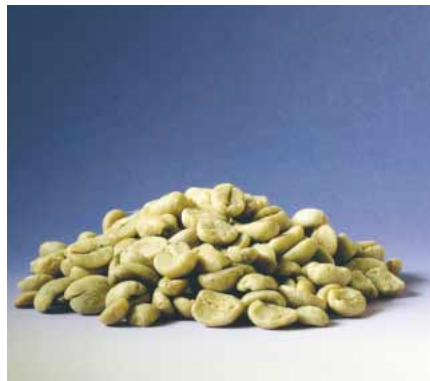


# Vacuum Conveyors



**Vacuum - the best way to convey materials!**



**PIAB**  
Innovators in  
Vacuum Technology

# ”Hygiene increased thanks to PIAB”



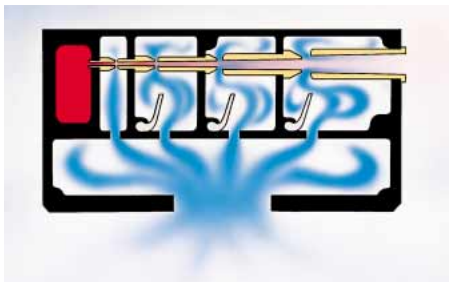
Karl-Axel Rydén and Kenneth Lindkvist at Nestlé with PIAB's vacuum conveyors, which contributed to a more hygienic handling of powdered mixes.

”At Nestlé we need hygienic transport systems. The health authorities have very stringent demands in food processing. This applies especially to the handling of powdered mixes, which must never be exposed to the air in premises where, for example, meat is handled. PIAB's vacuum conveyors meet these demands more than well”, say Karl-Axel Rydén and Kenneth Lindkvist, technically responsible for different departments at Swedish Nestlé.

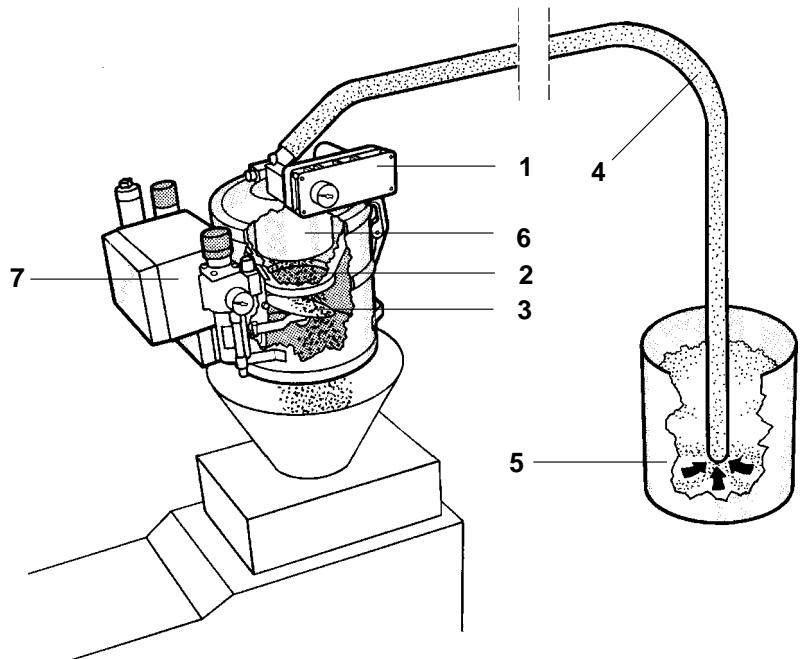
”Nestlé is one of the world's largest producers of ready-made food, and we choose our suppliers with care. In this case it was a simple choice, as PIAB showed great ability to adapt its products to our needs. We tried several solutions, but PIAB was the best choice”, adds Kenneth Lindkvist.

## The Principle of PIAB Vacuum Conveying

Cross section of Vacuum Pump



The PIAB Vacuum Pump is a compressed air-driven multi-stage ejector. The pump uses the energy very efficiently. It has no moving parts and is maintenance free.



