



HYDRA KIT SYSTEM

A simple installation...



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Step by step,
starting from a manual
controlled crane, you will
obtain



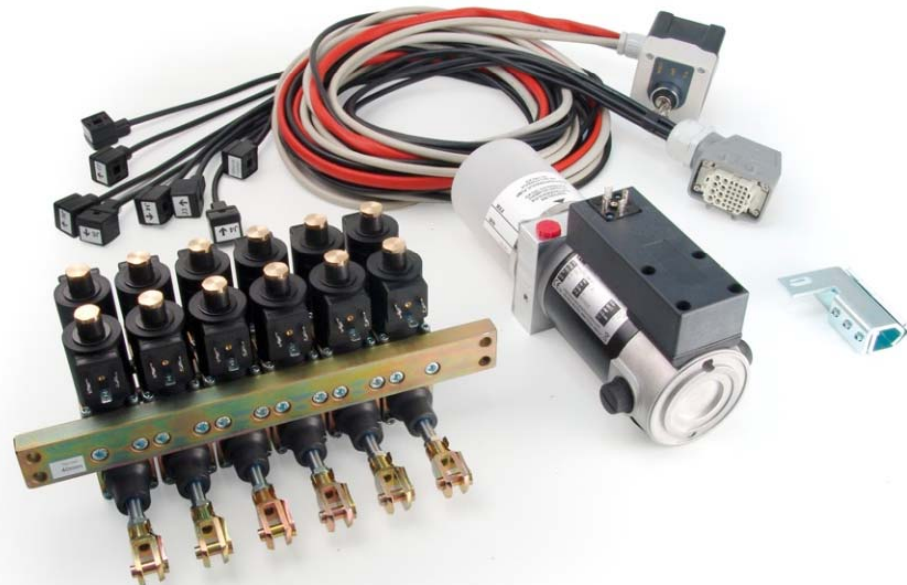
HYDRA KIT INSTALLATION

A radiocontrolled HYDRAULIC Crane



HYDRA KIT INSTALLATION

The “PWM Hydra system” combines electro-hydraulic actuators, with either single-axis or dual-axis joystick radio remote controls, allowing the conversion of hydraulic manual cranes into radio controlled ones.

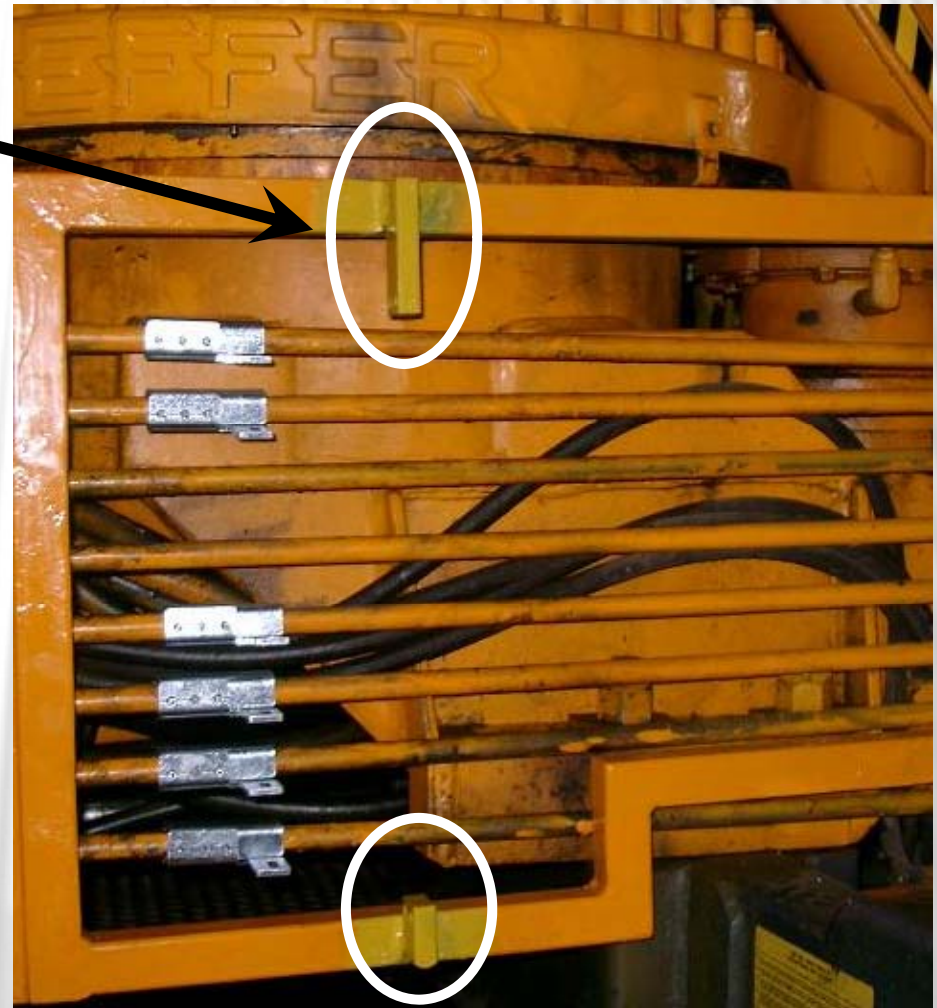


HYDRA KIT INSTALLATION

Weld the mechanical actuator supports, BEFORE the actuator block mounting: high welding current circulation through the actuators may damage its internal parts



Welds on mechanical parts directly connected with the actuator are strictly forbidden !





HYDRA KIT INSTALLATION



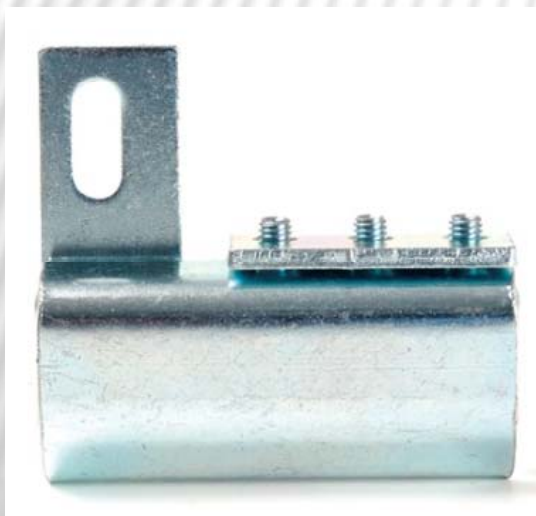
The block actuators modular structure allows easy customization for specific applications. The actuator piston stroke is ± 13 mm making it suitable for the majority of hydraulic manual distributors on the market.

The distance between the actuators can range within 38-50 mm, with 2 mm steps, or can be customized, as shown in the picture, according to client request.



