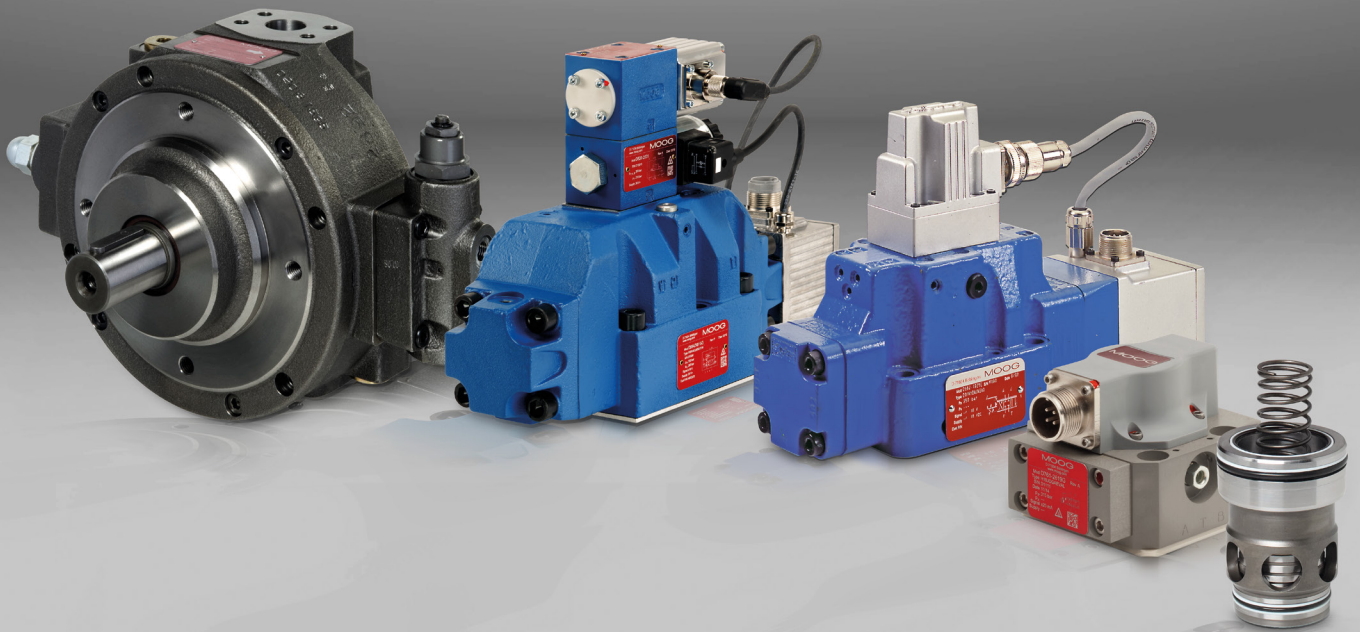


ELECTRO-HYDRAULIC PRODUCTS



January 2017

WORLD CLASS PRODUCTS FOR THE
HIGHEST MACHINE PRODUCTIVITY

WHAT MOVES YOUR WORLD

MOOG

MOOG WORLD CLASS ELECTRO-HYDRAULIC PRODUCTS

Moog offers an extensive product range of Servo and Proportional Valves specifically designed for precise control of position, velocity and force.





SERVO VALVES

				Advantages
SERIES	30, 771 to 773, 631, 760, 761, 72, 78, 79-100, 79-200	D633, D634, D636, D637, D638, D639	D765, D661, D671, D672, D791, D792	<ul style="list-style-type: none"> High wear-resistance and durability Robust and proven track record in broad range of industries Convenient selection and configuration of valves to suit the application Easy integration into the hydraulic system using standard interfaces High accuracy and repeatability for demanding applications Fail-safe and explosion proof versions available
Rated Flow @ Δp 70 bar (1,000 psi)	From 0.95 to 757 l/min	From 5 to 100 l/min	From 4 to 1,000 l/min	
Maximum operating pressure (bar)	From 210 to 350	350	From 315 to 350	
100% Step Response @ 210 bar (3,000 psi)	From 3 to 40 ms	From 8 to 20 ms	From 3 to 19 ms	
Moog Servo Valves at a glance	<ul style="list-style-type: none"> Pilot operated with low friction double nozzle pilot stage with high resolution and low hysteresis Mechanical position feedback without onboard electronics 	<ul style="list-style-type: none"> Direct Drive Valves with Linear Force Motor Analog or digital onboard electronics Optional fieldbus interface, pressure or axis control functionality 	<ul style="list-style-type: none"> 2- and 3-stage pilot operated valves with ServoJet or nozzle flapper pilot Analog or digital onboard electronics Optional fieldbus interface, pressure or axis control functionality 	

