

- DESIGN
- MANUFACTURE
- SERVICE

ROLLER SCREEN

Pellet Classifying Systems

Designed and manufactured by Abacus Hydraulics Ltd.



Other equipment designed and manufactured by
Abacus Hydraulics Ltd.:

- Mill Inching Drives for Grinding Mills
- Drives for Apron feeders
- Drives for thickeners
- Drives for belt and screw conveyors
- Drives for kilns, balling disks and drums
- Lubrication systems for mill bearings
- Brake systems for mills and downhill conveyors

Roller Screen with Individual Drives

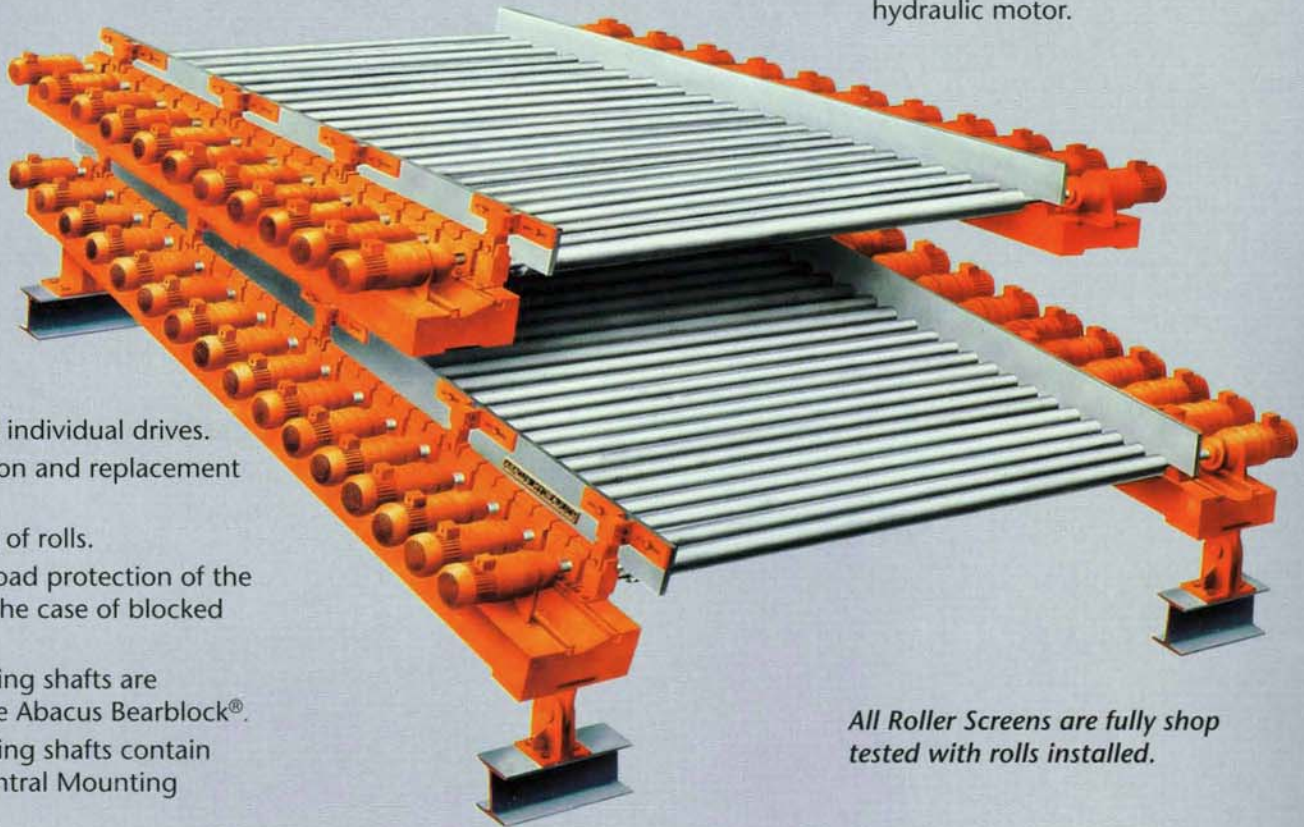
Simplicity of design, reliable operation, fast roll gapping and easy maintenance characterize this new Roller Screen. Designed and developed by Abacus Hydraulics Ltd. in close consultation with Met-Chem and operating experience from leading pellet producers.

Available drives:

- Fixed or variable speed electrical gear motor.
- Fixed or variable speed hydraulic motor.

