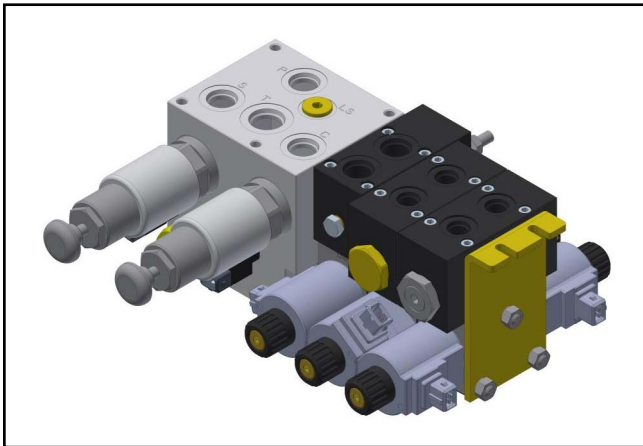


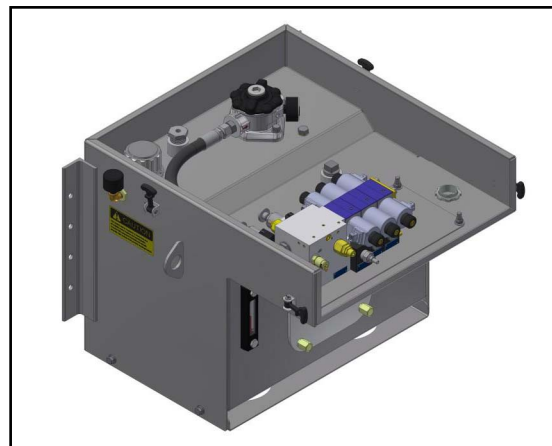
Compu-Spread SCDX

Sander Control with Directional Valves

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Sander control hydraulic manifold assembly type SCDX with integrated spinner and conveyor control valves and 3 directional control valves for hoist (dump) and 2 plow functions



Sander control hydraulic manifold type SCDX installed in a Rexroth VTM-76 side frame mount reservoir assembly, with return line and air filters, fluid level glass and cleanout cover. Shown without stainless steel enclosure cover.

Rexroth's SCDX manifold assemblies are designed to control the functions used on mid-size Snow & Ice Control vehicles. The base block controls the spinner and auger or conveyor. Accurate speed control of these hydraulic motors is provided by the use of pressure compensated proportional valves. Up to four hydraulic valve slices—with on/off or proportional solenoids—can be added to control double or single acting functions, such as dump, plow up/down or left/right, or box tilt. A secondary block on each valve slice contains any load holding or port relief valves which may be required. The load sensing SCDX is available for open and closed-center systems, with primary system pressure relief integral to both versions.

Open-center systems (with fixed displacement pump) have an unloading valve which directs pump flow to tank when no functions are required. When activated, the load pressure signal is sent to the unloader such that system pressure is just above load pressure, ensuring the maximum efficiency possible with these circuits.

Closed-center systems (with variable displacement load sensing pumps) provide even higher system efficiency. In this version the load pressure signal is sent to the

Rexroth A1VO pump controller, so that it de-strokes at standby pressure when no functions are required.

Maximum environmental protection is provided when the manifolds are installed in an enclosure, such as the Rexroth valve tank module VTM-76.

Features

- Hydraulic load sensing provides maximum energy efficiency, whether in open or closed-center version
- High performance cartridge valves provide accuracy, reliability and enhanced serviceability
- Modular directional valve slices provide location flexibility in a compact space
- Anodized aluminum manifold provides good environmental protection
- All main fluid ports are on one surface, facilitating plumbing to actuators and other devices
- When fitted in a Rexroth enclosure, each valve is pre-wired to a robust water-tight connector

Technical Data

Hydraulic

| | | |
|--|---|--------------------------------------|
| Maximum operating pressure | 210 bar | 3000 psi |
| Maximum inlet flow rate | 56 L/min | 15 USGPM |
| Maximum flow to spinner | 13 L/min | 3.5 USGPM |
| Maximum flow to conveyor | 30 L/min | 8 USGPM |
| Maximum flow to/from hoist | 30 L/min | 8 USGPM |
| Maximum flow to other functions e.g. plow (up/down, left/right) | 15 L/min | 4 USGPM |
| Secondary valves available on DCV functions | Counter-balance, pilot-operated check, electrical poppet, port or cross-port relief (some restrictions) | |
| Fluid | Mineral oil to DIN 51524 or ATF; refer to Rexroth data sheet RE 90220 for more details | |
| Fluid operating temperature range | -20° to 80° C | 14° to 176° F |
| Fluid cleanliness recommendation | per ISO 4406 (c): 19/17/14 | |
| Fluid viscosity | 5 to 400 cSt (10 to 100 preferred) | 42 to 2000 SUS (60 to 500 preferred) |

Fluid Connections—manifold

| | |
|----------------------|------------------|
| Pressure (P) | #8 SAE "O" Boss |
| Tank (T, T1) | #10 SAE "O" Boss |
| Conveyor (C) | #8 SAE "O" Boss |
| Spinner (S) | #8 SAE "O" Boss |
| Load sense port (LS) | #6 SAE "O" Boss |
| Gauge (GP) | #6 SAE "O" Boss |

Fluid Connections—directional valve(s)

| | |
|--|-----------------|
| Other DCV functions e.g. plow, hoist, etc. | #8 SAE "O" Boss |
|--|-----------------|

Electrical

| | | |
|--------------------------------------|--------------------------------|-------------------------------|
| Spinner/conveyor solenoids | 12 VDC, 1,800 mA, 3.3 Ω @ 68°F | 150 Hz PWM (dither) frequency |
| On/off directional valve coils | 12 VDC, 2.15 A, 5.5 Ω @ 68°F | |
| Proportional directional valve coils | 12 VDC, 1800 mA, 4 Ω @ 68°F | 150 Hz PWM (dither) frequency |

Weight

| | | |
|------------------------------------|--------|----------|
| Manifold and 3 DCV sections | 9 kg | 20 lbs. |
| Additional valve slices, per slice | 1.7 kg | 3.7 lbs. |

Environmental

Manifolds are made of aluminum, anodized after machining. All cartridge valves are suitable for outdoor use. Directional control valve housings are nodular iron, with some aluminum trim. Installation in a sealed enclosure will extend the life of all external surfaces and components, which would otherwise be exposed to the harsh environment found in snow and ice control applications.

N.B. All dimensions are approximate, intended for illustrative purposes only. Request a certified drawing before beginning construction or installation.

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