



Why not
shrink
packaging!?



Sample testing and system demonstration



We offer **free** sample testing and system demonstration.
Just send us samples of your containers and films.

We respect the confidential nature of new products and we handle your trade secrets with the utmost care.

Contact us

Marketing & Sales Division



+81-78-304-4439

Business hour : 9:00-18:00
(weekdays)

For more information about TORNADO

Visit **http://pack.solution.co.jp/en/**

Introducing with some videos



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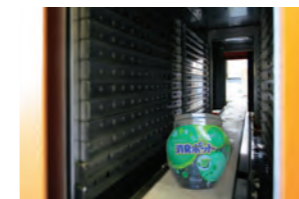




- Want to use PET film
- Cannot use steam tunnels
- Don't have enough room for equipment
- Want to differentiate by irregular-shaped container
- Want to reduce cost
- Want to be eco-friendly
- Anyhow, want to have flawless shrink-wrap

The innovative swirling hot air system

TORNADO
O.D.T. The spirit of oddity



Crisp finish

The tornado effect allows for thinner container walls and shrink films. In addition, it will be able to shrink wrap powdery, dry, chemical, and cosmetic products.



Less room, low production cost

Considering work efficiency, TORNADO is designed to save both energy and space. TORNADO processes jobs in one step. It doesn't require special training or experience. Also, this shrinking process reduces personal and material costs.



Digitized control

Error sign will show upon touch panel so that you will be able to notice something unusual earlier.

"Tornado method" gives crisp finish

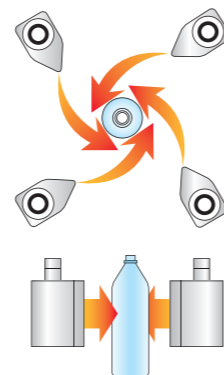
The "Tornado method" discharges hot air from 4 sides, literally creating a tornado effect within the tunnel. Upon entering this zone, the job (product) is instantly and flawlessly shrink-wrapped.

Conventional hot air tunnels generate an air current from the side, often causing wrinkles on the front and back ends of the job. One attempt to circumvent this was to rotate job during the shrinking process. The TORNADO shrink packaging system draws inspiration from the opposite approach – rotating the hot air.

There is no need for a rotating conveyor.

TORNADO saves space. It occupies about half the area of conventional systems (internal comparison). In addition, it will increase productivity at the same time.

Solution 1



Optimal maintainability

TORNADO is easy to operate and do maintenance.

With wide variety, small lot productions being the mainstream in recent year, a single system handles numerous different jobs in a single day. Also, each job requires a distinct machine setup.

In general hot air tunnel, it requires trained, experienced operators to handle the changeover with new jobs.

However, the TORNADO shrink packaging system narrows down the adjustment controls to just 3 parts: temperature, airflow volume, and shutter (preheat unit). All controls feature a digital display, so the same outcome can be achieved regardless of who adjust them. Our system at NTS is operated by part-time workers.

Be able to have same result, whoever handle.

Solution 3



Variety of other options



Transfer unit is adapted to many varieties of conveyors. Also, we offer you additional preheating unit and visual inspector and more.

In the picture, its showing add-on preheat unit.

Hot air circulation mechanism use less energy

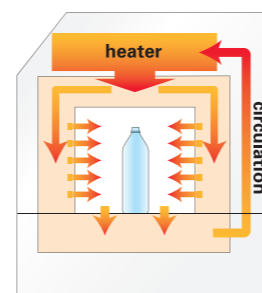
The hot air circulation mechanism is a complex that hot air circulating to control the temperature and air flow. It enables a uniform temperature distribution throughout the tunnel and a consistent airflow to reach the job.

Conventional hot air tunnels are developed for traditional PVC (polyvinylchloride) film, which shrinks simply by blowing hot air onto it. There is no need to control airflow. They merely discharge heat and spread it through the tunnel.

The TORNADO shrink packaging system was developed as a standard next-generation environment-conscious system. Also film manufactures use it in their laboratories to develop environment-conscious film and new film materials.

TORNADO saves energy. It consumes about 2/3 of the conventional system electricity (internal comparison). It also leads to cleaner, more uniform finish.

Solution 2



[Specification]

Voltage/frequency	Three phase 200V 50/60Hz
Heating capacity	Preheat Unit 1 6KW (1000) Heat Unit 9KW
Blower capacity	Preheat Unit 400W (hot air circulation) Heat Unit 400W Turbo blower (hot air circulation)
Conveyor	Heat-resistant cloth belt conveyor (260°C)
Body material	Heat chamber interior walls SUS304 Heat chamber exterior walls SPCC Baled coating (2.5Y9/1)
Other options	*Add-on Preheat Unit *Add-on Tornado Unit *Extension Conveyor Unit *Vacuum Conveyor Unit *Overhead Guide Conveyor Unit *Automatic Mounting Device *Appearance Tester And more

