



bolting

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All Simplex Product Dimensions are subject to change without notice. Please consult your Simplex Representative for verification of critical specifications, or email: info@tksimplex.com

All Simplex Products are warranted against defects in material and workmanship. Any Simplex Product proven defective will be repaired or replaced at no charge. Contact your authorized Simplex Service Center or visit the Simplex Support Center at: www.tksimplex.com



Positioning & Lifting Equipment Specialists

Corporate Office ►

The Simplex office includes sales, marketing, technical service and engineering resources, assuring that any customer questions can be addressed seamlessly and in a timely manner.



Manufacturing ►

The latest in manufacturing CNC technology is used to improve product availability along with providing service excellence in the competitive market we share.



Quality Control ►

Simplex sets the highest standards in maintaining quality by utilizing the latest CMM quality control technology to assure consistent quality is maintained across all product lines. All Simplex vendors are held to the same high quality standards that Simplex has come to expect. All Simplex products meet or exceed ANSI/ASME B30.1 safety standards where applicable.



Positioning & Lifting Equipment Specialists



◀ Products

Designed and manufactured to withstand the rugged environments of the worldwide industrial market. Simplex offers a wide variety of high pressure hydraulic and mechanical products which are widely used in the mining, construction, manufacturing / MRO, fabricating, energy, power generation and shipbuilding markets.



◀ System Arrangements

To assist our customers in selecting the proper components, Simplex offers System Development assistance to assure the correct products are used for your particular application. Contact the sales office for details.



◀ Corporate Website

To keep up with the demand of the "information now" lifestyle, our website incorporates the latest interactive technology that will keep you engaged throughout your online experience. This website can be used from simply inquiring about the product line, to fully gradeable on-line training. This technology is a frontrunner in the industry.

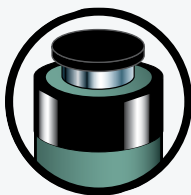
(Please refer to inside back cover for more detailed information on our website).

1. Choose The Right Ram.



You must know the weight of what you intend to lift and choose a ram with at least 20% more capacity. Be aware of possible load shift requiring more capacity at any particular lifting point.

2. Inspect All System Components.



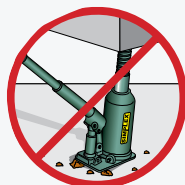
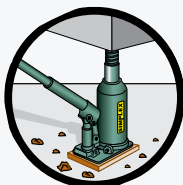
Check each component before you set up your hydraulic system. Do not use damaged or worn components. Turn them in for repair or replacement.

3. Safety Instructions.



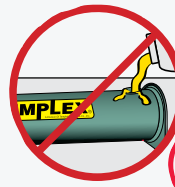
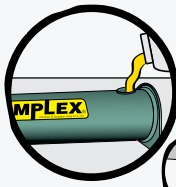
Read all warning labels and instructions. Operating instructions must be understood before using equipment. Never remove labels from equipment. Replace missing, worn, or damaged labels. Always wear safety goggles and protective clothing when using hydraulic equipment.

4. Each Jack Or Ram Must Be Fully Supported At The Base.



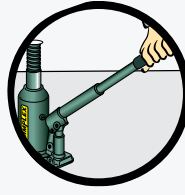
Every jack or ram, whether used individually or in a system, should be completely supported on a solid, firm, non-sliding foundation capable of supporting the load.

5. Fill Oil Reservoirs With Cylinder Retracted.



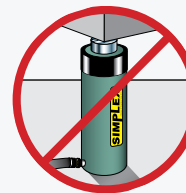
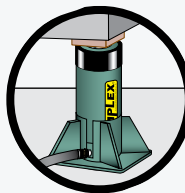
Only fill pump to recommended level, and fill only when connected cylinder is fully retracted.

6. Know How Your Hydraulics Work.



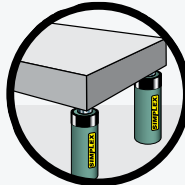
Do not use extensions or cheater bars on hydraulic jacks or hand pumps to raise a load.

7. Center The Load On The Lifting Point.



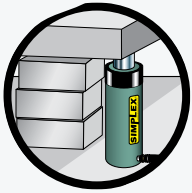
The load must be centered on the ram, or equally distributed on multiple rams. Off center loading can result in the ram slipping out and loss of the load.

8. When Using Multiple Rams, Distribute The Load Evenly.



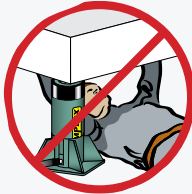
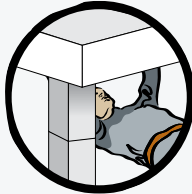
For multiple ram lifts, you must be able to determine the location and number of lifting points that will allow the load to be evenly distributed to all the rams. Size, center of gravity, and load geometry must be considered in order to correctly determine load balance.

9. Block Or Crib Your Load As It Raises.



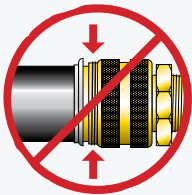
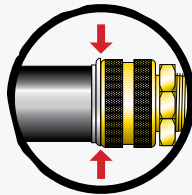
Place blocking or cribbing under the loads as you raise it. Each time you raise it higher, insert more blocking. Position yourself in a manner that will keep you clear of the load, and will not allow your hands or other body parts between the load and the cribbing.

10. Do Not Use Rams As Permanent Supports.



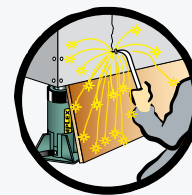
Hydraulic rams are not meant to be used as permanent supports, but are designed to lift and lower. If you need to hold the load for any length of time, cribbing or Simplex locknut cylinders should be used.

11. Hydraulic Connections.



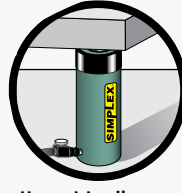
When making connections with quick couplers, make sure the couplings are fully engaged. Threaded connections such as fittings, gauges, etc. must be securely tightened and leak free. Never use excessive tightening force that may distort the fittings or strip the thread profile.

12. Avoid Extreme Heat Or Weld Splatter.



Weld splatter will damage plunger rods and hoses. Hydraulic fluid can ignite if vaporized or exposed to high temperatures.

13. Hydraulic Disconnections.



Never attempt to disconnect hydraulic hoses, fittings or couplers under pressure. Unload the ram, open the release screw on the hand pump and shift or open all hydraulic controls several times. If system includes a gauge, double check the gauge to insure pressure has been completely released.

14. Do Not Carry Or Drag Pumps And Rams By Their Hoses.



Dragging or carrying rams or pumps by a connected hose can damage the couplers and hoses. Using damaged couplers and hoses can be dangerous.

15. Keep Hydraulic Hoses Free Of Obstructions.

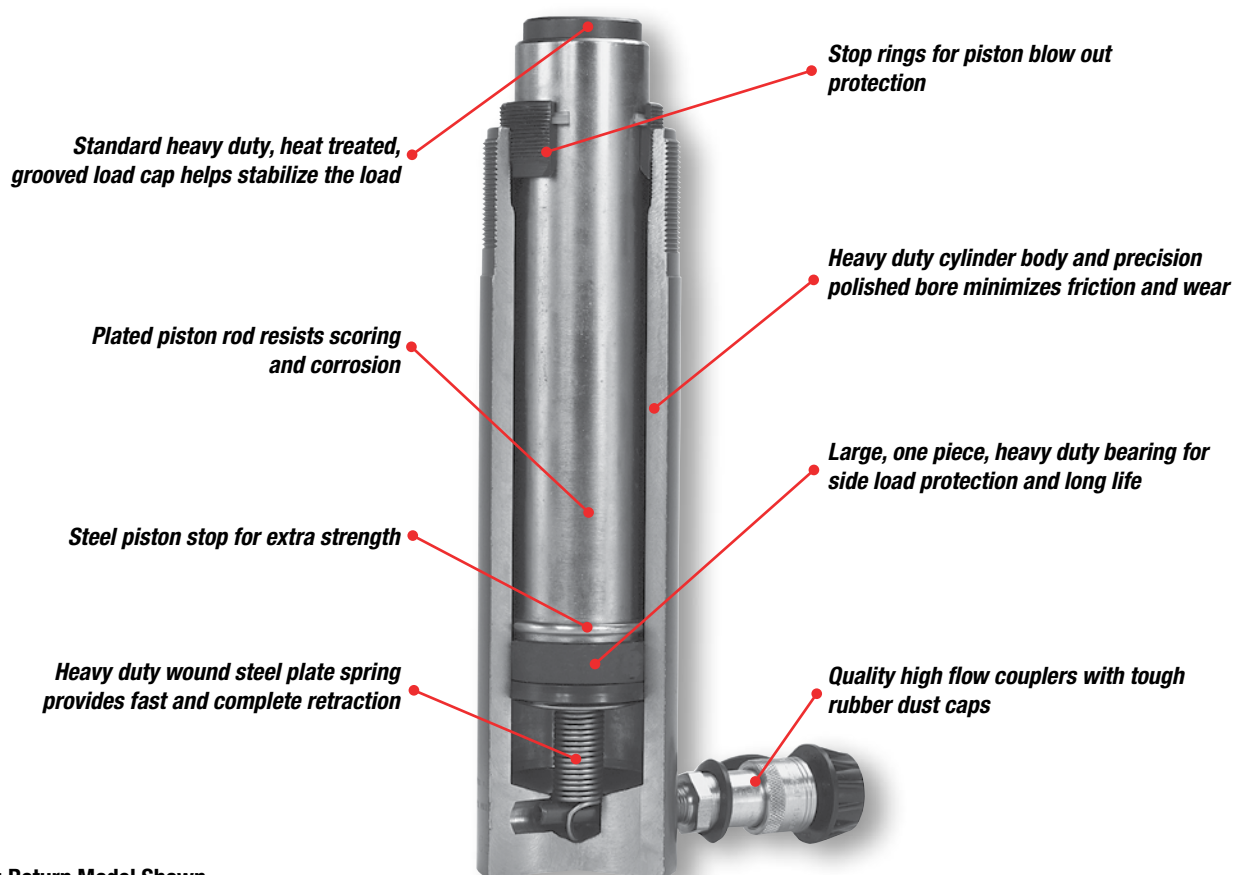


Do not drop sharp or heavy objects on hose. Keep hose out of heavy traffic areas. This will cause internal damage to hose wire strands. Applying pressure to a damaged hose may cause it to rupture. Avoid sharp bends and kinks when routing hydraulic hoses.



CYLINDERS





Spring Return Model Shown

PRODUCT LINE OVERVIEW

► Wide Variety

Simplex offers the widest selection of cylinder styles, tonnages and strokes to match your specific requests.

► Built for Rugged Industrial/Construction Use

All Simplex cylinders meet ANSI/ASME B30.1 SAFETY STANDARDS. Stop rings, plated pistons and heavy duty construction provide trouble free operation and long life.

► Standard Design Elements

Cylinders are designed for 10,000 psi operating pressure which offers a smaller footprint and greater force.

► Versatile Fixturing

Threaded collars and internal plunger threads withstand full loading for maximum flexibility in fixturing.

► Piston Blow-Out Protection

All Simplex cylinders (*excluding CLP Series*) incorporate a positive piston stop to limit piston travel at the end of the stroke, and allows the cylinder to be operated at full stroke. Piston stops add strength and safety to your cylinder.

► Protection from Contamination

Polyurethane wipers clean the rod surface during retraction, protecting the inner cylinder assembly from dirt, moisture and other contaminants.

Single Acting



Single acting cylinders are hydraulically driven in one direction. These cylinders are used in many general purpose applications when retract speed is not a requirement. This cylinder type requires a pump source with a single acting valve for proper operation.

Both Spring Return and Load Return cylinders are constructed and operated in a similar manner, but function differently on the return.

- ▶ *Spring Return cylinders are hydraulically extended, but utilize a spring for retraction assistance.*
- ▶ *Load Return cylinders are hydraulically extended and retracted by the load or other external forces.*
- ▶ *Simplex 3 Way, 3 Position Suc-O-Matic valve can draw hydraulic oil out of any single acting cylinder. In the retract position, the valve generates enough suction to fully retract any single acting load return cylinder automatically.*

Double Acting



Double acting cylinders are hydraulically driven in both directions. These cylinders are used in many general purpose applications where retraction speed is required or the mechanical forces required for return is not available. This cylinder type requires a pump source with a 4 way valve for proper operation.

- ▶ *Oil entering the advance port exerts pressure on the bottom plunger face raising the piston upward and oil on the retract side exits the retract port.*
- ▶ *When oil is pumped into the retract port, it exerts pressure on the top plunger face causing the plunger to retract and oil exits the advance port.*
- ▶ *A safety relief is installed on the retract side of all Simplex double acting cylinders to prevent over-pressurization in the event the retract line has been blocked.*

Center Hole



Center hole cylinders are available in both single and double acting styles. These cylinders are primarily used for pushing and pulling applications. Both styles have a center tube that allows a rod or cable to pass through the cylinder and assist in tensioning / pulling applications.

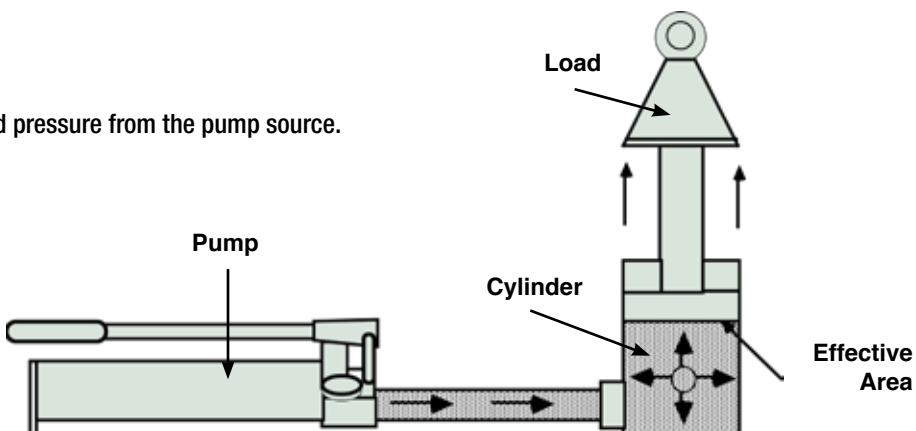
Both single acting and double acting center-hole cylinders are constructed and operated in a similar manner to their standard counterparts.

- ▶ *Single acting center-hole cylinders utilize a spring for retraction. This cylinder type requires a pump source with a 3 way valve for proper operation.*
- ▶ *Double acting center-hole cylinders are hydraulically extended and retracted. This cylinder type requires a pump source with a 4 way valve for proper operation.*

Force & Speed Calculations

Flow: Created by the pump source.

Pressure: Generated by resistance to flow and pressure from the pump source. This resistance is usually the result of a load.



Force: The amount of force a hydraulic cylinder can generate is equal to hydraulic pressure times the effective area of the cylinder. (Effective area is the surface area of the piston face in square inches.) For multiple cylinder systems, multiply the effective area times the number of cylinders times pressure to determine system force.

Formula for Calculation of Output Force:

$$\frac{\text{psi} \times \text{Cylinder Effective Area} \times \text{No. of Cylinders}}{2,000} = \text{TONS}$$

Speed: When using a “power pump” the speed at which your cylinder will lift is determined by dividing the pump’s flow by the cylinder’s effective area.

Formula for Calculation of Lifting Speed:

$$\frac{\text{Pump Flow Per Minute}}{\text{Cylinder Effective Area} \times \text{No. of Cylinders}} = \frac{\text{in./min.}}{\text{Piston Travel}}$$

| Cylinder Series | Description/Applications | Cylinder Type | Plunger Type | Capacity (Tons) | Strokes (in) | Page (#) |
|-----------------|--|---------------|--------------|-----------------|--------------|----------|
| R | General Purpose Spring Return For Fast Retraction | Single Acting | Solid | 5 - 100 | .62 - 14.38 | 10-11 |
| RAS | Lightweight, General Purpose Spring Return | | | 30 - 150 | 2 - 10 | 26 |
| RAL | Lightweight Load Holding Locknut Spring Return | | | 50 - 150 | 2 - 10 | 27 |
| CLP | Low Profile Locknut | | | 60 - 500 | 1.77 - 1.97 | 24 |
| RAC | Lightweight Center Hole Spring Return | Double Acting | Center Hole | 30 - 60 | 3 - 6 | 28 |
| RACD | Lightweight Center Hole | | | 30 - 150 | 2 - 10 | 29 |
| RLS | Low Height Spring Return | Single Acting | Solid | 10 - 100 | 1.5 - 2.25 | 12 |
| RFS | Very Low Height Spring Return | | | 5 - 150 | .44 - .62 | 13 |
| RP | Pull Cylinder Spring Return | | | 2 - 5 | 5 - 5.5 | 14 |
| RLN | Mechanical Load Holding / Locknut Load Return | | | 30 - 1,000 | 2 - 12 | 20-21 |
| RLR | Single Acting Load Return | Double Acting | Center Hole | 30 - 1,000 | 2 - 12 | 18-19 |
| RC | Single Acting Center Hole | | | 12 - 100 | .31 - 6.13 | 16 |
| RCD | Double Acting Center Hole | | | 30 - 646 | 3 - 10 | 17 |
| RDP | Double Acting Pull Cylinder | | Solid | 10 - 100 | 6 | 15 |
| RDA | Double Acting Controlled Retraction / Fast Cycling | | | 10 - 1,000 | 2 - 24 | 22-23 |

STEEL CYLINDERS

R Series - Spring Return

SIMPLEX



R556 Shown

Capacity► 5 - 100 tons
Stroke► .62 - 14.38 in.
Maximum Pressure► 10,000 psi

- HD internal spring for fast retract assistance.
- Heat treated load caps are standard.
- Stop ring for piston blow-out protection.
- Plated piston resists scoring & corrosion.
- High flow couplers are plated to resist corrosion.
- Rod wiper protects inner cylinder from dirt.

HOSES - pages 78 - 79



Heavy duty and thermo plastic hydraulic hoses to meet your requirements and safety factor.

GAUGES - page 77



Improve your system visibility and safety by adding an inline hydraulic gauge to your circuit.

POWER PUMPS - pages 43 - 65



Simplex offers a wide variety of lightweight power pumps to fit any application.

THINK SAFETY



Please refer to pages 4&5 for a complete list of safety tips and recommendations.

MANIFOLDS - page 73

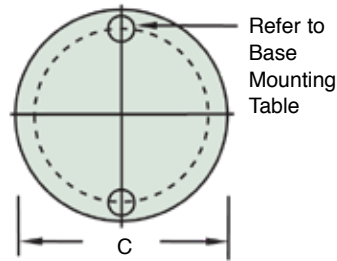
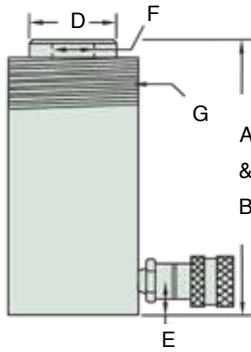


The ideal solution in obtaining precise control when operating multiple cylinders.

This R10010 is used to press the drive shaft into a large industrial fan during standard maintenance. When combined with a Simplex power pump, this job was completed quickly and safely. ▼



R50 Base Mounting Hole 7/8" through x 23/64 "C" bore (1/4" depth).



Standard Base Mounting Holes R51 through R10010 Cylinders

| Model | Bolt Circle (in) | Thread (in) | Thread Depth (in) |
|---------|------------------|--------------|-------------------|
| 5 Ton* | 1 | .25 - 20 UNC | .56 |
| 10 Ton | 1.56 | .31 - 18 UNC | .50 |
| 15 Ton | 1.88 | .38 - 16 UNC | .50 |
| 25 Ton | 2.31 | .5 - 13 UNC | .75 |
| 30 Ton | ---- | ---- | ---- |
| 55 Ton | 3.75 | .5 - 13 UNC | .75 |
| 75 Ton | ---- | ---- | ---- |
| 100 Ton | 5.5 | .75 - 10 UNC | 1.00 |

| Model | Cap. (Tons) | Stroke (in) | Oil Cap. Req'd (cu in) | Ram Bore Dia. (in) | Effect Area (sq.in.) | Pres. @ Cap. (psi) | A | B | C | D | E | F | | G | | Wgt. (lbs) |
|--------|-------------|-------------|------------------------|--------------------|----------------------|--------------------|------------------|------------------|----------------|------------------|-----------------------|------------------------|---------------------------|---------------------|--------------------------|------------|
| | | | | | | | Min. Height (in) | Ext. Height (in) | Body O.D. (in) | Piston O.D. (in) | Base to Port C/L (in) | Piston I.D. Thrds (in) | Piston Threads Depth (in) | Collar Threads (in) | Collar Threads Lgth (in) | |
| R50 | 5 | 0.62 | 0.6 | 1.13 | 0.99 | 10,000 | 1.62 | 2.24 | 2.62 | 1.00 | 0.75 | ---- | ---- | ---- | ---- | 2.5 |
| R51 | 5 | 1.13 | 0.99 | 1.13 | 0.99 | 10,000 | 4.37 | 5.50 | 1.5 | 1.00 | 0.75 | .75 -- 16 | 0.75 | 1.5 -- 16 | 1.13 | 2.3 |
| R53 | 5 | 3.13 | 2.98 | 1.13 | 0.99 | 10,000 | 6.52 | 9.65 | 1.5 | 1.00 | 0.75 | .75 -- 16 | 0.75 | 1.5 -- 16 | 1.13 | 3.3 |
| R55 | 5 | 5.13 | 4.97 | 1.13 | 0.99 | 10,000 | 8.52 | 13.65 | 1.5 | 1.00 | 0.75 | .75 -- 16 | 0.75 | 1.5 -- 16 | 1.13 | 4.1 |
| R57 | 5 | 7.18 | 6.96 | 1.13 | 0.99 | 10,000 | 10.75 | 17.93 | 1.5 | 1.00 | 0.75 | .75 -- 16 | 0.75 | 1.5 -- 16 | 1.13 | 5.3 |
| R59 | 5 | 9.18 | 9.07 | 1.13 | 0.99 | 10,000 | 12.83 | 22.01 | 1.5 | 1.00 | 0.75 | .75 -- 16 | 0.75 | 1.5 -- 16 | 1.13 | 6.1 |
| R101 | 10 | 1.03 | 2.3 | 1.69 | 2.24 | 8,945 | 3.50 | 4.53 | 2.25 | 1.50 | 0.75 | ---- | ---- | 2.25 -- 14 | 1.13 | 4 |
| R102 | 10 | 2.19 | 4.18 | 1.69 | 2.24 | 8,945 | 4.78 | 6.97 | 2.25 | 1.50 | 0.75 | 1 -- 8 | 0.75 | 2.25 -- 14 | 1.13 | 5.1 |
| R104 | 10 | 4.19 | 9.2 | 1.69 | 2.24 | 8,945 | 6.78 | 10.97 | 2.25 | 1.50 | 0.75 | 1 -- 8 | 0.75 | 2.25 -- 14 | 1.13 | 7.2 |
| R106 | 10 | 6.00 | 13.7 | 1.69 | 2.24 | 8,929 | 9.78 | 15.78 | 2.25 | 1.50 | 0.75 | 1 -- 8 | 0.75 | 2.25 -- 14 | 1.13 | 9.8 |
| R108 | 10 | 8.00 | 17.89 | 1.69 | 2.24 | 8,929 | 11.78 | 19.78 | 2.25 | 1.50 | 0.75 | 1 -- 8 | 0.75 | 2.25 -- 14 | 1.13 | 12 |
| R1010 | 10 | 10.00 | 22.65 | 1.69 | 2.24 | 8,929 | 13.78 | 23.78 | 2.25 | 1.50 | 0.75 | 1 -- 8 | 0.75 | 2.25 -- 14 | 1.13 | 14 |
| R1012 | 10 | 12.00 | 26.84 | 1.69 | 2.24 | 8,929 | 15.78 | 27.78 | 2.25 | 1.50 | 0.75 | 1 -- 8 | 0.75 | 2.25 -- 14 | 1.06 | 15 |
| R1014 | 10 | 14.00 | 31.31 | 1.69 | 2.24 | 8,929 | 17.78 | 31.78 | 2.25 | 1.50 | 0.75 | 1 -- 8 | 0.75 | 2.25 -- 14 | 1.06 | 18 |
| R152 | 15 | 2.13 | 6.28 | 2.00 | 3.14 | 9,554 | 5.83 | 7.96 | 2.75 | 1.63 | 0.75 | 1 -- 8 | 1.00 | 2.75 -- 16 | 1.19 | 9 |
| R154 | 15 | 4.13 | 12.57 | 2.00 | 3.14 | 9,554 | 7.83 | 11.96 | 2.75 | 1.63 | 0.75 | 1 -- 8 | 1.00 | 2.75 -- 16 | 1.19 | 11 |
| R156 | 15 | 6.38 | 19 | 2.00 | 3.14 | 9,554 | 10.69 | 17.07 | 2.75 | 1.63 | 1.00 | 1 -- 8 | 1.00 | 2.75 -- 16 | 1.19 | 15 |
| R1510 | 15 | 10.38 | 31.4 | 2.00 | 3.14 | 9,554 | 14.69 | 25.07 | 2.75 | 1.63 | 1.00 | 1 -- 8 | 1.00 | 2.75 -- 16 | 1.19 | 21 |
| R1514 | 15 | 14.38 | 44 | 2.00 | 3.14 | 9,554 | 18.69 | 33.07 | 2.75 | 1.63 | 1.00 | 1 -- 8 | 1.00 | 2.75 -- 16 | 1.19 | 26 |
| R251 | 25 | 1.00 | 5.16 | 2.56 | 5.16 | 9,690 | 5.50 | 6.50 | 3.62 | 2.25 | 1.00 | 1.5 -- 16 | 1.13 | 3.31 -- 12 | 1.93 | 13 |
| R252 | 25 | 2.00 | 10.31 | 2.56 | 5.16 | 9,690 | 6.50 | 8.50 | 3.62 | 2.25 | 1.00 | 1.5 -- 16 | 1.13 | 3.31 -- 12 | 1.93 | 14 |
| R254 | 25 | 4.00 | 20.63 | 2.56 | 5.16 | 9,690 | 8.50 | 12.50 | 3.62 | 2.25 | 1.00 | 1.5 -- 16 | 1.13 | 3.31 -- 12 | 1.93 | 18 |
| R256 | 25 | 6.19 | 32.23 | 2.56 | 5.16 | 9,690 | 10.75 | 16.94 | 3.62 | 2.25 | 1.00 | 1.5 -- 16 | 1.13 | 3.31 -- 12 | 1.93 | 22 |
| R258 | 25 | 8.19 | 42.55 | 2.56 | 5.16 | 9,690 | 12.75 | 20.94 | 3.62 | 2.25 | 1.00 | 1.5 -- 16 | 1.13 | 3.31 -- 12 | 1.93 | 27 |
| R2510 | 25 | 10.19 | 52.86 | 2.56 | 5.16 | 9,690 | 14.75 | 24.94 | 3.62 | 2.25 | 1.00 | 1.5 -- 16 | 1.13 | 3.31 -- 12 | 1.93 | 31 |
| R2512 | 25 | 12.19 | 63.18 | 2.56 | 5.16 | 9,690 | 16.75 | 28.94 | 3.62 | 2.25 | 1.00 | 1.5 -- 16 | 1.13 | 3.31 -- 12 | 1.93 | 36 |
| R2514 | 25 | 14.19 | 73.49 | 2.56 | 5.16 | 9,690 | 18.75 | 32.94 | 3.62 | 2.25 | 1.00 | 1.5 -- 16 | 1.13 | 3.31 -- 12 | 1.93 | 39 |
| R308 | 30 | 8.25 | 53.6 | 2.88 | 6.49 | 9,245 | 15.25 | 23.50 | 4 | 2.25 | 2.25 | 1.5 -- 16 | 1.00 | 3.31 -- 12 | 1.93 | 40 |
| R552 | 55 | 2.00 | 22.08 | 3.75 | 11.04 | 9,960 | 6.94 | 8.94 | 5 | 3.13 | 1.38 | ---- | ---- | 5 -- 12 | 2.81 | 33 |
| R554 | 55 | 4.00 | 44.16 | 3.75 | 11.04 | 9,960 | 8.94 | 12.94 | 5 | 3.13 | 1.38 | ---- | ---- | 5 -- 12 | 2.81 | 42 |
| R556 | 55 | 6.19 | 69 | 3.75 | 11.04 | 9,960 | 11.06 | 17.25 | 5 | 3.13 | 1.38 | ---- | ---- | 5 -- 12 | 2.81 | 51 |
| R5513 | 55 | 13.25 | 146.3 | 3.75 | 11.04 | 9,960 | 18.26 | 31.51 | 5 | 3.13 | 1.38 | ---- | ---- | 5 -- 12 | 2.81 | 83 |
| R756 | 75 | 6.06 | 95.4 | 4.50 | 15.90 | 9,430 | 11.31 | 17.37 | 5.75 | 3.75 | 1.19 | ---- | ---- | 5.75 -- 12 | 1.75 | 65 |
| R7513 | 75 | 13.06 | 208 | 4.50 | 15.90 | 9,430 | 19.38 | 32.44 | 5.75 | 3.75 | 1.19 | ---- | ---- | 5.75 -- 12 | 1.75 | 130 |
| R1006 | 100 | 6.63 | 137 | 5.13 | 20.63 | 9,695 | 14.06 | 20.69 | 7 | 4.13 | 1.62 | ---- | ---- | 6.87 -- 12 | 1.75 | 90 |
| R10010 | 100 | 10.25 | 212 | 5.13 | 20.63 | 9,695 | 17.69 | 27.94 | 7 | 4.13 | 1.62 | ---- | ---- | 6.87 -- 12 | 1.75 | 110 |

STEEL CYLINDERS

RLS Series - Low-Profile Spring Return

SIMPLEX



Capacity► 10 - 100 tons

Stroke► 1.5 - 2.44 in.

Maximum Pressure► 10,000 psi

- Compact low-profile design.
- HD spring for fast retraction.
- Grooved plunger to stabilize the load.
- Stop ring for piston blow-out protection.
- Rod wiper protects inner cylinder from dirt.
- Plated piston to resist scoring & corrosion.

RLS201 Shown



GAUGES - page 77

Improve your system visibility and safety by adding an inline hydraulic gauge to your circuit.



IN-LINE VALVES - page 72

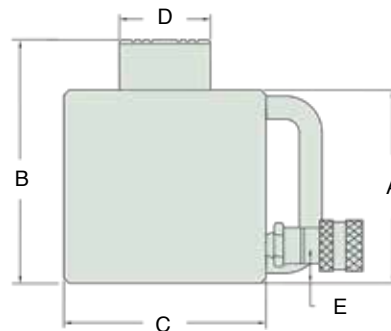
Maximize control and safety with our in-line valves.



POWER PUMPS - pages 43 - 65

Simplex offers a wide variety of lightweight power pumps to fit any application.

Simplex RLS Series provides the ideal fit and force required for most bridge lifting and pier cap maintenance jobs.▼



| Model | Cap. (tons) | Stroke (in) | Oil Capacity Required (cu.in.) | Ram Bore Diameter (in) | Effect Area (sq in) | Pressure @ Capacity (psi) | A | B | C | D | E | Wgt. (lbs) |
|---------|----------------|----------------|---|---------------------------------|---------------------------|------------------------------------|---------------------------|----------------------------|----------------------|------------------------|-----------------------------|---------------|
| | | | | | | | Minimum Height (in) | Extended Height (in) | Body O.D. (in) | Piston O.D. (in) | Base to Port C/L (in) | |
| RLS101 | 10 | 1.5 | 3.4 | 1.68 | 2.24 | 8,940 | 3.47 | 4.97 | 2.75 | 1.5 | .68 | 9 |
| RLS201 | 20 | 1.75 | 7.8 | 2.38 | 4.43 | 9,030 | 3.87 | 5.62 | 3.62 | 2 | .68 | 11 |
| RLS302 | 30 | 2.44 | 15.8 | 2.87 | 6.49 | 9,250 | 4.62 | 7.06 | 4 | 2.62 | .75 | 15 |
| RLS502 | 50 | 2.38 | 22.8 | 3.5 | 9.62 | 10,400 | 4.81 | 7.19 | 4.87 | 2.75 | .93 | 24 |
| RLS1002 | 100 | 2.25 | 44.2 | 5 | 19.63 | 10,200 | 5.56 | 7.81 | 6.5 | 3.62 | 1.25 | 50 |



Capacity► 5 - 150 tons
 Stroke► .44 - .62 in.
 Maximum Pressure► 10,000 psi

- Plated piston to resist scoring & corrosion.
- Low profile, high tonnage design.
- Rod wiper protects inner cylinder from dirt.

RFS20 Shown

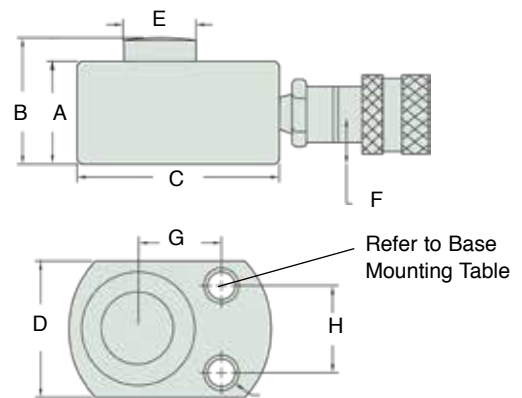


HAND PUMPS - pages 31 - 41

Simplex carries the widest variety of Hand Pumps for specific applications.

| Model | Base Mounting Hole Dimensions (in) |
|-------|--------------------------------------|
| R50 | .22 through x .36 C' Bore (.25 Deep) |
| RFS10 | .28 through x .42 C' Bore (.31 Deep) |
| RFS20 | .39 through x .62 C' Bore (.39 Deep) |

Simplex RFS Series cylinders provide the ideal fit and force required for most bridge lifting and pier cap maintenance jobs. ▼



| Model | Cap. (tons) | Stroke (in) | Oil Cap. Req'd (cu.in.) | Ram Bore Dia. (in) | Effective Area (sq.in.) | Pressure @ Cap. (psi) | A | B | C | D | E | F | G | H | Wgt. (lbs) |
|--------|-------------|-------------|-------------------------|--------------------|-------------------------|-----------------------|---------------------|----------------------|------------------|-----------------|------------------|-----------------------|------------|------------|------------|
| | | | | | | | Minimum Height (in) | Extended Height (in) | Body Length (in) | Body Width (in) | Piston O.D. (in) | Base to Port C/L (in) | Width (in) | Width (in) | |
| R50 | 5 | .62 | .6 | 1.13 | .99 | 10,000 | 1.62 | 2.25 | 2.56 | 1.62 | 1 | .75 | 1 | 1.13 | 2.5 |
| RFS10 | 10 | .44 | 1 | 1.68 | 2.24 | 8,940 | 1.68 | 2.13 | 3.25 | 2.19 | .75 | .75 | 1.34 | 1.41 | 3.3 |
| RFS20 | 20 | .44 | 1.9 | 2.38 | 4.43 | 9,030 | 2.03 | 2.47 | 4 | 3 | 1.13 | .75 | 1.56 | 1.93 | 6 |
| RFS30 | 30 | .5 | 3.2 | 2.87 | 6.49 | 9,250 | 2.31 | 2.81 | 4.5 | 3.75 | 1.38 | .75 | ..... | ..... | 8.5 |
| RFS50 | 50 | .62 | 6 | 3.5 | 9.62 | 10,400 | 2.62 | 3.25 | 5.5 | 4.5 | 1.75 | .75 | ..... | ..... | 14.3 |
| RFS75 | 75 | .62 | 10 | 4.5 | 15.90 | 9,440 | 3.13 | 3.75 | 6.5 | 5.5 | 2.13 | .75 | ..... | ..... | 24.5 |
| RFS100 | 100 | .62 | 12.3 | 5 | 19.63 | 10,200 | 3.38 | 4 | 7 | 6 | 2.5 | .75 | ..... | ..... | 31 |
| RFS150 | 150 | .56 | 17.2 | 6.25 | 30.66 | 9,785 | 3.93 | 4.5 | 8.5 | 7.5 | 3 | .93 | ..... | ..... | 50.5 |

STEEL CYLINDERS

RP Series — Single Acting Pull Cylinder

SIMPLEX



RP55A Shown

Capacity Range► 2 - 5 tons

Stroke Range► 5 - 5.5 in.

Maximum Pressure► 10,000 psi

- Designed for pulling & tensioning applications.
- High strength, all steel construction.
- Chrome plated piston rod resists corrosion.
- Spring loaded piston rod automatically extends when pressure is released.
- Rod wiper protects inner cylinder from dirt.

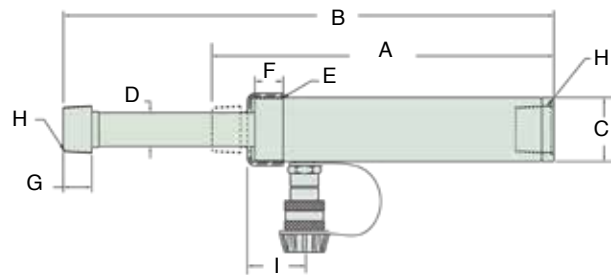
THINK SAFETY

Please refer to pages 4&5 for a complete list of safety tips and recommendations.

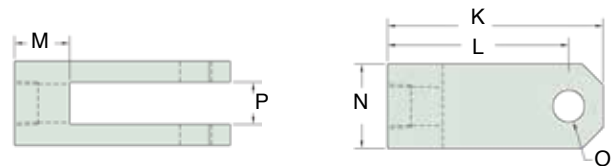
POWER PUMPS - pages 43 - 65

Simplex offers a wide variety of lightweight power pumps to fit any application.

