



PRESENTS:

**P.BACK:**

**PRESS' POWDER RECOVERY SYSTEM**

TECHINICAL DATA

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## 1.1 TECHNICAL DESCRIPTION

The P.BACK recovery system empties the powder collected in the press' hopper and transports it to the upper hopper that feeds the press: thanks to this system, the material returns immediately available for the press' cycle.

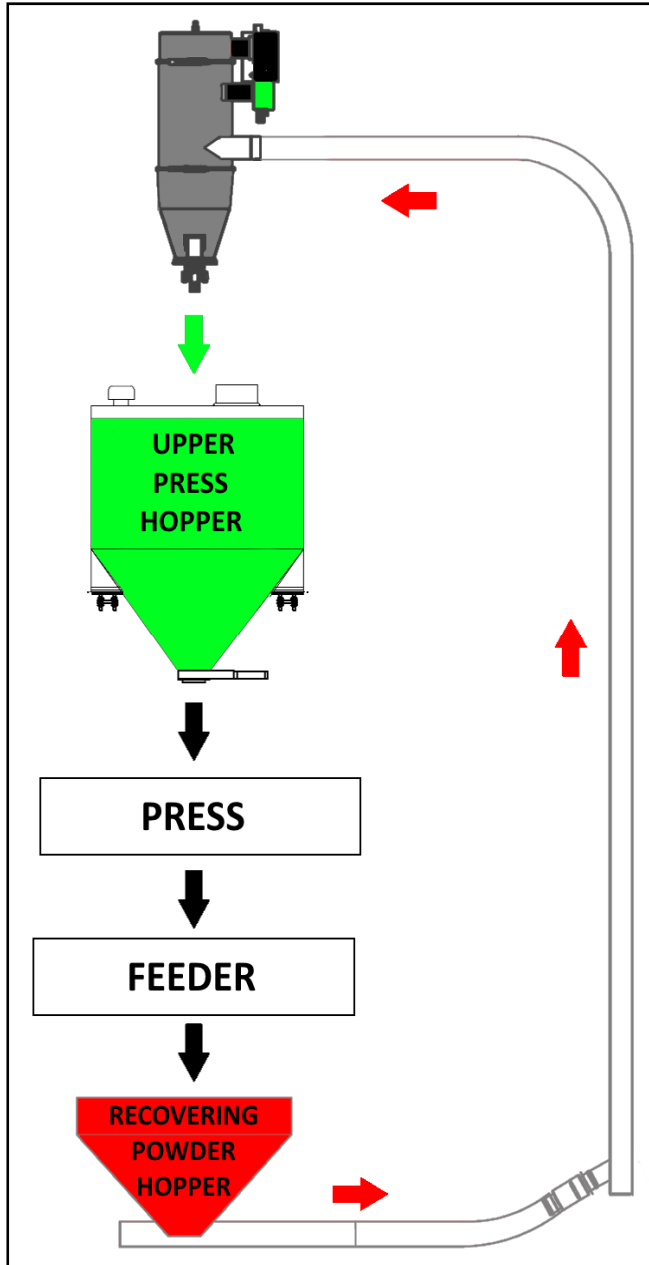
The material can be recovered from several sources and send to one single destination.

The system is composed of pump and filters, drain valve, pressure regulator for the connection with the general extraction system and control electrovalve (extraction and drain) connected with the electrical panel.



## 1.2 MACHINE CAPACITY AND OPERATION

As seen after our previous installations and after the data evaluations, the P.BACK system recovers an average value between 100 and 150 kg for every 8 hours' shift of the press. The payback, on average, will be reach within 18 months.



The vacuum is generated by compressed air thanks to COAX technology. The pump is automated.

The drain valve is closed, and vacuum is generated inside the storage module and the transport pipeline.

The powder is picked up by the power station through the pipeline and delivered to the storage module, while the filter protects the pump and the surrounding area against powder and little particles.

During this phase, the tank placed inside the filter loads itself with compressed air.

When the transported material reach a specific level, the pump stops, the drain valve opens itself and empties the powder. At the same time, the compressed air contained in the tank is released, cleaning powder and particles in the filter.

