

MANUFACTURING

# Design, Manufacture and Repair



**KNIGHT**  
oil tools





## Design and manufacture of innovative tools and solutions for the oil and gas industry



5CT-1126  
7-1-0520

### ENGINEERING SERVICES

- Hydraulic
- Pneumatic
- Mechanical
- Electrical

### FABRICATION SERVICES

- Pipe cleaning machines
- Hydrostatic Test Units
- Pipe baskets
- Coating vats
- Loading conveyors
- Transfer conveyors
- Refacing machines—portable

### MACHINE SERVICES

- General machine services
- Lift plugs and mandrels
- Safety valves
- Subs
- Flanges
- Choke manifolds
- Test plugs
- Whipstocks
- Threading
  - Drill pipe
  - Collars
  - Heviwates
  - Casing
  - Tubing

Knight Manufacturing LLC, a service line of Knight Oil Tools and the producer of the Hub City line of products, specializes in the design, manufacturing and repair of oilfield equipment and tubulars.

The Knight Manufacturing service line brings more than 500 combined years of engineering, machining and fabrication experience to the oil and gas industry.

Knight Manufacturing's new 52,800-ft<sup>2</sup> facility uses top-of-the-line equipment, including CNC and manual lathes; hollow spindles and engine lathes; and CNC and manual milling machines, to provide customers with custom tools and accessories for their oil-related needs.

Knight Manufacturing provides a wide array of products and services to the oil and gas industry—from the manufacturing of pipe cleaning machines; fishing accessories and pipe baskets; to the testing, threading and repair of pipe and tubulars.







Knight Manufacturing personnel provide the highest level of quality and craftsmanship on all equipment—large or small.



### Pipe Cleaning Machine

Knight Manufacturing's pipe cleaning machine provides ID and OD cleaning for oilfield tubing, drill pipe and casing. The pipe cleaning unit comes equipped with various brushes for removing scale from the OD of the pipe as well as a rattling motor for ID scale removal. In addition, the pipe cleaning unit has a 3/8" to 1" air lance that runs inside the pipe to remove the residue after scaling. The pipe cleaning unit is capable of handling tubing, drill pipe and casing in sizes ranging from 1" to 9-5/8".

The pipe cleaning unit has a hydraulic power system run by a 20 or 25 HP motor supplied by 230/460 volt 3-phase AC power.

Pipe cleaning machines can also be fabricated with these optional features:

- Noise reduction feature
- Dust reduction feature
- Centering device for rattling motor
- Descaler mounted to frame for problem OD cleaning
- Variable helix conveyor system
- Drain trough with 2" valve
- Adapter to allow connection cleaning during operation

### Thread Protector Cleaning Machine

The thread protector cleaning machine uses a solvent with a ceramic media to rub against the ID and OD surfaces of the protector—plastic or metal—providing an unbeatable cleaning experience.

The process, which takes about half an hour, uses a vigorous, vibrating electric shaker to remove debris and built-up thread compound from the protectors. This unit, in addition to its quick and efficient process, eliminates the human element from the cleaning process—increasing the safety factor. The thread protector cleaning machine has a footprint of 5'x3'x4'.



### Hydrostatic Testing Unit

The Knight Oil Tools hydrostatic testing unit is a safety-oriented product used to pressure test tubing and premium connections up to 10,000 psi in order to meet API standards. The unit uses test plugs with motorized rotation that allows for appropriate torque application—ultimately enabling quality test operations.

Pipe and premium connections that undergo this process include:

- 2-3/8" 4.7#; grades J-55, N-80, and P-105; 8rd; and CS equivalent connections
- 2-3/8" 5.95#; grades J-55, N-80, and P-105; and PH-6 equivalent connections
- 2-7/8" 6.5#; grades J-55, N-80, and P-105; 8rd; and CS equivalent connections
- 2-7/8" 7.9#; grades J-55, N-80, and P-105; and PH-6 equivalent connections



### Lathe Refacing Machine

The lathe refacing machine provides machine lathe finish on the face of the pin and box on drill pipe.

Knight Manufacturing offers portable or stationary models. In addition, a single- or dual-powered model is available with 7.5 HP hydraulic power supply and 6 GPM variable volume pump (230/460 volt, 3-phase AC power).

Other benefits include:

- Two hydraulic jack stands with turning rollers
- 600# capacity
- Dual-foot control
- 35' maximum joint length
- Bevel marker indicators







### Pipe Safety Baskets

Knight Oil Tools' safety baskets provide safe and secure transportation and storage options for valuable drill stem components.

#### Quality and Safety

- Engineered for maximum durability and safety
- Post-load-test full-mag-particle inspection of all lifting points
- Integral ratchet straps ensure safe and secure load
- Rigging components are rated to 1.5X maximum load weight
- Elevated and enclosed bottom frame complies with newer dockside mandates for Dropped Object Regulations

#### Performance and Value

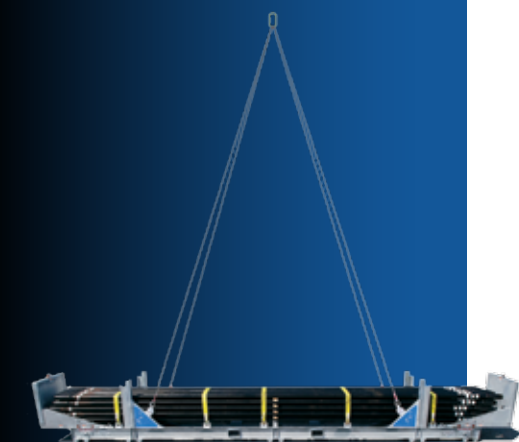
- Offers a protective enclosure—reduces shipping damages
- Significant savings in dockside and location handling expenses
- Dimensions and maximum weight limits allow for the transportation of 2 baskets on a standard 18-wheeler float vehicle
- Designed for single-line lift on offshore locations
- Crane or fork lift accessibility for loading and unloading
- Reinforced end-area enclosures shield connections and offer protection from potential load shifts during handling and shipping
- Safety Baskets may be stacked two high

### Offshore Baskets and Boxes

Used to safely transport and store equipment or tools within the yard or to a job site—onshore or offshore.

### Inspection Drip Pans

Drip pans are custom made to any size and specification and are mobile, allowing for use throughout any shop or facility.



### Machining

The Knight Manufacturing service line maintains a full inventory of parts and accessories needed to service any of our manufactured products. In addition, we can provide parts for any lathe refacer, pipe cleaning machine and thread protector cleaning unit regardless of the manufacturer. Parts are available for order 24/7 at [www.knightoiltools.com](http://www.knightoiltools.com).

The new Knight Manufacturing facility houses a full threading area with a number of machines, each capable of producing +/-100 pipe/tubing connections per day.



