



## Fibron Machine Corp. – Voith Paper’s total machine threading specialists



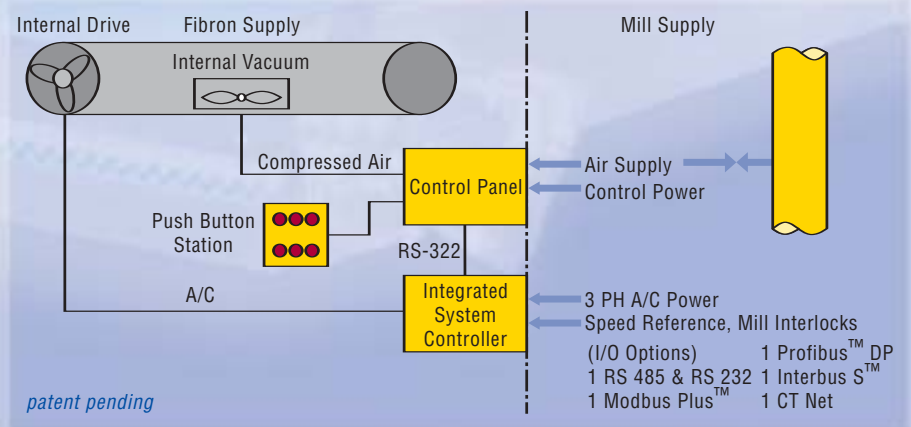
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**Introduces its revolutionary new, patent pending Vacuum Tail Transfer (VTT) conveyor and vacuum technologies for the next millennium.**

The new Fibron 3000 is the most advanced, compact VTT system ever developed, and is applicable for all paper and board grades. Each patent pending Fibron 3000 conveyor will incorporate a revolutionary, high power, internal drive with a fully integrated control system and the optimal vacuum source for each application chosen from a complete range of internal and external vacuum options. See Fig. 1.

Due to its new compact design and its total package options, Fibron 3000 minimizes mill integration requirements, and simplifies installation and commissioning requirements. For example, as shown in Fig. 1, Fibron 3000 has only simple power, air and control requirements from the mill.

Its integrated control system provides the mill with a full range of input/output options including RS 485 & RS 232 Modbus Plus, Profibus DP, Interbus S and CT Net. Most significantly, it provides complete threading system automation and control, including performance logging and remote troubleshooting capabilities.



It has been optimized for the slowest machine speeds to the highest machine speeds available today, and under additional testing it has been proven at speeds in excess of 3000 meters/minute. Fibron 3000 has proven itself ready for the next generation of paper and tissue machines.

Fibron 3000 is the most compact VTT conveyor threading system ever developed. This opens up a wide range of new online threading possibilities where a traditional VTT conveyor threading system simply would not fit.

Fibron's 30 years of experience and 4800 VTT installations worldwide have demonstrated that optimal VTT solutions are not provided by a "one size fits all" approach. As machine speeds increase and threading application requirements become more complex, Fibron responded with the development of 3 new VTT (Vacuum Tail

Transfer) conveyor threading technologies:

**VTT 2**  
**VTT Venturi**  
**VTT Turbo**

As part of the Fibron 3000 VTT package (also available with our standard VTT conveyor packages) Fibron is able to provide the optimal vacuum technology for each application, by utilizing these three specialized vacuum technologies. This ensures every customer that they will be supplied with the best, most suitable technology to meet their unique requirements and to provide optimal system design and performance.

Each of these technologies generates stable and consistent vacuum levels along the complete length of the conveyor. This is critical for optimal threading performance. There is no pulsation or fluctua-

*Fig. 1: Fibron 3000™  
 "Fully Integrated Compact VTT".*

*Fig. 2: "Stable Vacuum" with VTT Turbo™  
 Vacuum Concept. Pressured air generates vacuum efficiently through an internal turbine.*

tion of the vacuum levels down the conveyor during the threading process.

Fibron employs each of the conveyor technologies as required – both in combination with each other – and in combination with other threading technologies such as ropes, to design the most reliable, cost-effective threading solution.

