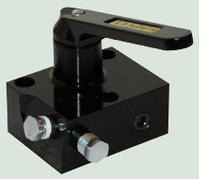
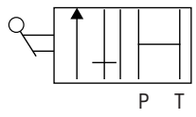
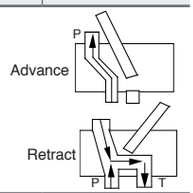
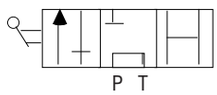
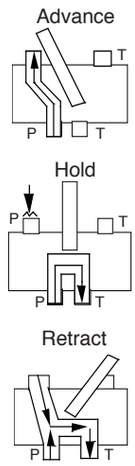
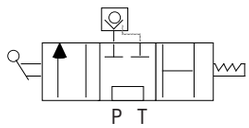
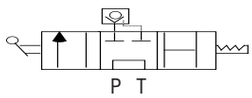
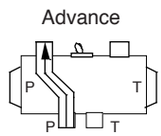
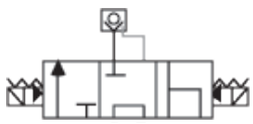
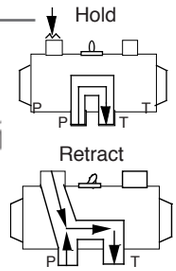
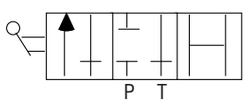
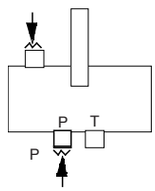
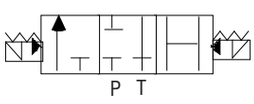
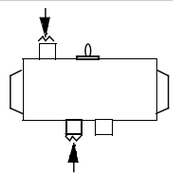
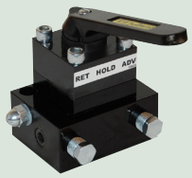
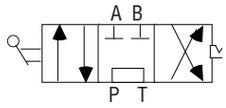
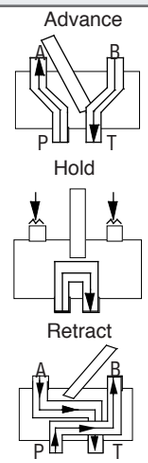
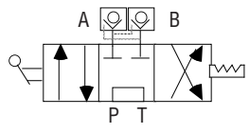
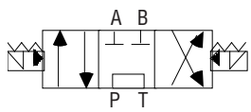
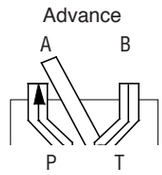
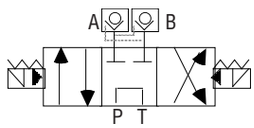
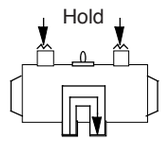
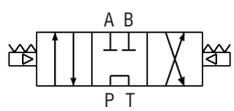
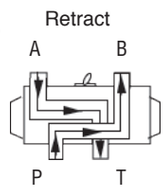
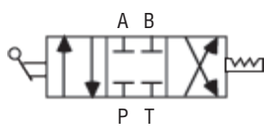
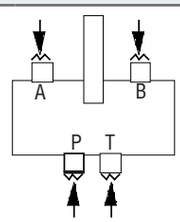
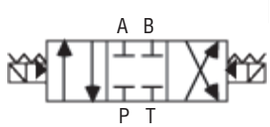
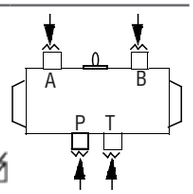
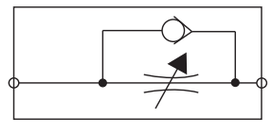
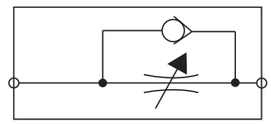
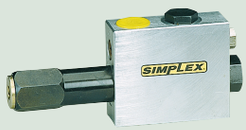
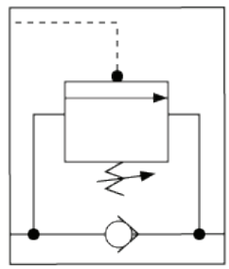
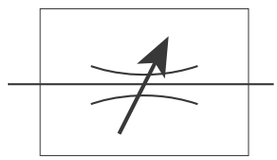
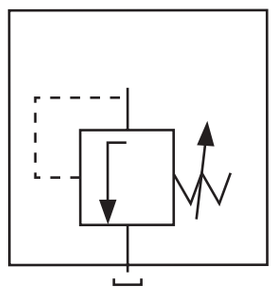
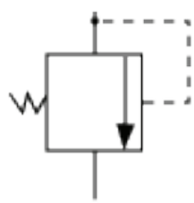
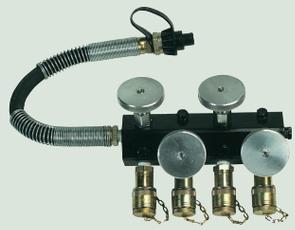
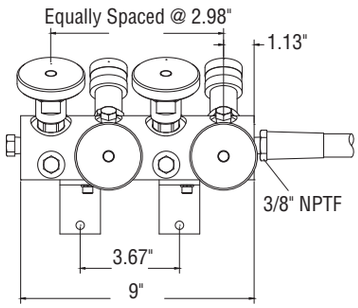
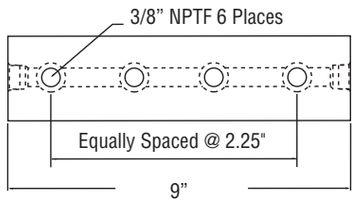
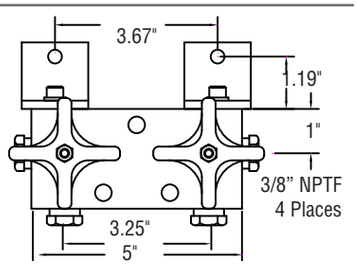
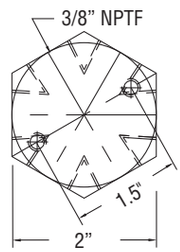
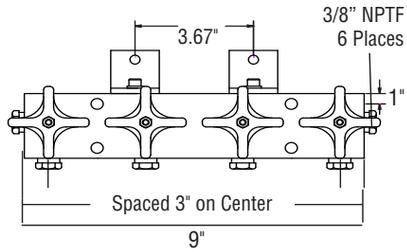
Model		Description	Hydraulic Schematic	Functional Flow Schematic
	**VP2**	Pump mounted, 2 position, 2 way valve is ideal for pressing, punching, crimping, staking or pulling applications when load holding is not needed.		
	VP3	Pump mounted, 3 position, 3 way valve is commonly used with single-acting cylinders for lifting applications or production work. The center position holds the load with the pump motor on or off.		
	VPL3	Pump mounted, 3 position, 3 way valve is the same as VP3, but with a built in pilot check valve. The VPL3 provides positive load holding in the center position, and will not allow pressure drop while shifting. Recommended for prestressing, post tensioning and precision holding applications.		
	VPS31	Pump mounted, electric solenoid actuated, 3 position, 3 way valve with remote pendant switch allows remote operation of system directional control. ***For 230V, Use Model Number VPS32***		
	VPSL31	Pump mounted, electric solenoid actuated, 3 position, 3 way valve with remote pendant switch is the same as the VPS3, but with a built in pilot operated check valve. The VPSL31 provides positive load holding in the center position, and will not allow pressure drop while shifting. ***For 230V, Use Model Number*** **VPSL32**		
Remote Mounted Valves - For Single Acting Cylinders & Tools				
	VRM3 & VR3CC	**VRM3** is remote mounted, manual valve, 3 position, 3 way tandem center. **(reference VP3 schematic)** **VR3CC** is remote mounted, manual valve, 3 position, 3 way closed center.	**VR3CC** 	
	VRS31 & VRS31CC	**VRS31** is remote mounted, solenoid valve, 3 position, 3 way tandem center. **(reference VPS31 schematic)** ***For 230V, Use Model Number*** **VRS32** **VRS31CC** is remote mounted, solenoid valve, 3 position, 3 way closed center. ***For 230V, Use Model Number*** **VRS32CC**	**VRS31CC** 	

