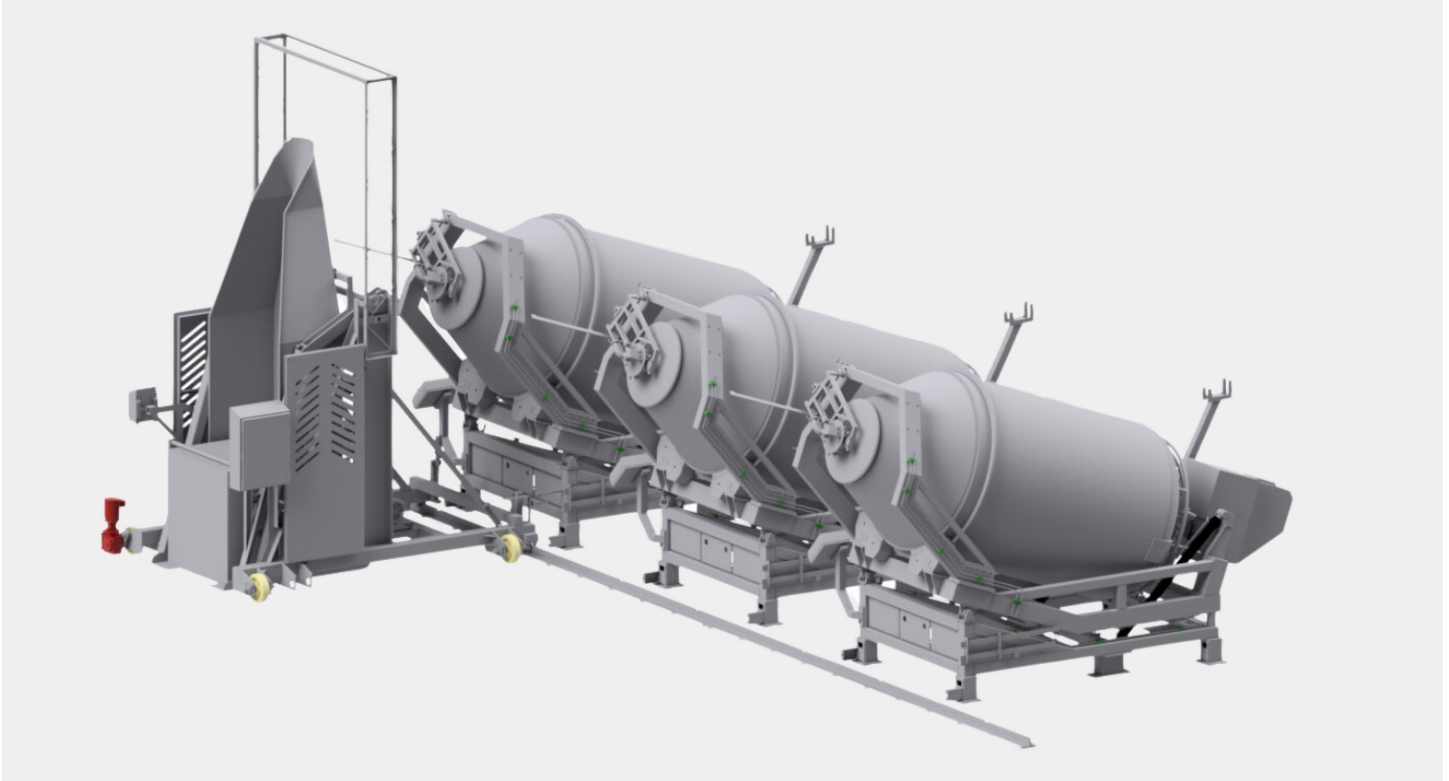


TUMBLING & MASSAGER MA SYSTEMS



Tumbling & Massager MA Systems

Massaging is one of the most important processes in the preparation of processed meat products to optimize color and absorption of additives to produce ideal flavor & appearance. The tumbler massager has been designed to ensure efficiency, reliability, economy, and flexibility. The massage drum is intended for continuous operation with 95% vacuum.

