



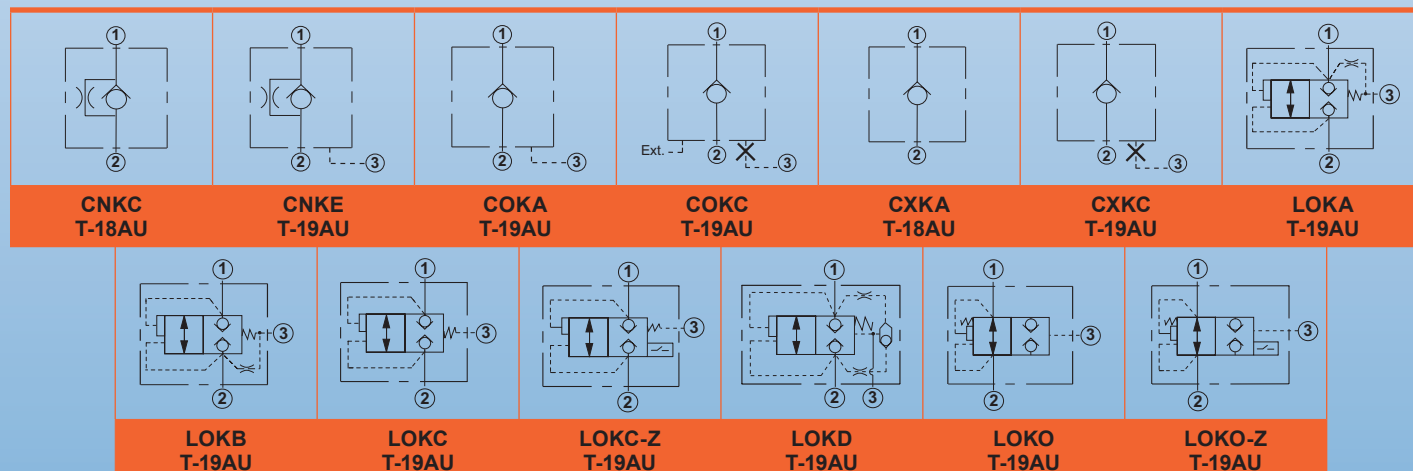
Announcing . . .

NEW HIGH FLOW SERIES 4 PLUS CARTRIDGE VALVES and OPTIMIZED CAVITY

- Based on the successful performance of Sun's standard Series 4 cartridges.
- New high flow performance: 200 gpm (760 L/min.), less than 100 psi (7 bar) drop.
- Same high pressure performance: 5000 psi (350 bar).
- Flow performance of Series 4 PLUS valves:
 - Maximized in the new optimized cavity, which includes an undercut
 - Improved over standard Series 4 valves in the standard cavity



Series 4 Plus Check Cartridges and Logic Elements available . . .



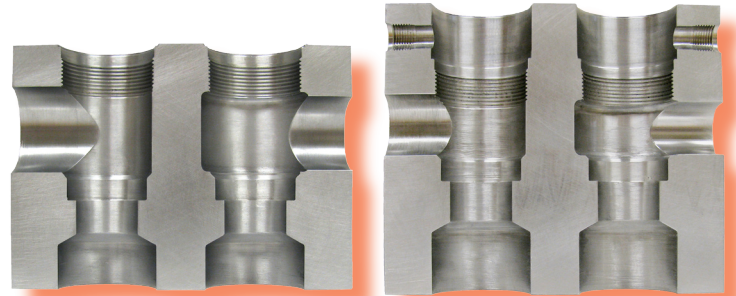
For our full range of Cartridge and Manifold products, visit the Sun website:

www.sunhydraulics.com

Benefits

LOWER COST

- Screw-in style more economical than slip-in style
 - Cartridges less expensive
 - Cavity and manifold less expensive
 - Readily available form tools
 - Simplified cavity machining
- More convenient
 - Well known screw-in technology
 - Same technology as balance of circuit
 - One stop sourcing
- Easy and simple installation
 - Single cartridge versus insert and cover
- Replaces multiple screw-in cartridges
- Simplified manifold design



