

Protectoseal Conservation Vents – 8540G vs 8540H

Quick Comparison & Selection Guide

Executive Summary: Both 8540G and 8540H are end-of-line, weight-loaded pressure/vacuum conservation vents with the same standard setting ranges. The key difference is that 8540G is the aluminum-only “Improved Performance” variant engineered for quicker pallet lift and higher flow at lower overpressures, while 8540H is the broader family covering multiple materials of construction (aluminum, ductile iron, carbon steel, 316 stainless, Alloy C-276) for corrosive or mechanical requirements.

Category	8540G (Improved Performance)	8540H (Standard Series Variants)
Function	End-of-line pressure/vacuum conservation vent; weight-loaded pallets; low-leak design.	End-of-line pressure/vacuum conservation vent; weight-loaded pallets; low-leak design.
Performance Note	Redesigned pallet lifts quicker and delivers higher flows at lower overpressures (“Improved Performance”).	Optimized performance design, but without the specific “Improved Performance” pallet geometry called out for 8540G.
Materials of Construction	Aluminum only (housing & pallets).	Multiple: Aluminum; Ductile Iron; Carbon Steel; 316 Stainless; Alloy C-276. Pallets typically 316 SS for non-Al variants.
Sizes	2"–12" (DN 50–DN 300).	2"–12" (DN 50–DN 300).
Flange Mating	Aluminum mates with 125# ANSI and DIN PN 16 flat-face (FF).	Aluminum: 125# ANSI & DIN PN 16 FF; Other materials: 150# ANSI & DIN PN 16 raised-face (RF).
Standard Setting Range	Pressure: 0.5–48 oz/in ² (2.15–206.84 mbar) Vacuum: 0.5–23 oz/in ² (2.15–99.11 mbar) — settings vary by size.	Pressure: 0.5–48 oz/in ² (2.15–206.84 mbar) Vacuum: 0.5–23 oz/in ² (2.15–99.11 mbar) — settings vary by size.
Seating Technology	FEP film “air-cushioned” seating (patented).	FEP film “air-cushioned” seating (patented).
Leakage	< 1 SCFH air at 90% of	< 1 SCFH air at 90% of

	setpoint.	setpoint.
Certifications / Notes	ATEX conformity; factory tested/certified; API 2000/ISO 28300 sizing via PRO-FLOW.	ATEX conformity; factory tested/certified; API 2000/ISO 28300 sizing via PRO-FLOW.
Typical Catalog Numbers	8542G-8552G (size dependent).	8542H-8552H (Aluminum); C854xH (Ductile Iron); CS854xH (Carbon Steel); F854xH (316 SS); M854xH (Alloy C-276); RE854xH (Alum. housing/SS pallets).

Notes & Options

- Both series use weight loading; set point accuracy typically $\pm 3\%$.
- Self-draining housings and drip rings help prevent freezing/binding; low-leak pallet design.
- Options include alternate diaphragm materials, electronic/mechanical open indication, steam jacketing, and special coatings (FEP, Kynar®).

Selection Guidance

1. **Choose 8540G** when aluminum construction is acceptable and you want the “Improved Performance” quick-lift pallet for higher flow at low overpressure (tight operating bands, sensitive blanketing control).
2. **Choose 8540H** when you need materials beyond aluminum (ductile iron, carbon steel, 316 SS, Alloy C-276), raised-face 150# connections, or specific material/pallet combinations for corrosive or mechanical requirements.

Sizing Reminder

Use Protectoseal PRO-FLOW® to size per API 2000 / ISO 28300, and validate set points vs. emergency vent and blanketing valve coordination.

Created by The Collins Companies as an easy side-by-side comparison. Please consult a sales representative before ordering to ensure accuracy for your application.