Pull Cylinder Dimensions



Clevis Dimensions



The RP55A pull cylinder and a G5 Air Pump was needed to position structural I-Beams for welding. ▼

Optional Accessories

| Model | K (in) | L (in) | M (in) | N (in) | O (in) | P (in) |
|-------|-----------|-----------|-----------|-----------|-----------|-----------|
| RPC25 | 5.13 | 4.31 | 1.31 | 2 | .75 | 1 |
| RPC55 | 6 | 5 | 1.5 | 2.5 | .87 | 1.5 |

Both models include adapter and clevis.



| Model | Capacity (tons) | Stroke (in) | Oil Capacity Required (cu.in.) | Pressure @ Capacity (psi) | A | B | C | D | E | F | G | H | I | Wgt. (lbs) |
|-------|--------------------|----------------|---|------------------------------------|---------------------------|----------------------------|----------------------|------------------------|--------------------------|------------------------------------|---------------------------|-----------------------|-----------------------------|---------------|
| | | | | | Minimum Height (in) | Extended Height (in) | Body O.D. (in) | Piston O.D. (in) | Collar Thread (in) | Collar Thread Length (in) | Piston Adapter (in) | NPT Thread (in) | Cylinder To Port (in) | |
| RP25A | 2 | 5 | 2.8 | 9,090 | 10.44 | 15.44 | 1.87 | .75 | 1.5 - 16 | 1 | 1.13 | .75 - 14 | 1.77 | 4 |
| RP55A | 5 | 5.5 | 6.2 | 8,850 | 11.88 | 17.38 | 2.25 | 1.19 | 2.25 - 14 | 1.06 | 1.25 | 1.25 - 11.5 | 1.68 | 10 |



RDP506 Shown

Capacity Range► 10 - 100 tons

Stroke Range► 6 in.

Maximum Pressure► 10,000 psi

- Hard chrome plated steel piston rods resist corrosion.
- Ideal for joining steel plates for welding.
- Useful for the fabrication industry as well as cable tensioning.
- Double acting cylinder provides quick & full retraction.



COUPLERS - pages 74 - 75

High flow quick disconnect couplers provide a quick change to a variety of pumps.



IN-LINE VALVES - page 72

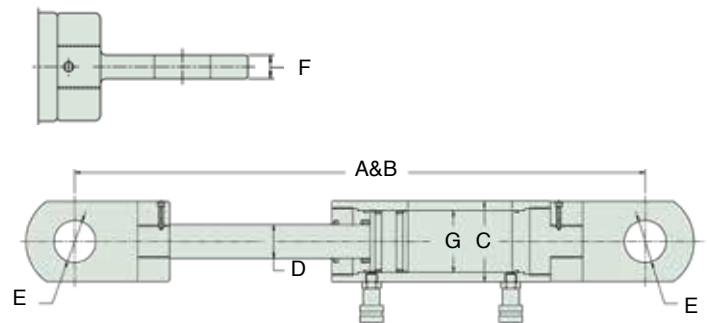
Maximize control and safety with our in-line valves.



HOSES - pages 78 - 79

Heavy duty and thermo plastic hydraulic hoses to meet your requirements and safety factor.

The Simplex RDP506 is used by this manufacturer of heavy steel cables.▼



| Model | Capacity (tons) | Stroke (in) | Oil Capacity Required (cu.in.) | Effect Area (sq.in.) | Pressure @ Capacity (psi) | A | B | C | D | E | F | G | Wgt. (lbs) |
|---------|-----------------|-------------|--------------------------------|----------------------|---------------------------|------------------------|----------------------|----------------|------------------|---------------------------|-------------------|--------------------|------------|
| | | | | | | Closed Dimensions (in) | Open Dimensions (in) | Body O.D. (in) | Piston O.D. (in) | Clevis Hole Diameter (in) | Clevis Width (in) | Bore Diameter (in) | |
| RDP106 | 10 | 6 | 11.5 | 2.4 | 8333 | 21.1 | 27.1 | 3.34 | 1.57 | 1.18 | .78 | 2.36 | 30.8 |
| RDP306 | 30 | 6 | 16.56 | 6.6 | 9091 | 26.3 | 32.3 | 4.53 | 1.89 | 2.36 | .98 | 3.46 | 63.8 |
| RDP506 | 50 | 6 | 25.9 | 11.7 | 8547 | 25.2 | 31.2 | 6.10 | 2.36 | 2.75 | 1.77 | 4.53 | 99 |
| RDP1006 | 100 | 6 | 30.38 | 22.2 | 9010 | 29.1 | 35.1 | 7.80 | 2.56 | 3.15 | 1.97 | 5.91 | 193.6 |

STEEL CYLINDERS

RC Series — Single Acting Center Hole

SIMPLEX



RC603A Shown

Capacity Range► 12 - 100 tons

Stroke Range► .31 - 6.13 in.

Maximum Pressure► 10,000 psi

- Induction hardened piston rod for added strength eliminating the need for a loadcap.
- Collar threads for easy fixturing.
- Design allows for both push & pull forces.
- Large center hole for greater flexibility.



POWER PUMPS - pages 43 - 65

Simplex offers a wide variety of lightweight power pumps to fit any application.



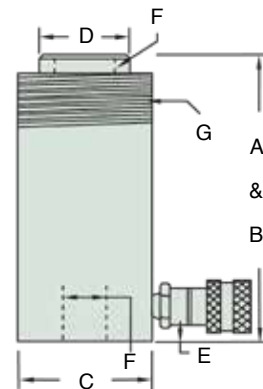
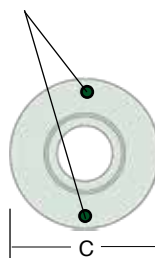
CENTER HOLE

Corrosion resistant technology on the piston rod and retaining nut extends cylinder life.

Base Mounting Hole Dimensions

| Model | Bolt Circle (in) | Thread (in) | Thread Depth (in) |
|---------|------------------|---------------|-------------------|
| RC120A | 2.00 | 5/16 - 18 UNC | .25 |
| RC121A | NO TAPPED HOLES | | |
| RC123A | 2.00 | 5/16 - 18 UNC | .50 |
| 20 Ton | 3.25 | 3/8 - 16 UNC | .37 |
| 30 Ton | 3.63 | 3/8 - 16 UNC | .62 |
| 60 Ton | 5.13 | 1/2 - 13 UNC | .55 |
| RC1003A | 7.00 | 5/8 - 11 UNC | .75 |

• Refer to Base Mounting Table



| Model | Cap. (tons) | Stroke (in) | Oil Capacity Required (cu. in.) | Effect Area (sq.in.) | Pres. @ Cap. (psi) | A | B | C | D | E | F | G | | Wgt. (lbs) |
|---------|-------------|-------------|---------------------------------|----------------------|--------------------|---------------------|----------------------|----------------|------------------|-----------------------|---------------------------|---------------------|---------------------------|------------|
| | | | | | | Minimum Height (in) | Extended Height (in) | Body O.D. (in) | Piston O.D. (in) | Base to Port C/L (in) | Center Hole Diameter (in) | Collar Threads (in) | Collar Thread Length (in) | |
| RC120A | 12 | 0.31 | .86 | 2.76 | 8,695 | 2.2 | 2.5 | 2.75 | 1.38 | 0.38 | .77 | 2 3/4-16 | 1.19 | 3.5 |
| RC121A | 12 | 1.63 | 4.5 | 2.76 | 8,695 | 4.75 | 6.38 | 2.75 | 1.38 | 0.98 | .77 | 2 3/4-16 | 1.19 | 6.5 |
| RC123A | 12 | 3 | 8.3 | 2.76 | 8,695 | 7.25 | 10.25 | 2.75 | 1.38 | 0.98 | .77 | 2 3/4-16 | 1.19 | 10 |
| RC202A | 20 | 2 | 9.46 | 4.73 | 8,456 | 6.42 | 8.42 | 3.88 | 2.12 | 0.75 | 1.06 | 3 7/8-12 | 1.50 | 17 |
| RC206A | 20 | 6.10 | 28.67 | 4.73 | 8,456 | 12.09 | 18.09 | 3.88 | 2.12 | 0.75 | 1.06 | 3 7/8-12 | 1.50 | 31 |
| RC302A | 30 | 2.5 | 18.05 | 7.22 | 8,310 | 7.03 | 9.53 | 4.5 | 2.5 | 0.85 | 1.31 | 4 1/2-12 | 1.66 | 24 |
| RC306A | 30 | 6.13 | 44.23 | 7.22 | 8,310 | 13 | 19.13 | 4.5 | 2.5 | 1.00 | 1.31 | 4 1/2-12 | 1.66 | 48 |
| RC603A | 60 | 3 | 38.29 | 12.73 | 9,426 | 9.75 | 13.25 | 6.26 | 3.62 | 1.25 | 2.12 | 6 1/4-12 | 1.91 | 62 |
| RC606A | 60 | 6 | 76.41 | 12.73 | 9,426 | 12.75 | 18.75 | 6.26 | 3.26 | 1.25 | 2.12 | 6 1/4-12 | 1.91 | 78 |
| RC1003A | 100 | 3 | 62 | 20.60 | 9,694 | 10 | 13 | 8.38 | 5 | 1.50 | 3.11 | 8 3/8-12 | 2.38 | 132 |



RCD307A Shown

Capacity Range► 30 - 500 tons

Stroke Range► 3 - 10.13 in.

Maximum Pressure► 10,000 psi

- Induction hardened piston rod for added strength eliminating the need for a loadcap.
- Performance Nitride/QPQ corrosion resistant technology on the piston rod and retaining nut for extended cylinder life.
- Large center hole for greater flexibility.



RELIEF VALVE

Relief valve prevents damage in case of over pressurization.



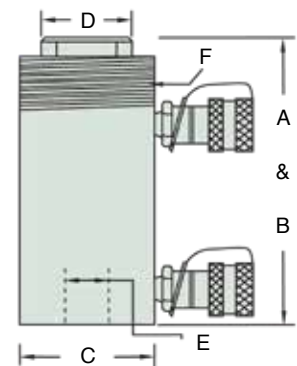
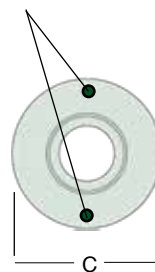
HOSES - pages 78 - 79

Heavy duty and thermo plastic hydraulic hoses to meet your requirements and safety factor.

Base Mounting Hole Dimensions

| Model | Bolt Circle (in) | Thread (in) | Thread Depth (in) |
|---------|------------------|--------------|-------------------|
| 30 Ton | 3.63 | 3/8 - 16 UNC | .62 |
| 60 Ton | 5.12 | 1/2 - 13 UNC | .55 |
| 100 Ton | 7.00 | 5/8 - 11 UNC | .75 |

• Refer to Base Mounting Table



| Model | Push Capacity (tons) | Stroke (in) | Oil Capacity Required (cu.in.) | Push Effect Area (sq.in.) | Pres. @ Cap. (psi) | A | B | C | D | E | F | | Wgt. (lbs) |
|-----------|----------------------|-------------|--------------------------------|---------------------------|--------------------|---------------------|----------------------|----------------|------------------|-----------------------|---------------------|----------------------------|------------|
| | | | | | | Minimum Height (in) | Extended Height (in) | Body O.D. (in) | Piston O.D. (in) | Center Hole Dia. (in) | Collar Threads (in) | Collar Threads Length (in) | |
| RCD307A | 36 | 7 | 50.55 | 7.22 | 8,310 | 13 | 20 | 4.5 | 2.5 | 1.31 | 4 1/2-12 | 1.66 | 48 |
| RCD6010A | 64 | 10.12 | 128.94 | 12.73 | 9,426 | 17.25 | 27.37 | 6.26 | 3.62 | 2.13 | 6 1/4-12 | 1.91 | 101 |
| RCD1003A | 103 | 3 | 61.88 | 20.63 | 9,694 | 10 | 13 | 8.38 | 5.0 | 3.13 | 8 3/8-12 | 2.38 | 135 |
| RCD1006A | 103 | 6 | 123.76 | 20.63 | 9,694 | 13.50 | 19.50 | 8.38 | 5.0 | 3.13 | 8 3/8-12 | 2.38 | 175 |
| RCD10010A | 103 | 10.13 | 208.84 | 20.63 | 9,694 | 18.12 | 28.25 | 8.38 | 5.0 | 3.13 | 8 3/8-12 | 2.38 | 235 |
| RCD1505 | 150 | 5 | 78 | 31.6 | 9,491 | 13.13 | 18.13 | 10 | 6 | 3.13 | --- | --- | 240 |
| RCD2006C | 246 | 6 | 172 | 49.3 | 10,000 | 16.25 | 22.25 | 12 | 8 | 4.13 | --- | --- | 385 |
| RCD3006C | 434 | 6 | 296 | 91.5 | 10,000 | 18.75 | 24.75 | 15 | 9.5 | 4.25 | --- | --- | 720 |
| RCD5006C | 646 | 6 | 463 | 129.3 | 10,000 | 21.5 | 27.5 | 17.75 | 12 | 5.25 | --- | --- | 1230 |

STEEL CYLINDERS

RLR Series – Load Return

SIMPLEX



RLR1006 Shown

Capacity Range▶ 30 - 1000 tons

Stroke Range▶ 6 - 12 in.

Maximum Pressure▶ 10,000 psi

- ▶ Large bearings resist side load.
- ▶ Plated piston to resist scoring & corrosion.
- ▶ Stop ring for piston blow-out protection.
- ▶ Custom strokes and capacities up to 1,500 tons available, contact factory.
- ▶ Swivel Eye Bolts are used 100 tons and up.

THINK SAFETY

Please refer to pages 4&5 for a complete list of safety tips and recommendations.

POWER PUMPS - pages 43 - 65

Simplex offers a wide variety of lightweight power pumps to fit any application.

SWIVEL LOAD CAP

5° swivel load caps on 30-100 ton models help stabilize the load.

DESIGN CONSTRUCTION 150+ TONS



Piston Flange

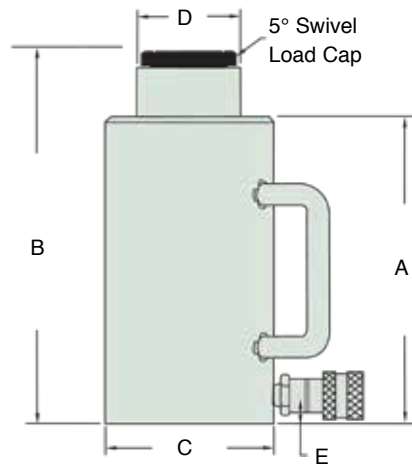
A thick bronze inlay on the piston flange virtually eliminates scoring of cylinder bore while offering the best protection against accidental side loading. (150 Tons and up)

A ten cylinder system, using RLR40012 cylinders, is used to lift the bed of this dragline so that maintenance can be performed on the rollers.▼

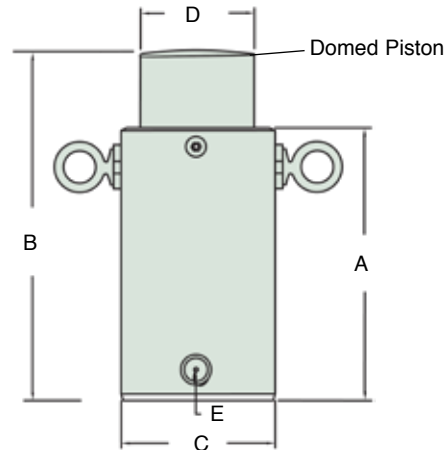


• Note: 100 Ton Models Have Eyebolts For Positioning

30 - 100 Tons



150 - 1000 Tons



| Model | Cap. (tons) | Stroke (in) | Oil Capacity Required (cu.in.) | Ram Bore Diameter (in) | Effective Area (sq in) | Pressure @ Capacity (psi) | A | B | C | D | E | Wgt. (lbs) |
|-----------|----------------|----------------|---|---------------------------------|------------------------------|------------------------------------|---------------------------|----------------------------|----------------------|------------------------|-----------------------------|---------------|
| | | | | | | | Minimum Height (in) | Extended Height (in) | Body O.D. (in) | Piston O.D. (in) | Base to Port C/L (in) | |
| RLR306 | 30 | 6 | 38.9 | 2.87 | 6.49 | 9,240 | 9.38 | 15.38 | 4 | 2 | .75 | 32 |
| RLR502 | 50 | 2 | 22.1 | 3.75 | 11.05 | 9,054 | 5.44 | 7.44 | 5 | 3 | .78 | 30 |
| RLR506 | 50 | 6 | 66.3 | 3.75 | 11.05 | 9,054 | 9.44 | 15.44 | 5 | 3 | .78 | 55 |
| RLR5010 | 50 | 10 | 133 | 3.75 | 11.05 | 9,054 | 13.44 | 23.44 | 5 | 3 | .78 | 92 |
| RLR1006 | 100 | 6 | 118 | 5 | 19.63 | 10,200 | 10.56 | 16.56 | 6.38 | 3.38 | 1.25 | 90 |
| RLR10010 | 100 | 10 | 196 | 5 | 19.63 | 10,200 | 14.56 | 24.56 | 6.38 | 3.38 | 1.25 | 126 |
| RLR1502 | 150 | 2 | 66.4 | 6.25 | 30.68 | 9,778 | 7 | 9 | 9 | 5.56 | 1.25 | 117 |
| RLR1506 | 150 | 6 | 199 | 6.25 | 30.68 | 9,778 | 11 | 17 | 9 | 5.56 | 1.93 | 189 |
| RLR15012 | 150 | 12 | 398 | 6.25 | 30.68 | 9,778 | 17 | 29 | 9 | 5.56 | 1.93 | 297 |
| RLR2002 | 200 | 2 | 88.4 | 7.25 | 41.28 | 9,054 | 8 | 10 | 10 | 6.56 | 2.06 | 184 |
| RLR2006 | 200 | 6 | 265 | 7.25 | 41.28 | 9,054 | 12 | 18 | 10 | 6.56 | 2.06 | 282 |
| RLR20012 | 200 | 12 | 530 | 7.25 | 41.28 | 9,054 | 18 | 30 | 10 | 6.56 | 2.06 | 429 |
| RLR3002 | 300 | 2 | 120 | 8.75 | 60.13 | 9,978 | 11.5 | 13.5 | 12 | 7.81 | 2.44 | 277 |
| RLR3006 | 300 | 6 | 361 | 8.75 | 60.13 | 9,978 | 13.75 | 19.75 | 12 | 7.81 | 2.44 | 405 |
| RLR30012 | 300 | 12 | 722 | 8.75 | 60.13 | 9,978 | 19.75 | 31.75 | 12 | 7.81 | 2.44 | 597 |
| RLR4002 | 400 | 2 | 174 | 10.5 | 86.59 | 9,238 | 11.5 | 13.5 | 14 | 6.56 | 3 | 455 |
| RLR4006 | 400 | 6 | 520 | 10.5 | 86.59 | 9,238 | 15.5 | 21.5 | 14 | 6.56 | 3 | 612 |
| RLR40012 | 400 | 12 | 1040 | 10.5 | 86.59 | 9,238 | 21.5 | 33.5 | 14 | 6.56 | 3 | 842 |
| RLR5002 | 500 | 2 | 208 | 11.5 | 103.87 | 9,628 | 12.62 | 14.62 | 16 | 10.31 | 3.19 | 627 |
| RLR5006 | 500 | 6 | 623 | 11.5 | 103.87 | 9,628 | 16.62 | 22.62 | 16 | 10.31 | 3.19 | 855 |
| RLR50012 | 500 | 12 | 1246 | 11.5 | 103.87 | 9,628 | 22.62 | 34.62 | 16 | 10.31 | 3.19 | 1197 |
| RLR6002 | 600 | 2 | 246 | 12.5 | 122.71 | 9,778 | 13.5 | 15.5 | 17.5 | 11.31 | 3.5 | 655 |
| RLR6006 | 600 | 6 | 738 | 12.5 | 122.71 | 9,778 | 17.5 | 23.5 | 17.5 | 11.31 | 3.5 | 902 |
| RLR60012 | 600 | 12 | 1476 | 12.5 | 122.71 | 9,778 | 23.5 | 35.5 | 17.5 | 11.31 | 3.5 | 1273 |
| RLR8002 | 800 | 2 | 330 | 14.5 | 165.13 | 9,690 | 14.44 | 16.44 | 18 | 13.31 | 4.13 | 997 |
| RLR8006 | 800 | 6 | 991 | 14.5 | 165.13 | 9,690 | 18.44 | 24.44 | 18 | 13.31 | 4.13 | 1256 |
| RLR80012 | 800 | 12 | 1982 | 14.5 | 165.13 | 9,690 | 24.44 | 36.44 | 18 | 13.31 | 4.13 | 1644 |
| RLR10002 | 1000 | 2 | 402 | 16 | 201.06 | 9,950 | 16.13 | 18.13 | 21 | 14.93 | 4.25 | 1523 |
| RLR10006 | 1000 | 6 | 1206 | 16 | 201.06 | 9,950 | 20.13 | 26.13 | 21 | 14.93 | 4.25 | 1883 |
| RLR100012 | 1000 | 12 | 2412 | 16 | 201.06 | 9,950 | 26.13 | 38.13 | 21 | 14.93 | 4.25 | 2423 |

STEEL CYLINDERS

RLN Series - Locknut Load Return

SIMPLEX



RLN1006 Shown

Capacity Range► 30 - 1000 tons

Stroke Range► 2 - 12 in.

Maximum Pressure► 10,000 psi

- Lock nuts offer extended load holding.
- Stop ring for piston blow-out protection.
- 5° swivel load caps on 30-100 ton models for side load protection.
- Custom strokes and capacities up to 1,500 tons available, contact factory.

HOSES - pages 78 - 79

Heavy duty and thermo plastic hydraulic hoses to meet your requirements and safety factor.

POWER PUMPS - pages 43 - 65

Simplex offers a wide variety of lightweight power pumps to fit any application.

SWIVEL EYE BOLTS

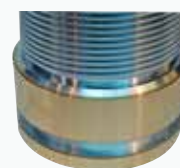
Swivel Eye Bolts are used on 100 tons and up.

DESIGN CONSTRUCTION 200+ TONS



Acme Screw

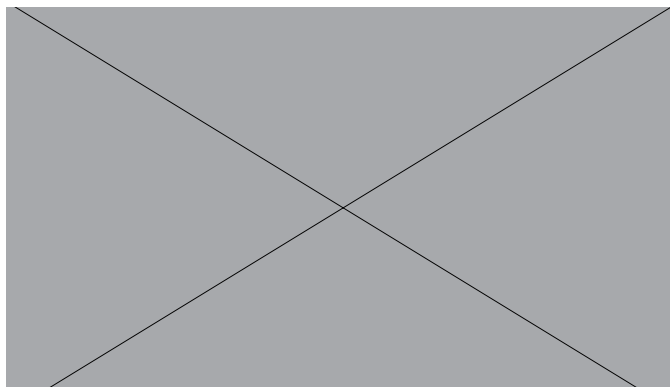
Class 2 ACME Thread offers high strength & ease to move lock-nut into position for load holding.



Piston Flange

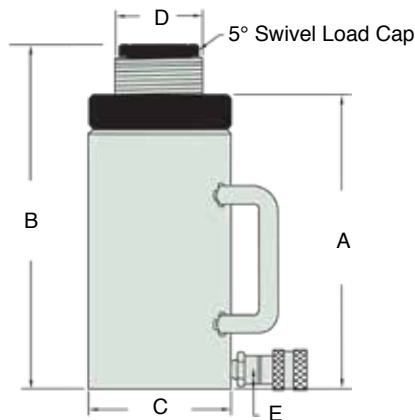
A thick bronze inlay on the piston flange virtually eliminates scoring of cylinder bore while offering the best protection against accidental side loading. (200 Tons and up)

Simplex RLN Series cylinders are used to lift and hold this large platform for maintenance at this shipyard. ▼

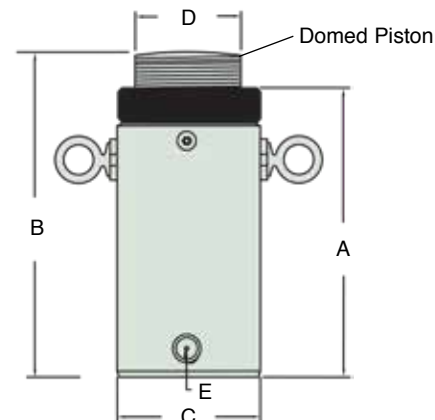


• Note: 100 Ton Models Have Eyebolts For Positioning

30 - 100 Tons



150 - 1000 Tons



| Model | Cap. (tons) | Stroke (in) | Oil Capacity Required (cu.in.) | Ram Bore Diameter (in) | Effect Area (sq.in.) | Pressure @ Capacity (psi) | A | B | C | D | E | Wgt. (lbs) |
|-----------|----------------|----------------|---|---------------------------------|----------------------------|------------------------------------|---------------------------|----------------------------|----------------------|------------------------|-----------------------------|---------------|
| | | | | | | | Minimum Height (in) | Extended Height (in) | Body O.D. (in) | Piston O.D. (in) | Base to Port C/L (in) | |
| RLN302 | 30 | 2 | 13 | 2.87 | 6.49 | 9,240 | 6.38 | 8.38 | 4 | 2.44 | .75 | 21 |
| RLN306 | 30 | 6 | 38.9 | 2.87 | 6.49 | 9,240 | 10.38 | 16.38 | 4 | 2.44 | .75 | 35 |
| RLN502 | 50 | 2 | 22.1 | 3.75 | 11.05 | 9,054 | 6.75 | 8.75 | 5 | 3.19 | .78 | 38 |
| RLN506 | 50 | 6 | 66.2 | 3.75 | 11.05 | 9,054 | 10.75 | 16.75 | 5 | 3.19 | .78 | 63 |
| RLN5010 | 50 | 10 | 133 | 3.75 | 11.05 | 9,054 | 14.75 | 24.75 | 5 | 3.19 | .78 | 100 |
| RLN1002 | 100 | 2 | 40 | 5 | 19.63 | 10,200 | 8 | 10 | 6.38 | 4.31 | 1.25 | 87 |
| RLN1006 | 100 | 6 | 118 | 5 | 19.63 | 10,200 | 12 | 18 | 6.38 | 4.31 | 1.25 | 132 |
| RLN10010 | 100 | 10 | 196 | 5 | 19.63 | 10,200 | 16 | 26 | 6.38 | 4.31 | 1.25 | 202 |
| RLN1502 | 150 | 2 | 66.4 | 6.25 | 30.68 | 9,780 | 8 | 10 | 8.5 | 5.56 | 1.93 | 149 |
| RLN1506 | 150 | 6 | 199 | 6.25 | 30.68 | 9,780 | 12.25 | 18 | 8.5 | 5.56 | 1.93 | 221 |
| RLN15012 | 150 | 12 | 398 | 6.25 | 30.68 | 9,780 | 18 | 30 | 8.5 | 5.56 | 1.93 | 311 |
| RLN2002 | 200 | 2 | 88.4 | 7.25 | 41.28 | 9,054 | 9.5 | 11.5 | 10 | 6.56 | 2.06 | 233 |
| RLN2006 | 200 | 6 | 265 | 7.25 | 41.28 | 9,054 | 13.5 | 19.5 | 10 | 6.56 | 2.06 | 332 |
| RLN20012 | 200 | 12 | 530 | 7.25 | 41.28 | 9,054 | 19.5 | 31.5 | 10 | 6.56 | 2.06 | 479 |
| RLN3002 | 300 | 2 | 120 | 8.75 | 60.13 | 9,978 | 11.5 | 13.5 | 12 | 7.81 | 2.44 | 357 |
| RLN3006 | 300 | 6 | 361 | 8.75 | 60.13 | 9,978 | 15.5 | 21.5 | 12 | 7.81 | 2.44 | 485 |
| RLN30012 | 300 | 12 | 722 | 8.75 | 60.13 | 9,978 | 21.5 | 33.5 | 12 | 7.81 | 2.44 | 677 |
| RLN4002 | 400 | 2 | 174 | 10.5 | 86.59 | 9,238 | 13.81 | 15.81 | 14 | 9.31 | 3 | 520 |
| RLN4006 | 400 | 6 | 520 | 10.5 | 86.59 | 9,238 | 17.81 | 23.81 | 14 | 9.31 | 3 | 675 |
| RLN40012 | 400 | 12 | 1040 | 10.5 | 86.59 | 9,238 | 23.81 | 25.81 | 14 | 9.31 | 3 | 905 |
| RLN5002 | 500 | 2 | 208 | 11.5 | 103.87 | 9,628 | 14.75 | 16.75 | 16 | 10.31 | 3.19 | 927 |
| RLN5006 | 500 | 6 | 623 | 11.5 | 103.87 | 9,628 | 18.75 | 24.75 | 16 | 10.31 | 3.19 | 1041 |
| RLN50012 | 500 | 12 | 1246 | 11.5 | 103.87 | 9,628 | 24.75 | 36.75 | 16 | 10.31 | 3.19 | 1383 |
| RLN6002 | 600 | 2 | 246 | 12.5 | 122.79 | 9,778 | 15.62 | 17.62 | 17.5 | 11.31 | 3.5 | 985 |
| RLN6006 | 600 | 6 | 738 | 12.5 | 122.79 | 9,778 | 19.62 | 25.62 | 17.5 | 11.31 | 3.5 | 1232 |
| RLN60012 | 600 | 12 | 1476 | 12.5 | 122.79 | 9,778 | 27.62 | 39.62 | 17.5 | 11.31 | 3.5 | 1603 |
| RLN8002 | 800 | 2 | 330 | 14.5 | 165.13 | 9,690 | 16.93 | 18.93 | 18 | 13.31 | 4.13 | 1148 |
| RLN8006 | 800 | 6 | 991 | 14.5 | 165.13 | 9,690 | 21.93 | 27.93 | 18 | 13.31 | 4.13 | 1407 |
| RLN80012 | 800 | 12 | 1982 | 14.5 | 165.13 | 9,690 | 27.93 | 39.93 | 18 | 13.31 | 4.13 | 1795 |
| RLN10002 | 1000 | 2 | 402 | 16 | 201.06 | 9,950 | 19.62 | 21.62 | 21 | 14.81 | 4.25 | 1818 |
| RLN10006 | 1000 | 6 | 1206 | 16 | 201.06 | 9,950 | 23.62 | 29.62 | 21 | 14.81 | 4.25 | 2178 |
| RLN100012 | 1000 | 12 | 2412 | 16 | 201.06 | 9,950 | 29.62 | 41.62 | 21 | 14.81 | 4.25 | 2718 |

STEEL CYLINDERS

RDA Series - Double Acting

SIMPLEX



RDA10006 Shown -
with optional o/c valve (sold separately)

Capacity Range► 10 - 1000 tons

Stroke Range► 2 - 24 in.

Maximum Pressure► 10,000 psi

- Collar threads designed for full load (10-200 tons).
- Removable load cap for flexibility and safety.
- Stop ring for piston blow-out protection.
- Plated piston to resist scoring & corrosion.
- Large bearings resist side load.
- Rod wiper protects inner cylinder from dirt.
- Custom strokes and capacities up to 1,500 tons available, contact factory.

GAUGES - page 77



Improve your system visibility and safety by adding an inline hydraulic gauge to your circuit.



POWER PUMPS - pages 43 - 65

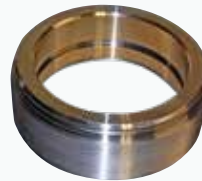
Simplex offers a wide variety of lightweight power pumps to fit any application.



MANIFOLDS - page 73

The ideal solution in obtaining precise control when operating multiple cylinders.

DESIGN CONSTRUCTION 200+ TONS



Bronze Inlay

Thick bronze inlay on the inner diameter of the retaining nut protects the piston rod.

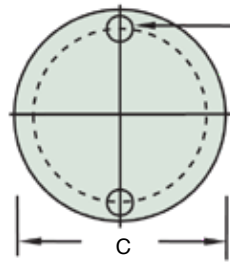


Piston Flange

A thick bronze inlay on the piston flange virtually eliminates scoring of cylinder bore while offering the best protection against accidental side loading. (200 Tons and up)

Maintenance crews relied on Simplex RDA15018 cylinders to help lift, transport and launch a U.S. Navy research ship from dry dock to the ship's launch site. ▼

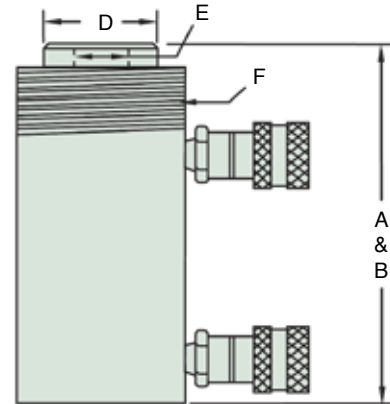




Refer to Base
Mounting Table

Base Mounting Hole Dimensions

| Model | Thread | | Bolt Circle Diameter (in) |
|---------|-----------|------------|---------------------------|
| | Size (in) | Depth (in) | |
| 55 Ton | .62 -11 | .75 | 3.75 |
| 100 Ton | .62 -11 | 1 | 4.25 |
| 150 Ton | 1-8 | 1.38 | 5 |
| 200 Ton | 1-8 | 1.13 | 5 |



| Model | Push Cap. (tons) | Pull Cap. (tons) | Stroke (in) | Oil Cap. Req'd. (cu.in.) | Ram Bore Dia. (in) | Push Effect Area (sq. in) | Pull Effect Area (sq.in) | Pres. @ Cap. (psi) | A | B | C | D | E | | F | | Wgt. (lbs) |
|-----------|------------------|------------------|-------------|--------------------------|--------------------|---------------------------|--------------------------|--------------------|---------------|---------------|----------------|------------------|-------------------------|--------------------------|--------------------|--------------------------|------------|
| | | | | | | | | | Min. Ht. (in) | Ext. Ht. (in) | Body O.D. (in) | Piston O.D. (in) | Piston I.D. Thrds. (in) | Piston Thrld. Depth (in) | Collar Thrds. (in) | Collar Thrld. Lgth. (in) | |
| RDA1010 | 10 | 4 | 10 | 22 | 1.68 | 2.23 | .80 | 8,960 | 16.13 | 26.13 | 2.87 | 1.38 | 1-8 | 1 | 2.25-14 | 1.06 | 28 |
| RDA308 | 30 | 12.5 | 8.13 | 34 | 2.87 | 6.51 | 3 | 9,250 | 15.75 | 23.75 | 4 | 2.13 | 1.5-16 | 1 | 3.31-12 | 1.93 | 40 |
| RDA3014 | 30 | 12.5 | 14.5 | 91 | 2.87 | 6.51 | 3 | 9,250 | 21.62 | 36.13 | 4 | 2.13 | 1.5-16 | 1 | 3.31-12 | 1.93 | 64 |
| RDA556 | 55 | 17 | 6.13 | 46 | 3.75 | 11.05 | 3.4 | 9,955 | 13.13 | 19.25 | 5 | 3.13 | 1-12 | 1.5 | 5-12 | 1.75 | 68 |
| RDA5512 | 55 | 17 | 12 | 92 | 3.75 | 11.05 | 3.4 | 9,955 | 19.13 | 31.13 | 5 | 3.13 | 1-12 | 1.5 | 5-12 | 1.75 | 114 |
| RDA5524 | 55 | 17 | 24 | 184 | 3.75 | 11.05 | 3.4 | 9,955 | 31.62 | 55.62 | 5 | 3.13 | 1-12 | 1.5 | 5-12 | 1.75 | 201 |
| RDA1006 | 100 | 45 | 6.06 | 77 | 5.25 | 21.65 | 9.08 | 9,239 | 13.87 | 19.93 | 7 | 4 | 3.25-12 | 2.5 | 7-12 | 2.5 | 140 |
| RDA10012 | 100 | 45 | 12 | 151 | 5.25 | 21.65 | 9.08 | 9,239 | 19.87 | 31.87 | 7 | 4 | 3.25-12 | 2.5 | 7-12 | 2.5 | 187 |
| RDA1506 | 150 | 67 | 6.06 | 120 | 6.5 | 33.18 | 13.55 | 9,041 | 15.44 | 21.5 | 8.5 | 5 | 3.5-12 | 2.75 | 8.5-12 | 2.19 | 218 |
| RDA15012 | 150 | 67 | 12 | 236 | 6.5 | 33.18 | 13.55 | 9,041 | 21.5 | 33.5 | 8.5 | 5 | 3.5-12 | 2.75 | 8.5-12 | 2.19 | 295 |
| RDA2002 | 200 | 72 | 2 | 66 | 7.5 | 44.18 | 15.91 | 9,054 | 11.44 | 13.44 | 10 | 6 | 2.5-12 | 2.5 | 9.75-12 | 1.87 | 232 |
| RDA2006 | 200 | 72 | 6 | 170 | 7.5 | 44.18 | 15.91 | 9,054 | 15.44 | 21.44 | 10 | 6 | 2.5-12 | 2.5 | 9.75-12 | 1.87 | 315 |
| RDA20013 | 200 | 72 | 13 | 368 | 7.5 | 44.18 | 15.91 | 9,054 | 22.44 | 35.44 | 10 | 6 | 2.5-12 | 2.5 | 9.75-12 | 1.87 | 440 |
| RDA3002 | 355 | ---- | 2 | 101 | 9.5 | 70.9 | 20.62 | 10,000 | 13.25 | 15.25 | 12 | 8 | ---- | ---- | ---- | ---- | 277 |
| RDA3006 | 355 | ---- | 6 | 302 | 9.5 | 70.9 | 20.62 | 10,000 | 17.25 | 23.25 | 12 | 8 | ---- | ---- | ---- | ---- | 441 |
| RDA30012 | 355 | ---- | 12 | 605 | 9.5 | 70.9 | 20.62 | 10,000 | 23.25 | 35.25 | 12 | 8 | ---- | ---- | ---- | ---- | 688 |
| RDA4002 | 565 | ---- | 2 | 127 | 12 | 113 | 49.48 | 10,000 | 12.38 | 14.38 | 14.5 | 9 | ---- | ---- | ---- | ---- | 530 |
| RDA4006 | 565 | ---- | 6 | 382 | 12 | 113 | 49.48 | 10,000 | 16.62 | 22.62 | 14.5 | 9 | ---- | ---- | ---- | ---- | 670 |
| RDA40012 | 565 | ---- | 12 | 762 | 12 | 113 | 49.48 | 10,000 | 22.87 | 34.87 | 14.5 | 9 | ---- | ---- | ---- | ---- | 880 |
| RDA5002 | 664 | ---- | 2 | 156 | 13 | 132 | 54.19 | 10,000 | 16.5 | 18.5 | 16 | 10 | ---- | ---- | ---- | ---- | 722 |
| RDA5006 | 664 | ---- | 6 | 471 | 13 | 132 | 54.19 | 10,000 | 20.5 | 26.5 | 16 | 10 | ---- | ---- | ---- | ---- | 953 |
| RDA50012 | 664 | ---- | 12 | 942 | 13 | 132 | 54.19 | 10,000 | 26.5 | 38.5 | 16 | 10 | ---- | ---- | ---- | ---- | 1300 |
| RDA6002 | 600 | ---- | 2 | 158 | 12.5 | 122.71 | 44.17 | 10,000 | 15 | 17 | 17 | 10 | ---- | ---- | ---- | ---- | 917 |
| RDA6006 | 600 | ---- | 6 | 472 | 12.5 | 122.71 | 44.17 | 10,000 | 19 | 25 | 17 | 10 | ---- | ---- | ---- | ---- | 1188 |
| RDA60012 | 600 | ---- | 12 | 944 | 12.5 | 122.71 | 44.17 | 10,000 | 25 | 37 | 17 | 10 | ---- | ---- | ---- | ---- | 1595 |
| RDA8002 | 800 | ---- | 2 | 226 | 14.5 | 165.13 | 52.03 | 9,690 | 16 | 18 | 18.5 | 10 | ---- | ---- | ---- | ---- | 1166 |
| RDA8006 | 800 | ---- | 6 | 991 | 14.5 | 165.13 | 52.03 | 9,690 | 21.5 | 27.5 | 18.5 | 10 | ---- | ---- | ---- | ---- | 1461 |
| RDA80012 | 800 | ---- | 12 | 1,360 | 14.5 | 165.13 | 52.03 | 9,690 | 26 | 38 | 18.5 | 10 | ---- | ---- | ---- | ---- | 1776 |
| RDA10002 | 1000 | ---- | 2 | 354 | 17 | 227 | 50.27 | 8,810 | 16 | 18 | 21 | 15 | ---- | ---- | ---- | ---- | 1558 |
| RDA10006 | 1000 | ---- | 6 | 1,071 | 17 | 227 | 50.27 | 8,810 | 20 | 26 | 21 | 15 | ---- | ---- | ---- | ---- | 2058 |
| RDA100012 | 1000 | ---- | 12 | 2,142 | 17 | 227 | 50.27 | 8,810 | 27 | 39 | 21 | 15 | ---- | ---- | ---- | ---- | 2808 |

STEEL CYLINDERS

CLP Series - Pancake Locknut

SIMPLEX



CLP-1002 Shown

Capacity Range► 60 - 500 tons

Stroke Range► 1.77 - 1.97 in.

