

MF100-MDCV Series



MF100-MDCV

Mobile Directional Control Valve Module (Standard)

MF100-MDCV-TS

Mobile Directional Control Valve Module (w/Diagnostics Package)

DESCRIPTION OF THE MF100-MDCV:

On the surface, a typical mobile directional control valve appears to consist of a body with one or more spools and a couple of hand-levers. However, in the case of mobile directional control valves, looks can be very deceiving!

A typical 3-spool mobile directional control valve can consist of over twenty-two (22) valves; and students need to learn what they are, how they function, and how to safely and properly set those which are adjustable.

LEARNING OBJECTIVES OF THE MF100-MDCV:

The MF100-MDCV mobile directional control valve module will teach students the following:

1. How to read and understand the schematic for a typical mobile directional control valve.
2. The differences between mono-block and sectional directional control valve assemblies.
3. How to set a mobile valve's integral main pressure relief valve.
4. The purpose and function of a load-check valve.
5. The purpose and function of an anti-cavitation valve.
6. The purpose and function of a cylinder-port relief valve.
7. How to set cylinder-port relief valves.
8. The difference between a parallel and series circuit.
9. The purpose and function of power-beyond.
10. How to execute a power-beyond modification.
11. How to service a sectional directional control valve.



DESCRIPTION OF THE MF100-MDCV-TS:

In addition to having the identical functionality as the MF100-MDCV, the MF100-MDCV-TS is equipped with an impressive troubleshooting package.



MF100-MDCV Series

Over 99% of maintenance technicians find it difficult or near impossible to pin-point a potential leakage path in a mobile directional control valve assembly, especially if it is equipped with integral valves such as cylinder port relief or anti-cavitation.

This usually leaves them with no other option than to discard the entire assembly and start over with a "clean sheet!" This practice is frustrating, time-consuming, and extraordinarily expensive.

The MF100-MDCV-TS is designed to teach students how to pinpoint a potential leakage path inside a mobile directional control valve in a matter of minutes using the pressure/leak technique - with the power-unit safely locked out!

LEARNING OBJECTIVES OF THE MF100-MDCV-TS:

The MF100-MDCV-TS mobile directional control valve module (with diagnostics package) will aid instructors in teaching students how to:

1. Test for leakage between the spool and bore in cases where a cylinder is drifting.
2. Test for leakage between the spool and bore in cases where a motor circuit is losing power and overheating when the directional control valve is activated.
3. Isolate a leakage problem to determine if its source is between the spool and bore and/or cylinder port/anti-cavitation valve.
4. Test for excessive leakage across the integral main pressure relief valve.

The MF100-MDCV and MF100-MDCV-TS modules are equipped with the following components:

1. Sub-plate 03 size.
2. Pressure relief valve in a circuit module configuration.
3. Cylinder port relief valve (adjustable) in a circuit module configuration.
4. Dual, adjustable one-way flow control valves in a circuit module configuration.
5. Dual pilot-operated check valves in a circuit module configuration.
2. Four (4) cylinder port relief valves (adjustable).
3. Two (2) anti-cavitation valves.
4. Inlet section with integral main pressure relief valve (adjustable).
5. Outlet section with power-beyond capability (power-beyond plug included).
6. *Five (5) troubleshooting "fault" switches.
7. *Power ON/OFF light (illuminated when power is on).
8. "Zero-leak" flat-face quick-connect/disconnect valves.
9. *24VDC cord with plug-in receptacle.
10. Convenient, integrated spare O-ring holder.
11. Magnetic parts and tool holder.

Shipping Specifications:

Shipping weight: 85 lbs. (38.6 kgs.)

Shipping dimensions: 25" tall x 17" wide x 8" deep
(635mm x 432mm x 203mm)



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