

# 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.

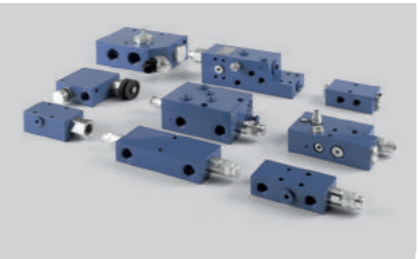
### Mechanical and Electrical Cartridge Valves

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		



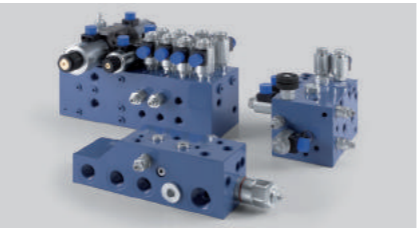
### Parts-in-Body Valves

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		



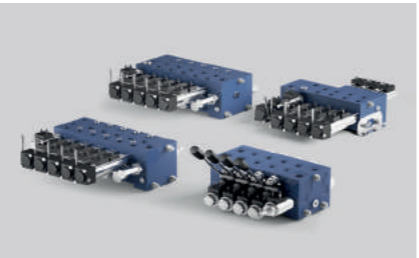
### Hydraulic Integrated Circuits

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

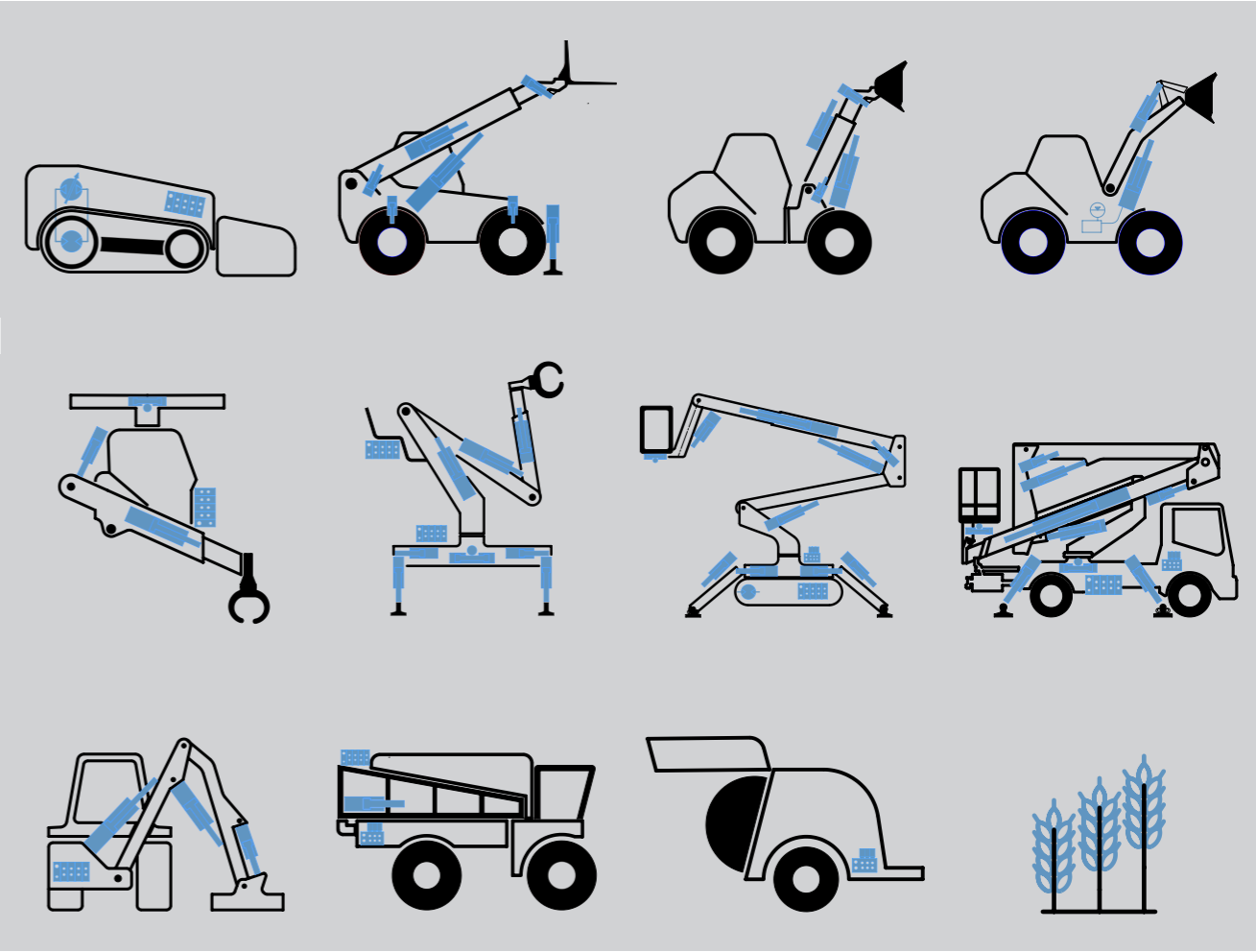


### Directional Control Valves

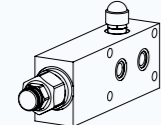
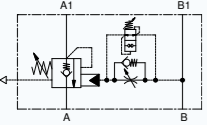
Flow sensing	$p_{max}$	350 bar
Load sensing	$Q_{max}$	70 L/min
Load independent	Ports	BSP 3/8"



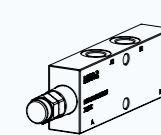
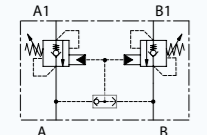
## Solutions from NEM ... ... for Agriculture Applications



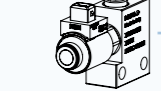
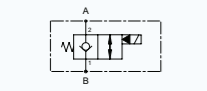