Model		Description	Hydraulic Schematic	Functional Flow Schematic
	**VP4**	Pump mounted, 3 position, 4 way valve is used with double-acting cylinders and tools. This valve controls direction of oil for advancing, holding & retracting. The center position holds the load with the pump motor running or off.		
	VPL4	Pump mounted, 3 position, 4 way valve is the same as VP4, but with a built in pilot check valve. The VPL4 provides positive load holding in the center position, and will not allow pressure drop while shifting. Recommended for prestressing and precision holding applications.		
	VPS41	Pump mounted, electric solenoid actuated, 3 position, 4 way valve with remote pendant switch. Same as VP4, but allows remote operation of directional control. ***For 230V, Use Model Number*** **VPS42**		
	VPSL41	Pump mounted, electric solenoid actuated, 3 position, 4 way valve with remote pendant switch functions the same as VPS41, but with a built in pilot operated check valve. The VPSL41 provides positive load holding in the center position, and will not allow pressure drop while shifting. ***For 230V, Use Model Number*** **VPSL42**		
	VPA4	Pump mounted, air solenoid actuated, 3 position, 4 way valve with remote pendant switch. Same as VP4, but allows remote operation of directional control.		
Remote Mounted Valves - For Double Acting Cylinders & Tools				
	VR4 & VR4CC	**VR4** is remote mounted, manual valve, 3 position, 4 way tandem center. **(reference VP4 schematic)** **VR4CC** is remote mounted, manual valve, 3 position, 4 way closed center.	**VR4CC** 	
	VRS41 & VRS41CC	**VRS41** is remote mounted, solenoid valve, 3 position, 4 way tandem center. **(reference VPS41 schematic)** ***For 230V, Use Model Number*** **VRS42** **VRS41CC** is remote mounted, solenoid valve, 3 position, 4 way closed center. ***For 230V, Use Model Number*** **VRS42CC**	**VRS41CC** 	

