

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

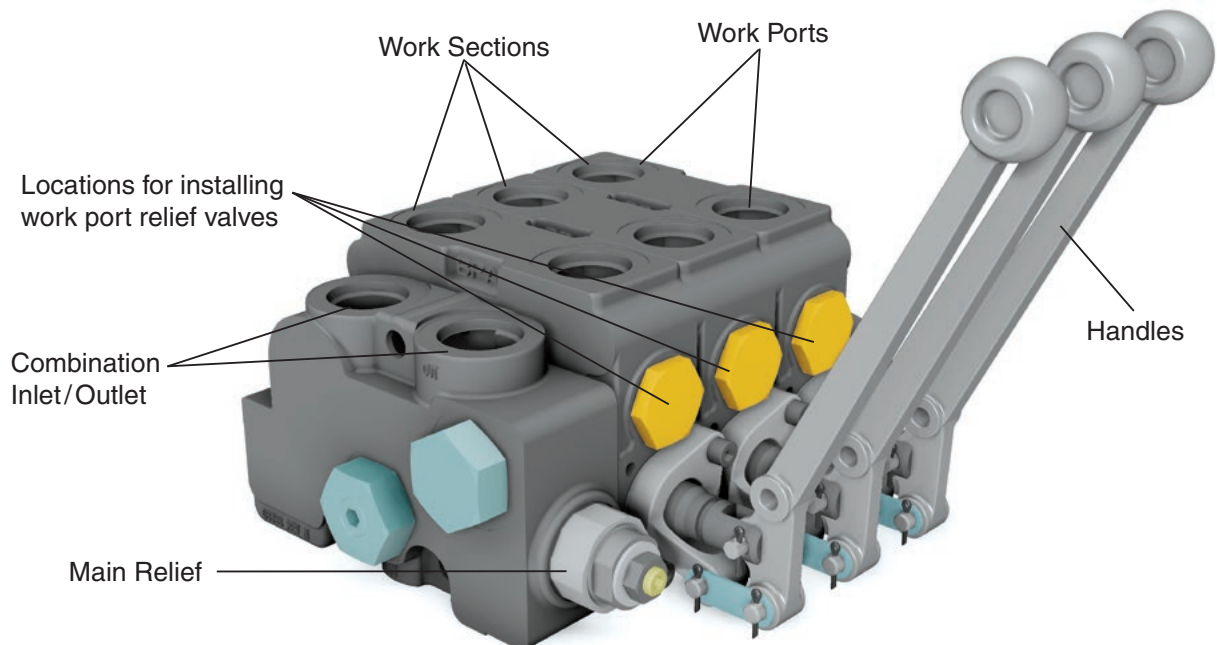
Work sections can be actuated by four means:

- 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.



V20 Inlets



Standard



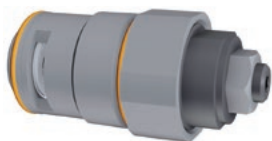
Mid Inlets

Specifications

Nominal Flow	Up to 95 LPM (25 GPM)
Operating Pressure	Up to 240 Bar (3500 PSI)

Part Number	Model Number	Description	Porting
08650029	20-LC-12	Standard Inlet	SAE 12
08650004	20-12-SF	Split Flow Mid Inlet	SAE 12
08650003	20-12-CF	Combined Flow Mid Inlet	SAE 12

V20 Main Relief Valves

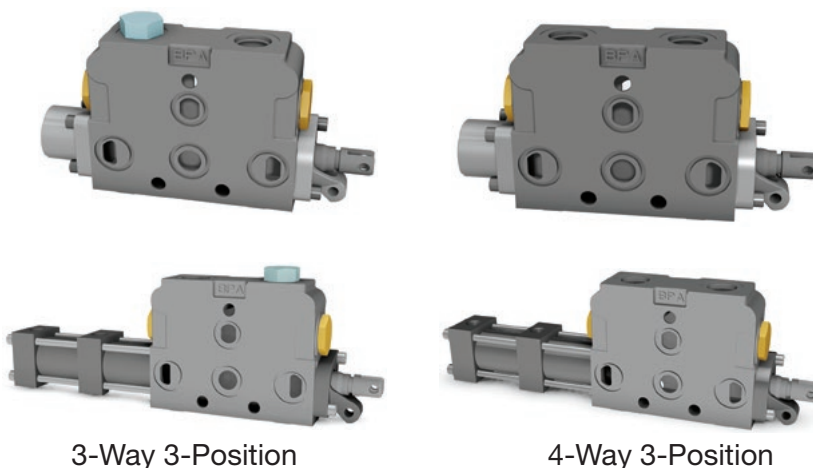


Part Number	Model Number	Description
RP51A-3000	RP51A-3000	Main Relief Valve
08650419	WH-1950	Fixed Main Relief Valve 134 Bar (1950 PSI)
08650420	WH-2550	Fixed Main Relief Valve 176 Bar (2550 PSI)