HYDRA KIT INSTALLATION

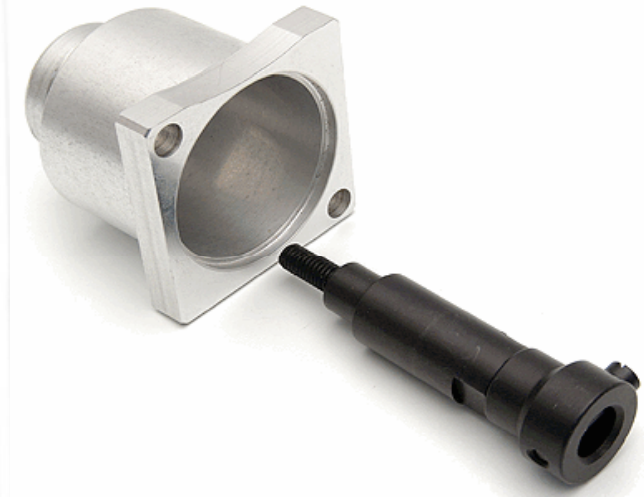
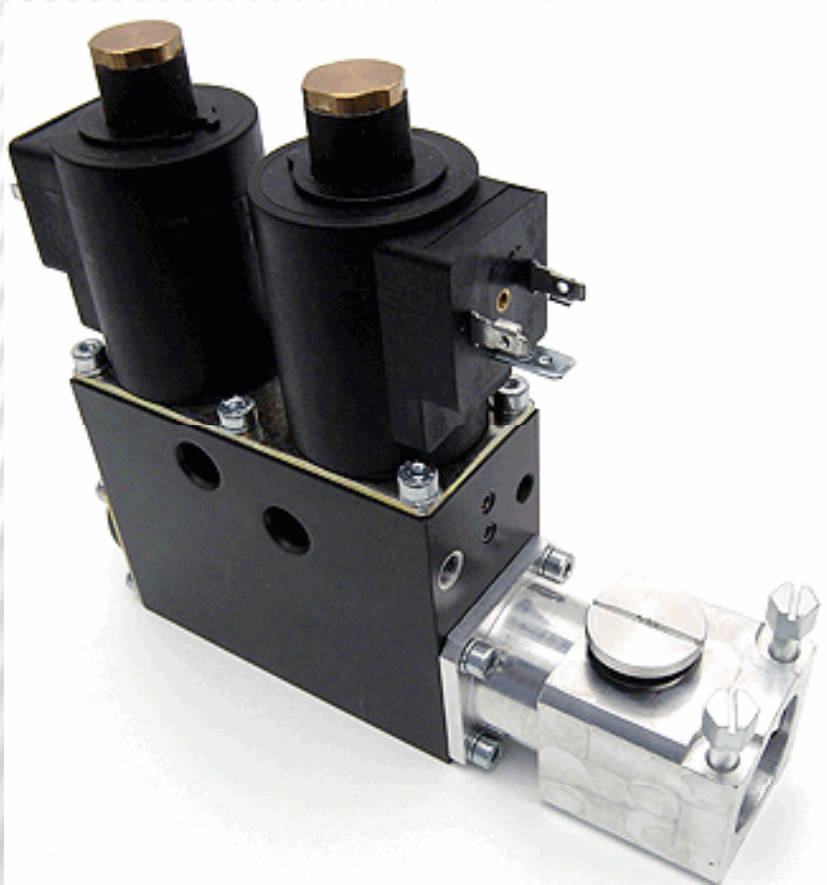
The actuators transmit the mechanical movement to the rods through clamps.



No welding required.

3 anchoring points guarantee an optimal mechanical fixation

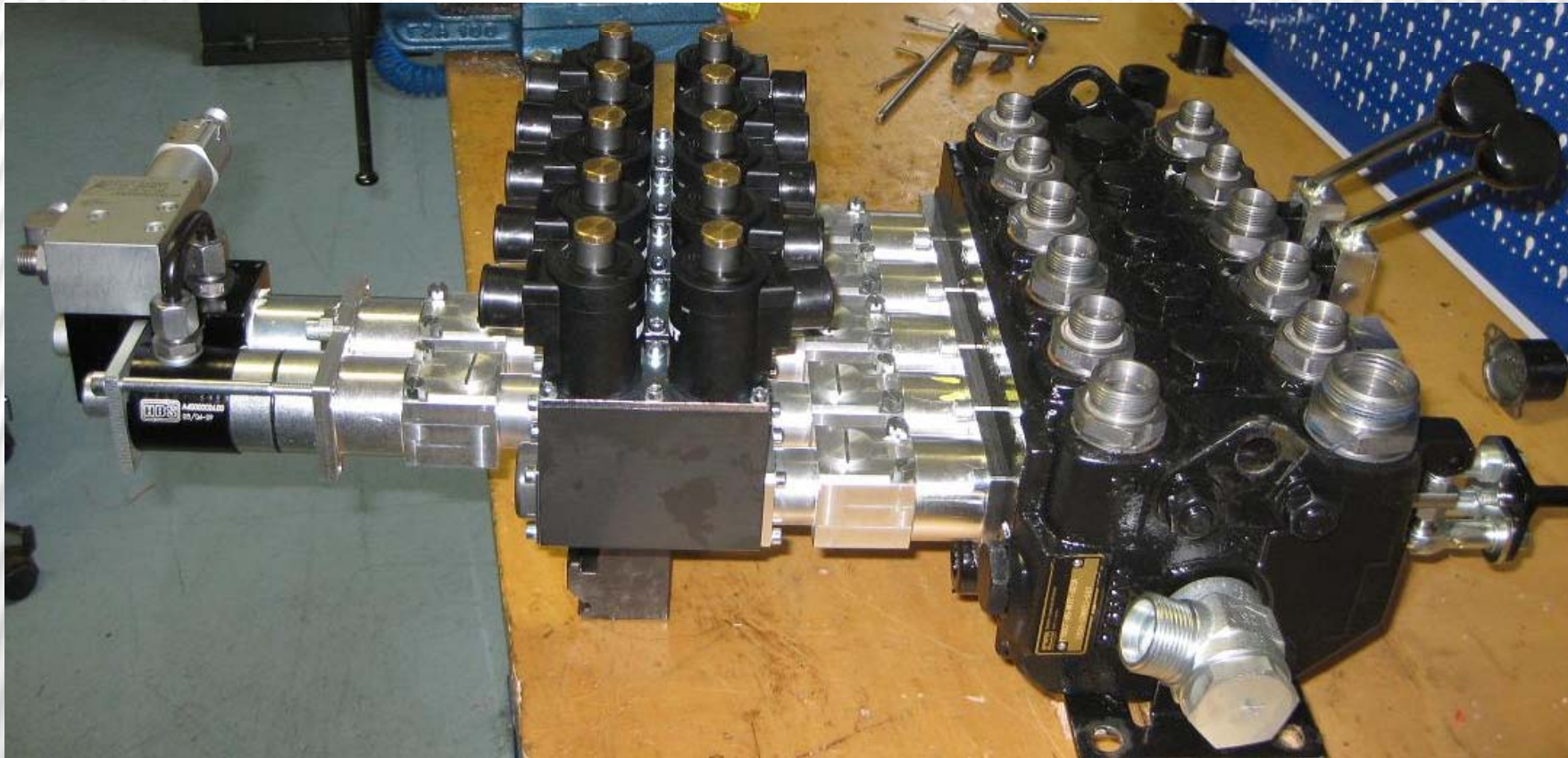
HYDRA KIT INSTALLATION



Adaptors are available for manual distributors PARKER and Walvoil SD6 And SD8.

In this case it is possible to fit the Hydra kit directly on the manual block instead of clamping the rods.

HYDRA KIT INSTALLATION

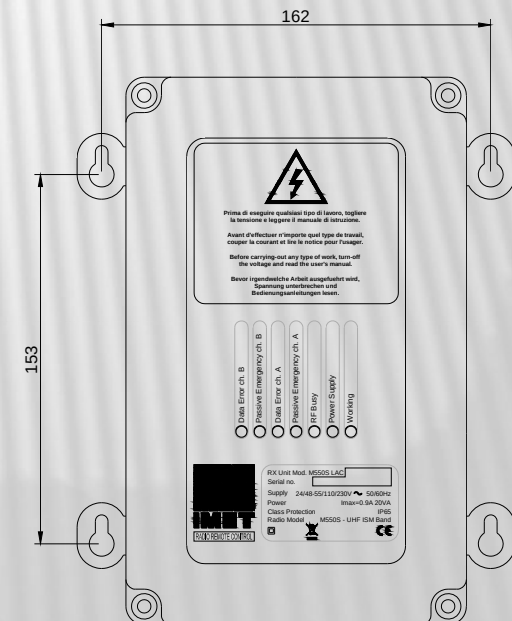




HYDRA KIT INSTALLATION



The **M550 L** is the most common receiver for standard applications, its compact size and high versatility make it ideal for situations where space dimensions are an important issue.