Maximum Pressure► 10,000 psi

- Extra low profile to fit into tight spaces.
- 5° swivel load caps on all models.
- Locknut design provides positive mechanical load hold.
- Single acting load return with overload protection port.
- Carrying handles and eye bolts on all models.



POWER PUMPS - pages 43 - 65

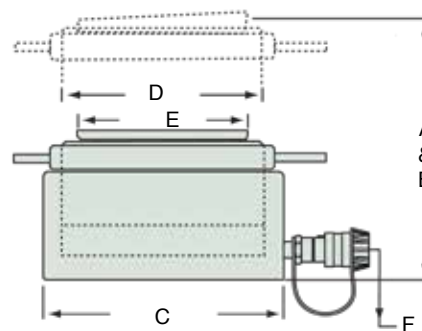
Simplex offers a wide variety of lightweight power pumps to fit any application.



HOSES - pages 78 - 79

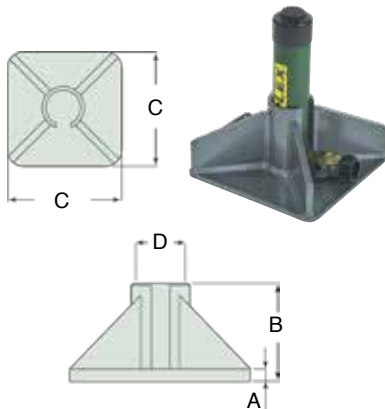
Heavy duty and thermo plastic hydraulic hoses to meet your requirements and safety factor.

Simplex CLP Series cylinders are designed specifically for lifting and load holding where space is at a minimum. ▼



| Model | Capacity Tons | Stroke (in) | Oil Capacity Required (cu.in.) | Ram Bore Diameter (in) | Effective Area (sq.in.) | Pressure @ Capacity (psi) | A | B | C | D | E | F | Wgt. (lbs) |
|----------|------------------|----------------|---|---------------------------------|-------------------------------|------------------------------------|---------------------------|----------------------------|----------------------|----------------------------------|----------------------------|-------------------------|---------------|
| | | | | | | | Minimum Height (in) | Extended Height (in) | Body O.D. (in) | Piston O.D. Thread (mm) | Saddle Diameter (in) | Base to Port (in) | |
| CLP-602 | 60 | 1.97 | 26.4 | 4.1 | 13.4 | 8955 | 4.9 | 6.7 | 5.5 | 105 X 6 | 3.8 | .8 | 33 |
| CLP-1002 | 100 | 1.97 | 43.7 | 5.3 | 22.2 | 9009 | 5.4 | 7.2 | 6.9 | 135 X 6 | 5 | .8 | 57 |
| CLP-1502 | 150 | 1.77 | 58.7 | 6.5 | 33.1 | 9063 | 5.8 | 7.8 | 8.7 | 165 X 6 | 5.9 | 1.1 | 97 |
| CLP-2002 | 200 | 1.77 | 77.8 | 7.5 | 49.9 | 8016 | 6.1 | 8.1 | 9.6 | 190 X 6 | 7.1 | 1.2 | 125 |
| CLP-2502 | 250 | 1.77 | 99.7 | 8.5 | 56.3 | 8881 | 6.3 | 8.3 | 10.8 | 215 X 6 | 7.9 | 1.3 | 165 |
| CLP-4002 | 400 | 1.77 | 157.1 | 10.6 | 88.7 | 9019 | 7 | 9 | 13.8 | 270 X 8 | 9.9 | 1.5 | 297 |
| CLP-5002 | 500 | 1.77 | 194 | 11.8 | 109.6 | 9124 | 7.6 | 9.6 | 15.8 | 300 X 8 | 11.2 | 1.9 | 418 |

Cylinder Bases



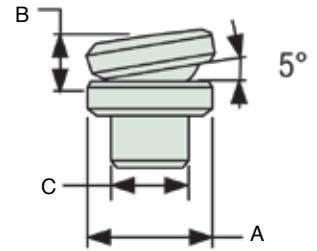
| Model | A (in) | B (in) | C (in) | D (in) |
|-------|--------|--------|--------|--------|
| BA10 | .39 | 4.72 | 9.06 | 2.28 |
| BA25 | .63 | 4.96 | 11.02 | 3.39 |

Cylinder Load Caps



| Model | Type of Cylinder |
|-------|--------------------------|
| 18347 | Used on R5 Series |
| 18348 | Used on R10 & R15 Series |
| 85525 | Used on R25 Series |
| 85525 | Used on R30 Series |
| 85546 | Used on R55 Series |
| 85546 | Used on R75 Series |
| 85546 | Used on R100 Series |
| 18348 | Used on RDA10 Series |
| 85525 | Used on RDA30 Series |
| 88390 | Used on RDA55 Series |
| 18323 | Used on RDA100 Series |
| 18326 | Used on RDA150 Series |
| 87721 | Used on RDA200 Series |

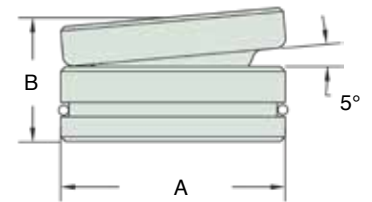
Tilt Saddles



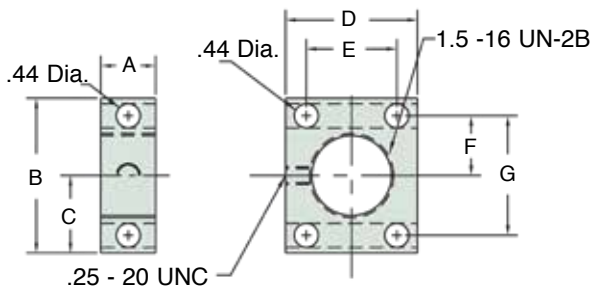
| Model | A (in) | B (in) | C (in) |
|--------|--------|--------|--------|
| ATS10 | 1.38 | .59 | .88 |
| ATS25 | 1.97 | .83 | 1.4 |
| ATS100 | 2.82 | 1.55 | ---- |

ATS10ATS25

ATS100 for R-Series 55, 75 and 100 ton cylinders



Mounting Blocks For R5 Series Cylinders

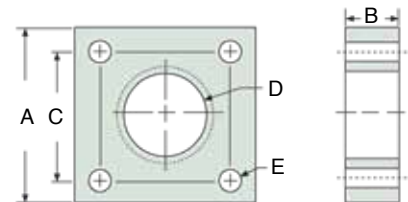


| Model | A (in) | B (in) | C (in) | D (in) | E (in) | F (in) | G (in) |
|-------|--------|--------|--------|--------|--------|--------|--------|
| BR5 | .99 | 2.75 | 1.38 | 2.36 | 1.62 | 1.06 | 2.12 |

Mounting Blocks



Mounting Blocks For R10, R15 & R25 Series Cylinders

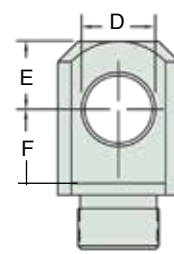
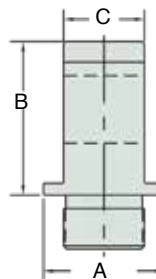


| Model | A (in) | B (in) | C (in) | D (in) | E (in) |
|-------|--------|--------|--------|---------------|--------|
| BR10 | 3.5 | 1 | 2.63 | 2.25-14 UN-2B | .34 |
| BR15 | 3.5 | 1 | 2.63 | 2.75-16 UN-2B | .34 |
| BR25 | 5 | 2 | 3.66 | 3.93-12 UN-2B | .66 |

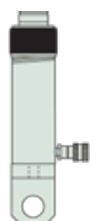
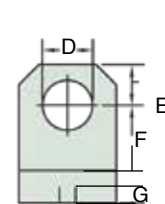
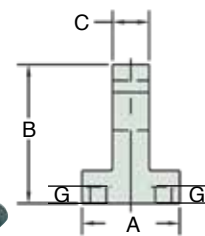
For R-Series 5, 10, 15 & 25 ton cylinders

| Model | A (in) | B (in) | C (in) | D (in) | E (in) | F (in) |
|-------|--------|--------|--------|--------|--------|--------|
| BCR5 | 1.12 | 1.74 | .56 | .63 | .62 | .76 |
| BCR10 | 1.69 | 2.44 | 1 | .88 | 1 | 1.12 |
| BCR15 | 1.69 | 2.44 | 1 | .88 | 1 | 1.12 |
| BCR25 | 2.25 | 2.82 | 1.5 | 1.26 | 1.25 | 1.37 |

Piston Clevis



Base Clevis



ALUMINUM CYLINDERS

RAS Series - Spring Return

SIMPLEX



RAS306B Shown

Capacity Range▶ 30 - 150 tons

Stroke Range▶ 2 - 10 in.

Maximum Pressure▶ 10,000 psi

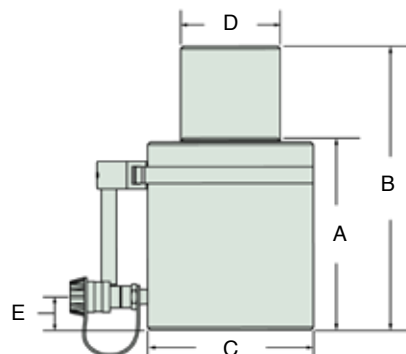
- ▶ Half the weight of steel cylinders.
- ▶ Heavy duty spring for fast & full retraction.
- ▶ Large bearing surfaces for side load protection.
- ▶ Technical coating reduces wear & corrosion.
- ▶ Stop rings for piston blow out protection.
- ▶ Rod wiper protects inner cylinder from dirt.



POWER PUMPS - pages 43 - 65

Simplex offers a wide variety of lightweight power pumps to fit any application.

The RAS302B spring return cylinder along with a P32 aluminum hand pump is easy to carry and position in tight places. ▼



| Model | Capacity (tons) | Stroke (in) | Oil Capacity Required (cu.in.) | Effect Area (sq. in) | Pressure @ Capacity (psi) | A | B | C | D | E | Wgt. (lbs) |
|-----------|-----------------|-------------|--------------------------------|----------------------|---------------------------|---------------------|----------------------|----------------|------------------|-----------------------|------------|
| | | | | | | Minimum Height (in) | Extended Height (in) | Body O.D. (in) | Piston O.D. (in) | Base to Port C/L (in) | |
| RAS302B | 30 | 2 | 13 | 6.5 | 9231 | 6.5 | 8.5 | 4.5 | 2.5 | 1.5 | 14 |
| RAS306B | 30 | 6 | 39 | 6.5 | 9231 | 10.5 | 16.5 | 4.5 | 2.5 | 1.5 | 18 |
| RAS502B | 50 | 2 | 22.1 | 11 | 9091 | 6.5 | 8.5 | 5.5 | 3.13 | 1.5 | 13 |
| RAS504B | 50 | 4 | 44.2 | 11 | 9091 | 8.5 | 12.5 | 5.5 | 3.13 | 1.5 | 17 |
| RAS506B | 50 | 6 | 66.2 | 11 | 9091 | 10.5 | 16.5 | 5.5 | 3.13 | 1.5 | 28 |
| RAS5010B | 50 | 10 | 110.4 | 11 | 9091 | 14.5 | 24.5 | 5.5 | 3.13 | 1.5 | 36 |
| RAS1002B | 100 | 2 | 41.2 | 20.7 | 9662 | 6.5 | 8.5 | 8 | 4.25 | 1.5 | 40 |
| RAS1004B | 100 | 4 | 82.4 | 20.7 | 9662 | 8.5 | 12.5 | 8 | 4.25 | 1.5 | 45 |
| RAS1006B | 100 | 6 | 123.7 | 20.7 | 9662 | 10.5 | 16.5 | 8 | 4.25 | 1.5 | 50 |
| RAS10010B | 100 | 10 | 206 | 20.7 | 9662 | 14.5 | 24.5 | 8 | 4.25 | 1.5 | 68 |
| RAS1502B | 150 | 2 | 61.4 | 30.7 | 9772 | 6.5 | 8.5 | 10 | 4.87 | 1.5 | 58 |
| RAS1506B | 150 | 6 | 184.1 | 30.7 | 9772 | 10.5 | 16.5 | 10 | 4.87 | 1.5 | 86 |
| RAS15010B | 150 | 10 | 306.8 | 30.7 | 9772 | 14.5 | 24.5 | 10 | 4.87 | 1.5 | 110 |

ALUMINUM CYLINDERS

SIMPLEX

RAL Series - Locknut Spring Return



RAL502 Shown

Capacity Range► 50 - 150 tons

Stroke Range► 2 - 10 in.

Maximum Pressure► 10,000 psi

- Technical coating reduces wear & corrosion.
- Carrying handles standard on all models.
- Half the weight of steel cylinders.
- Locknuts offer extended load holding.
- Stop rings for piston blow out protection.
- Heavy duty spring for fast & full retraction.



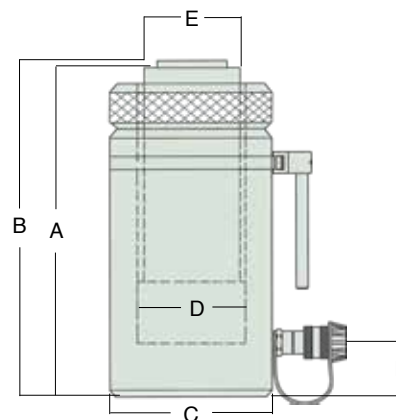
COUPLERS - pages 74 - 75

High flow quick disconnect couplers provide a quick change to a variety of pumps.



HOSES - pages 78 - 79

Heavy duty and thermo plastic hydraulic hoses to meet your requirements and safety factor.



| Model | Cap. (tons) | Stroke (in) | Oil Capacity Required (cu.in.) | Effect Area (sq.in.) | Pressure @ Capacity (psi) | A | B | C | D | E | F | Wgt. (lbs) |
|-----------------|----------------|----------------|---|----------------------------|------------------------------------|---------------------------|----------------------------|----------------------|--------------------------------------|------------------------|--------------------------------|---------------|
| | | | | | | Minimum Height (in) | Extended Height (in) | Body O.D. (in) | Cylinder Bore Diameter (in) | Piston O.D. (in) | Base to Port C/L (in) | |
| RAL502 | 50 | 2 | 21.65 | 11.04 | 9058 | 8.13 | 10.13 | 5.5 | 3.75 | 3.13 | 1.5 | 20 |
| RAL504 | 50 | 4 | 43.3 | 11.04 | 9058 | 10.13 | 14.13 | 5.5 | 3.75 | 3.13 | 1.5 | 25 |
| RAL506 | 50 | 6 | 64.92 | 11.04 | 9058 | 12.13 | 18.13 | 5.5 | 3.75 | 3.13 | 1.5 | 30 |
| RAL5010 | 50 | 10 | 108.2 | 11.04 | 9058 | 16.13 | 26.13 | 5.5 | 3.75 | 3.13 | 1.5 | 40 |
| RAL1002 | 100 | 2 | 40.51 | 20.68 | 9671 | 8.38 | 10.38 | 8 | 5.13 | 4.25 | 1.5 | 45 |
| RAL1004 | 100 | 4 | 81 | 20.68 | 9671 | 10.38 | 14.38 | 8 | 5.13 | 4.25 | 1.5 | 55 |
| RAL1006 | 100 | 6 | 121.5 | 20.68 | 9671 | 12.38 | 18.38 | 8 | 5.13 | 4.25 | 1.5 | 64 |
| RAL10010 | 100 | 10 | 202.5 | 20.68 | 9671 | 16.38 | 26.38 | 8 | 5.13 | 4.25 | 1.5 | 82 |
| RAL1502 | 150 | 2 | 60.6 | 30.68 | 9778 | 8.38 | 10.38 | 10 | 6.25 | 5 | 1.5 | 65 |
| RAL1506 | 150 | 6 | 181.8 | 30.68 | 9778 | 12.38 | 18.38 | 10 | 6.25 | 5 | 1.5 | 101 |
| RAL15010 | 150 | 10 | 303 | 30.68 | 9778 | 16.38 | 26.38 | 10 | 6.25 | 5 | 1.5 | 156 |

ALUMINUM CYLINDERS

RAC Series — Single Acting Center Hole

SIMPLEX



RAC303 Shown

Capacity Range► 30 - 60 tons

Stroke Range► 3 - 6 in.

Maximum Pressure► 10,000 psi

- Half the weight of steel cylinders.
- Heavy duty spring for fast & full retraction.
- Technical coating reduces wear & corrosion.
- Stop rings for piston blow-out protection.
- Rod wiper protects inner cylinder from dirt.



POWER PUMPS - pages 43 - 65

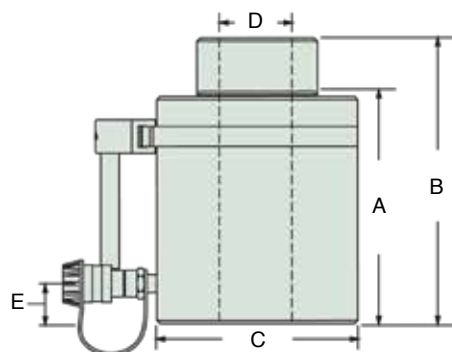
Simplex offers a wide variety of lightweight power pumps to fit any application.



CENTER HOLE

Chrome plated center hole for extra protection.

The Simplex RAC306A 30 ton single acting aluminum center hole cylinder is used to pull pins from off road equipment. ▼



| Model | Capacity (tons) | Stroke (in) | Oil Capacity Required (cu.in.) | Effect Area (sq.in.) | Pressure @ Capacity (psi) | A | B | C | D | E | Wgt. (lbs) |
|---------|-----------------|-------------|--------------------------------|----------------------|---------------------------|---------------------|----------------------|----------------|------------------|-----------------------|------------|
| | | | | | | Minimum Height (in) | Extended Height (in) | Body O.D. (in) | Center Hole (in) | Base to Port C/L (in) | |
| RAC303 | 30 | 3 | 22 | 7.21 | 8321 | 8.75 | 11.75 | 5.5 | 1.19 | 1 | 22 |
| RAC306A | 30 | 6 | 44 | 7.21 | 8321 | 11.75 | 17.75 | 5.5 | 1.19 | 1 | 30 |
| RAC603 | 60 | 3 | 37 | 12.3 | 9756 | 10.13 | 13.13 | 7.5 | 2.13 | 1 | 42 |
| RAC606 | 60 | 6 | 74 | 12.3 | 9756 | 13.25 | 19.25 | 7.5 | 2.13 | 1 | 55 |

ALUMINUM CYLINDERS

SIMPLEX

RACD Series — Double Acting Center Hole



RACD306 Shown

Capacity Range► 30 - 150 tons

Stroke Range► 2 - 10 in.

Maximum Pressure► 10,000 psi

- Technical coating reduces wear & corrosion.
- Steel piston for protection against load damage.
- Chrome plated sleeve for extra protection.
- Stop rings for piston blow-out protection.
- Rod wiper protects inner cylinder from dirt.



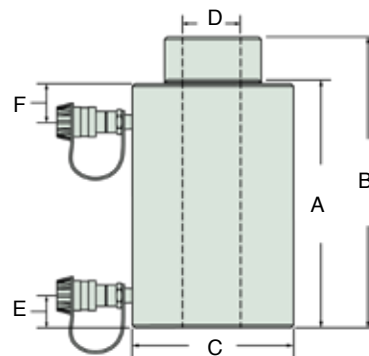
RELIEF VALVE

Relief valve prevents damage in case of over pressurization.



CARRYING HANDLES

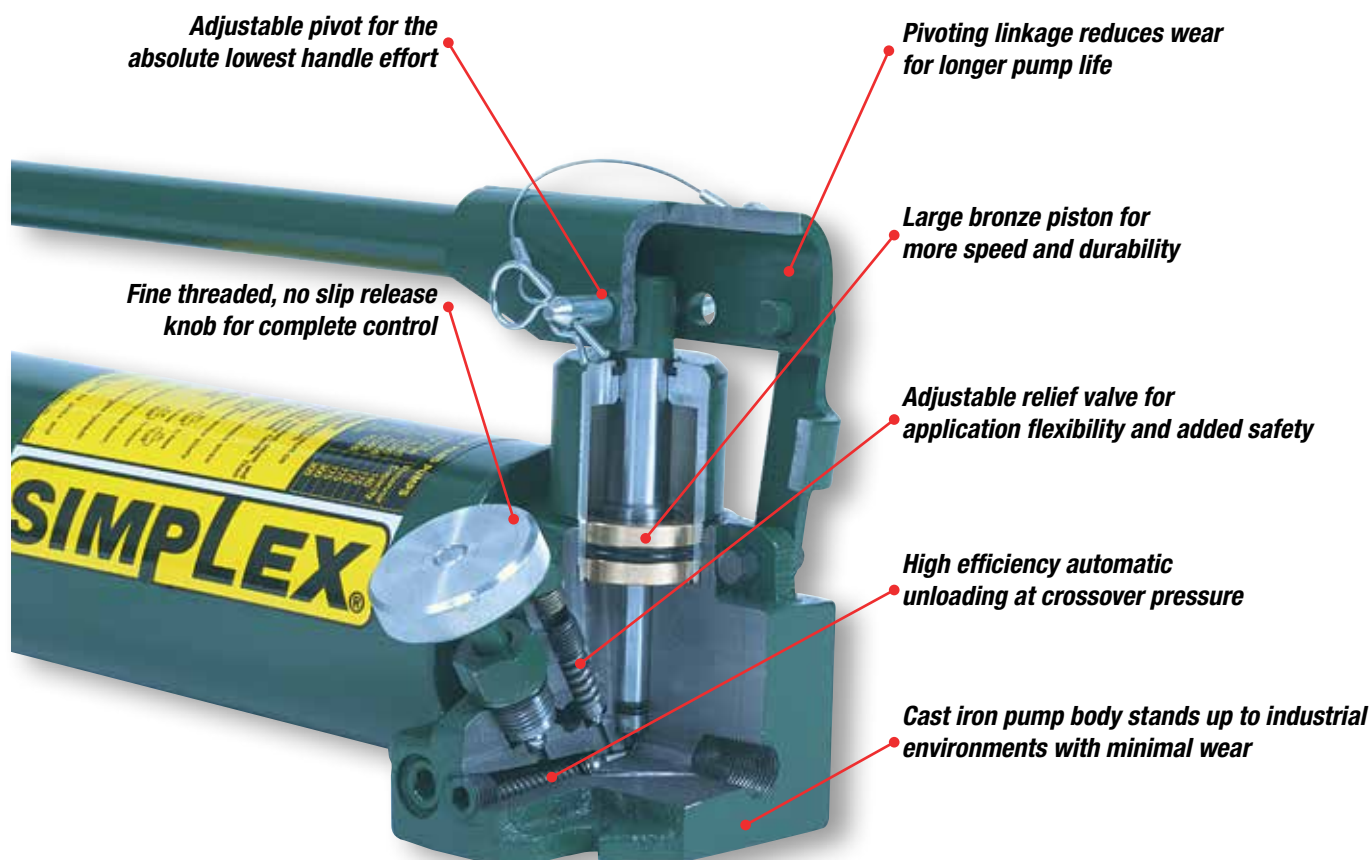
2 Carrying handles on models RACD1002 thru RACD15010 for ease of mobility.



| Model | Capacity (tons) | Stroke (in) | Oil Capacity Required (cu.in.) | Effect Area (sq.in.) | Pressure @ Capacity (psi) | A | B | C | D | E | F | Wgt. (lbs) |
|-----------|-----------------|-------------|--------------------------------|----------------------|---------------------------|---------------------|----------------------|----------------|---------------------------|-----------------------|-------------------------|------------|
| | | | | | | Minimum Height (in) | Extended Height (in) | Body O.D. (in) | Center Hole Diameter (in) | Base to Port C/L (in) | Collar to Port C/L (in) | |
| RACD302 | 30 | 2 | 14.34 | 6.35 | 9449 | 7 | 9 | 5.5 | 1.5 | 1.75 | 1.75 | 20 |
| RACD306 | 30 | 6 | 43.02 | 6.35 | 9449 | 11 | 17 | 5.5 | 1.5 | 1.75 | 1.75 | 28 |
| RACD3010 | 30 | 10 | 71.7 | 6.35 | 9449 | 15 | 25 | 5.5 | 1.5 | 1.75 | 1.75 | 35 |
| RACD502 | 50 | 2 | 21.71 | 10.3 | 9709 | 7 | 9 | 7.5 | 2.13 | 1.75 | 1.75 | 33 |
| RACD504 | 50 | 4 | 43.44 | 10.3 | 9709 | 9 | 13 | 7.5 | 2.13 | 1.75 | 1.75 | 41 |
| RACD506 | 50 | 6 | 65.16 | 10.3 | 9709 | 11 | 17 | 7.5 | 2.13 | 1.75 | 1.75 | 49 |
| RACD5010 | 50 | 10 | 108.6 | 10.3 | 9709 | 15 | 25 | 7.5 | 2.13 | 1.75 | 1.75 | 65 |
| RACD1002 | 100 | 2 | 41.52 | 20.28 | 9862 | 10 | 12 | 11 | 3.5 | 2.5 | 2.5 | 85 |
| RACD1004 | 100 | 4 | 83.04 | 20.28 | 9862 | 12 | 16 | 11 | 3.5 | 2.5 | 2.5 | 105 |
| RACD1006 | 100 | 6 | 124.56 | 20.28 | 9862 | 14 | 20 | 11 | 3.5 | 2.5 | 2.5 | 120 |
| RACD10010 | 100 | 10 | 206.6 | 20.28 | 9862 | 18 | 28 | 11 | 3.5 | 2.5 | 2.5 | 155 |
| RACD1502 | 150 | 2 | 61.26 | 31.47 | 9533 | 10 | 12 | 12 | 3.5 | 2.5 | 2.5 | 101 |
| RACD1506 | 150 | 6 | 183.73 | 31.47 | 9533 | 14 | 20 | 12 | 3.5 | 2.5 | 2.5 | 141 |
| RACD15010 | 150 | 10 | 306.3 | 31.47 | 9533 | 18 | 28 | 12 | 3.5 | 2.5 | 2.5 | 180 |

HAND PUMPS





P140 Model Shown

PRODUCT LINE OVERVIEW

► Wide Variety

Simplex offers the widest selection of hand pump styles, reservoir sizes, and flow rates to meet your everyday needs. Each pump has specific features that make certain models better suited for particular jobs. Select a hand pump with features that best fit your application.

► Built for Rugged Industrial/Construction Use

Shipyards, steel mills, construction sites and weld shops can be rough environments for hand pumps. Simplex's all metal and aluminum designs withstand real world conditions and applications.

► Total Control of Hand Pump Operation

Simplex release valves have a fine pitch screw and large valve handle for maximum control. Check ball valve design is more reliable than needle valves, and less costly to repair.

► Lowest Handle Effort

Simplex hand pumps have low, back saving handle efforts to reduce operator fatigue & back injury.

► Optimal Oil Displacement Per Stroke

More oil per stroke means less handle strokes per job. Simplex pumps have the highest available oil displacement per stroke, in many cases reducing the number of handle strokes as much as 50%.

► Easy To Use / Built To Last

Pivot linkage provides uniform handle effort at all points along the arc of the pump handle stroke. The pivot reduces piston side loading for longer pump life. Some pump models have four-way valves for use with double-acting cylinders.

HAND PUMPS

Proper Size & Selection

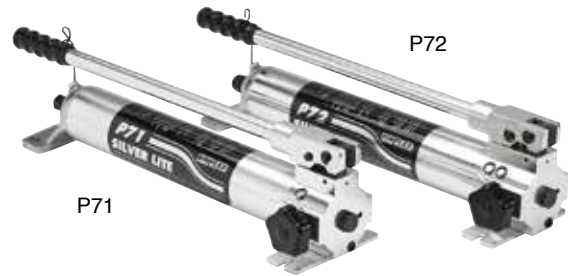
SIMPLEX

Portable Hand Pumps



Single & two speed compact hand pumps deliver a constant flow to smaller cylinders or hydraulic powered tools regardless of load. Ideal when durability as well as portability are important.

Aluminum Hand Pumps



Aluminum hand pumps are the perfect choice when a light weight pump is required. The alloy construction resists corrosion and stands up to heat, welding sparks and other environments where composite pumps may not be suited.

Heavy Duty Hand Pumps



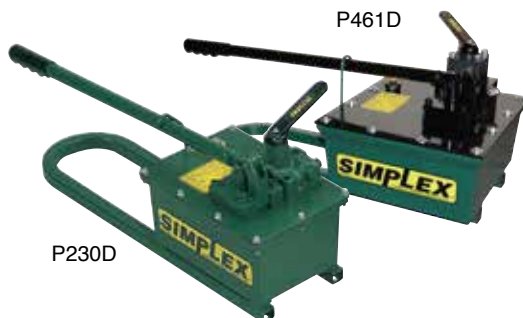
Heavy duty, two speed hand pumps in the low pressure stage deliver a high volume of oil per stroke for fast cylinder speed. Once the load is engaged, the pump automatically switches to the high pressure stage.

Specialty Hand Pumps



Specialty hand pumps are perfect for OEM applications or as emergency backup pumps. The pumps were designed to fit in tight spaces and are ideal for fixed bolt down applications.

Hi-Flow Hand Pumps With Large Reservoirs



Heavy duty hand pumps with 4 way valves are used to power double-acting cylinders or tools.

Configured Sets



Standard hand pump and single acting cylinder configuration.

Sizing The Proper Hand Pump To Your Cylinder

Example

Type Of Cylinders

Quick Reference Chart

| Cylinder Stroke (in) | Cylinder Capacity (Tons) | | | | | | | | | | |
|----------------------|--------------------------|---------|-----------|---------|-----------|-----------|-----------|-----------|-----------|-----------|---------|
| | 5 Ton | 10 Ton | 15 Ton | 20 Ton | 25 Ton | 30 Ton | 50/55 Ton | 60 Ton | 75 Ton | 100 Ton | 150 Ton |
| 1 | P22/P32 | P22/P32 | ---- | P41/P71 | P42/P72 | P42/P72 | P42/P72 | ---- | P42/P72 | P42/P72 | P42/P72 |
| 2 | ---- | P22/P32 | P42/P72 | P42/P72 | P42/P72 | P42/P72 | P42/P72 | ---- | ---- | P82A/P140 | P140 |
| 3 | P22/P32 | ---- | ---- | ---- | ---- | ---- | ---- | P82A/P140 | ---- | ---- | ---- |
| 4 | ---- | P22/P32 | P42/P72 | ---- | P42/P72 | ---- | ---- | ---- | ---- | ---- | ---- |
| 5 | P22/P32 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- |
| 6 | ---- | P42/P72 | P42/P72 | ---- | P42/P72 | P82A/P140 | P82A/P140 | ---- | P82A/P140 | P230 | P230 |
| 7 | P42/P72 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- |
| 8 | ---- | P42/P72 | P42/P72 | ---- | P82A/P140 | P82A/P140 | ---- | ---- | ---- | P230 | P300 |
| 9 | P42/P72 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- |
| 10 | ---- | P42/P72 | P42/P72 | ---- | P82A/P140 | ---- | ---- | ---- | ---- | P230 | P461 |
| 12 | ---- | P42/P72 | ---- | ---- | P82A/P140 | ---- | ---- | ---- | ---- | ---- | ---- |
| 13 | ---- | ---- | ---- | ---- | ---- | ---- | P230 | ---- | ---- | ---- | ---- |
| 14 | ---- | P42/P72 | P82A/P140 | ---- | P82A/P140 | ---- | ---- | ---- | ---- | ---- | ---- |

For higher speeds, use power pumps to operate multiple cylinder systems or long stroke cylinders over 50 tons.

Hand Pump / Cylinder Speed Chart

Use this chart to determine the number of full pump handle strokes required to extend a Simplex cylinder 1". You may take handle stroke per inch and multiply it by the cylinder stroke to determine the number of strokes required to fully extend the cylinder.

| Cylinder Stroke (in) | Strokes Per 1" of Cylinder Travel | Cylinder Capacity (Tons) | | | | | | | | | |
|----------------------|-----------------------------------|--------------------------|--------|--------|--------|--------|--------|-----------|--------|--------|---------|
| | | 5 Ton | 10 Ton | 15 Ton | 20 Ton | 25 Ton | 30 Ton | 50/55 Ton | 60 Ton | 75 Ton | 100 Ton |
| P41/P71 | NO LOAD | 7 | 15 | 21 | 31 | 34 | 43 | 73 | 88 | 106 | 137 |
| | LOAD | 7 | 15 | 21 | 31 | 34 | 43 | 73 | 88 | 106 | 137 |
| P20/P42/P32/ P82A | NO LOAD | 2 | 3 | 4 | 6 | 7 | 8 | 14 | 17 | 20 | 26 |
| | LOAD | 7 | 15 | 21 | 31 | 34 | 43 | 73 | 88 | 106 | 137 |
| P72/P30 | NO LOAD | 2 | 3 | 4 | 6 | 7 | 8 | 13 | 16 | 18 | 23 |
| | LOAD | 7 | 15 | 21 | 31 | 34 | 43 | 73 | 88 | 106 | 137 |
| P140/P300 | NO LOAD | 1 | 1 | 2 | 2 | 2 | 3 | 5 | 5 | 6 | 8 |
| | LOAD | 4 | 10 | 14 | 22 | 22 | 27 | 46 | 58 | 66 | 86 |
| P230/P461 | NO LOAD | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 3 |
| | LOAD | 3 | 8 | 11 | 16 | 18 | 22 | 38 | 45 | 54 | 70 |

HAND PUMPS

P Series — Compact Steel

SIMPLEX



P82A, P41 Shown

Reservoir Capacity► 20 - 134 cu.in.

Weight► 10 - 24 lbs.

Maximum Pressure► 10,000 psi

- Large 3/8" pressure port for maximum flow.
- Low handle effort for easy operation.
- Single and two speed models.
- Two-speed operation for fast and easy operation.
- Carrying handle for easy transport (P41).
- Chrome plated plunger and wiper system for durable, long lasting performance.

GAUGES - page 77



Improve your system visibility and safety by adding an inline hydraulic gauge to your circuit.

COUPLERS - pages 74 - 75



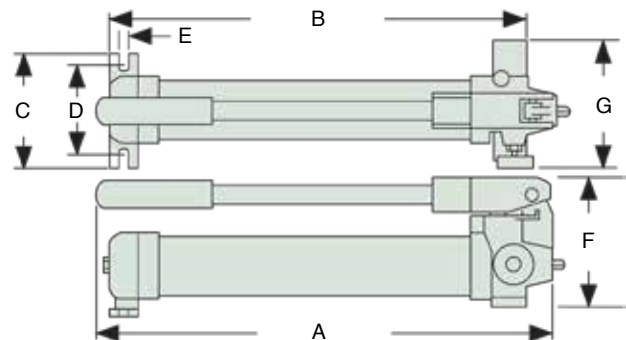
High flow quick disconnect couplers provide a quick change to a variety of pumps.

HOSES - pages 78 - 79



Heavy duty and thermo plastic hydraulic hoses to meet your requirements and safety factor.

With its compact footprint, the Simplex P22 hand pump is perfect for fixed mounting. ▼



| Model | Speed | Pressure Rating (PSI) | Oil Volume Per Stroke (cu.in.) | | Usable Oil Capacity (cu.in.) | A | B | C | D | E | F | G | Wgt. (lbs) |
|-------|-------|-----------------------------------|--------------------------------|-----------|------------------------------|-------|-------|------|------|------|------|------|------------|
| | | | 1st Stage | 2nd Stage | | (in) | (in) | (in) | (in) | (in) | (in) | (in) | |
| P20 | 2 | 1st Stage 200 2nd Stage 2,850 | .79 | .16 | 20 | 14.23 | 11.08 | 2.62 | 1.5 | .59 | 5.59 | 5.39 | 10 |
| P22 | 2 | 1st Stage 200 2nd Stage 10,000 | .23 | .06 | 20 | 14.23 | 11.08 | 2.62 | 1.5 | .59 | 5.06 | 4.92 | 10 |
| P41 | 1 | 10,000 | ---- | .16 | 40 | 23 | 21.75 | 5 | --- | --- | 5.75 | 5.75 | 18 |
| P42 | 2 | 1st Stage 200 2nd Stage 10,000 | .79 | .16 | 45 | 25.64 | 20.86 | 3.54 | --- | --- | 5.75 | 5.39 | 19 |
| P82A | 2 | 1st Stage 350 2nd Stage 10,000 | .99 | .15 | 134 | 21.97 | 19.50 | 5.75 | 4.76 | .31 | 6.88 | 7.00 | 24 |



Reservoir Capacity► 30 - 70 cu.in.

