

General Valve Assembly Information

The Basics

Every valve has the following elements:

- Inlet
- Main relief
- Work sections
- Outlet
- Section seals
- Stud kit to hold the assembly in place

The valve inlet is connected directly to the outlet coming from the hydraulic pump, and the valve outlet is connected directly to the tank.

The main relief valve is generally installed in the inlet and controls maximum system pressure.

The valve work sections connect the cylinders, motors, spreader valves or other auxiliary valves.



Work Section Types

Sections can be the following types:

- Single Acting (one work port)
- Double Acting (two work ports)

Actuators

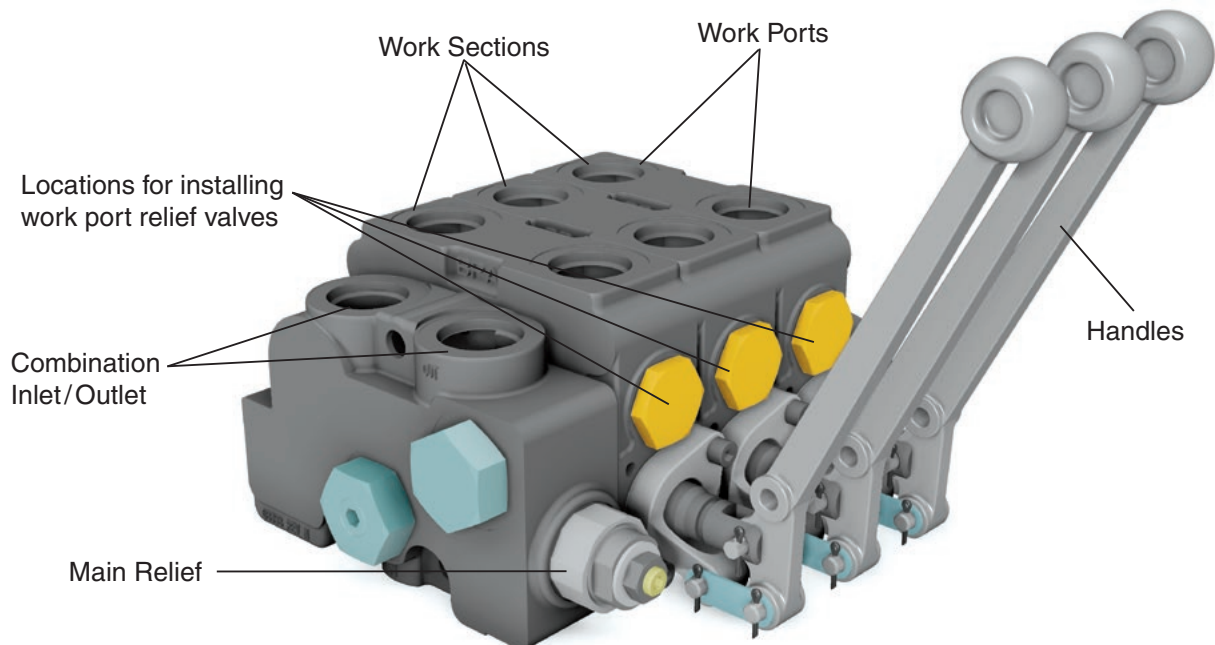
Work sections can be actuated by four means:

- Manual Handles
- Electric Solenoids
- Air Actuators
- Hydraulic Pilot

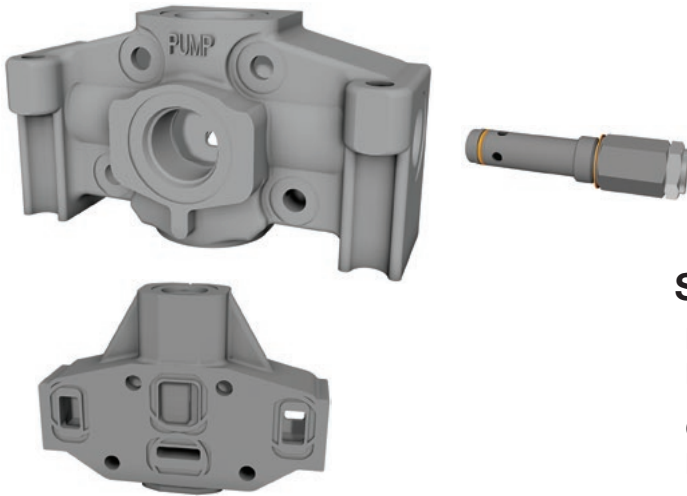
Work Port Relief Valves

Individual work section can have work port relief valves screwed into the sides of the work sections and can control:

- Control pressure
- Reduce cavitation
- Work port relief valves can be adjustable or fixed depending to the style.