HYDRA KIT INSTALLATION



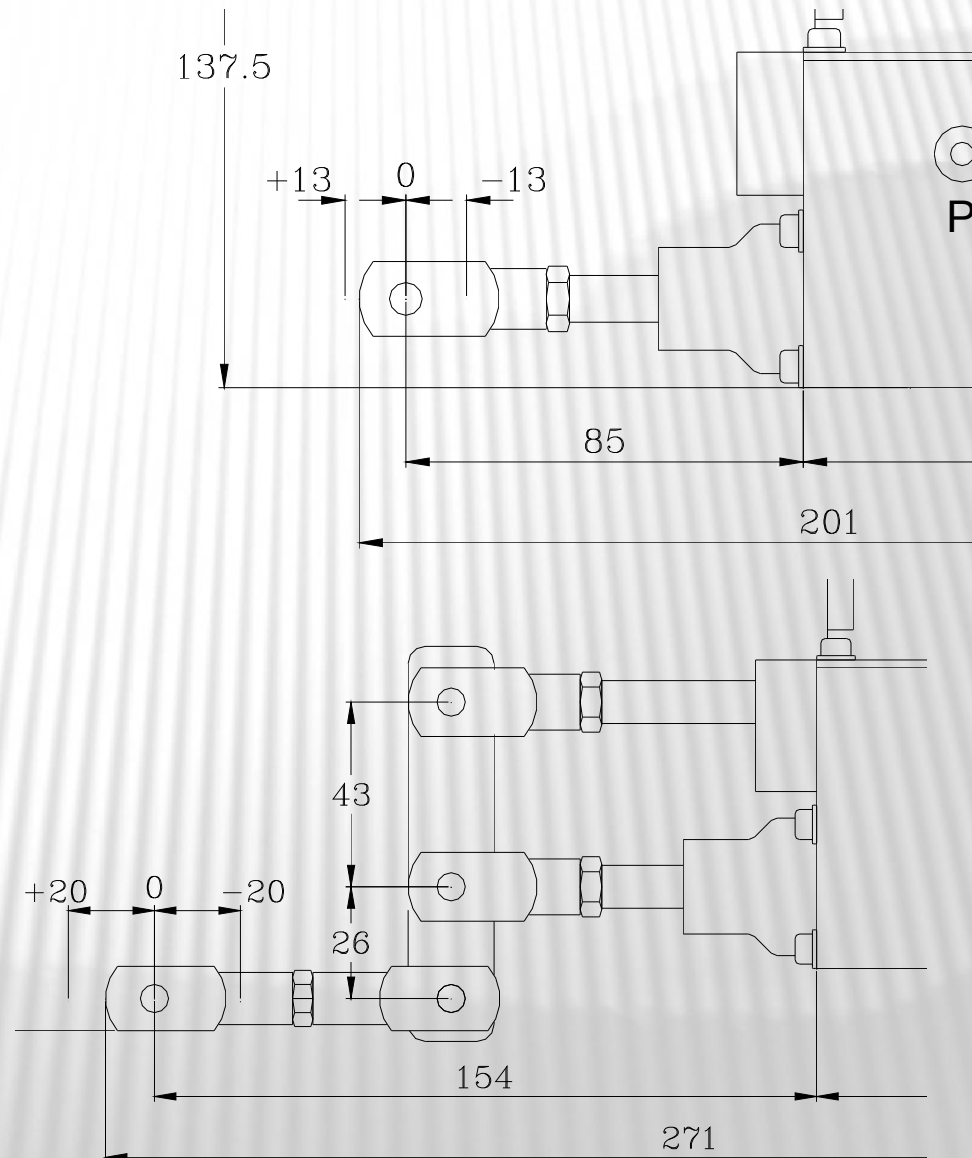
A user friendly wiring kit simplify all the electrical connections between receiver/actuators/power pack. A practical key-switch allows the operator to select the operation mode (RC/Off/Manual).



