



Majestic Offshore, Inc

## TECHNICAL PROPOSAL TORQ-MATIC FLOOR WRENCH For Quotation TM-80

**MAJESTIC OFFSHORE**  
Mr. Gordon Rice

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### PROJECT INFORMATION

**Application:** TBD  
**Rig No:** TBD  
**Location:** TBD

**Inquiry Date:**  
**Client Ref. No:**

### SYSTEM SCOPE OF SUPPLY

#### 1. TM-80 Torq-Matic Automated Floor Wrench.

##### Make-up and Break-out Tong

- 1.1. Dual Jaw arrangement suitable for tool joints from 2 3/8" to 8.5".
- 1.2. Torque Range:  
Make-up Torque: 0 – 60,000 ft/lbs.  
Break-out Torque: 0 – 80,000 ft/lbs.
- 1.3. Pedestal style delivery arm pocket mounted to drill floor. Removable for transportation.
  - 1.3.1. 115" Max Horizontal Reach, 26" – 60" Tool joint height adjustment.
  - 1.3.2. 359° hydraulic rotation envelope.
  - 1.3.3. Exact wrench position achieved utilizing the programmable PLC function. This allows for one touch positioning of wrench to mouse hole(s) or well center.
  - 1.3.4. Shipping skid included for wrench transport.
  - 1.3.5. **OPTION – Floor Wrench Mount** – Flanged pocket facilitates connection from pedestal to rig substructure. Note: Does not include installation hardware or labor. Carrig will supply drawings to allow manufacturing by others if required.
- 1.4. Cycle Speed on 5" drill pipe 16 seconds (including automatic retract of wrench to trip position).
- 1.5. Transport dimensions: 75" L x 72 1/2" W x 110" H.
- 1.6. Weight approximately 6,800 lbs / 3,084 kg.

#### 2. TM-80 Pipe Spinner

- 2.1. Four Roller Drive for optimal spinning torque.
- 2.2. Roller speed: 100 rpm.
- 2.3. 2 3/8" – 8.5" tubular diameter range.

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**Torq-Matic Model TM-80**  
***Majestic Pumps***

**3. Control Console**

- 3.1. Automated PLC Control System with joystick and touch screen controls.
- 3.2. Operator touch screen torque readout.
- 3.3. Pipe Profiler™ feature; ensures that the exact torque is applied consistently to every connection. This is achieved utilizing the preprogrammed pipe connection profiles.
- 3.4. Operation and PLC diagnostic screens for easy troubleshooting.  
Operator quick switch hole center/mouse hole positioning.
- 3.5. **OPTION – Radio Control Device** (*priced separately*)
  - 3.5.1. Light weight wireless device capable of operating all functions from a distance of up to 50ft.
  - 3.5.2. C/W harness allowing operator to move about freely while maintaining ability to control wrench.
  - 3.5.3. Class I Div II rating.
  - 3.5.4. All-weather protective stand and holder for Remote Control; comes complete with the mounting post for mounting to the rig floor or any handrail.

**4. Hydraulic System**

- 4.1. **OPTION - Complete Electric Drive Hydraulic Power Unit.**
  - 4.1.1. 50 H.P. 3 Phase TEFC Electric motor.
  - 4.1.2. Direct coupled C-flange mounted 5000 psi, 65 GPM, Axial Piston Pump.
  - 4.1.3. Proportional Pressure Control Valve.
  - 4.1.4. In-tank filtration to 5 microns and High Pressure filtration to 5 microns.
  - 4.1.5. 100 gallon capacity.
  - 4.1.6. Skid mounted assembly.
  - 4.1.7. Air-to-oil hydraulic cooler.
- 4.2. **OPTION – HPU COLD TEMP PACKAGE** (*priced separately*)

**5. OPTION - Installation, Supervision and & On-Site Training** (*priced separately*)

- 5.1. Canrig to supply one field technician to facilitate wrench installation (Max 6 days including travel time). Includes complete installation & commissioning.
- 5.2. Training will include rig up/down procedures, operational training and routine maintenance.
- 5.3. Additional technician days for training available at applicable call out rate.
- 5.4. Travel, accommodation and other expenses to be billed at cost + 10% administrative handling fee.