PROPORTIONAL VALVES



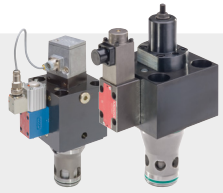
				Advantages
SERIES	D634, D637, D639	D661 to D665, D681 to D685	D671 to D675, D941 to D945	<ul style="list-style-type: none"> Numerous models with a range of sizes, performance characteristics and mounting options available Flow-optimized design for high rated flows Fast commissioning of digital products using Moog Valve and Pump Configuration Software (MoVaPuCo) Fail-safe and explosion proof versions available
Rated Flow @ Δp 10 bar (145 psi)	From 24 to 60 l/min	From 30 to 1,500 l/min	From 30 to 1,500 l/min	
Maximum operating pressure (bar)	350	350	350	
100% Step Response @ 210 bar (3,000 psi)	From 20 to 25 ms	From 9 to 48 ms	From 10 to 44 ms	
Moog Proportional Valves at a glance	<ul style="list-style-type: none"> Direct Drive Valves with Linear Force Motor Analog or digital onboard electronics Optional fieldbus interface, pressure or axis control functionality 	<ul style="list-style-type: none"> 2- and 3-stage pilot operated valves with ServoJet or Direct Drive Valve pilot Analog onboard electronics 	<ul style="list-style-type: none"> 2- and 3- stage pilot operated valves with ServoJet or Direct Drive Valve pilot Digital onboard electronics Optional fieldbus interface, pressure or axis control functionality 	

SERVO AND PROPORTIONAL VALVE ACCESSORIES

				These are a few of our most popular accessories. For our full offering visit: www.moog.com
G040-125A Portable Valve Tester	G122-829A Proportional & Integral (PI) Servo Amplifier	G123-825 Buffer Amplifier	G123-817 LVDT Oscillator Demodulator	
<ul style="list-style-type: none"> Capable of testing all Moog Industrial Valves Connect between plant electronics and Valve for easy troubleshooting 	<ul style="list-style-type: none"> General purpose Servo Amplifier for applications needing closed-loop control 	<ul style="list-style-type: none"> Used to interface between the output of PLC and Moog Valves Commonly paired with Mechanical Feedback Valves 	<ul style="list-style-type: none"> Used with an LVDT to convert a transducer's position to a voltage or current output Commonly paired with -079 Series Valves 	


INDUSTRIAL CARTRIDGE VALVES

Moog offers a broad product range of cartridges and cartridge valves for directional, pressure, check and throttle functions.

SERIES	 <p>DIRECTIONAL, PRESSURE AND CHECK CARTRIDGES INCLUDING COVERS AND PILOT VALVES</p>	 <p>ACTIVE CARTRIDGE VALVES</p>	 <p>SERVO AND PROPORTIONAL CARTRIDGE VALVES</p>	<p>Advantages</p> <ul style="list-style-type: none"> • Compact manifold design for high flows by using cartridges • High robustness and reliability • High flexibility through modular design
Rated Flow @ Δp 5 bar (75 psi)	From 130 to 10,500 l/min	From 100 to 12,000 l/min	From 33 to 20,550 l/min	
Maximum operating pressure (bar)	From 350 to 420	350	From 210 to 420	
<p>Moog Cartridge Valves at a glance</p>	<ul style="list-style-type: none"> • Modular set of building blocks to cover a wide variety of functions and applications 	<ul style="list-style-type: none"> • Actively operated for fast and accurate switching • Optional position monitoring for safety applications 	<ul style="list-style-type: none"> • 2- and 3-way throttle control • Different performance and fail-safe options available 	

RADIAL PISTON PUMPS

Moog Radial Piston Pump (RKP) is a variable displacement piston pump, available in various sizes (from 19 to 250 cm³ per revolution) and offers a highly dynamic control of pressure, flow and horsepower in industrial applications.

