

Automate the transfer of tablets and capsules and minimize all risks of damage to the tablets

piFLOW®t





YOUR CHALLENGE

To automatically transfer tablets, capsules and other fragile products without damage. To increase the productivity in your plant through automation and have a good return on investment.

OUR SOLUTION

piFLOW®t will together with piGENTLE™ automatically convey tablets or capsules without breaking or chipping thanks to a controlled low and constant speed, guided entry and the elimination of all sharp edges. Those are the keys to our success, ensuring that tablets are handled with great care in our conveyor. Return on investment will be affected positively both thanks to the automation of a normally manual process and also through a decreased amount of waste due to chipped products.

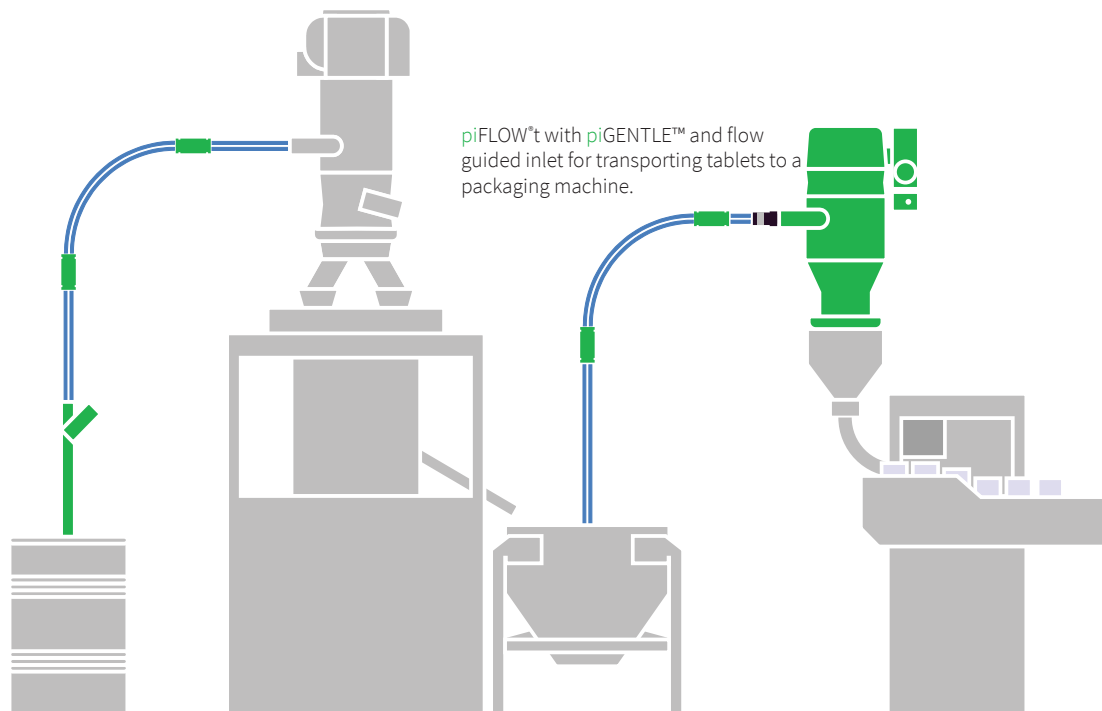
Technical Data

Description	Value
Feed pressure range	0.2–0.6 MPa
Air consumption range	6–28 NI/s
Vacuum range	0–75 -kPa
Noise	69–77 dBA
Material	ASTM 316L
Temperature range	0–60 °C
Weight	up to 50 kg
Filter area	up to 0.25 m ²
Batch volume	10 L
Min. part size	0.5–5 µm

