
Series VA20/35
Series VG20/35

Oil Hydraulic Directional Control Valves

Effective: October 1, 2002
VA and VG model valves are contemporary versions of our well-proven A20/A35 units which have provided reliable control of fluid power for over 20 years. The VG models are cast from compacted graphite, a high strength iron alloy that allows us to rate the valves to 3500 psi. VA models are cast from gray iron and are rated at 2500 psi.

Both models are produced under Commercial's Statistical Process Control program. SPC assures you of top quality because all manufacturing processes are constantly monitored to be sure they're within tolerances. SPC is just one method Commercial is using to maintain quality, improve delivery and control costs.

As a worldwide supplier of high quality hydraulic components, we build to the same designs at all of our plants. This assures you that wherever you manufacture or wherever your equipment is used, service parts are readily available.

WARNING

FAILURE OR IMPROPER SELECTION OR IMPROPER USE OF THE PRODUCTS AND/OR SYSTEMS DESCRIBED HEREIN OR RELATED ITEMS CAN CAUSE DEATH, PERSONAL INJURY AND PROPERTY DAMAGE.

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The products described herein, including without limitation, product features, specifications, designs, availability and pricing, are subject to change by Parker Hannifin Corporation and its subsidiaries at any time without notice.

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you get more efficient control of fluid power distribution with Commercial valves because of these important features:

- Built-in, full-flow relief valves
- Parallel and series circuits in one bank
- Manual, hydraulic, electric or pneumatic operation
- Sectional construction for maximum flexibility
- Spool changeover capability for right- or left-hand valve assemblies
- Low spool effort — improved metering

These features, and there are many more, offer advantages to the equipment manufacturer which result in superior control and equipment performance. These valves show a greatly reduced internal pressure drop under all conditions of operation.

low internal pressure drop

All valves present resistance to flow which results in pressure drop. Commercial’s valves VA20/35 and VG20/35 are designed with large internal passages with uniform cross sections and smooth wall surfaces which provide flow paths free of abrupt angles. More useful fluid power is available because there is minimal internal pressure drop and less energy wasted in heat generation. Performance data for all operating conditions is plotted in tables and charts on pages 6 and 7. You can use these tables to determine the proper size valve to best meet your specific requirement.

sectional construction

These valves are of sectional, stack type, construction assembled with one or more work sections capped by inlet and outlet sections. Working sections are offered in many functional types. Special mid-inlet sections may be added to the valve bank to introduce the flow from additional pumps. Working sections with series or parallel type circuits can be assembled in thousands of combinations to tailor these valves to your needs.

pressure compensation

VA35 or VG35 parallel circuit sections can have the benefits of outlet pressure compensation. A special pressure compensation outlet automatically maintains a selected flow through any one of the valve’s parallel sections. The outlet’s metering spool responds to changing pressure providing precise control of machine functions regardless of the level of the operator’s skill.

Pressure compensated outlets may be used in mixed bank (series and parallel) assemblies if the series work sections are upstream of the pressure compensated parallel sections.

full-flow relief valve protection

Full-flow system relief valves may be installed in the end inlet section.

Work sections can be provided with full-flow relief valves in either or both work ports. Port relief valves can be pilot operated with anti-cavitation checks or differential area, full-flow relief valves without anti-cavitation checks. (See graphs on pages 10 and 11.) Crossover relief valves are available.