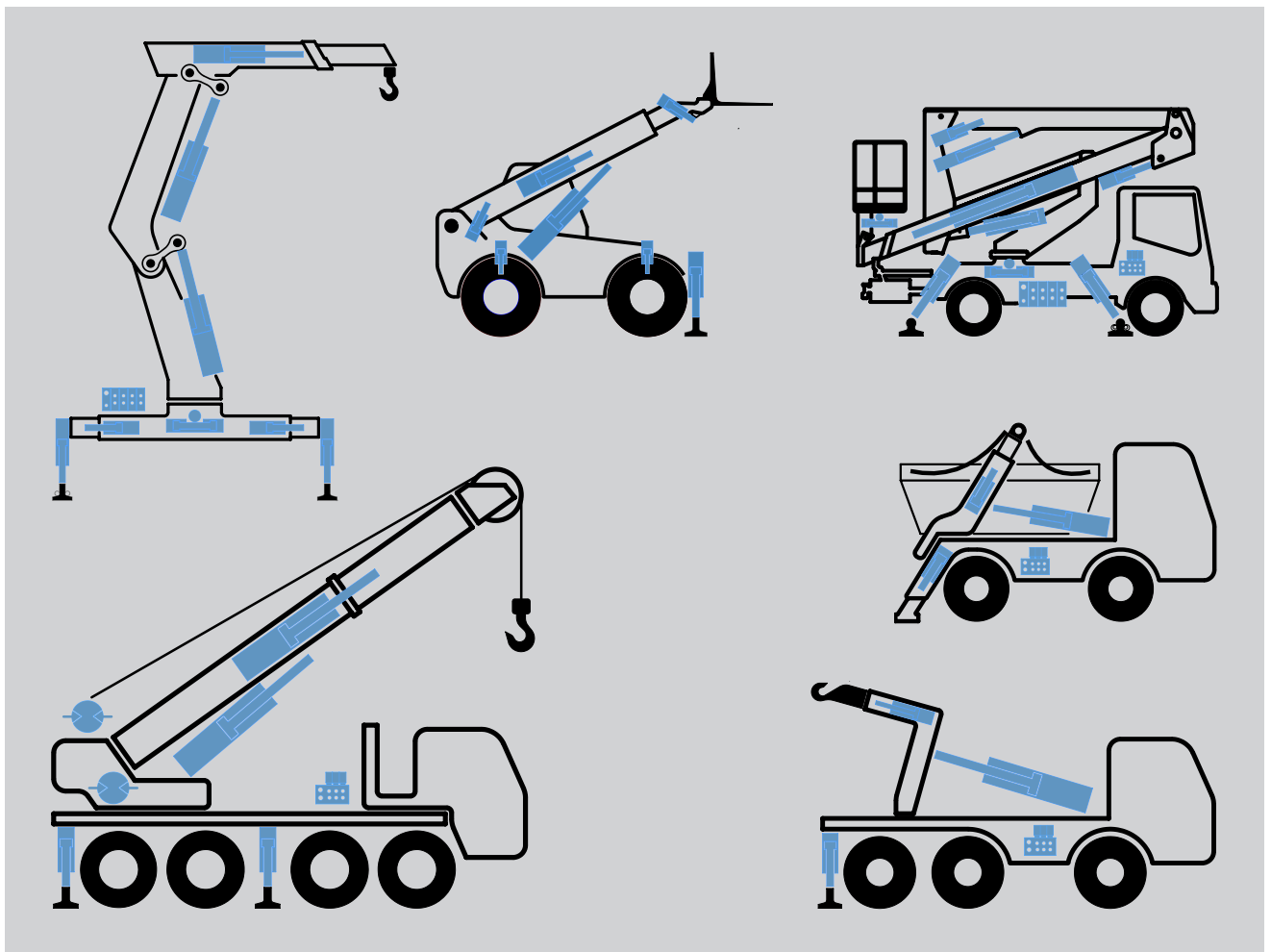
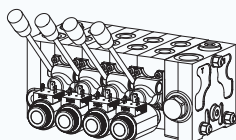


Solutions from NEM ...