Telescopic handlers



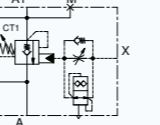
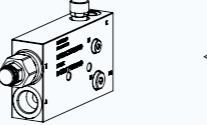
**Counterbalance valves**  
H15 series: 180 L/min / 410 bar  
Installation: Flanged / In-line  
Back pressure compensated; damped piloting;  
quick response time (VIP02 patented)



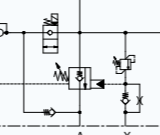
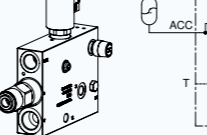
**Counterbalance valves**  
H50 series: 70 L/min / 350 bar / p.r. 9,5:1  
Installation: In-line  
Self-levelling cylinders / Lifting force control



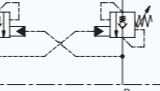
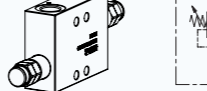
**Hydraulic integrated circuits**  
XA series: 60 L/min / 350 bar  
Installation: Flanged / Customizable  
Rear axles lock



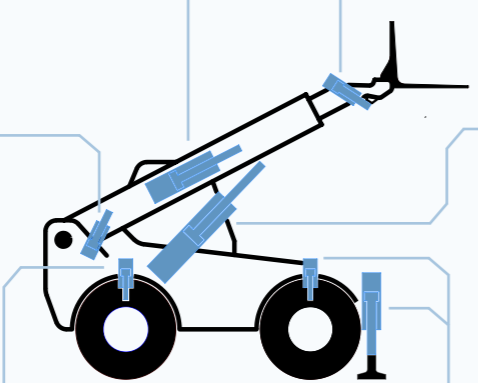
**Counterbalance valves**  
H10 / H15 series: 110-180 L/min / 410 bar  
Installation: Flanged / In-line  
Back pressure compensated; damped piloting;  
quick response time (VIP02 patented)