1. Vacuum is created by the compressed air-driven PIAB Vacuum Pump (1). A negative pressure is created in the container (2).
2. When the bottom valve (3) is closed, a negative pressure is created in the pipeline (4) to the suction point (5).
3. From the suction point the material is sucked into and through the pipeline to the container where it falls towards the bottom valve. Any pipeline leaks are inwards.
4. The filter (6) effectively prevents dust and small particles from entering the pump. During the suction period a small reservoir mounted in the filter unit is filled with compressed air.
5. When the material container is filled, the vacuum pump stops. The bottom valve of the conveyor opens and the material inside is discharged. At the same time the compressed air in the reservoir is released to blow the filter clean.
6. When the pump restarts, the cycle is repeated. Suction and emptying are normally controlled with a time valve (timer), but other control signals can also be used (7).

# Select from five basic models and 78 variants!



VC 100

VC 200

VC 400

VC 800

VC 1200

## Simple guidelines for deciding which PIAB Vacuum Conveyor

The values below are the results of trials in the PIAB test laboratory and serve as a guide when sizing a vacuum conveyor. PIAB also have a comprehensive range of accessories which makes the handling easier. Get in touch with PIAB for information on your particular material!

Vacuum Conveyor	Capacity* tons/h	Weight kg	Sound level dBA	Air consumption at 4-6 bars** NI/s	Dimensions mm
VC 100	0.9	10	60-65	4.5-6.3	Ø 293x385
VCP 100	0.9	12	60-65	4.5-6.3	Ø 293x520
VC 200	1.5	15	72-76	9.0-12.6	Ø 293x548
VCP 200	1.5	17	72-76	9.0-12.6	Ø 293x678
VC 400	3.0	17	72-76	18.0-25.2	Ø 293x678
VCP 400	3.0	21	72-76	18.0-25.2	Ø 293x943
VC 400 L	3.0	34	72-76	18.0-25.2	Ø 570x653
VC 800	6.0	43	72-76	36.0-50.4	Ø 570x789
VCP 800	6.0	53	72-76	36.0-50.4	Ø 570x1097
VC 1200	9.0	55	72-76	54.0-75.6	Ø 570x1097
VCP 1200	9.0	65	72-76	54.0-75.6	Ø 570x1405

\* The exact capacity depends on the application and these figures are guidelines only.

\*\* All PIAB Vacuum Conveyors are equipped with a PIAB Vacuum Pump.

## Capacity at different conveying lengths

The capacity value is applicable for powder, granules or similar materials, with a density of 0.6-1.2 kg/dm<sup>3</sup> and a lifting height of 3 metres.

Vacuum Conveyor	Capacity in tons/hour*				Tube Ø mm
	5 m	10 m	20 m	30 m	
VC/VCP 100	0.9	0.45	0.22	—	22-32
VC/VCP 200	1.5	0.8	0.4	0.2	32-40-50
VC/VCP 400	3.0	1.5	0.8	0.5	40-50
VC 400 L	3.0	1.5	0.8	0.5	50-75
VC/VCP 800	6.0	3.0	1.5	1.0	50-75
VC/VCP 1200	9.0	4.5	2.3	1.5	50-75-100

# Advantages of the PIAB Vacuum Conveyors

- ◆ Simple to install
- ◆ Dustless conveying
- ◆ Eliminates manual lifting
- ◆ Made of acid-proof polished steel. Modular system
- ◆ Easy to clean
- ◆ Minimal maintenance
- ◆ Automatic filter cleaning
- ◆ Low noise level
- ◆ Low energy consumption
- ◆ Fully pneumatic control and operation
- ◆ A five year warranty  
Includes all items except filter and wear parts

## Accessories



*Feed End Equipment*



*Structure Modules*



*Installation Fittings*



*Controls*



## Do you want to know more?

If you want detailed information on PIAB Vacuum Conveyors or other PIAB Vacuum Products, please get in touch with PIAB or your local distributor, and we will send you a catalogue!



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