Products to fit any of your needs

Ideas to enhance your performance

NEM, founded in 1995, is a valve manufacturer specialising in the development of hydraulic solutions for mobile, agricultural and industrial applications.

Our goal is to be a reliable partner, providing our customers a state of the art service, delivered by highly qualified technical staff, to achieve customized solutions.

At NEM we are aware that the future of the hydraulic industry is in system engineering. Therefore we are developing and manufacturing top quality products, which can be fully integrated into many different applications. NEM components ensure the highest level of performance and safety in any application; this, together with our focus on innovation, has gained us the trust and appreciation of leading machine manufacturers worldwide.

NEM's products can count on a wide range of options, from cartridge valves and hydraulic integrated circuits to Parts-In-Body counterbalance valves and flow control valves.

All our products can be selected from our catalogues or customised by NEM's application engineers to develop a selection of valves specifically designed for different applications in order to respond to any of our customer needs.

Last but not least, NEM can also provide its own range of compact directional control valves, rated for metered flows up to 40 L/min.

All these products, together with our innovative solutions for load and flow sensing control valves demonstrate our attitude towards engineering fluid power solutions.

Mechanical and Electrical Cartridge Valves

Pressure control valves	p_{max}	350 bar
Counterbalance valves	Q_{max}	200 L/min
Directional control valves	Cavity	up to SAE 16
Flow control valves		M27x1,5

Parts-in-Body Valves

Counter balance valves	p_{max}	410 bar
PO check valves	Q_{max}	500 L/min
Boom lowering control valves	Ports	up to $1^1/_4$ SAE6000
Pressure control valves		
Flow control valves		

Hydraulic Integrated Circuits

Weight lifting	p_{max}	350 bar
Earth moving	Q_{max}	200 L/min
Agricultural vehicles		
Industrial vehicles		

Directional Control Valves

Flow sensing	p_{max}	350 bar
Load sensing	Q_{max}	40 L/min
	Ports	BSP 3/8“

Solutions from NEM ...

... for Telescopic Handlers and Loaders

NEM S.r.l. | Via F. Turati, 41/A | 42020 Quattro Castella (RE), Loc. Roncolo | Italy
Phone: +39 (0)522 25 87 11 | Fax: +39 (0)522 88 79 88
E-Mail: info@nem-hydraulics.com | www.nem-hydraulics.com

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Solutions for Telescopic Handlers and Loaders

A great way to be always ready to start: VIP-02 Valve to intercept the pilot signals – EP2342253

Enabling a rapid response time of counterbalance valves under cold conditions and stability with hot oil temperatures is the challenge for all valve manufacturers.

NEM is conscious of these two opposing needs and therefore has developed a specific valve able to intercept and manage pilot signals of counterbalance valves.

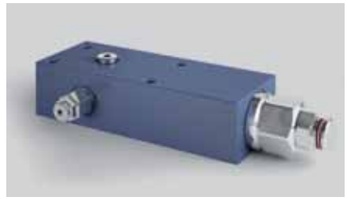
This concept is now inserted to the Register of European Patents (EP2342253).

This solution ensures stability of hydraulic lifting equipments during the lowering manoeuvres, especially on those applications characterized by load sensing flow control systems or by variable displacement pumps.

It can be considered the best innovative device to control the pilot pressure of counterbalance valves. The idea behind guarantees stable piloting of every type of counterbalance valve regardless of oil temperature or viscosity even in the most critical situations.

Thanks to the application of the VIP-02 cartridge valve in a pilot circuit, it is possible to reach stable performance and fast response time regardless of the oil viscosity.

Some applications where this innovative valve has been successfully applied are not only Telescopic Handlers, but also: Knuckle-boom Cranes, Areal Platforms, Wheeled Loaders (ISO8643).



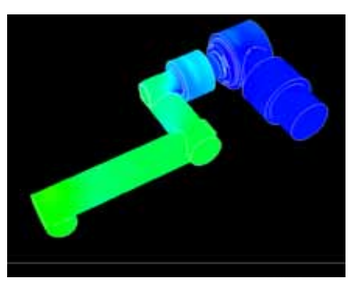
LHD15X flanged version assembled with VIP02

LHD15X-HP High perfomance series

LHD15X-HP series is the answer to reducing pressure losses and improving the machine performance.

Thanks to its extended piloted stroke the LHD15X-HP series (rated for 200 L/min) is the most performing valve in its range.

Its fine metering plunger shape guarantees excellent control during the fine metering, long piloted stroke allows a significant pressure drop reduction.



Study of LHD15X-HP

Soft ride circuits built-in the load holding valves

When boom suspension or soft ride option is required for telescopic handlers, the need to match functionality and safty is a must.

It can be satisfied only by implementing the accumulator's charge circuit into the load holding valve manifold.

NEM provides different solutions: from a straight connection through a solenoid valve to more sophisticated circuits able to pre-fill the accumulator in order to avoid the load drop when the soft ride feature is activated.

LHD15X with soft ride option

Self piloting load lowering valves

Energy saving and electronics combined with the need for reliability: it is a challenge that NEM is ready to meet.

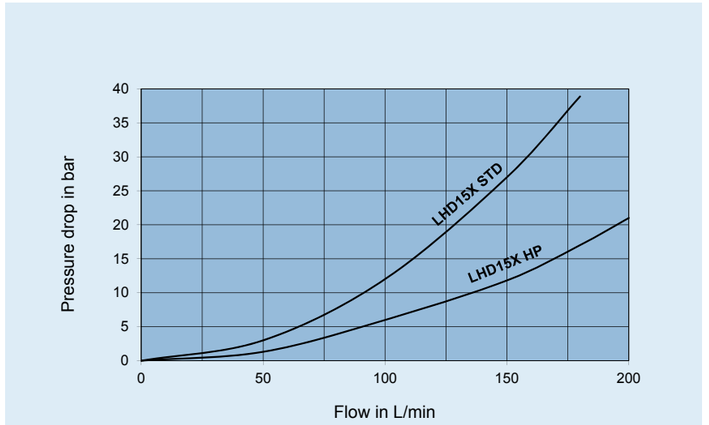
The U-valves program promotes functional principles that bring the gravity to drive load lowering operations.

Through the U-valves program NEM's engineers support our customers in the development of innovative energy saving solutions.

One of our concepts: Self piloting load lowering control valves that are able to recover into a conventional counterbalance valve when the electronics fail. This way the machines will never stop working in case of electronic failure.

Part of the U-valves program are also the load lowering control valves from the LHD-Y series. Thanks to their internal features the boom can be lowered with: total control, absolute lowering speed stability and a response time independent of oil viscosity.

LHD15X, pressure drop vs flow of standard and high performance load holding valves (piloted flow A1>A)



NEM range of Parts-in-Body counterbalance valves

Type	Q_{max} (L/min)	p_{max} (bar)	Pilot ration
LHD03	40	350	4:1
LHD05	70	350	4:1; 9,5:1; 1:0
LHD10	110	410	4:1; 9,5:1; 1:0
LHD15	180	410	4:1; 8:1; 1:0
LHD25	350	410	4:1; 6:1

Graphical symbols

Top left:
Single acting, fully compensated

Top right:
Double acting, fully compensated

Bottom left:
Single acting with VIP-02 (Pat)

Bottom right:
Boom lowering valve - joystick control