Standard
Series 4,
2 Port
Cavity

Series 4
PLUS,
2 Port
Optimized
Cavity

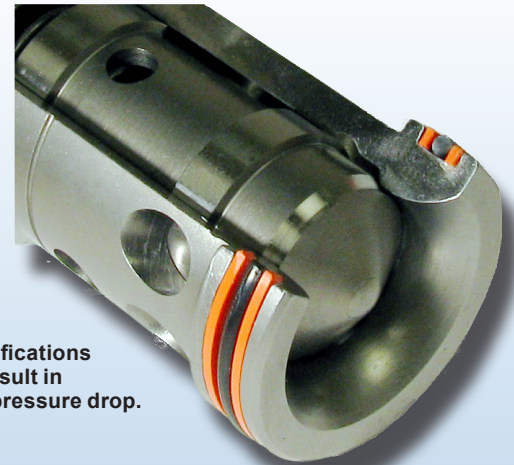
Standard
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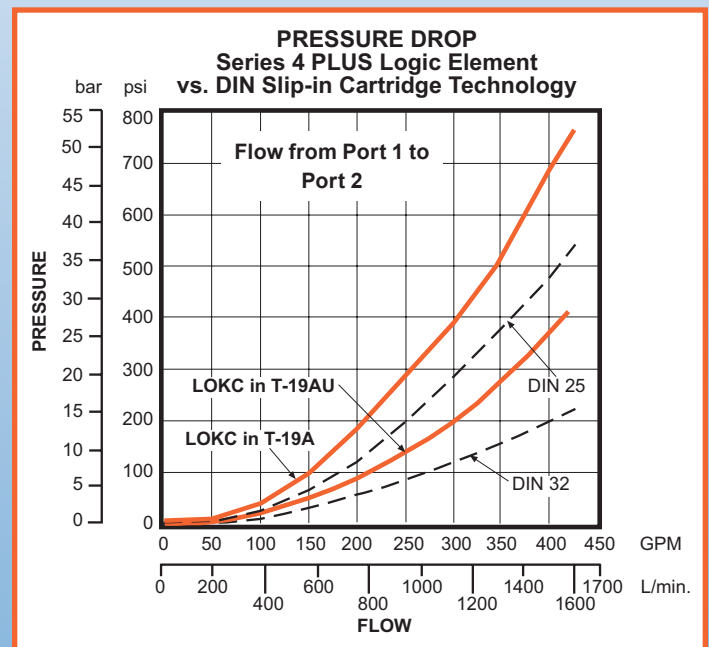
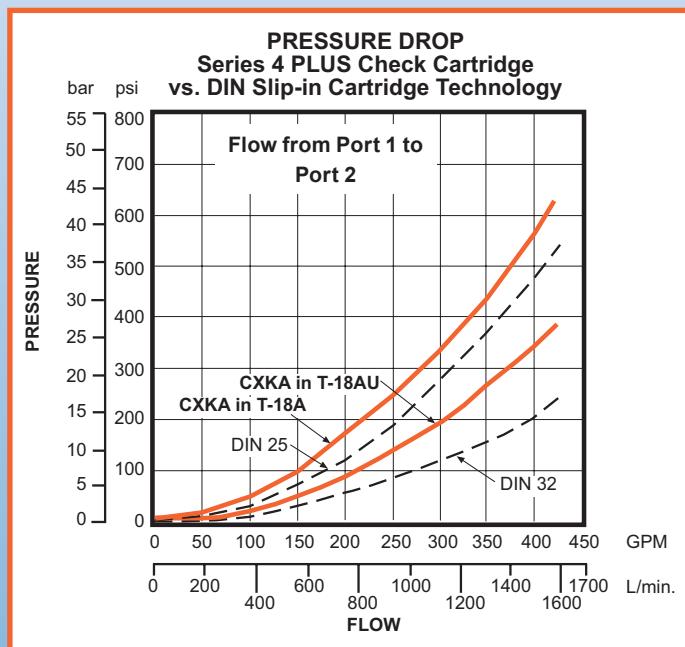
HIGHER PERFORMANCE

- Saves energy
 - Lower pressure drop
- Higher flow
 - 50% to 80% more flow than Series 4
 - Compares to DIN 25 and 32
- Less turbulence thus lower noise
- Durability compares to other Sun valves
- Pressures to 5000 psi (350 bar)
- Corrosion resistant versions

Modified
Poppet
and
Sleeve



Modifications
result in
reduced pressure drop.