Model		Description	Hydraulic Schematic
	V10E	**Check Valve** automatically locks load in raised position as plunger is being extended. Protects against dropping the load due to pressure loss. Required for multiple cylinder lifting from one source. (Includes F1 - 3/8" porting Hex Nipple).	
	V10EC	**Check Valve** is a V10E with polarized high flow couplers for direct, rapid mounting to cylinder couplers.	
	**V2**	**Over Center Check Valve** can be mounted at the cylinder to hold the load in the event of system failure. Unlike other piloted check valves, the V2 provides controlled retraction without "chatter". **Note: When used in multiple cylinder systems, contact Simplex for minimum pump requirements.**	
	V5B	**Shut-Off Valve** is a needle-type valve for sustained load-holding and flow control. Use for positive shut-off or throttling. (3/8" porting NPTF)	
	V1	**In-line Adjustable Relief Valve** is for in-line mounting into hydraulic systems. Accurately controls maximum pressure from 800 to 10,000 psi. Turn handle until gauge indicates desired working pressure - tighten lock nut. Valve automatically opens and bypasses excess flow from system when preset pressure is reached. (Includes tubing & fittings).	
	V3	**Safety Relief Valve** threads into top port of double-acting cylinders, or inline on hydraulic systems, for protection against over pressurizing. Pressure rating is set to 10,500 psi. (3/8" porting NPTF) 3/8"m - 3/8" f	

All dimensions in inches.

