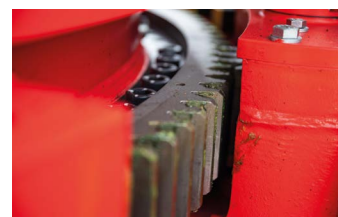
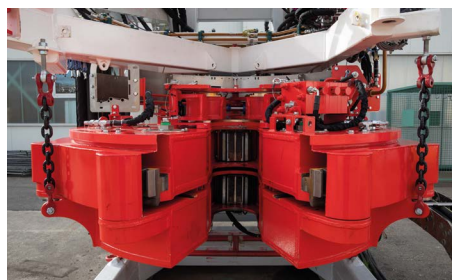
## Technical specifications

**Herrenknecht Vertical introduces the newest generation of Iron Roughneck**, developed and engineered for the toughest and most demanding working conditions, onshore or offshore: HV-IR120. The HV-IR120 Iron Roughneck takes on the toughest job on a rig – making up and breaking out drill pipe, drill collars

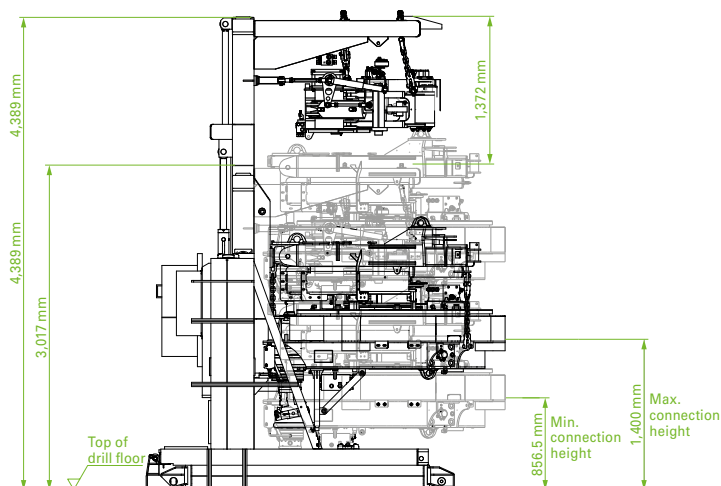
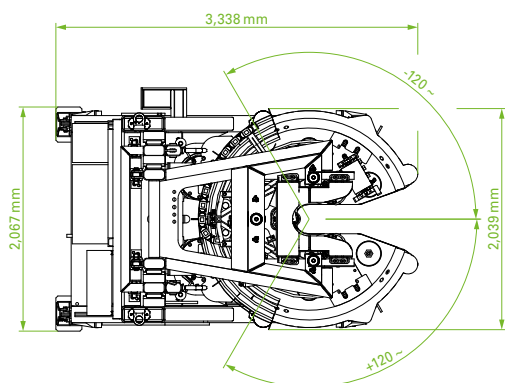
and BHAs – and still has more than enough torque to make and break drill bits. The HV-IR120 is able to deliver quick and efficient connections, due to its very innovative  $\pm 120^\circ$  torque up/breaking out sequence.

### IRON ROUGHNECK HV-IR120

Model	HV-IR120
› Torque make-up:	120,000 Nm (100,000 ft-lb)
› Torque break-out:	160,000 Nm (120,000 ft-lb)
› Torque rotation angle:	$\pm 120^\circ$
› Tubular range:	2 3/8" - 10"
› Spinner torque:	4,300 Nm (3,200 ft-lb)
› Horizontal travel:	Frame mounted
› Vertical travel – tongs:	550 mm
› Vertical travel – spinner:	1,550 mm
› Minimum connection height:	735 mm (29")
› Ambient temperature range:	-20°C to +40°C
› Bit breaking capability:	Yes
› Weight (without frame):	4,400 kg (9,700 lbs)
› Height stowed:	2,846 mm (112")
› Depth:	3,236 mm (127")
› Width:	2,067 mm (81")
› Max. flow:	250 l/min
› Max. pressure:	350 bar (5,000 psi)



### Design specifications\*



\*Supporting frame for illustration only



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