

overhead cranes



to engineer solutions that shape the future

# about us

Trinity Mechanical Services (TMS) is an engineering service provider with three decades of experience in repair, reconditioning and manufacturing of critical mechanical components and assemblies. Since its establishment in 1988 as a machine shop, TMS has kept pace with ever changing requirements of diverse industries. TMS's purpose-built, state-of-the-art workshops are equipped with heavy and CNC machinery and a dedicated welding and fabrication yard that can handle large equipment and components.

Trinity Cranes, the Material Handling Equipment (MHE) division of TMS, manufactures a variety of overhead cranes including bridge cranes, gantry cranes, workstation cranes, jib cranes, free standing cranes and crane kits, custom and standard wire rope hoists and end trucks.



## products & services

- ▶ Single & double girder overhead travelling crane
- ▶ Single & double girder gantry crane
  - indoor/outdoor
- ▶ Single & double girder semi gantry crane
  - indoor/outdoor
- ▶ Special application cranes for steel mills
  - hot application and power plants
- ▶ Special application custom designed cranes
- ▶ Pillar/column mounted jib cranes
- ▶ Wall travelling jib cranes
- ▶ Traverse trolley systems
- ▶ Free standing structures for cranes
- ▶ Explosion proof cranes
- ▶ Spare parts for any brand of cranes
- ▶ Annual maintenance contracts for all types of cranes



## quality focus

TMS is a preferred service provider due to its commitment to quality and alignment to customer needs. The company conforms to ISO 9001: 2015, 14001: 2015 and 45001: 2018 quality management, environment and health & safety standards.

# technical standards of wire rope hoists

## key features

- ▶ Serial production with uniform quality
- ▶ Modular construction with optimally matched components
- ▶ Space saving, future oriented design
- ▶ Two lifting speeds with 6:1 speed ratio
- ▶ VFD-controlled trolley drives
- ▶ TEFC motors designed for rapid heat dissipation
- ▶ Class F motor insulation
- ▶ Lifetime lubricated bearings and gear reducers
- ▶ Modern helical gear trolley drive
- ▶ DC rectified brakes with a minimum of one million maintenance-free operations
- ▶ Upper and lower limit switches
- ▶ High strength wire rope with steel core
- ▶ Heavy duty, wear resistant rope guide
- ▶ All controls mounted in NEMA 12 enclosure with overload protection
- ▶ Heavy duty bottom block with safely latch and hardened sheaves

1

Easily adjustable upper and lower gear type limit switches bring the load hook to a positive stop at any desired position in both the hoisting and lowering directions.

We also provide, as standard, a secondary upper limit that does not rely on drum turns.

2

Our pole-changing squirrel cage hoist motors are designed and built for operations that require frequent inching and spotting. They are totally enclosed and fan cooled and designed exclusively for crane and hoist duty. These 60 minute TEFC Class F insulated motors efficiently dissipate heat.

Large braking surface ensures fast, precise stopping of load under all load conditions.

The location of the motor provides easy access for inspection and maintenance

Hoist motor and gear train are designed and built to meet the most severe demands of hoisting service requiring frequent reversal and high starting torque. The motor is work rated, with Class F insulation.

The gear train consists of hardened and polished helical gears and pinions. Compact design with low weight/output ratio provides a highly efficient, quiet, and long lasting operation.

3

Trolley endtrucks feature direct drive with rotating axle, articulating endtruck, sealed lifetime lubricated bearings, and forged steel.