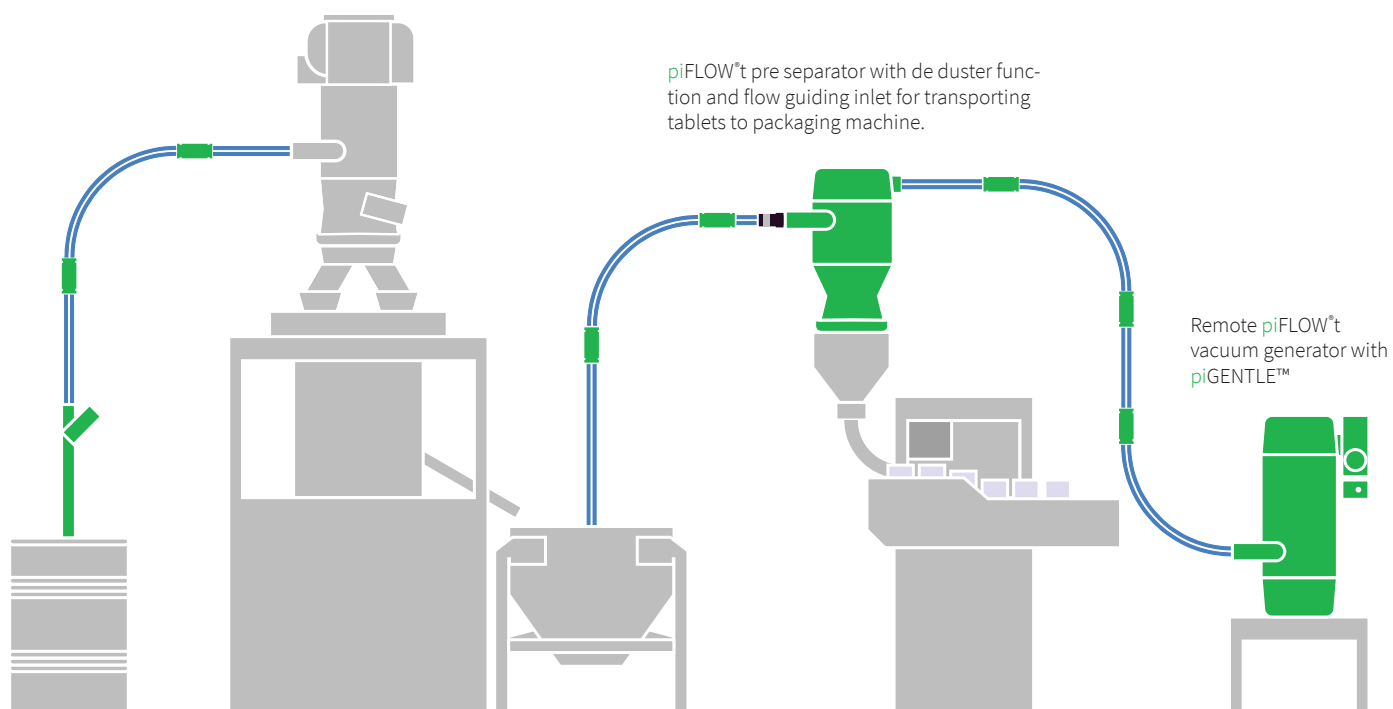
Process

Eliminating the use of inadequate standard equipment and alternative, often back-breaking, manual procedures, piFLOW®t will safely transfer tablets between the various processing units, such as coating drums or blister packaging lines, avoiding all risks of damage to the tablets.

An example of an application with piFLOW®t



An example of an application with a piFLOW®t pre separator



Safe entry into the conveyor

A guiding flap valve is used to facilitate a tangential entry into the inlet module. This will enable a smooth transition between the conveyor and pipeline.



piGENTLE™

At the core of piFLOW®t is the proprietary piGENTLE™, a patented technology that maintains a gentle tablet flow by regulating the feed pressure of the vacuum pump, ensuring that tablets, capsules or other fragile products are handled as delicately as possible.

piGENTLE™ regulates the feed pressure of the pump by sensing the vacuum level in the system. As it has a low start pressure, it will enable tablets to be picked up at a low speed. When the tablets fill up the pipe line the vacuum level increases and consequently the feed pressure is increased. The feed pressure is regulated between 2 and 6 bar.