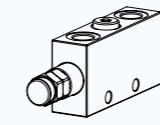
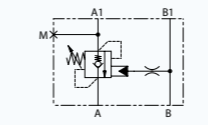
**Load lowering control valves**  
Y15 series: 180 L/min / 420 bar  
Installation: Flanged / In-line  
With and without embedded suspension systems



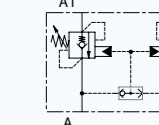
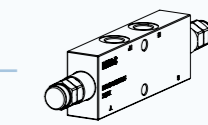
**Counterbalance valves**  
H50 series: 70 L/min / 350 bar / p.r. 4:1  
Installation: Flanged 40x48, 20x55  
Outriggers and frame levelling cylinders;  
low pressure drop characteristics



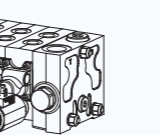
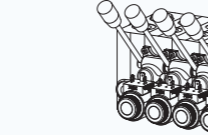
Boom mowers



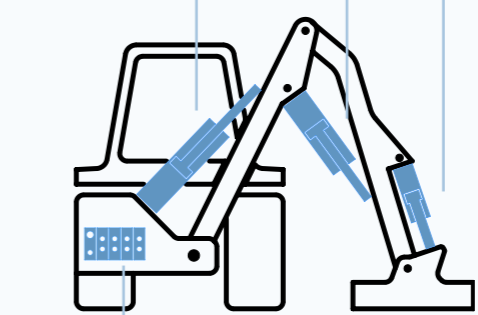
**Counterbalance valves**  
H30 / H50 series: 40-70 L/min / 350 bar  
Installation: Flanged / In-line  
Boom cylinders; with and without back-pressure relief  
compensation



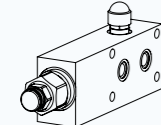
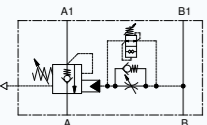
**Counterbalance valves**  
H30 / H50 series: 40-70 L/min / 350 bar  
Installation: Flanged / In-line  
Arm and tool levelling cylinders;  
with and without back-pressure relief compensation



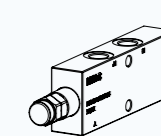
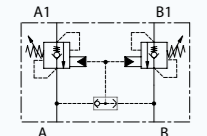
**Directional control valves**  
NVD2 series: 50 L/min / 350 bar  
Electro proportional control; multifunctional operation;  
Flow Sensing concept  
Controlled functions:  
boom; arm; extension; slew



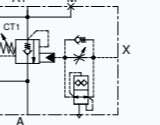
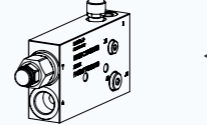
Telescopic wheel loaders



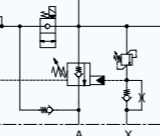
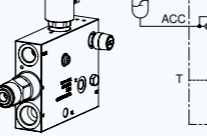
**Counterbalance valves**  
H15 series: 180 L/min / 410 bar  
Installation: Flanged / In-line  
Back pressure compensated; damped piloting;  
quick response time (VIP02 patented)



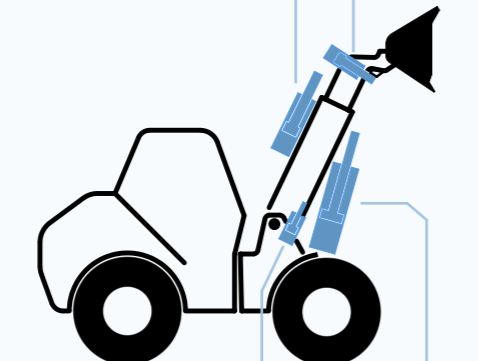
**Counterbalance valves**  
H50 series: 70 L/min / 350 bar / p.r. 9,5:1  
Installation: In-line  
Self-levelling cylinders / Lifting force control



