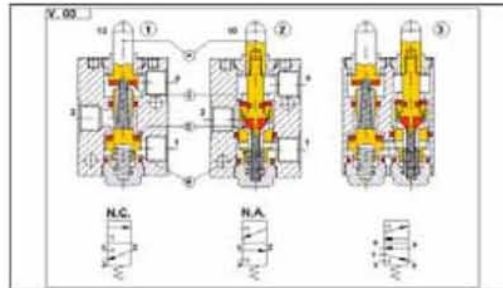


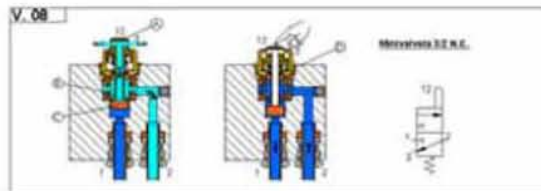
Valve Construction Guide

Series, Function, and Spool/Poppet Construction

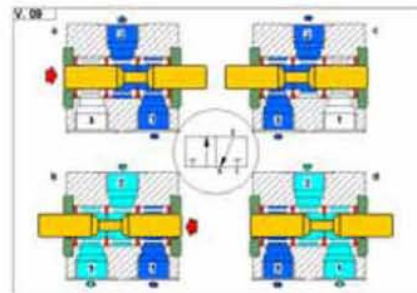
Series 1 - Poppet Construction: 3-way/2-position Normally Closed, 3-way/2-position Normally Open, 5-way/2-position



Series 2 & Logic Functions - Poppet Construction: 3-way/2-position Normally Closed, 3-way/2-position Normally Open, 5-way/3-position

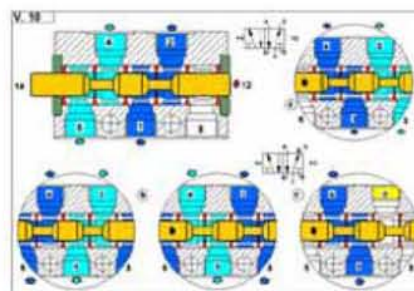


Series 3 - Packed Bore - Spool Construction: 3-way/2-position Normally Closed, 3-way/2-position Normally Open



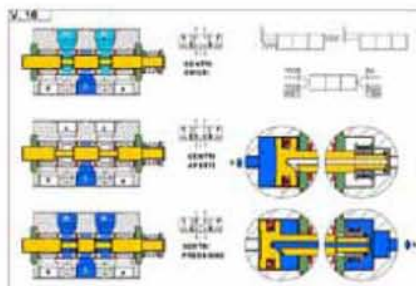
** All Series 3 valves are equipped with flat geometric ring seals in the packed bore construction, (A wider flat edged portion of the seal ring seals against the external packing spacers and valve inner body, while a thinner rounded lip seals against the spool surface). The design offers significantly improved sealing over traditional o-rings or oval rings, especially between differing surface geometries, such as spools and packing glands.

Series 3 - Packed Bore - Spool Construction: 5-way/2-position

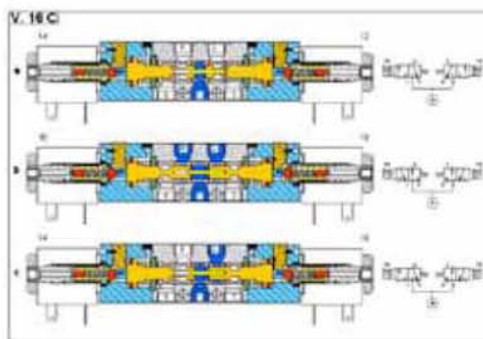


** All Series 3 valves are equipped with flat geometric ring seals in the packed bore construction, (A wider flat edged portion of the seal ring seals against the external packing spacers and valve inner body, while a thinner rounded lip seals against the spool surface). The design offers significantly improved sealing over traditional o-rings or oval rings, especially between differing surface geometries, such as spools and packing glands.

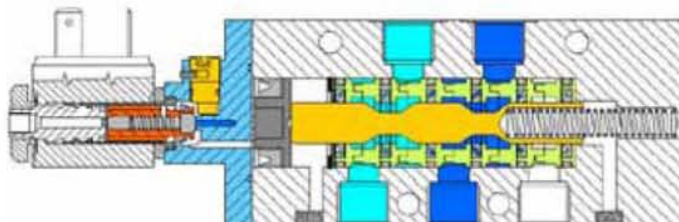
Series 3 - Packed Bore - Spool Construction:
5-way/3-position (Center Closed, Center Open/
Exhausting, Pressure Center)



Series 3 - Packed Bore - Spool Construction: Dual
3-way/2-position (NC/NC, NO/NO, NC/NO)

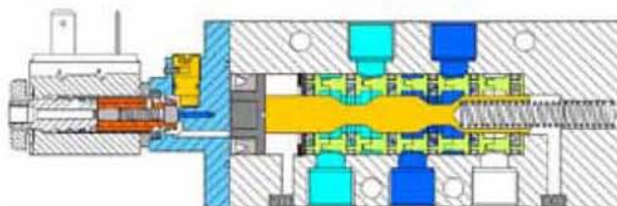


Series 4 - Packed Bore - Spool Construction: Dual
5-way/2-position (general design)



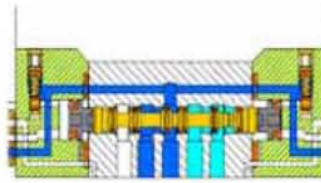
** All Series 4 valves are equipped with dual seals in the packed bore construction, (O-rings around external packing glands, and dual lip "airzet" seals around the spool body for improved performance in both vacuum and more rigorous media sealing situations).