Benefits

piFLOW®t is optimized for conveying tablets. Apart from a gentle conveying of tablets, the piFLOW®t has a number of other advantages for your benefit:

- **Energy efficiency:** Thanks to the COAX® cartridges that use compressed air to create vacuum. A vacuum system based on COAX® technology can provide you with three times more vacuum flow than conventional systems, while reducing energy consumption. With the addition of piGENTLE™ your energy consumption can further be reduced due to the automatically regulated compressed air in the feed.
- **Flexibility:** piFLOW®t is configurable, you can build the exact conveyor to your need and over time change just the part that needs changing, such as adding extra volume when the capacity need has increased.
- **Productivity:** The limited number of modular components and the fast and toolless assembly/disassembly makes the Piab vacuum conveyors easy to maintain and clean so you can keep the changeover time as low as possible and increase the productivity.
- **Small footprint:** piFLOW®t is a very small conveyor constructed to be very compact. As the small conveyor can normally be fitted on top of the equipment that is being fed and a flexible house can be routed to the feeding point, you have an automated conveying solution even with limited floor space and building height.
- **Improved working environment and no cross contamination:** As the Piab vacuum conveying principle is based on contained conveying under negative pressure, you will have a solution that minimizes the cross contamination risk and contributes to dust free conveying and a better working environment.
- **Market leading warranty:** Thanks to the high quality and reliability of Piab vacuum conveyors, piFLOW®t comes with a market leading 5 year product warranty.

piFLOW®t – Dimensioning guideline



To calculate the capacity of the conveyor consult the table below. The table presents values with a Ø9mm round uncoated tablet for reference.

Conveyor model piFLOW®t	Millions of tablets conveyed per hour	
	5m*	10m*
T.P2G.XX	1-1.5	0.8-1.8
T.P4G.XX	2-3	1.5-2.3

* Conveying distance.

Accessories

Filter

Filter type	Material	Grade of filtration	Applications	Quality standards
 <p>Pleated Rod Filter</p>	Polyethylene	0.5µm	Products including fine dust/fines. For example tablets, vitamins, candy, chewing gum and nuts	ATEX (only the black filter), FDA
 <p>Textile Filter bags</p>	Polyester	5µm	Granules, objects, parts. For example tablets, capsules, vitamins, candy, chewing gum and nuts.	ATEX, FDA, Food quality

Control units

Piab control units are fully pneumatic operated with an extremely reliable function. The full pneumatic design also removes any source of ignition from the system and at the same time simplifies the validation process.



Control unit CU

Control unit CU is integrated in a stainless steel box for hygienic requirements. The unit is designed to control all functions of the conveyor with simple installation and settings of the timers. The CU is compliant with ATEX.



Control unit PPT

Control unit PPT is designed to control the basic functions of the conveyor. The unit can be ordered with or without manual start/stop. The PPT is compliant with ATEX.



The Valve unit VU-EP

The Valve unit VU-EP is designed to convert an electrical signal to a pneumatic signal, when there is a need to control the conveyor with a PLC or similar electrical control systems. The unit is prepared for connection to Piab conveyors main functions and is therefore easy to install.

Feed point

The surrounding air is the carrier of the product and should be added at the feed point. Is the product to be conveyed directly from a container? Is it to be picked up from up high or down low? Piab offers many different options from Feed nozzles and Feed adapters to Feed stations.



Feed pipes

To manually feed the conveyor direct from bags, barrels, buckets, etc. The air flow intake into the nozzle can be adjusted to optimize the transport of the product into the conveying line.



Feed adapters

The feed adapters are suitable for Piab feed station, customized hoppers, big bag unloaders or silos. The feed adapters can adjust the carrying air to optimize the transport of the product into the conveying line.



Feed station

The feed station should be placed under a big bag or for dumping small bags. It has fluidization as an option for sticky, bridging, non-free flowing products to make the transport problem-free.

piFLOW[®]t

Integrate 60 years of global vacuum experience into your solution

With more than 60 years of experience we are the leader within vacuum technology – that is our core business. We have built up a global expertise in vacuum conveying that you now can easily access.

We have integrated our products in various industries e.g. Consumer and food, Pharmaceutical and Chemical. Now we are opening up the possibility for you to integrate the vacuum conveyor as a part of your solution. This gives you the possibility to focus your resources on your core business.

