

StraightFlo™

FAMILY OF COMPRESSOR VALVES

StraightFlo™ valves have revolutionized gas compression operations worldwide by delivering unsurpassed reliability, savings, and sustainability benefits for reciprocating compressors.

Zahroof Valves Inc. (ZVI) continues to refine and improve the StraightFlo™ family of compressor valves for optimum performance and value over a full range of applications.



ENGINEERED PERFORMANCE

All valves in the StraightFlo™ family are drop-in replacements for OEM valves and incorporate ZVI's patented Modular Reed Valve technology.

They provide superior performance across a full range of operating conditions, including speeds from 200 to 3,600+ rpm, pressure differentials across the valve to 4,350 psi (300 bar), service temperatures from -40° to 500°F (-40° to 260°C), and with all gases encountered in energy and industrial applications.

StraightFlo™ valves are optimized for each application in three key ways:

Housing Material. Valve seats and carriers are manufactured in two material types to provide the durability and cost-effectiveness required for their application.

StraightFlo™ SE (Standard Edition) valves have 4140 steel alloy housings for long-lasting service with gases found in upstream and midstream oil and gas operations.

StraightFlo™ SS (Severe Service) valves have high chemical resistance from corrosive gases encountered in applications where required, including, but not limited to, refineries, petrochemical, chemical, and fertilizer applications.

Both valves are backed by a ten-year warranty on the valve housing.

Module Material. Reed valve sealing modules are supplied in one of three material options based on requirements for chemical resistance, operating temperatures, and pressures.

Customer Objectives. ZVI engineers analyze operating conditions and customer requirements to optimize modules with the appropriate lift and stiffness to meet customer requirements for efficiency, throughput, and durability.



StraightFlo™ SS & StraightFlo™ SE

	SE (Standard Edition)	SS (Severe Service)
Types of gases	Gases commonly seen in upstream/midstream applications (sweet and sour), industrial gases, & air	Environmentally resistant and/or gases with more corrosive constituents requiring stainless steel: high CO ₂ content, gases commonly seen in refineries, petrochemical, chemical, and fertilizer applications
Primary segment	Upstream/Midstream/Industrial gases	Downstream
Material	4140 steel alloy	Stainless steel
Coating/Treatment	Heat treated for H ₂ S applications (NACE MR0175)	Heat treated and electroless nickel coating (NACE MR0175)
Design	StraightFlo™	StraightFlo™
Valve Housing Warranty	10 years	10 years
Serviceability	Up to 15 minutes per valve	Up to 15 minutes per valve
Availability	6-8 weeks	6-8 weeks
Internals	Modular Reed Technology	Modular Reed Technology

UNEQUALLED VALUE PROPOSITION

- 10-year warranty on housings
- Limited warranty on complete valves
 - 3 years on high-speed gas processing and transmission applications
 - 5 years on slow-speed transmission applications
 - 3 years on refinery H₂ applications
- Guarantee 2X the runtime of previous valves for the same conditions
- Refurbished on-site, in minutes, without machining
- Up to 80% reduction in inventory costs

StraightFlo™ CONFIGURATIONS & SPECIALTY PRODUCTS



SINGLE DECK
Single layer for modules



DOUBLE DECK
Highest effective flow area



STACKED
A second layer of inset modules for increased flow area



INTEGRAL CAGE
Simplifies service and improves safety



JACK BOLT ELIMINATOR
Simpler to torque, more reliable and secure



CONCENTRIC
Compact space-saving design with suction and discharge in a single valve



RADIAL
High-efficiency valve for transmission and pipeline applications



UNLOADERS
Reliable cylinder unloading plus StraightFlo™ performance



VALVE PROTECTION MESH (VPM)
Reduces damage from entrained solids and liquids