Weight► 8 - 11 lbs.

Maximum Pressure► 10,000 psi

- All aluminum construction makes these pumps extremely light weight and easy to handle.
- 25% faster per stroke than comparative pumps means less work for operator.

P32 & P72 Shown



RELEASE KNOB

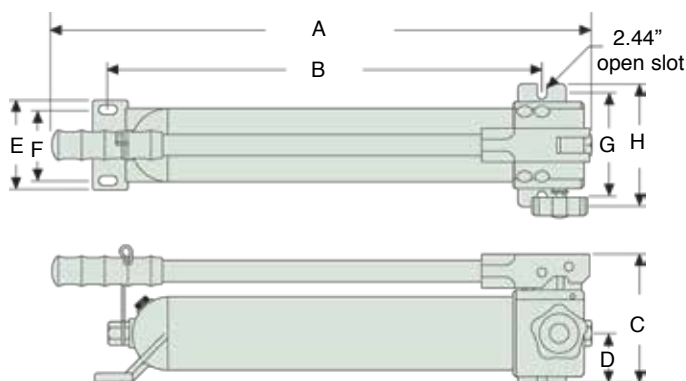
Precise load lowering with large knob and fine pitched threads.



POWER PUMPS - pages 43 - 65

Simplex offers a wide variety of lightweight power pumps to fit any application.

This P32 provided the power and control to lift this 10 ton CNC machine during routine maintenance. ▼



| Model | Speed | Pressure Rating (PSI) | Oil Volume Per Stroke | Usable Oil Capacity | A | B | C | D | E | F | G | H | Wgt. (lbs) |
|-------|-------|-----------------------|-----------------------|---------------------|------|------|------|------|------|------|------|------|------------|
| | | | | | (in) | (in) | (in) | (in) | (in) | (in) | (in) | (in) | |

*Viton Seals

HAND PUMPS

P Series — Heavy Duty Steel

SIMPLEX



P140 & P461D Shown

Reservoir Capacity► 175 - 460 cu.in.
Weight► 26 - 61 lbs.
Maximum Pressure► 10,000 psi

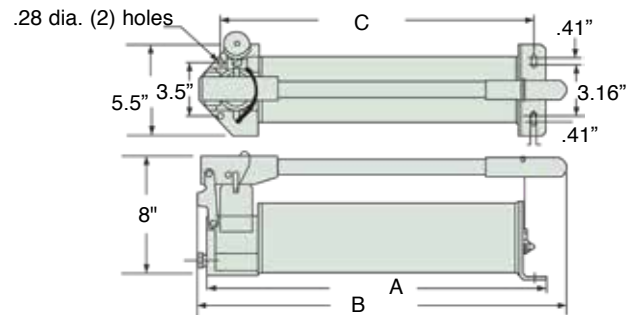
- Heavy duty, metal construction for durability.
- High displacements of oil per stroke.
- Adjustable handle effort / dual pivot points.
- Low, back saving handle effort.
- External adjustable relief valves.

THINK SAFETY

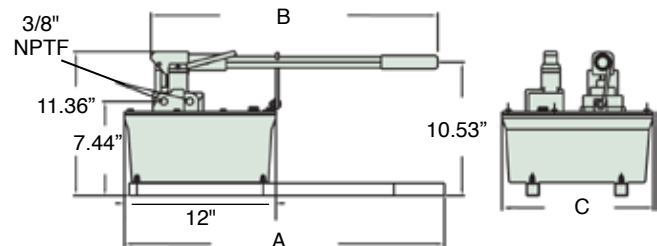
Please refer to pages 4&5 for a complete list of safety tips and recommendations.



P140 & P300 Series



P230 & P461 Series



US recovery teams needed to dismantle and remove a downed Navy aircraft, they used Simplex P140D hand pumps.▼



| Model | Tool Type | Pressure Rating (PSI) | Oil Volume Per Stroke (cu.in.) | | Usable Oil Capacity (cu.in.) | A | B | C | Wgt. (lbs) |
|-------|---------------|-----------------------------------|--------------------------------|-----------|------------------------------|-------|-------|-------|------------|
| | | | 1st Stage | 2nd Stage | | (in) | (in) | (in) | |
| P140 | Single Acting | 1st Stage 400 2nd Stage 10,000 | 2.8 | .24 | 175 | 24.81 | 27.25 | 23.31 | 26 |
| P230 | | | 7.7 | .3 | 230 | 25.38 | 22.75 | 9 | 49 |
| P300 | | | 2.8 | .24 | 300 | 28.5 | 31 | 26.5 | 37 |
| P461 | | | 7.7 | .3 | 460 | 25.38 | 22.75 | 12 | 61 |
| P140D | Double Acting | 1st Stage 400 2nd Stage 10,000 | 2.8 | .24 | 175 | 29.5 | 31.5 | 23.31 | 30 |
| P230D | | | 7.7 | .3 | 230 | 25.38 | 22.75 | 9 | 49 |
| P300D | | | 2.8 | .24 | 300 | 32.68 | 34.68 | 26.5 | 41 |
| P461D | | | 7.7 | .3 | 460 | 25.38 | 22.75 | 12 | 61 |



P10004A & P1606A Shown

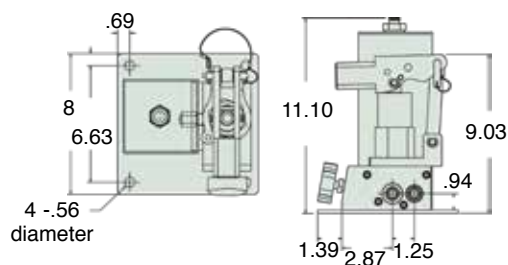
Volume Per Stroke► .30 - 4.56 cu.in.

Weight► 9 - 20 lbs.

Pressure Range► 750 - 12,000 psi

- Ideal for fixed applications when pumps need to be bolted in place.
- P1000A Series offers a swivel pump head for flexible fixturing.
- Wide range of operating pressures to select from.

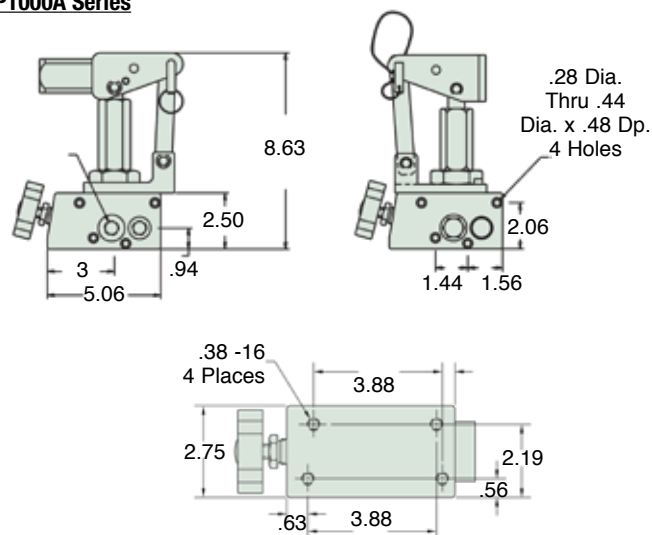
P160A Series



This P10006A is used as an auxiliary pump to position scaffolding for fabrication of the docking system for a new airline hangar. ▼



P1000A Series



| Model | Usable Reservoir Capacity (cu.in.) | Operating Pressure (PSI) | Volume per Stroke (cu.in.) | Maximum Handle Effort (lbs) | Weight (lbs) |
|----------|------------------------------------|--------------------------|-----------------------------|-----------------------------|--------------|
| P1603A | 148 | 12,000 | .30 | 108 | 20 |
| P1604A | 148 | 6,500 | .53 | 104 | 20 |
| P1606A | 148 | 3,000 | 1.33 | 108 | 20 |
| P10003A | --- | 12,000 | .30 | 108 | 9 |
| P10004A | --- | 6,500 | .53 | 104 | 9 |
| P10006A | --- | 3,000 | 1.33 | 108 | 9 |
| P10008A | --- | 1,000 | 2.11 | 106 | 11 |
| P100012A | --- | 750 | 4.56 | 79 | 11 |

HAND PUMPS

P-Series — Ultra High Pressure Aluminum

SIMPLEX



Reservoir Capacity▶ 60 cu.in.
Weight▶ 10 lbs.
Maximum Pressure▶ 40,000 psi

- ▶ 40,000 psi maximum pressure.
- ▶ 60 cu. in. reservoir provides more usable oil capacity.
- ▶ Large pressure release knob, fine threaded for added control.
- ▶ Lower handle effort provides less operator fatigue.
- ▶ Slotted front mounting hole offers flexibility.

P60 Shown

THINK SAFETY

Please refer to pages 4&5 for a complete list of safety tips and recommendations.

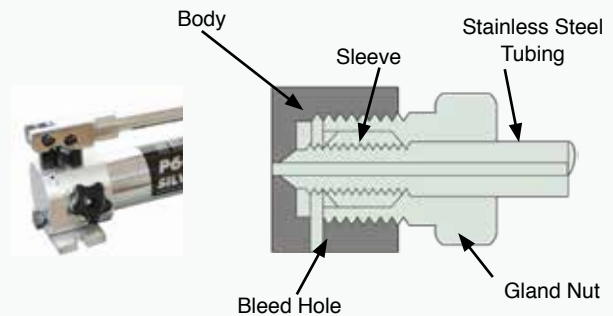


SPRING LATCH

An easy to use spring latch handle provides quick carrying mobility.



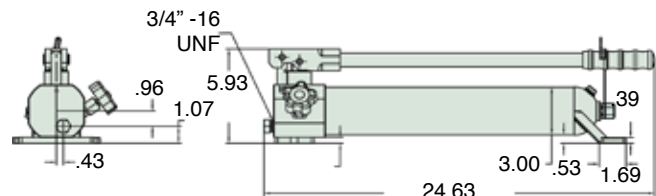
Pressure Port Details



▲ Cone Seal

High pressure fitting seal on a cone surface does not require pipe sealer. The gland nut holds the sleeve and tube to provide 40,000 psi seal.

Ideal for lab testing, the P60 offers safe and easy operation for applications requiring up to 40,000 psi. ▼



| Model | Usable Reservoir Capacity (cu.in.) | Pressure Rating (PSI) | | Oil Volume Per Stroke (cu.in.) | | Handle Effort (lbs) | Weight (lbs) |
|-------|------------------------------------|-----------------------|-----------|--------------------------------|-----------|---------------------|--------------|
| | | 1st Stage | 2nd Stage | 1st Stage | 2nd Stage | | |
| P60 | 60 | 200 | 40,000 | .86 | .04 | 90 | 10 |

P60 ULTRA HIGH PRESSURE ACCESSORIES

| Model | Item No. | Connection |
|---|---------------------|---|
|  Gland Nut Plug | UH1 | .38" Cone |
|  Elbow | UH2 | .38" Cone |
|  Tee | UH3 | .38" Cone Side |
|  Gauge Adapter | UH4 | .38" Cone Side / .25" Cone Gauge Port |
|  Coupling | UH5 | .38" Cone |
|  Gland Nut with Sleeve | UH6 | .38" Cone |
|  Gauge Connector | UH7 | .25" Cone |
|  Gauge | UH8 | 0 - 40,000 psi (2,760 Bar) Ultra High Pressure Gauge |
|  Tubing | UH9 UH10 UH11 | 4" Tube, O.D. .38" * 8" Tube, O.D. .38" * 12" Tube, O.D. .38" * |

PUMP & CYLINDER SETS

ST & STL Series — Steel & Aluminum

SIMPLEX



ST106A Set Shown

Capacity Range► 10 - 100 tons

Stroke Range► 1.5 - 14.25 in.

Maximum Pressure► 10,000 psi

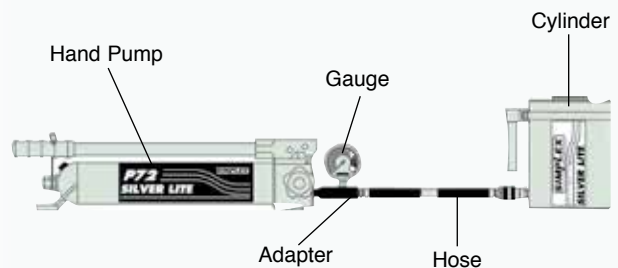
- Each set comes with a 6' hose equipped with a high flow coupler, gauge and gauge adapter.
- Cylinders can be used in upright, inverted or horizontal position.
- Maximum control and safety is provided with the pressure gauge.
- Optimal performance provided with matched pump and cylinder.

THINK SAFETY

Please refer to pages 4&5 for a complete list of safety tips and recommendations.



Each Set Includes The Following:



Eliminate the hassle of matching the right pump to the right cylinder by ordering our pre-matched pump & cylinder sets. ▼

Pump and cylinder sets are ideal for shop equipment servicing, such as this scrap metal receptacle requiring maintenance. ▼



Steel Hand Pumps

Center Hole Cylinder Sets

| Model | Capacity (tons) | Stroke (in) | Closed Height (in) | Included in Set | | | | |
|----------|-----------------|-------------|--------------------|-----------------|------------|------|-------|---------------|
| | | | | Cylinder Model | Pump Model | Hose | Gauge | Gauge Adapter |
| ST302HCA | 30 | 2.5 | 7.03 | RC302A | P42 | HCA6 | GTH12 | GA1 |
| ST306HCA | 30 | 6.13 | 13 | RC306A | P82A | HCA6 | GTH12 | GA1 |

Low Profile Cylinder Sets

| Model | Capacity (tons) | Stroke (in) | Closed Height (in) | Included in Set | | | | |
|---------|-----------------|-------------|--------------------|-----------------|------------|------|-------|---------------|
| | | | | Cylinder Model | Pump Model | Hose | Gauge | Gauge Adapter |
| ST101A | 10 | 1.5 | 3.47 | RLS101 | P42 | HCA6 | GT5 | GA1 |
| ST201A | 20 | 1.75 | 3.87 | RLS201 | P42 | HCA6 | GT20 | GA1 |
| ST302A | 30 | 2.44 | 4.62 | RLS302 | P42 | HCA6 | GT30 | GA1 |
| ST502A | 50 | 2.38 | 4.81 | RLS502 | P42 | HCA6 | GT20 | GA1 |
| ST1002A | 100 | 2.25 | 5.56 | RLS1002 | P82A | HCA6 | GT20 | GA1 |

General Purpose Cylinder Sets

| Model | Capacity (tons) | Stroke (in) | Closed Height (in) | Included in Set | | | | |
|---------|-----------------|-------------|--------------------|-----------------|------------|------|-------|---------------|
| | | | | Cylinder Model | Pump Model | Hose | Gauge | Gauge Adapter |
| ST102A | 10 | 2.19 | 4.78 | R102 | P42 | HCA6 | GT5 | GA1 |
| ST106A | 10 | 6 | 9.78 | R106 | P42 | HCA6 | GT5 | GA1 |
| ST1010A | 10 | 10 | 13.78 | R1010 | P42 | HCA6 | GT5 | GA1 |
| ST252A | 25 | 2 | 6.5 | R252 | P42 | HCA6 | GT25 | GA1 |
| ST254A | 25 | 4 | 8.5 | R254 | P42 | HCA6 | GT25 | GA1 |
| ST256A | 25 | 6.19 | 10.75 | R256 | P82A | HCA6 | GT25 | GA1 |
| ST2514A | 25 | 14.19 | 18.75 | R2514 | P82A | HCA6 | GT25 | GA1 |
| ST556A | 55 | 6.19 | 11.06 | R556 | P82A | HCA6 | GT25 | GA1 |

Aluminum Hand Pumps

Silver Lite Aluminum Spring Return Sets

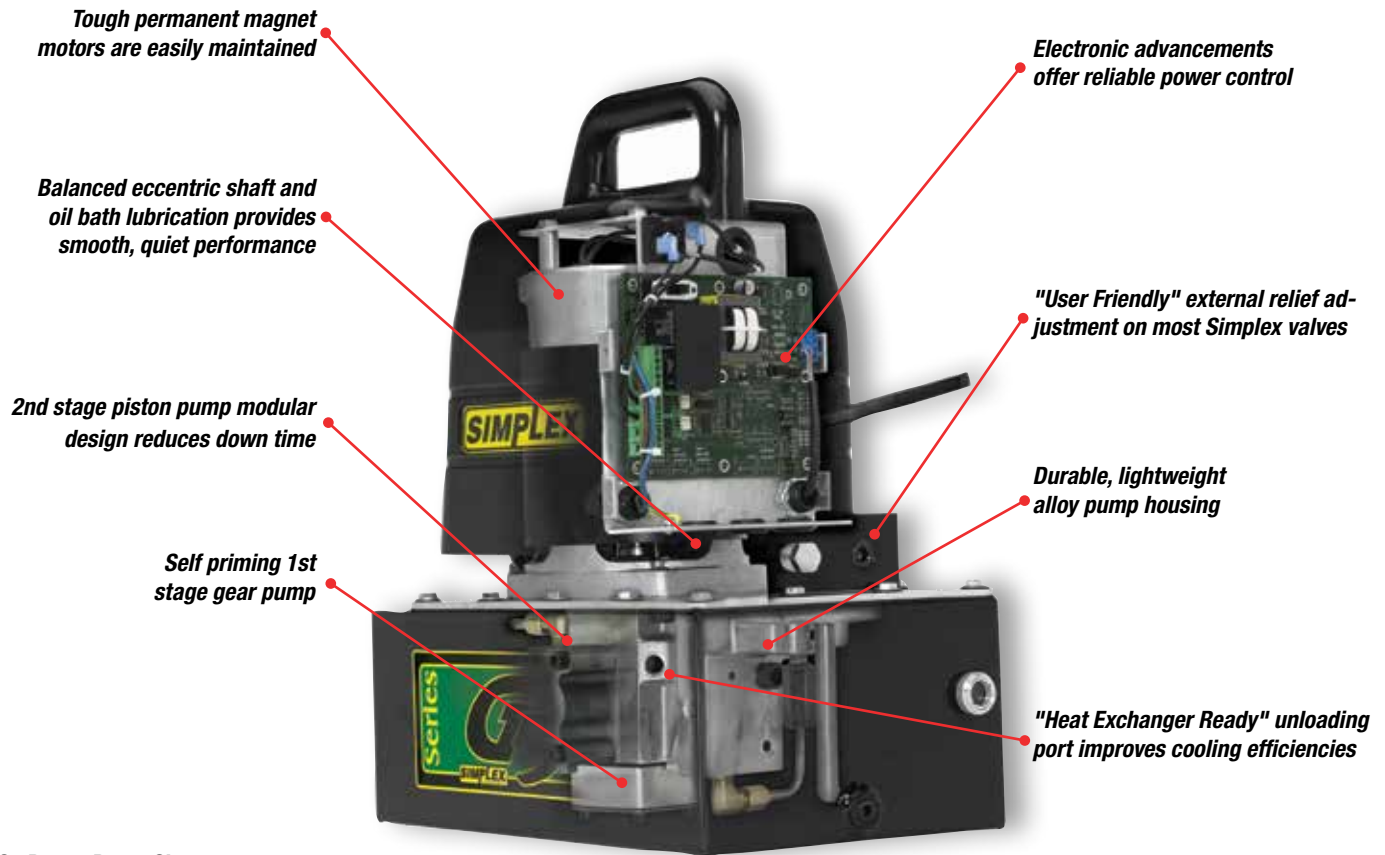
| Model | Capacity (tons) | Stroke (in) | Closed Height (in) | Included in Set | | | | |
|---------|-----------------|-------------|--------------------|-----------------|------------|------|-------|---------------|
| | | | | Cylinder Model | Pump Model | Hose | Gauge | Gauge Adapter |
| STL302 | 30 | 2 | 6.5 | RAS302B | P72 | HCA6 | G5 | GA1 |
| STL306 | 30 | 6 | 10.5 | RAS306B | P72 | HCA6 | G5 | GA1 |
| STL502 | 50 | 2 | 6.5 | RAS502B | P72 | HCA6 | G5 | GA1 |
| STL504 | 50 | 4 | 8.5 | RAS504B | P72 | HCA6 | G5 | GA1 |
| STL1002 | 100 | 2 | 6.5 | RAS1002B | P72 | HCA6 | G5 | GA1 |

Silver Lite Aluminum Spring Return Center Hole Sets

| Model | Capacity (tons) | Stroke (in) | Closed Height (in) | Included in Set | | | | |
|----------|-----------------|-------------|--------------------|-----------------|------------|------|-------|---------------|
| | | | | Cylinder Model | Pump Model | Hose | Gauge | Gauge Adapter |
| STL303HC | 30 | 3 | 8.75 | RAC303 | P72 | HCA6 | G5 | GA1 |
| STL306HC | 30 | 6 | 11.75 | RAC306 | P72 | HCA6 | G5 | GA1 |
| STL603HC | 60 | 3 | 10.13 | RAC603 | P72 | HCA6 | G5 | GA1 |

POWER PUMPS





G5 Power Pump Shown

PRODUCT LINE OVERVIEW

► Simplex offers a large selection of pump platforms, valve styles, reservoir sizes, accessories & controls to meet your everyday needs.

► External adjustable pressure relief valves for variable pressure settings, plus many interchangeable control valves and reservoirs for a wide range of applications. Dual Voltage & Dual Hertz electric motors for applications requiring alternate power sources.

► Unified chassis provides high strength, fewer potential leak points and solid construction for severe duty.

► Crossover pressure up to 2,000 psi. Provides high, first stage flows well into the work cycle. This extra power provides higher speeds in Prestressing, Bending, Crimping, Compressing & Post-Tensioning applications.

► High first stage performance is achieved through field proven Gear Pump technology. In addition to gear pumps, an unloading valve passes full power to the second stage once crossover pressure is reached. No power is lost and less heat is generated.

► Low motor RPM, internally lubricated bearings, and close coupled motor mounting make these pumps among the quietest on the market. (Approximately 80dba at 10,000 psi.)

POWER PUMPS

Proper Size & Selection

SIMPLEX

G1 Power Pumps 19 cu.in./min. @ 10,000 psi



An intermittent .5 hp power pump that is best suited to power small to medium size tools or cylinders. It's very lightweight, portable and works well for crimping, cutting, pressing, punching and bending applications.

G5 Power Pumps 55 cu.in./min. @ 10,000 psi



Continuous duty 1.5 hp electric and 3 hp air power pumps are perfect for medium size tools and cylinders on construction sites, ship and rail yards and other field applications. It's the perfect choice for production and lifting applications due to its reservoir sizes and valve options.

G3 Power Pumps 46 cu.in./min. @ 10,000 psi



A 1.13 hp continuous duty power pump that is best suited to power small to medium tools and cylinders. Ideal for systems that require high performance, large oil capacities with lightweight portability.

G6 Power Pumps 100 cu.in./min. @ 10,000 psi



Continuous duty 3 hp electric and 5.5 hp gasoline pumps are ideal for medium to large size tools and cylinders. The high flow rate runs multiple cylinders for heavy lifting, high tonnage and large positioning jobs and applications effectively.

G4 Power Pumps 55 cu.in./min. @ 10,000 psi

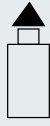


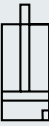




Continuous duty 1.5 hp electric and 4 hp gasoline pumps are best suited for medium size tools and cylinders. It's a perfect choice for clamping, holding, positioning and lowering and lifting applications due to its reservoir sizes and valve options.

Compact Air Foot Pumps 11 cu.in./min @ 10,000 psi



An intermittent portable foot controlled pump best suited for pressing, production and shop tool applications. Runs effectively on 10CFM @ 60-150 PSI.

| Basic Valve Configurations For Pumps | | | | | | | |
|---|-------------------|---|---|--|---|---|---|
| Pump Application | Valve Type | Valve Function | | | Works With Cylinder Type | | |
| | |  |  |  |  |  |  |
| | | Advance | Hold | Retract | Single-Acting Load RTN | Single-Acting Spring RTN | Double-Acting |
| Dump pumps are ideal for crimping, pressing or cutting applications. Switching motor "on" builds pressure, switching motor "off" dumps pressure. | Dump Valve | ● | ---- | ● | ● | ● | ---- |
| Manual valve pumps are ideal for general applications. Directional control is accomplished by manually shifting a control valve. | 2 Way | ● | ---- | ● | ● | ● | ---- |
| | *3 Way | ● | ● | ● | ● | ● | ---- |
| | 4 Way | ● | ● | ● | ---- | ---- | ● |
| Solenoid valve pumps are ideal for production/automation applications. Directional control is accomplished via solenoid w/pendant. | 2 Way | ● | ---- | ● | ---- | ● | ---- |
| | *3 Way | ● | ● | ● | ● | ● | ---- |
| | 4 Way | ● | ● | ● | ---- | ---- | ● |

* 3 Way Models Include Suc-O-Matic Feature

Simplex pumps are the world's only 10,000 psi pumps to offer a new standard in pump construction and reliability. Close coupled motor and the one piece chassis combine to offer a rigid unit with minimal flex and wear characteristics.

The chassis, field proven gear pumps, replaceable piston bores and ball seats, higher crossovers, and quality motors are just a few of the extras incorporated in all Simplex pumps.

Use the speed chart (right) and select the right size pump to obtain the cylinder speed you desire.

For multiple cylinder system speeds, divide the inches per minute by number of cylinders in the system.

| Cylinder Capacity (Tons) | Inches Per Minute | | | | | |
|--------------------------|-------------------|-----------|-----------|--------------|-----------|-----|
| | | G1 Series | G3 Series | G4/G5 Series | G6 Series | |
| 10 | Loaded | 9 | 9 | 24 | 45 | 76 |
| | Unloaded | 104 | 169 | 169 | 200 | 290 |
| 20/25 | Loaded | 4 | 4 | 10 | 20 | 33 |
| | Unloaded | 50 | 75 | 75 | 132 | 132 |
| 30 | Loaded | 3 | 3 | 8.5 | 16 | 26 |
| | Unloaded | 39 | 60 | 60 | 104 | 104 |
| 50/55 | Loaded | 2 | 2 | 5 | 9 | 15 |
| | Unloaded | 23 | 35 | 35 | 61 | 61 |
| 60/75 | Loaded | 1.5 | 1.5 | 3.5 | 6 | 10 |
| | Unloaded | 16 | 24 | 24 | 43 | 43 |
| 100 | Loaded | 1 | 1 | 3 | 5 | 8.5 |
| | Unloaded | 13 | 19 | 19 | 34 | 34 |
| 150 | Loaded | .5 | .5 | 1.75 | 3 | 5 |
| | Unloaded | 7 | 11 | 11 | 20 | 20 |
| 200 | Loaded | .38 | .38 | 1 | 2 | 4 |
| | Unloaded | 5 | 8 | 8 | 15 | 15 |

———— = Cylinder Speed In Seconds

POWER PUMPS

G1 Series - Electric

SIMPLEX



Electric



Model Shown G1131

Reservoir Capacity▶ 1 gallon
Flow @ Rated Pressure▶ 19 cu.in./min.
Maximum Pressure▶ 10,000 psi

- ▶ Powered by a 115V - 60HZ, .5 hp universal motor (14,640 rpm).
- ▶ Low startup voltage, draws 10 amps at full load (230V models available).
- ▶ Two-speed pump operation provides fast tool performance.
- ▶ External adjustable relief standard on all models.

SITE GAUGE



Metal reservoir site gauge for easy viewing of oil level.

COUPLERS - pages 74 - 75



High flow quick disconnect couplers provide a quick change to a variety of pumps.

HOSES - pages 78 - 79



Heavy duty and thermo plastic hydraulic hoses to meet your requirements and safety factor.

SUC-O-MATIC VALVE



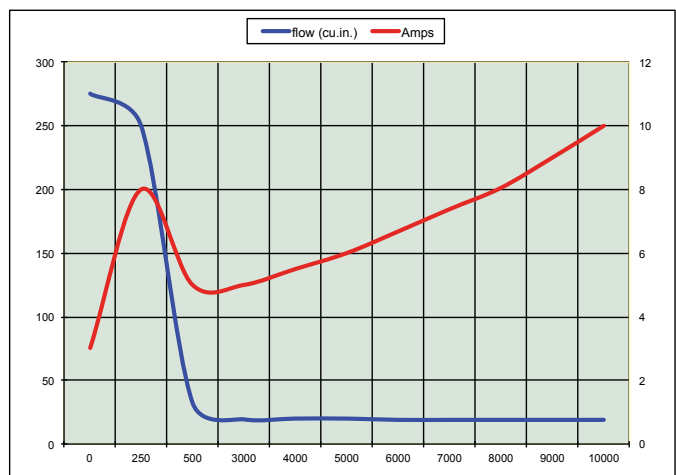
The 3 position / 3 way "Suc-O-Matic" valve draws hydraulic oil out of any single acting cylinder with full retraction regardless of weak springs or mounting.

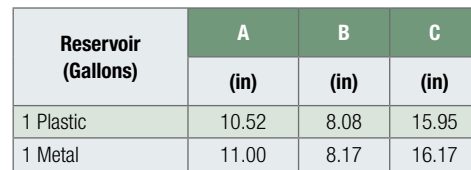
THINK SAFETY



Please refer to pages 4&5 for a complete list of safety tips and recommendations.

With its mobility and power, the G1 power pump with a low profile locknut cylinder was the perfect choice for adjusting loaded shelving racks in this warehouse. ▼





* Motor pendant is standard on all models.

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POWER PUMPS

G3 Series - Electric

SIMPLEX



Electric



G3132 Shown

Reservoir Capacity► 1 - 20 gallons

Flow @ Rated Pressure► 46 cu.in./min.

Maximum Pressure► 10,000 psi

- Powered by a 115V - 60Hz, 1.13 hp universal motor (21,000 rpm).
- Low startup voltage, draws 16 amps at full load (230V models available).
- Equipped with a 15' remote power controlled pendant.
- Reservoirs available in 1- 20 gallons; welded steel design.
- Ideal for use with small, mid sized hydraulic cylinders or tools.

SITE GAUGE



Metal reservoir site gauge for easy viewing of oil level.

IN-LINE VALVES - page 72



Maximize control and safety with our in-line valves.

MANIFOLDS -



The ideal solution in obtaining precise control when operating multiple cylinders.

SUC-O-MATIC VALVE



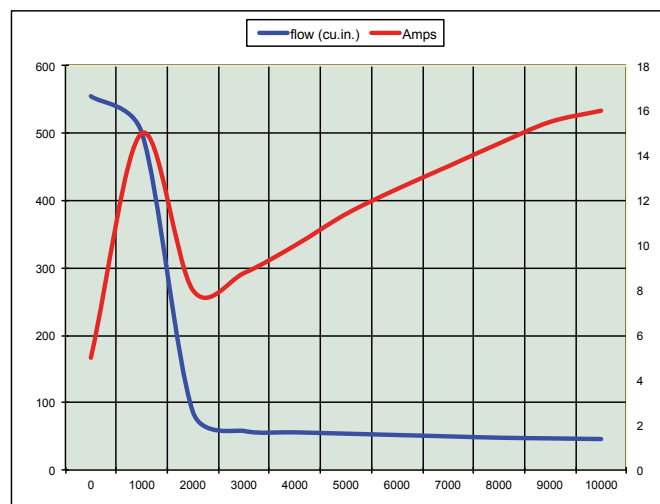
The 3 position / 3 way "Suc-O-Matic" valve draws hydraulic oil out of any single acting cylinder with full retraction regardless of weak springs or mounting.

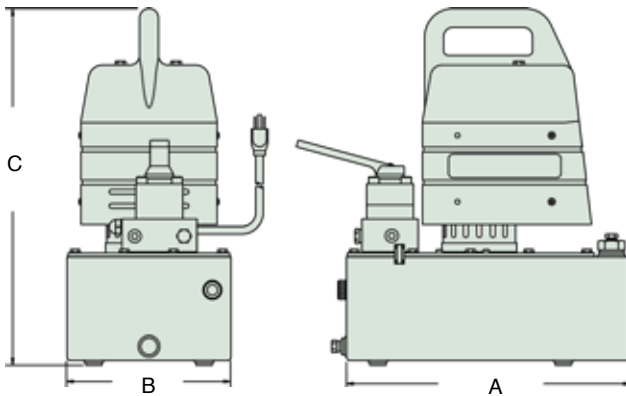
THINK SAFETY



Please refer to pages 4&5 for a complete list of safety tips and recommendations.

A Simplex G3 power pump was used at a testing facility to pressurize manifolds for leaks. ▼





| Reservoir (Gallons) | A | B | C |
|------------------------|-------|-------|-------|
| | (in) | (in) | (in) |
| 1 | 11.00 | 8.19 | 18.75 |
| 1.5 | 15.13 | 8.75 | 19 |
| 2.5 | 17 | 9.75 | 19 |
| 5 | 25.10 | 11.75 | 18.75 |
| 10 | 25.10 | 11.75 | 23 |
| 20 | 28 | 19.6 | 25.25 |

| Model | Pressure Rating (psi) | | Output Flow (cu.in./min.) | | Motor Spec. | | Valve Type | Pendant Control | Usable Oil | Weight (lbs) |
|-------|-----------------------|-----------|---------------------------|-----------|-------------|--------|------------|------------------|------------|--------------|
| | 1st Stage | 2nd Stage | 1st Stage | 2nd Stage | (vac) | (amps) | | | | |
| G3100 | 1,100 | 10,000 | 525 | 46 | 115 | 16 | Dump | Motor | 1 | 38 |
| G3101 | 1,100 | 10,000 | 525 | 46 | 115 | 16 | Dump | Motor | 1 | 45 |
| G3102 | 1,100 | 10,000 | 525 | 46 | 115 | 16 | Dump | Motor | 1.5 | 50 |
| G3121 | 1,100 | 10,000 | 525 | 46 | 115 | 16 | 2W, 2P | Motor | 1 | 45 |
| G3122 | 1,100 | 10,000 | 525 | 46 | 115 | 16 | 2W, 2P | Motor | 1.5 | 52 |
| G3131 | 1,100 | 10,000 | 525 | 46 | 115 | 16 | 3W, 3P | Motor | 1 | 48 |
| G3132 | 1,100 | 10,000 | 525 | 46 | 115 | 16 | 3W, 3P | Motor | 1.5 | 53 |
| G3133 | 1,100 | 10,000 | 525 | 46 | 115 | 16 | 3W, 3P | Motor | 2.5 | 63 |
| G3162 | 1,100 | 10,000 | 525 | 46 | 115 | 16 | 3W, 3P | Motor / Solenoid | 1.5 | 57 |
| G3163 | 1,100 | 10,000 | 525 | 46 | 115 | 16 | 3W, 3P | Motor / Solenoid | 2.5 | 67 |
| G3141 | 1,100 | 10,000 | 525 | 46 | 115 | 16 | 4W, 3P | Motor | 1 | 48 |
| G3142 | 1,100 | 10,000 | 525 | 46 | 115 | 16 | 4W, 3P | Motor | 1.5 | 53 |
| G3143 | 1,100 | 10,000 | 525 | 46 | 115 | 16 | 4W, 3P | Motor | 2.5 | 63 |
| G3172 | 1,100 | 10,000 | 525 | 46 | 115 | 16 | 4W, 3P | Motor / Solenoid | 1.5 | 57 |
| G3173 | 1,100 | 10,000 | 525 | 46 | 115 | 16 | 4W, 3P | Motor / Solenoid | 2.5 | 67 |

* For 230 VAC pump use "2" in the 3rd character of the model number. Motor specifications 0,8 kw single phase, 10 amps @ 230 VAC.

Additional Pump Configurations

| | MODEL | SELECTIONS |
|----------------------------|-------|--|
| Class | G | Power Pump |
| Series | 3 | 1.13 HP Universal Motor / 46 cu.in. |
| Motor Voltage | 1 | 1 = 115 VAC Single Phase 2 = 230 VAC Single Phase |
| Valve Function | 3 | 0 = Dump 1 = 2 Way Dump 2 = 2 Way Manual 3 = 3 Way Manual 4 = 4 Way Manual 6 = 3 Way Solenoid 7 = 4 Way Solenoid |
| Reservoir Size | 2 | 1 = 1 Gallon Usable Oil 2 = 1.5 Gallons Usable Oil 3 = 2.5 Gallons Usable Oil 5 = 5 Gallons Usable Oil 6 = 10 Gallons Usable Oil 7 = 20 Gallons Usable Oil |
| Factory Installed Options* | G | C = Caster Wheel Kit F = Foot Switch (Motor) G = Pump Mounted Gauge L = Locking Style Manifold O = Oil Filter P = Pressure Switch R = Roll Cage S = Foot Switch (Valve) |

* If pump model consists of more than 3 options, contact factory. * Motor pendant is standard on all models.

* Gauge will not be protected by roll cage when a 5 gallon or larger reservoir is ordered.

* Roll cage not available on 10 & 20 gallon reservoir.

* Caster wheel kit not available on 5, 10 & 20 gallon reservoirs.

* Oil filter not available on dump, 2 way dump & 2 way manual.

POWER PUMPS

G4 Series - Electric

SIMPLEX



Electric



G4173 Shown

Reservoir Capacity► 1.5 - 20 gallons

Flow @ Rated Pressure► 55 cu.in./min.

Maximum Pressure► 10,000 psi

- Powered by a 115V - 60Hz, 1.5 hp induction motor (1,725 rpm).
- Low startup voltage, draws amps at full load (230V models available).
- High performance two-stage pump provides higher cross-over pressure for faster cycle times and equipment operation.
- Ideal for use with mid sized hydraulic cylinders.

CYLINDERS - pages 7 - 29

A large selection of steel and aluminum cylinders to meet every need.



COUPLERS - pages 74 - 75

High flow quick disconnect couplers provide a quick change to a variety of pumps.



MANIFOLDS - page 73

The ideal solution in obtaining precise control when operating multiple cylinders.



SUC-O-MATIC VALVE

The 3 position / 3 way "Suc-O-Matic" valve draws hydraulic oil out of any single acting cylinder with full retraction regardless of weak springs or mounting.

