

SYSTEM ACCESSORIES

PROPER SELECTION

2, 3 AND 4 WAY CONTROL VALVES



The 2 and 3 way valves are used to operate single acting cylinders and tools. The 4 way version is used to operate double acting cylinders or tools.

IN-LINE VALVES



Maximize the control and safety factor of your system arrangement with our in-line valves.

MANIFOLDS



Manifolds are the central component of your system arrangement. Precision control needle valves and 3/8" ports are standard. Manifolds can be connected together to accommodate any size system.

COUPLERS / FITTINGS



These couplers & fittings provide maximum fluid flow and are plated to resist corrosion. The no-spill style coupler is utilized where safety and environmental needs are a demand.

GAUGES



These analog and digital gauges give the operator a window to the system. Select from PSI or tonnage readings to meet your specific requirements. Simplex high pressure gauges offer reliability along with durability.


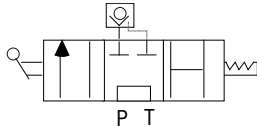
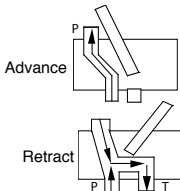

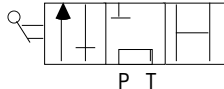
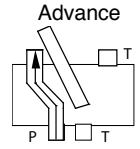

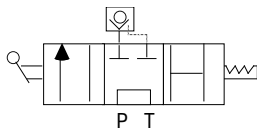
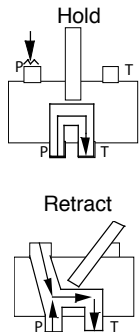

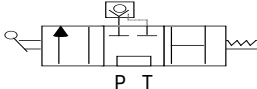
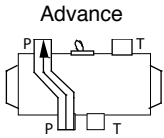

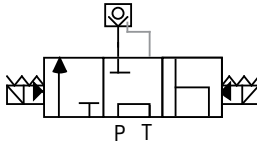
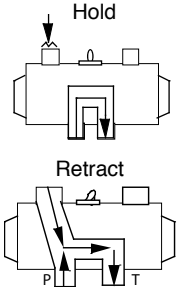

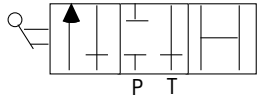
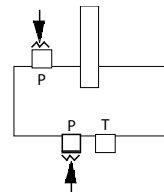


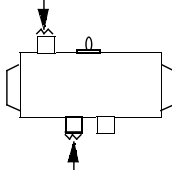
HOSES



HD rubber and non-conductive thermo-plastic style hoses are ideal for demanding and continuous operation with up to a 4:1 safety factor.


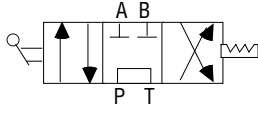
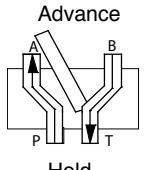
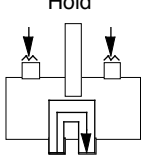
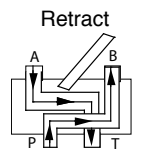

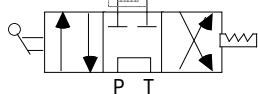
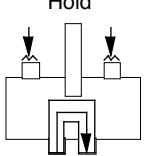
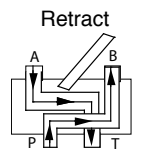

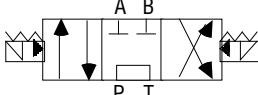
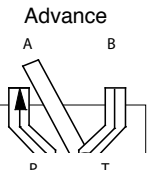

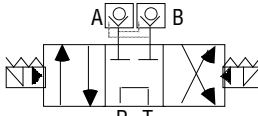
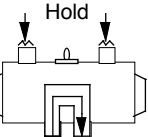
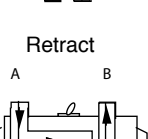

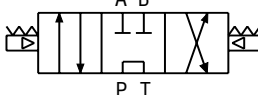
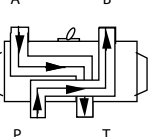

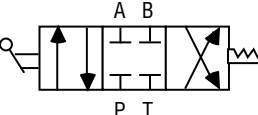
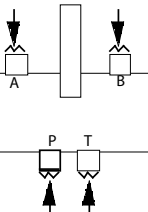

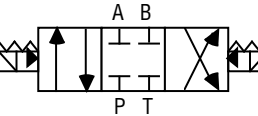
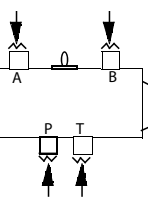
SYSTEM ACCESSORIES

