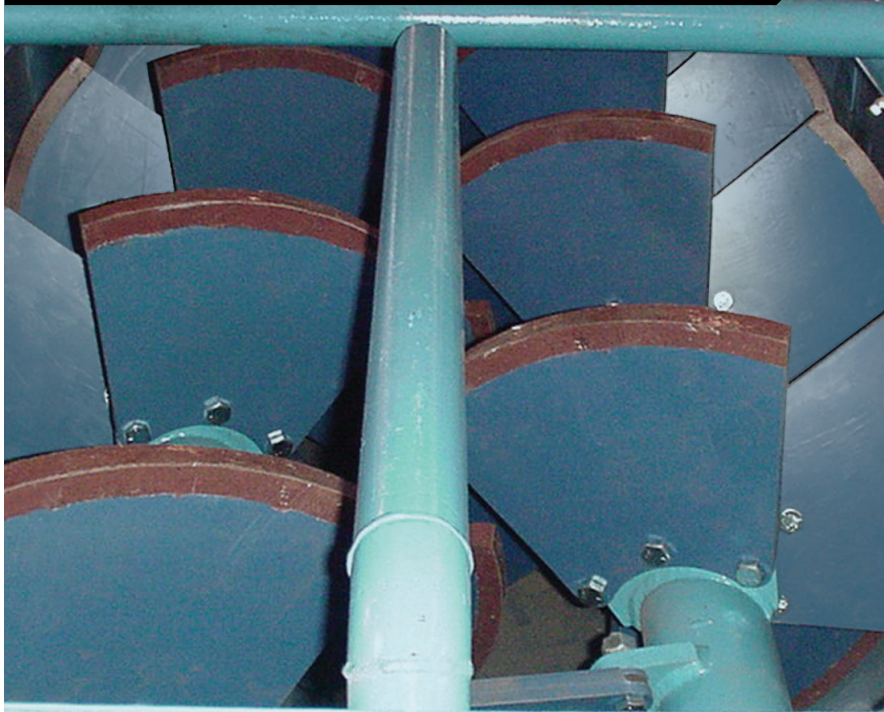


# Metso

Bulk Materials Handling

## Mixer conditioner



Mixer conditioners are designed for ash handling applications. Mixer conditioners will help simplify the final transfer of material to the storage facility or location by wetting the ash.

Metso mixer conditioners provide a controlled, efficient, dust-free reliable solution resulting in uniform, wetted ash for your operation.



### How it works

Dry ash enters into the rotary feeder and continues into the mixing chamber both to provide an even and constant flow of ash and to maintain the proper material to water ratio. Water pressure is precisely controlled with an external control valve and is sprayed into the ash as it is moved by the mixing paddles. The water is sprayed through specially-designed V jet and hollow cone nozzles that ensure a fine spray and maximum spread and distribution.

Mixing paddle blades, arranged in a helix on a pair of counter-rotating shafts, move material from the bottom of the chamber up each side and force the ash down between the shafts. This action "kneads" the fly ash for maximum exposure of ash to water. The action of the mixing paddles moves the wetted ash from the inlet area to the outlet end of the chamber. The uniformly wet material is discharged through a chute at the bottom of the chamber.



Metso has over 50 years of experience with mixer conditioners and provides a unique solution compared to conventional drum-type unloaders or conditioners.

### Metso mixer conditioner benefits:

- Heavy duty and robust design
- Continuous and consistent material flow
- Controlled wetting of dry material
- Reduced power consumption
- Low wear rates
- Ease of installation and maintenance

## Bulk Materials Handling

# Metso mixer conditioner

Our mixer conditioners provide a consistent and controlled material feed by using precise water control and unique design features to enable high productivity with reduced downtime.



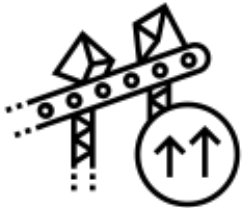
### Standard range of units

The Metso mixer conditioner offers eight standard units in our range. All provide the same benefits and handle capacities up to 15,800 cubic feet per hour. When dealing with non-standard units, we can handle larger capacities and include features like opposite end drive.



### Ease of installation and maintenance

Our mixer conditioners are designed with customer challenges in mind. Metso mixer conditioner complete units are ready for mounting on site. The paddle shafts are supported in flange mounted bearings at the ends of the trough to allow maintenance accessibility when required. This allows simple and trouble-free maintenance.



### Mixing paddle design

One benefit of Metso mixer conditioners compared to similar equipment is our mixing paddle design. The motor-driven shaft and paddle design ensures controlled material wetting. The blades on the two shafts interweave for maximum material exposure, as the paddle helix efficiently moves material from the chamber inlet to the discharge chute. This increases throughput boosting efficiency.



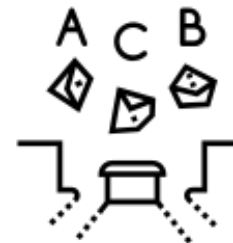
### Water supply requirements

Efficient water usage and pressure is critical for optimizing operations. Approximately 40 PSI of water pressure is required for the Metso mixer conditioner. When looking at the quantity of water needed, this will depend on final design data, which we help to optimize based on specific customer needs.



### Operational controls

Metso mixer conditioners provide a low speed and efficient operation. With the ability to efficiently handle dry fly ash at a lower speed, this reduces power consumption and saves on energy costs. Also, with an external valve controlling the water pressure, this allows rapid close off of the water supply that allows for simple and easy shutdowns for maintenance or other situations.



### Applications

Metso mixer conditioners can handle a wide range of materials and applications in the utilities, pulp and paper and refuse plants industries. Common ash condition applications include fly ash, FGD conditioning, sludge cake conditioning and dust wetting.

Learn about our mixer conditioners additional features, technical specifications and more!

Metso

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Partner for positive change