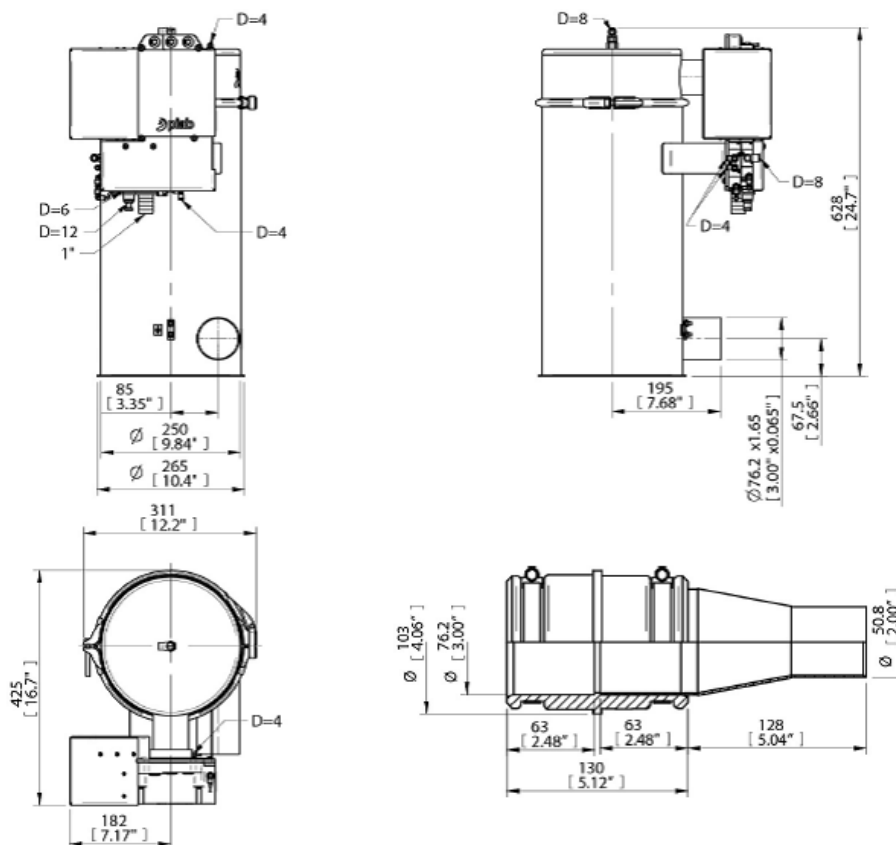
When the pump is reactivated, the cycle repeats itself.

The loading and unloading cycles are normally managed by a pneumatic or electrical control device.

### 1.3 ADVANTAGES

- **HEALTH AND SAFETY.** With the P.BACK system, you can considerably reduce the problems connected with workers' health in the involved areas. Particularly, you can solve the problem of the powders' dispersion coming from the fall and the accumulation from the press' feeder: normally these powders are managed and transported by manual activities of the workers, with an inevitable substances' movement in the air.
- **RECOVERY.** The P.BACK system leads to excellent powders' recovery performances and consequent fast payback, as seen after our previous installations and after the data evaluations. Normally, the system recovers an average value between 100 and 150 kg for every 8 hours' shift of the press. The consequence is that you can reintroduce powders in the upper press' hopper in a completely automated way, that guarantees a safe and constant money saving.
- **PRODUCTIVE PROCESS MAXIMIZATION.** The proposed automation improve the process' flowing, removing manual tasks and inconveniences connected with the management of the recovered and collected materials: the time actually spent for these activities can be used for different tasks. Furthermore, the possibility to re-insert outright powders into the press' cycle without starting from previous working phases produces savings in terms of processing times, energy and raw materials.

### 1.4 MACHINE SPECIFICATIONS



DESCRIPTION	UNIT	VALUE
Material		ASTM304, EPDM, NBR, PTFE, PET, PA, AI
Working temperature	°C	0 - 60
Weight	Kg	21
Roughness	Ra	3,2
Supply pressure, Max	Mpa	0,7
Supply pressure	Mpa	0,4 - 0,6
Compressed air consumption	NI/s	20 - 28
Vacuum, Max	-kPa	60 - 75
Noise level	dBa	69 - 77
Filter surface	m <sup>2</sup>	0,5
Granulometry, Min	µm	0,5

#### 1.4 PHOTOGRAPHIES