2 & 3 WAY CONTROL VALVES

| 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. |  |  |
|  | VPS3 Pump mounted, electric solenoid actuated, 3 position, 3 way valve with remote pendant switch allows remote operation of system directional control. |  |  |
|  | VPSL3 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 VPSL3 provides positive load holding in the center position, and will not allow pressure drop while shifting. |  |  |
| Remote Mounted Valves - For Single Acting Cylinders & Tools | | | |
|  | VRM3 & VRM3CC VRM3 is remote mounted, manual valve, 3 position, 3 way tandem center. (reference VP3 schematic) VRM3CC is remote mounted, manual valve, 3 position, 3 way closed center. |  |  |
|  | VRS3 & VRS3CC VRS3 is remote mounted, solenoid valve, 3 position, 3 way tandem center. (reference VPS3 schematic) VRS3CC is remote mounted, solenoid valve, 3 position, 3 way closed center. |  |  |


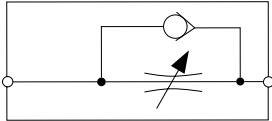

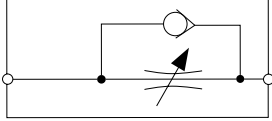

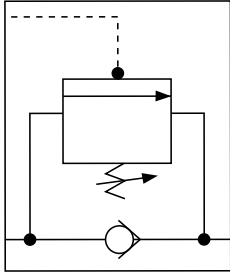

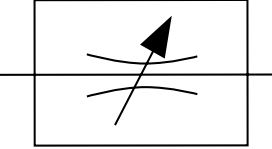

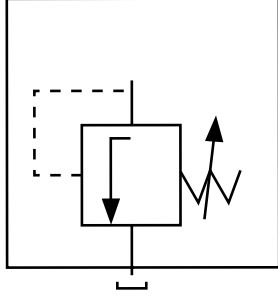

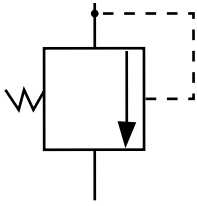
4 WAY CONTROL VALVES

SYSTEM ACCESSORIES


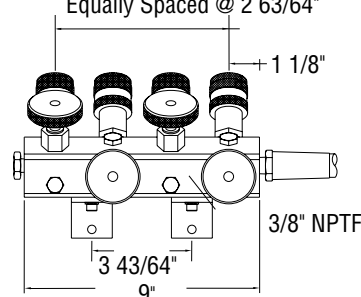

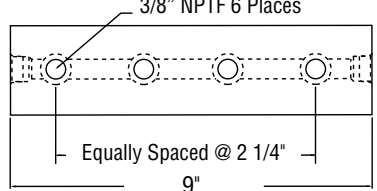

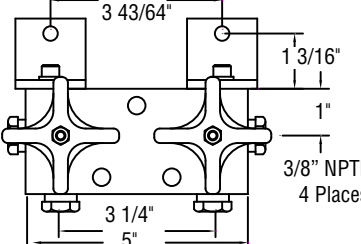

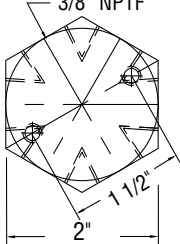

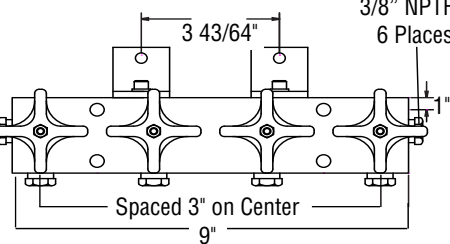
| Model | Description | Hydraulic Schematic | Functional Flow Schematic |
|---|--|--|---|
|  | VP4 Pump mounted, 3 position, 4 way valve is used with double-acting cylinders and tools. This valve controls direction of oil for advancing, holding & retracting. The center position holds the load with the pump motor running or off. |  |  Advance  Hold  Retract |
|  | 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 . |  |  Retract  |
|  | VPS4 Pump mounted, electric solenoid actuated, 3 position, 4 way valve with remote pendant switch. Same as VP4, but allows remote operation of directional control. |  |  Advance |
|  | VPSL4 Pump mounted, electric solenoid actuated, 3 position, 4 way valve with remote pendant switch functions the same as VPS4, but with a built in pilot operated check valve. The VPSL4 provides positive load holding in the center position, and will not allow pressure drop while shifting. |  |  Hold  Retract |
|  | 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. |  |  Retract |
| Remote Mounted Valves - For Double Acting Cylinders & Tools | | | |
|  | VRM4 & VRM4CC VRM4 is remote mounted, manual valve, 3 position, 4 way tandem center. (reference VP4 schematic) VRM4CC is remote mounted, manual valve, 3 position, 4 way closed center. | VRM4CC  |  |
|  | VRS4 & VRS4CC VRS4 is remote mounted, solenoid valve, 3 position, 4 way tandem center. (reference VPS4 schematic) VRS4CC is remote mounted, solenoid valve, 3 position, 4 way closed center. | VRS4CC  |  |

