MINT MECH SPECIALIST ENGINEERS

IRON ROUGHNECK / MMIRN MK2

Make-up and break-out, by remote control.

A compact, hydraulically driven iron roughneck for geotechnical drilling rigs. It makes up and breaks out drill pipe by remote control, at a calibrated torque.

7,036 kgf·m
MAKE-UP TORQUE

9,280 kgf·m
BREAK-OUT TORQUE

60–380 mm
PIPE JOINT RANGE



01 THE CLAMPS



02 WITH ITS REMOTE CONTROL PANEL

MMIRN MK2 / STANDARD PRODUCT

A standard product, configured to your rig. Interfaces are configured to suit the rig geometry, the available hydraulics and the operator's preferences.

TYPICAL APPLICATIONS

Offshore geotechnical drilling rigs, single or twin mast. Offshore retrofit projects with limited footprint. Constrained drill floors where manual tonging has to go.

01 / REMOTE OPERATION

From the pedestal or the cabin.

Every function is controlled remotely from a pedestal or the driller's cabin.

02 / CALIBRATED TORQUE

Adjustable make-up torque.

Adjustable, calibrated make-up torque, with bit-breaker capability: it torques against the power swivel.

03 / NO PLC

Hardwired safety interlocking.

Full safety interlocking with hardwired logic and limit switches, and manual back-up controls for contingency operation.

04 / RETROFIT

Built for tight drill floors.

For offshore retrofit on single- and twin-mast rigs. Compact enough to fit a standard shipping container, depending on configuration.

PIPE HANDLING

The MMIRN MK2 replaces manual tong work and keeps people away from suspended loads, pinch points and uncontrolled pipe movement.

TECHNICAL SPECIFICATION

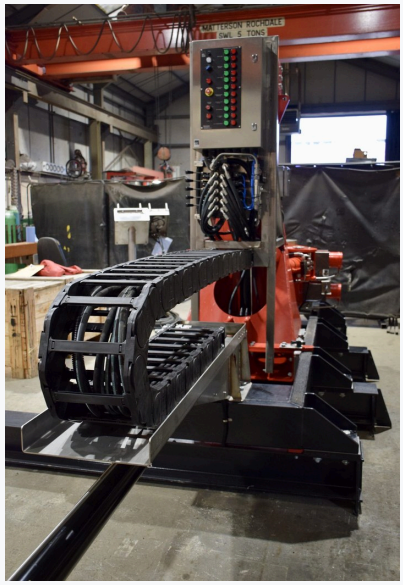
MINT MECH SPECIALIST ENGINEERS

Configured to your rig.

A standard product, engineered to the structure and interfaces of each derrick and drilling spread.

MMIRN MK2 SPECIFICATION

Pipe joint range	Ø60–380 mm (2 3/8″ - 15.0″).
Make-up torque	**7,036 kgf·m** (50,891 lbf·ft).
Break-out torque	**9,280 kgf·m** (67,122 lbf·ft).
Clamping force	25,650 kg (56,548 lb).
Travel	Horizontal 1,400 mm; vertical 675 mm; connection height 600–1,275 mm.
Hydraulic pressure	270 bar.
Assembly weight	~2,900 kg.
Dimensions (L×W×H)	4,400 × 1,490 × 2,550 mm.
Mount	Bolted.
Control	Remote panel (pedestal or driller's cabin) with make-up torque gauge and safe-position display; hardwired interlocking, no PLC.
Bit breaker	Can torque against the power swivel.



MMIRN MK2

Compact, hydraulically driven, bolted in place.

Headline parameters are given for initial discussion. Final performance, interfaces and certification basis are confirmed through project-specific engineering review.

INTEGRATION & RETROFIT

Engineered to your derrick.

- **Interfaces** - interface definition and GA-level integration engineering.
- **Structure** - structural integration into existing derricks or drill floors.
- **Certification** - a strategy aligned with class or third-party requirements.
- **Replacing an OEM unit** - suitability confirmed by engineering review of envelope, torque, duty cycle and certification basis.

CONTROLS

Panel and interlocks.

- **Make-up torque** - setting gauge.
- **Safe cylinder position** - display.
- **Clamp** - travel, height and position controls.
- **Interlocks** - safety limit switches and interlocked operating sequences.
- **Remote panel** - a dedicated panel can be supplied to suit the installation.

Contact us

Tell us the rig, the pipe range and the available hydraulics.

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