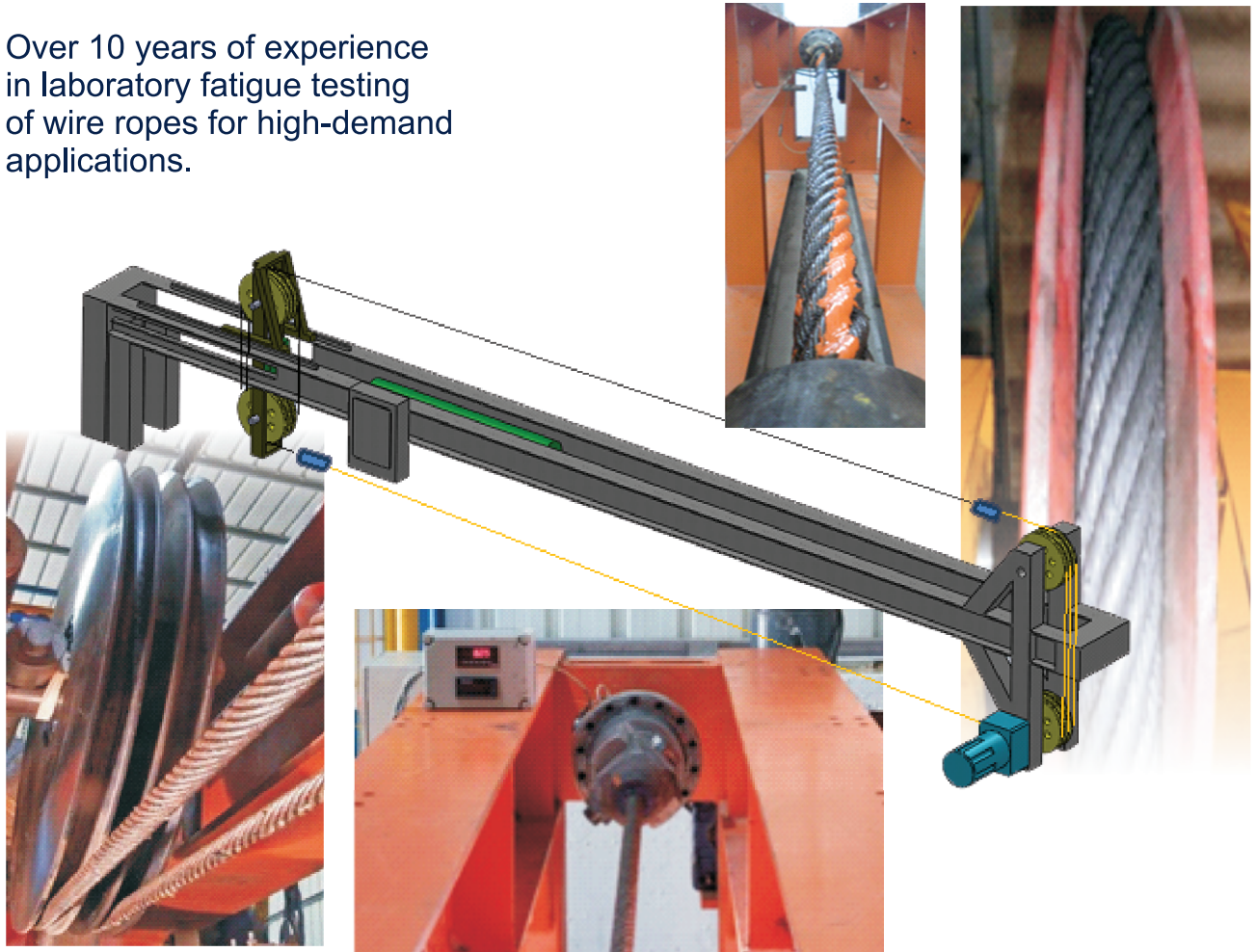


Fatigue Testing Technology for Ropes and Wire Ropes

Over 10 years of experience in laboratory fatigue testing of wire ropes for high-demand applications.



