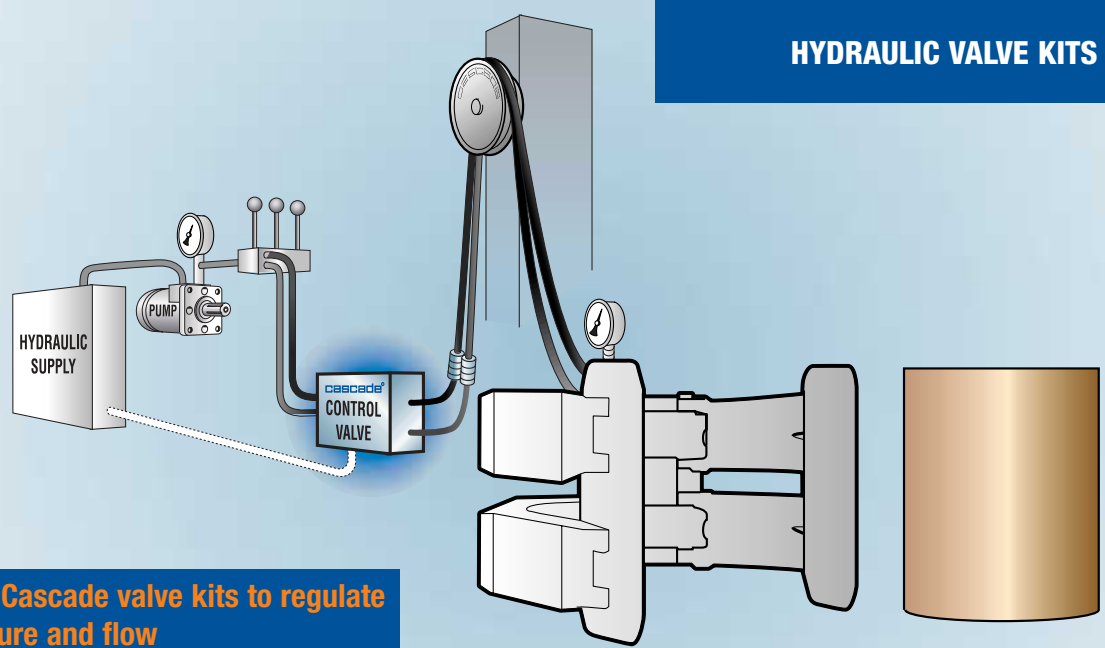
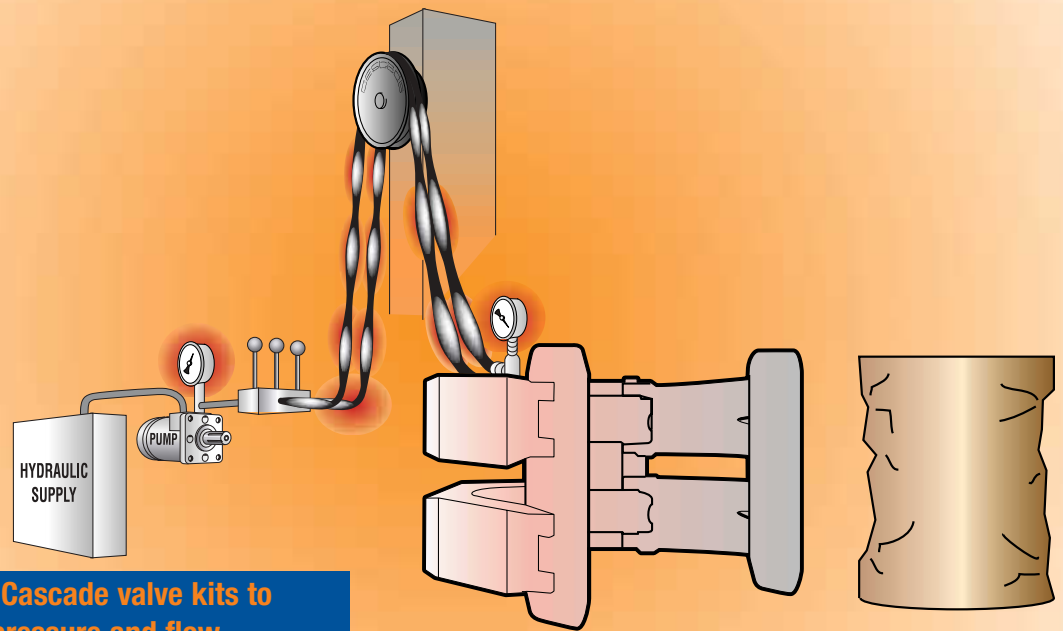




