The Thomas Series of Dredge Pumps
Thomas Simplicity

Dredge Pumps

The Thomas “Simplicity” dredge pump is engineered for your specific operation. Years of operation and many design improvements have resulted in a pump which will give you lowest operating cost of any pump in the industry when handling abrasive materials. The rugged wet-end parts are designed to feature extra heavy metal sections at points of extreme wear – the extra weight pays off in performance and low maintenance cost.

No other dredge pump manufacturer offers the wide range of wear-resistant alloys as provided by Metso. Matching the correct alloy to your specific application will give you the best performance and lowest cost.

Typical applications:
- Dredging:
  - Sand and Gravel
  - Contract Dredging
  - Tailings
- Booster Pump
- Sand waste pump
- Material transfer pump

Thomas Simplicity pump advantages:
- Choice of several abrasion resistant alloys for wear parts.
- Most efficient volute and impeller designs
- Speed and power to suit your service conditions
- Maximum size and percentage of solids
- Minimal repairs and downtime
- Reduced operating costs
- Easy to assemble and disassemble
- Equipped with Suction Clean-out for easy access to inspect pump
Features and Benefits

Thomas Simplicity Dredge Pumps

**Standard features**
- Optional rotation – Right or left hand rotation
- Optional discharge positions
- Suction adapter with clean out
- Three and four vane impellers available
- Amor-lok seal on the side liners for metal to metal fit
- Knock out ring for easy impeller removal
- Wide range of alloys for pump wear parts
- Over size bearings and shaft for longer life
- Cantilevered design
- Less shaft deflection
  - Better packing and bearing life
  - 360º crescent support
  - No case feet required

**Simplicity design**
- Only four wear parts for easy maintenance.
- Extra heavy metal sections for longer wear life and reduced costs.

**Stuffing box area**
1. Replaceable lantern ring
2. Deep stuffing box for better sealing.
3. Shaft sleeves available in an alloy to meet your application
4. Casing
For tough work and long wear

**Metso’s Marathon Pumps**

Marathon Pumps are rugged, durable material handling pumps for medium to high-head applications. Made with heavy duty construction throughout. Marathon Pumps are designed for grease lubricated bearings with a single barrel type housing.

**Marathon Pumps include the following features:**
- Wetted-end consist of three or four components
- Heavy-duty shaft and bearing design
- Choice of several abrasion resistant alloys for wear parts.
- Easily adapted for submersible applications

![Exploded pump assembly](image)

Metso Marathon Series type “SSL” shown
Suction dredges

Hydra-Jet

Open suction
For open suction dredges. Sizes 8” thru 24”.

Design features:
- All wear parts are High Chrome
- Self-supporting in suction line.
- Water volume and pressure easily regulated by changing nozzles.
- Low maintenance and operating costs.
- Simple rugged construction.

Twin
For cutter-suction dredges and dredges equipped with chain-type digging ladders. Sizes 8” thru 24”.

Design features:
- All wear parts are High Chrome
- Water volume and pressure easily regulated by changing nozzles.
- Simple rugged construction.
- Must be supported in suction line by a ladder.
The Replaceable Edge Cutter is the basic cutter for any size and type of dredging operation. It is manufactured to the highest standards to assure its longevity.

Since dredging conditions constantly change, the cutter is made with five styles of replaceable cutting edges. Each edge is designed for a specific type of bottom condition.

By installing the right edge, the cutting force, maintenance, wear life and production rate of the cutter can be maximized. Different blade shapes are also available to customize the cutter to your particular dredge and transmit horsepower more effectively.

**Replaceable edges**

Plain Edges cut and scoop sand, mud and loose aggregate.

Plain Serrated Edges cut hard, packed soil and soft or loosely compacted material.

Offset Serrated Edges penetrate clay, boulder clay, hard-packed sand, and soft limestone.

Pick Point Edges rip and shatter hard limestone, coral and other rock-like formations.

Adapter Edges are specially constructed to accept a variety of replacement teeth for working in hard, abrasive materials.
Wet-end Conversions

Wet-end Conversions are available for most manufacturer’s pumps.

Features

- Prolongs pump life significantly
- Reduces maintenance costs
- Simple impeller adjustment for total wear clearance without dismantling
- Maintains optimum operating efficiency

Pipe Fittings

- Elbows - 8” thru 20”. Long and short radius, 45 and 90 degrees.
- Nipples - 8” thru 20”. Various lengths.
- Reducers - Various sizes.
- Flap Valves - 8” thru 16”.

Metso is the OEM, Original Equipment Manufacturer for

AMSCO, PETTIBONE and MECKUM replacement wear parts.