... for Lifting and Material Handling

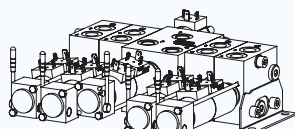


Knuckle cranes



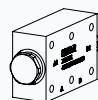
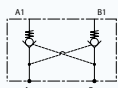
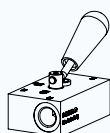
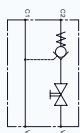
Directional control valves

NVD2 series: up to 50 L/min / 350 bar
Electro proportional control; multifunctional operation;
Flow Sensing concept
Controlled functions:
boom; arm; extension; slew



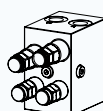
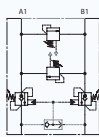
Directional control valves

NVS3 series: 30 L/min / 210 bar
Inlet electro-proportional control; On-Off function
Controlled functions:
2-4-6-8 utility (outriggers)



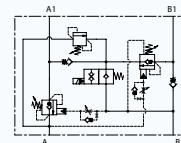
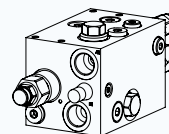
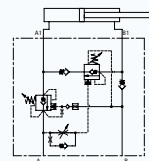
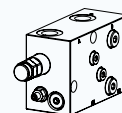
Pilot operated check valves

6D series: 40 / 60 L/min / 350 bar
Installation: Flanged / In-line
Outrigger and extension cylinders;
single and double acting



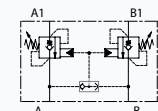
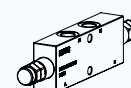
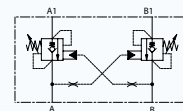
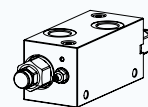
Counterbalance valves

H50 series: 70 L/min / 350 bar
Installation: In-line
Slewing cylinders control; cross-over relief protection



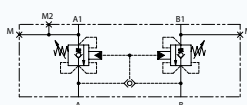
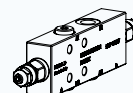
Counterbalance valves

H10 / H15 series: 70-180 L/min / 350-430 bar
Installation: In-line
Extension cylinders with regenerative circuits



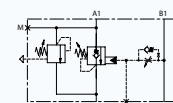
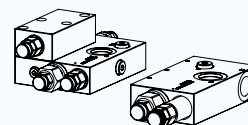
Counterbalance valves

H50 / H10/ H15 series: 70-110-180 L/min / 350 - 410 bar
Installation: Flanged / In-line
Extension / Arm cylinders; with and without back-pressure compensation



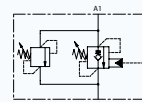
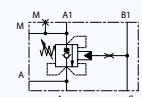
Counterbalance valves

H53...S/ H10...S/ H15 series: 70-110-180 L/min / 350-410 bar
Installation: In-line / Flanged 30x30
Arm cylinders; back pressure relief compensated



Load lowering control valves

H50 / H10 / H15 series: 70 - 110 - 180 L/min 350 - 410 bar
Installation: In-line / Flanged / Customizable
Load independent lowering speed control

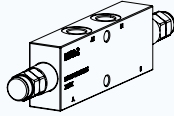
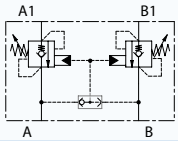


Counterbalance valves

H50 - H10 - H15 series: 70-110-180 L/min / 350 - 410 bar
Installation: In-line / Flanged
Main boom cylinders; with / without back pressure relief compensation; thermal relief valve option

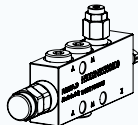
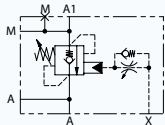
Solutions for Lifting and Material Handling

Tracked aerial platforms



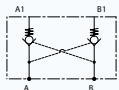
Counterbalance valves

H30 / H50 series: 40-70 L/min / 350 bar
Installation: Flanged / In-line
Lifting, extension, jib cylinders, slewing motor



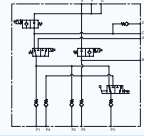
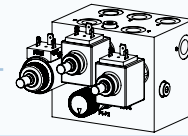
Counterbalance valves

H30 / H50 series: 40-70 L/min / 350 bar
Installation: Flanged / In-line
Boom cylinders
Damped piloting; quick response time (VIP2 patented)



