



TIPPER TIE™

TN2004

Automated clipped netting system



Automated netting and clipping of
bone-in hams, loins and formed items

The TN2004 raises the bar of automatic netting operations.

TIPPER TIE TN2004 Automated clipped netting system



A Difference Maker

The new TIPPER TIE Netter TN2004 completely automates the process of netting and clipping products like large bone-in hams, briskets, and formed items. Its pioneering design results in a highly productive system that, depending on the operation, can reduce labor significantly and generate savings on netting materials while improving the overall package quality and consistency.

Technical Highlights

Reach new heights in terms of efficiency and productivity with advanced technology for netting and clipping. The new TN2004 raises the bar of automatic netting operations. The operator or robot simply places the product on the electric infeed conveyor. The machine then takes over and ensures that each piece is netted and closed consistently. This not only brings in new advantages such as labor savings and better ergonomics, but it also results in more consistent products with less waste. The new electric conveyor infeed system ensures consistent product indexing, better control of the product, and easy set up with the ability to save settings in a recipe for quick product change overs.

The all new auto chute change system is a game changing automation innovation. The auto chute change automatically indexes the empty chute to the buffer and the full chute to the run position for the fastest changes possible. Chute changes in 3 seconds are possible. The empty chute can be removed at any time and a new full chute added all without interrupting production. This means better utilized equipment, less pressure on employees, and higher productivity. The innovative internal funnel means that the chutes are simpler, more robust and best of all, longer, allowing for even better run time between chute changes and even less wasted netting.



Auto Chute Change: Chute changes in 3 seconds are possible.

The focus on quality continues in the clipping process. The large, open design of the voiders accommodates both small and large products, everything from bone in loins to injected whole hams, while the TIPPER TIE double clipper precisely applies a secure clip closure. Adjustable netting brakes and product hold arms mean a tight package that uses only the amount of netting necessary for the product every time.

On a per unit basis, waste associated with precut and clipped netting pieces is eliminated, yielding ongoing savings that accelerate the system's payback. Netting waste can be reduced by 30% or more when compared to a pre clipped process.

The TN2004 is now equipped with the proven high-speed servo pusher technology first developed on the TN4001. This eliminates the "air and part hungry" pneumatic pusher cylinder which was utilized on earlier machines. The sophisticated solution provides unmatched control of the product, higher speed and proven reliability. With less maintenance, lower parts usage, better performance, and significantly lower operating costs vs. pneumatics, the TN2004 with its servo pusher is a winner.

Safety and hygiene

The TN2004 is fully guarded and interlocked and meets the highest safety standards. This includes the new automatic chute system. The system only moves when the operator's safety allows it, and potential pinch points are protected with innovative guarding solutions to keep operators safe.

The controls are managed by the Human Machine Interface or HMI. Individual product adjustments can be made here. The systems also allow for a manual single advance if the operator desires. Thus, options such as first or last chute of the day can be set and saved in the system.

The TN2004 has been reengineered from the ground up. Fabricated sheet metal frame work means no closed tubing and provides open access to all surfaces while all horizontal



The controls and product adjustments are managed by the Human Machine Interface (HMI).

surfaces are kept to a minimum by using angles to prevent pooling of water. Continuous welds and the use of standoffs to prevent surfaces from being in contact all result in a machine that provides a very easy to sanitize and hygienic solution.