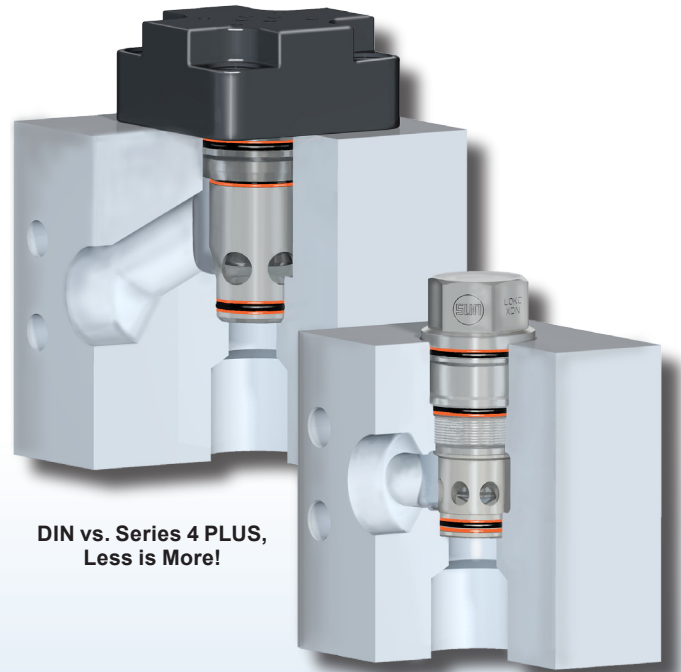
Benefits

REDUCED SIZE

- Smaller manifold
 - Reduced face area compared to slip-in technology
 - Reduced volume compared to slip-in technology
 - Compares to Sun Series 4
 - One Series 4 Plus may replace two Series 4

BETTER AVAILABILITY

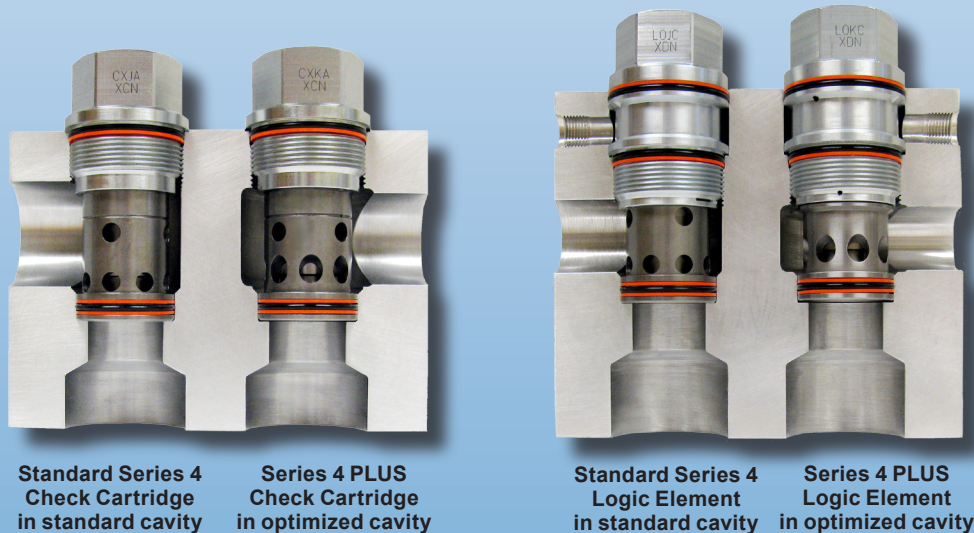
- Sun Delivery
 - Expedited delivery service of one to three days
 - Standard service four weeks for best pricing
- Sun Distributors
 - Worldwide Authorized Distributors provide local customer service, technical support, and inventory
- Corrosion resistant versions