**VTT Turbo™ Fig. 2**

This new, patent pending Fibron conveyor utilizes an internal air turbine driven by compressed air to create stable, consistent vacuum. This technology gives reliable threading performance for all grades, speeds, machine locations and configurations. With only a simple airline required to generate vacuum, its compact, energy efficient design makes it ideal for all space limited applications. It has significantly lower compressed air

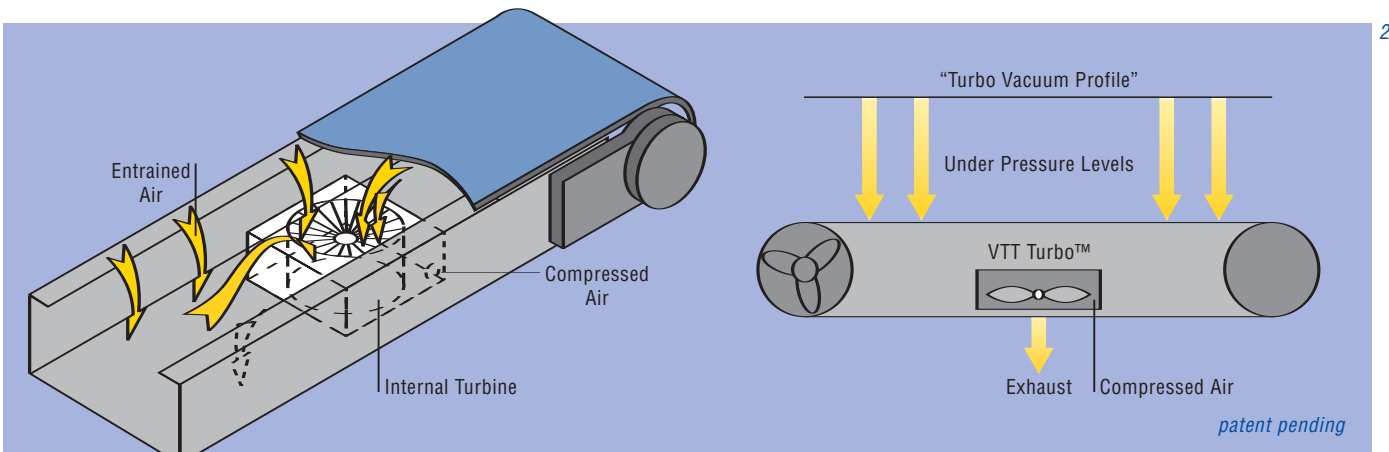
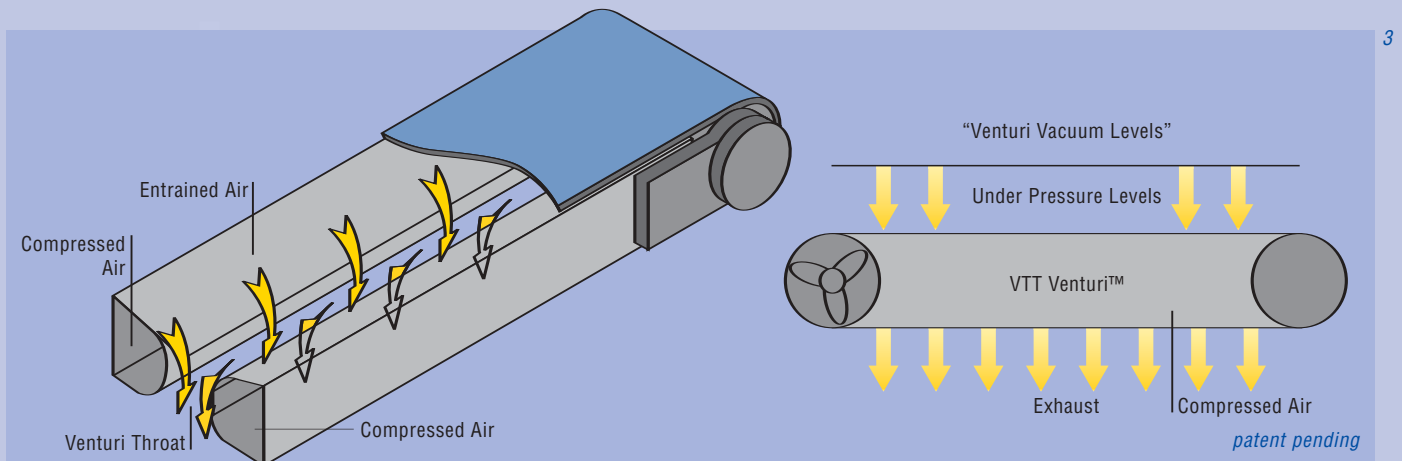


Fig. 3: "Stable Vacuum" with VTT Venturi™ Vacuum Concept. Vacuum is created by entraining air through the belt with a Venturi.



requirements than VTT Venturi and can be retrofitted into all existing Fibron conveyor boxes. Additionally a VTT Turbo equipped conveyor is self cleaning as it exhausts through the return run of the conveyor belt.

