



# Intelligent coupling technology

## TurboBelt TPXL family

**With double the power transmission capability within the same installation space, the TurboBelt TPXL family is specifically designed to meet ever-increasing mining conveyor belt loads and requirements.**

Providing wear-free power transmission with precise, easy-to-use torque control, the Voith fill-controlled fluid coupling is compact in design making it ideal for both retrofit and new conveyor belt systems. Paired with the integrated control logic this rugged and robust coupling is both a highly efficient as well as an intelligent drive control solution, that is engineered to the highest standards for greater availability and reliable operation.

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#### Your benefits

- **Highly efficient drive solution**
  - **Reliable operation, even in harsh environments**
  - **Quick and simple installation**
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## Maximizing your belt conveyor productivity

### The most economic hydrodynamic solution

Growing economic pressure has resulted in mining companies placing a great deal of importance on optimizing Total Cost of Ownership (TCO).

A TCO comparison illustrates that whilst electrical drive solutions are perceived as the most efficient, they do not offer the same energy and OPEX savings.

Voith OPEX costs are extremely low as a result of:

- Long overhaul intervals
- Minimal breakdowns
- Intelligent software features

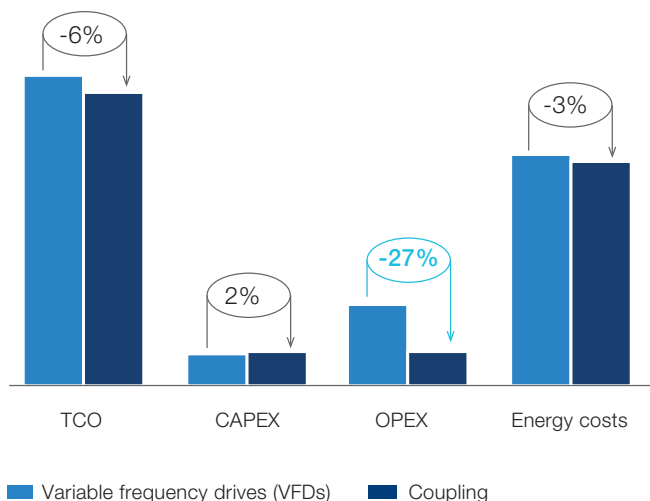
### Optimized features of the TurboBelt TPXL

Increasing the conveyor belts' lifetime whilst facilitating continuous production output is guaranteed with our hydrodynamic, wear-free power transmission couplings.

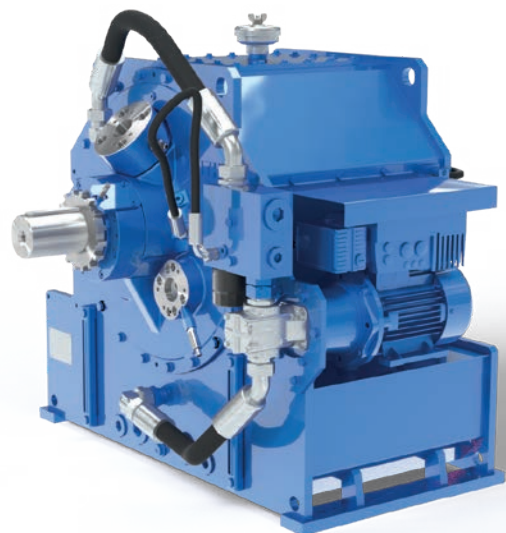
In our endeavor to provide superior value we have optimized the TurboBelt TPXL coupling family by equipping our couplings with long lifetime bearings and enhanced blade development, towards an XL profile, which increases the efficiency whilst reducing installation space required.

Furthermore, the coupling is fully equipped with state of the art components, which encourages fast retrofit built-in solutions.

### Voith TCO comparison total volume in percentage



### TurboBelt TPXL coupling





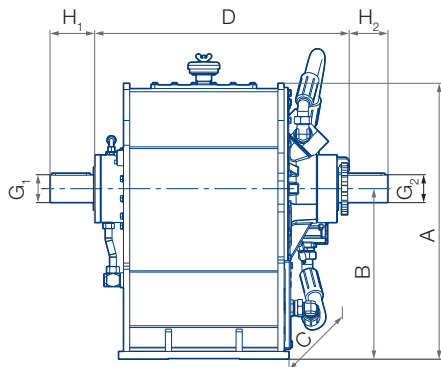
## Start-up and power range

Belt conveyors operating over long distances often do so within a network. Typical applications include open-cast mines, underground mines or harbor port facilities. In order to provide a range of start-ups according to your specific requirements, the TurboBelt TPXL coupling is supplied pre-parameterized.

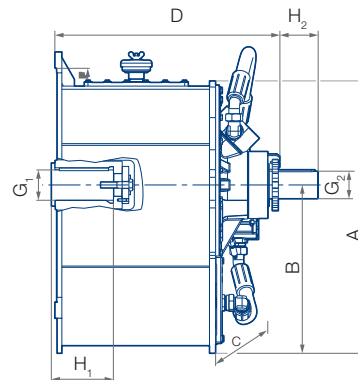
Furthermore, the TurboBelt DriveControl is able to control conveyor belt torque. Unlike electrical devices, a hydrodynamic coupling can be adjusted according to the unique belt conveyor start-up and control characteristics.