4

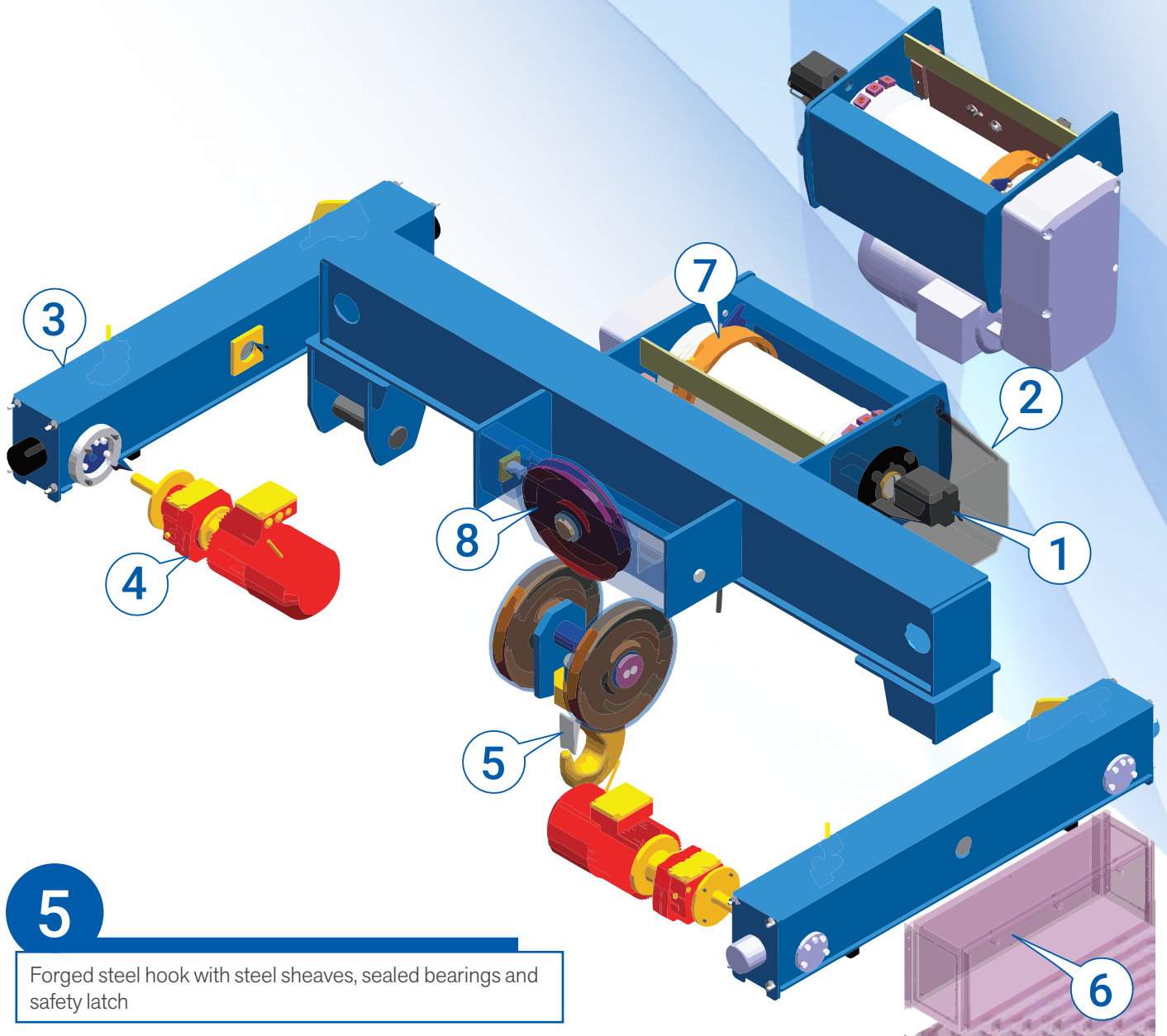
Trolley drive consists of single speed squirrel-cage gear motors. Integral disc brakes are specially designed for crane service. Standard Variable Frequency trolley control provides smooth acceleration and deceleration without excessive load swing.

Travel motors are provided with DC disc brakes, quick disconnect plugs, and Class F insulation.

Our hoists' electrical control panels with standard components and spacious design, make service more convenient than competitive brands.

### Standard equipment on all panels includes:

- 2-speed magnetic mechanically interlocked contactor hoist control with VFD trolley control.
- Fused protection, thermal overloads and optional control transformer housed in a hinged NEMA 12 enclosure



5

Forged steel hook with steel sheaves, sealed bearings and safety latch

6



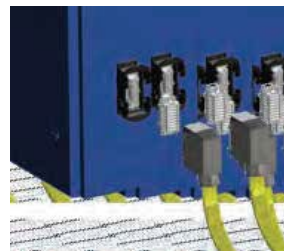
Electrical Control Panel

7

Rope guide prevents rope from being unbraided, overlapped or cut. Protects operator from injury and increases rope life.

8

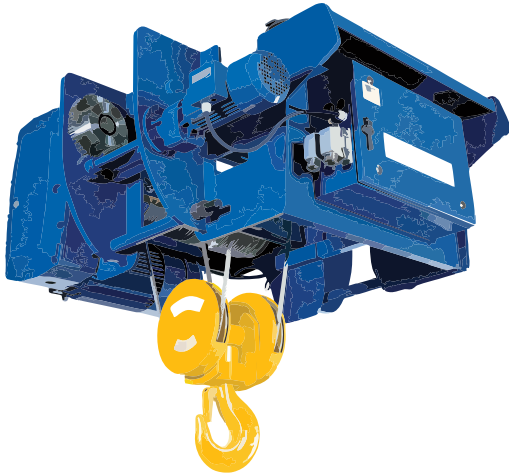
Readily accessible sheave with sealed bearings.