HYDRA KIT INSTALLATION

BRACKET KIT FOR EXTRA-PISTON STROKE

THIS OPTION, ALLOW TO
INCREASE THE STROKE OF THE
PISTONS FROM $\pm 13\text{MM}$
TO $\pm 20\text{MM}$





HYDRA KIT INSTALLATION

BRACKET KIT FOR
EXTRA-PISTON STROKE ON
HYDRA KIT





HYDRA KIT INSTALLATION

BRACKET KIT FOR
EXTRA-PISTON STROKE ON
HYDRA KIT





HYDRA KIT INSTALLATION

ELECTRO-HYDRAULIC

ACTUATORS

Example: IMET APT400

Hydra system

Electro-hydraulic actuators

installed on manual

distributor

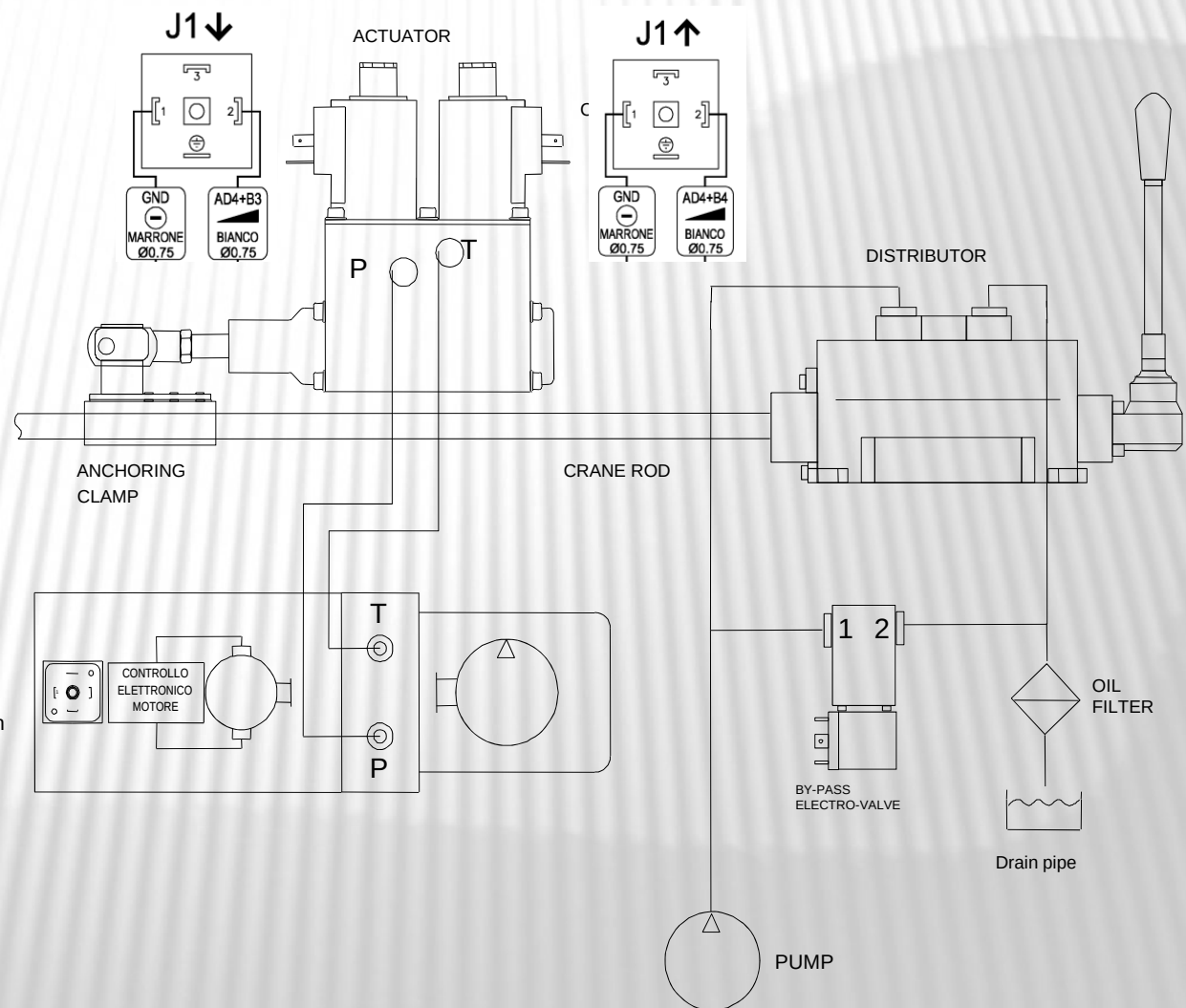
IMET APT400 Hydra system

have separate direction

inductor coils. They require

two different connectors

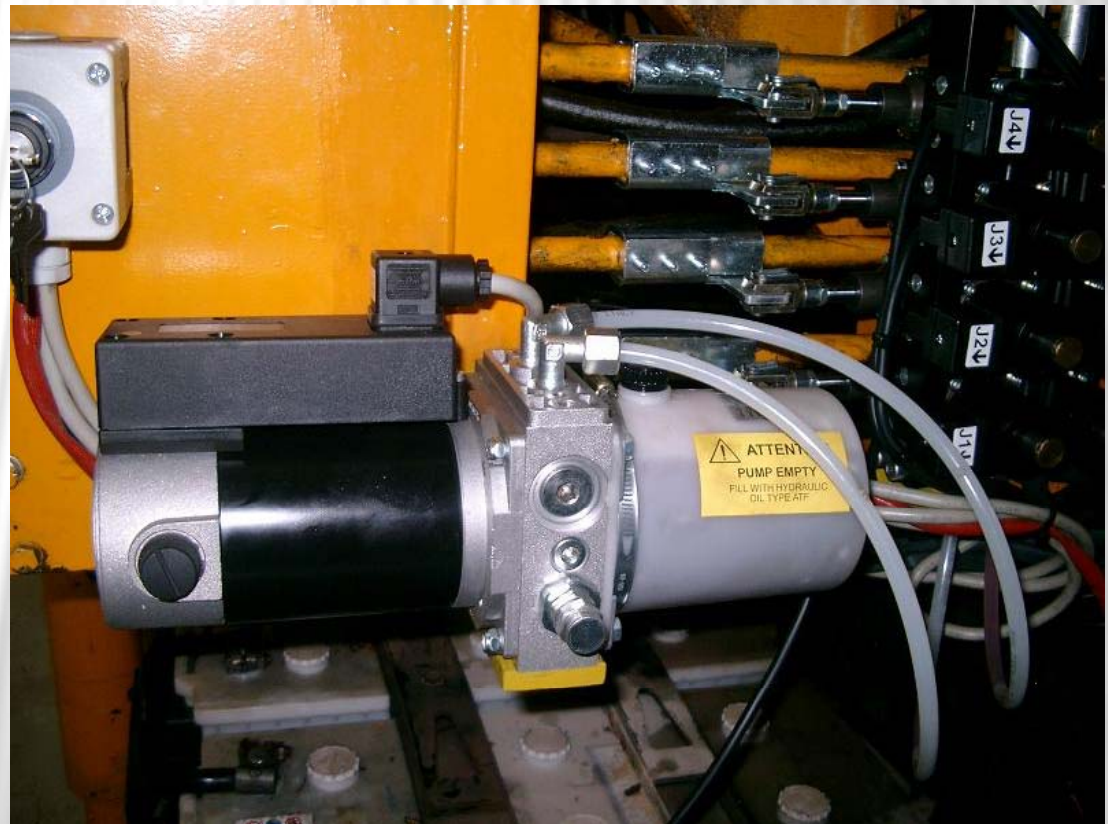
Unit pack
Supply
connection





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The electro-hydraulic pump works only “on demand” to supply the oil to the actuators. Furthermore, motor “soft-start” contribute to battery saving. Hydra system is totally independent from the machine oil circuit.





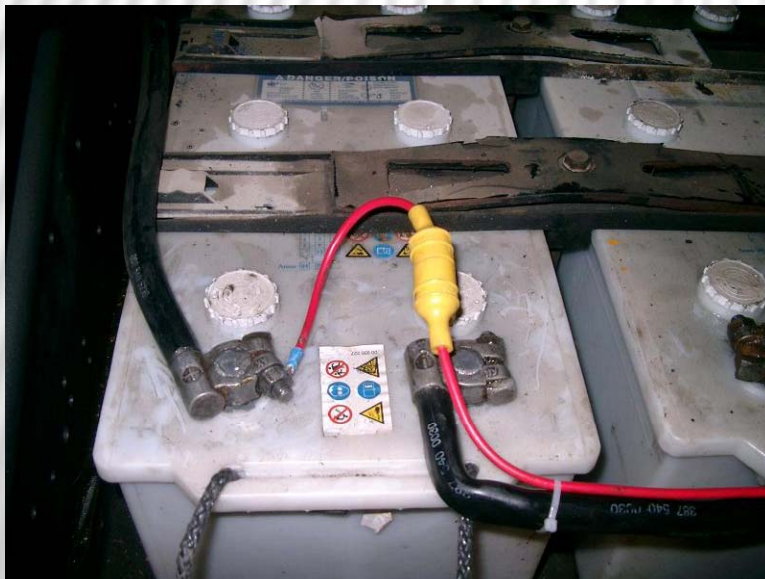
HYDRA KIT INSTALLATION

POWER SUPPLY CONNECTION

It is very important to collect the receiver power supply directly on the main battery adding an external fuse.

Appropriate fuses is provided.

In case that it is necessary to increase the length of the cable, the power supply wires shall be dimensioned according to the actuators operating current (minimun 4 mm²)

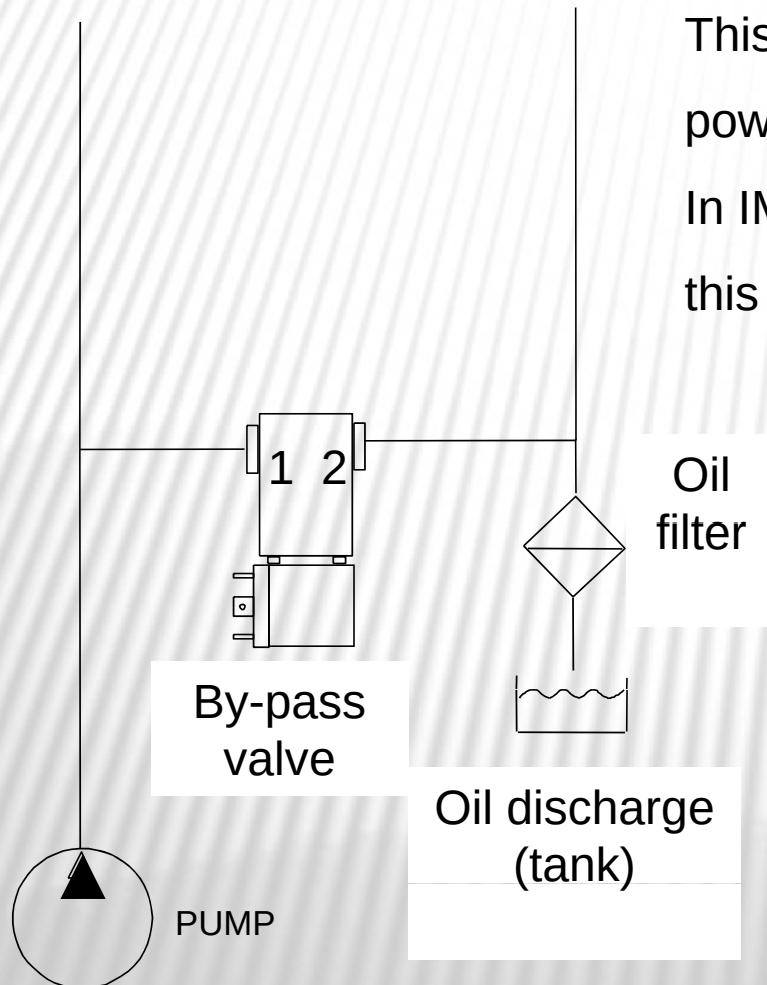


HYDRA KIT INSTALLATION

DRAIN (or BY-PASS) valve:

This safety N.O valve manages the hydraulic power to the distributor.

In IMET receivers the command dedicated to this task is the Safety-Stop relay.