### The TurboBelt TPXL product family covers a huge power spectrum

Self-supported version



Motor attached version



Self-supported version	A	B	C	D	G <sub>1</sub>	H <sub>1</sub>	G <sub>2</sub>	H <sub>2</sub>	Weight	Power range (1 800 rpm)*
<b>TurboBelt 315 TPXL</b>	830	505	1 100	720	80	140	80	130	576 kg	160 kW – 315 kW
<b>TurboBelt 500 TPXL</b>	890	550	1 085	820	90	140	90	130	590 kg	315 kW – 500 kW
<b>TurboBelt 800 TPXL</b>	935	565	1 120	906	100	160	100	170	720 kg	500 kW – 800 kW
<b>TurboBelt 1 250 TPXL</b>	1 014	615	1 364	972	110	200	110	190	940 kg	800 kW – 1 250 kW
<b>TurboBelt 2 500 TPXL</b>	1 137	685	1 532	1 080	130	200	130	190	1 920 kg	1 250 kW – 2 500 kW

Motor attached version	A	B	C	D	G <sub>1 max</sub>	H <sub>1 max</sub>	G <sub>2</sub>	H <sub>2</sub>	Weight	Power range (1 800 rpm)*
<b>TurboBelt 315 TPXL</b>	815	490	1 070	634	85	165	80	130	470 kg	160 kW – 315 kW
<b>TurboBelt 500 TPXL</b>	990	535	1 070	728	100	210	100	130	524 kg	315 kW – 500 kW
<b>TurboBelt 800 TPXL</b>	1 060	550	1 090	783	120	210	100	170	634 kg	500 kW – 800 kW
<b>TurboBelt 1 250 TPXL</b>	1 180	600	1 364	860	130	210	110	190	898 kg	800 kW – 1 250 kW

All dimensions in [mm]

\*Contact Voith for other motor speeds

# Intelligent control

Starting up and controlling the conveyor belt is simple when utilizing the TurboBelt TPXL. These fill-controlled couplings enable long drive processes with high loads and a load-free motor startup.

Additionally, the TurboBelt DriveControl synchronizes all drives, reduces wear and maintenance significantly.

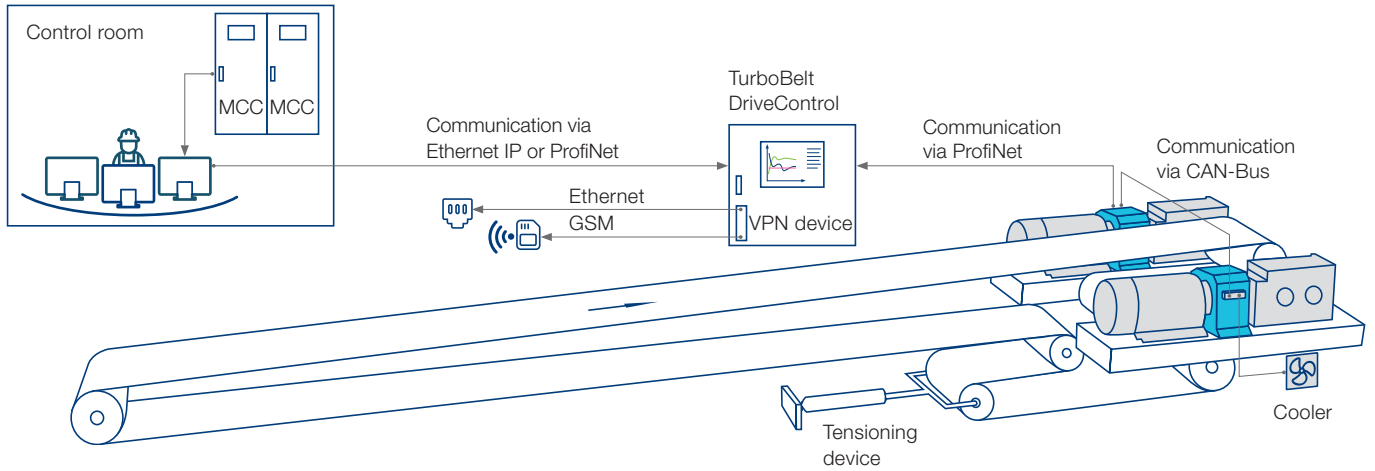
## Monitoring is easy with this user-friendly interface



## Take advantage of:

- + Automation with the automated and precise control of the conveyor belt start-up
- + Easy installation as the unit is supplied pre-parametrized
- + Electrical grid protection
- + Secure remote service via VPN, Ethernet or a GSM-network
- + Compact and designed to fit perfectly into most drive trains

## TurboBelt TPXL coupling in multi-motor drive configuration



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