M.R.E. Fatigue Machines:

- ➔ **Fast and economical**
- ➔ **Full simulation of the loading cycle**
- ➔ **Reliable data**
- ➔ **Durable construction and long service life**

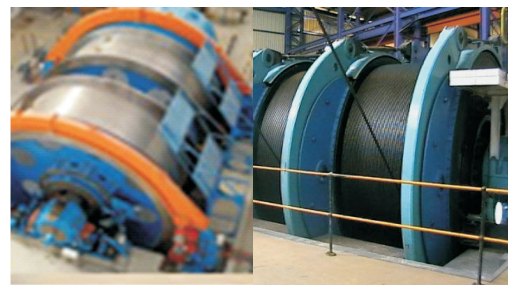
Matron Rope and Wire Rope Engineering LTD
Tel: +972-8-8690518 Mobile: +972-522-706680
matron@netvision.net.il www.mre-rope.com

M.R.E. has developed proprietary fatigue testing technology to test ropes and wire ropes under both simple and complex loading conditions. This technology is the fruit of research and development efforts taking place over the past 10 years, both in the lab and the field. Our case studies and applications include elevators, cranes, deep mining and oil industry installations. Complex loading applications include deep mine shafts, heavy-duty cranes and offshore lifting ropes where rope life and performance are critical.

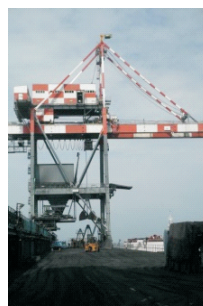
Superior rope performance affects **safety** and **operation**, as well as **budgetary** concerns.

We supply fatigue machines to simulate:

- **Deep mining friction and drum winders**
Tension & static/dynamic rotation



- **Heavy duty cranes**
Bending & dynamic tension



- **Elevators**
Traction & bending



- **Oil drillings & Riser tensioner**
Bending & dynamic tension



Our technology provides critical information to the **rope manufacturer** while improving **rope performance and quality**.

Additional services include:

- Customized machine design according to client needs
- Machine installation at client site
- Project commissioning
- Infinite service-life guarantee
- Consulting and assistance with test procedures