HYDRAULIC VALVE KITS



WITH Cascade valve kits to regulate pressure and flow



WITHOUT Cascade valve kits to regulate pressure and flow

Keep your truck and attachment at peak performance and protect your load by regulating hydraulic pressure and flow.

Get the best performance from your Cascade attachment with hydraulic valve kits.

APPLICATIONS

Cascade's hydraulic valve kits regulate auxiliary pressure and flow to your attachment when the hydraulic pressure and flow from your truck's auxiliary valve exceeds the recommended settings for your attachment. Your truck and attachment work at optimum performance levels with the correct hydraulic valve kit.

REASONS TO REGULATE PRESSURE AND FLOW

- Protecting the load from excessive truck pressure delivered through the attachment reduces product damage.
- Protecting the attachment from unnecessary structural stresses and excess pressure on cylinder results in longer component life.
- Protecting the truck's engine and hydraulic pump from wear associated with overheating reduces maintenance costs.

Choose the correct hydraulic valve kit based on your application and attachment.

PRESSURE RELIEF

Choose pressure relief when the pressure coming from the truck's hydraulic system exceeds the amount of pressure required by the attachment.

SINGLE PRESSURE RELIEF VALVE



Limits hydraulic pressure in one line to the attachment in one direction only. Use in conjunction with the Low Pressure Tank Line Kit.

Input Flow ①	Pressure Adjustment	Catalog Order No.
2-20 GPM	100-3,000 PSI	661674
20-50 GPM	100-3,000 PSI	685968

BI-DIRECTIONAL PRESSURE RELIEF VALVE



Relieves hydraulic pressure to the attachment in both directions of flow. Does not include return-to-tank port.

Input Flow ①	Pressure Relief	Catalog Order No.
2-20 GPM	2,000 PSI	677379

4-POSITION PRESSURE REGULATOR



(Three pressure relief settings plus truck relief)

Allows clamping force to vary from load to load using the minimum required hydraulic pressure settings. Use in conjunction with Low Pressure Tank Line Kit.

Input Flow ①	Pressure Adjustment	Catalog Order No.
2-20 GPM	100-3,000 PSI	660412

FLOW CONTROL

Choose flow control when the flow from the truck's hydraulic system exceeds the flow required by the attachment.

HYDRAULIC FLOW CONTROL VALVE

For delivered flows up to 35 GPM.



Flow control is bidirectional for one hydraulic circuit. Valves without pressure relief are recommended for use with a separate three-position pressure regulator or other relief system. Use in conjunction with the Low Pressure Tank Line Kit.

Functions	Input Flow ①	Output Flow	Catalog Order No.
1	30 GPM	3.5 GPM	212390
1	30 GPM	5 GPM	212391
1	30 GPM	7 GPM	212392
1	30 GPM	10 GPM	212393
1	30 GPM	12 GPM	212394
1	35 GPM	15 GPM	6026786
1	35 GPM	20 GPM	6026790

Sample hydraulic flow and pressure requirements for Cascade attachments

Refer to the Cascade Product Price List to find the exact requirements for your attachment model.

