



TIPPER TIE™

TN4000 Series

Whole Muscle Packaging System



Consistency, power and labor savings for
whole muscle products

TIPPER TIE TN4000 Series

Whole Muscle Packaging

Proven Technology, Smart Engineering

Packaging hand-placed whole muscle meats is faster and more cost-effective thanks to the TIPPER TIE TN family of automated whole muscle packaging systems. Resting on a market-tested, proven technology base, the TN4001 and TN4200 mix in some dynamic engineering features that can only be described as game-changers for meat processors. These machines were developed with an emphasis on maximizing productivity, reducing operating costs, and lowering total cost of ownership. They efficiently handle numerous applications including boneless hams, smoked meats, loins, steaks, whole muscle deli slices, and large muscle poultry.

Technical Highlights

A robust stainless steel gathering-voiding-clipping system with a stationary clipper is the heart of the TN series. This is the same style device as the reliable and widely used TIPPER TIE RS clipper. It provides fast and reliable clipping and the strongest voiders available on the market, resulting in cleaner tails and a tight, secure clip closure every time.

The TN family uses cutting edge servo technology to enhance many processing benefits and heighten productivity. The unique servo-powered breech of the TN4200 tightly compresses larger and

longer cuts, creating more uniform product shapes and diameters. For maximum productivity, the fast acting servo-driven pushing unit provides a degree of control unachievable with pneumatic systems. This practical use of servos also eliminates the use of problematic pneumatic cylinders in the breech/pusher area. The result is lower overall maintenance costs, as well as drastically reduced energy use and noise levels.

Controls

All TN machines feature intuitive controls for easy use. An advanced touch screen interface, supported by a sophisticated color guiding system, makes operation and programming simple. The operator can evaluate the machine's performance and receive essential communications from clear screen messages and intuitive diagnostics to make troubleshooting a breeze. A powerful Recipe Manager provides immediate access to saved formulas making product changeovers quick and efficient.

Options

The critical distinctions between the TN4001 and TN4200 are speed, length of the whole muscle products each can handle, and the amount of compression achieved.

The TN4001 is designed to package one or more muscle sections simultaneously, at

Model
TN4001

speeds of 11 to 13 pieces per minute. Its power-assisted breech applies light pressure to compress meats into netting with or without collagen film or casing only. A single operator orients product in the breech then closes the breech door to begin packaging. Like all highly productive systems the TN4001 makes running different product sizes simple and easy. Its quick-change breech device is available in sizes from 76.2mm (3 inches) to 203mm (8 inches) and can be swapped out in as little as 15 minutes. For added flexibility an optional looper is available to apply a secure string loop for hanging products.

The TN4200 employs a fast-acting, servo-powered breech for outstanding compression of meats into fixed diameter netting or casings. Even tough products like beef will change shape to fit the horn thanks to TN4200 breech system. Compression offers many benefits including uniform shape and diameter, improved cooking yields, even cooking throughout, and higher slicing yields.

The TN4200 features a lengthy 812mm (32 inches) breech with a maximum available inside diameter of 178mm (7 inches). Packaging costs can be positively affected as well. Since the casing horn is the same length as the breech, the machine has the flexibility to run shirred casings, roll stock films or nets. Material savings

will play heavily in the machine's payback, too. The tail length of every package is cut to precisely 18.9mm (.745 inches). Every millimeter more adds to the cost of your product.

The TN4001 is the first and only whole muscle system with a servo-driven pushing unit, and the TN4200 adds a servo powered breech. Three critical pusher process phases – initial push, main travel, and final push – can each be programmed to the needs of the application, their speeds and motions precisely controlled by a single operator, and continuously repeated for greater product consistency.

The Family Plan

When evaluated as complete systems the combination of speed, production efficiency, low maintenance, labor savings, cost savings, and product quality improvement position the TIPPER TIE TN4000 family to become the standard in whole muscle packaging equipment systems now and for years to come.

TIPPER TIE TN4000 Series Specifications

Specifications	TN4001	TN4200
Pieces Per Minute:	11 - 13	6 - 8
Allows Hand-Laid Products:	✓	✓
Breech Length:	13" (330 mm)	32" (810 mm)
Breech Size Range:::	3.5" - 8" (90 mm - 200 mm)	3.57" - 7" (90 mm - 178 mm)
Breech Style:	Power Assisted Manual	Servo Power Breech
Breech Max Power (at close):	N/A	10,000 lbf (4620 Kpa)
Runs Casing (plastic and fibrous) :		✓
Runs Collagen and Net:	✓	
Runs Netting:	✓	✓
Horn Replacement:	Manual	
Compressed Air Required:	80 - 90 psi (5.5 - 6 bar)	
Air Consumption:	30 scfm (840 NI/min) at 12 pcs/min	17.5 scfm (500 NI/min) at 7 pcs/min
Supply Voltage:	400 - 480v 50 - 60hz	
Clipping Unit:	Tipper Tie Double Clipper	
Clip Type:	Z400 Series Reels	
Main HMI Method:	Touch Screen	
Height of Working Plane:	40.75" (1035 mm)	44.7" (1135 mm)
Length:	197" (5004 mm)	208" (5280 mm)
Width:	40.75" (1034 mm)	64" (1638 mm)
Height:	80" (2032 mm)	77" (1960 mm)
Weight:	1361 kg (3000 lbs.)	1984 kg (4375 lbs.)
Main Construction Material:	Stainless Steel	

Accessories

The TN4001 and TN4200 are available with ruckers for fast and convenient rucking of plastic and fibrous casings, as well as elastic netting and stocking nets. The RCB offers streamlined, all pneumatic operation for larger product horns used in the TN4200 machine. The pneumatic REB1 works with TN4001 horns and features an adjustable brake for a wide range of round horn diameters.

The TN4200 is available with an optional tooling cart for convenient storage of removable parts and tooling. It features all stainless-steel construction and sloped surfaces for easy washdown. Two sizes are available.



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