Model		Description	Technical Specifications
	**M1**	**Pump Mounted 4 Cylinder Control Manifold Kit:** The M1 control manifold incorporates (4) station shut-off/flow control valves, 18" hose, gauge port, (4) high flow couplers and pump mounting hardware. Two or more manifolds can be coupled together for larger systems. ***For replacement hose order #89521***	
	M2	**Pump Mounted 4 Cylinder Manifold Kit:** The M2 manifold includes 18" hose and pump mounting hardware. Two or more manifolds can be coupled together for larger systems. ***For replacement hose order #89521***	
	M2A	**Pump Mounted 2 Cylinder Control Manifold Kit:** The M2A control manifold incorporates (2) station shut-off/flow control valves. Two or more manifolds can be coupled together for larger systems.	
	M3	**6 Port Inline Hex Manifold:** The M3 inline hex manifold features (6)- 3/8" NPTF threaded ports & mounting holes.	
	M4A	**Pump Mounted 4 Cylinder Control Manifold Kit:** The M4A control manifold incorporates (4) station shut-off/flow control valves. Two or more manifolds can be coupled together for larger systems.	

1/4" NPTF HIGH - FLOW COUPLERS

For use on smaller tools, pumps and any tool with 1/4" threads. These couplers are plated to resist corrosion. Cylinder Half Couplers have male 1/4" NPTF threads; Hose Half Couplers have female 1/4" NPTF threads.

Model		Description
	CT201	Ram Coupler Half with Dust Cap
	CT202	Hose Coupler Half with Dust Cap
	CT200	Ram & Hose Coupler Set with 2 Dust Caps

1/4" NPTF FLUSH FACE / NO SPILL COUPLERS - *FOR BOLTING PRODUCTS*

Unique flush face design features push to connect operation with an auto lock sleeve on the CT211, and non-spill "dry" disconnect operation. Easy cleaning minimizes system contamination. This coupler should be used wherever oil spillage constitutes a safety or environmental hazard. Couplers have 1/4" NPTF threads.

Model		Description
	CT210	Hose Coupler Half with Dust Cap
	CT211	Ram Coupler Half with Dust Cap
	CT212	Coupler Complete with 2 Dust Caps

3/8" NPTF HIGH - FLOW COUPLERS

These premium grade couplers provide maximum fluid flow and are plated to resist corrosion. Cylinder Half Couplers have male 3/8" NPTF threads & high strength rubber dust caps; Hose Half Couplers have female 3/8" NPTF threads.

Model		Description
	C213	Hose Coupler Half with Dust Cap
	C211	Ram Coupler Half with Dust Cap
	C209	Coupler Set Complete with 2 Dust Caps
	CR215	Dust Cap

3/8" NPTF FLUSH FACE / NO SPILL COUPLERS

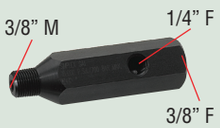
Unique flush face design features push to connect operation with a sleeve lock, and non-spill "dry" disconnect operation. Easy cleaning minimizes system contamination. This coupler should be used wherever oil spillage constitutes a safety or environmental hazard. Couplers have 3/8" NPTF threads.

Model		Description
	C513	Hose Coupler Half
	C511	Ram Coupler Half
	C509	Coupler Set Complete with 2 Dust Caps
	C515 C516	Dust Cap Hose Half - Male Dust Cap Ram Half - Female

Model		Description	Model		Description
	F1	Hex Nipple 3/8" M NPTF Threads		F10	Reducer Fitting 3/8" M to 1/4" F NPTF Threads
	F3	3" Nipple 3/8" M NPTF Threads		F11	Tee 3/8" F NPTF Threads
	F6	6" Nipple 3/8" M NPTF Threads		F13	Coupling 3/8" F NPTF Threads
	F7	90° Elbow 3/8" F NPTF Threads		F15	Cross Fitting 3/8" F NPTF Threads
	F9	90° St. Elbow 3/8" M - 3/8" F NPTF Threads		F17	Reducer Fitting 1/4" M to 3/8" F NPTF Threads

All fittings above are rated for 10,000 psi, and are engraved for added safety and readability.

