



BART & BART-ONE

Pressure vessels for dense phase pneumatic conveying of bulk materials



Bart and Bart-One lines



The **Bart and Bart-One lines** leverage dense phase transport technology for the handling of bulk materials.

The pressure vessels are designed to operate at low speed in order to **preserve the quality of the product** and the **good condition of the pipes**. The use of a reduced quantity of air allows a consequent **energy saving**.

The pneumatic panel and the electronic control panel with dedicated software and colour touch screen offer the possibility to customize the transport according to your needs.

Bart and Bart-One vessels are suitable for short or medium length transports, available with capacities from **24 to 900 liters**; they are **versatile, silent, and easy to install**.

They use the total cleaning technology.

All Bart and Bart-One vessels are certified with PED standards. Upon request, they can be certified ASME or other international standards.

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They are available in the following versions:

- carbon steel;
- AISI 304 stainless steel;
- AISI 316 stainless steel;
- with finishes for food application;
- for high temperatures;
- for ATEX hazardous zone.



PED 💽

BART 24

Bart is a **versatile**, **small and easy-to-assemble** tank for handling materials in powders and granules.

Functional and practical, it is suitable for moving bulk materials **up to 15 meters with a flow rate of up to 1 m³ / h.**

It moves the material at a low speed to preserve the quality of the product and the good conditions of the pipes.

Thanks to its small size and an operating pressure always within 2 bar, the Bart 24 is not included in the pressure tanks subject to the certifications dictated by the PED directive.

The dimensions of the machine are such as to facilitate its installation in loads of applications, in particular under silos, filters, big bag unloading station and manual bag splitter.

BART 50

The Bart 50 is manufactured with a cone and bottom with geometries similar to Bart 24 but unlike the latter, it has a ferrule between the two elements that allows to reach a geometric volume of 50 liters.

The working pressure can go up to 6 bar, therefore the machine falls in all respects in the category of pressure tanks subject to the PED directive.

Bart 50 is suitable for transports up to 30 meters with a flow rate up to 2 m^3 / h and pressures up to 4.5 bar.

BART-ONE 80

Bart-One 80 is a medium-small size vessel able to guarantee important flow rates.

The tank geometries have a larger diameter than Bart vessels but the components and instrumentation that complete the machine are the same as those of the smaller models, except for the fill valve which is DN 200. Bart-One 80 is also equipped with a 2" ball valve for venting.

Bart-One 80 is suitable for transports **up to 50** meters with a flow rate up to 3 m³ / h and pressures up to 4.5 bar.

BART-ONE 1 3 6 9

The abbreviation Bart-One 1369 includes the models:

- Bart-One 150 liters,
- Bart-One 300 liters,
- Bart-One 600 liters,
- Bart-One 900 liters.

Bart-One 1 3 6 9 vessels although have different tank geometries, are equipped with the same instrumentation on the machine.

Bart-One 150 and 300 models have a DN 200 loading valve and a pneumatic panel ACM 125. Models Bartone 600 and 900 have a DN250 loading valve and a pneumatic panel ACM 200.

They are medium-large size engines capable of guaranteeing flow rates of approximately 3 to 30 m³ / h with distances of 80 meters.







AIR-TEC SYSTEM CONVEYING TECHNOLOGY



Standard or total cleaning conveying

Total cleaning pneumatic conveying is indicated for the handling of **various materials** and is indicated in cases where **complete cleaning of the line** is necessary after each cycle. It is widely used in many applications, for example to unload scales for the transfer of dosed products or to unload mixers where it is necessary to preserve the integrity of the mixture during transport.

Functioning principle

The vessel is loaded from above trough a butterfly valve until the maximum level indicator is reached. Then the filling valve closes and the valves for the air or other fluid supply open. The tank, full of material, is put under pressure until it reaches the value useful for transport.

The product then begins to flow into the pipe, generating the typical **plug transport** which proceeds until the line is completely emptied. When **the line is empty**, the pressure switch detects the pressure drop and indicates the end of the transport.

At this point, if necessary, the cleaning phase is automatically activated which introduces a continuous air flow of pre-settable duration into the pipe.

For the correct operation of the conventional transport it is necessary that the silos or hoppers in the destination are equipped with suitably sized filters so that they do not remain under pressure after each cycle.

Pneumatic panels

Pneumatic panels are devices dedicated to the **control of pressure and air volumes** used in dense phase conveying.

In most cases are applied for air regulation, but they can be also used with **other inert gases** such as nitrogen.

The pneumatic panels are connected directly to the air storage tank located downstream of the compressor.

Bart and Bart-One lines use pneumatic panel type ACM with **manual control**.

Electronic control panel

The standard electronic control panels for the Bart and Bart-One lines are complete with PLC and colour touch screen operator panel.

All standard panels have a terminal block with clean contacts for the main I / O signals. They are equipped with quick connection systems that allow, thanks to the use of a multipolar wire, can be easily connected to the junction box.

The control panels need to be installed in safe zone. Offer the possibility to choose between the following working modes:

- automatic;
- semi-automatic;
- manual.



DIMENSIONS



| Туре | Capacity (liters) | Weight (kg) | Diameter (mm) | Inlet valve (ø) | Outlet valve (ø) | number of jets | A (mm) | B (mm) | C (mm) |
|---------|----------------------|----------------|------------------|--------------------|---------------------|-------------------|--------|--------|--------|
| Bart 24 | 24 | 50 | 330 | 150 | 100 | 1 | 786 | 796 | 60,3 |
| Bart 50 | 50 | 80 | 400 | 150 | 100 | 1 | 1012 | 1022 | 60,3 |





| Туре | Capacity (liters) | Weight (kg) | Diameter (mm) | Inlet valve (ø) | Outlet valve (ø) | number of jets | A (mm) | B (mm) | C (mm) |
|--------------|----------------------|----------------|------------------|--------------------|---------------------|-------------------|--------|--------|--------|
| Bart-one 80 | 85 | 124 | 600 | 200 | 100 | 2 | 1162 | 1322 | 380 |
| Bart-one 150 | 142 | 145 | 762 | 200 | 100 | 2 | 1365 | 1529 | 390 |
| Bart-one 300 | 283 | 196 | 762 | 200 | 150 | 2 | 1710 | 1875 | 475 |
| Bart-one 600 | 566 | 351 | 1067 | 250 | 150 | 2 | 1986 | 2150 | 524 |
| Bart-one 900 | 850 | 417 | 1067 | 250 | 200 | 2 | 2345 | 2508 | 600 |



Air-Tec System s.r.l. via Einstein 40, 40017 San Giovanni in Persiceto (Bologna), Italy.



www.air-tec.it