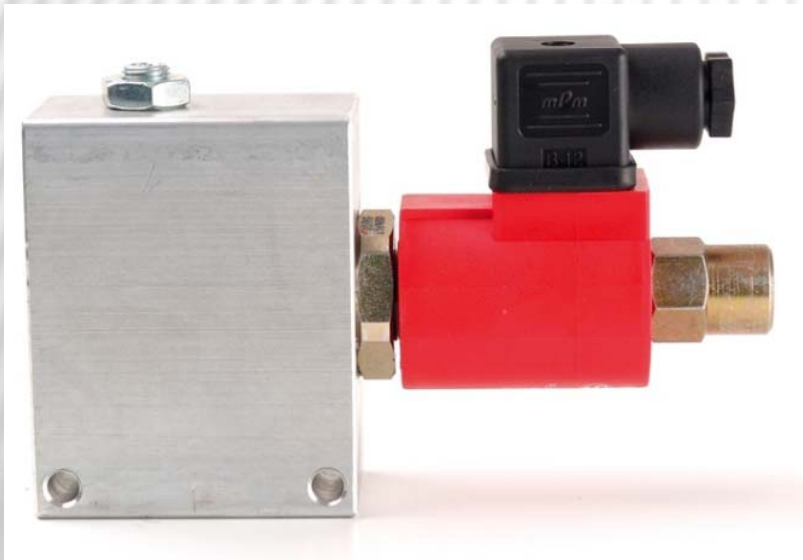


HYDRA KIT INSTALLATION

IMET can supply a by-pass valve.

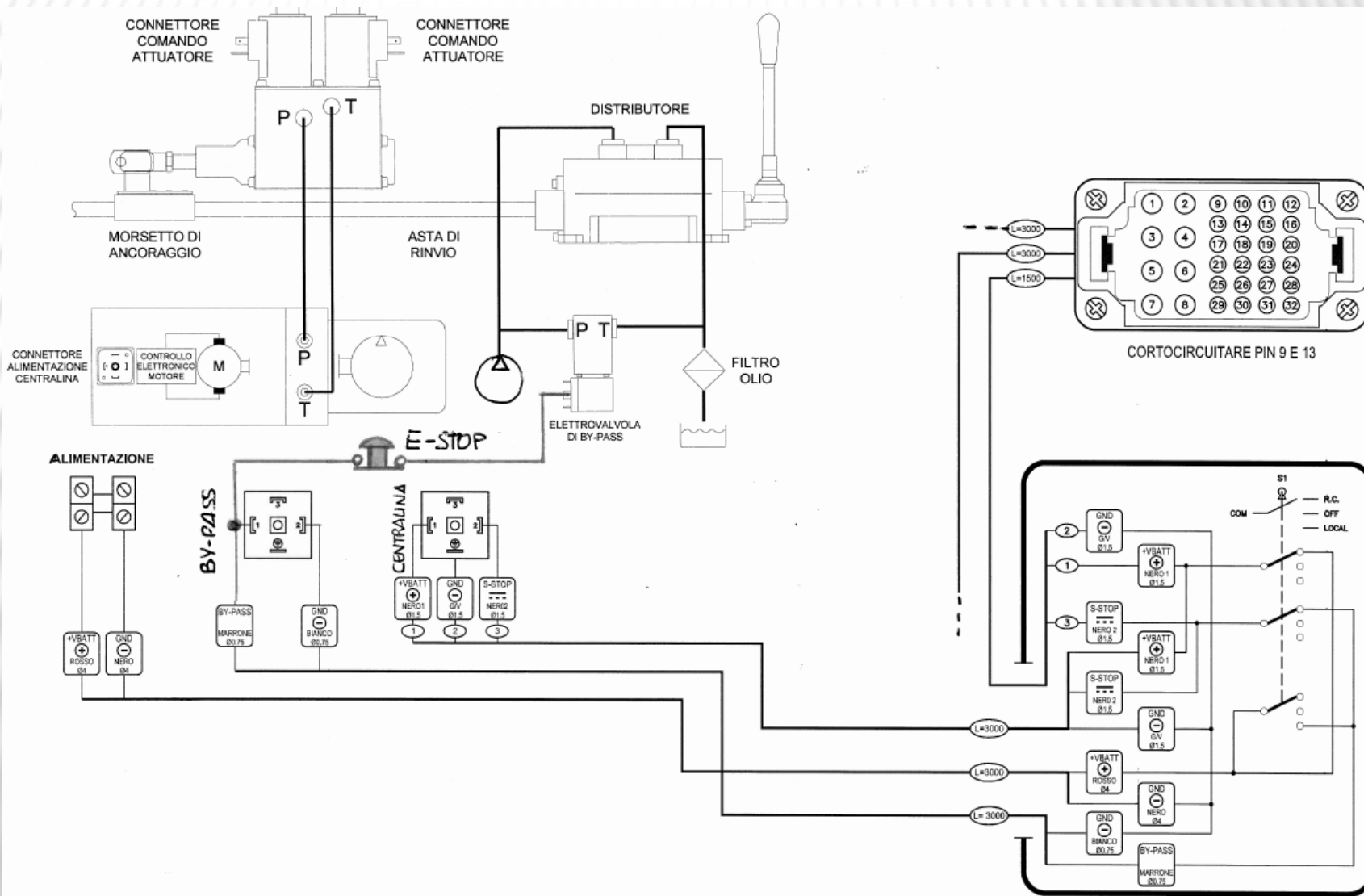
The by-pass valve must be installed between the hydraulic pump and the oil tank. It is a Normally Open valve that closes only when electrically driven.

The installation of a by-pass valve makes the crane complying with the CE requirements when operating with a radio remote control.



HYDRA KIT INSTALLATION

by-pass valve: Example of connection with our Hydra Kit.

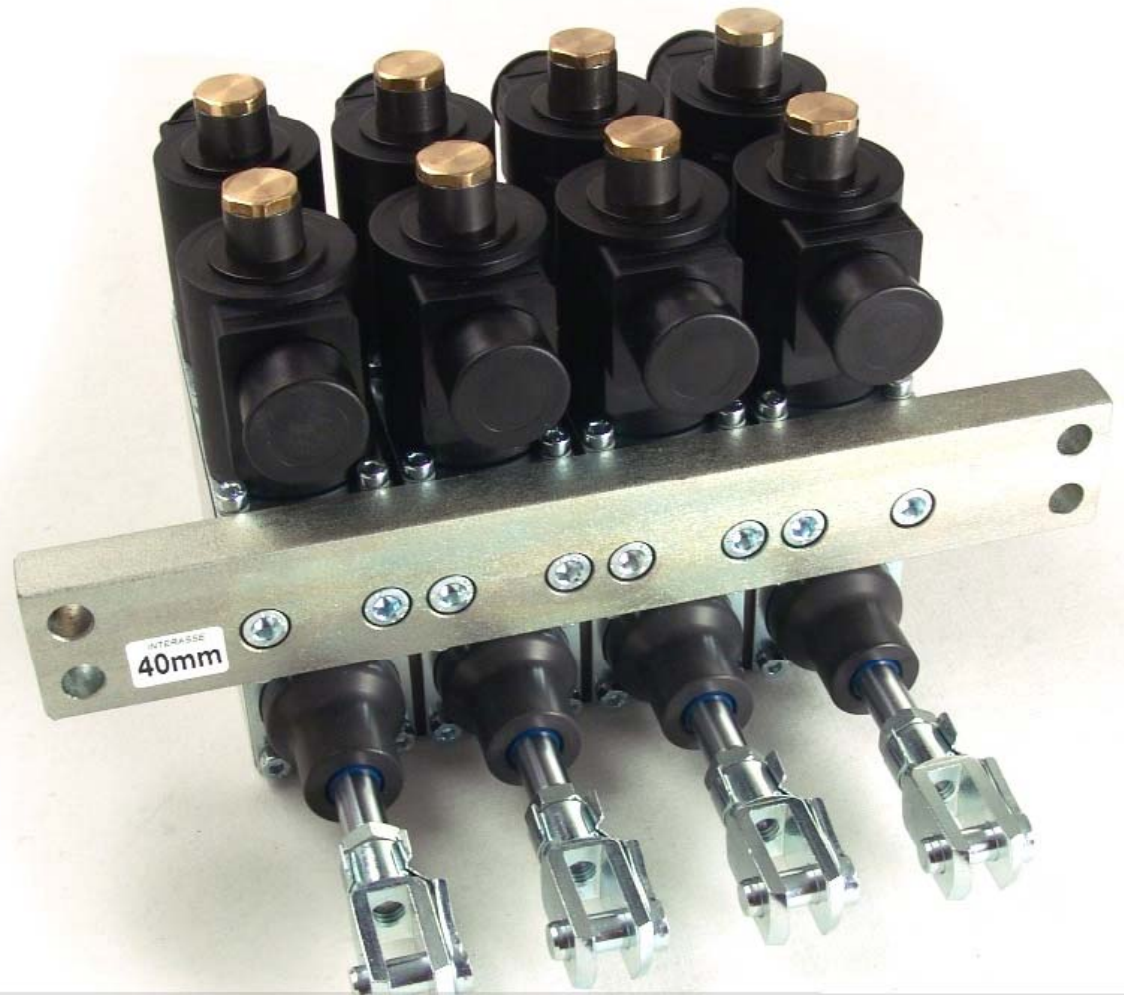




IMET introduce Hydra Systems Compact. A solution for small crane with 4 functions.