With our world-wide sales offices, we will be your local conveying expert for you to grow your business.

Short delivery time

Our vacuum conveyors are all designed through a modular program based on standard components. This gives you the possibility to convey a wide range of different customer products, still with a limited number of standard modules. Hence you can depend on the piFLOW[®] being available with a short delivery time, avoiding costly stock.

Instant access to all documentation

To simplify the process we give you access to our unique web interface where you are able to configure your product and download relevant documentations e.g. CAD files, datasheets, manuals etc. This gives you the benefit of being in control of your projects in an easy way.



Warranty

Piab offers a warranty to distributors, integrators and users of Piab products worldwide as per the following definitions:

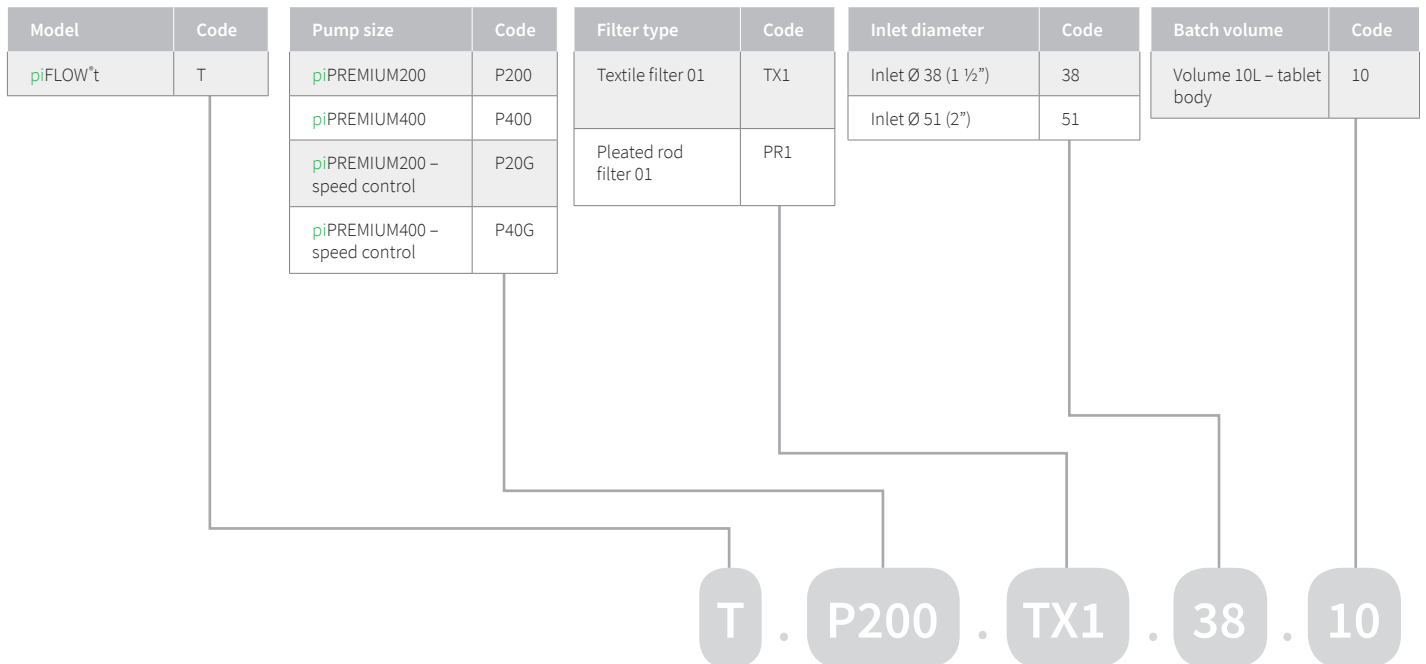
- A five-year warranty is valid for complete vacuum conveyors excluding electro mechanical pumps and controls.
- A five-year warranty is valid for vacuum pumps excluding electro mechanical pumps, accessories and controls.
- A two-year warranty is valid for electro mechanical pumps.
- A one-year warranty is valid for other products.