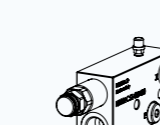
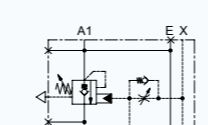
**Counterbalance valves**  
H10 / H15 series: 110-180 L/min / 410 bar  
Installation: Flanged / In-line  
Back pressure compensated; damped piloting;  
quick response time (VIP02 patented)



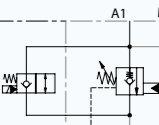
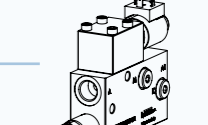
**Load Lowering control valves**  
Y15 series: 180 L/min / 420 bar  
Installation: Flanged / In-line  
With and without embedded suspension systems



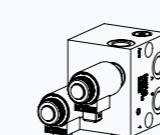
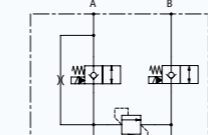
Wheel loaders



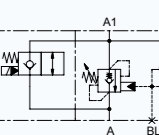
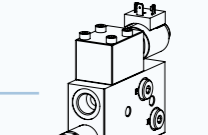
**Counterbalance valves**  
H10 series: 110 L/min / 410 bar  
Installation: Flanged / In-line  
Back pressure compensated; damped piloting;  
quick response time (VIP02 patented)



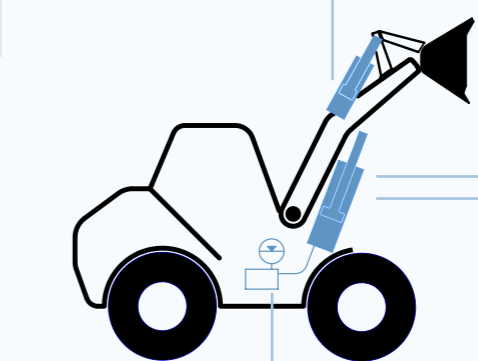
**Load lowering control valves**  
Y10 series: 75 L/min / 350 bar  
Installation: In-line  
Joystic operated; fine metering plungers;  
with and without electric by-pass



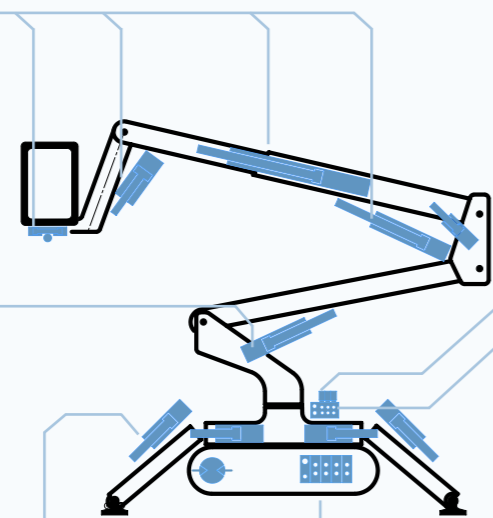
**Hydraulic integrated circuits**  
XA series: 60 L/min / 350 bar  
Installation: Customizable  
Boom suspension systems



**Counterbalance valves**  
H50 - H10 series: 70-110 L/min / 350 bar  
Installation: Flanged / In-line  
Back pressure compensated; with electric by-pass;  
damped piloting; quick response time (VIP02 patented)



## 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)

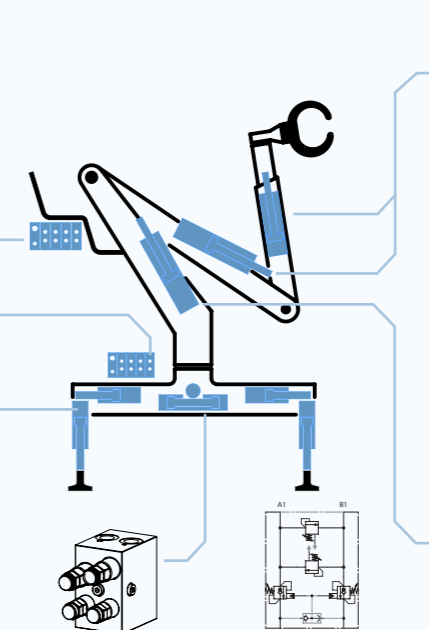
**Pilot operated check valves**  
6D series: 60 L/min / 350 bar  
Installation: Flanged / In-line  
Outrigger and crossbar cylinders;  
single and double acting; hardened seats on request