Transform a manual crane in to an automatic crane now is more convenient.

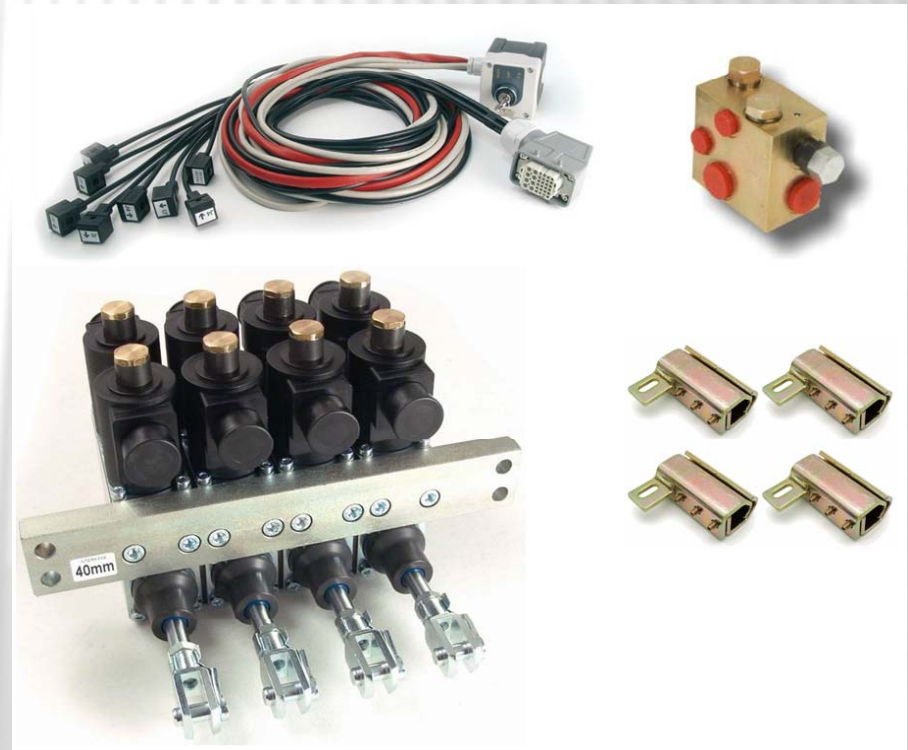
We present 3 different kit





Hydra Systems Compact. With ZEUS M1

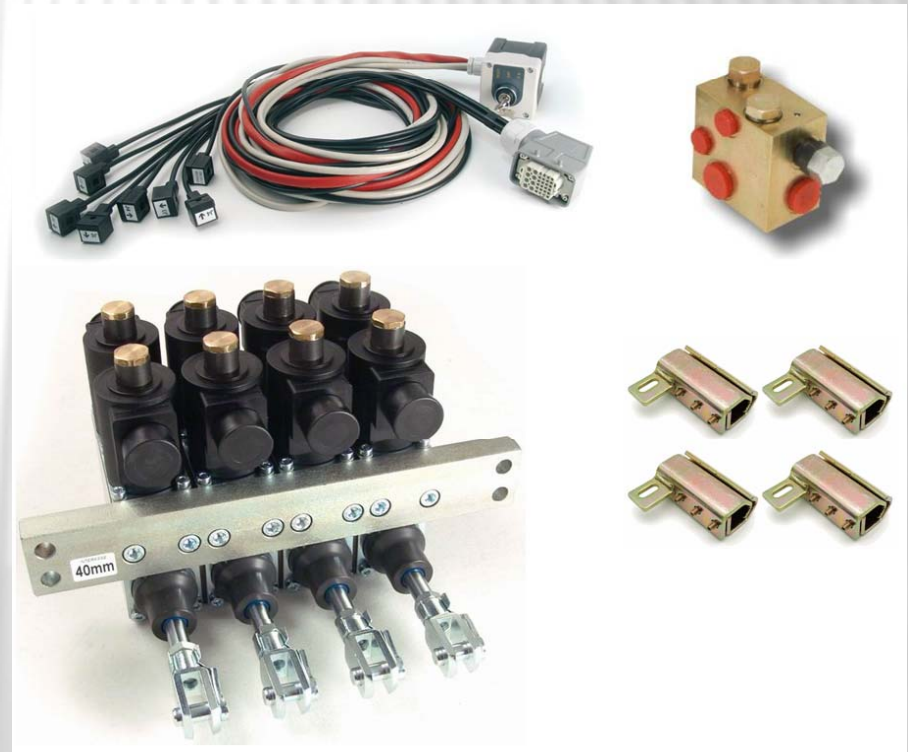
With transmitter ZEUS M1 receiver LDC IGI, mono-block of 4 actuators, counter pressure valve, external cabling and accessories.





Hydra Systems Compact. With ZEUS M4

With transmitter ZEUS M4 receiver LDC IGI, mono-block of 4 actuators, counter pressure valve, external cabling and accessories.





Hydra Systems Compact. With ZEUS M4

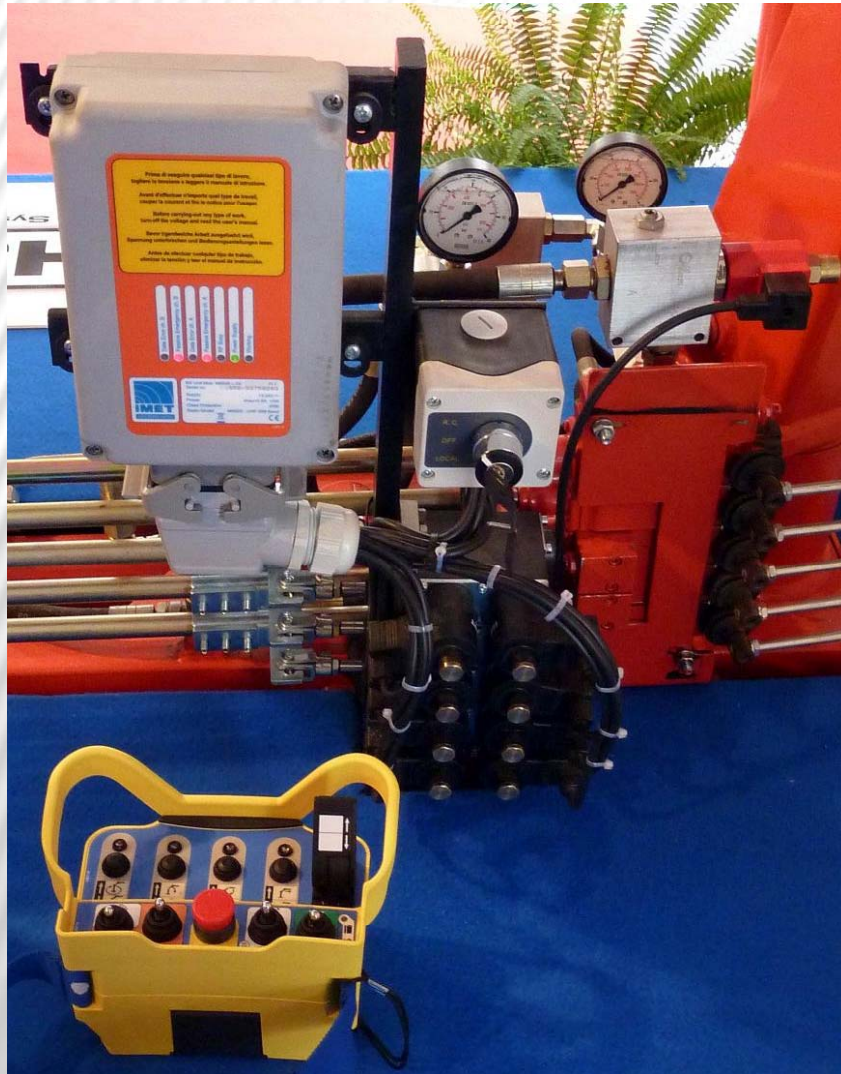
With transmitter ZEUS M4 receiver LDC IGI, mono-block of 4 actuators, power pack, external cabling and accessories.