General warranty principals:

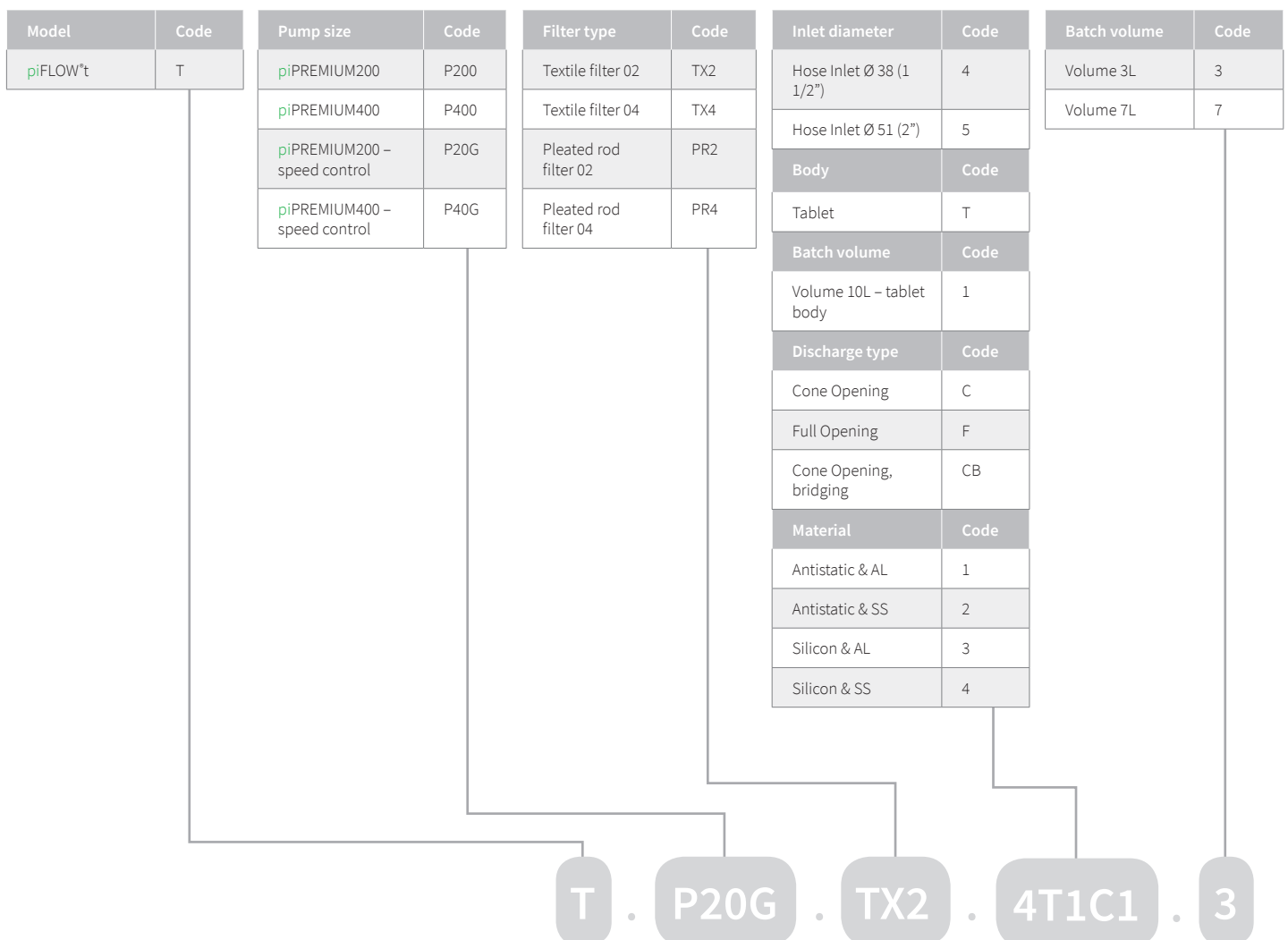
- Piab guarantees against defects in the manufacture and materials by normal use in a proper environment, when following the instructions for care, maintenance and control described in the appropriate Piab manual.
- Piab replaces or repairs, free of charge, faulty products provided that these are returned to Piab and found to be covered by the warranty.
- It is at Piab's discretion whether a faulty product should be sent back to Piab for replacement or if the repair shall be made locally at Piab's expense.
- This warranty does not include wear parts such as filter elements, sealings, hoses, pipe fittings, pipe bends, pinch valves (in-line with conveyed material), reducers, etc
- This warranty does not include subsequent damages caused by defective products.