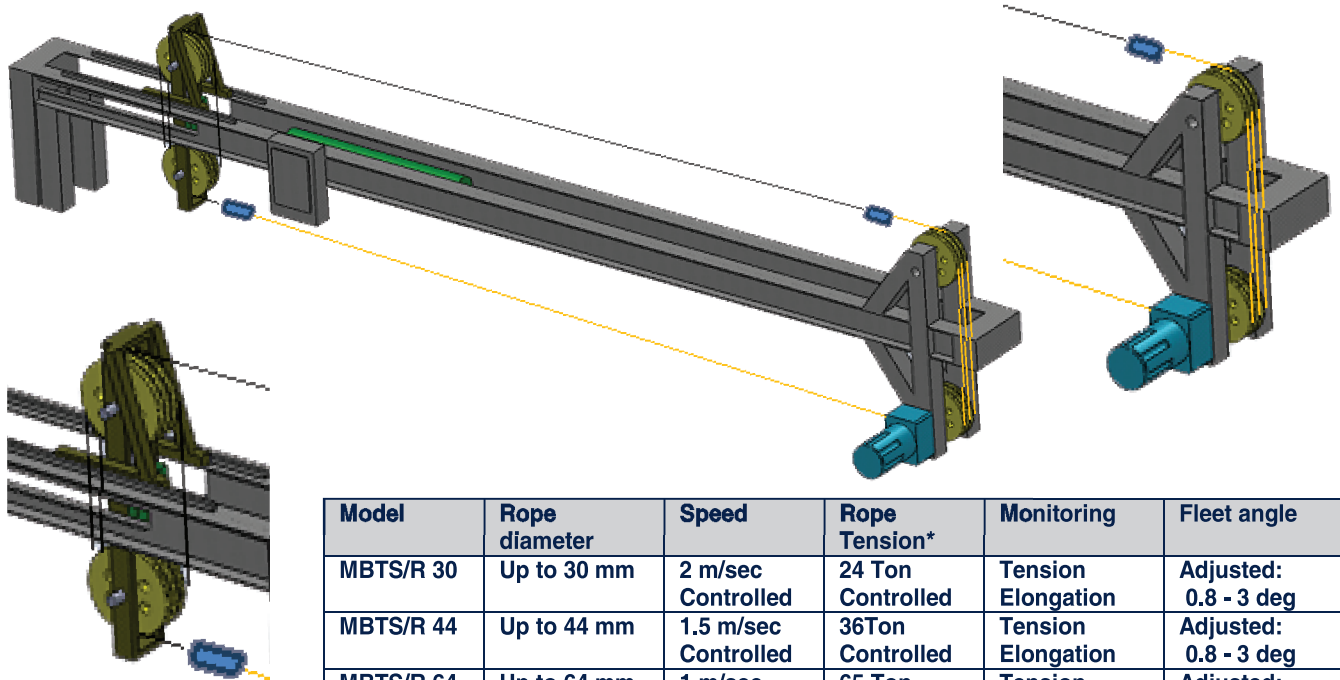
Products and Services

1. MBTS/R Super-Fast multi bending-tension fatigue for simple/reverse bend configuration

This is the fastest fatigue testing machine in the world, based on an opposite reeving system with tension control and two-rope simultaneous testing.

This machine is designed to simulate oil drill and crane applications:

- 5-6 rope fatigue zones
- 30K bending cycles per day
- Speed and load control- including dynamic tension during cycling
- In-line measurements of tension and elongation



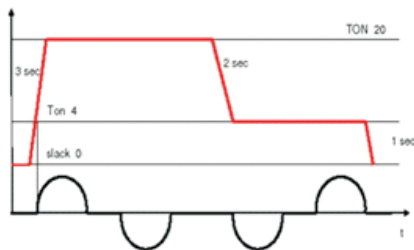
Model	Rope diameter	Speed	Rope Tension*	Monitoring	Fleet angle
MBTS/R 30	Up to 30 mm	2 m/sec Controlled	24 Ton Controlled	Tension Elongation	Adjusted: 0.8 - 3 deg
MBTS/R 44	Up to 44 mm	1.5 m/sec Controlled	36Ton Controlled	Tension Elongation	Adjusted: 0.8 - 3 deg
MBTS/R 64	Up to 64 mm	1 m/sec Controlled	65 Ton Controlled	Tension Elongation	Adjusted: 0.8 - 3 deg