SERIES	 <p>RKP</p>	 <p>RKP-D</p>	<p>Advantages</p> <ul style="list-style-type: none"> • Flexible configuration according to application demands • Reduced effort for noise damping measures • Improved control in hydraulic cycle • Less installed power, less effort to cool fluid • Increased machine productivity, process stability and repeatability and condition monitoring capability • Well suited for a broad variety of special fluids and for use in potentially explosive environments (ATEX Certification)
Size in cm ³ per revolution	From 19 to 250	From 19 to 250	
Flow l/min @ 1.500 rpm l/min @ 1.800 rpm	Up to 375 Up to 450	Up to 375 Up to 450	
Pressure (bar)	From 34 to 450	From 34 to 450	
<p>Moog Radial Piston Pumps at a glance</p>	<ul style="list-style-type: none"> • Robust and compact design • Low noise emission • Broad range of compensator types and various control options available • Low pressure pulsation with less resonances • High efficiency 	<ul style="list-style-type: none"> • Improved dynamics • Parameters online switchable • Improved diagnostics • Factory-set leakage compensation • Less wiring (no external card required) • Easy to use Windows based configuration tool (Moog Valve and Pump Configuration Software) 	

MOTION AND MACHINE CONTROLLERS

Moog offers a wide range of Machine and Motion Controllers and Software to meet your specific needs.

SERIES	 <p>MSC-R</p>	 <p>MSC II</p>	 <p>MC 600</p>	<p>Advantages</p> <ul style="list-style-type: none"> • Modular design enables the solution to be scaled to the needs of the machine • Industry standard fieldbus enable convenient integration with other machine elements (sensors, drives, etc.) • Designed to perform in harsh environments • Resistant against various aggressive fluids
<p>Moog Motion and Machine Controllers at a glance</p>	<ul style="list-style-type: none"> • Motion Controllers and Software for electric and hydraulic servo actuation applications that offer rapid set-up • Motion Controllers with high vibration resistance and extended resistance against fluid contamination and corrosion for use in harsh environments • Machine Controllers available in modular design for high flexibility and effortless implementation into new systems 			

PROFESSIONAL SERVICES TAILORED TO YOUR UNIQUE NEEDS

Moog Global Support is our promise to help maintenance professionals worldwide maximize uptime and get more from your machine investment. We are your trusted service partner for responsive support and motion control know-how.



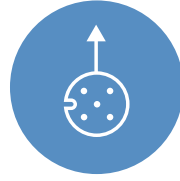
FACTORY REPAIR

Ensure "like-new" performance in your machine

Moog's factory repair services deliver less unplanned downtime

Minimize risk of poor repair by non-authorized repair facilities with no access to authentic Moog parts, product specifications, valve test parameters or upgrades

Gain expertise—and warranty protection—available only from the OEM



LONG-LIFE RETROFITS/UPGRADES

Take advantage of long-life replacements for motion control products to achieve better productivity

Improve the quality and performance of underperforming machines with retrofit components that incorporate the latest technology upgrades

Work with Moog technical experts who can recommend a course of action to add extra reliability to your operations

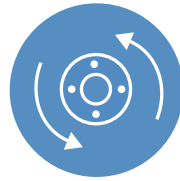


HANDS-ON TRAINING

Get hands-on training from Moog trainers using Moog equipment in our facilities or on-site at yours

Learn how to effectively manage installation and troubleshooting on your own

Speed up repair and maintenance in order to maximize uptime



OEM REPLACEMENT PRODUCTS

Moog is the only provider of OEM replacement products/spares

Ensure industry-leading performance in your machine

Take advantage of global availability of spare parts when you need them

Secure guaranteed turnaround on parts with flexible product exchange programs designed for peace of mind



PROFESSIONAL FIELD SERVICE

Reduce risk and keep machines up and running faster with expert support

Supplement your staff with expert professionals who know your applications

Benefit from less downtime and access to original drawings and documentation

Available in person, online, over the phone and via remote diagnostic tools



FLEXIBLE SERVICE AGREEMENTS

Shift from unplanned "break and fix" approach to planned maintenance that will minimize risk of failure

Tailor a flexible and bundled program that focuses on your operating challenges

Reduce your total cost of ownership while taking a proactive approach to O&M services

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