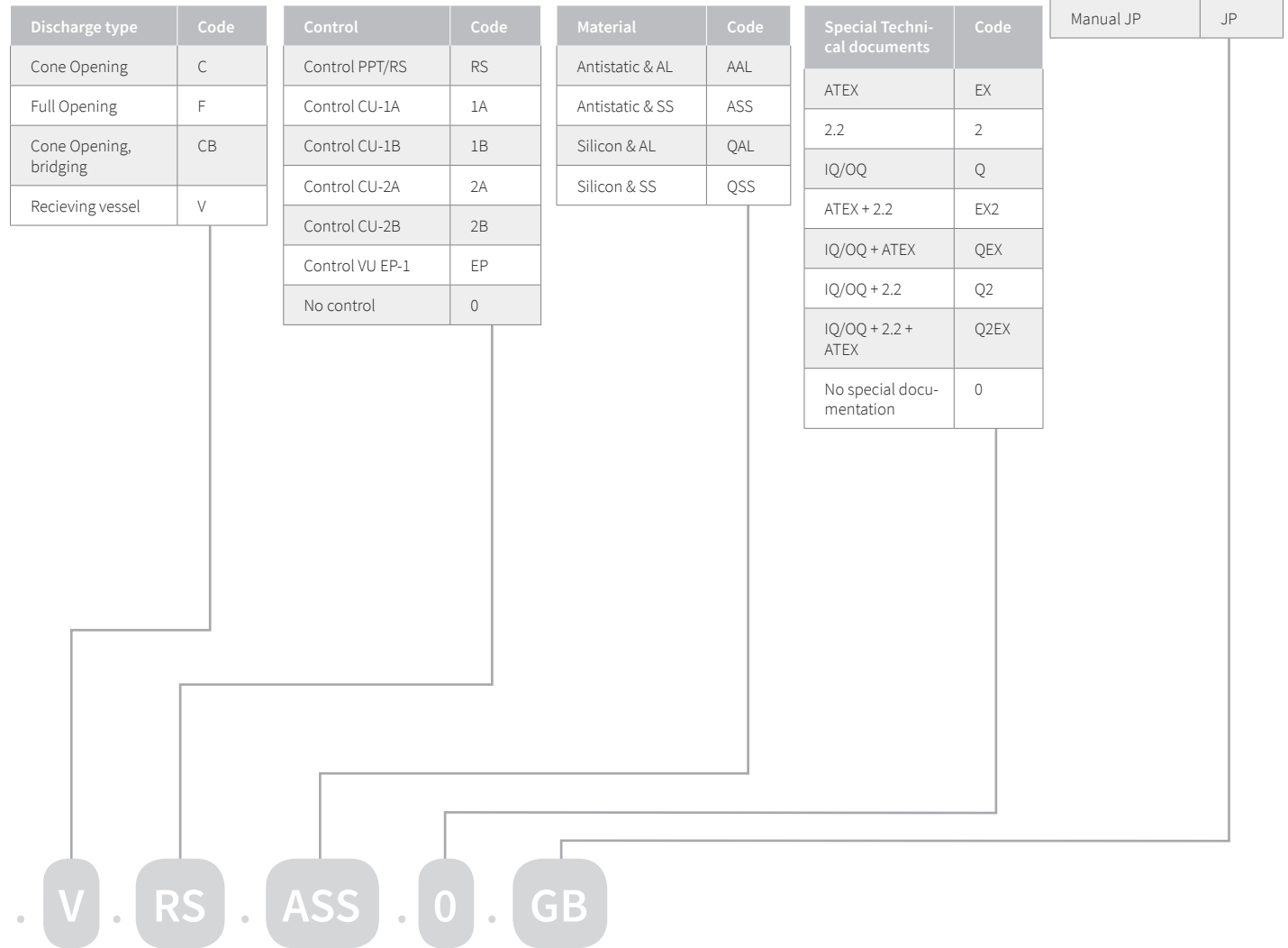