Gauge Adapter



Model# GA1

Order# 18977

Gauge Adapter Simplifies Your Connection Point

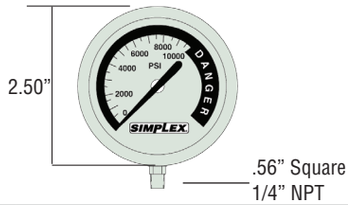
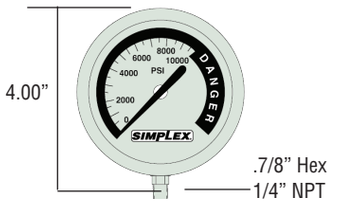
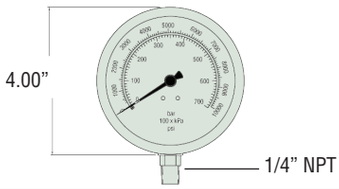
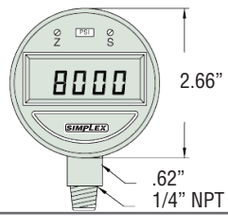
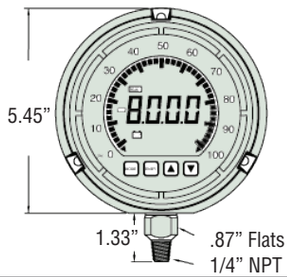
Simplex Hydraulic Oil

Special, high pressure formulated, premium grade oil for all Simplex hydraulic products. High viscosity index ensures maximum lubricity over a wide range of operating temperatures.

AO1	1 Gallon
AO5	5 Gallons
AO55	55 Gallons

Viscosity Index - 100 Minimum	
Vis, Ssu @ 100° F -	150 - 155
Vis, Ssu @ 210° F -	45 - 50
Vis, Ssu @ 0° F -	< 15,000
Pour Point -	-50° F
Flash Point -	400° F
Analine Point -	204.8° F

Includes: Anti-Foam, Anti-Rust And Low Temperature Additives

Model		Description	Dimensions
	Model# G5 **Order# 18905**	▶ Liquid filled dampens needle vibration. ▶ Reads both PSI and Bar ▶ 1% full scale accuracy. ▶ 500 psi increment up to 10,000 PSI ▶ Stainless steel casing.	
	Model# G6 **Order# 18906**	▶ 10,000 psi to 15,000 psi warning zone. ▶ The calibrated scale reads from 0-10,000 psi ▶ Reads both PSI and Bar ▶ Liquid filled dampens needle vibration. ▶ 1% full scale accuracy. ▶ Large easy to read 4" face. ▶ Rubber blowout plugs for safety. ▶ Stainless steel casing.	
	G7	▶ 10,000 psi to 15,000 psi warning zone. ▶ The calibrated scale reads from 0-10,000 psi ▶ Reads both PSI and Bar ▶ Liquid filled dampens needle vibration. ▶ 1% full scale accuracy. ▶ Large easy to read 4" face. ▶ Standard on all Simplex Torque Wrench Pumps.	
	GD1	▶ Designed for high cycle pressure applications ▶ Self powered Lithium batteries. ▶ Full 4 digit display. ▶ + / - .25% full scale accuracy. ▶ 10 million cycle life minimum. ▶ Stainless steel sensor that is vibration & shock resistant. ▶ The calibrated scale reads from 0-10,000 psi	
	GD2	▶ .75" characters and 270° bar graph "analog" readout. ▶ Splash proof phenolic housing. ▶ + / - .25% full scale accuracy. ▶ Keypad enable/disable of peak high or peak low hold. ▶ Stainless steel sensor that is vibration & shock resistant. ▶ The calibrated scale reads from 0-10,000 psi	

SCALED TONNAGE GAUGES FOR SIMPLEX CYLINDERS

Model	Cylinder Tonnage	Face Diameter	Applicable Cylinder Series
GT5	5, 10, 15	4"	R5, R10, R15, RFS10, RLS101, RDA1010
GT20	20, 50	4"	RLS201, RLS502, RLS1002, RFS20, RFS50, RFS100
GT25	25, 55, 100	4"	R25, R55, RDA55, R100
GT30	30, 50, 100	4"	R308, RLS302, RFS30, RLN30, RLN50, RLN100, RLR306,RLR50, RLR100
GT100	150, 200	4"	RDA100, RDA200, RFS150, RLN150, RLN200, RLR150, RLR200
GT150	100, 150, 200	4"	RDA150
GTH12	12, 20, 30	4"	RC12, RC20, RC30, RCD30
GTH60	60, 100, 150	4"	RC60, RC1003, RCD6010, RCD100, RCD1505