Outstanding features:

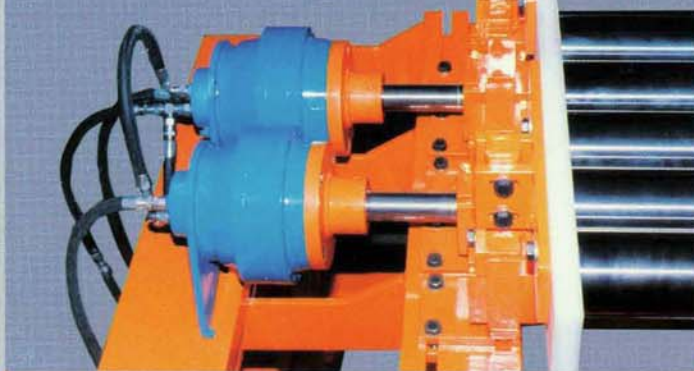
- Shaft mounted individual drives.
- Quick installation and replacement of rolls.
- Quick gapping of rolls.
- Excellent overload protection of the equipment in the case of blocked rolls.
- All roll supporting shafts are mounted in the Abacus Bearblock®.
- All roll supporting shafts contain the Abacus Central Mounting Screw System.



All Roller Screens are fully shop tested with rolls installed.

Torex® Hydraulic Motors

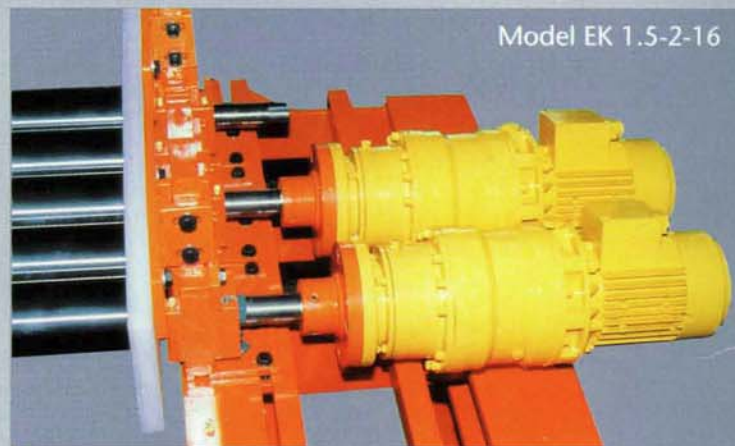
Model TX M28



- The shaft mounted high torque hydraulic motors have excellent starting torque and are virtually maintenance free.
- The exchange of a motor can be done in minutes.
- Motors are standard equipped with the Dual Sealing System.
- A conveniently placed power unit supplies and controls the hydraulic motors.
- The variable speed feature is obtained through variation of the pump output.

Eltork® Electrical Gear Motors

Model EK 1.5-2-16



- The shaft mounted electrical gear motors are of rugged design and built for lowest maintenance.
- Motors are standard equipped with the Dual Sealing System.
- The exchange of a gear motor can be done in minutes.
- The variable speed feature is obtained by means of a variable frequency generator.
- Ideally suited for upgrading existing Roller Screens.

Roller Screen with Chain Drive

Abacus Hydraulics Ltd. have through their innovative approach improved the conventional chain driven Roller Screen to the highest level of reliability and serviceability.



Available drives:

- Fixed or variable speed electrical gear motor drive.
- Fixed or variable speed hydraulic drive.

Outstanding features:

- All roll supporting shafts of the idle side are mounted in the Abacus Bearblock®.
- All roll supporting shafts contain the Abacus Central Mounting Screw System.

Bearblock®



Model BB40-YCK

All Abacus Roller Screens are equipped with the heavy duty Bearblock®.

The Bearblock® uses standard self-aligning bearing inserts.

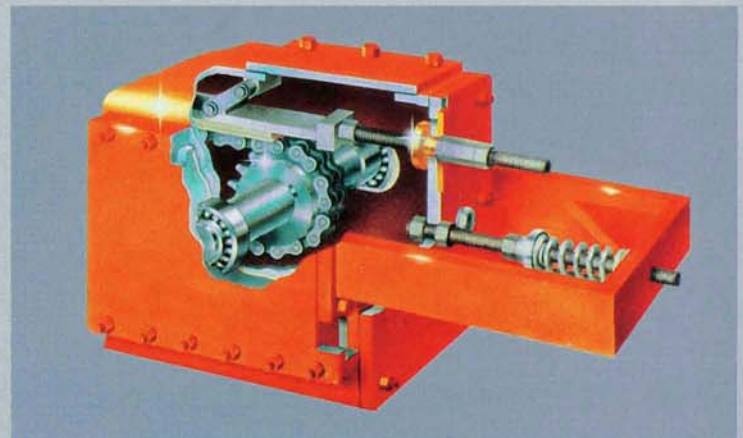
The Bearblock® has a contamination purge feature which provides for long bearing life in the hostile mining environment.

Outstanding features:

- Heavy duty steel housing and covers.
- Standard bearing insert with triple seal.
- Dual Sealing System with contamination purge feature.
- Tolerates large shaft misalignment.
- Ideal for the upgrading of existing installations with unsatisfactory bearing life.