HSC

Hydra System Compact



Transmitter ZEUS M1 with:

- 4 function selection buttons,
- Built in DSC,
- Analogue output calibration possible for each function via PIN code (the procedure is the same of the others ZEUS M4-M6).
- Receiver LDC (with unique analogue output) and complete with plug & play wiring.

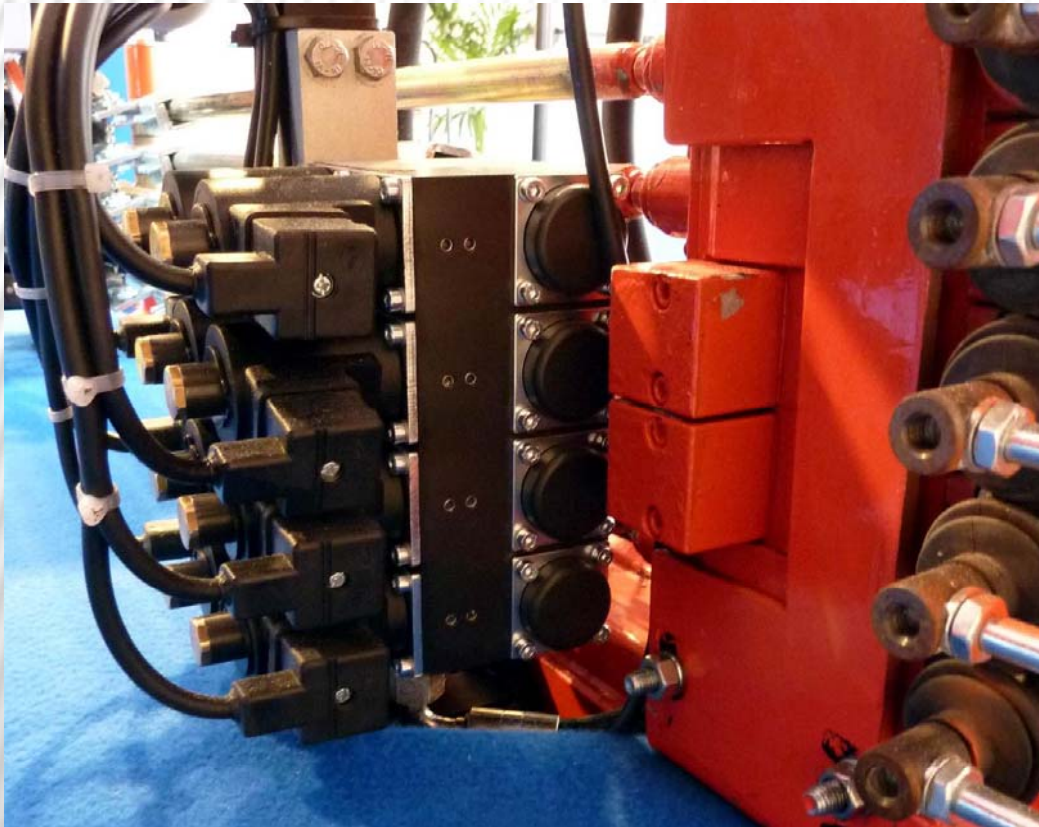


HSC

Hydra System Compact



Monoblock with 4 electro hydraulic actuators. 40mm (fix) spacing between the actuators. The rod clamps allow to cover the range 35-42mm.

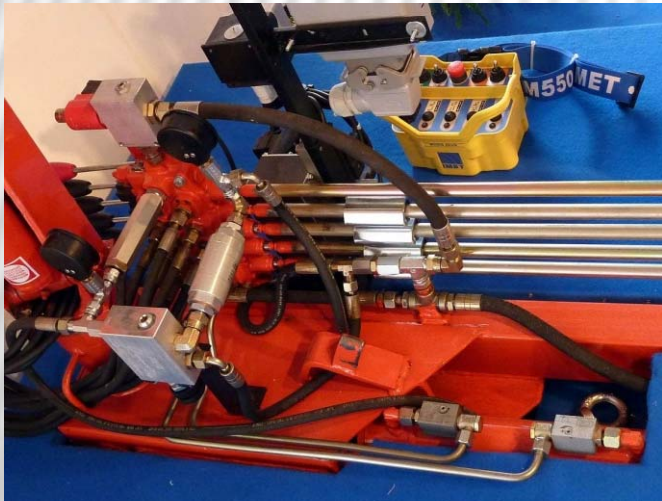
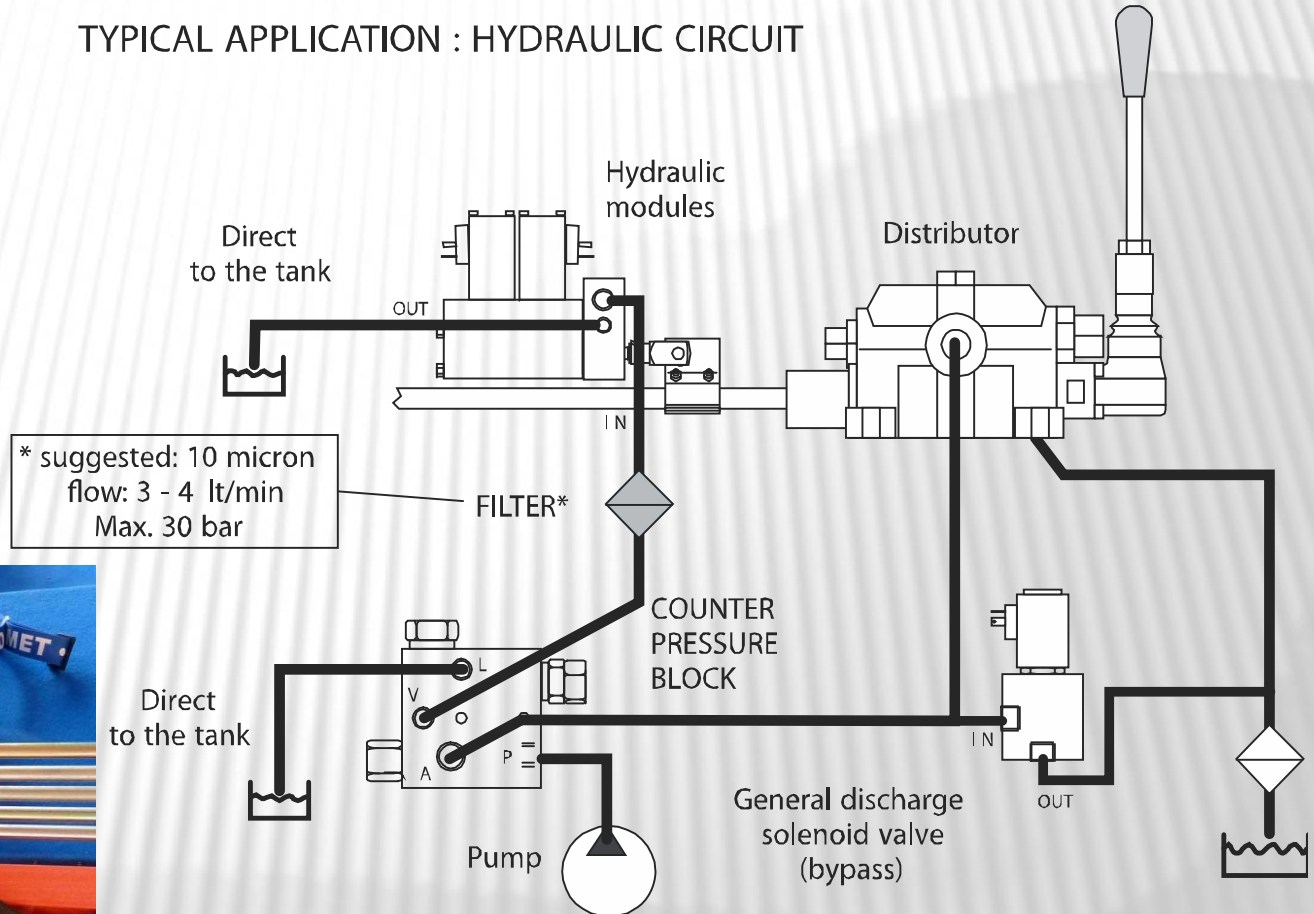