VA20 and VG20 Inlets / Main Relief Valves



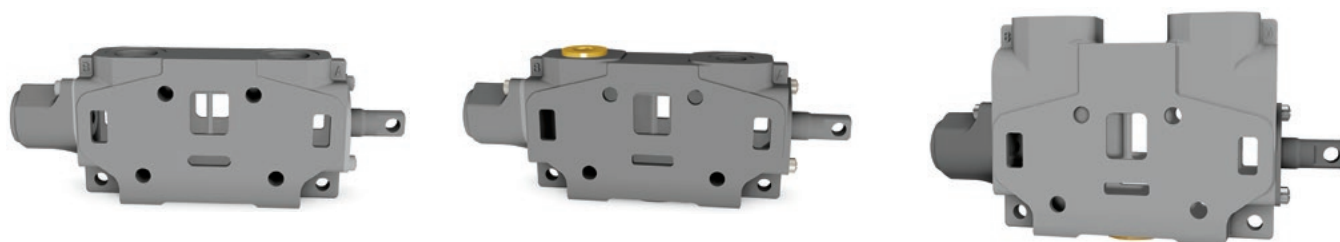
Specifications

Nominal Flow	Up to 170 LPM (45 GPM)
Operating Pressure	VA20 Up to 172 Bar (2500 PSI) VG20 Up to 241 Bar (3500 PSI)

Part Number	Model Number	Description	Porting
347-9175-002	DVA20-A880	Inlet	SAE 16 Porting
347-9174-004	DVA20-CFA70	Combined Flow Mid Inlet	SAE 12 Porting
347-9174-002	DVA20-SFA70	Split Flow Mid Inlet	SAE 12 Porting
391-1873-001	DVA20-MRV	Adjustable Main Relief	N/A
391-1873-002	DV20-MRVP	Main Relief Plug	N/A
347-9175-010	DVG20-A880	Inlet	SAE 16 Porting
347-9174-006	DVG20-CFA70	Combined Flow Mid Inlet	SAE 12 Porting
347-9174-005	DVG20-SFA70	Split Flow Mid Inlet	SAE 12 Porting
391-1873-128	DVG20-HMRV	Adjustable Main Relief	N/A



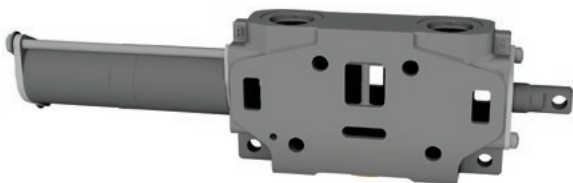
VA20 and VG20 Work Sections



Spring Return

Part Number	Model Number	Description	Porting
347-9172-003	DVA20-DA7	Low Boy Double-Acting Cylinder Spool	SAE 12
347-9172-006	DVA20-MA7	Low Boy Double-Acting Motor Spool	SAE 12
347-9171-003	DVA20-SA7	Low Boy Single-Acting Cylinder Spool	SAE 12
347-9172-009	DVA20-HA755	High Boy Double-Acting Cylinder Spool	SAE 12
347-9172-012	DVA20-LA755	High Boy Double-Acting Motor Spool	SAE 12
347-9171-006	DVA20-JA705	High Boy Single-Acting Cylinder Spool	SAE 12
347-9172-052	DVG20-DA7	Low Boy Double-Acting Cylinder Spool	SAE 12
347-9172-053	DVG20-MA7	Low Boy Double-Acting Motor Spool	SAE 12
347-9172-056	DVG20-HA755	High Boy Double-Acting Cylinder Spool	SAE 12
347-9172-057	DVG20-LA755	High Boy Double-Acting Motor Spool	SAE 12
347-9171-007	DVG20-JA705	High Boy Single-Acting Cylinder Spool	SAE 12

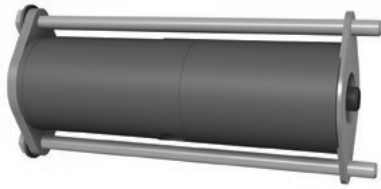
* Hi boy port accessories come standard unplugged and must use either a port option or port plug for operation.