Pre-tested, multi-pin quick disconnect plugs and socket connections for fast, safe, mistake-proof electrical assembly

# standard packaged wire rope hoists

## single girder models



- ▶ Capacities: 2 to 25 tons
- ▶ Reeving: 2/1, 4/1, 4/2 and 8/2
- ▶ Standard lifts: 20, 33 and 50 feet
- ▶ 2-Speed hoisting
- ▶ VFD trolley control standard

## double girder models



- ▶ Capacities: 3 to 50 tons
- ▶ Reeving: 2/1, 4/1, and 6/1 ( True vertical lift available on request)
- ▶ Standard lifts: 20, 33 and 50 feet
- ▶ 2-Speed hoisting
- ▶ VFD trolley control standard

## standard wire rope hoist options

- ▶ 8/2 and 4/2 reeving for true vertical lift
- ▶ Hoist overload device
- ▶ Trolley travel limit switches
- ▶ 4-6 or 8 pushbutton pendant assembly
- ▶ Conical wheels for E (single girder) trolley
- ▶ VFD trolley control
- ▶ Radio control
- ▶ Trolley tow arm
- ▶ Transformer for the monorail hoist
- ▶ Mainline contractor and transformer
- ▶ Flux vector closed loop variable frequency hoist drive
- ▶ Special paint
- ▶ Special control enclosures
- ▶ Outdoor use features
- ▶ Longer lifts and higher capabilities available

# industry applications

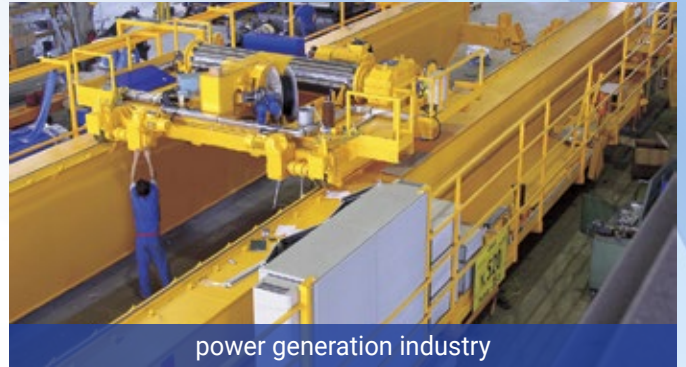
We offer customized solutions for diverse industry sectors including automotive, aviation, aggregate, steel mills, plastic, power plants and general industry.



heavy equipment industry



automotive industry



power generation industry



aggregate industry



marine industry



steel mill industry



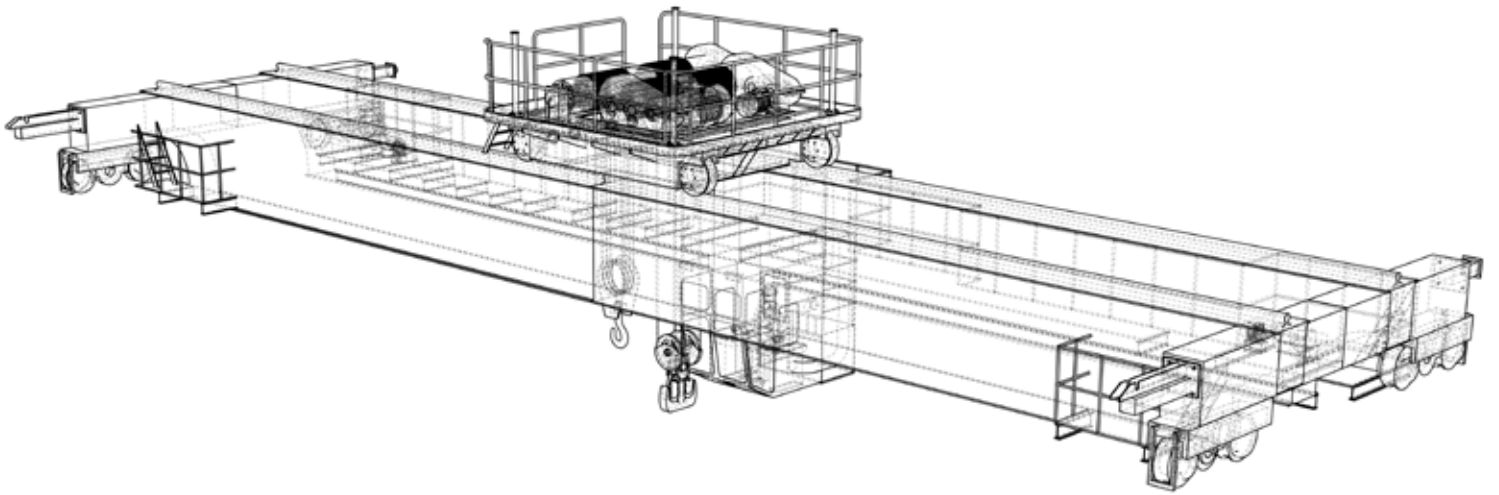
water treatment industry



plastic industry



general industry



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