



Mechanical preparation

MECHANICAL MEAT TREATMENT

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# Improved quality through surface treatment

# MacMAX 500 – Roller tenderizer

For the production of high-quality cooked ham, massaging the muscles is an important part of the process. Protein is activated which ensures optimum bonding.

This process supports the Schröder macerator. The blade rollers cut the surface, enlarging it, and increasing the release of protein and improving the absorption of brine.

Large tendons, for poultry products as well, are also cut by the MacMAX, reducing muscle contraction during cooking and increasing binding.

## The result:

- Improved bond between the parts
- Increased yields
- Reduced massaging time
- Increased slice cohesion
- Increased brine intake
- Reduction of brine pockets











# More flexibility through pressing

# PSM 650 – Curing press

Processing muscles with a hard structure needs special attention in the production of high-quality ham. The lack of flexibility makes the forming and filling process more difficult. When different muscles (silverside/topside) are mixed together, different cooking losses, diffusion and massage times occur.

In order to balance out the different muscle textures, the PSM 650 is used. The roller pairs break down the internal structures without destroying the surface.

By individually adjusting the pressure and rolling distance, the different products can be taken into account.

## The key quality improvements are:

- Optimised forming
- Uniform massaging processes
- Faster massaging results
- Improved slicing
- Diffusion process in batches of mixed muscles is more quickly and evenly
- Same muscle size in the cut/slice
- Better absorption of the brine during massaging/tumbling



TECHNICAL DATA	
MACHINE LENGTH	approx. 2100 mm
MACHINE WIDTH	approx. 1250mm
MACHINE HEIGHT	approx. 1500mm
CONVEYOR WIDTH	approx. 600 mm
COMPRESSED AIR	min. 6 bar
GAP WIDTH	10 to 50 mm
ROLLER TYPE (TOOTH ROLLER)	Depending on the product
WEIGHT	approx. 860 kg
ELECTRICAL CONNECTION	3Ph/PE; 400/440V; 50/60 Hz

The machine safety is ensured by the preceding machine (preferably Schröder IMAX) including safety guard and magnetic switches.

When used as a "stand alone" machine a chute with magnetic switch is necessary.





# T-MAX 620 – Needle tenderizer

The different fibre structures within a muscle absorb the injected brine in different ways. Brine pockets and inhomogeneous brine distribution must be prevented for high quality requirements.

The Schröder TMAX needle tenderizer penetrates the entire muscle. Its blade-like sharpened tips cut through the fibres of the muscle and shorten them in the process. Replacing the injected brine during the fibre process is then possible, the distribution is optimized and the muscle is also perfectly prepared for absorbing the protein during massaging.

Depending on the product, the tenderizer can be equipped with single- or double-head and single- or double-blades.

## The quality improvement is clearly demonstrated by:

- Faster diffusion of additives
- Reducing pickle pockets
- Homogeneous reddening
- Increased tenderness
- Shorter massaging and tumbling times

### TECHNICAL DATA

MACHINE LENGTH	approx. 2160 mm
MACHINE WIDTH	approx. 1400 mm
MACHINE HEIGHT	approx. 2240 mm
CHANAL WIDTH	620 mm
WALKING BEAM HIGHT	approx. 1200mm
PRODUCT INFEED HIGHT	up to 210 mm
NUMBER OF NEEDLES	Depends on the configuration – from 300 to 600
ADVANCE	50/100 mm
CYCLES PER MINUTE	15-60
TRANSPORTED AREA	223 m²/h
COMPRESSED AIR	min. 6 bar
WEIGHT	approx. 1450 kg
ELECTRICAL CONNECTION	3Ph/PE; 400/440V; 50/60 Hz

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#### JBT PROTEIN PROCESSING

PRIMARY

CHILLING | WEIGHING | PUMPING CUTTING-UP | SKINNING | WATER

### SECONDARY

PORTIONING AND SLICING | BRINE PREPARATION | HOMOGENIZATION INJECTION & RETURN MILLING | MACERATION | MASSAGING | RE-USING | ENHANCING FOOD SAFETY TENDERIZATION | X-RAY TECHNOLOGY | AUTOMATED TRAY LOADING

#### FURTHER

COATING | FRYING & FILTRATION | PROOFING | COOKING | COOLING CHILLING | FREEZING | REFRIGERATION | CLIPPING & PACKAGING SOLUTIONS | X-RAY TECHNOLOGY | HIGH-PRESSURE PROCESSING (HPP)

alco AVURE AR Process Systems DSI FORMCOO FRIGOSCANDIA C.A.T. PRIME Northfield SCHRÖDER Prevenio Wolf-tec POLAR XVISION STEIN TIPPER TIE

#### North America

JBT 1622 First Street Sandusky, OH 44870 USA Phone +1 419 626 0304 Fax +1 419 626 9560 process-solutions@jbtc.com

#### Australia

John Bean Technologies Ltd. Cnr Marple Ave & Biloela Street Villawood New South Wales 2163 Australia Phone +61 2 9723 2000 Fax +61 2 9723 2085 Natale.Greco@jbtc.com

Europe Schröder Maschinenbau GmbH Esch 11 33824 Werther Germany Phone + 49 5203 9700 0 sales.werther@jbtc.com

#### Latin America

John Bean Technologies Máq. Equip. Ind. Ltda. Av. Eng. Camilo Dinucci 4605 14808-900 Araraquara São Paulo, Brazil Phone +55 16 3301 2000 latinamerica.info@jbtc.com

Asia John Bean Technologies (Thailand) Ltd. 159/26 Serm-Mit Tower, Room No. 1602-3 Sukhumvit 21 Road Klongtoey Nua Sub-district, Wattana District Bangkok 10110 Thailand Phone: + 66 2 257 4000 Fax: + 66 2 261 4099 infoasia-jbtfoodtech@jbtc.com



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