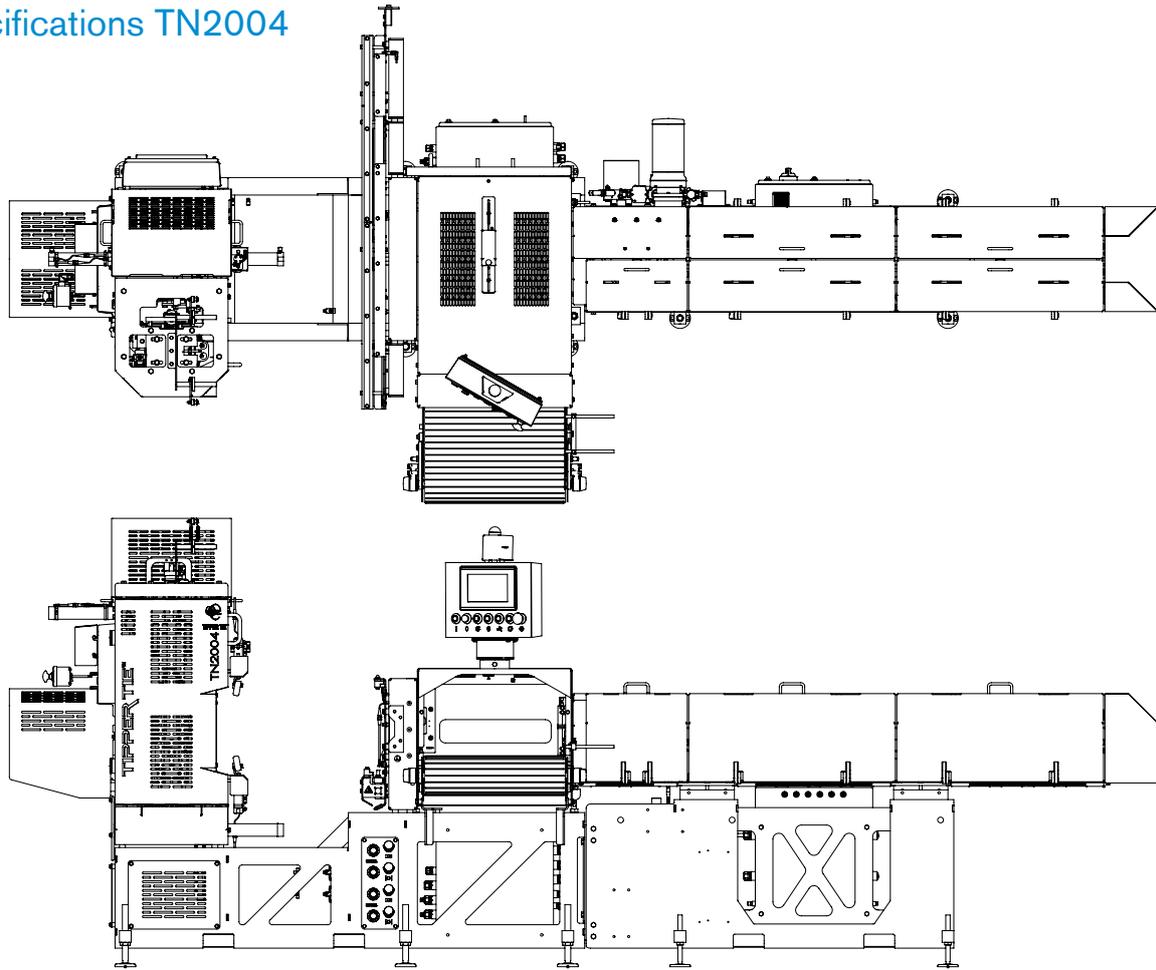


TN2004 completely automates the process of netting and clipping products like large bone-in hams, small briskets, even bone in loins

Paying Dividends

The TIPPER TIE TN2004 Netter is a prime example of market experience applied to cutting edge engineering to deliver dramatic economic benefits. The impact of labor and material savings, coupled with dependable high performance, make the TN2004 the new standard for netting and clipping large bone in and boneless whole muscle products.

Specifications TN2004



TECHNICAL DATA	
WIDTH:	5280mm [208"]
DEPTH:	1750mm [68.75"]
HEIGHT:	1925-2025mm [75.75"-79.75"]
SUPPLY POWER:	400/480 V, 30amp
PROTECTION CLASS:	IP65
AIR CONSUMPTION:	15 SCFM at 12 pcs/min
COMPRESSED AIR:	5.5 bar (80psi)
SPEED:	up to 12 pcs/min
CLIP TYPE:	Z321
CHUTE LENGTH:	683mm (26.875")
CHUTE RANGE:	Round: 152-230mm (6-9") Flat Bottom: 152-280mm (6-11") Oblong: Up to 230mm x 330mm (9"x13")
NOISE LEVEL:	86.8LpA [dB (A)]
WEIGHT:	989kg (2180 lbs)
NETTING ON CHUTE:	150-300 feet (46-92meters)*

*approximated based on common nettings

JBT PROTEIN PROCESSING

PRIMARY

CHILLING | WEIGHING | PUMPING
CUTTING-UP | SKINNING | WATER
RE-USING | ENHANCING FOOD SAFETY

SECONDARY

PORTIONING AND SLICING | BRINE PREPARATION | HOMOGENIZATION
INJECTION & RETURN MILLING | MACERATION | MASSAGING |
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)



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