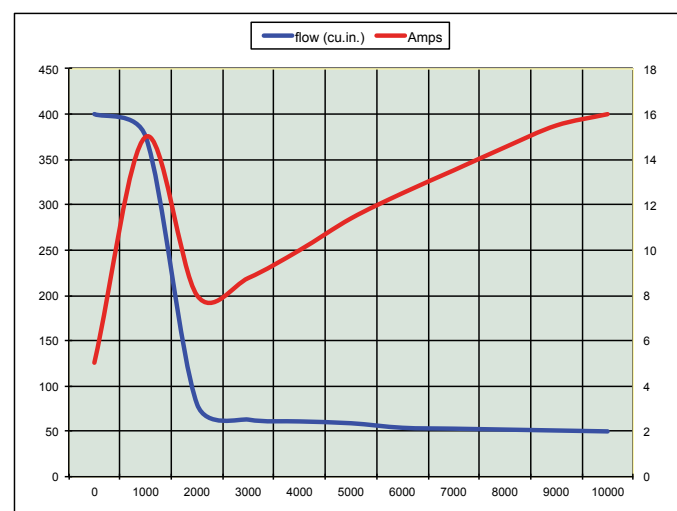


THINK SAFETY

Please refer to pages 4&5 for a complete list of safety tips and recommendations.

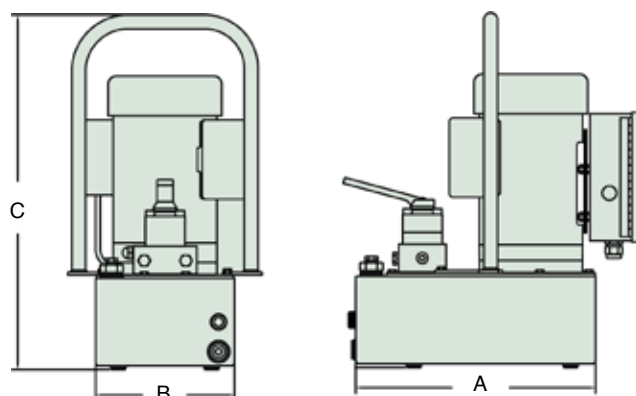


The Simplex G4 power pump along with the S3000A spreader was used to pry apart the rusted doors on this steel shipping container. ▼





Electric



| Reservoir (Gallons) | A | B | C |
|------------------------|-------|-------|-------|
| | (in) | (in) | (in) |
| 1.5 | 15.13 | 8.75 | 22.34 |
| 2.5 | 17 | 9.75 | 22.34 |
| 5 | 25.10 | 11.75 | 21 |
| 10 | 25.10 | 11.75 | 25.25 |
| 20 | 28 | 19.6 | 25.25 |

| Model | Pressure Rating (psi) | | Output Flow (cu.in./min.) | | Motor Spec. | | Valve Type | Pendant Control | Usable Oil | Weight (lbs) |
|-------|-----------------------|-----------|---------------------------|-----------|-------------|--------|------------|------------------|------------|--------------|
| | 1st Stage | 2nd Stage | 1st Stage | 2nd Stage | (vac) | (amps) | | | | |
| G4102 | 1,100 | 10,000 | 400 | 55 | 115 | 16 | Dump | Motor | 1.5 | 38 |
| G4103 | 1,100 | 10,000 | 400 | 55 | 115 | 16 | Dump | Motor | 2.5 | 45 |
| G4122 | 1,100 | 10,000 | 400 | 55 | 115 | 16 | 2W, 2P | Optional Motor | 1.5 | 52 |
| G4132 | 1,100 | 10,000 | 400 | 55 | 115 | 16 | 3W, 3P | Optional Motor | 1.5 | 53 |
| G4133 | 1,100 | 10,000 | 400 | 55 | 115 | 16 | 3W, 3P | Optional Motor | 2.5 | 63 |
| G4162 | 1,100 | 10,000 | 400 | 55 | 115 | 16 | 3W, 3P | Motor / Solenoid | 1.5 | 57 |
| G4163 | 1,100 | 10,000 | 400 | 55 | 115 | 16 | 3W, 3P | Motor / Solenoid | 2.5 | 67 |
| G4142 | 1,100 | 10,000 | 400 | 55 | 115 | 16 | 4W, 3P | Optional Motor | 1.5 | 53 |
| G4143 | 1,100 | 10,000 | 400 | 55 | 115 | 16 | 4W, 3P | Optional Motor | 2.5 | 63 |
| G4172 | 1,100 | 10,000 | 400 | 55 | 115 | 16 | 4W, 3P | Motor / Solenoid | 1.5 | 57 |
| G4173 | 1,100 | 10,000 | 400 | 55 | 115 | 16 | 4W, 3P | Motor / Solenoid | 2.5 | 67 |

* For 230 VAC pump use "2" in the 3rd character of the model number. Motor specifications 1,1 kw single phase, 10 amps @ 230 VAC.

Additional Pump Configurations

| MODEL | SELECTIONS |
|----------------------------|--|
| Class | G Power Pump |
| Series | 4 1.5 HP Induction Motor / 55 cu.in. |
| Motor Voltage | 1 1 = 115 VAC Single Phase 2 = 230 VAC Single Phase |
| Valve Function | 3 0 = Dump 1 = 2 Way Dump 2 = 2 Way Manual 3 = 3 Way Manual 4 = 4 Way Manual 6 = 3 Way Solenoid 7 = 4 Way Solenoid |
| Reservoir Size | 2 2 = 1.5 Gallons Usable Oil 3 = 2.5 Gallons Usable Oil 5 = 5 Gallons Usable Oil 6 = 10 Gallons Usable Oil 7 = 20 Gallons Usable Oil |
| Factory Installed Options* | G C = Caster Wheel Kit F = Foot Switch (Motor) G = Pump Mounted Gauge H = Heat Exchanger L = Locking Style Manifold M = Motor Pendant O = Oil Filter P = Pressure Switch R = Roll Cage S = Foot Switch (Valve) |

* If pump model consists of more than 3 options, contact factory.

* Gauge will not be protected by roll cage when a 5 gallon or larger reservoir is ordered.

* Roll cage not available on 10 & 20 gallon reservoir.

* Caster wheel kit not available on 5,10 & 20 gallon reservoirs.

* Oil filter not available on dump, 2 way dump & 2 way manual.

POWER PUMPS

G5 Series - Electric

SIMPLEX



G5132G Shown

Reservoir Capacity▶ 1.5 - 20 gallons

Flow @ Rated Pressure▶ 55 cu.in./min.

Maximum Pressure▶ 10,000 psi

- ▶ Powered by a 115V - 60Hz, 1.5 hp permanent magnet motor (3,000 rpm).
- ▶ Low startup voltage, draws 18 amps at full load (230V models available).
- ▶ High performance two-stage pump provides higher cross-over pressure for faster cycle times.
- ▶ Ideal for use with mid to large sized hydraulic cylinders or tools.
- ▶ Comes standard with 15' pendant.

CYLINDERS - pages 7 - 29

A large selection of steel and aluminum cylinders to meet every need.



HOSES - pages 78 - 79

Heavy duty and thermo plastic hydraulic hoses to meet your requirements and safety factor.



IN-LINE VALVES - page 72

Maximize control and safety with our in-line valves.



SUC-O-MATIC VALVE

The 3 position / 3 way "Suc-O-Matic" valve draws hydraulic oil out of any single acting cylinder with full retraction regardless of weak springs or mounting.



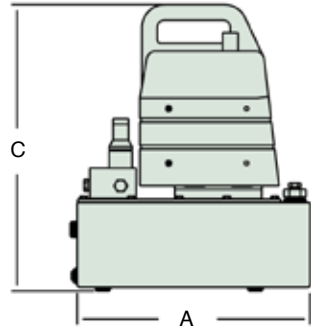
THINK SAFETY

Please refer to pages 4&5 for a complete list of safety tips and recommendations.



The G5 power pump coupled with a 50 ton Simplex cylinder are used daily to position bearings in the assembly processing section of the plant. ▼





Power Pumps

53

POWER PUMPS

G6 Series - Electric

SIMPLEX



Electric



G6335 Shown

Reservoir Capacity► 5 - 40 gallons
Flow @ Rated Pressure► 100 cu.in./min.
Maximum Pressure► 10,000 psi

- Two-stage pump operation provides fast tool performance.
- Ideal for use with mid to large sized hydraulic cylinders or tools.
- Powered by a multi-voltage, 3 phase, 3 hp AC motor (3450 rpm); low startup voltage draws 9.5 amps (230v) at full load.
- Perfect fit for production and multi-cylinder lift systems.
- Quiet running, only (80dba).

CYLINDERS - pages 7 - 29

A large selection of steel and aluminum cylinders to meet every need.



COUPLERS - pages 74 - 75

High flow quick disconnect couplers provide a quick change to a variety of pumps.



IN-LINE VALVES - page 72

Maximize control and safety with our in-line valves.



▲ Deluxe Starter Box is equipped on all models.

THINK SAFETY

Please refer to pages 4&5 for a complete list of safety tips and recommendations.

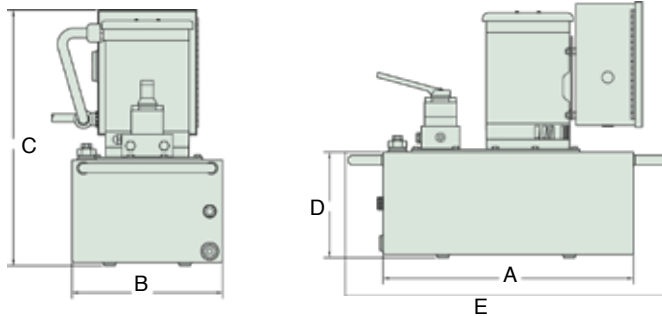


The G6 Series Electric pump can power a variety of Simplex tools while withstanding the daily wear and tear in this steel fabricating shop. ▼





Electric



| Reservoir (Gallons) | A | B | C | D | E |
|------------------------|-------|-------|-------|-------|-------|
| | (in) | (in) | (in) | (in) | (in) |
| 5 | 19.62 | 11.75 | 20.52 | 8.46 | 25.10 |
| 10 | 19.62 | 11.75 | 24.76 | 12.71 | 25.10 |
| 20 | 23.50 | 19.60 | 24.51 | 12.46 | 28 |
| 40 | 36 | 24 | 24.7 | 12.25 | 41.5 |

| Model | Pressure Rating (psi) | | Output Flow (cu.in./min.) | | Motor Spec. | | Valve Type | Pendant Control | Usable Oil | Weight (lbs) |
|--------|-----------------------|-----------|---------------------------|-----------|-------------|--------|------------|-----------------|------------|--------------|
| | 1st Stage | 2nd Stage | 1st Stage | 2nd Stage | (vac) | (amps) | | | | |
| G6335 | 1,500 | 10,000 | 750 | 100 | 230 | 9.5 | 3W, 3P | ---- | 5 | 162 |
| G6336 | 1,500 | 10,000 | 750 | 100 | 230 | 9.5 | 3W, 3P | ---- | 10 | 217 |
| G6336L | 1,500 | 10,000 | 750 | 100 | 230 | 9.5 | 3W, 3P (L) | ---- | 10 | 218 |
| G6365 | 1,500 | 10,000 | 750 | 100 | 230 | 9.5 | 3W, 3P | Solenoid | 5 | 165 |
| G6366 | 1,500 | 10,000 | 750 | 100 | 230 | 9.5 | 3W, 3P | Solenoid | 10 | 220 |
| G6366L | 1,500 | 10,000 | 750 | 100 | 230 | 9.5 | 3W, 3P (L) | Solenoid | 10 | 221 |
| G6346 | 1,500 | 10,000 | 750 | 100 | 230 | 9.5 | 4W, 3P | ---- | 10 | 210 |
| G6347 | 1,500 | 10,000 | 750 | 100 | 230 | 9.5 | 4W, 3P | ---- | 20 | 311 |
| G6347L | 1,500 | 10,000 | 750 | 100 | 230 | 9.5 | 4W, 3P (L) | ---- | 20 | 312 |
| G6375 | 1,500 | 10,000 | 750 | 100 | 230 | 9.5 | 4W, 3P | Solenoid | 5 | 165 |
| G6376 | 1,500 | 10,000 | 750 | 100 | 230 | 9.5 | 4W, 3P | Solenoid | 10 | 220 |
| G6376L | 1,500 | 10,000 | 750 | 100 | 230 | 9.5 | 4W, 3P (L) | Solenoid | 10 | 221 |

(L) = Lock Valve
Manifold

* For 230 VAC pump use "3" in the 3rd character of the model number. Motor specifications 2,2 kw 3 phase, 10 amps @ 230 VAC.

* For 380 VAC pump use "4" in the 3rd character of the model number. Motor specifications 2,2 kw 3 phase, 5.8 amps @ 380 VAC.

* For 460 VAC pump use "5" in the 3rd character of the model number. Motor specifications 2,2 kw 3 phase, 4.7 amps @ 460 VAC.

* For 575 VAC pump use "6" in the 3rd character of the model number. Motor specifications 2,2 kw 3 phase, 3.8 amps @ 575 VAC.

Additional Pump Configurations

| MODEL | SELECTIONS |
|-----------------------------|--|
| Class | G — Power Pump |
| Series | 6 — 3 HP / 3 Phase / 100 cu.in. |
| Motor Voltage | 3 — 3 = 230 VAC, 3 Phase 4 = 380 VAC, 3 Phase 5 = 460 VAC, 3 Phase 6 = 575 VAC, 3 Phase |
| Valve Function | 3 — 2 = 2 Way Manual 3 = 3 Way Manual 4 = 4 Way Manual 6 = 3 Way Solenoid 7 = 4 Way Solenoid |
| Reservoir Size | 5 — 5 = 5 Gallons Usable Oil 6 = 10 Gallons Usable Oil 7 = 20 Gallons Usable Oil 8 = 40 Gallons Usable Oil |
| Factory Installed Options * | F — F = Foot Switch (Motor) G = Gauge (Integrated) H = Heat Exchanger L = Locking Style Manifold M = Motor Pendant O = Oil Filter P = Pressure Switch S = Foot Switch (Valve) |

* If pump consists of more than 3 options, consult factory.

* Oil filter not available on 2 way manual.

POWER PUMPS

G5 Series - Air

SIMPLEX



Air



G5733 Shown

Reservoir Capacity► 1.5 - 20 gallons

Flow @ Rated Pressure► 55 cu.in./min.

Maximum Pressure► 10,000 psi

- Powered by a rotary air vane, 3 hp motor (3,000 rpm).
- Equipped with a filter-lubricator assembly, air muffler and carry handlebar on all models.
- Precision designed valve offers reliability and secure load holding; external adjustable relief standard on all models.
- Ideal for use with mid sized hydraulic cylinders or tools.

CYLINDERS - pages 7 - 29

A large selection of steel and aluminum cylinders to meet every need.



COUPLERS - pages 74 - 75

High flow quick disconnect couplers provide a quick change to a variety of pumps.



GAUGES - page 77

Improve your system visibility and safety by adding an inline hydraulic gauge to your circuit.



The power and dependability of the G5 Air Power Pump is the perfect solution for any job where electric and gasoline powered tools are not suitable. ▼



SUC-O-MATIC VALVE

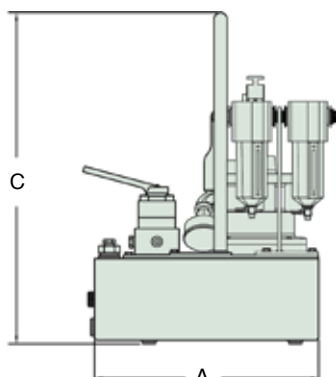
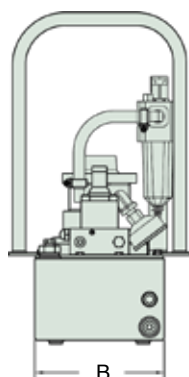
The 3 position / 3 way "Suc-O-Matic" valve draws hydraulic oil out of any single acting cylinder with full retraction regardless of weak springs or mounting.



THINK SAFETY

Please refer to pages 4&5 for a complete list of safety tips and recommendations.





| Reservoir (Gallons) | A | B | C |
|------------------------|-------|-------|-------|
| | (in) | (in) | (in) |
| 1.5 | 15.13 | 8.75 | 22.34 |
| 2.5 | 17 | 9.75 | 22.34 |
| 5 | 25.10 | 11.75 | 20.52 |
| 10 | 25.10 | 11.75 | 24.77 |
| 20 | 28 | 19.62 | 26.69 |

| Model | Pressure Rating (psi) | | Output Flow (cu.in. / min.) | | Motor Spec. | | Valve Type | Pendant Control | Usable Oil | Weight (lbs) |
|-------|--------------------------|-----------|--------------------------------|-----------|-------------|-------|---------------|--------------------|---------------|-----------------|
| | 1st Stage | 2nd Stage | 1st Stage | 2nd Stage | (psi) | (cfm) | | | | |
| G5732 | 1,100 | 10,000 | 700 | 55 | 90 | 50 | 3W, 3P | ----- | 1.5 | 50 |
| G5735 | 1,100 | 10,000 | 700 | 55 | 90 | 50 | 3W, 3P | ----- | 5 | 108 |
| G5762 | 1,100 | 10,000 | 700 | 55 | 90 | 50 | 3W, 3P | Solenoid | 1.5 | 52 |
| G5765 | 1,100 | 10,000 | 700 | 55 | 90 | 50 | 3W, 3P | Solenoid | 5 | 110 |
| G5742 | 1,100 | 10,000 | 700 | 55 | 90 | 50 | 4W, 3P | ----- | 1.5 | 50 |
| G5745 | 1,100 | 10,000 | 700 | 55 | 90 | 50 | 4W, 3P | ----- | 5 | 108 |
| G5772 | 1,100 | 10,000 | 700 | 55 | 90 | 50 | 4W, 3P | Solenoid | 1.5 | 52 |
| G5775 | 1,100 | 10,000 | 700 | 55 | 90 | 50 | 4W, 3P | Solenoid | 5 | 110 |

Additional Pump Configurations

| | MODEL | SELECTIONS |
|----------------------------|-------|---|
| Class | G | Power Pump |
| Series | 5 | 3 HP Air Motor / 55 cu.in. |
| Motor Type | 7 | 7 = Rotary Vane |
| Valve Function | 3 | <div>0 = Dump</div> <div>1 = 2 Way Dump</div> <div>2 = 2 Way Manual</div> <div>3 = 3 Way Manual</div> <div>4 = 4 Way Manual</div> <div>5 = 2 Way Solenoid</div> <div>6 = 3 Way Solenoid</div> <div>7 = 4 Way Solenoid</div> |
| Reservoir Size | 5 | <div>2 = 1.5 Gallons Usable Oil</div> <div>3 = 2.5 Gallons Usable Oil</div> <div>5 = 5 Gallons Usable Oil</div> <div>6 = 10 Gallons Usable Oil</div> <div>7 = 20 Gallons Usable Oil</div> |
| Factory Installed Options* | | <div>B = 3 Stage Pump</div> <div>C = Caster Wheel Kit</div> <div>G = Gauge (Integrated)</div> <div>L = Locking Style Manifold</div> <div>M = Motor Pendant</div> <div>O = Oil Filter</div> <div>R = Roll Cage</div> |

* If pump model consists of more than 3 options, contact factory.

* Gauge will not be protected by roll cage when a 5 gallon or larger reservoir is ordered.

* Roll cage not available on 10 & 20 gallon reservoir.

* Caster wheel kit not available on 5, 10 & 20 gallon reservoirs.

* Oil filter not available on dump, 2 way dump & 2 way manual.

POWER PUMPS

G4 Series — Gas

SIMPLEX

G4
Gas



G4833 Shown

Reservoir Capacity► 1.5 - 20 gallons

Flow @ Rated Pressure► 50 cu.in./min.

Maximum Pressure► 10,000 psi

- Powered by a 127 c.c. Briggs & Stratton® gas motor.
- High performance two-stage pump provides higher cross-over pressure for faster cycle times and equipment operation; 50 cubic inches / minute @ 10,000 PSI.
- Reservoirs available in 1.5 - 20 gallons; welded steel design.
- Ideal for use with mid sized hydraulic cylinders or tools.

MANIFOLDS - The ideal solution in obtaining precise control when operating multiple cylinders.



COUPLERS - pages 74 - 75

High flow quick disconnect couplers provide a quick change to a variety of pumps.



GAUGES - page 77

Improve your system visibility and safety by adding an inline hydraulic gauge to your circuit.



SUC-O-MATIC VALVE

The 3 position / 3 way "Suc-O-Matic" valve draws hydraulic oil out of any single acting cylinder with full retraction regardless of weak springs or mounting.

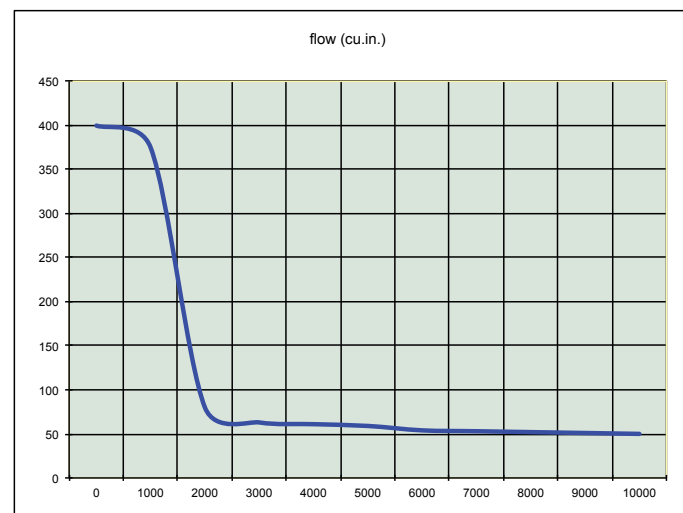


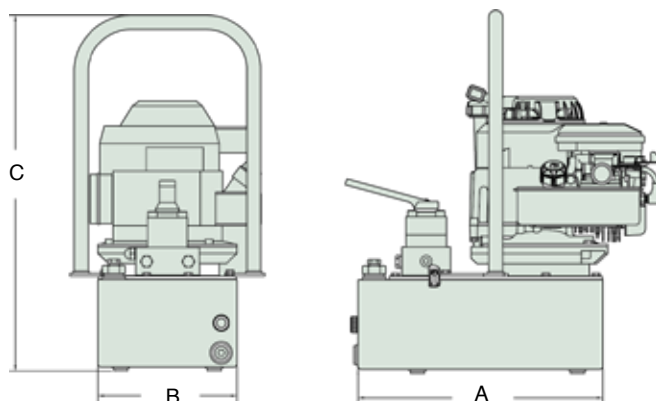
THINK SAFETY

Please refer to pages 4&5 for a complete list of safety tips and recommendations.



The location to repair this dock foundation needed the versatility of the G4 gas power pump. ▼





| Reservoir (Gallons) | A | B | C |
|------------------------|-------|-------|-------|
| | (in) | (in) | (in) |
| 1.5 | 15.13 | 8.75 | 22.34 |
| 2.5 | 17 | 9.75 | 22.34 |
| 5 | 25.10 | 11.75 | 19.54 |
| 10 | 25.10 | 11.75 | 23.97 |
| 20 | 28 | 19.60 | 22.84 |

| Model | Pressure Rating (psi) | | Output Flow (cu.in. / min.) | | Motor B&S | Valve Type | Usable Oil | Weight (lbs) |
|-------|--------------------------|-----------|--------------------------------|-----------|--------------|---------------|---------------|-----------------|
| | 1st Stage | 2nd Stage | 1st Stage | 2nd Stage | | | | |
| G4833 | 1,100 | 10,000 | 400 | 50 | 127 c.c. | 3W, 3P | 2.5 | 53 |
| G4835 | 1,100 | 10,000 | 400 | 50 | 127 c.c. | 3W, 3P | 5 | 108 |
| G4843 | 1,100 | 10,000 | 400 | 50 | 127 c.c. | 4W, 3P | 2.5 | 53 |
| G4845 | 1,100 | 10,000 | 400 | 50 | 127 c.c. | 4W, 3P | 5 | 108 |

Additional Pump Configurations

| | MODEL | SELECTIONS |
|----------------------------|-------|--|
| Class | G | Power Pump |
| Series | | 127 c.c. Gas Motor |
| Motor Type | 8 | 8 = 4 HP Briggs & Stratton® Gas Motor / 50 cu.in. |
| Valve Function | 3 | 2 = 2 Way Manual 3 = 3 Way Manual 4 = 4 Way Manual |
| | 5 | 2 = 1.5 Gallons Usable Oil 3 = 2.5 Gallons Usable Oil 5 = 5 Gallons Usable Oil 6 = 10 Gallons Usable Oil 7 = 20 Gallons Usable Oil |
| Factory Installed Options* | G | C = Castor Wheel Kit G = Gauge (Integrated) L = Locking Style Manifold O = Oil Filter R = Roll Cage |

* If pump model consists of more than 3 options, contact factory.

* Gauge will not be protected by roll cage when a 5 gallon or larger reservoir is ordered.

* Roll cage not available on 10 & 20 gallon reservoir.

* Castor wheel kit not available on 5,10 & 20 gallon reservoirs.

* Oil filter not available on dump, 2 way dump & 2 way manual.

POWER PUMPS

G6 Series - Gas

SIMPLEX



Gas



G6843 Shown

Reservoir Capacity► 2.5 - 20 gallons

Flow @ Rated Pressure► 100 cu.in./min.

Maximum Pressure► 10,000 psi

- Powered by a 163 c.c. Honda® gas motor.
- High performance two-stage pump provides higher cross-over pressure for faster cycle times and equipment operation.
- Ideal for use with mid to large sized hydraulic cylinders or tools.
- Reservoirs available in 2.5 - 20 gallons; welded steel design.
- Precision designed valve offers reliability and secure load holding.

MANIFOLDS - page 73

The ideal solution in obtaining precise control when operating multiple cylinders.



COUPLERS -

High flow quick disconnect couplers provide a quick change to a variety of pumps.



GAUGES -

Improve your system visibility and safety by adding an inline hydraulic gauge to your circuit.



SUC-O-MATIC VALVE

The 3 position / 3 way "Suc-O-Matic" valve draws hydraulic oil out of any single acting cylinder with full retraction regardless of weak springs or mounting.

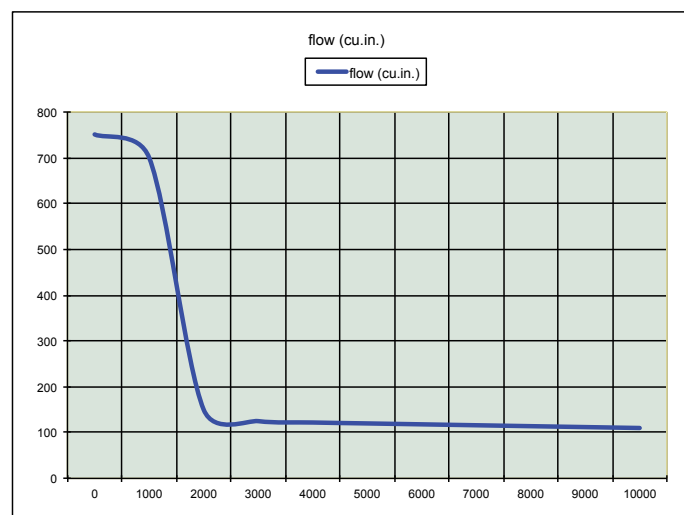


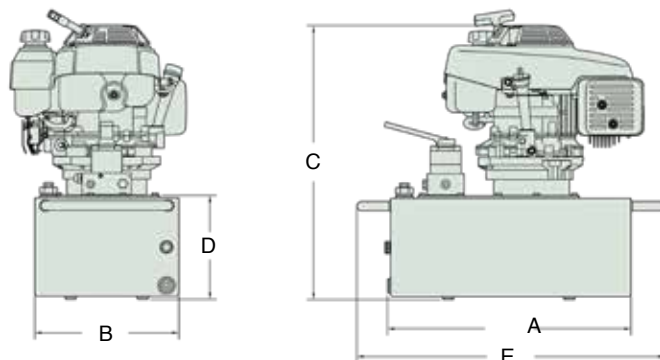
THINK SAFETY

Please refer to pages 4&5 for a complete list of safety tips and recommendations.



The G6 Series Gas pump can withstand the most rugged environments without ever compromising performance. ▼





| Reservoir (Gallons) | A | B | C | D | E |
|------------------------|-------|-------|-------|-------|-------|
| | (in) | (in) | (in) | (in) | (in) |
| 2.5 | 17 | 9.75 | 19.86 | 5.71 | ---- |
| 5 | 19.60 | 11.75 | 22.36 | 8.46 | 25.10 |
| 10 | 19.60 | 11.75 | 26.61 | 12.71 | 25.10 |
| 20 | 23.50 | 19.60 | 26.36 | 12.46 | 28 |

28 x 22.68 x 18.75 Roll Cage Dimensions for 2.5 gallon.

| Model | Pressure Rating (psi) | | Output Flow (cu.in./ min.) | | Motor Spec | Valve Type | Usable Oil | Weight (lbs) |
|-------|-----------------------|-----------|----------------------------|-----------|------------|------------|------------|--------------|
| | 1st Stage | 2nd Stage | 1st Stage | 2nd Stage | | | | |
| G6833 | 1,200 | 10,000 | 750 | 100 | 163 c.c. | 3W, 3P | 2.5 | 68 |
| G6835 | 1,200 | 10,000 | 750 | 100 | 163 c.c. | 3W, 3P | 5 | 123 |
| G6843 | 1,200 | 10,000 | 750 | 100 | 163 c.c. | 4W, 3P | 2.5 | 68 |
| G6845 | 1,200 | 10,000 | 750 | 100 | 163 c.c. | 4W, 3P | 5 | 123 |

Additional Pump Configurations

| | MODEL | SELECTIONS |
|-----------------------------|-------|--|
| Class | G | Power Pump |
| Series | 6 | 163 c.c. Gas Motor |
| Motor Type | 8 | 8 = Honda Gas Motor / 100 cu.in. |
| Valve Function | 3 | 2 = 2 Way Manual 3 = 3 Way Manual 4 = 4 Way Manual |
| Reservoir Size | 5 | 3 = 2.5 Gallons Usable Oil 5 = 5 Gallons Usable Oil 6 = 10 Gallons Usable Oil 7 = 20 Gallons Usable Oil |
| Factory Installed Options * | C | B = 3 Stage Pump C = Caster Wheel Kit (2.5 gal. only) G = Gauge (Integrated) L = Locking Style Manifold O = Oil Filter |

* For reservoirs over 20 gallon capacity, please contact factory.

* If pump model consists of more than 3 options, contact factory.

* Oil filter not available with 2 way manual.



**Order # G07-3M, G07-3S
G07-4M, G07-4S**

3M = 3 Way Manual
4M = 4 Way Manual
3S = 3 Way Solenoid
4S = 4 Way Solenoid

Monitor Pressure In The System By
Incorporating An
Integrated Pressure Gauge.

Integrated Pressure Gauge Kit

| | |
|---|---|
| * Shcs .38-16 X 2.5 | 4 |
| Gauge Shroud Mounting | 2 |
| * Gauge Bracket Manual | 1 |
| * BHCS 10-24 X .50 316SS..... | 4 |
| Manifold Assembly..... | 1 |
| * Valve Handle Assembly..... | 1 |
| Gauge Shroud Assembly..... | 1 |
| Instruction Sheet GO7..... | 1 |
| * Extra Components In Manual 3 Or 4 Way Gauge Kit * | |



Order # G02

Hands free pump control can be
achieved with the 15 ft. cord Foot
Switch.

Foot Switch Kit

| | |
|----------------------------|--------------|
| Foot Switch | 1 |
| 18-3 Power Cord | 15 Foot Cord |
| Spade Terminal | 3 |
| Instruction Sheet GO2..... | 1 |



Order # G03

Protect your G Series pump from
jobsite mishaps with a lightweight
industrial grade Roll Cage.

Roll Cage Kit

| | |
|---------------------------------------|---|
| .25" Fender Washer | 4 |
| HHCS .25 - 20 X .75 W/Nylon S.S | 4 |
| Roll Cage | 1 |
| Instruction Sheet GO3..... | 1 |



**Order # G04 - 115
(FOR 115 VOLT
Order # G04 - 230
(FOR 230 VOLT)**

Avoid pump overheating and costly
repairs from long work periods with
a coil induction Heat Exchanger.

Heat Exchanger Kit - 115 Volt / 230 Volt

| | |
|---|---|
| Heat Exchanger Assembly G5 115V | 1 |
| Bulkhead Elbow .38" Flare Tube | 2 |
| Swivel Fitting | 1 |
| Elbow .25" NPT To .38" Flare Tube | 1 |
| Tube Heat Exchanger Pump To Cover Plate | 1 |
| Tube Heat Exchanger Cover Plate To Tank | 1 |
| Standoff Heat Exchanger | 4 |
| BHCS .25-20 X 3/8 | 4 |
| Hex Nut .25-20 Plated | 4 |
| O-Ring .44 X .62 | 2 |
| Ring Terminal .25" | 1 |
| Cover Plate Standard..... | 1 |
| Cover Plate Torque Wrench | 1 |
| Instruction Sheet GO4..... | 1 |

**Order # G05**

Protect your system from unwanted contaminants with an easy to install External Filter Kit.

External Filter Kit

| | |
|---------------------------------------|---|
| Filter Block W/ Relief Assembly | 1 |
| Roll Pin .13 X .38 Lg | 1 |
| SHCS .38-16 X 5.25 | 1 |
| SHCS .38-16 X 6.25 | 4 |
| Instruction Sheet GO5 | 1 |

**Order # G01**

Provide a safe distance from large loads with a handy 15 ft. heavy duty Pendant Control Kit.

Pendant Motor Control Kit

| | |
|---------------------------------|---|
| Pendant Assembly | 1 |
| Membrane Switch Label | 3 |
| Decal Pendant Instruction | 1 |
| Simplex Decal | 1 |
| Instruction Sheet GO1 | 1 |

**Order # G06**

Give your G Series pump mobility with heavy duty Swivel Casters for easier movement on tough terrain.

Caster Kit

| | |
|----------------------------------|---|
| Caster Strip | 2 |
| Swivel Caster | 4 |
| Acorn Nut .38 - 16 Plated | 4 |
| FHCS .25 - 20 X .75 Length | 4 |
| Instruction Sheet GO6 | 1 |

*** Mounts Only To A: 1 - 1.5 - 2.5**

**Order # WMT4**

Run Up To 4 Different Tools To Add Versatility To Your G Series Pump With A Multiport Adapter Kit.

For Torque Wrench Pumps Only.

Multi-Port Adapter Kit

| | |
|--|---|
| Multi-Port Adapter Block | 1 |
| Valve Adapter Multiport Assembly | 2 |
| Pipe Plug .13" Flush W/ Coating | 4 |
| SHCS .25 - 20 X 2" Length | 2 |
| Hex Pipe Plug .25" W/ Coating | 1 |
| Instruction Sheet WMT4 | 1 |

POWER PUMPS

Compact Foot Pumps – Air Over Hydraulic

SIMPLEX

GA9

Air over Hydraulic



Usable Oil Capacity► 90 - 460 cu.in.

Weight► 18.5 - 41 lbs.

Maximum Pressure► 10,000 psi

- 3 position non-slip, diamond grip treadle for safe advance, hold & retract operation.
- Quiet operation - 85 dba @ 10,000 psi for in-house production.
- Rugged all metal construction.
- High quality rubber gasket seals.
- Integrated non-spill vent / oil level indicator.

Air Foot Pump Family Shown

DETENT CLIP

Pedal can be used to reduce operator strain by locking in the release position.

NON-SKID FEET

Four mountable non-skid rubber feet can be used to make your pump stationary.

FOOT PEDAL

A non-slip diamond plate texture gives the user safe and controlled foot pivoting action.

GA9 Series

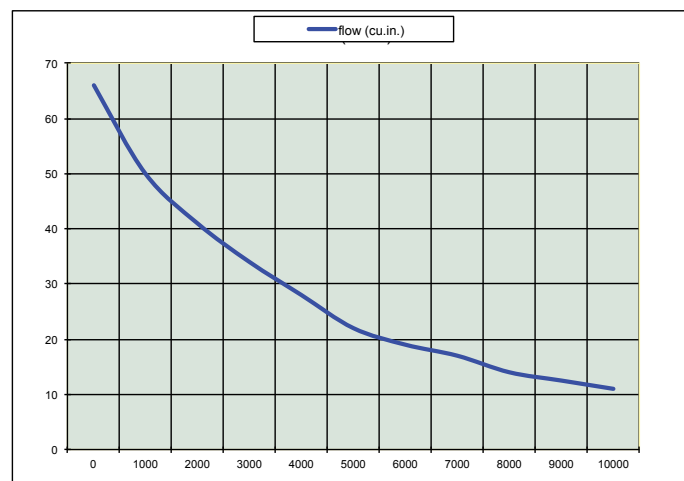
Cutaway View



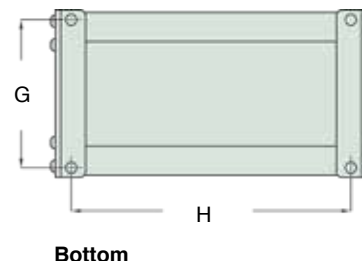
SERVICE KITS

A large selection of serviceable part kits are offered to reduce operating costs and down time.