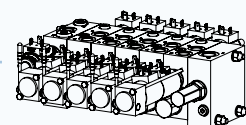
Pilot operated check valves

6D series: 60 L/min / 350 bar
Installation: Flanged / In-line
Outrigger and crossbar cylinders;
single and double acting; hardened seats on request



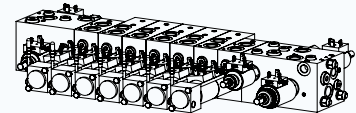
Hydraulic integrated circuits

XA series: 60 L/min / 350 bar
Installation: Customizable
Pumps control; safety functions; levelling closed loop isolation



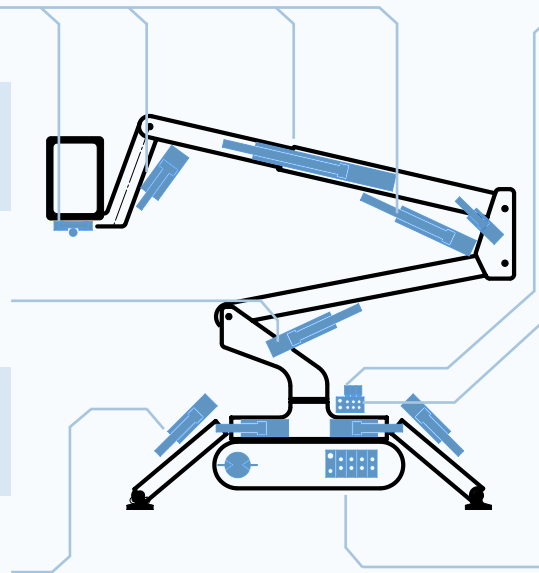
Directional control valves

NVE3 / NVE4 series: 70 L/min / 250 bar
Electro-proportional control; Load Sensing comp;
simultaneous movements; local compensation in each section
Controlled functions: aerial actuators

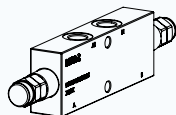
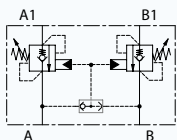


Directional control valves

NVS3 series: 30 L/min / 210 bar
Electro proportional control; with 1 or 2 pump inlets
Controlled functions:
2 track motors, outriggers, crossbars

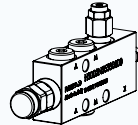
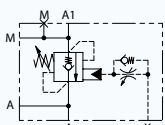


Truck mounted aerial platforms



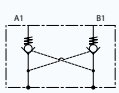
Counterbalance valves

H30 / H50 series: 40-70 L/min / 350 bar
Installation: Flanged / In-line
Lifting, extension, jib cylinders, slewing motors



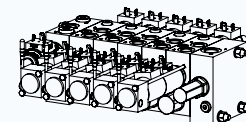
Counterbalance valves

H30 / H50 series: 40-70 L/min / 350 bar
Installation: Flanged / In-line
Boom cylinders
Damped piloting; quick response time (VIP2 patented)



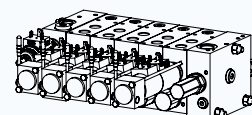
Pilot operated check valves

6D series: 60 L/min / 350 bar
Installation: Flanged / In-line
Outrigger cylinders;
single and double acting; hardened seats on request



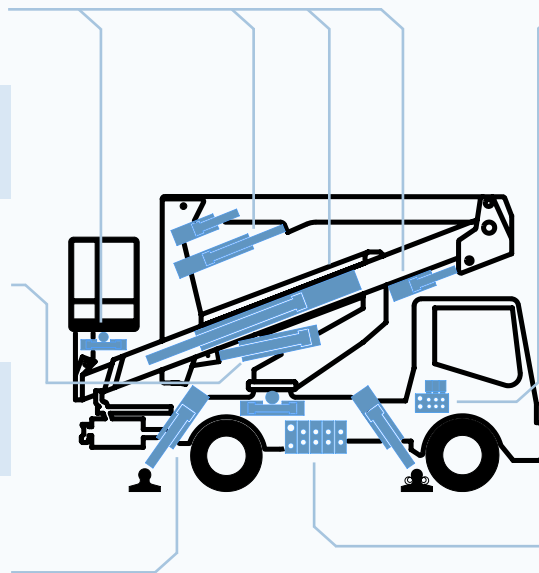
Directional control valves

NVE3 / NVE4 series: 70 L/min / 250 bar
Electro-proportional control; Load Sensing comp;
simultaneous movements; local compensation in each section
Controlled functions: aerial actuators