SYSTEM ACCESSORIES

IN-LINE SYSTEM VALVES

| Model | Description | Hydraulic Schematic |
|---|---|---|
|  | <p>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).</p> |  |
|  | <p>Check Valve is a V10E with polarized high flow couplers for direct, rapid mounting to cylinder couplers.</p> |  |
|  | <p>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.</p> |  |
|  | <p>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)</p> |  |
|  | <p>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).</p> |  |
|  | <p>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</p> |  |

HIGH PRESSURE MANIFOLDS








| Model | Description | Technical Specifications |
|---|--|---|
|  | <p>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</p> <p style="text-align: right;"><i>All dimensions in inches.</i></p> |  |
|  | <p>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</p> <p style="text-align: right;"><i>All dimensions in inches.</i></p> |  |
|  | <p>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.</p> <p style="text-align: right;"><i>All dimensions in inches.</i></p> |  |
|  | <p>6 Port Inline Hex Manifold: The M3 inline hex manifold features (6) - 3/8" NPTF threaded ports & mounting holes.</p> <p style="text-align: right;"><i>All dimensions in inches.</i></p> |  |
|  | <p>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.</p> <p style="text-align: right;"><i>All dimensions in inches.</i></p> |  |

SYSTEM ACCESSORIES

1/4" NPTF COUPLERS











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

3/8 NPTF COUPLERS

| Model | Description | |
|---|------------------------|--|
| 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. | | |
|  | 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. | | |
|  | C513 | Hose Coupler Half |
|  | C511 | Ram Coupler Half |
|  | C509 | Coupler Set Complete with 2 Dust Caps |
|  | CD515 CD516 | Dust Cap Ram Half Dust Cap Hose Half |

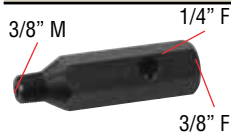
SYSTEM ACCESSORIES

NPTF FITTINGS & OIL

| Model | Description | Model | Description |
|--|--|--|--|
|  | F1 Hex Nipple (2) 3/8" m NPT Threads |  | F10 Reducer Fitting 3/8" m TO 1/4" f NPT Threads |
|  | F3 3" Nipple (2) 3/8" m NPT Threads |  | F11 Tee (3) 3/8" f NPT Threads |
|  | F6 6" Nipple (2) 3/8" m NPT Threads |  | F13 Coupling (2) 3/8" f NPT Threads |
|  | F7 90° Elbow (2) 3/8" f NPT Threads |  | F15 Cross Fitting (4) 3/8" f NPT Threads |
|  | F9 90° St. Elbow 3/8" m - 3/8" f NPT Threads |  | F17 Reducer Fitting 1/4" m TO 3/8" f NPT Threads |

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

Gauge Adapter



GA1

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.



| MODEL | HYDRAULIC OIL QUANTITY |
|-------|------------------------|
| A01 | 1 GALLON |
| A05 | 5 GALLONS |
| A055 | 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




