



CASE STUDY

SUMMARY

Provide two **Inflatek Valves**® for a let down process of Polypropylene Powder for installation in a Phillips Polypropylene Plant. Entire **Inflatek Valve**® was manufactured from stainless steel and finished to client's standards.



CASE STUDY

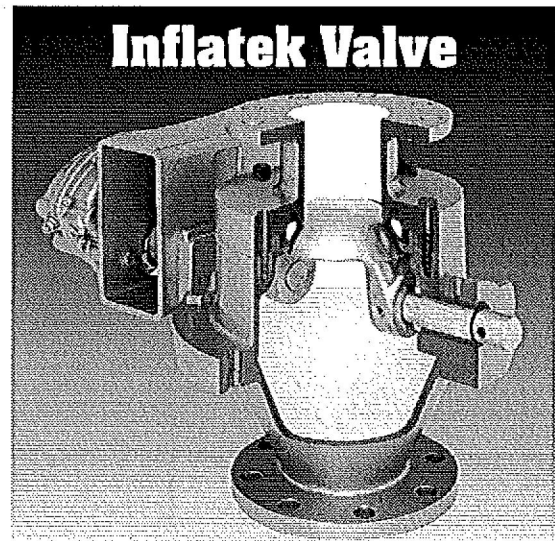
Inflatek Valve

APPLICATION FEATURE	CUSTOMER
Let down of polypropylene powder utilizing Inflatek Valves.	LOCATION
	INDUSTRY Engineering and Construction Services
	APPLICATION Continuous discharge of powder from separator vessel to degassing hopper
	TECHNOLOGY Let-Down Chambers
SYSTEMS SUMMARY	PHV Inflatek Valves®

■ SYSTEM OBJECTIVES

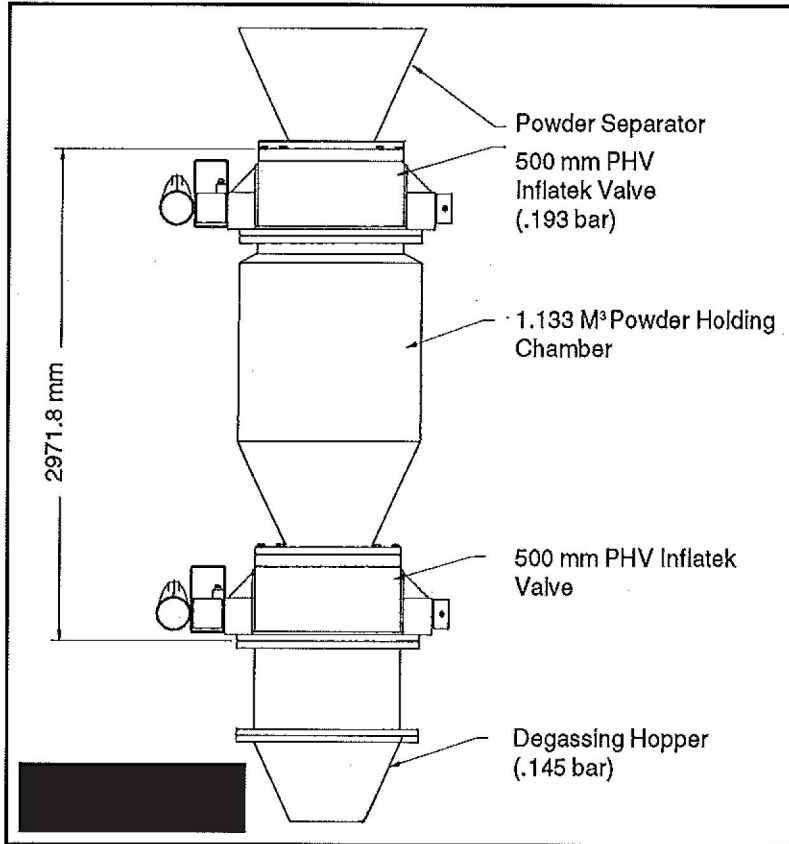
System design requirements:

- 1) Valve constructed of 304 stainless steel, finished to #300 buff.
- 2) Let-Down polypropylene powder from 0.19 bar g to 0.14 bar g utilizing **Inflatek Valves®** and powder chamber.
- 3) Continuous discharge
- 4) Low maintenance



■ MATERIAL CHARACTERISTICS

Material	Polypropylene Powder
Bulk Density	24.97 lb/ft ³
Particle Size	800-900 Microns (average)
Flowability	Good
Temperature	266°F (Design)



■ SYSTEM DESCRIPTION

Two 500 mm PHV **Inflatek Valve**® “continuously” discharge polypropylene powder from a powder separator to a degassing hopper while separating the two vessels. The powder holding chamber installed between two 500 mm **Inflatek Valves**® which were constructed of 304 stainless steel with a inflatable seal constructed of EPDM and a 304 stainless steel cleaning ring to protect the seal. The polypropylene powder lets-down from a pressure of 0.19 bar g to 0.14 bar g during the process.

■ SYSTEM PERFORMANCE

Handling Rate	37,485 lb/hr
Cycle Time	40 seconds (both valves)
Flow Direction	Gravity Fed
Average Air Consumption	2 SCFM at 80 psig