V20 Work Sections

Model V20 double-acting cylinder sections versus V20 motor spools cannot be visually determined simply by looking at the valves. It is important to keep the valves properly marked during the assembly process. It is recommended that a permanent M be marked on the motor spool so the installer will know the difference.



3-Way 3-Position

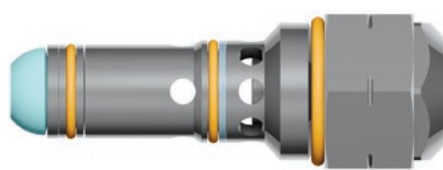
4-Way 3-Position

Part Number	Model Number	Description	Porting
08650016	20-10-03	Single-Acting Cylinder Spool	SAE 10
08650020	20-10-04	Double-Acting Cylinder Spool	SAE 10
08650018	20-10-F4	Double-Acting Motor Spool	SAE 10
13650963	20-10-03-PA1	Single-Acting Cylinder Spool Pneumatic	SAE 10
13650964	20-10-04-PA1	Double-Acting Cylinder Spool Pneumatic	SAE 10

V20 Work Port Reliefs



Anti-Cavitation



Combination

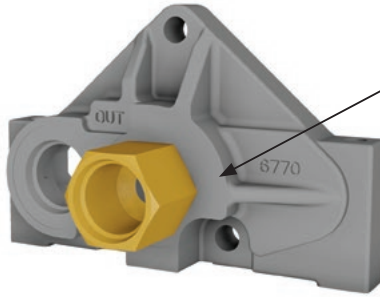


Part Number	Model Number	Description
08650380	K-20-AC	Anti-Cavitation Check
08650387	CRA-1200	Combination PR/AC 83 Bar (1200 PSI)
08650388	CRA-1700	Combination PR/AC 117 Bar (1700 PSI)
08650389	CRA-1950	Combination PR/AC 134 Bar (1950 PSI)
08650390	CRA-2500	Combination PR/AC 176 Bar (2550 PSI)

V20 Outlets



Standard Outlet



Power Beyond Outlet

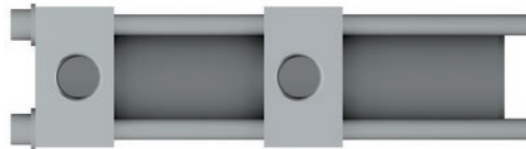
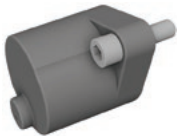
The Power Beyond Sleeve must be ordered separately and does not come installed.



Power Beyond Sleeve

Part Number	Model Number	Description	Porting
13650146	20-RC-12-E	Standard Outlet	SAE 12
08650024	20-RC-12-E-MY	Power Beyond Outlet	SAE 12
08650103	K-20-10-Y	Power Beyond Sleeve	SAE 10
08650100	K-20-X	Conversion Plug	SAE 12

Action Kits



Part Number	Model Number	Description
08650105	K-20-D	3-Position Detent
08650630	K-20-PA1	Pneumatic Positioner

Handles and Accessories

Part Number	Model Number	Description
08650151	K-20-VH-B	Vertical Handle Black
08650156	K-20-HH-B	Horizontal Handle Black
08650107	K-20-RET	Standard Seal Retainer Plate
08650097	Wiper	Spool Wiper
08650113	K-20-HBO-C1	Complete Bracket
08650112	K-20-Boot	Spool Boot Assembly



Stud Kits

Mid Inlets and Utility Sections count as a work section when selecting stud kits.



Part Number	Model Number	Description
08650087	K-20-1	1 Work Section
08650088	K-20-2	2 Work Sections
08650089	K-20-3	3 Work Sections
08650090	K-20-4	4 Work Sections
08650091	K-20-5	5 Work Sections
08650092	K-20-6	6 Work Sections
08650093	K-20-7	7 Work Sections
08650094	K-20-8	8 Work Sections
08650095	K-20-9	9 Work Sections
08650096	K-20-10	10 Work Sections