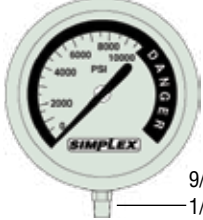

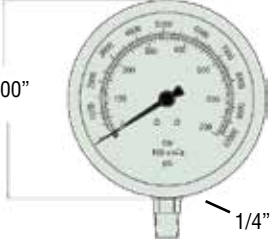

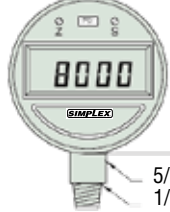

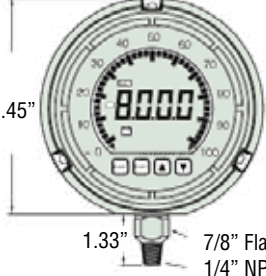
FLASH POINT - 400° F

ANALINE POINT - 204.8° F

INCLUDES: ANTI-FOAM, ANTI-RUST AND LOW TEMPERATURE ADDITIVES

ANALOG & DIGITAL GAUGES

SYSTEM ACCESSORIES

| Model | Description | Dimensions |
|---|--|--|
|  | <p>The G5 is a high quality compact liquid filled gauge that reads in both PSI and Bar. Liquid filled to dampen needle vibration, the G5 is perfect for applications up to 10,000 psi.</p> <ul style="list-style-type: none"> ■ Liquid filled dampens needle vibration. ■ 1% full scale accuracy. ■ 500 psi increment. ■ Stainless steel casing. | <p>2.50"</p>  <p>9/16" Square 1/4" NPT</p> |
|  | <p>The G6 is a larger, easy to read liquid filled gauge that reads in both PSI and Bar with increments of 500 psi. The calibrated scale reads from 0-10,000 psi with 10,000 psi to 15,000 psi as a warning zone.</p> <ul style="list-style-type: none"> ■ Liquid filled dampens needle vibration. ■ 1% full scale accuracy. ■ Large easy to read 4" face. ■ Rubber blowout plugs for safety. ■ Stainless steel casing. | <p>4.00"</p>  <p>9/16" Square 1/4" NPT</p> |
|  | <p>The G7 is a larger, easy to read liquid filled gauge that reads in both PSI and Bar with increments of 100 PSI/10bar. The calibrated scale reads from 0-10,000 psi.</p> <ul style="list-style-type: none"> ■ Liquid filled dampens needle vibration. ■ 1% full scale accuracy. ■ Large easy to read 4" face. ■ Rubber blowout plugs for safety. ■ Stainless steel casing. ■ Standard on all Simplex Torque Wrench Pumps. | <p>4.00"</p>  <p>1/4" NPT</p> |
|  | <p>The GD1 is designed for the high cycle pressure application where mechanical gauges don't hold up. The GD1 is a direct mount, compact gauge with an all stainless steel sensor that is vibration & shock resistant. (0-10,000 psi)</p> <ul style="list-style-type: none"> ■ Self powered Lithium batteries. ■ Full 4 digit display. ■ + / - .25% full scale accuracy. ■ 10 million cycle life minimum. |  <p>2.66" 5/8" 1/4" NPT</p> |
|  | <p>The GD2 digital gauge combines the best features of analog and digital instruments. The 0.75" high full 4 digit display is easily read at a distance and the "analog" bar graph allows instant estimation of changing pressures. The all stainless steel sensor is vibration and shock resistant. (0-10,000 psi)</p> <ul style="list-style-type: none"> ■ 0.75" 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. |  <p>5.45" 1.33" 7/8" Flats 1/4" NPT</p> |







| | CALIBRATED RANGE 0-10,000 PSI/TONS | FACE DIA. | CYLINDERS USED WITH |
|--------------|---------------------------------------|--------------|--|
| GT5 | 0-5, 10, 15 | 4" | ALL 5, 10 & 15 TON MODELS |
| GT20 | 0-20, 50 | 4" | ALL 20 RFS & RLS 50 TON MODELS |
| GT25 | 0-25, 55, 100 | 4" | ALL 25 & 55 RFS & RLS 100 TON MODELS |
| GT30 | 0-30, 50, 100 | 4" | 30 TON MODELS, 50 & 100 RLR & RLN |
| GT100 | 0-100, 150, 200 | 4" | RDA 100 & 200 SERIES RLR & RLN 150 & 200 |
| GTH12 | 0-12, 20, 30 | 4" | 12, 20 & 30 TON RC & RCD SERIES |
| GTH60 | 0-60, 100, 150 | 4" | 60, 100 & 150 TON RC & RCD SERIES |

SYSTEM ACCESSORIES






HIGH PRESSURE HOSES

HA & HCA Industrial Grade 1/4" 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 | 1/4" |
| 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 | | | |

*All hoses with couplers includes CR215 Dust Cap.





High Flow HD & HDC 3/8" 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 | 3/8" |
| 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.







HIGH PERFORMANCE HOSES

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 | 1/4" |
| HR6 | 6 | | | |
| HR10 | 10 | | | |
| HR20 | 20 | | | |
| HRC3 | 3 |  3/8" NPTF Male |  C213 Coupler* | |
| HRC6 | 6 | | | |
| HRC10 | 10 | | | |
| HRC20 | 20 | | | |





*All hoses with couplers includes CR215 Dust Cap.

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 | 1/4" |
| 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 | | | |

*All hoses with couplers includes CR215 Dust Cap.

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 | 1/4" |
| HE10 | 10 | | | |
| HE20 | 20 | | | |
| HEC6 | 6 |  3/8" NPTF Male |  C213 Coupler* | |
| HEC10 | 10 | | | |
| HEC20 | 20 | | | |

*All hoses with couplers includes CR215 Dust Cap.