Applications

| | | | |
|--|-----------------------------|-------------------------------------|---------------------|
| Balers | Forging presses | Mining industry | Power metal presses |
| Compactors | Foundry machinery | Offshore oil platform stabilization | Presses |
| Construction industry | Gas industry | Off road mine haul trucks | Shears |
| Cranes | Heavy industry | Oil industry | Steel industry |
| Drilling rigs | High capacity wheel loaders | Plastic injection molding machines | Testing |
| Extrusion presses | Marine industry | | Waste balers |
| Fiberglass compression molding presses | Metal shears | | |

Significant Advantages for Sun Customers



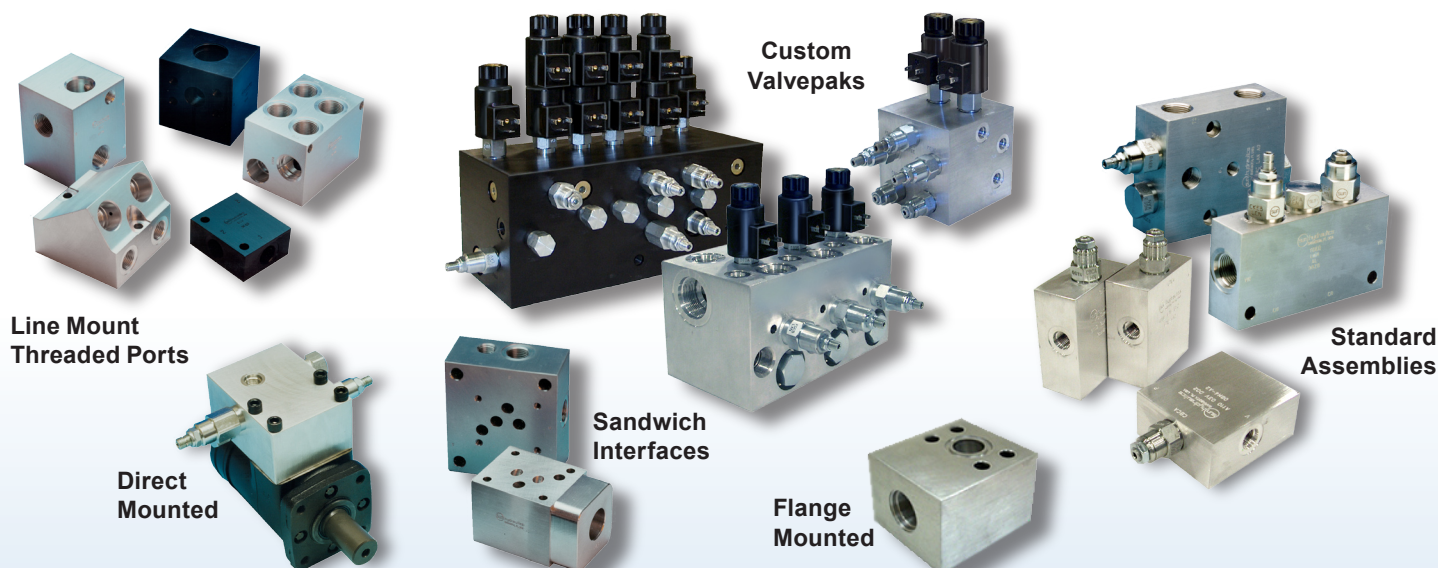
Visit www.sunhydraulics.com for current list pricing and complete technical information on all Sun products.



Sun's Custom Valvepaks are available in any configuration, reduce size and cost of hydraulic systems, take up less space, use fewer components, and have less potential leakage.

View the complete range of body styles at our web site:

www.sunhydraulics.com



All Sun cartridges are rated to 5000 psi (350 bar) operating pressure.

Manifolds Bodies: Grade 6061-T6 Aluminum 3000 psi (210 bar) material pressure rating.
 Grade 65-45-12 Ductile Iron 5000 psi (350 bar) material pressure rating.



***Worldwide
manufacturing operations
for on time delivery!***



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The quality of Sun Hydraulics' manufacturing plants has been registered to the International Organization for Standardization ISO 9001: 2008 Series Standards for quality.

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