All Roller Screens come with the high quality Abacus rolls.

Chain Drive



- Spring loaded chain tensioning system.
- Adjustable, spring loaded chain guides assure proper chain hold down.
- Chain and sprockets are oil bath lubricated.
- All sprockets have hardened teeth.
- Roll drive sprockets have optimized tooth profile for best traction and minimum lift.
- Roll drive shafts are splined, allowing axial movement of the sprockets and also contain the unique Abacus Central Mounting Screw System.
- Chain case is equipped with oil level monitoring devices.
- Pressurized chain case minimizes the entry of contaminants.
- Easy service through large access doors.

Other Features of Abacus Roller Screens

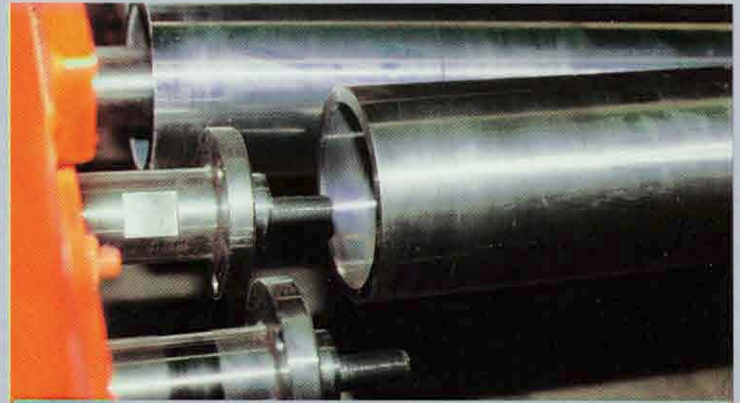
- The Abacus Roller Screens are made of high quality components for reliable and long life operation. They are designed with special emphasis on easy serviceability and safety.
- The Roller Screen modules are fabricated of heavy duty formed steel and are precision machined.
- The modules are fitted with support and lifting pads allowing the attachment of a lifting frame.
- Adjustable hinged support brackets permit angle variation in the field and allow quick removal of the decks. All support and attachment elements are included.
- Skirting and deflectors made of UHMW (ultra high molecular weight polyethylene) are installed on adjustable supports to contain the green pellets on the Roller Screen.
- All rolls are manufactured under strict quality control exceeding industry standard.
- Quality tools required for maintenance and service are supplied with the Roller Screen.
- A detailed maintenance and installation manual is provided.
- Commissioning and training is done under the supervision of an experienced Abacus technician.

Rolls



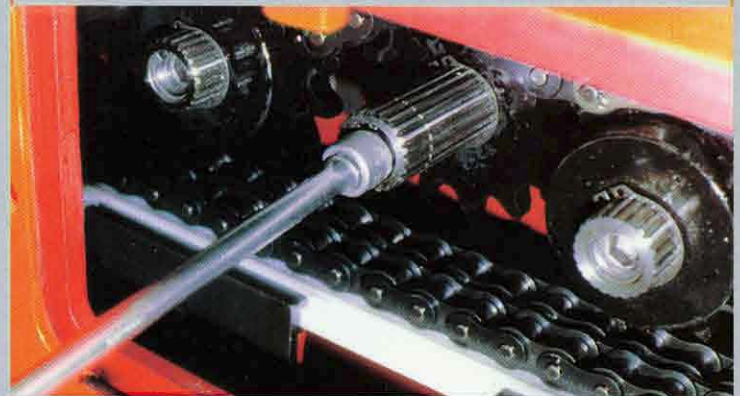
- Abacus Hydraulics Ltd. is a manufacturer of high quality rolls of different dimensions and to-suit special customer specifications.
- Rolls are available in centrifugal cast stainless steel or carbon steel with wear resistant coatings.
- Extensive know-how in the roll manufacture obtained through in-house research and special production equipment guarantee uniform high quality rolls.
- The unique Central Mounting Screw System is standard on all Abacus rolls.
- All Abacus rolls and shafts are fully interchangeable and therefore allow the re-use of shafts after replacement of rolls.

Abacus Central Mounting Screw System



The Abacus Central Mounting Screw System has the following distinct advantages over traditional mounting methods:

- Quick installation and replacement of rolls through single screw concept.
- The Central Mounting Screw serves to separate and tighten the roll.
- Elimination of concentrate build-up on screws as experienced with traditional methods.



- The Central Screw is easily accessible and well protected inside the chain case.

Optional Equipment

- Motor starter equipment.
- Variable frequency generator for speed control.
- Hydraulic variable speed drive.
- Pneumatic pressure regulators and water separators for chain case pressurization.
- Wear resistant roll coatings as per customer specifications.
- Centralized purge system for Bearblock®.
- Rail mounted upper deck for easy access to lower deck and fast service.
- Shredder for oversize pellets.

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