Pneumatic

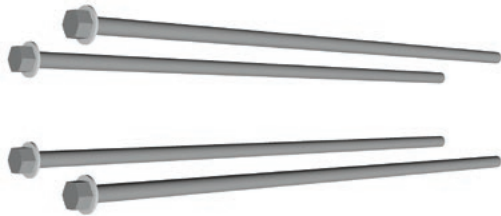
Part Number	Model Number	Description	Porting
347-9172-034	DVA20-DV7	Low Boy Double-Acting Cylinder Spool	SAE 12
347-9171-018	DVA20-SV7	Low Boy Single-Acting Cylinder Spool	SAE 12

VA20 and VG20 Positioner Kits



Part Number	Model Number	Description
391-1873-206	DV20-K-113	Pneumatic Shifter
391-1873-020	DV20-K-101	3-Position Detent
391-1873-019	DV20-K-100	Spring Center

VA20 and VG20 Stud Kits

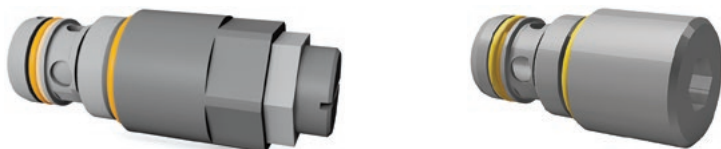


Part Number	Model Number	Description
391-1873-045	DVA20-SK1	1 Work Section
391-1873-046	DVA20-SK2	2 Work Sections
391-1873-047	DVA20-SK3	3 Work Sections
391-1873-048	DVA20-SK4	4 Work Sections
391-1873-049	DVA20-SK5	5 Work Sections
391-1873-050	DVA20-SK6	6 Work Sections
391-1873-051	DVA20-SK7	7 Work Sections
391-1873-052	DVA20-SK8	8 Work Sections
391-1873-129	DVG20-TSK1	1 Work Section
391-1873-130	DVG20-TSK2	2 Work Sections
391-1873-131	DVG20-TSK3	3 Work Sections
391-1873-132	DVG20-TSK4	4 Work Sections
391-1873-133	DVG20-TSK5	5 Work Sections
391-1873-134	DVG20-TSK6	6 Work Sections
391-1873-135	DVG20-TSK7	7 Work Sections
391-1873-136	DVG20-TSK8	8 Work Sections

TSK have studs and nuts



VA and VG Work Port Relief



Part Number	Model Number	Description
391-1873-006	DV-PRVAC	Screw Adjustable Work Port Relief
391-1873-010	DV-AC	Anti-Cavitation Check Valve
391-1873-007	DV-PRV-1	Work Port Relief 34 - 69 Bar (500 - 1000 PSI)
391-1873-008	DV-PRV-2	Work Port Relief 69 - 172 Bar (1000 - 2500 PSI)
391-1873-009	DV-PRV-3	Work Port Relief 172 - 241 Bar (2500 - 3500 PSI)
391-1873-011	DV-PRVP	Work Port Relief Plug

*PRV Accesories are shim adjustable.

VA and VG20 Handle Assemblies

Part Number	Model Number	Description
391-1873-094	DV20-H4	Standard 6" Handle
391-1873-062	DV20-H8	Standard 8" Handle



VA20 and VG20 Outlets



Part Number	Model Number	Description	Porting
347-9176-002	DVA20-TR88	Tank Return	SAE 16
347-9176-004	DVA20-PB80	Power Beyond End Porting	SAE 16
347-9176-005	DVA20-PB08	Power Beyond Top Porting	SAE 16
347-9176-007	DVG20-TTR88	Tank Return	SAE 16
347-9176-008	DVG20-TTB80	Power Beyond Porting	SAE 16