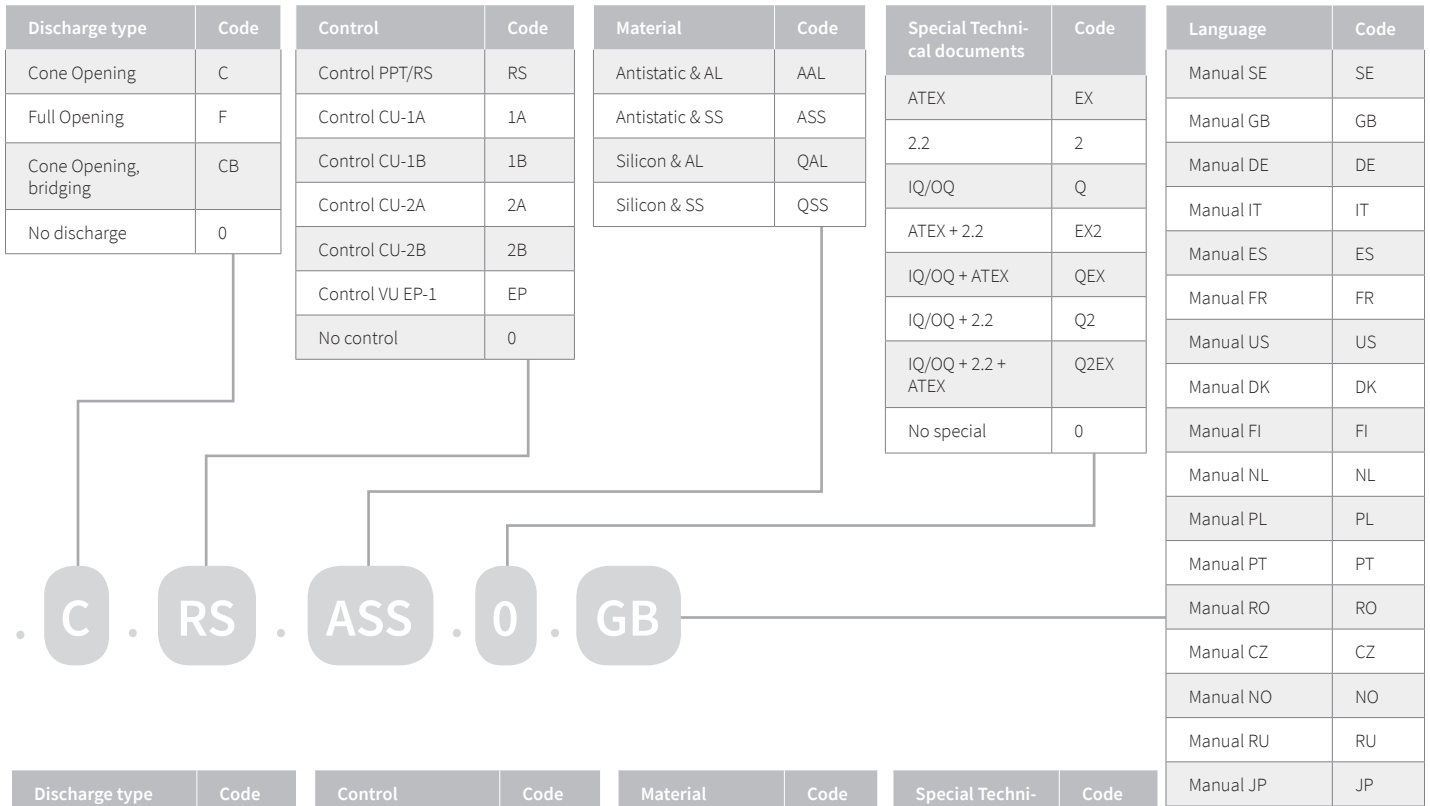
piFLOW[®]t – Conveyor Customer Code

