**LOAD LOWERING VALVE**

**Application:** Precision metering for controlled cylinder piston return.

**Operation:** Permits free flow when extending cylinder, built-in pressure relief and “Poss-Check®” kits and holds load in raised position until operator opens valve. May be pre-set to provide consistent metered return, or operator may select rate of return with each actuation. Has 3/8” NPTF ports.

**NOTE:** Pressure relief valve setting is 830 bar. Operating pressure is 700 bar and max. flow rate is 19 l/min.

No. 9596 — Load lowering valve. Wt., 1 kg.

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**SEQUENCE VALVE**

**Application:** Used when one cylinder in a multi-cylinder application must advance before any other.

**Operation:** Pump is connected to port “B” and separate cylinders to ports “A” and “B.” When pressure is applied to port “P,” cylinder “A” advances. Cylinder “B” will not advance until a predetermined pressure setting is reached in cylinder “A.” Pressure setting is adjustable from 35 to 550 bar with adjustment screw; factory preset at 70 bar.

Has 3/8” NPTF ports.

No. 9597 — Pressure control sequencing valve. Wt., 2.5 kg.

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**PRESSURE REDUCING VALVE**

**Application:** Provides complete, independent pressure control to two or more clamping systems operated by a single power source.

**Operation:** Can be used to provide different pressures in various stages of a single system. Virtually zero leakage across valve means each system can be operated by a single continuous pressure source. Adjustable from 70 to 350 bar at outlet port “B” (secondary). Has 1/4” NPTF ports.

No. 9608 — Pressure reducing valve. Wt., 2.5 kg.

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**COUNTER BALANCE VALVE**

**Application:** Double-acting cylinders. Provides positive holding and controlled “chatter-free” lowering of a load.

**Operation:** Load is raised at flow rate of pump, and held when pump is shut off. When the pump is shifted to “retract”, the counter balance valve will continue to hold the load until system pressure exceeds pressure caused by load. The load can then be lowered smoothly to the flow rate of the pump. The counter balance valve is designed to operate with pumps having a high pressure flow rate of up to 19 l/min. and cylinder ratios of 3 to 1.

No. 9720 — Counter balance valve, including two male and two female half hydraulic hoses, fittings and dust caps. Wt., 4.5 kg.

No. 9721 — Same as 9720, but does not include couplings, hoses, fittings and dust caps. Wt., 4.2 kg.

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**Check valves**

**Application:** Permits flow of hydraulic oil in one direction only.

**Operation:** Installs right in hydraulic line. No. 9580 — Check valve with 3/8” NPTF male ends. Wt., 0.2 kg.

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**Shut-off valve**

**Application:** This needle valve permits fine metering of hydraulic oil.

**Operation:** Can be used for controlling multiple single-acting cylinders. No. 9575 — Shut-off valve with 3/8” NPTF ports. Wt., 0.8 kg.

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**Load Switching Valve**

**Application:** For use with open or tandem center valves. Permits free flow of fluid in one direction.

**Operation:** Flow is blocked in opposite direction until pilot oil pressure is applied. This prevents the loss of pressure if the valve is inadvertently shifted or the pump line is broken. Minimum cracking pressure is 4.5 bar. Required pilot pressure is approximately 16% of checked system pressure.

No. 9581 — Pilot operated check valve with 3/8” NPTF ports. Wt., 1.7 kg.

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**In-line” pressure relief valve**

**Application:** Single- or double-acting cylinders. For remote locations in a hydraulic circuit where maximum pressure requirements are less than basic overload valve setting in pump.

**Operation:** Adjustable from 70 to 700 bar. Valve is spring-loaded and direct-acting.

No. 9623 — Pressure relief valve with 3/8” NPTF ports. Wt., 0.9 kg.

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**Metering valve**

**Application:** For systems using large cylinders or extended lengths of hydraulic hose.

**Operation:** Controls surges by restricting flow if it exceeds 28.5 l/min. When flow subsides, valve reopens automatically. Has 3/8” NPTF male and to thread into return port of system control valve, and a 3/8” NPTF female end, permitting return hose to be directly connected.

No. 9631 — Metering valve. Wt., 0.1 kg.

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**“In-line” pressure regulator valve**

**Application:** Single- or double-acting cylinders. Permits adjusting operating pressures at various values below relief valve setting of pump.

**Operation:** Regulator valve is easily adjusted to maintain pressures between 20 and 700 bar. Maintains an even pressure setting within 3% over repeated cycles. Flow range is 0.3 l/min to 23 l/min.

No. 9633 — In-line pressure regulator valve with two 3/8” NPTF inlet ports, one 1/8” NPTF tank port and 1 m drain line kit. Wt., 0.9 kg.

Simply turn the handle clockwise to increase the pressure setting, counter-clockwise to reduce pressure.

Note: 1 m Drain Line Kit is included.

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**Relief valves**

**Application:** Provide an economical means of protecting an hydraulic circuit against overpressurization.

**Operation:** These factory preset valves are designed for maximum flow rate of 19 l/min. Furnished with 3/8” NPTF male port. All valves weigh 0.1 kg. See chart to the right for ordering information.

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**NOTE:** Core should be exercised to protect workers from hot, pressurized hydraulic oil. Install these valves only in an enclosed or shielded area.