Series 4 - Packed Bore - Spool Construction: Dual
5-way/2-position (general design)



** All Series 4 valves are equipped with dual seals in the packed bore construction, (O-rings around external packing glands, and dual lip "airzet" seals around the spool body for improved performance in both vacuum and more rigorous media sealing situations).

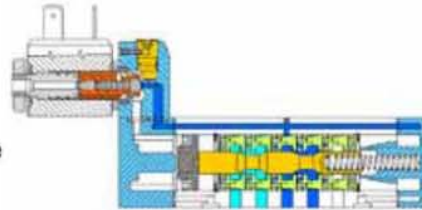
Series 7 (ISO 15407-1 Standard)- Packed Spool Construction, Manifold Assembly



5-way / 2-position, 5-way / 3-position - Center Closed, Center Open/Exhausting, & Pressure Center

** All Series 7 valves offer a balanced packed-spool design. This design permits a customized seal geometry to be fitted onto the spool directly. Benefits are less vulnerability to "varnishing" and/or contamination due to smaller seal contact area with the valve bore. Maintenance is reduced due to less parts and labor required to repair, while providing increased seal life and leak-free performance.

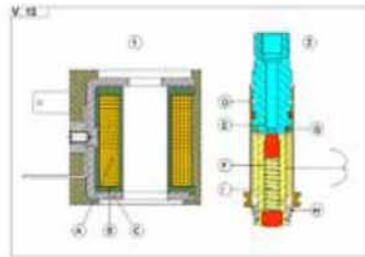
Series 9 (ISO 5599/1 Standard)- Packed-Bore Spool Construction, Manifold Assembly



5/2 - way/position, 5/3 Center Closed & Centers Open / Exhausting

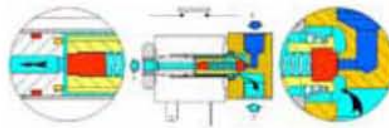
** All Series 9 valves are equipped with dual seals in the packed bore construction, (O-rings around external packing glands, and dual lip "airzet" seals around the spool body for improved performance in both vacuum and more rigorous media sealing situations).

Series A and Series 600 Kits - comprised of coil plunger, (or solenoid armature), and plunger o-rings.



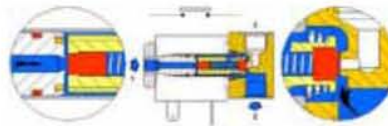
Basic Series A/U or 600 coil plunger, (armature assembly)

Series A / Series 6 - Directly Operated Solenoid valve with M5 (10-32 UNF), 1/8" ports, or 4mm OD (5/32" OD tube)



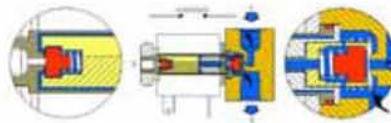
3-way/ 2-position Normally Closed, (shown with coil De-Energized)

Series A / Series 6 - Directly Operated Solenoid valve with M5 (10-32 UNF), 1/8" ports, or 4mm OD (5/32" OD tube)



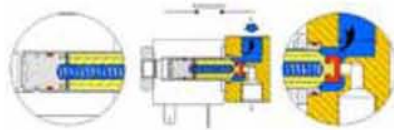
3-way/ 2-position Normally Open, Reverse Ported (shown with coil De-Energized)

Series A / Series 6 - Directly Operated Solenoid valve with M5 (10-32 UNF), 1/8" ports, or 4mm OD (5/32" OD tube)



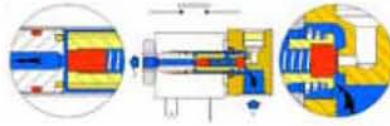
3-way/ 2-position Normally Open, Manifold or Stand-Alone w/ Common Inlet (shown with coil De-Energized)

Series A / Series 6 - Directly Operated Solenoid valve with M5 (10-32 UNF), 1/8" ports, or 4mm OD (5/32" OD tube)



2-way/2-position Normally Closed, (shown with coil De-Energized)

Series A / Series 6 - Directly Operated Solenoid valve with M5 (10-32 UNF), 1/8" ports, or 4mm OD (5/32" OD tube)



2-way/2-position Normally Open, (shown with coil De-Energized)

Series E - Packed Spool Construction, Manifold Assembly



5-way/2-position, 5-way/3-position - Center Closed, Center Open/Exhausting, & Pressure Center

** All Series E valves offer a balanced packed-spool design. This design permits a customized seal geometry to be fitted onto the spool directly. Benefits are less vulnerability to "varnishing" and/or contamination due to smaller seal contact area with the valve bore. Maintenance is reduced due to less parts and labor required to repair, while providing increased seal life and leak-free performance.

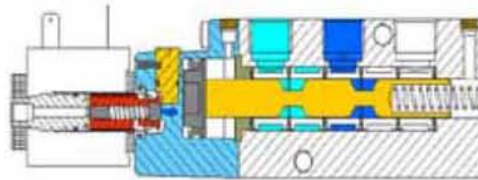
Series E - Packed Spool Construction, In-line Assembly



5-way/2-position, 5-way/3-position - Center Closed, Center Open/Exhausting, & Pressure Center

Series NA (NAMUR Interface)- Packed-Bore Spool Construction

3-way/2-position Normally Closed, 3-way/2-position Normally Open, 5/2, 5/3 Center Closed, 5/3 Center Open/Exhausting, 5/3 Pressure Center



** All Series NA-NAMUR valves are equipped with flat geometric ring seals in the packed bore construction, (A wider flat edged portion of the seal ring seals against the external packing spacers and valve inner body, while a thinner rounded lip seals against the spool surface). The design offers significantly improved sealing over traditional o-rings or oval rings, especially between differing surface geometries, such as spools and packing glands.

Series VNR, SCS & VSC Valves - Poppet Design Check, Shuttle, and Quick-Exhaust Valves

