

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 se-

lection 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 Earth Moving Machinery



Solutions for Earth Moving Machinery

LHD-Y series, a successful match among Safety and Controllability provided by NEM's Load Lowering Control valves (ISO8643)

According to the European Standard for Earth Moving Machinery - Safety requirements (EN 474), when an excavator or a backhoe loader is used to handle loads with a mass bigger than 1000 kg, or with a momentum force above 40.000 Nm, the carrying cylinders have to be equipped with control devices capable to prevent the effects of a possible hose failure. Among these devices we can find NEM's joystick operated load lowering control valves (LHD-Y series)

and NEM's counterbalance valves (LHD-X series).

NEM's joystick operated load lowering control valves, the LHD-Y series (EN474; ISO 8643), are definitely a step forward in matching the directional valve spool metering characteristics without any compromise. Extended plunger strokes and accurate fine metering allow to fix their opening pilot pressure closest to the joystick's starting position.

This way the operators can operate safely without feeling any difference in comparison with the standard versions without load lowering control valves.

The extended opening strokes that characterize all our valves and the internal design allow to perform at the lowest pressure drop characteristics of the market, in other words: low power losses and no balance heating influence.

Type	Q _{max} (L/min)	p _{max} (bar)	Ports
LHD05Y	60	410	BSP 3/8" BSP 1/2"
LHD10Y	75	410	BSP 1/2" 1/2"-SAE6000PSI
LHD15Y	100	410	BSP 3/4" 1/2"-SAE6000PSI 3/4"-SAE6000PSI
LHD25Y	400	410	3/4"-SAE6000PSI 1"-SAE6000PSI 1 1/4"-SAE6000PSI



NEM load lowering control valves (LHD-Y series)

LHD-X series, a range of counterbalance valves designed to perform whenever you need

NEM's range of counterbalance valves, the LHD-X series, is quite unique in its market. Thanks to its original design NEM's products are able to reach the highest working pressure and flow range on the market.

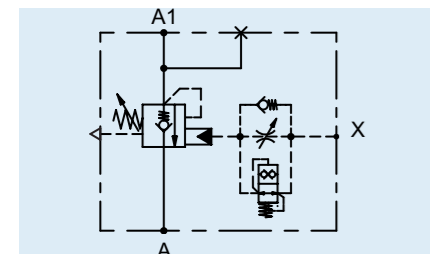
From the smaller size, the LHD03X series rated for 40 L/min to the LHD25X, rated for 350 L/min, all the ranges are designed to perform over the benchmark; in particular

the LHD03X and LHD05X series are the best in class for their pressure drop characteristics. The other series, the LHD10X, the LHD15X and the LHD25X are definitely a step a-head thanks to their robust design, their extended opening strokes and setting range up to 410 bar as standard.

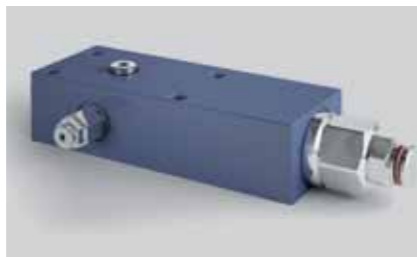
Positioning cylinders, dozer blades, backhoe loaders, wheeled loaders, telescopic

handlers etc. are some of the typical applications from earth moving machinery concerning Nem's counterbalance valves.

Furthermore, when the machine's boom lowering stability is an issue, NEM can provide a patented pilot dampening device that ensures the stability of hydraulic lifting equipment during the lowering maneuvers, especially on those applications characterized by load sensing flow control systems or by variable displacement pumps. This device (VIP-02) ensure a stable piloting and a quick opening of any type of counterbalance valve regardless the oil temperature / viscosity, even in the most critical situations through a clean installation without any additional components like sequence valves, accumulators or additional restrictors.



Single acting counterbalance valve with pilot signal dampening (Pat)



LHD 15X flanged version assembled with VIP-02 valve

6F3S series, NEM's range of Priority Flow Control valves

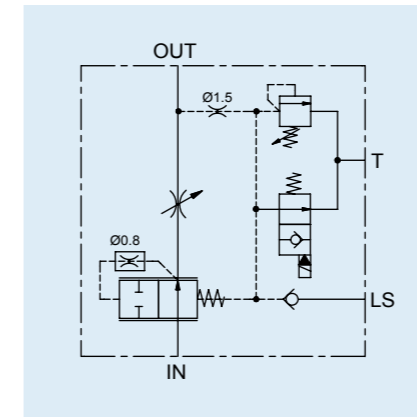
Among NEM's flow control valves, it is available a complete range of 3-way priority flow control valves equipped with electric activation and priority line pressure control. These type of valves are specifically designed for earth moving machines to allow the installation of hydraulic hammers, trenchers and/or other hydraulic tools on excavators, backhoes and/or other machines.

In addition to the 3-way type, that is designed for open center systems, a 2-way version with BSP 3/4" ports is available for closed center systems (Load Sensing Systems), to be installed in parallel to the main control valve.

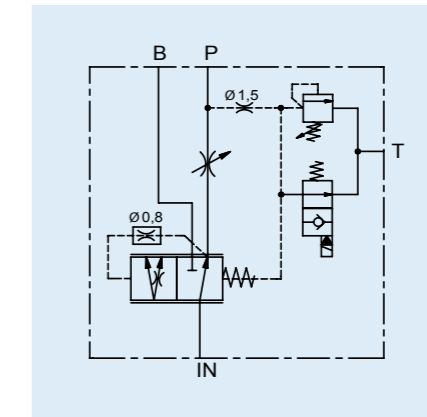
Thanks to an accurate design they offer an excellent flow stability and precision even when the system pressures (B) are over the regulated flow (P).



NEM range of priority flow regulators



2 way version for closed center systems



3 way version for open center systems

Type	Q _p (L/min)	Q _{reg} (L/min)	Ports
6F3S_04	100	85	BSP 1/2"
6F3S_05	200	140	BSP 3/4"
6F3S_06	300	220	BSP 1"
6F3S_07	400	300	1-1/4"

Hydraulic Integrated Circuits for many needs, from boom suspension systems to every auxiliary function

The NEM's range of products includes a wide range of proportional electro-hydraulic flow control valves, cartridges, logic elements and Hydraulic Integrated Circuits (HIC) that can be used to develop and design many type of auxiliary functions like:

- Joystick feeding units,
- proportional electro-hydraulic pilot control units,
- Boom suspension systems,
- Quick attaching HIC,
- Self-leveling valves,
- EU/NAFTA selector valves (manually or electrically operated),

Refer to our General Catalogues Vol.1 (Cartridge Valves) and Vol. 2 (Parts-in-Body valves) to select the standard components for your application or ask NEM's Customer Care Team to design the best solution according to your specifications.



Examples of Hydraulic Integrated Circuits (HIC)



NEM's cartridge range