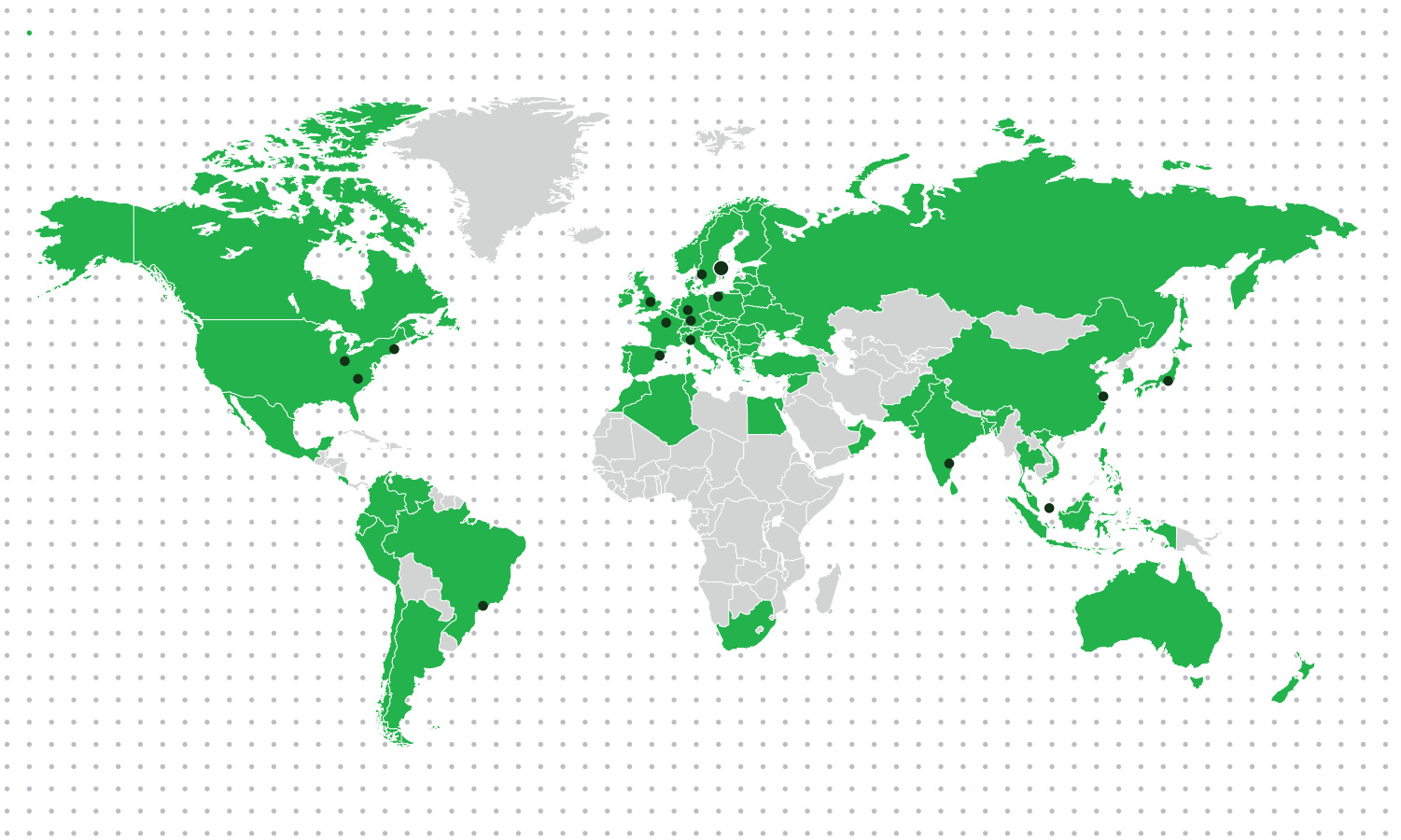
piFLOW[®]t – Stand alone



piFLOW[®]t – Pre separator with remote vacuum generator







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