

CATALOGUE

Rotation & Tilt equipment

Finnish mining and construction machine equipment.





Tiltrotator

8 - 11 t excavators.

Cylinders protected against impact.

Strong torque.

Easy maintenance.

Available features:



MCS Proportional Control system

MRT Control System is a stepless MACS **proportional control system** that comprises L8 joysticks, cables and a touchscreen. The system is simple to use and easy to install.



MCL Central lubrication system

MRT central Lubrication is a factory-installed central lubrication system that can be connected to the lubrication system of the working machinery.

Attachment method

Pin - S45

Pin - S50

Pin - LE

S45 - S45

S50 - S50

Factory-installed optional extras:



MG - Grapple equipment

By equipping your working machinery with MRT Grapple, you can further increase the versatility of your equipment.



Rotational sensor

MRT position system. Accurate sensor for 3D machine control systems. Choose your preferred system: Novatron, Leica, Trimble, or Topcon.



MACS Aux kit

4 - hose expansion kit that can be used to connect the secondary hydraulic line of your working machinery to the MACS control system.



Tiltrotator

14 - 19 t excavators.

Extremely shallow construction.

Strong tilt.

Fast rotation.

Available features:



MCS Proportional Control system

MRT Control System is a stepless MACS **proportional control system** that comprises L8 joysticks, cables and a touchscreen. The system is simple to use and easy to install.



MCL Central lubrication system

MRT central Lubrication is a factory-installed central lubrication system that can be connected to the lubrication system of the working machinery.



MHF High-flow hydraulic

MRT High Flow – now included as standard. Proportional controlling. Provides up to 200 l/min of oil for attachments. Attachment method

Pin - NTP10

Pin - NTP20

Pin - S60

Pin - S70

NTP10 - NTP10

S60 - S60

S70 - S70

Factory-installed optional extras:



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Rotational sensor

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MACS Aux kit

4 - hose expansion kit that can be used to connect the secondary hydraulic line of your working machinery to the MACS control system.



Tiltrotator

19 - 26 t excavators.

Extremely shallow construction.

Astonishing torsional rigidity.

Cost-effective.

Available features:



MCS Proportional Control system

MRT Control System is a stepless MACS **proportional control system** that comprises L8 joysticks, cables and a touchscreen. The system is simple to use and easy to install.



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Rotational sensor

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MACS Aux kit

4 - hose expansion kit that can be used to connect the secondary hydraulic line of your working machinery to the MACS control system.

Attachment method

Pin - NTP10

Pin - NTP20

Pin - S70

NTP10 - NTP10*

NTP20 - NTP20*

S70 - S70*

* MHF only in the 4 - hose versions.



World's largest tiltrotator

35 - 42 t excavators.

Extremely robust construction.

Protected tilt cylinders.

Available features:



MCS Proportional Control system

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MCL Central lubrication system

MRT central Lubrication is a factory-installed central lubrication system that can be connected to the lubrication system of the working machinery.



MHF High-flow hydraulic

MRT High Flow – now included as standard. Proportional controlling. Provides up to 200 l/min of oil for attachments.

Attachment method

Pin - NTP30

Pin - NTP40

Pin - S80

Pin -S90

NTP30 - NTP30

NTP40 - NTP40

S80 - S80

S90 - S90

Factory-installed optional extras:



Rotational sensor

MRT position system. Accurate sensor for 3D machine control systems. Choose your preferred system: Novatron, Leica, Trimble, or Topcon.



MACS Aux kit

4 - hose expansion kit that can be used to connect the secondary hydraulic line of your working machinery to the MACS control system.

CONTROL SYSTEMS

MACS controller L8 joysticks (2+2) GP controller L8 joysticks (2+2) RT controller L8 joysticks (1+1)



On/Off control kit (Stroman/Epec) for 4-hose systems

- Utilizes the working machinery's proportional valves and grips.
 - Grips not included.

On/Off control kit (Stroman/Epec) for 2-hose systems

- Utilizes the working machinery's hydraulics feed and grips.
 - Grips not included.

Optional extras for the MACS control system:

- MPS rotational sensor (Novatron, Leica, Trimble, and Topcon).
- 4-Hose expansion kit (Macs Aux Kit, with an extra double shunt)
- Hand-rest kit for L8 grips.
- Wheel/track control.