The massager consists of a pivoting frame with a hydraulically operated massage drum. Two swivel points the frame provide a fixed pivoting connection to the frame of the unit that hold the hydraulics and vacuum pump. The design allows the massage drum to be raised or lowered even when the massager is filled.

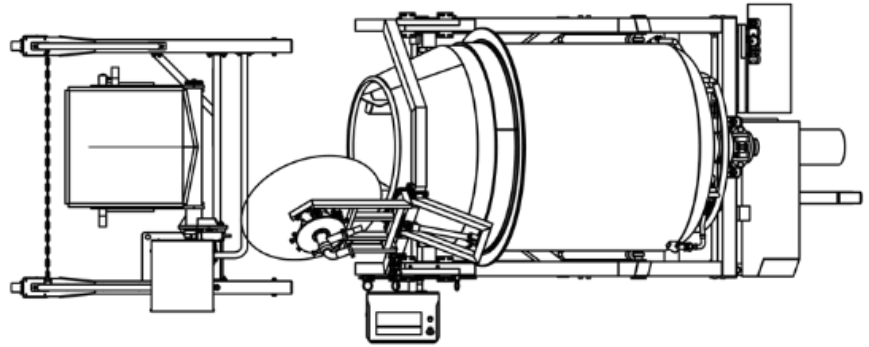
MA Tumblers

- Range of tumblers 1.000-3.000-6.000-8.000 and 12.000 Liters.
- Up to 55% fill degree.
- Both “soft” & “hard” carriers for gentle or firm massage.
- Cooling/heating system, indirect in jacket and carriers.
- Continuous vacuum or pulse vacuum up to 95%.
- Automatic filling through conveyors.
- Automatic lid control.
- Variable rotation speed 0,5 to 8 rpm.
- PLC control system, data collection, virtual troubleshooting assistance.
- 24-hour unsupervised operation.
- USDA accepted and CE approved.

Loading and Unloading Tumblers

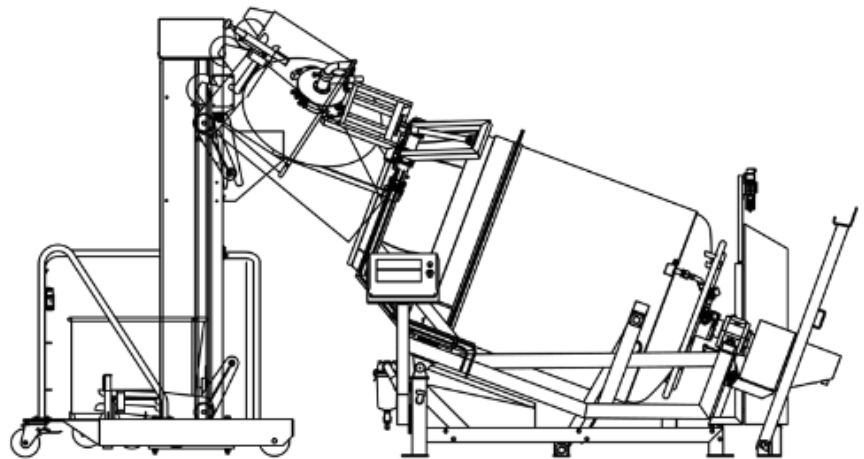
The tumbler can be loaded:

- By tilting-lifter for 200/300L trolleys or swing loader for bigger bins.
- By conveyor systems.
- The unloading is done by the gradual and controlled tilting of the tumbler drum, avoiding spillage of product and loss of liquid.



Optional Equipments

- Automatic either with electrical or pneumatically opening.
- Refrigerated-heated jackets and wings with automatic controls via HMI.
- Load cells with integrated weights display.
- Polishing of internal surface of the drum.
- Stainless steel AISI 316.



Danfotech produces, installs, and services a wide range of machinery and specialized equipment for the food processing industry: bacon presses, defrosting lines, massaging tumblers, ham production lines, tenderizers, and loading/unloading systems built around cook tanks or ovens.

Additionally, Danfotech also delivers column lifts for Vemag trolleys and plastic tubs, as well as swing loaders for plastic tubs and trolleys.