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## Part Number RS 220, RS 220 Sectional Directional Control Valves

RS 220 is a sectional open center valve designed for max. operating pressures up to 4,350 psi (300 bar) and max. pump flows up to 30 gpm (110 Lpm).

It is available with 1 to 10 working sections per valve assembly.

RS 220 is designed with an open center for fixed pumps and a restricted open center for variable displacement pumps.

It is available with electro-hydraulic or hydraulic proportional remote control, but the valve can also be manually operated.



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### Specifications

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### Pressures/Flows

<b>Maximum Operating Pressure per Port (P1, A, B)</b>	4,350 psi	300 bar
<b>Maximum Operating Pressure per Port (T1, T2, T3, T4)</b>	300 psi	20 bar
<b>Typical Nominal Inlet Flow Rate</b>	30 gpm 110 L/min	
<b>Fluid Temperature</b>	5 to 176 °F	-15 to 80 °C

### Technical Data

<b>Spool Control Force at Neutral Position</b>	25 lb	110 N
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<b>Spool Control Force at Maximum Spool Stroke</b>	29 lb	130 N
<b>Permissible Contamination Level</b>	Equal or Better than 20/18/14 as per ISO 4406	
<b>Viscosity<sup>1</sup></b>	10 to 400 mm <sup>2</sup> /s	
<b>Leakage<sup>2</sup></b>	≤ 13 cm <sup>3</sup> /min	
<b>Pressure Fluid</b>	Mineral Oil and Synthetic Oil Based on Mineral Oil HL, HLP according to DIN 51524	

### Q-Function

#### Q-Function

The flow control (Q-function) of the inlet section by-passes the major part of the pump flow to tank when the system is idling, still giving access to full pump flow when the services are operated. Besides greatly reducing heat generation this also provides improved operating characteristics.

### Remote Control

#### Remote Control

The RS 220 is designed with an integrated pilot supply system in order to achieve an easy installation and a reliable remote control function. It is also possible (and in some cases preferred) to supply the pilot system externally.

### Properties and Possibilities

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- A wide choice of spools and spool controls for different flow combinations and for several applications and systems.
- A full range of service port valves.
- Possibility of high pressure carry-over.
- Electrical unloading for inlet safety function.
- Manual versions easily convertible to remote control.

### Features

The electro-hydraulic proportional version in particular offers compact design with internal pilot oil supply, solenoids integrated in the valve body and integral hand levers for manual override/manual operation.

RS 220 can be fully adapted for marine applications.

The valve offers excellent operating characteristics because of the specially designed spools for different applications.

Low and uniform spool forces are the result of careful balancing of the flow forces.

## Applications

### Applications

The RS 220 is ideal for applications where you need excellent control characteristics such as cranes, sky-lifts, excavators, telescopic load handlers, skid-loaders, wheel loaders etc.

## Note

Higher values are possible, depending on application.

<sup>1</sup> Higher viscosity allowed at start up.

<sup>2</sup> A, B → T at 1,500 psi, 32 cSt and 104 °F (100 bar, 32 cSt and 40 °C)