#### VTT Venturi™ Fig. 3

This new, patent pending Fibron conveyor employs compressed air and the "Venturi" effect to create a stable, consistent vacuum throughout the length of the box, although the high compressed air requirements limit the vacuum levels attainable.

Its compact size and reliable performance make it ideal for machine locations where space is limited and where compressed air supply is not an issue.

It is uniquely suited to tissue applications as there are no rotating parts and vacuum requirements for tissue are lower. Rotating parts are to be avoided as much as possible with tissue due to the dust and associated fire hazards. Additionally VTT Venturi is also self cleaning as it exhausts through the return side of the belt thereby preventing any dust build-up.

#### VTT 2™

Vacuum Tail Transfer technology, invented and developed by Fibron using an external fan, has a proven record of reliable threading for all grades, speeds and machine locations. VTT 2 upgrades the original VTT system by using 316 stainless steel construction, integrated low profile, head and tail pulleys for improved belt tracking and compact motor mounting for easier installation.

The external vacuum fan has the lowest power requirement of all the vacuum technologies because it uses no compressed air. This makes it particularly suitable for customers with compressed air limitations.

Only Fibron VTT conveyors provide stable, consistent vacuum, handle tail widths from 50-200 mm, and deliver proven, reliable threading for all grades from 8 g/m<sup>2</sup> tissue to 850 g/m<sup>2</sup> board and pulp. Fibron VTT conveyors are reliable for all speeds from 35 mpm to 2,200 mpm, and for all machine locations from the couch roll to the reel. A full range of integrated accessory devices, such as tail rippers, deflectors, reel threaders, calender shoes, stabilization trays and rope threading accessories, ensure optimum full machine threading performance.

### Advantages of the Fibron VTT Conveyor Family

- Fibron 3000™ is the most compact conveyor threading system available on the market with a fully integrated drive and control system as standard.
- Full range of technology to ensure optimal system design and performance for every application.
- Full range of accessory products to improve overall threading performance.
- The only Vacuum Tail Threading expert with over 30 years application expertise and 4,800 installations worldwide.
- Proven performance on all grades from 8 g/m<sup>2</sup> tissue to 850 g/m<sup>2</sup> board and pulp; on all machine speeds from 35 MPM to 2,200 MPM; on all machine locations from couch roll to reel.
- Standardized threading procedures, with reliable threading regardless of grade, speed, crew or threading path.
- Reduced downtime, improved revenues.
- Improved operator safety.
- Improved machine efficiency; reduced operating costs.
- Single point responsibility for total machine threading operations from press to reel.
- Maximum flexibility in conveyor operational parameters.
- In house engineering expertise to provide easy integration with other threading technologies for reliable, full machine threading.

#### Conveyor Technology Summary

General	Fibron 3000™ VTT	Standard VTT	
Design speed	3,000 mpm	3,000 mpm	
Conveyor box	Stainless Steel	Stainless Steel	
Drive Belt	None	Timing or V-belt	
Drive Motor	5 kW (internal)	2.2 - 5.5 kW	
Possible Speed Difference	Optimized between 0 - 50 %	Optimized between 0 - 50 %	
Integrated Control System	yes	no	
Concepts	VTT Turbo™	VTT Venturi™	VTT2™
Vacuum Created by	Air turbine	Air Venturi	Fan
Stable and consistent vacuum	yes	yes	yes
Vacuum levels (relative)	100 %	60 %	100 %
Internal vacuum source	yes	yes	no
Connection	3/4" hose	3/4" hose	150 mm
Power Consumption	15 kW compressed air	30 kW compressed air	7.5 kW AC motor
Self-cleaning	yes	yes	no
Application			
Upright conveyor	optimal performance	optimal	optimal
Vertical conveyor	optimal performance	good	optimal
Inverted conveyor	optimal performance	good	optimal
Space Limited Applications	optimal	optimal	average
Full range of integrated stabilization devices	yes	yes	yes
Full range of integrated initial tail delivery devices	yes	yes	yes
Full range of integrated conveyor tail rippers	yes	yes	yes
Full range of integrated deflectors and discharge shoes	yes	yes	yes
Full range of integrated ropes threading accessories	yes	yes	yes
Tail width capability	50 - 200 mm	50 - 200 mm	50 - 200 mm
Note: Optimal tailwidth for all conveyor threading is 100 - 150 mm			