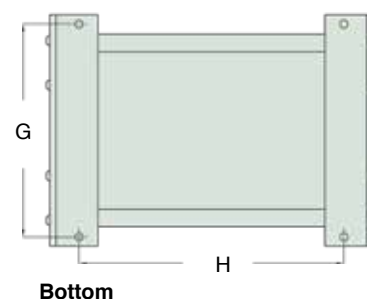
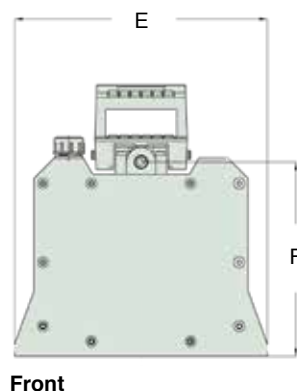
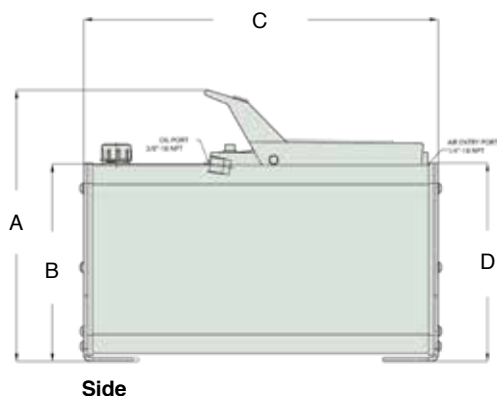
Engineers selected the Simplex air pump when reliable 10,000 psi power was needed to run this production line fixture. ▼



GA9 - 90 cu. in. Reservoir



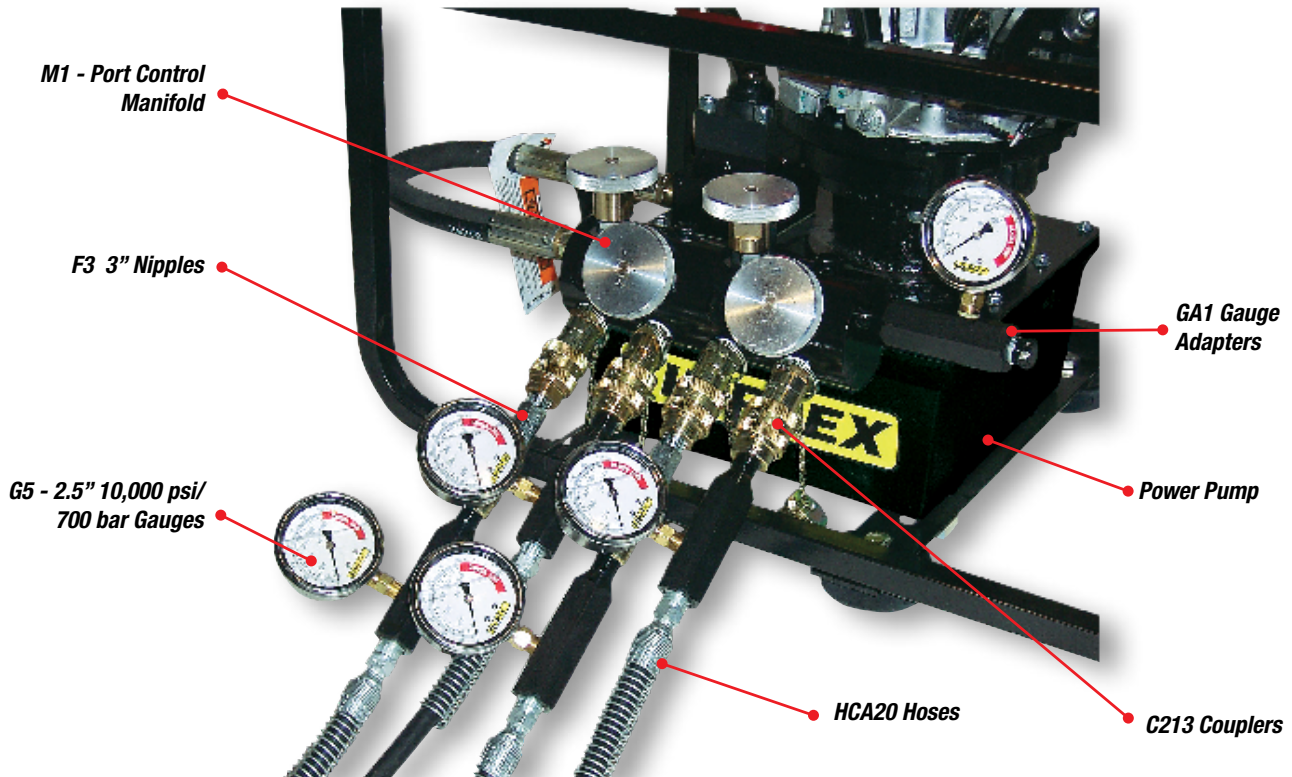
GA9 - 230 / 460 cu. in. Reservoir



| Model | Tool Type | Control | Usable Oil Capacity (cu.in.) | Oil Flow @ 0 psi (cu. in.) | Oil Flow @ 10,000 psi (cu. in.) | Operating Air Pressure Range (psi) | Weight (lbs) | Reservoir Sizes (in) | | | | | | Mounting Holes (in) | |
|---------|-----------|------------|------------------------------|----------------------------|---------------------------------|------------------------------------|--------------|----------------------|------|-------|------|------|------|---------------------|-------|
| | | | | | | | | A | B | C | D | E | F | G | H |
| GA90 | S/A | Foot Pedal | 90 | 68 | 11 | 60 - 150 | 18.5 | 8.38 | 5.32 | 10.69 | 4.81 | 5.81 | 5.25 | 5.01 | 9.27 |
| GA9230 | S/A | Foot Pedal | 230 | 68 | 11 | 60 - 150 | 32.6 | 11.88 | 7.94 | 10.63 | 7.94 | 9.84 | 7.88 | 9.05 | 11.29 |
| GA9460 | S/A | Foot Pedal | 460 | 68 | 11 | 60 - 150 | 41 | 11.88 | 7.94 | 14.06 | 7.94 | 9.84 | 7.88 | 9.05 | 11.29 |
| GA90R | S/A | Pendant | 90 | 68 | 8 | 60 - 150 | 23.5 | 8.38 | 5.32 | 10.69 | 4.81 | 5.81 | 5.25 | 5.01 | 9.27 |
| GA9230R | S/A | Pendant | 230 | 68 | 8 | 60 - 150 | 37.6 | 11.88 | 7.94 | 10.63 | 7.94 | 9.84 | 7.88 | 9.05 | 11.29 |
| GA9230D | D/A | Valve | 230 | 68 | 11 | 60 - 150 | 31.6 | 11.88 | 7.94 | 10.63 | 7.94 | 9.84 | 7.88 | 9.05 | 11.29 |
| GA9460D | D/A | Valve | 460 | 68 | 11 | 60 - 150 | 41 | 11.88 | 7.94 | 14.06 | 7.94 | 9.84 | 7.88 | 9.05 | 11.29 |

SYSTEM ACCESSORIES





Pump with 4 Port Manifold Shown

PRODUCT LINE OVERVIEW

- ▶ Monitor your system pressure and load by incorporating SIMPLEX liquid filled gauges in your hydraulic circuit. Also, SIMPLEX offers digital gauges to meet any demanding requirement for accuracy.
- ▶ Take advantage of the wide selection of configured inline system valves to maximize individual tool speed for safe and efficient control.
- ▶ Add additional backup safety with the SIMPLEX V10E or V10EC load holding valve at each cylinder. Whether you need to throttle down the load or free flow in one direction, these compact and highly effective valves offer the flexibility and additional control needed at any jobsite.
- ▶ Select from a large assortment of SIMPLEX forged 10,000 psi fittings to customize your plumbing configurations to your individual requirements.
- ▶ Simplify transport and setup of system arrangement with SIMPLEX 10,000 psi hydraulic hoses configured with quick disconnect couplers.

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 $\frac{1}{8}$ " 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



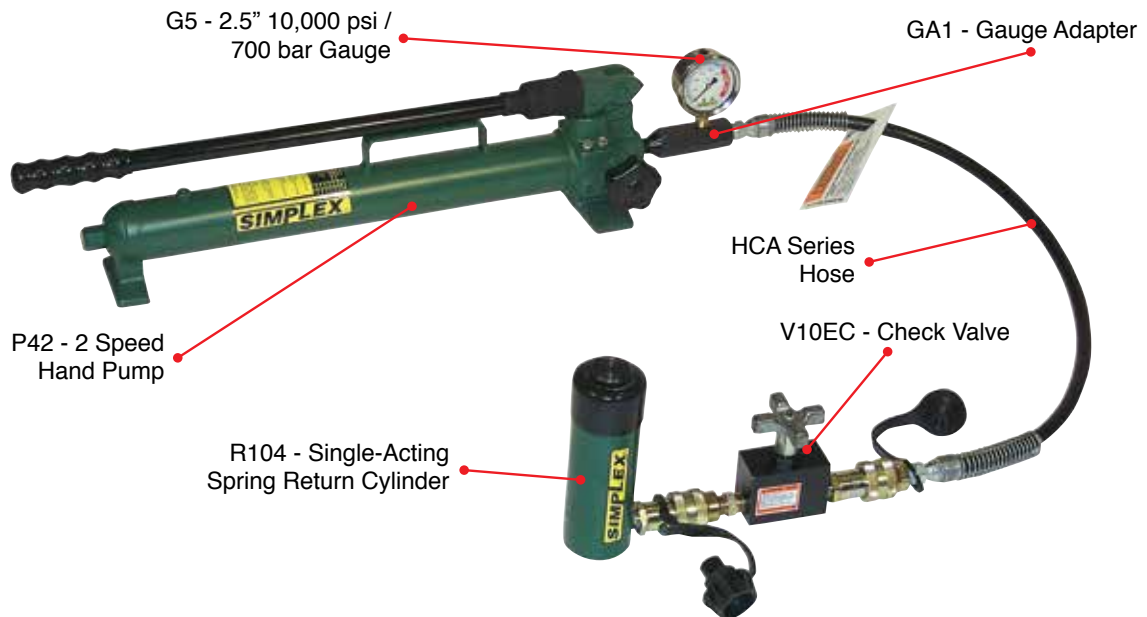
These analog and digital gauges give the operator a window to the system. Select from PSI or tonnage readings to meet your specific requirements. Simplex high pressure gauges offer reliability along with durability.

Hoses

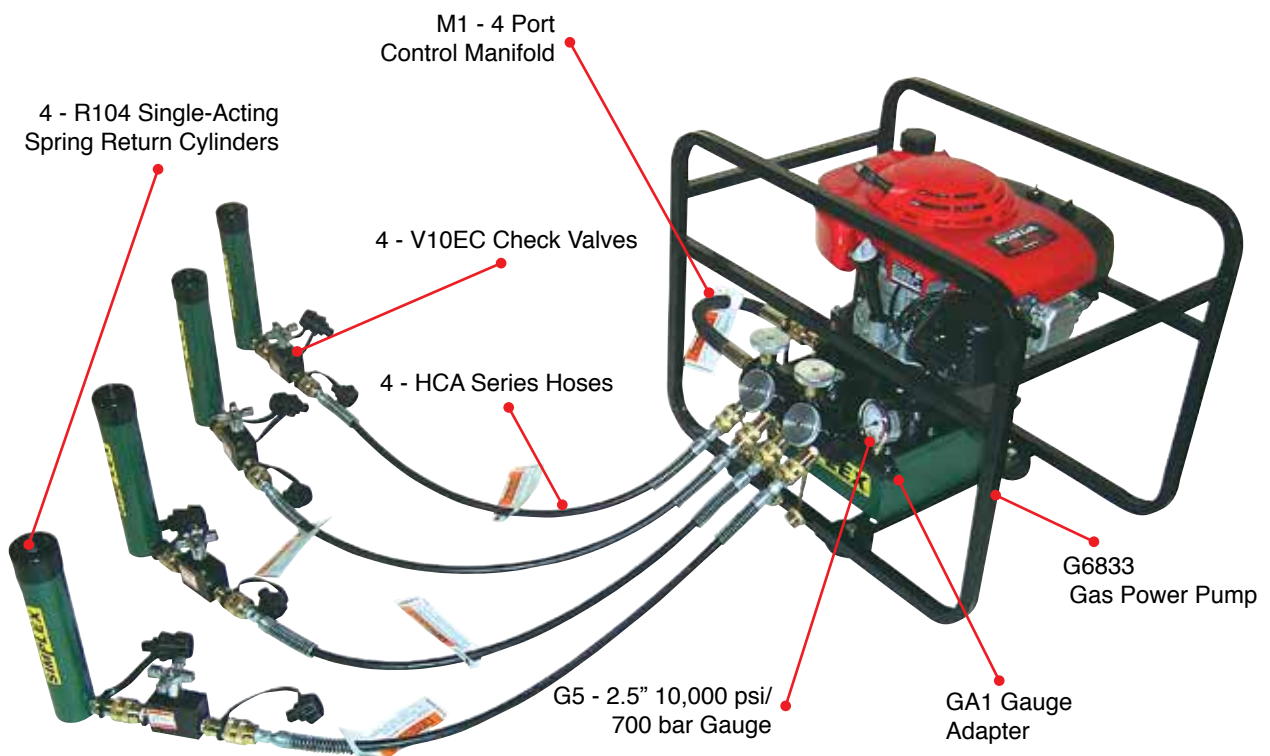


HD rubber and non-conductive thermo-plastic style hoses are ideal for demanding and continuous operation with up to a 4:1 safety factor.

Detailed example of a 1 point lift, manually driven with check valve




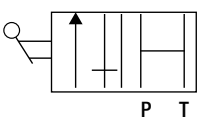
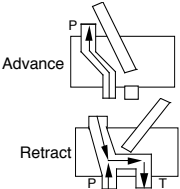

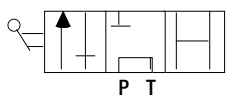
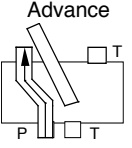

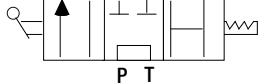
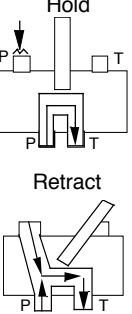

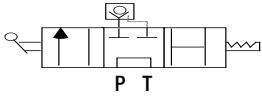
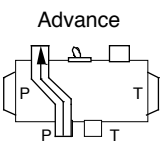

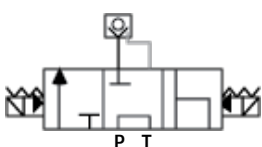
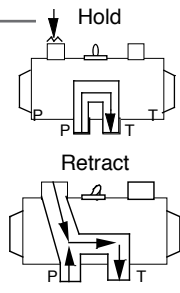

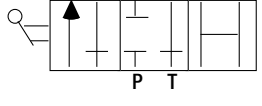
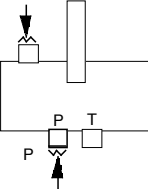

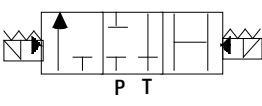
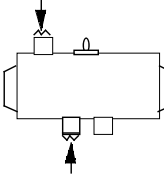
Detailed example of a 4 point lift, gas driven with M1 manifold & check valves


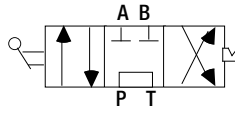
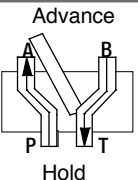

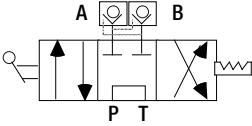
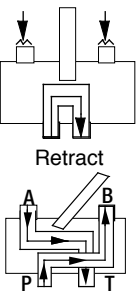

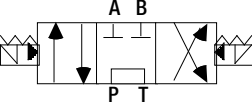
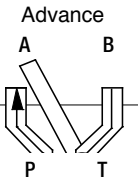

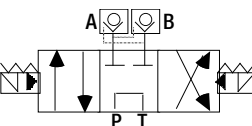
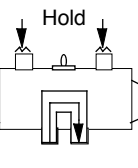

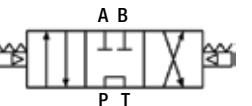
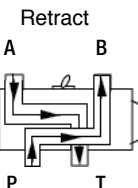

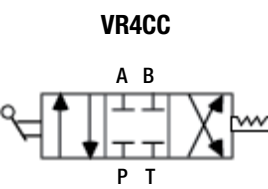
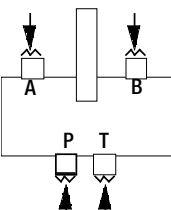

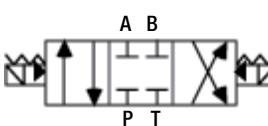
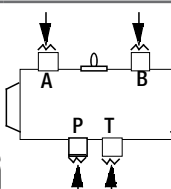


SYSTEM ACCESSORIES

2 & 3 Way Control Valves

SIMPLEX






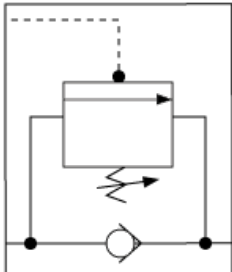

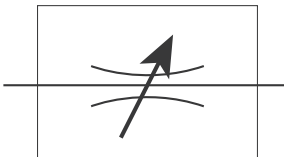

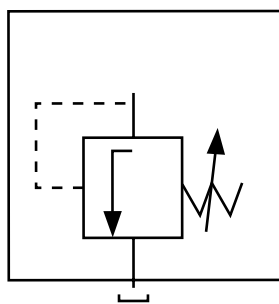

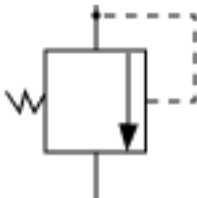
| Model | Description | Hydraulic Schematic | Functional Flow Schematic |
|---|--|---|---|
|  | VP2 Pump mounted, 2 position, 2 way valve is ideal for pressing, punching, crimping, staking or pulling applications when load holding is not needed. |  |  |
|  | VP3 Pump mounted, 3 position, 3 way valve 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. <i>For 230V, Use Model Number VPS32</i> |  |  |
|  | 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. <i>For 230V, Use Model Number VPSL32</i> |  |  |
| 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. |  |  |
|  | VRS31 & VRS31CC VRS31 is remote mounted, solenoid valve, 3 position, 3 way tandem center. (reference VPS31 schematic) <i>For 230V, Use Model Number VRS32</i> VRS31CC is remote mounted, solenoid valve, 3 position, 3 way closed center. <i>For 230V, Use Model Number VRS32CC</i> |  |  |

| 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. |  |  |
|  | 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. <i>For 230V, Use Model Number VPS42</i> |  |  Advance Hold Retract |
|  | 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. <i>For 230V, Use Model Number VPSL42</i> |  |  |
|  | 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. |  |  |
|  | VRS41 & VRS41CC VRS41 is remote mounted, solenoid valve, 3 position, 4 way tandem center. (reference VPS41 schematic) <i>For 230V, Use Model Number VRS42</i> VRS41CC is remote mounted, solenoid valve, 3 position, 4 way closed center. <i>For 230V, Use Model Number VRS42CC</i> |  |  |




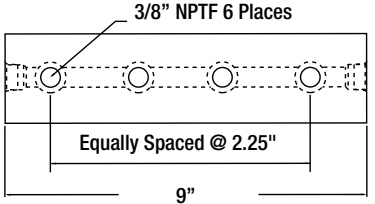

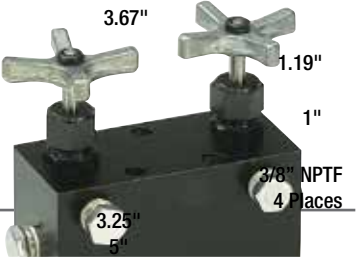

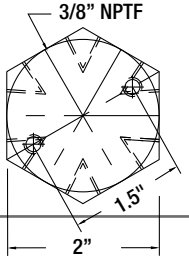

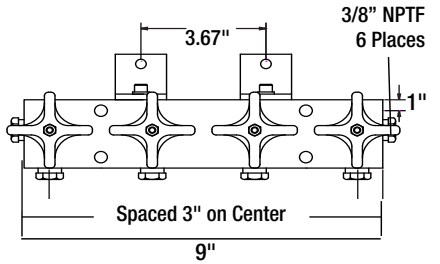
SYSTEM ACCESSORIES

In-Line System Valves

SIMPLEX

| 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 |
|---|--|--|
|  | 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>Equally Spaced @ 2.98"</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 |  |
|  | 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. |  |
|  | 6 Port Inline Hex Manifold: The M3 inline hex manifold features (6) - 3/8" NPTF threaded ports & mounting holes. |  |
|  | 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. |  |




SYSTEM ACCESSORIES

1/4" NPTF Couplers

SIMPLEX




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 |

SYSTEM ACCESSORIES

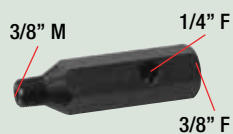
NPTF Fittings & Oil

SIMPLEX

| 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


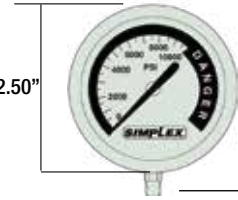

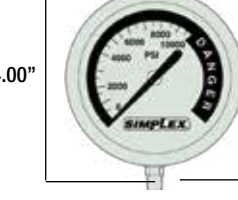

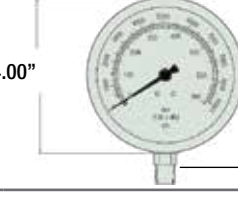

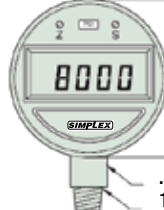

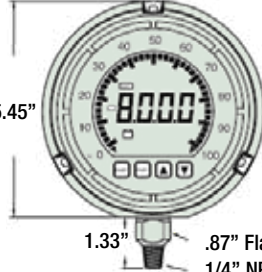
Vis, Ssu @ 0° F - < 15,000

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 | <ul style="list-style-type: none"> ▶ Liquid filled dampens needle vibration. ▶ Reads both PSI and Bar ▶ $\pm 1.5\%$ full scale accuracy. ▶ 500 psi increment up to 10,000 PSI ▶ Stainless steel casing. |  <p>2.50"</p> <p>.56" Square 1/4" NPT</p> |
|  | Model# G6 Order# 18906 | <ul style="list-style-type: none"> ▶ 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. ▶ $\pm 1.5\%$ full scale accuracy. ▶ Large easy to read 4" face. ▶ Rubber blowout plugs for safety. ▶ Stainless steel casing. |  <p>4.00"</p> <p>.78" Hex 1/4" NPT</p> |
|  | G7 | <ul style="list-style-type: none"> ▶ 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. ▶ $\pm 2\%$ full scale accuracy. ▶ Large easy to read 4" face. ▶ Standard on all Simplex Torque Wrench Pumps. |  <p>4.00"</p> <p>1/4" NPT</p> |
|  | GD1 | <ul style="list-style-type: none"> ▶ 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 |  <p>2.66"</p> <p>.62" 1/4" NPT</p> |
|  | GD2 | <ul style="list-style-type: none"> ▶ .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 |  <p>5.45"</p> <p>1.33" .87" Flats 1/4" NPT</p> |

SCALED TONNAGE GAUGES FOR SIMPLEX CYLINDERS







| Model | Cylinder Tonnage | Face Diameter | Applicable Cylinder Series |
|---|------------------|---------------|--|
|  | 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 |

SYSTEM ACCESSORIES







High Pressure Hoses

SIMPLEX

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 | | | |
| HCA50 | 50 |  C213 Coupler* |  C213 Coupler* | |

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 |  |  | .38" |
| HD6 | 6 | | | |
| HD10 | 10 | | | |
| HD20 | 20 | | | |
| HD50 | 50 | | | |
| HDC3 | 3 |  |  | |
| HDC6 | 6 | | | |
| HDC10 | 10 | | | |
| HDC20 | 20 | | | |
| HDC50 | 50 |  |  | |

*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. ▼

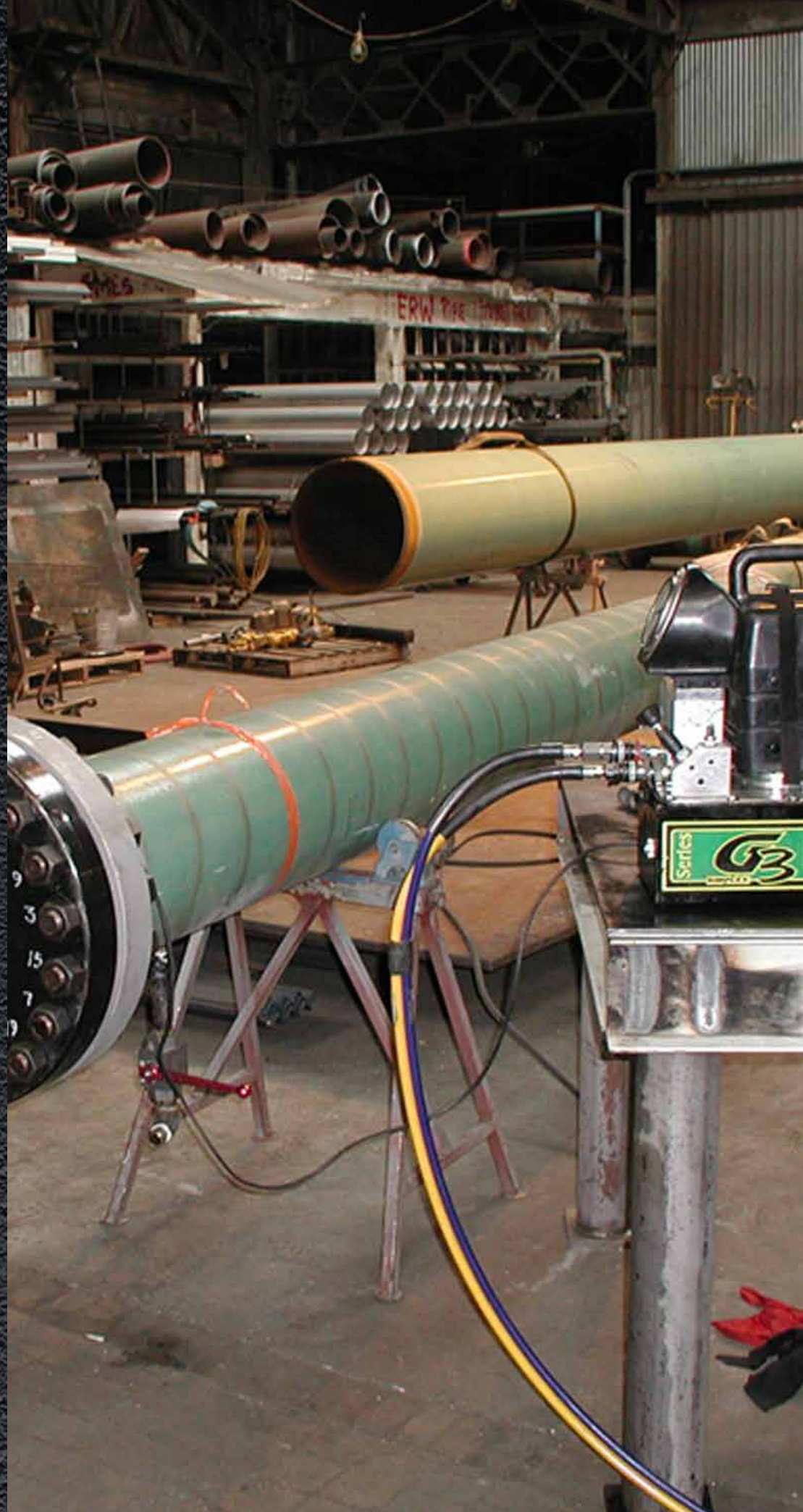
| Model | Length (ft) | Hose Ends | | I.D. (in) | |
|-------|-------------|---|--|-----------|--|
| HP3 | 3 |  3/8" NPTF Male |  3/8" NPTF Male | .25" | |
| HP6 | 6 | | | | |
| HP10 | 10 | | | | |
| HP20 | 20 | | | | |
| HP36 | 36 | | | | |
| HP50 | 50 | | | | |
| HPC3 | 3 |  3/8" NPTF Male |  C213 Coupler*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

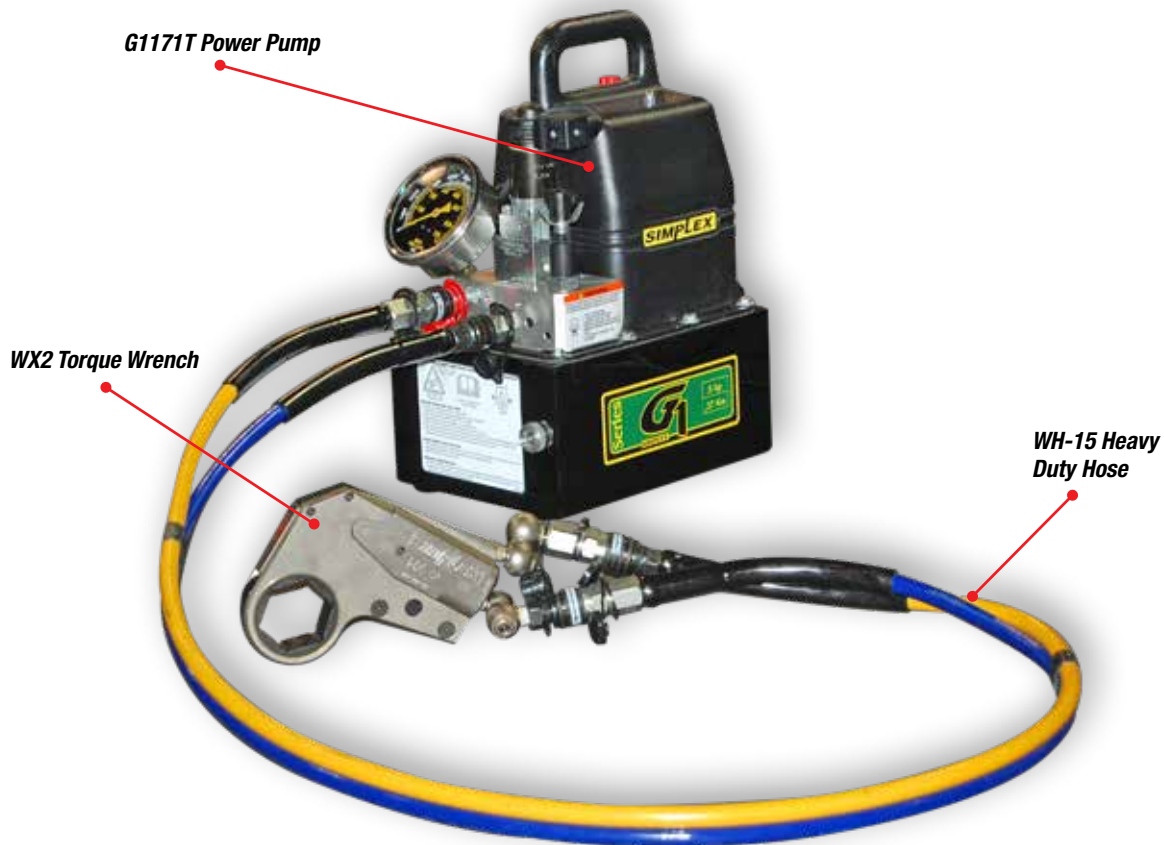
Heavy Duty HE & HEC series hoses are for demanding and continuous duty applications that require 10,000 psi working and 40,000 psi burst, (4:1 safety factor) but where rubber coated, steel wire braid design is preferred. These hoses are well suited in operating temperatures up to 150° F. ▼

| 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.

BOLTING PRODUCTS





Standard Bolting Model Shown

PRODUCT LINE OVERVIEW

► Bolting Features

Simplex offers a wide variety of hydraulic torque wrenches available in square drive design or low clearance wrenches. These tools are the most versatile in the business. Optional attachments and accessories are available to complement both style wrenches.

► WT-Series Square Drive Wrenches

The Simplex square drive wrench combines strength and simplicity to handle the toughest bolting jobs. Simplex square drive wrenches come with a push through drive in the .75", 1" and 1.5" models, eliminating pulling the drive out of a wrench to change drive direction. The WT-Series wrenches can react off the wrench body for close quarter applications. Several optional accessories are available.

► WX-Series Low Clearance Wrenches

Simplex Low Clearance wrenches are the flattest wrenches available, utilizing a patented low height piston. The Simplex WX series wrenches fit in places competitive wrenches cannot. The low clearance wrenches have a wide choice of links available in .06" increments. Metric sizes are also available. Several optional accessories are available such as hex reducers, hex to square drive adaptors and different reaction arms.

► Bolting Accessories

Simplex torque wrench pumps are available in both electric and air power. Simplex electric pumps are smooth running, continuous duty pumps with permanent magnet motors that will start and run under full load on as little as 60VAC. An integrated auto shut-off switch, along with a steel reservoir, keeps the oil and pump cool and helps prevent pump breakdown. Hoses are twin style with a 4:1 safety factor and the pump mounted gauge reads out in 100 psi increments.

BOLTING PRODUCTS

Proper Size & Selection

SIMPLEX

G1 Bolting Pump

19 cu.in. / min. @ 10,000 psi



An intermittent .5 hp pump that is best suited to power small size torque wrenches. It's easy to transport and very lightweight.

Starting weight @ 36 lbs.

G5 Bolting Pump

55 cu.in. / min. @ 10,000 psi



A continuous duty 1.5 hp pump that is best suited for medium to large torque wrenches.

Starting weight @ 75 lbs.

G3 Bolting Pump

46 cu.in. / min. @ 10,000 psi



A continuous duty 1.13 hp pump that is best suited to power small to medium torque wrenches. Ideal for systems that require high performance, with lightweight portability.

Starting weight @ 57 lbs.

G5 Bolting Pump - Air

55 cu.in. / min. @ 10,000 psi



A continuous duty air pump that is best suited for medium to large size torque wrenches. The high flow rate runs multiple tools efficiently.

Starting weight @ 75 lbs.

Bolting Wrenches

Square Drive & Low Clearance Wrenches



Simplex offers a wide variety of hydraulic wrenches available in lightweight square drive design or the flat low clearance design. Optional attachments and accessories are available for both style wrenches to simplify your task.

Hoses & Manifolds



A complete set of high performance, high pressure hose styles and sizes are available to fit any application, along with an 8 port manifold allowing the user the ability to use up to four tools at once.

Selecting The Bolting System



Selecting The Proper Pump

All SIMPLEX bolting pumps are configured specifically for bolting applications. Each "turnkey" power pump includes polarized couplers, external adjustable relief valve, pump mounted gauge and optional multi-port manifold for multiple tools. When selecting a power pump, consider the power requirements; air, 115 vac or 230 vac, 2nd stage hydraulic flow, pump operating / interval time, number of tools being operated and weight. Refer to the internal pages for details.



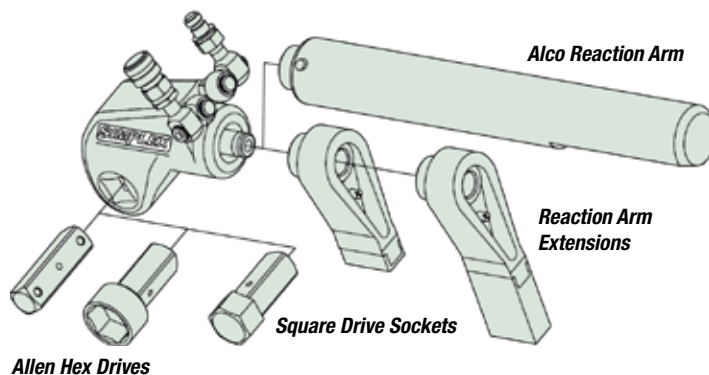
Selecting The Proper Hose

All SIMPLEX hoses are thermo-plastic, banded together, color coded and polarized for plug and play operation. Lengths are available in 15, 20 and 40 feet. Each bolting hose has a 4:1 safety factor that provides you with the flexibility to meet any project requirement.



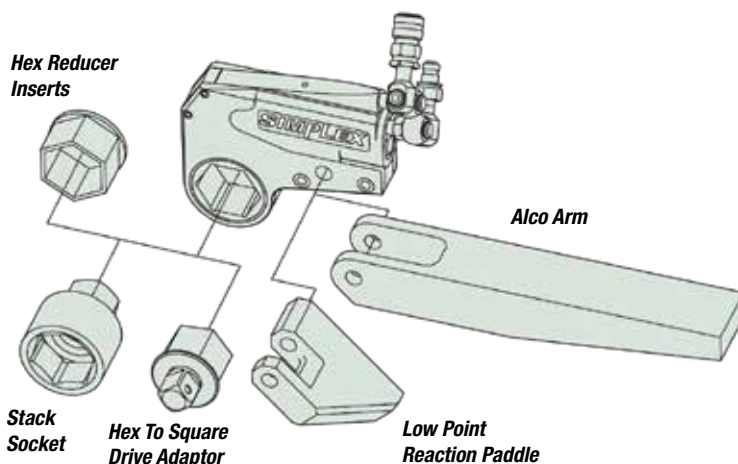
Selecting The Proper Tool

A hydraulic torque wrench is a tool used to precisely set the hydraulic torque of a fastener such as a nut or bolt. Our hydraulic torque wrenches are available in a square drive and low profile design. Consider the amount of torque, footprint requirements and reaction area when selecting your wrench.



WT Series Square Drive Wrench

Simplex square drive wrenches come with a push through drive in the .75", 1" and 1.5" models, eliminating pulling the drive out of a wrench to change drive direction. The WT Series wrenches can react off the wrench body for close quarter applications. Several optional accessories such as Alco Reaction Arms, extensions and sockets are available for your specific needs.



WX Series Low Clearance Wrench

Simplex low clearance wrenches fit in places that competitive style wrenches cannot. The low clearance wrenches have a wide choice of links available in .06" increments. Several optional accessories are available such as hex reducers, hex to square drive adaptors and different reaction arms.

BOLTING PUMPS

G1 Series - Electric

SIMPLEX



Torque



G1171T Shown

Reservoir Capacity▶ 1 gallon
Weight▶ 36 lbs.
Maximum Pressure▶ 10,000 psi

- ▶ Light weight bolting pump equipped with an integrated gauge, adjustable relief and 15' remote power controlled pendant.
- ▶ Powered by a 115V - 60Hz, .5 hp universal motor (14,640 rpm).
- ▶ Low startup voltage, draws 10 amps at full load (230V model available).
- ▶ Two-speed pump operation provides fast tool performance.

TORQUE WRENCHES - pages 88 - 91

Torque wrenches available in lightweight square drive, or low clearance wrenches.



TORQUE HOSES - page 89

Heavy duty, thermo-plastic torque wrench hoses to meet your requirements.

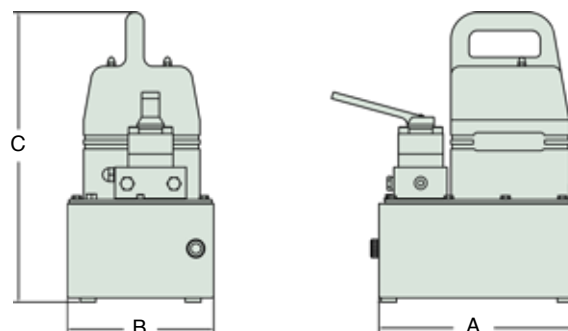


THINK SAFETY

Please refer to pages 4&5 for a complete list of safety tips and recommendations.