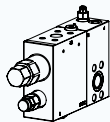
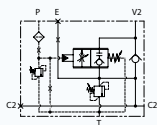


Directional control valves

NVE4 series: 70 L/min / 250 bar
Electro-proportional control, Load Sensing comp;
simultaneous movements; local compensation in each section
Controlled functions:
Outriggers, crossbar and levelling of the platform

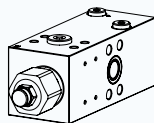
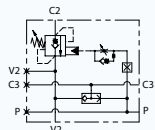


Mobile cranes



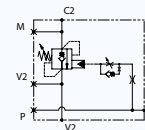
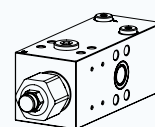
Load lowering valves

Y20 series: 120 - 250 L/min / 410 bar
Installation: Flanged 3/4" SAE 6000 psi
Boom cylinders



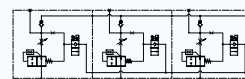
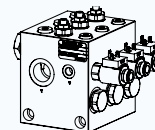
Counterbalance valves

H25 series: 350 L/min / 410 bar / p.r. 13:1
Installation: Flanged 3/4" - 1" SAE6000
Winch motors; with brake releasing port (C3)



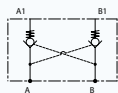
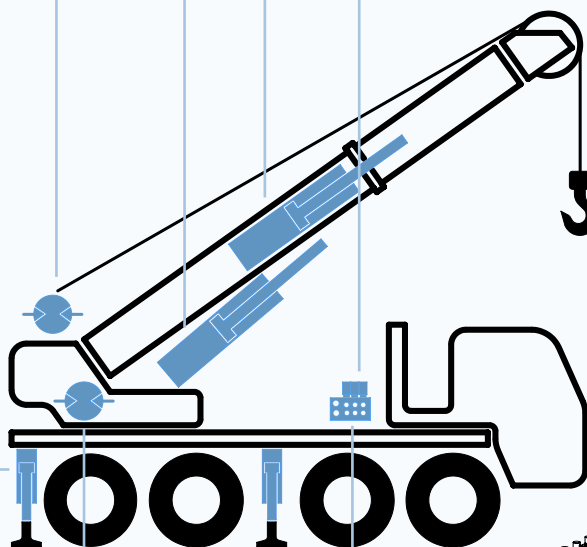
Counterbalance valves

H25 series: 350 L/min / 410 bar / Port 3/4 - 1 SAE6000
Installation: Flanged / Customizable
Extension cylinders



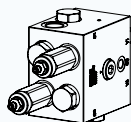
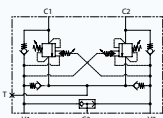
Hydraulic integrated circuits for 3 pumps

XA series: 3x150 L/min / 350 bar
Installation: In-line
EN13000; Reducing the working flow to 25%



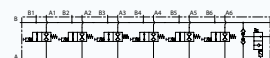
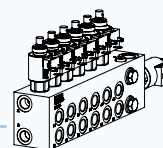
Pilot operated check valves

6D series: 60 L/min / 350 bar
Installation: Flanged / In-line
Outrigger and crossbar cylinders;
single and double acting; hardened seats on request



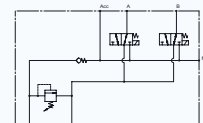
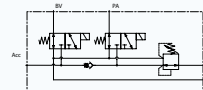
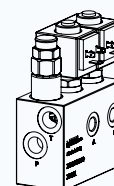
Motion control valves

XA03 series: 120 L/min / 210 bar
Installation: In-line
Slewing motor;



Pilot manifold

XA series: 20 L/min / 250 bar
Installation: Customizable
Pilot auxiliary function

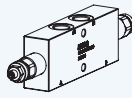
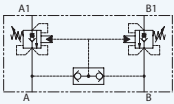


Joystick feeding units

XA12 series: 20 L/min / 350 bar
Installation: In-line
Pressure reducing / relieving for feeding pilot pressure lines