**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

## Timber 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)

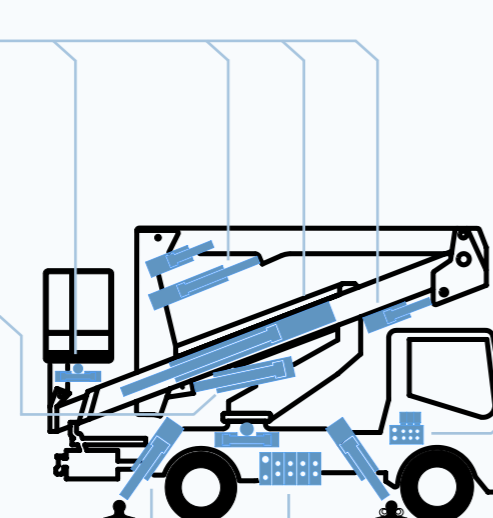
**Pilot operated check valves**  
6D series: 60 L/min / 350 bar  
Installation: Flanged / In-line  
Outrigger and extension cylinders;  
single and double acting

**Counterbalance valves**  
H52 / H10 series: 60 - 110 L/min / 350-410 bar  
Installation: In-line  
Arm and extension cylinders;  
with and without back-pressure relief compensation

**Counterbalance valves**  
H50 series: 70 L/min / 350 bar  
Installation: In-line  
Slew control; cross-over relief protection

**Counterbalance valves**  
H50 / H10 / H15 series: 70-110-180 L/min / 350-410 bar  
Installation: In-line  
Boom cylinders; with back-pressure compensation;  
damped piloting; quick response time (VIP2 patented)

## 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

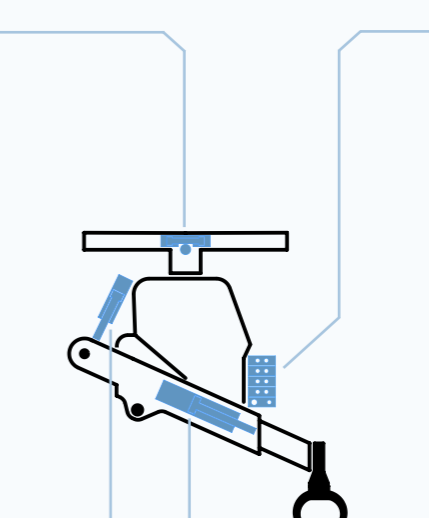
**Counterbalance valves**  
H30 / H50 series: 40-70 L/min / 350 bar  
Installation: Flanged / In-line  
Boom cylinders  
Damped piloting; quick response time (VIP2 patented)

**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

## Overhead cranes



**Counterbalance valves**  
H50 series: 70 L/min / 350 bar  
Installation: In-line  
Slew control; cross-over relief protection

**Counterbalance valves**  
H50 / H10 series: 70-110 L/min / 350-410 bar  
Installation: in-line  
Back pressure compensated; pilot dampening;  
quick response time (VIP02 patented)

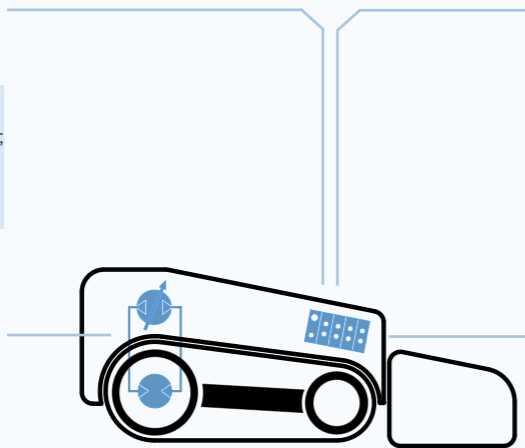
**Directional control valves**  
NVD2 series: 50 L/min / 350 bar  
Electro proportional control; multifunctional operation;  
Flow Sensing concept  
Controlled functions:  
boom; extension; slew; track motors