The G1 bolting pump along with a WX series low clearance torque wrench was used to tighten the footing of this support tower. ▼



| Reservoir (Gallons) | A | B | C |
|------------------------|------|------|-------|
| | (in) | (in) | (in) |
| 1 (metal) | 11 | 8.17 | 16.17 |

* For 230 VAC pump use "2" in the 3rd character of the model number. Motor specifications 0,37 kw single phase, 5 amps @ 230 VAC.

| Model | Pressure Rating (psi) | | Output Flow (cu.in./min.) | | Motor Spec. | | Valve Type | Pendant Control | Usable Oil (Gallon) | Weight (lbs) |
|--------|-----------------------|-----------|---------------------------|-----------|-------------|--------|------------|------------------|---------------------|--------------|
| | 1st Stage | 2nd Stage | 1st Stage | 2nd Stage | (vac) | (amps) | | | | |
| G1171T | 400 | 10,000 | 250 | 19 | 115 | 10 | 4W, 2P | Motor / Solenoid | 1 | 36 |

G3
Torque



G3171T Shown

Reservoir Capacity► 1 - 2.5 gallons

Weight► 57 - 69 lbs.

Maximum Pressure► 10,000 psi

- Heavy Duty bolting pump is ideal for use with small to mid-sized torque wrenches.
- High performance two-stage pump provides higher cross-over pressure for faster cycle times and tool operation; 46 cubic inches / minute @ 10,000 PSI.
- Powered by a 115V - 60Hz, 1-1/8 hp universal motor.



TORQUE HOSES - page 89

Heavy duty, thermo-plastic torque wrench hoses to meet your requirements.



TORQUE WRENCHES -

Torque wrenches available in lightweight square drive, or low clearance wrenches.

G3 Bolting Pump Factory Installed Options

For ordering, add option letter to end of the model number.

Z



Multi-Port Manifold

C



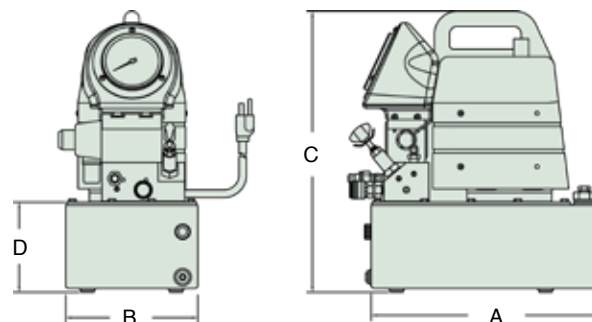
Caster Kit

R



Roll Cage

The ease of operation and mobility from the G3 bolting pump was needed to repair the massive chuck on this CNC machine.▼



| Reservoir (Gallons) | A | B | C | D |
|---------------------|-------|------|------|------|
| | (in) | (in) | (in) | (in) |
| 1.5 | 15.13 | 8.75 | 19 | 5.96 |
| 2.5 | 17 | 9.75 | 19 | 5.96 |

* For 230 VAC pump use "2" in the 3rd character of the model number. Motor specifications 0,8 kw single phase, 10 amps @ 230 VAC.

| Model | Pressure Rating (psi) Stages | | Output Flow (cu.in./min.) Stages | | Motor Spec. | | Valve Type | Pendant Control | Usable Oil (Gallons) | Weight (lbs) |
|--------|------------------------------|--------|----------------------------------|-----|-------------|--------|------------|------------------|----------------------|--------------|
| | 1st | 2nd | 1st | 2nd | (vac) | (amps) | | | | |
| G3171T | 1,100 | 10,000 | 525 | 46 | 115 | 16 | 4W, 2P | Motor / Solenoid | 1 | 57 |
| G3172T | 1,100 | 10,000 | 525 | 46 | 115 | 16 | 4W, 2P | Motor / Solenoid | 1.5 | 62 |
| G3173T | 1,100 | 10,000 | 525 | 46 | 115 | 16 | 4W, 2P | Motor / Solenoid | 2.5 | 69 |

BOLTING PUMPS

G5 Series - Electric

SIMPLEX



G5172T Shown

Reservoir Capacity► 1.5 - 2.5 gallons

Weight► 75 - 85 lbs.

Maximum Pressure► 10,000 psi

- Heavy Duty bolting pump configuration is ideal for use with mid to large sized torque wrenches.
- Powered by a 115V - 60Hz, 1-1/2 hp permanent magnet motor (3,000 rpm); low startup voltage, draws 18 amps at full load (230V models available).
- High performance two-stage pump provides higher cross-over pressure for faster cycle times and tool operation.

TORQUE WRENCHES -

Torque wrenches available in lightweight square drive, or low clearance wrenches.

THINK SAFETY

Please refer to pages 4&5 for a complete list of safety tips and recommendations.

G5 Bolting Pump Factory Installed Options

For ordering, add option letter to end of the model number.

Z



Multi-Port Manifold

C

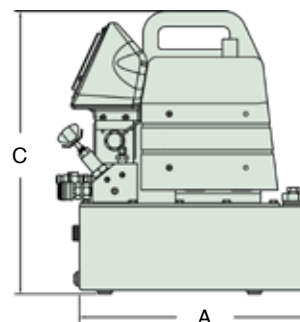
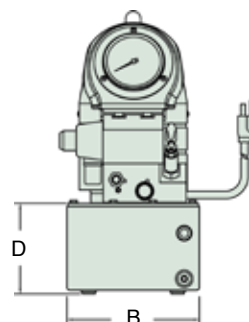


Caster Kit

H



Heat Exchanger



| Reservoir (Gallons) | A | B | C | D |
|---------------------|-------|------|------|------|
| | (in) | (in) | (in) | (in) |
| 1.5 | 15.13 | 8.75 | 19 | 5.96 |
| 2.5 | 17 | 9.75 | 19 | 5.96 |

Larger capacities available upon request.

The G5 pump had the flexibility and power to be instrumental in the construction of the blade section on this wind turbine.▼



* For 230 VAC pump use "2" in the 3rd character of the model number. Motor specifications 1,1 kw single phase, 10 amps @ 230 VAC.

| Model | Pressure Rating (psi) Stages | | Output Flow (cu.in./min.) Stages | | Motor Spec. | | Valve Type | Pendant Control | Usable Oil (Gallons) | Weight (lbs) |
|--------|------------------------------|--------|----------------------------------|-----|-------------|--------|------------|------------------|----------------------|--------------|
| | 1st | 2nd | 1st | 2nd | (vac) | (amps) | | | | |
| G5172T | 1,200 | 10,000 | 500 | 55 | 115 | 18 | 4W, 2P | Motor / Solenoid | 1.5 | 75 |
| G5173T | 1,200 | 10,000 | 500 | 55 | 115 | 18 | 4W, 2P | Motor / Solenoid | 2.5 | 85 |



Air Torque



G5772T Shown

Reservoir Capacity▶ 1.5 - 2.5 gallons

Weight▶ 75 - 85 lbs.

Maximum Pressure▶ 10,000 psi

- ▶ Powered by a rotary air vane, 3 hp motor (3,000 rpm).
- ▶ Equipped with a filter-lubricator assembly, air muffler, adjustable relief and 12' remote controlled pendant on all models.
- ▶ High performance two-stage pump provides higher cross-over pressure for faster cycle times and tool operation; 55 cubic inches / minute @ 10,000 PSI.

TORQUE HOSES -



Heavy duty, thermo-plastic torque wrench hoses to meet your requirements.

TORQUE WRENCHES - pages 88 - 91



Torque wrenches available in lightweight square drive, or low clearance wrenches.

G5 Air Bolting Pump Factory Installed Options

For ordering, add option letter to end of the model number.

Z



Multi-Port Manifold

C

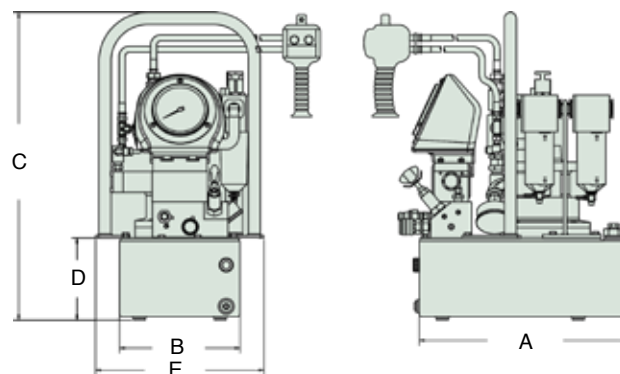


Caster Kit

R



Roll Cage



| Reservoir (Gallons) | A | B | C | D | E |
|------------------------|-------|------|-------|------|-------|
| | (in) | (in) | (in) | (in) | (in) |
| 1.5 | 15.13 | 8.75 | 22.34 | 5.96 | 12.24 |
| 2.5 | 17 | 9.75 | 22.34 | 5.96 | 13.24 |

Larger capacities available upon request.

A Simplex G5 Air pump is used with a WT-2 to remove the shroud on this steel cutter. ▼



| Model | Pressure Rating (psi) Stages | | Output Flow (cu.in./min.) Stages | | Motor Spec. | | Valve Type | Pendant Control | Usable Oil (Gallons) | Weight (lbs) |
|--------|---------------------------------|--------|-------------------------------------|-----|-------------|-------|---------------|--------------------|-------------------------|-----------------|
| | 1st | 2nd | 1st | 2nd | (psi) | (cfm) | | | | |
| G5772T | 1,200 | 10,000 | 700 | 55 | 90 | 50 | 4W, 2P | Motor / Solenoid | 1.5 | 75 |
| G5773T | 1,200 | 10,000 | 700 | 55 | 90 | 50 | 4W, 2P | Motor / Solenoid | 2.5 | 85 |

TORQUE WRENCHES

WT Series - Square Drive

SIMPLEX



WT2, WT3 & WT5 Shown

Maximum Torque @ 10,000 psi ▶ 27,200 ft. lbs.

Square Drive Range ▶ .75 - 2.5 in.

Maximum Pressure ▶ 10,000 psi

- ▶ Hardened alloy square drive provides long life.
- ▶ No reaction pawl eliminates tool lockup.
- ▶ 27 degree stroke for high performance & speed.
- ▶ Push through square drive switches from tighten to loosen instantly.
- ▶ No leak couplers that swivel on double axis for ease of operation.
- ▶ Anti-Backlash mechanism prevents tool from back-driving.

TORQUE HOSES - page 89



Heavy duty, thermo-plastic torque wrench hoses to meet your requirements.

THINK SAFETY



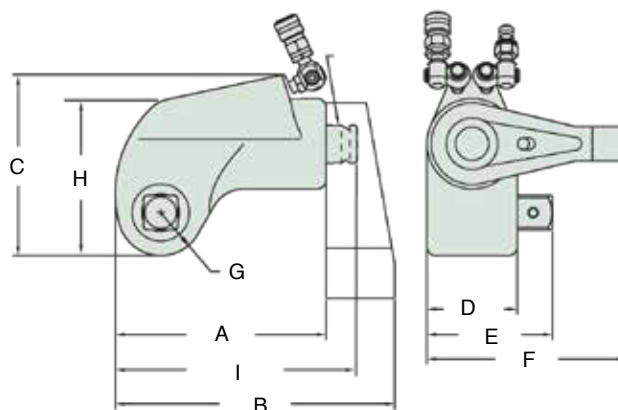
Please refer to pages 4&5 for a complete list of safety tips and recommendations.



BOLTING PUMPS - pages 81-87

Torque wrench pumps are available in both electric and air power.

Lightweight, easy to use and reliable - The WT-5 torque wrench is used to certify flange assemblies in this fabricating shop. ▼



| Model | A | B | C | D | E | F | G | H | I | Wgt. (lbs.) | Output (ft.lbs.) | Square Drive (in) | Available Socket Size (in) | Available Socket Size (mm) |
|-------|----------------|----------------|----------------|---------------|---------------|---------------|----------------|----------------|----------------|----------------|---------------------|-------------------------|-------------------------------------|-------------------------------------|
| | Length (in) | Length (in) | Height (in) | Width (in) | Width (in) | Width (in) | Radius (in) | Height (in) | Length (in) | | | | | |
| WT-2 | 4.68 | 6.10 | 4.20 | 2 | 2.76 | 4.42 | .98 | 3.42 | 5.32 | 3.9 | 1,270 | .75 | .5 - 2.38 | 13 - 60 |
| WT-3 | 6.10 | 8.10 | 5.30 | 2.62 | 3.68 | 5.81 | 1.30 | 4.54 | 6.68 | 9 | 3,330 | 1 | .75 - 4.5 | 19 - 114 |
| WT-5 | 8 | 10.74 | 6.99 | 3.61 | 5.06 | 7.98 | 1.70 | 6.05 | 9.48 | 19 | 7,170 | 1.5 | 1.31 - 5.38 | 33 - 137 |
| WT-10 | 9.21 | 12.21 | 7.79 | 3.93 | 5.43 | 8.72 | 1.95 | 6.70 | 10.36 | 29 | 11,010 | 1.5 | 1.31 - 5.38 | 33 - 137 |
| WT-27 | 12.29 | 16.29 | 10.19 | 5.26 | 7.73 | 11.63 | 2.43 | 8.82 | 13.87 | 70 | 27,200 | 2.5 | 1.62 - 9.25 | 41 - 235 |

Sockets For .75", 1" And 1.5" Drive Wrenches



| Model Number for .75" Drive WT-2 | Socket Size (in) | Model Number for 1" Drive WT-3 | Socket Size (in) | Model Number for 1" Drive WT-3 | Socket Size (in) | Model Number for 1" Drive WT-3 | Socket Size (in) | Model Number for 1.5" Drive WT-5 & 10 | Socket Size (in) | Model Number for 1.5" Drive WT-5 & 10 | Socket Size (in) |
|----------------------------------|------------------|--------------------------------|------------------|--------------------------------|------------------|--------------------------------|------------------|---------------------------------------|------------------|---------------------------------------|------------------|
| WST1212 | .75 x .75 | WST1612 | 1 x .75 | WST1633 | 1 x 2.06 | WST1654 | 1 x 3.38 | WST2422 | 1.5 x 1.38 | WST2443 | 1.5 x 2.68 |
| WST1213 | .75 x .81 | WST1613 | 1 x .81 | WST1634 | 1 x 2.13 | WST1655 | 1 x 3.44 | WST2423 | 1.5 x 1.44 | WST2444 | 1.5 x 2.75 |
| WST1214 | .75 x .87 | WST1614 | 1 x .87 | WST1635 | 1 x 2.19 | WST1656 | 1 x 3.5 | WST2424 | 1.5 x 1.5 | WST2445 | 1.5 x 2.81 |
| WST1215 | .75 x .93 | WST1615 | 1 x .93 | WST1636 | 1 x 2.25 | WST1657 | 1 x 3.56 | WST2425 | 1.5 x 1.56 | WST2446 | 1.5 x 2.87 |
| WST1216 | .75 x 1 | WST1616 | 1 x 1 | WST1637 | 1 x 2.31 | WST1658 | 1 x 3.62 | WST2426 | 1.5 x 1.62 | WST2447 | 1.5 x 2.93 |
| WST1217 | .75 x 1.06 | WST1617 | 1 x 1.06 | WST1638 | 1 x 2.38 | WST1659 | 1 x 3.68 | WST2427 | 1.5 x 1.68 | WST2448 | 1.5 x 3 |
| WST1218 | .75 x 1.13 | WST1618 | 1 x 1.13 | WST1639 | 1 x 2.44 | WST1660 | 1 x 3.75 | WST2428 | 1.5 x 1.75 | WST2449 | 1.5 x 3.06 |
| WST1219 | .75 x 1.19 | WST1619 | 1 x 1.19 | WST1640 | 1 x 2.5 | WST1661 | 1 x 3.81 | WST2429 | 1.5 x 1.81 | WST2450 | 1.5 x 3.13 |
| WST1220 | .75 x 1.25 | WST1620 | 1 x 1.25 | WST1641 | 1 x 2.56 | WST1662 | 1 x 3.87 | WST2430 | 1.5 x 1.87 | WST2451 | 1.5 x 3.19 |
| WST1221 | .75 x 1.31 | WST1621 | 1 x 1.31 | WST1642 | 1 x 2.62 | ---- | ---- | WST2431 | 1.5 x 1.93 | WST2452 | 1.5 x 3.25 |
| WST1222 | .75 x 1.38 | WST1622 | 1 x 1.38 | WST1643 | 1 x 2.68 | ---- | ---- | WST2432 | 1.5 x 2 | WST2453 | 1.5 x 3.31 |
| WST1223 | .75 x 1.44 | WST1623 | 1 x 1.44 | WST1644 | 1 x 2.75 | ---- | ---- | WST2433 | 1.5 x 2.06 | WST2454 | 1.5 x 3.38 |
| WST1224 | .75 x 1.5 | WST1624 | 1 x 1.5 | WST1645 | 1 x 2.81 | ---- | ---- | WST2434 | 1.5 x 2.13 | WST2455 | 1.5 x 3.44 |
| WST1225 | .75 x 1.56 | WST1625 | 1 x 1.56 | WST1646 | 1 x 2.87 | ---- | ---- | WST2435 | 1.5 x 2.19 | WST2456 | 1.5 x 3.5 |
| WST1226 | .75 x 1.62 | WST1626 | 1 x 1.62 | WST1647 | 1 x 2.93 | ---- | ---- | WST2436 | 1.5 x 2.25 | WST2457 | 1.5 x 3.56 |
| WST1227 | .75 x 1.68 | WST1627 | 1 x 1.68 | WST1648 | 1 x 3 | ---- | ---- | WST2437 | 1.5 x 2.31 | WST2458 | 1.5 x 3.62 |
| WST1228 | .75 x 1.75 | WST1628 | 1 x 1.75 | WST1649 | 1 x 3.06 | ---- | ---- | WST2438 | 1.5 x 2.38 | WST2459 | 1.5 x 3.68 |
| WST1229 | .75 x 1.81 | WST1629 | 1 x 1.81 | WST1650 | 1 x 3.13 | ---- | ---- | WST2439 | 1.5 x 2.44 | WST2460 | 1.5 x 3.75 |
| WST1230 | .75 x 1.87 | WST1630 | 1 x 1.87 | WST1651 | 1 x 3.19 | ---- | ---- | WST2440 | 1.5 x 2.5 | ---- | ---- |
| WST1231 | .75 x 1.93 | WST1631 | 1 x 1.93 | WST1652 | 1 x 3.25 | ---- | ---- | WST2441 | 1.5 x 2.56 | ---- | ---- |
| WST1232 | .75 x 2 | WST1632 | 1 x 2 | WST1653 | 1 x 3.31 | ---- | ---- | WST2442 | 1.5 x 2.62 | ---- | ---- |

Allen Hex Drive For WT Series Wrenches

| Model | Wrench Model | Allen Hex Size (in) | Maximum Torque (ft./lbs) |
|------------|--------------|---------------------|--------------------------|
| WA-1208 | WT-2 | .5 | 395 |
| WA-1210 | WT-2 | .62 | 740 |
| WA-1212 | WT-2 | .75 | 1,270 |
| WA-1214 | WT-2 | .87 | 1,270 |
| WA-1216 | WT-2 | 1 | 1,270 |
| WA-1610 | WT-3 | .62 | 740 |
| WA-1612 | WT-3 | .75 | 1,330 |
| WA-1614 | WT-3 | .87 | 2,070 |
| WA-1616 | WT-3 | 1 | 3,100 |
| WA-1618 | WT-3 | 1.13 | 3,330 |
| WA-1620 | WT-3 | 1.25 | 3,330 |
| WA-2414 | WT-5 | .87 | 2,070 |
| WA-2416 | WT-5 | 1 | 3,100 |
| WA-2418 | WT-5 | 1.13 | 4,355 |
| WA-2420 | WT-5 | 1.25 | 6,275 |
| WA-2422 | WT-5 | 1.38 | 7,170 |
| WA-2424 | WT-5 | 1.5 | 7,170 |
| WA-2420-10 | WT-10 | 1.25 | 6,275 |
| WA-2422-10 | WT-10 | 1.38 | 7,750 |
| WA-2424-10 | WT-10 | 1.5 | 10,500 |
| WA-2426-10 | WT-10 | 1.62 | 10,500 |
| WA-2428-10 | WT-10 | 1.75 | 10,500 |
| WA-4024 | WT-27 | 1.5 | 10,500 |
| WA-4026 | WT-27 | 1.62 | 13,280 |
| WA-4028 | WT-27 | 1.75 | 16,230 |
| WA-4030 | WT-27 | 1.87 | 27,200 |
| WA-4032 | WT-27 | 2 | 27,200 |
| WA-4036 | WT-27 | 2.25 | 27,200 |

Alco Reaction Arms



| Model | Length (in) |
|-----------|-------------|
| WT2-ALCO | 18 |
| WT3-ALCO | 22.25 |
| WT5-ALCO | 21 |
| WT10-ALCO | 23.5 |
| WT27-ALCO | ---- |

Reaction Arm Extensions



| Model | Length (in) |
|----------|-------------|
| WT3-EX1 | 1 |
| WT3-EX2 | 2 |
| WT3-EX3 | 3 |
| WT5-EX1 | 1 |
| WT5-EX2 | 2 |
| WT5-EX3 | 3 |
| WT10-EX1 | 1 |
| WT10-EX2 | 2 |
| WT10-EX3 | 3 |

Torque Wrench Hoses



| Model | Length (ft) | Hose Type |
|-------|-------------|--|
| WH-15 | 15 | 15' Blue & Yellow Duplex Hose w/ Quick Disconnect Couplers |
| WH-20 | 20 | 20' Blue & Yellow Duplex Hose w/ Quick Disconnect Couplers |
| WH-40 | 40 | 40' Blue & Yellow Duplex Hose w/ Quick Disconnect Couplers |

TORQUE WRENCHES

WX Series - Low Clearance Wrenches

SIMPLEX



WX2, WX4 & WX8 Shown

Maximum Torque @ 10,000 psi ► 35,600 ft. lbs.

Tool Width ► 1.25 - 3.24 in.

Maximum Pressure ► 10,000 psi

- Patented piston design for lower profile.
- Quick and easy interchangeable links requiring no tools.
- Accurate to within + / - 3%.
- Slim nose radius for tight spaces.
- Plated wrenches resist corrosion.

BOLTING PUMPS - pages 81-87

Torque wrench pumps are available in both electric and air power.

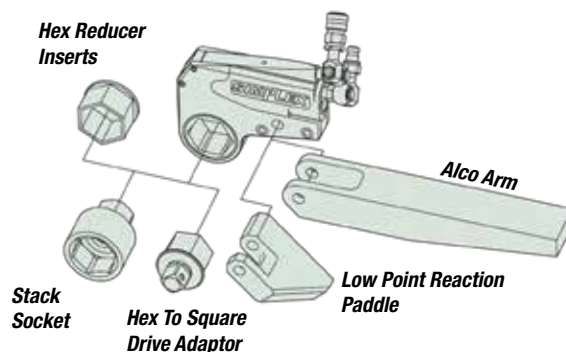


TORQUE HOSES -

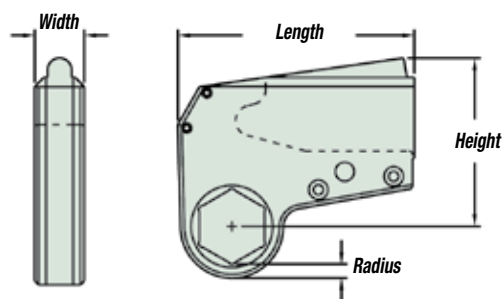
Heavy duty, thermo-plastic torque wrench hoses to meet your requirements.



OPTIONAL WX - SERIES ACCESSORIES



The WX-4 was the perfect solution for this spring tightening application. ▼



*Weight on Links will vary by size.

| Model | Length (in) | Height (in) | Radius (in) | Max. Tool Width (in) | Output (ft.lbs.) | Weight (lbs.) |
|-------|-------------|-------------|-------------|----------------------|------------------|---------------|
| WX-2 | 5.67 | 4 | .36 | 1.25 | 1,930 | 3.5 |
| WX-4 | 7.80 | 5.60 | .46 | 1.63 | 3,950 | 6 |
| WX-8 | 9.80 | 7 | .54 | 2.05 | 8,630 | 11.7 |
| WX-16 | 12.93 | 7.58 | .65 | 2.5 | 16,600 | 16 |
| WX-32 | 15.30 | 10.90 | .93 | 3.24 | 35,600 | 26 |

| Available Link Sizes (in./mm) | | *Weight (lbs.) |
|-------------------------------|---------------|----------------|
| From | To | |
| .75" / 19mm | 2.56" / 65mm | 2.5 - 3.5 |
| 1" / 25mm | 3.13" / 80mm | 5.4 - 7.6 |
| 1.87" / 50mm | 4" / 105mm | 11.9 - 14.5 |
| 2.62" / 65mm | 4.62" / 115mm | 21 - 28 |
| 3.13" / 80mm | 6.13" / 155mm | 29 - 39.5 |

TORQUE WRENCHES

SIMPLEX

WX Series — Low Clearance Wrenches

Wrench Handle



▲ Optional Wrench Handle - Order # WCH-1
Handles are available for the WX-8, WX-16 & WX-32. The handle can be screwed on either side of the wrench or on top of the wrench.

WX Drive Unit



▲ Select a WX drive unit that will give you the amount of torque you are looking for.

WXL Hex Link



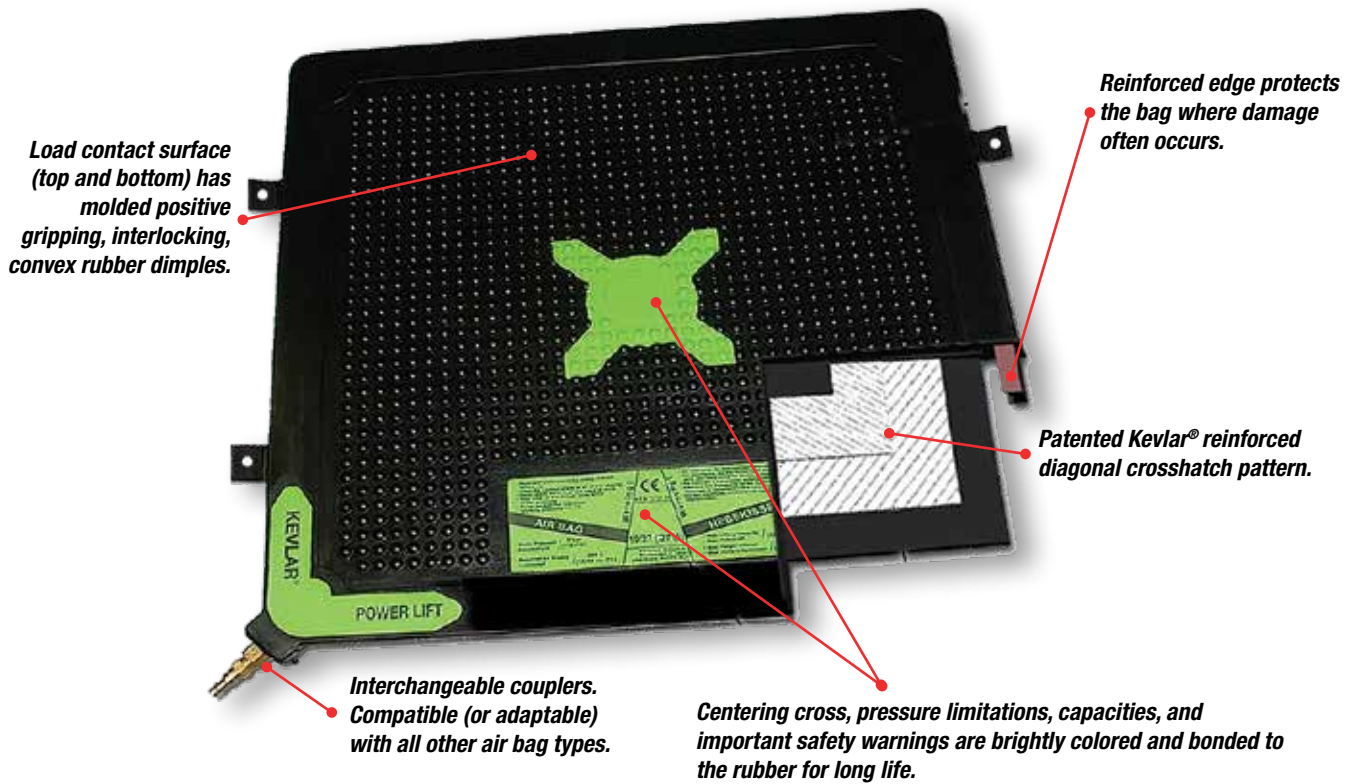
▲ Couple your WX drive unit with the WXL hex link that you will need. See chart below for specific WXL link.

| Model Number For WX-2 Links | Hex Size (in) | Model Number For WX-4 Links | Hex Size (in) | Model Number For WX-4 Links | Hex Size (in) | Model Number For WX-8 Links | Hex Size (in) | Model Number For WX-8 Links | Hex Size (in) | Model Number For WX-16 Links | Hex Size (in) | Model Number For WX-32 Links | Hex Size (in) | Model Number For WX-32 Links | Hex Size (in) |
|-----------------------------|---------------|-----------------------------|---------------|-----------------------------|---------------|-----------------------------|---------------|-----------------------------|---------------|------------------------------|---------------|------------------------------|---------------|------------------------------|---------------|
| WXL2-12 | .75 | WXL4-16 | 1 | WXL4-43 | 2.68 | WXL8-30 | 1.87 | WXL8-57 | 3.56 | WXL16-42 | 2.62 | WXL32-50 | 3.13 | WXL32-87 | 5.44 |
| WXL2-13 | .81 | WXL4-17 | 1.06 | WXL4-44 | 2.75 | WXL8-31 | 1.93 | WXL8-58 | 3.62 | WXL16-43 | 2.68 | WXL32-51 | 3.19 | WXL32-88 | 5.5 |
| WXL2-14 | .87 | WXL4-18 | 1.13 | WXL4-45 | 2.81 | WXL8-32 | 2 | WXL8-59 | 3.68 | WXL16-44 | 2.75 | WXL32-52 | 3.25 | WXL32-89 | 5.56 |
| WXL2-15 | .93 | WXL4-19 | 1.19 | WXL4-46 | 2.87 | WXL8-33 | 2.06 | WXL8-60 | 3.75 | WXL16-45 | 2.81 | WXL32-53 | 3.31 | WXL32-90 | 5.62 |
| WXL2-16 | 1 | WXL4-20 | 1.25 | WXL4-47 | 2.93 | WXL8-34 | 2.13 | WXL8-61 | 3.81 | WXL16-46 | 2.87 | WXL32-54 | 3.38 | WXL32-91 | 5.68 |
| WXL2-17 | 1.06 | WXL4-21 | 1.31 | WXL4-48 | 3 | WXL8-35 | 2.19 | WXL8-62 | 3.87 | WXL16-47 | 2.93 | WXL32-55 | 3.44 | WXL32-92 | 5.75 |
| WXL2-18 | 1.13 | WXL4-22 | 1.38 | WXL4-49 | 3.06 | WXL8-36 | 2.25 | WXL8-63 | 3.93 | WXL16-48 | 3 | WXL32-56 | 3.5 | WXL32-93 | 5.81 |
| WXL2-19 | 1.19 | WXL4-23 | 1.44 | WXL4-50 | 3.13 | WXL8-37 | 2.31 | WXL8-64 | 4 | WXL16-49 | 3.06 | WXL32-57 | 3.56 | WXL32-94 | 5.87 |
| WXL2-20 | 1.25 | WXL4-24 | 1.5 | ---- | ---- | WXL8-38 | 2.38 | ---- | ---- | WXL16-50 | 3.13 | WXL32-58 | 3.62 | WXL32-95 | 5.93 |
| WXL2-21 | 1.31 | WXL4-25 | 1.56 | ---- | ---- | WXL8-39 | 2.44 | ---- | ---- | WXL16-51 | 3.19 | WXL32-59 | 3.68 | WXL32-96 | 6 |
| WXL2-22 | 1.38 | WXL4-26 | 1.62 | ---- | ---- | WXL8-40 | 2.5 | ---- | ---- | WXL16-52 | 3.25 | WXL32-60 | 3.75 | WXL32-97 | 6.06 |
| WXL2-23 | 1.44 | WXL4-27 | 1.68 | ---- | ---- | WXL8-41 | 2.56 | ---- | ---- | WXL16-53 | 3.31 | WXL32-61 | 3.81 | WXL32-98 | 6.13 |
| WXL2-24 | 1.5 | WXL4-28 | 1.75 | ---- | ---- | WXL8-42 | 2.62 | ---- | ---- | WXL16-54 | 3.38 | WXL32-62 | 3.87 | ---- | ---- |
| WXL2-25 | 1.56 | WXL4-29 | 1.81 | ---- | ---- | WXL8-43 | 2.68 | ---- | ---- | WXL16-55 | 3.44 | WXL32-63 | 3.93 | ---- | ---- |
| WXL2-26 | 1.62 | WXL4-30 | 1.87 | ---- | ---- | WXL8-44 | 2.75 | ---- | ---- | WXL16-56 | 3.5 | WXL32-64 | 4 | ---- | ---- |
| WXL2-27 | 1.68 | WXL4-31 | 1.93 | ---- | ---- | WXL8-45 | 2.81 | ---- | ---- | WXL16-58 | 3.62 | WXL32-65 | 4.06 | ---- | ---- |
| WXL2-28 | 1.75 | WXL4-32 | 2 | ---- | ---- | WXL8-46 | 2.87 | ---- | ---- | WXL16-60 | 3.75 | WXL32-66 | 4.13 | ---- | ---- |
| WXL2-29 | 1.81 | WXL4-33 | 2.06 | ---- | ---- | WXL8-47 | 2.93 | ---- | ---- | WXL16-62 | 3.87 | WXL32-68 | 4.25 | ---- | ---- |
| WXL2-30 | 1.87 | WXL4-34 | 2.13 | ---- | ---- | WXL8-48 | 3 | ---- | ---- | WXL16-64 | 4 | WXL32-70 | 4.38 | ---- | ---- |
| WXL2-31 | 1.93 | WXL4-35 | 2.19 | ---- | ---- | WXL8-49 | 3.06 | ---- | ---- | WXL16-66 | 4.13 | WXL32-72 | 4.5 | ---- | ---- |
| WXL2-32 | 2 | WXL4-36 | 2.25 | ---- | ---- | WXL8-50 | 3.13 | ---- | ---- | WXL16-68 | 4.25 | WXL32-74 | 4.62 | ---- | ---- |
| WXL2-33 | 2.06 | WXL4-37 | 2.31 | ---- | ---- | WXL8-51 | 3.19 | ---- | ---- | WXL16-70 | 4.38 | WXL32-76 | 4.75 | ---- | ---- |
| WXL2-34 | 2.13 | WXL4-38 | 2.38 | ---- | ---- | WXL8-52 | 3.25 | ---- | ---- | WXL16-72 | 4.5 | WXL32-78 | 4.87 | ---- | ---- |
| WXL2-35 | 2.19 | WXL4-39 | 2.44 | ---- | ---- | WXL8-53 | 3.31 | ---- | ---- | WXL16-74 | 4.62 | WXL32-80 | 5 | ---- | ---- |
| WXL2-36 | 2.25 | WXL4-40 | 2.5 | ---- | ---- | WXL8-54 | 3.38 | ---- | ---- | ---- | ---- | WXL32-82 | 5.13 | ---- | ---- |
| WXL2-37 | 2.31 | WXL4-41 | 2.56 | ---- | ---- | WXL8-55 | 3.44 | ---- | ---- | ---- | ---- | WXL32-84 | 5.25 | ---- | ---- |
| WXL2-38 | 2.38 | WXL4-42 | 2.62 | ---- | ---- | WXL8-56 | 3.5 | ---- | ---- | ---- | ---- | WXL32-86 | 5.38 | ---- | ---- |

LIFTING JACKS



All Simplex Air Bags have a maximum working pressure of 116 PSI.



Heavy Duty Air Bag Shown

PRODUCT LINE OVERVIEW

- ▶ From the thinnest of air bags to the widest assortment of controls, Simplex heavy duty Air Bags provide a solution to the most unique and specialized application.
- ▶ From factory maintenance to portable tool chests, Simplex Hand Jacks are the standard utility tools for all maintenance applications.
- ▶ From structural movers to plant maintenance crews, Simplex Toe Jacks offer high capacities in a broad range of lifting.

Hydraulic Hand Jacks

2 Through 100 Ton Hydraulic Hand Jacks

Simplex 2 through 100 ton capacity all purpose jacks are ideal for use in general industrial applications, and are used extensively in maintenance, construction and material handling. The versatility of the Simplex bottle jack has made it a favorite in shipyards, factories, oil fields, mines & general industries.



Hydraulic Toe Jacks

2 Through 10 Ton Hydraulic Toe Jacks

Simplex hydraulic toe jacks are the solution to all of your low clearance lifting problems. Choose from the widest variety of self contained toe jacks in the industry. Capacities range from 2 through 10 tons. The Simplex TJH2 is a 2 ton self-contained toe jack utilizing .62" minimum toe height and over 4" of travel.



Air Bags

1.1 Through 74.1 Tons Air Bags

Thin, powerful & light weight, Simplex Air Bags are the answer to the toughest industrial applications. Starting with a minimum height of 1.1", Simplex lifting bags offer high capacity for clearances too small for most conventional jacks. They are ideal for use in railroads, construction, mining, shipyards and industrial applications that require safe, reliable lifting, spreading, bending or pushing. Simplex air lifting bags are manufactured with neoprene & Kevlar reinforced construction and are safer, stronger and more reliable than other bags on the market.