Solutions for Lifting and Material Handling

Hook loaders

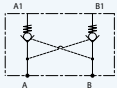


Counterbalance valves

H50 / H10 series: 70 - 110 L/min / 350 bar

Installation: In-line / Flanged

Extension cylinders; relief back pressure compensated

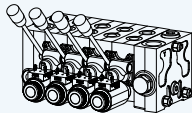


Pilot operated check valves

6D series: 60 L/min / 350 bar

Installation: Flanged / In-line

Outrigger cylinders; single and double acting; hardened seats on request



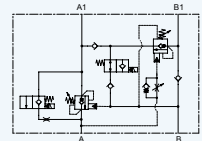
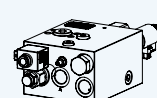
Directional control valves

NVD2 series: 50 L/min / 350 bar / for fix and LS pump

Electro proportional control; multifunctional operation;

Flow Sensing concept

Controlled functions: main and auxiliary functions

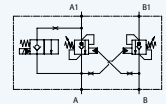
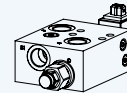


Counterbalance valves

XA02 series: 180 L/min / 350 bar

Installation: Flanged 3/4" SAE 3000 psi

Boom cylinders; with regenerative circuit

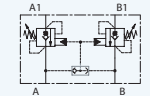
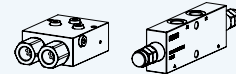


Counterbalance valves

XA02 series: 180 L/min / 350 bar

Installation: Flanged 3/4" SAE 3000 psi

Boom cylinders

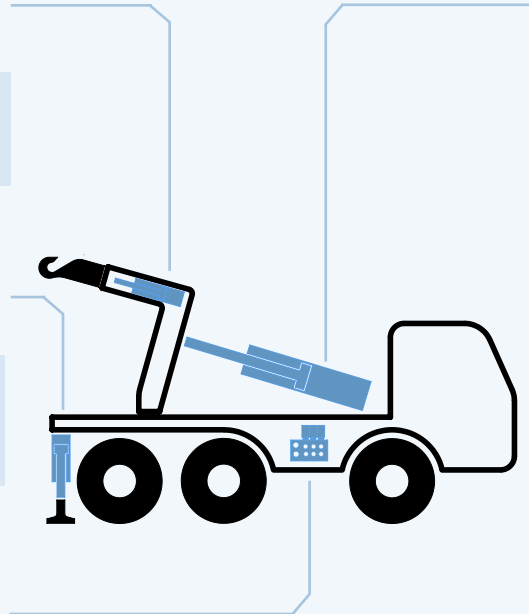


Counterbalance valves

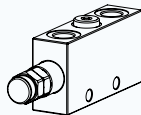
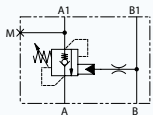
h50 / H52 series: 70 L/min / 350 bar

Installation: In-line

Boom cylinders



Skip loaders

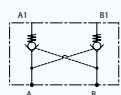


Counterbalance valves

H30 series: 40 L/min / 350 bar / single acting flange

Installation: In-line / Flanged

Extension cylinders

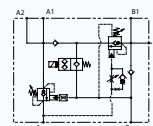
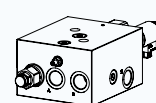


Pilot operated check valves

6D series: 60 L/min / 350 bar

Installation: Flanged / In-line

Outrigger and crossbar cylinders; single and double acting; hardened seats on request

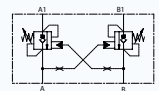
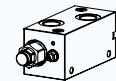


Counterbalance valves

XA02 series: 180 L/min / 350 bar

Installation: In-line

Boom cylinders; with regenerative circuit

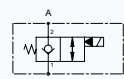
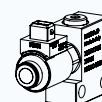


Counterbalance valves

H15 series: 180 L/min / 410 bar

Installation: In-line

Boom cylinders; without regenerative



Solenoid cartridges

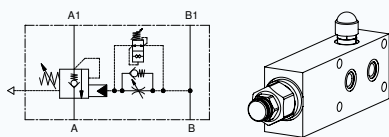
7514... series: 150 L/min / 350 bar

Installation: Flanged / Customizable

Locking cylinders (NC); pump flow dumping (NO)