**6. OPTION - Initial Spare Parts – List to be provided** (*priced separately*)

**7. Electrical Requirements.**

- 7.1. **If Electric Drive Hydraulic Power Unit supplied by Canrig:** Customer to supply 480 / 600 Volt, 3 Phase, 56 KVA, Class 1, Division II, 100 AMP, APJ / AR combination female cord to plug into male box mounted on wrench.

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- 7.2. **If Hydraulic Power Unit not supplied by Canrig:** 120v 20amp hard wired to PLC control box (all wrench controls require purge kit to meet Class I Division I).
- 7.3. **If Diesel Engine Drive Hydraulic Power Unit supplied by Canrig:** NONE.

**8. General Customer Responsibilities**

- 8.1. Electrical supply as detailed above.
- 8.2. Supply all required labor and materials including welder to install pedestal mount.
- 8.3. All travel and sustenance expenses to be charged at cost plus 10%.
- 8.4. Service “check – up” at 3 and 12 month intervals.
- 8.5. All oils and lubricants in accordance with Canrig specification.
- 8.6. Any required structural modifications or analysis to customer’s equipment.

**9. General Canrig Responsibilities**

- 9.1. Pre-Installation rig survey (customer charged at standard call out rate at time of execution, including travel and sustenance expenses).
- 9.2. Installation drawing, including pocket location recommendations.
- 9.3. Canrig will supply pocket manufacturing drawings where applicable.
- 9.4. Operating and maintenance manuals in electronic and hard copy format.

**TECHNICAL SPECIFICATION**

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**Torq-Matic Model TM-80**  
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Automated Floor Wrench	Torque-Matic 80	Torque-Matic 120
Pipe Range	2 3/8" to 8 1/2"	2 7/8" to 11 1/2"
Torque Make Up	60,000 ft. lbs.	90,000 ft. lbs
Torque Break Out	80,000 ft. lbs.	120,000 ft. lbs
Delivery	Rail or Pedestal Arm	Rail or Pedestal Arm
Horizontal Travel	60"	75"
Vertical Travel	30"	30"
Rotation (Auto Hydraulic)	359°	359°
Connection Cycle Time (Spin In and Make-Up)	15 seconds (joint dependent)	15 seconds (joint dependent)
Spinner OD Capacity	2 3/8" to 8 1/2"	2 7/8" to 11 1/2"
Spinner Torque	2,500 ft. lbs.	2,500 ft. lbs.
Roller Speed	100 rpm	100 rpm
Max. Hydraulic Pressure	2500 Nominal 5000 Peak	2500 Nominal 5000 Peak
Drillers Console Control	Yes	Yes
Wireless Remote Control	Yes	Optional
Horizontal Dimension	56" retracted	52" retracted
Hole to Base (center to center)	110" Extended	125" Extended
Envelope dimensions (retracted)	75" L x 44" W x 96" H	73" L x 68" W x 120" H
Envelope dimensions (extended)	135" L x 44" W x 118" H	148" L x 68" W x 112" H
Shipping Dimensions	75" L x 72 1/2" W x 110" H	73" L x 72 1/2" W x 114" H
Weight	6,800 lbs	7,800 lbs
Electric Power Requirements	480 / 600 Volt, 3 Ph, 100 Amp	480 / 600 Volt, 3 Ph, 100 Amp
Electric Control System	110 VAC 15 Amps	110 VAC 15 Amps
Electric Motor	50 HP	50 HP
Area Classification	Class 1 Division 2 (Div 1 optional)	Class 1 Division 2 (Div 1 optional)
Standalone Power Unit	Optional	Optional

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