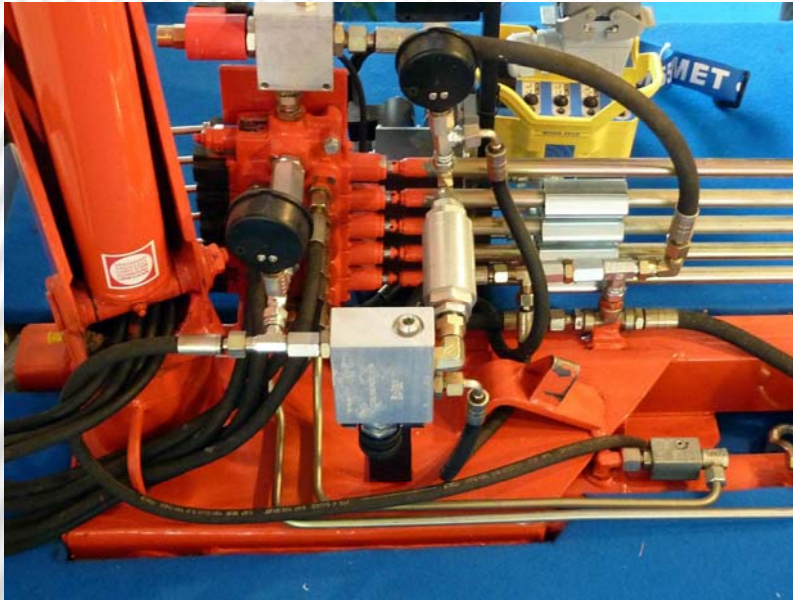
The monoblock hydraulic oil circuit is taken from the crane oil circuit. A counter pressure valve and a filter are supplied for this scope.

HSC

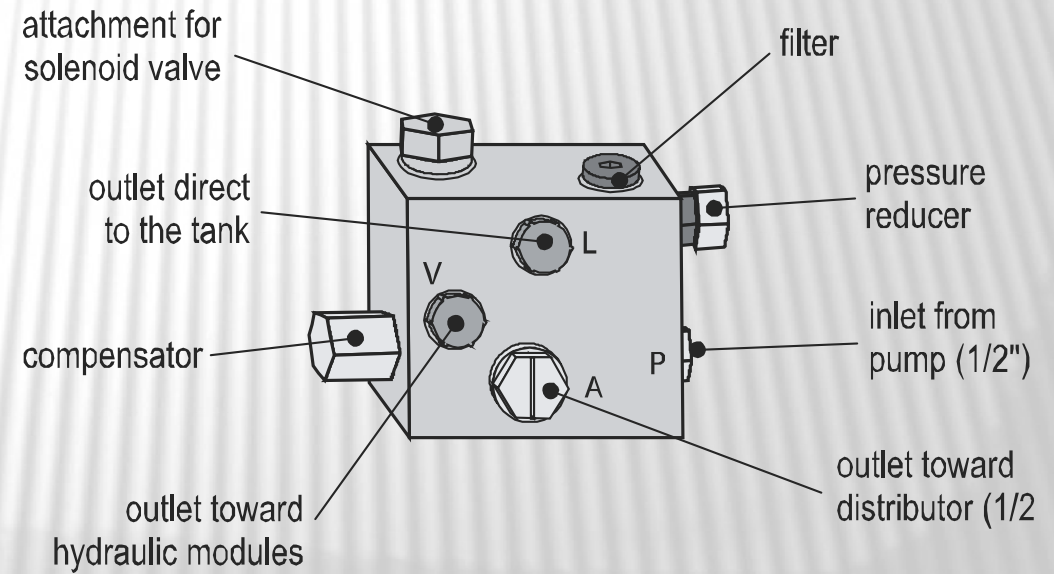
Hydra System Compact

TYPICAL APPLICATION : HYDRAULIC CIRCUIT





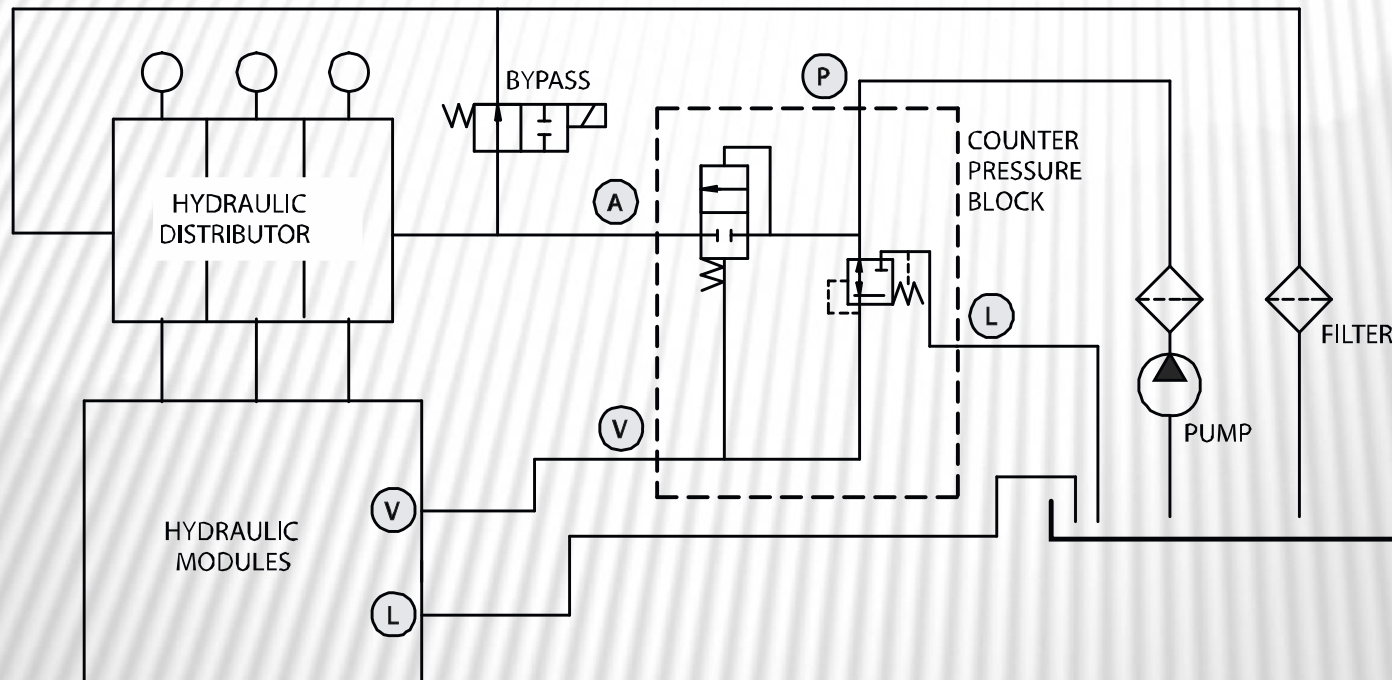
counter pressure valve



IT009 - Max flow = 70 lt/min

HSC

Hydra System Compact



- (V) REDUCED PRESSURE
- (P) SUPPLY PRESSURE
- (L) LINKAGE
- (A) TO THE DISTRIBUTOR