Telescopic handlers

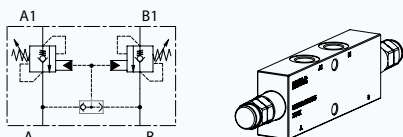


Counterbalance valves

H15 series: 180 L/min / 410 bar

Installation: Flanged / In-line

Back pressure compensated; damped piloting;
quick response time (VIP02 patented)

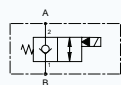


Counterbalance valves

H50 series: 70 L/min / 350 bar / p.r. 9,5:1

Installation: In-line

Self-levelling cylinders / Lifting force control

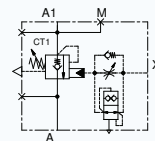
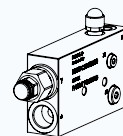


Hydraulic integrated circuits

XA series: 60 L/min / 350 bar

Installation: Flanged / Customizable

Rear axles lock

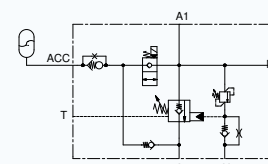
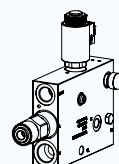


Counterbalance valves

H10 / H15 series: 110-180 L/min / 410 bar

Installation: Flanged / In-line

Back pressure compensated; damped piloting;
quick response time (VIP02 patented)

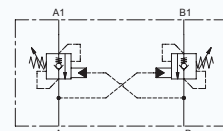
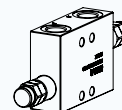


Load lowering control valves

Y15 series: 180 L/min / 420 bar

Installation: Flanged / In-line

With and without embedded suspension systems



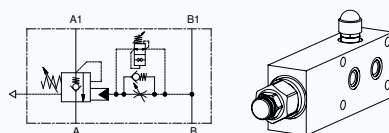
Counterbalance valves

H50 series: 70 L/min / 350 bar / p.r. 4:1

Installation: Flanged 40x48, 20x55

Outriggers and frame levelling cylinders;
low pressure drop characteristics

Telescopic wheel loaders

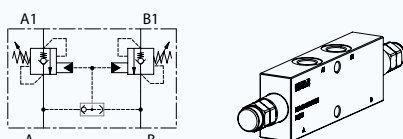


Counterbalance valves

H15 series: 180 L/min / 410 bar

Installation: Flanged / In-line

Back pressure compensated; damped piloting;
quick response time (VIP02 patented)

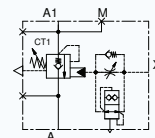
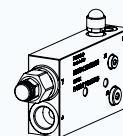
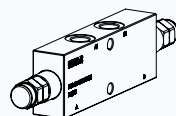


Counterbalance valves

H50 series: 70 L/min / 350 bar / p.r. 9,5:1

Installation: In-line

Self-levelling cylinders / Lifting force control

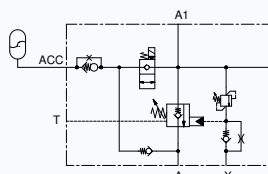
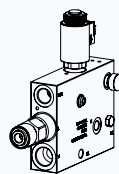


Counterbalance valves

H10 / H15 series: 110-180 L/min / 410 bar

Installation: Flanged / In-line

Back pressure compensated; damped piloting;
quick response time (VIP02 patented)



Load Lowering control valves

Y15 series: 180 L/min / 420 bar

Installation: Flanged / In-line

With and without embedded suspension systems

Solutions for Lifting and Material Handling

A range of high performance counterbalance valves

NEM's range of counterbalance valves is quite unique, thanks to their original design NEM products are able to reach the highest working pressure and flow range of the market without any compromise.