**Counterbalance valves**  
H3080 series: 40 L/min / 350 bar  
Installation: In-line  
Regenerative extension; damped piloting

Remote controlled cutters

**Directional control valves**  
NVD2 series: 50 L/min / 350 bar  
Electro proportional control; multifunctional operation;  
Flow Sensing concept  
multifunctional operation  
Controlled functions: all auxiliary function and cutter motor

**Electro-proportional pressure reducing valves**  
1027/1043/1044 series: 2 L/min / 3-18 or 3-28 bar  
0172 series: 4 L/min / 3-20 or 3-30 bar  
Installation: Flanged / SAE08 Screwed-in  
Twin pumps variable displacement control

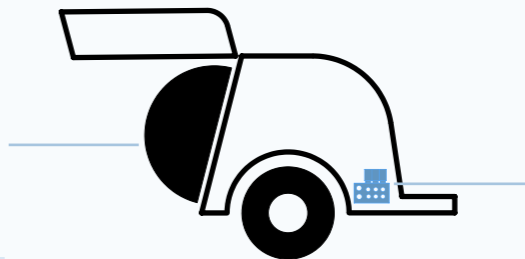


**Directional control valves**  
NVS3 series: 30 L/min / 210 bar  
Electro proportional control; On-Off type;  
highly customizable; single actuation  
Controlled functions:  
all auxiliary function and cutter motor

**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

Balers

**Hydraulic integrated circuits**  
XA series: 60 L/min / 350 bar  
Installation: Customizable  
Bale splitters

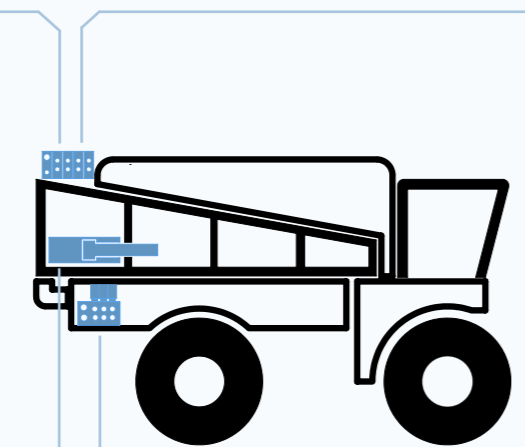


**Hydraulic integrated circuits**  
XA series: 20 L/min / 210 bar  
Installation: Customizable  
Knives control

Sprayers and trailing shoes

**Directional control valves**  
NVD2 series: 50 L/min / 350 bar  
On-off control; pre-set regulated flow for each  
section; Flow Sensing concept  
Controlled functions:  
Function with high flow

**Counterbalance valves**  
H50 series: 70 L/min / 350 bar  
Installation: Flanged / In-line  
Extension ram cylinders



**Hydraulic integrated circuits**  
XA series: 60 L/min / 350 bar  
Installation: Flanged / Customizable  
HIC block LS to control function the low flow function

**Hydraulic integrated circuits**  
XA series: 60 L/min / 350 bar  
Installation: Flanged / Customizable  
HIC block to control the floating function

New developments and special features

**VIP-02**  
Valve to Intercept Pilot singals  
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 maneuvers, 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. Through the U-valves program NEM's engineers support our customers in developing innovative energy saving solutions and the machines electrification.

**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 feature.

**NVE4**  
Full options, modular, pre-compensated control valve

The new series NVE empower the range of directional control valves with a 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 center 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.