HA & HCA Industrial Grade .25" I.D. series hoses are rated at 10,000 psi operating pressure and 20,000 psi minimum burst pressure. This hose is the recommended choice for hand pump & cylinder sets, as well as a wide range of other intermittent applications. ▼

Model	Length (ft)	Hose Ends		I.D. (in)
HA3	3	3/8" NPTF Male	3/8" NPTF Male	.25"
HA6	6			
HA10	10			
HA20	20			
HA36	36			
HA50	50			
HCA3	3	3/8" NPTF Male	C213 Coupler*	
HCA6	6			
HCA10	10			
HCA20	20			
HCA36	36	C213 Coupler*	C213 Coupler*	
HCA50	50			

High Flow HD & HDC .38" I.D. series hoses are recommended to achieve higher retraction speeds and minimal flow restrictions. These heavy duty hoses are rated at 10,000 psi with a minimum burst pressure of 30,000 psi. ▼

Model	Length (ft)	Hose Ends		I.D. (in)
HD3	3	3/8" NPTF Male	3/8" NPTF Male	.38"
HD6	6			
HD10	10			
HD20	20			
HD50	50			
HDC3	3	3/8" NPTF Male	C213 Coupler*	
HDC6	6			
HDC10	10			
HDC20	20			
HDC50	50	C213 Coupler*	C213 Coupler*	

All hoses with couplers includes CR215 Dust Cap.

Non-Conductive Thermo Plastic HR & HRC series hoses are for those special applications where non-conductivity is a must. The HR & HRC series hose operates at 10,000 psi working and 40,000 psi burst, (4:1 safety factor). Light weight and durable, the multi-layered design complies with M.H.I. I.J.100 hose specifications. Orange in color, the HR and HRC are easily identified from standard conductive hoses. ▼

Model	Length (ft)	Hose Ends		I.D. (in)
HR3	3	3/8" NPTF Male	3/8" NPTF Male	.25"
HR6	6			
HR10	10			
HR20	20			
HRC3	3	3/8" NPTF Male	C213 Coupler*	
HRC6	6			
HRC10	10			
HRC20	20			

Thermo-Plastic HP & HPC series hoses are recommended for demanding applications. Along with their distinctive green color, the HP & HPC series hoses boast a 10,000 psi working, 40,000 psi minimum burst, (4:1 safety factor) and a tough polyurethane outer cover that resists abrasion and wear. Well suited for continuous duty, the reinforced polyester and carbon steel wire design contributes to low volume expansion, minimized fatigue and enhanced system efficiencies. ▼

Model	Length (ft)	Hose Ends		I.D. (in)
HP3	3	3/8" NPTF Male	3/8" NPTF Male	.25"
HP6	6			
HP10	10			
HP20	20			
HP36	36			
HP50	50			
HPC3	3	3/8" NPTF Male	C213 Coupler*	
HPC6	6			
HPC10	10			
HPC20	20			
HPC36	36	C213 Coupler*	C213 Coupler*	
HPC50	50			

Heavy Duty HE & HEC series hoses are for demanding and continuous duty applications that require 10,000 psi working and 40,000 psi burst, (4:1 safety factor) but where rubber coated, steel wire braid design is preferred. These hoses are well suited in operating temperatures up to 150° F. ▼

Model	Length (ft)	Hose Ends		I.D. (in)
HE6	6	3/8" NPTF Male	3/8" NPTF Male	.25"
HE10	10			
HE20	20			
HEC6	6	3/8" NPTF Male	C213 Coupler*	
HEC10	10			
HEC20	20			

All hoses with couplers includes CR215 Dust Cap.