ATTACHMENT	FLOW	PRESSURE
55F Fork Positioner	4 GPM	2,600 PSI
77F Paper Roll Clamp	15 GPM	2,300 PSI
45E Push/Pull	7 GPM	2,300 PSI
50D Carton Clamp	12 GPM	2,300 PSI
100D Rotator	10 GPM	2,300 PSI
70D Fork Clamp	12 GPM	2,300 PSI

① Input flow recommendations are based on limiting the acceptable pressure drop to the valve to 500 PSI. Input flows delivered to the valve may differ from those reported in your lift truck data.

PRESSURE AND FLOW CONTROL

Choose pressure and flow control when both the truck's pressure and flow do not match the attachment's requirements.

HYDRAULIC FLOW CONTROL VALVE WITH PRESSURE RELIEF

For delivered flows up to 35 GPM.



Flow control is bidirectional for one hydraulic circuit. Includes adjustable pressure relief cartridges. Use in conjunction with the Low Pressure Tank Line Kit.

Functions	Input Flow ①	Output Flow	Pressure Adjustment	Catalog Order No.
1	30 GPM	3.5 GPM	500-3,000 PSI	207496
1	30 GPM	5 GPM	500-3,000 PSI	207497
1	30 GPM	7 GPM	500-3,000 PSI	207498
1	30 GPM	10 GPM	500-3,000 PSI	207499
1	30 GPM	12 GPM	500-3,000 PSI	207500
1	35 GPM	15 GPM	500-3,000 PSI	6026784
1	35 GPM	20 GPM	500-3,000 PSI	6026785

PRESSURE RELIEF AND FLOW CONTROL VALVE 2 & 3 FUNCTION

For delivered flows up to 32 GPM.



Provides auxiliary pressure relief and flow control to your attachment. Designed for trucks rated 3.5 tons and up. Use in conjunction with the Low Pressure Tank Line Kit.

Functions	Input Flow ①	Output Flow	Pressure Relief	Catalog Order No.
2	32 GPM	10 GPM	2,300 PSI	233339
2	32 GPM	12 GPM	2,300 PSI	233333
2	32 GPM	15 GPM	2,300 PSI	233095
2	32 GPM	20 GPM	2,300 PSI	233342
3	32 GPM	15 GPM	2,300 PSI	233122

RELATED PRODUCTS:

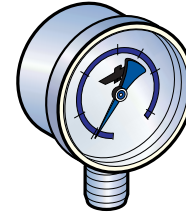
LOW PRESSURE TANK LINE KIT



Includes hose and hardware necessary to install a hydraulic line directly into an existing low pressure tank line hose.

Tank Line Hose ID	Catalog Order No.
0.75 in.	214062
1.00 in.	211745
1.25 in.	214066

PRESSURE GAUGE



To 3,000 PSI.

Catalog Order No.
664158

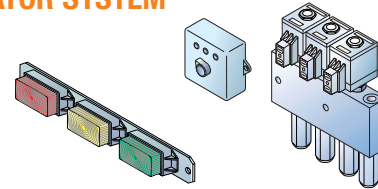
THREE-POSITION LIGHT BAR KIT



For adapting to new or existing three-position relief valve. Kit includes switch for mounting to the three-position valve, light bar to indicate selected pressure, and all necessary electrical wiring, components and fuse. (660412 four-position relief sold separately.)

Truck Voltage	Catalog Order No.
12 Volt	214276
24-48 Volt	217931

ELECTRICAL PRESSURE CONTROL & INDICATOR SYSTEM



This system includes a solenoid-operated valve assembly with four independent pressure relief cartridges, a four-position control switch, a light bar to indicate selected pressure and all necessary electrical wiring and fuses. Use in conjunction with Low Pressure Tank Line Kit.

Truck Voltage	Catalog Order No.	Pressure Control
12 Volt	844021	500-2400 PSI, adjustable
24 Volt	844022	500-2400 PSI, adjustable
36 Volt	844023	500-2400 PSI, adjustable
48 Volt	844024	500-2400 PSI, adjustable