* Dynamic tension programming during cycling control

* Final dimensions and design customized according to client needs

2. GBTLF: Bending Tension testing machine for large diameter grab and excavator ropes

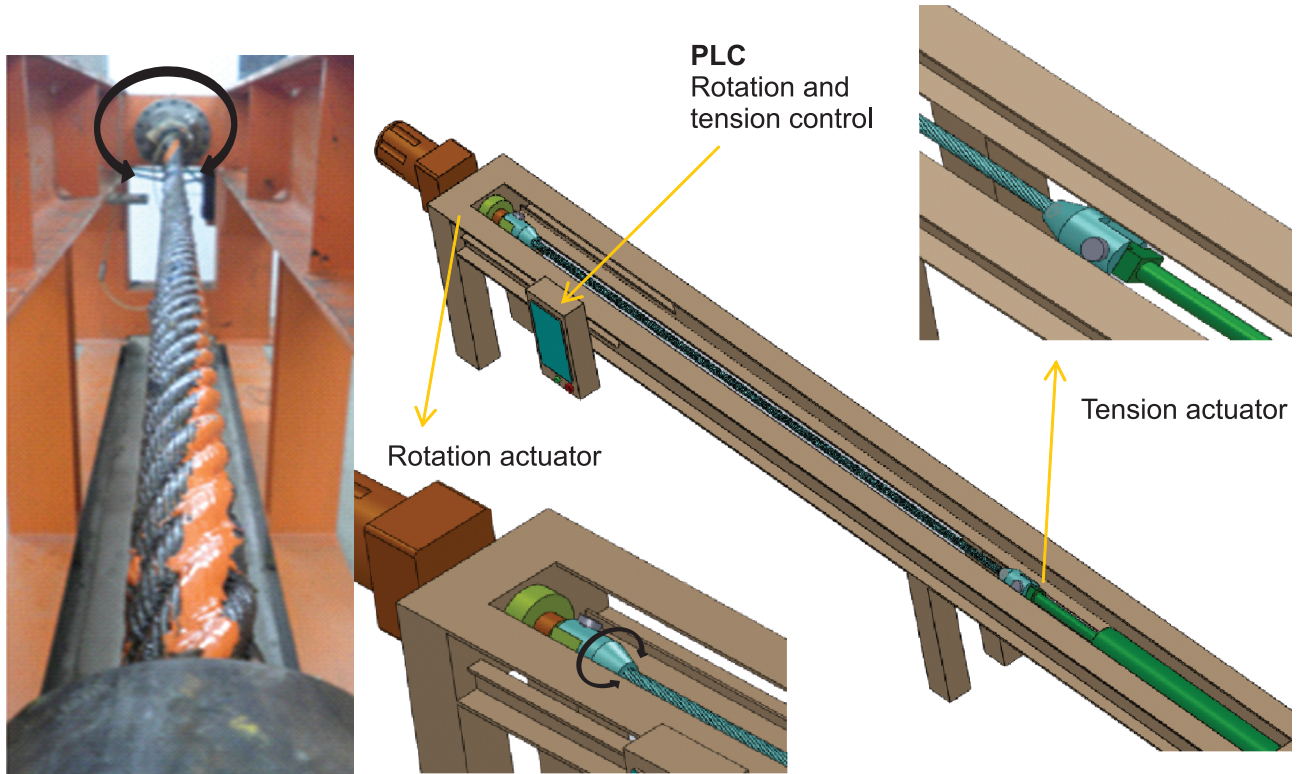
Designed especially for testing 8 strand WRC ropes. Fully simulates slack and dynamic loads acting on closing and hoisting ropes.



Model	Rope diameter	Speed	Rope Tension including cycle programming	Monitoring	Fleet angle
GBTLF44	Up to 44 mm	1.5 m/sec	18 Ton	Tension Elongation	Adjusted: 0.8 - 3 deg
GBTLF60	Up to 60 mm	Controlled	30 Ton		

3. TTRMF: Tension combined with dynamic torsion/rotation

Designed especially for testing ropes in Koepe and drum winder contexts. Fully simulates tension combined with dynamic or static rotation along the rope.



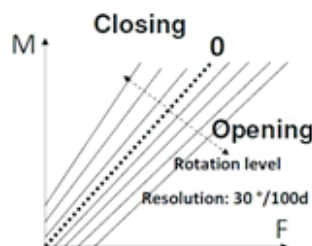
Rotation range: Up to 250 deg/meter (closing and opening)

Rope sample: up to 6 meters

Model	Rope diameter	Speed	Rope Tension including cycle programing	Monitoring	Fleet angle
TTRMF44	Up to 44 mm	1.5 m/sec Controlled	18 Ton	Tension Elongation	Adjusted: 0.8 - 3 deg
TTRMF60	Up to 60 mm		30 Ton		

4. Torque factor measurements for spin and non-spin ropes

The TTRMF is equipped with torque measurement instruments to measure the torque response of the rope, characterizing the torque factor as it varies with rotation level.



5. Customized Fatigue Machine Design

M.R.E. can design fatigue machines precisely according to project and client needs.