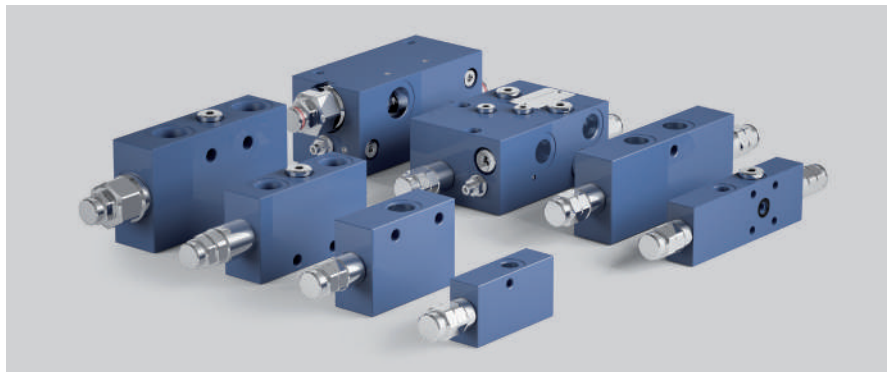
Starting from the smaller size LHD03X series rated for 40 L/min up to LHD25X rated for 350 L/min, all the ranges are designed to perform bet-

ter than the benchmark; in particular the series LHD03X and LHD05X are the best in class for their pressure drop characteristics, while the other series LHD10X, LHD15X and LHD25X are definitely a step ahead thanks to their robust design, extended opening strokes and setting range up to 410 bar as standard.

Alongside conventional counterbalance valves characterized by a given pilot ratio (eg. 4:1),

NEM application engineers are available to support customers to develop innovative energy saving solutions. NEM's U-valves program is an engineering service that aims to promote functional principles solutions that bring the gravity force to drive load lowering operations.

Type	Q _{max} (L/min)	p _{max} (bar)	Pilot ratio
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



The range of Parts-in-Body counterbalance valves

New developments and special features



VIP-02

Valve to Intercept Pilot signals
European patent - EP2342253

When the machine's boom lowering stability is an issue, NEM can provide a patented pilot damping device that ensures the stability of hydraulic lifting equipment during lowering manoeuvres, especially on those applications characterized by load sensing flow control systems or by variable displacement pumps.

This device (VIP-02) allows a stable piloting and quick opening in order to reach a stable performance and a fast response time regardless of oil viscosity.



U-valves concept

Energy saving & electrification
from NEM motion control valves

Energy saving and electronics Vs reliability, a challenge that NEM engineers are ready to play by the U-valves program.

The U-valves program promotes functional principles that: bring the gravity to drive load lowering operations and the motion control valves electrification.

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



NVD2

New: flow sensing control valve
with on-off actuation

NVD2 is a highly innovative directional control valve, its technology (patented) impressively joins constructive simplicity and high functional performance.

The flow sensing working principle which characterizes the NVD2 valves makes the flow control independent from simultaneous loads with a great stability.

In addition to the typical electro-proportional controls, is now available an On/Off actuated version, which allows to simplify the electric control without compromising the Flow Sensing multifunctional working features.



NVE4

Full optional, modular, pre-compensated control valve

The new series NVE empower the range of directional control valves with a new set of pre-compensated load sensing electro-proportional valve. NVE series is the natural evolution of NVS3 line.

NVE4 is the most equipped and advanced version, which offers features like A/B closed centre spools and modular valves to be installed direct on the working ports, e.g. pilot operated check valves, counterbalance valves and many other safety options.

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 70 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.

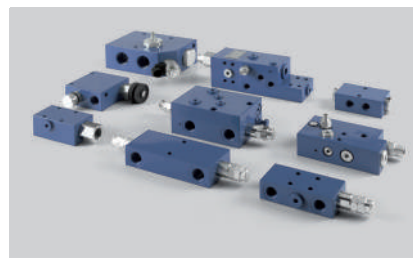
Mechanical and Electrical Cartridge Valves

Pressure control valves	p_{max}	350 bar
Counterbalance valves	Q_{max}	300 L/min
Directional control valves	Cavity	up to SAE 20
Flow control valves		



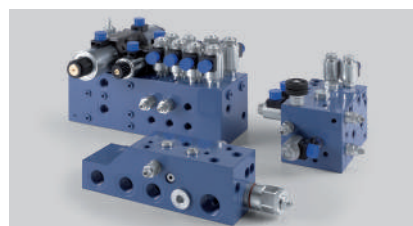
Parts-in-Body Valves

Load holding / Motion control valves	p_{max}	420 bar
Boom lowering control valves	Q_{max}	500 L/min
PO check 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}	70 L/min
Load independent	Ports	BSP 3/8"

