Upenders

Upenders are used in production and maintenance applications, and can be furnished with numerous options to suit your needs.

There are two types of upenders, mechanical and hydraulic. Since both are designed to accomplish the same function, the weight and shape of the load will dictate which type is used.

**HYDRAULIC UPENDERS**

Bushman AvonTec designs hydraulic upenders with fully integrated, heavy-duty hydraulics for precise positioning. Our hydraulic upenders can handle heavy jobs smoothly and efficiently. They employ one or more double-acting cylinders to rotate the platforms. One platform may be significantly smaller than the other, making these upenders ideal for loads that are not symmetrical, such as long, cylindrical shapes.

The load platform of a hydraulic upender can accommodate a variety of equipment for secondary handling functions including:

- Roll discharge tilt platforms
- Shifting saddles
- Pallet-centering systems
- Load and unload conveyors

**MECHANICAL UPENDERS**

The 20,000 pound capacity mechanical upender, or coil tipper, has a motorized V-saddle to snug the coil against the pallet before tipping.

Bushman AvonTec designs large mechanical upenders according to your specific application requirements. Mechanical upenders are usually shipped fully assembled so that the customer has minimal setup upon delivery.

**HYDRAULIC UPENDERS**

This hydraulic upender is a tilt-test table. E-One, a manufacturer of crash and rescue vehicles, needed to test their vehicles for stability when operating in rough terrain. Maximum lifting capacity of the table is 150,000 pounds and the maximum tilt angle is 40 degrees.

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**MECHANICAL UPENDERS**

This mechanical upender is equipped with tie-down bars that help secure molds during the upending process. The extra-wide platform of this mechanical upender accommodates larger molds and dies.

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Options for Flexibility

- Hydraulic upender platforms can handle a wide variety of load configurations, including long loads such as paper rolls, or other loads whose length is significantly greater than its width or diameter.
- Various types of conveyor decks are available to accommodate specific loads.
- Traveling upenders can be equipped with wheels for rail travel or mobile use.
- Bushman AvonTec upenders can be modified to work in most systems with automatic operation.
- One platform on a hydraulic upender may be significantly smaller or larger than the other, making these upenders suitable for loads that are larger in one dimension.
- Coil upenders can also handle more than one coil.

Safety Features

- Factory-set pressure relief values.
- Maintenance lockout pins.
- Guarding and warning labels comply with industry standards.

HYDRAULIC UPENDERS

- This Bushman AvonTec hydraulic paper roll upender is designed to palletize loads of laminated paper or other materials. Capacities range from 10,000 to 40,000 pounds.
- Bushman AvonTec offers a line of pre-engineered hydraulic upenders in capacities up to 6,000 pounds.
- This is a custom upender designed to take coils of steel rod from the customer’s forklift and lay them down onto a wire mesh pad for transport though the customers annealing furnace. The unit has two “wings” that are actuated simultaneously to center the coil of steel rod onto the mesh pad on the conveyor section.
- This hydraulic upender has a powered conveyor and a U-shaped saddle for upending paper rolls.
- This upender has a powered V-saddle and a clearance slot for the C-hook used to place steel coils onto the V-saddle.

MECHANICAL UPENDERS

The Bushman AvonTec mechanical upender provides an easy and efficient way to upend metal coils, molds, dies and other heavy and bulky loads. Mechanical upenders, sometimes called coil positioners, rotate steel coils and other loads though 90 degrees in either direction. They are used in a variety of production and maintenance applications.

Mechanical upenders have a round cradle frame that is placed on four machined rollers. A gear motor driving a single or dual chain sprocket provides the ability to rotate.

Mechanical upenders are available in standard configurations or may be custom engineered for your particular application.

Standard Design Features

- Frame is made of heavy, welded steel construction. Four or more precision machined steel rollers with sealed bearings support load.
- Brake motor and gear reducer drive a sprocket and roller chain giving a smooth rotating cycle.
- Wired to operate on your available power supply.
- Complete electric controls, disconnect switch, and push button station mounted on unit.
- Limit switches automatically control rotation.
- Standard designs range from 3,000 to 100,000 pounds capacity.
- Custom designs have capacities up to 120 tons (109,090 kg).
- Flat platforms or V-saddles can be included to support coils or cylindrical loads in a horizontal orientation.
- Special platform sizes and shapes are available.
- Pallet centering is available.
- Gravity and powered conveyors allow integration with the production line.

Optional Features Available

- Designs to accommodate special electrical requirements.
- Custom table sizes and configurations.
- The optional 180-degree motorized base rotation eliminates fork truck repositioning.
- Fork pockets for transporting unit by lift truck.
- Roller conveyor on table, powered or gravity controlled.
- Protective covering for table and/or V-saddle.
- Slotted table for coil handling equipment access.
- Horizontal travel drive.
- Built-in lift table.
- Powered, adjustable V-saddle and pallet positioners.

Model M9604 upenders provide a safe and efficient means of upending loads. Capacities are available up to 50 tons as are a variety of options including motorized horizontal base rotation. This unit has a motorized V-saddle and a motorized pallet positioner.

200,000 pound capacity mechanical upender mounted in a pit so that platforms will be level with the floor. Upending time is approximately 45 seconds.