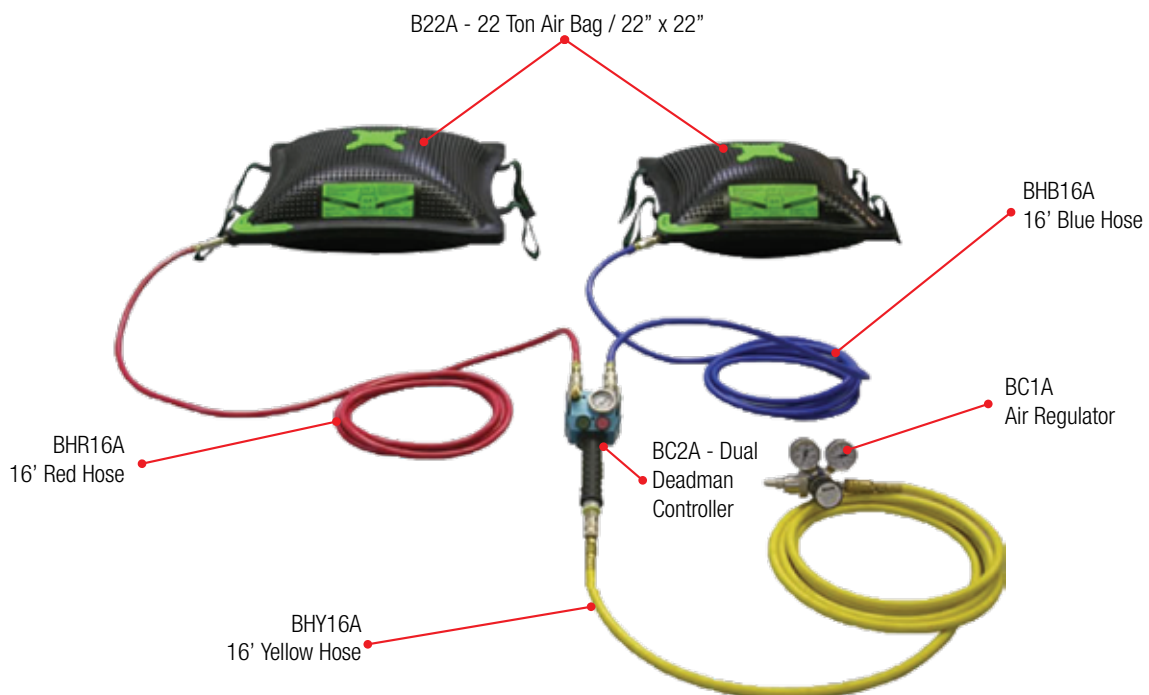


Lifting Capacity and Height Guidelines

When selecting the proper air bag arrangement, consider size and lift requirements. The amount of contact surface is a direct relationship to force output. It's important to consider the lifting height when sizing the proper air bag. As an air lifting bag inflates (increasing convexity), contact surface is reduced, which lowers the lifting capacity.

Air bags stacked on top of each other will increase the lifting height, but not the overall air bag capacity. Lifting capacity depends on the size of the air bag surface in contact with the lower surface of the object to be lifted. In order to choose the proper size air bag, reference the performance graph on page 98.

Example below demonstrates a typical 44 ton two air bag system arrangement.



LIFTING JACKS

HJ Series — Hand Jacks

SIMPLEX



Capacity Range► 2 - 100 tons
Stroke Range► 2.44 - 5.91 in.
Weight► 7.9 - 191.8 lbs.

- Thick base material with large area for increased strength and stability during lifting.
- High strength beam and pump linkage for long life.
- Safety relief valve to prevent overload.
- All models include over-travel protection.
- Lever Bar included on all models.

HJ2A, HJ3A and HJ8A Family Shown

SCREW EXTENSIONS

Two through 22-ton models include screw extensions with cleated saddle for quick setup.



LEVER BARS

All Hand Jacks come equipped with a 3 piece Lever Bar set to accommodate space limitations.



Various applications are suitable for the hydraulic HJ Series hand Jack, ranging from spreading, leveling, lifting and holding.▼



| Model | Capacity (tons) | Stroke (in) | Minimum Height (in) | Extended Screw Height (in) | Maximum Height (in) | Base Area (in) | Piston Diameter (in) | Maximum Handle Effort (lbs) | Weight (lbs) |
|---------|-----------------|-------------|---------------------|----------------------------|---------------------|----------------|----------------------|-----------------------------|--------------|
| HJ2A | 2 | 3.94 | 6.30 | 1.97 | 12.20 | 3.74 X 4.37 | 0.83 | 82 | 7.9 |
| HJ3A | 3 | 4.13 | 6.61 | 2.56 | 13.31 | 3.74 X 4.57 | 0.94 | 108 | 9.0 |
| HJ5A | 5 | 5.91 | 8.35 | 2.95 | 17.20 | 3.74 X 4.84 | 1.14 | 95 | 11.0 |
| HJ8A | 8 | 5.91 | 8.62 | 2.95 | 17.48 | 3.74 X 5.43 | 1.29 | 86 | 13.0 |
| HJ11A | 11 | 5.91 | 8.62 | 2.95 | 17.48 | 3.74 X 5.59 | 1.47 | 106 | 14.3 |
| HJ11ALP | 11 | 2.44 | 5.16 | 1.18 | 8.78 | 3.74 X 5.59 | 1.47 | 106 | 12.1 |
| HJ22A | 22 | 5.91 | 9.21 | 2.95 | 18.07 | 5.00 X 6.73 | 2.00 | 108 | 26.7 |
| HJ22ALP | 22 | 4.13 | 7.48 | 2.17 | 13.78 | 5.00 X 6.73 | 2.00 | 108 | 22.0 |
| HJ35A | 35 | 5.91 | 9.68 | * | 15.59 | 7.09 X 8.44 | 2.75 | 97 | 51.81 |
| HJ55A | 55 | 5.91 | 9.92 | * | 15.83 | 7.09 X 9.06 | 3.15 | 104 | 62.8 |
| HJ100A | 100 | 5.91 | 11.81 | * | 17.72 | 11.65 X 13.11 | 4.33 | 71 | 191.8 |



TJH Family Shown

Capacity Range► 2 - 10 tons

Stroke Range► 5.20 - 9 in.

Weight► 19 - 83 lbs.

- Self-contained models for maximum versatility.
- Low toe heights fit in tight clearances.
- The lowest handle effort for easy operation.
- The lowest weights for reduced back injuries.
- Swivel sockets for access in close quarters.
(TJH5A & TJH10A only).
- Lever Bars are included with all models.

LEVER BARS



TJH2A, TJH5A and TJH10A Toe Jacks come equipped with a 3 piece Lever Bar set to accommodate space limitations.

LEVER BAR



TJH109LS Toe Jack comes equipped with a solid one piece Lever Bar.

TOE LIFT



Toe Lifts are rated at maximum capacity on all models.

PISTOL GRIP



TJH109LS comes equipped with an ergonomic pistol grip for rapid advancement to load.

Its small footprint and ease of mobility make the TJH10A perfect for lifting a variety of equipment when space and clearance are at a premium. ▼



| Model | Capacity (tons) | Stroke (in) | Minimum Height (in) | | Base Area (in) | Maximum Handle Effort (lbs) | Method Of Return | Weight (lbs) |
|-----------------|-----------------|-------------|---------------------|----------|----------------|-----------------------------|------------------|--------------|
| | | | Toe (in) | Cap (in) | | | | |
| TJH2A | 2 | 4.53 | .67 | 9.25 | 4.92 x 7 | 76.4 | Load | 19 |
| TJH5A | 5 | 4.73 | 1.06 | 11.54 | 7.20 x 10.63 | 49.5 | Spring | 50 |
| TJH10A | 10 | 5.71 | 1.22 | 12.87 | 8.66 x 11.30 | 56.2 | Spring | 83 |
| TJH109 | 10 | 9 | 2.25 | 22 | 6.5 x 10 | 80 | Spring | 56 |
| TJH109LS | 10 | 9 | 2.17 | 16.13 | 6 x 9 | 73 | Spring | 41 |

LIFTING JACKS

B-Series - Air Lifting Bags



B-Series Shown

Capacity Range► 1.1 - 77 tons
Lifting Height► 2.7 - 20.5 in.
Maximum Pressure► 116 psi

- 11 models with capacities ranging from 1.1 to 77 tons.
- Operate on standard shop air, up to 116 psi.
- All models feature 2-ply Kevlar® with neoprene.
- Wide variety of safety controllers for single- and multiple-bag systems.
- Light weight for easy set up.
- B22A – B77A models feature side holes for attaching bags together.

THINK SAFETY



Please refer to pages 4–5 for a list of safety tips and recommendations.

Y CONNECTOR - pages 100 - 101



Allows control of two bags from one single fitting controller.

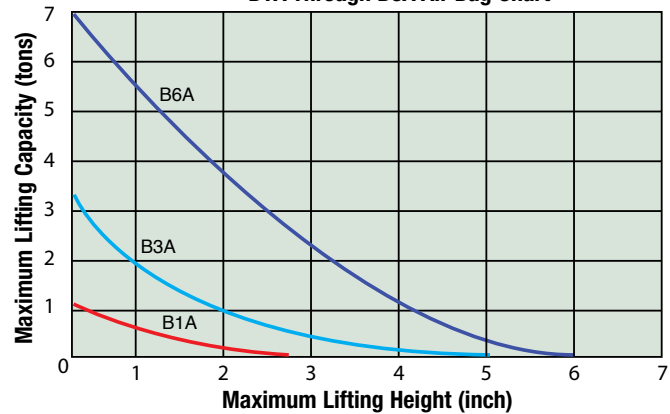
DUAL DEADMAN CONTROLLER - pages 100 - 101



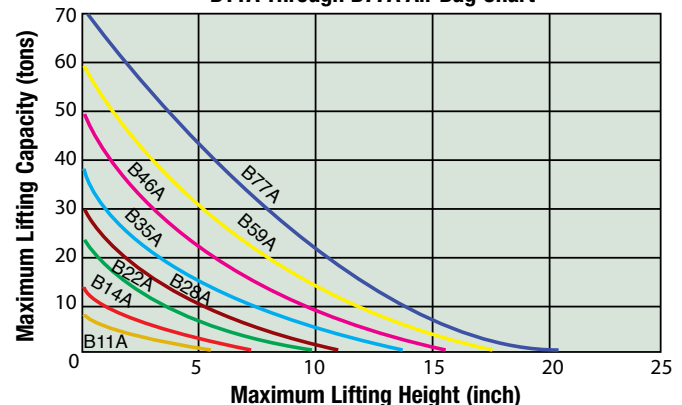
Used for precise inflation and deflation control.

Air Bag Performance

B1A Through B6A Air Bag Chart



B11A Through B77A Air Bag Chart

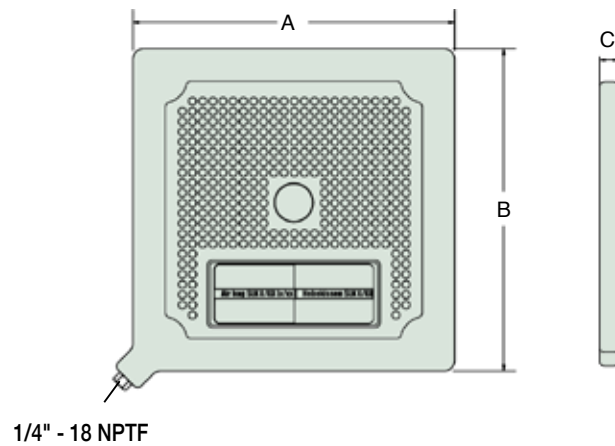
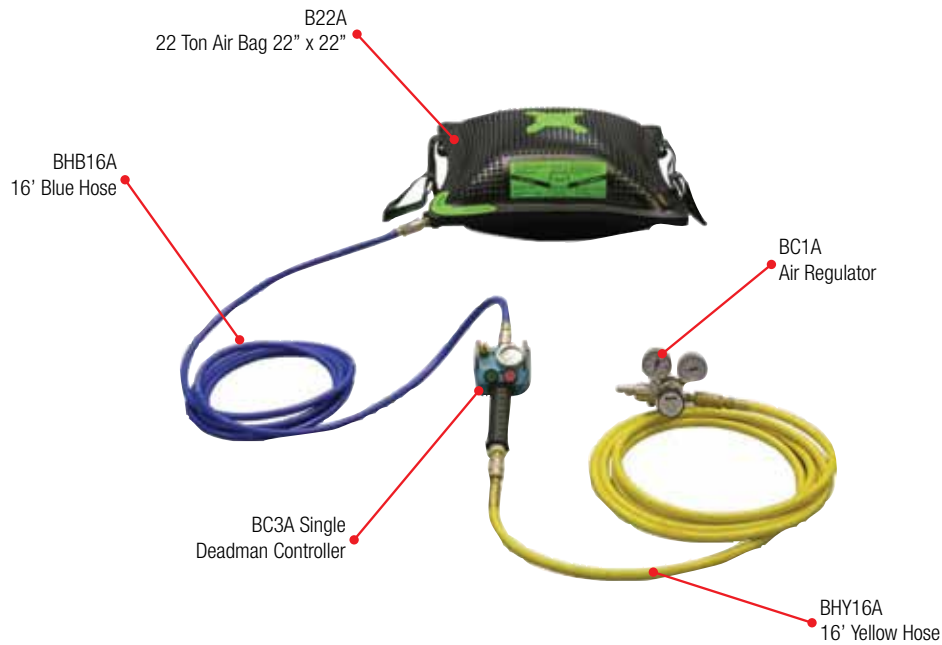


Durability and strength makes Simplex Air Lifting Bags the perfect solution to raise these collapsed concrete slabs for repair. ▼



LIFTING JACKS

B Series - Air Lifting Bags







Lifting Jacks




| Model | Capacity (tons) | Maximum Lifting Height (in) | A | B | C | Air Required @ 116 PSI (cu.ft.) | Maximum Burst Pressure (PSI) | Weight (lbs) |
|-------|--------------------|-----------------------------------|----------------|---------------|---------------|--|---------------------------------------|-----------------|
| | | | Length (in) | Width (in) | Thick (in) | | | |
| B1A | 1.1 | 2.7 | 6 | 6 | 1.1 | .18 | 464 | 1.32 |
| B3A | 3.1 | 5.1 | 9 | 9 | 1.1 | .53 | 464 | 2.8 |
| B6A | 6.4 | 5.9 | 12 | 12 | 1.1 | 1.48 | 464 | 5.3 |
| B11A | 10.8 | 7.0 | 15 | 15 | 1.1 | 3.04 | 464 | 8.8 |
| B14A | 14.2 | 8.6 | 18 | 18 | 1.1 | 5.37 | 464 | 11.6 |
| B22A | 22.7 | 10.6 | 22 | 22 | 1.1 | 10.45 | 464 | 17.8 |
| B28A | 27.7 | 11.8 | 24 | 24 | 1.2 | 14.7 | 464 | 24.6 |
| B35A | 35.3 | 14.1 | 27 | 27 | 1.2 | 21.9 | 464 | 29.9 |
| B46A | 46.4 | 16.5 | 31 | 31 | 1.2 | 32.5 | 464 | 40.1 |
| B59A | 58.8 | 17.7 | 35 | 35 | 1.2 | 46.8 | 464 | 49.6 |
| B77A | 77 | 20.5 | 38 | 38 | 1.2 | 53.1 | 464 | 55.8 |

LIFTING JACKS

B Series – Air Bag Accessories

SIMPLEX

| Model | | Description |
|---|---|--|
|  | <p>BHR16A - 16' Red Hose</p> <p>BHR32A - 32' Red Hose</p> <p>BHB16A - 16' Blue Hose</p> <p>BHB32A - 32' Blue Hose</p> <p>BHY16A - 16' Yellow Hose</p> <p>BHY32A - 32' Yellow Hose</p> | <p>Industrial duty, color coded Supply Hoses allows the user to coordinate the lift properly and safely.</p> |
|  | <p>BC12</p> | <p>Deluxe Dual Deadman Controller used for precise inflation and deflation control. Built in safety relief valves prevent over inflation with the pressure sensitive toggles.</p> |
|  | <p>BC2A</p> | <p>Dual Deadman Controller with pressure gauge and pressure relief valves. Control two bags from one air source. Reliable over extreme temperature range.</p> |
|  | <p>BC3A</p> | <p>Single Deadman Controller with pressure gauge and pressure relief valves. Reliable over extreme temperature range.</p> |

| Model | | Description |
|---|--------------|---|
|  | BC9A | Y Connector allows control of 2 bags from one single fitting controller. |
|  | BC8A BC6A | In-Line Control Shut Off and Relief Valves enable the user to disconnect a hose without deflating the bag. |
|  | BC11 | Dual Safety Controller with pressure gauge and pressure relief valve. Cost effective and reliable over a wide range of control applications. |
|  | BC1A | Pressure Regulator Controller is a diaphragm type single stage regulator with high pressure air tank compatibility. |
|  | BC4A | Single Safety Controller with pressure gauge and pressure relief valve. Cost effective and easy to use. |

HYDRAULIC TOOLS



N.W: SHAFT
G.W: 68859
SIZE: 25
QTY: 25
N.W: 95
G.W: 10
SIZE: 25X25X15

PC
KG
KG
CM

D.W: SHAFT
G.W: 68859
SIZE: 25

P42 Hand Pump

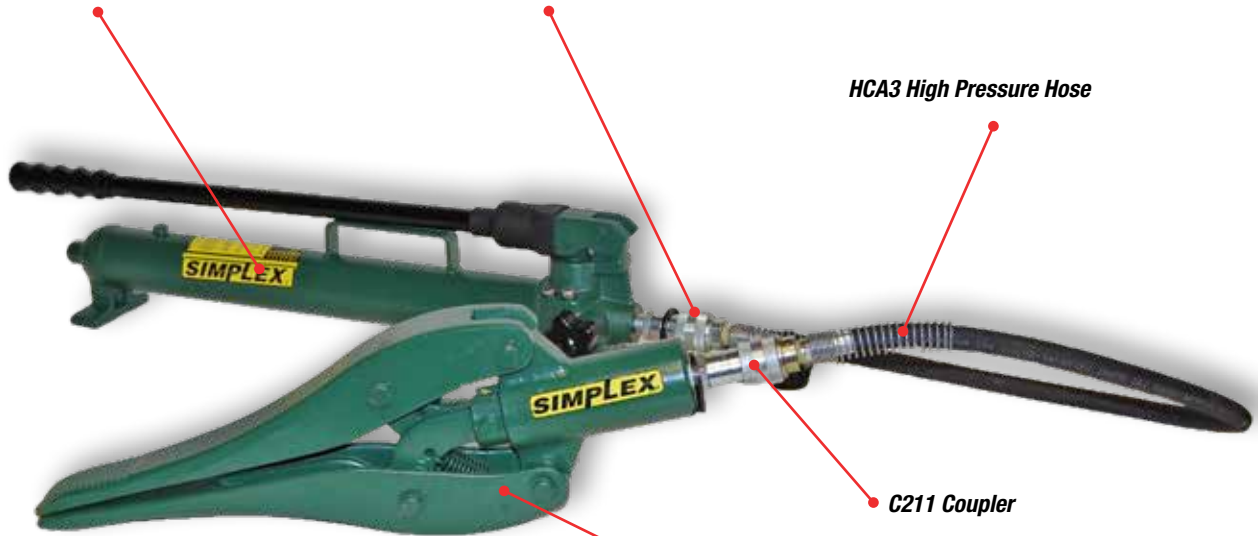
C209 Coupler

HCA3 High Pressure Hose

C211 Coupler

S3000A Hydraulic Spreader

S3000A Spreader with a P42 Hand Pump



PRODUCT LINE OVERVIEW

► Specialty Tools

Whether it's a construction site or production fabrication, Simplex single acting 35 ton portable punch offers fast and effective solutions.

► Spreaders

From flange spreading to emergency rescue, Simplex can supply a suitable solution in hydraulic or mechanical spreading.

► Configured to Meet a Broad Range of Requirements

Whether it's collision repair, general maintenance or specialized spreading, clamping or holding, Simplex maintenance kits come complete with the largest assortment of attachments.

Hydraulic Nut Splitters

Simplex nut splitters fit up to 8 nut sizes and offer greater value and versatility. The specifically designed head fits all A.P.I. and ANSI flanges and cuts nuts .5" to 2.88". You can easily calibrate the cutting chisel so only the nut is cut without damaging the bolt or stud. Simplex splitters will cut the hardest nuts, up to grade 8 and 2H (ASTMA 194/2H), Brinell hardness 248-325.



Hydraulic Spreaders

The Simplex S2000A (1 ton) and S3000A (.75 ton capacity) spreaders are the perfect fit for close clearance jobs. The SF5 spreader offers 5 tons of spreading force with a .13" starting clearance. It is one of Simplex's most versatile tools for spreading.



Single Acting Portable Punch

Simplex 35 Ton Single-Acting Portable Punch mounted motor control handle (included with SPH35A) provides easy operation and greater operator safety. Punches and dies are interchangeable with competitive punches.



Hydraulic Maintenance Kits

The Simplex MK106 Maintenance Kit provides a complete assortment of attachments that greatly expands the range of applications. Using these various attachments allows you to custom build spreaders, straightening tools, clamps and a wide variety of other problem solving maintenance tools.



HYDRAULIC TOOLS

SPH Series - Single Acting Punch

SIMPLEX



SPH35A Shown

Capacity► 35 tons
Maximum Thickness► .5 in.
Maximum Pressure► 10,000 psi

- Industrial grade, single acting, spring return design.
- Punches holes in material up to .5" thick mild steel.
- All models come equipped with a heavy duty steel case, providing tool and die organization along with ease of transport.
- Large selection of square, rounded and oblong dies and punches are offered to complete a wide variety of applications.

HOSES - pages 78 - 79



Heavy duty and thermo plastic hydraulic hoses to meet your requirements and safety factor.

POWER PUMPS - pages 43 - 65



Simplex offers a wide variety of lightweight power pumps to fit any application.

GAUGES -



Improve your system visibility and safety by adding an inline hydraulic gauge to your circuit.

Simplex offers a punch mounted motor control so that work can be performed safely and more productively as shown in this fabricating shop. ▼

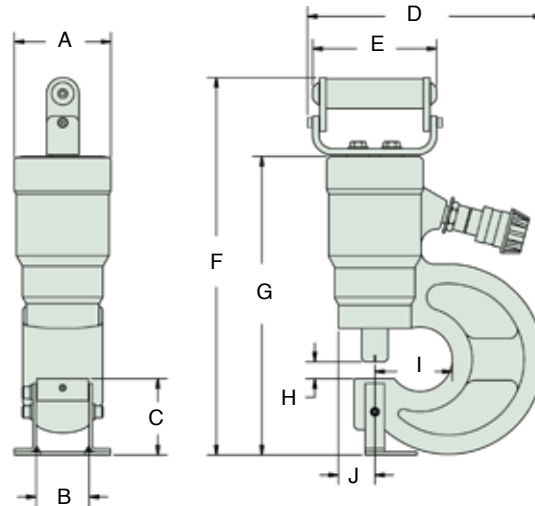
SPH35SPA Kit Includes:

Punch - Case - Punch & Die Set - Pump - Hose



| Model | Punch | Steel Case | Punch & Die Set | Pump | Pump Voltage | Hose | Weight Punch Only (lbs.) |
|-----------------|--------|------------|----------------------------|--------|--------------|------|--------------------------|
| SPH35A | SPH35A | Yes | ---- | ---- | ---- | ---- | 32 |
| SPH35SA | SPH35A | Yes | DS-44, DS-56, DS-69, DS-81 | ---- | ---- | ---- | 32 |
| SPH35SPA - 115 | SPH35A | Yes | DS-44, DS-56, DS-69, DS-81 | G1101F | 115 | HCA6 | 32 |
| SPH35SPA - 230 | SPH35A | Yes | DS-44, DS-56, DS-69, DS-81 | G1201F | 230 | HCA6 | 32 |
| *SPH35MA | SPH35A | Yes | DS-38, DS-44, DS-53, DS-69 | ---- | ---- | ---- | 32 |
| *SPH35MPA - 115 | SPH35A | Yes | DS-38, DS-44, DS-53, DS-69 | G1101F | 115 | HCA6 | 32 |
| *SPH35MPA - 230 | SPH35A | Yes | DS-38, DS-44, DS-53, DS-69 | G1201F | 230 | HCA6 | 32 |

* "M" = METRIC DIE SET


Punch Dimensions

| | A | B | C | D | E | F | G | H | I | J |
|-----------------|-------|-------|-------|--------|--------|--------|--------|-------|------|-------|
| Imperial | 3.75 | 2.06 | 2.97 | 9.16 | 4.81 | 14.66 | 11.6 | .66 | 3 | 1.42 |
| Metric | 95.25 | 52.32 | 75.43 | 232.66 | 122.17 | 372.36 | 294.64 | 16.76 | 76.2 | 36.06 |

QUALITY OF STEEL REFERENCE TABLE

A: Mild A-7
B: Boiler Plate
C: Structural A-36
D: Struct Corten (ASTM A242)

E: Cold Rolled C-1018
F: Hot Rolled C-1050
G: Hot Rolled C-1095
H: Hot Rolled C-1095 Annealed

I: Stainless Annealed
J: Stainless 304 Hot Rolled
K: Stainless 316 Cold Rolled

Contact Factory for additional dimensions.

| Hole Type | Punch Model | Die Model | Punch & Die Set | Bevel Punch & Die Set for I-Beams | Bevel Punch & Die Set for U-Beams | Hole Size | | Bolt Size | | A | B | C | D | E | F | G | H | I | J | K |
|-----------|-------------|-----------|-----------------|-----------------------------------|-----------------------------------|-----------|-----------|-----------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | | | | | | (in) | (mm) | (in) | (mm) |  |  |  |  |  |  |  |  |  |  |  | *Maximum Metal Thickness To Be Punched (in.) |
| Round | DP-31 | DD-31 | DS-31 | DSB-31 | --- | .31 | 7.9 | .25 | --- | .31 | .31 | .25 | .25 | .25 | .25 | .13 | .19 | .25 | .25 | .25 |
| Round | DP-38 | DD-38 | DS-38 | DSB-38 | --- | .38 | 9.5 | .31 | M8 | .38 | .38 | .31 | .31 | .31 | .31 | .19 | .25 | .31 | .31 | .31 |
| Round | DP-44 | DD-44 | DS-44 | DSB-44 | DSBU-44 | .44 | 11.1 | .44 | M10 | .44 | .44 | .38 | .38 | .38 | .31 | .19 | .31 | .31 | .31 | .31 |
| Round | DP-53 | DD-53 | DS-53 | DSB-53 | DSBU-53 | .53 | 13.5 | .44 | M12 | .50 | .50 | .44 | .44 | .44 | .38 | .25 | .31 | .38 | .38 | .38 |
| Round | DP-56 | DD-56 | DS-56 | DSB-56 | --- | .56 | 14.3 | .5 | --- | .50 | .50 | .50 | .44 | .50 | .44 | .25 | .38 | .44 | .44 | .44 |
| Round | DP-69 | DD-69 | DS-69 | DSB-69 | DSBU-69 | .69 | 17.5 | .62 | M16 | .50 | .50 | .50 | .44 | .50 | .40 | .25 | .31 | .40 | .40 | .40 |
| Round | DP-78 | DD-78 | DS-78 | --- | --- | .78 | 19.8 | --- | M18 | .50 | .50 | .50 | .44 | .50 | .38 | .25 | .31 | .38 | .39 | .38 |
| Round | DP-81 | DD-81 | DS-81 | --- | --- | .81 | 20.6 | .75 | --- | .50 | .50 | .50 | .44 | .50 | .31 | .19 | .31 | .31 | .31 | .31 |
| Square | DP-45 | DD-45 | DS-45 | --- | --- | .31 | 7.9 | .25 | --- | .31 | .31 | .25 | .25 | .25 | .25 | .13 | .19 | .25 | .25 | .25 |
| Square | DP-54 | DD-54 | DS-54 | --- | --- | .38 | 9.5 | .31 | M8 | .38 | .38 | .31 | .31 | .31 | .31 | .19 | .25 | .31 | .31 | .31 |
| Square | DP-63 | DD-63 | DS-63 | --- | --- | .44 | 11.1 | .38 | M10 | .44 | .44 | .38 | .38 | .38 | .31 | .19 | .31 | .31 | .31 | .31 |
| Square | DP-72 | DD-72 | DS-72 | --- | --- | .50 | 12.7 | .44 | M12 | .50 | .50 | .44 | .44 | .44 | .38 | .25 | .31 | .38 | .38 | .31 |
| Oblong | DP-10 | DD-10 | DS-10 | --- | --- | .31 x .75 | 7.9 x 19 | .25 | --- | .31 | .31 | .25 | .25 | .25 | .25 | .13 | .19 | .25 | .25 | .25 |
| Oblong | DP-12 | DD-12 | DS-12 | --- | --- | .38 x .75 | 9.5 x 19 | .19 | M8 | .38 | .38 | .31 | .31 | .31 | .31 | .19 | .25 | .31 | .31 | .31 |
| Oblong | DP-18 | DD-18 | DS-18 | --- | --- | .44 x .75 | 11.1 x 19 | .38 | M10 | .44 | .44 | .38 | .38 | .38 | .31 | .19 | .31 | .31 | .31 | .31 |
| Oblong | DP-25 | DD-25 | DS-25 | --- | --- | .50 x .75 | 12.7 x 19 | .44 | M12 | .50 | .50 | .44 | .44 | .44 | .38 | .25 | .31 | .38 | .38 | .38 |

HYDRAULIC TOOLS

S Series — Hydraulic Spreaders

SIMPLEX



Capacity Range► .75 - 1 ton
Weight► 5 - 25 lbs.
Spread Range► .38 - 11.5 in.

- Closed narrow ends starting at .38".
- Large spreading range up to 11.5".
- Return spring assists the jaws to the closed position.
- Durable all metal construction to withstand any tough environment.
- Quality high flow coupler for fast tool setup.

S2000A and S3000A Shown

HOSES - pages 78 - 79



Heavy duty and thermo plastic hydraulic hoses to meet your requirements and safety factor.

COUPLERS - pages 74 - 75



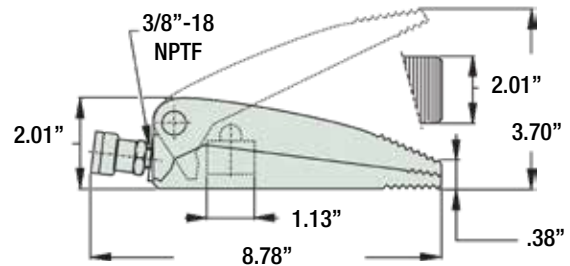
High flow quick disconnect couplers provide a quick change to a variety of pumps.



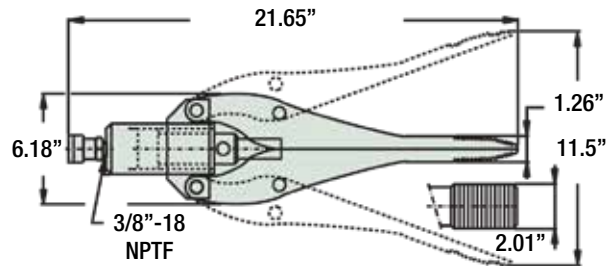
POWER PUMPS - pages 43 - 65

Simplex offers a wide variety of lightweight power pumps to fit any application.

S2000A



S3000A



The Simplex S2000A spreader was used to remove this rusted anchor plate from a brick wall for mortar patching to begin.▼



| Model | Capacity (tons) | Pressure @ Capacity (PSI) | Oil Capacity Required (cu.in.) | Weight (lbs) | Width (in) | Suggested Hand Pump |
|--------|-----------------|---------------------------|--------------------------------|--------------|------------|---------------------|
| S2000A | 1 | 10,000 | .61 | 5 | 2.01 | P42 |
| S3000A | .75 | 10,000 | 3.91 | 25 | 2.01 | P42 |



SF5 Shown

Capacity► 5 tons
 Weight► 17 lbs.
 Spread Range► .13 - 3 in.

- 5 tons of spreading force.
- .13" through 3" spreading capability.
- Jaws open parallel.
- Will not drift or creep-down.
- All metal construction.



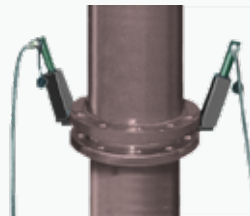
GAUGES - page 77

Improve your system visibility and safety by adding an inline hydraulic gauge to your circuit.



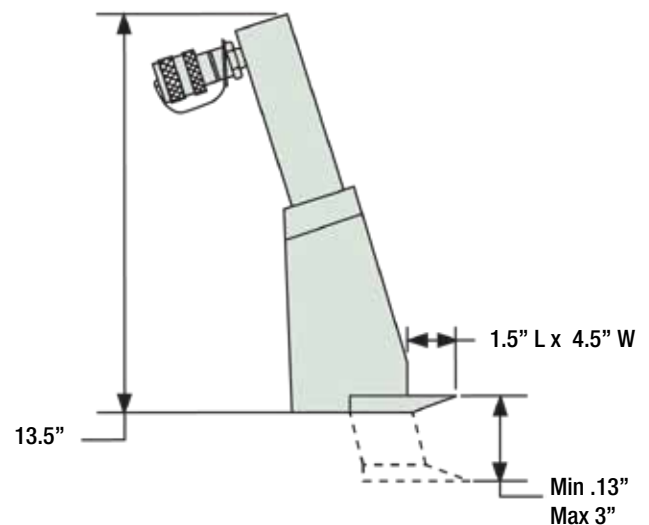
HAND PUMPS - pages 31 - 41

Handpump design specifications meet or exceed ANSI /ASME B30.1 Safety Standards.



◀ SF5 Spreaders are used in pairs to spread the flanges equally for general maintenance and repair.

Boasting 5 tons of spreading force and 3 inches of operational lift, the SF5 is the most versatile tool for heavy equipment maintenance.▼



| Model | Capacity (tons) | Oil Capacity Required (cu.in.) | Pressure @ Capacity (PSI) | Weight (lbs) | Spread | | Suggested Hand Pump |
|-------|-----------------|--------------------------------|---------------------------|--------------|-----------|-----------|---------------------|
| | | | | | Min. (in) | Max. (in) | |
| SF5 | 5 | 5 | 10,000 | 17 | .13 | 3 | P22 |

HYDRAULIC TOOLS

NS Series - Nut Splitters

SIMPLEX



NS Series Shown

Nut Range► .5 - 2.88 in.
Weight► 1.8 - 75.1 lbs.
Maximum Pressure► 10,000 psi

- Cuts hardened nuts up to grade 8 & 2H.
- Replacement chisel and set screws included.
- Cuts nuts from .5" to 2.88".
- Rugged carrying case included.
- Not designed to cut square nuts.

HOSES - pages 78 - 79



Heavy duty and thermo plastic hydraulic hoses to meet your requirements and safety factor.

COUPLERS - pages 74 - 75



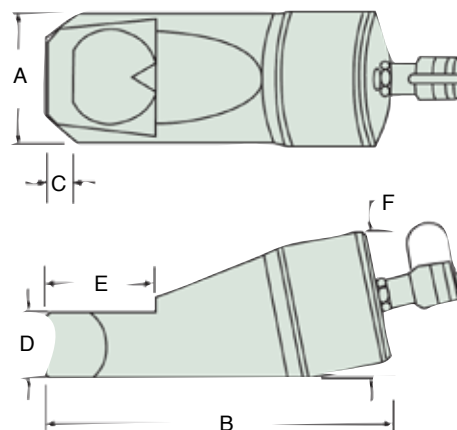
High flow quick disconnect couplers provide a quick change to a variety of pumps.

THINK SAFETY



Please refer to pages 4&5 for a complete list of safety tips and recommendations.

Refineries, steel mills and power plants rely heavily on Simplex nut splitters for removing stubborn or rusted nuts easily and safely. ▼



| Model | Stud Diameter (in) | Nut A/F (in) | A (in) | B (in) | C (in) | D (in) | E (in) | F (in) | Wgt. (lbs.) | Suggested Hand Pump |
|--------|--------------------|--------------|--------|--------|--------|--------|--------|--------|-------------|---------------------|
| NS1319 | .25 - .44 | .5 - .75 | 1.57 | 4.76 | .28 | .75 | 1.14 | 1.93 | 1.8 | P42 / P72 |
| NS1924 | .44 - .56 | .75 - .94 | 2.13 | 5.77 | .39 | .98 | 1.57 | 2.42 | 4.4 | P42 / P72 |
| NS2432 | .56 - .75 | .94 - 1.13 | 2.52 | 7 | .51 | 1.18 | 2.05 | 2.99 | 6.6 | P42 / P72 |
| NS3241 | .75 - 1 | 1.13 - 1.56 | 2.97 | 8.09 | .63 | 1.42 | 2.56 | 3.38 | 9.7 | P42 / P72 |
| NS4150 | 1 - 1.25 | 1.56 - 2 | 3.70 | 9.61 | .83 | 1.77 | 3.00 | 4.17 | 18 | P140 |
| NS5060 | 1.25 - 1.5 | 2 - 2.25 | 4.17 | 10.60 | .94 | 2.13 | 3.62 | 4.90 | 26 | P140 |
| NS6075 | 1.5 - 1.87 | 2.38 - 2.88 | 6.26 | 14.37 | 1.06 | 2.95 | 4.37 | 7.20 | 75.1 | P140 |



Capacity► 10 tons

Weight► 84 lbs.

- Set includes a Simplex hand pump, cylinder, hose, gauge and gauge adapter.
- Heavy duty case included.
- Rated at 5 tons when attachments are used.
- Quick lock and threaded adaptors included.
- Order as a set or individual components.

MK106 Shown



THINK SAFETY

Please refer to pages 4&5 for a complete list of safety tips and recommendations.



R106 is rated at 10 tons at 10,000 psi. When using attachments or extensions do not exceed 5,000 psi (5 tons) reading on the gauge. Accessories & extensions are only rated at 5 tons. S2000A Spreader has an operating capacity of 1 ton.



- ◀ Add collar toe and flat base to build custom spreader or toe jack.



- ◀ Extensions, custom heads and adapters allow you to create tools that solve hundreds of problems. Simplex MK106 kits are used extensively for collision repair.




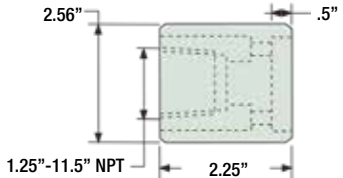

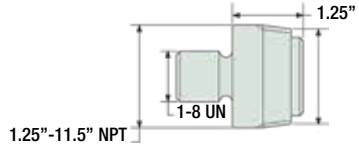
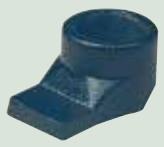
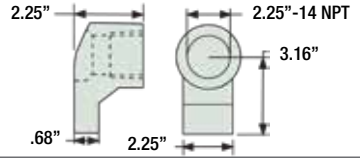
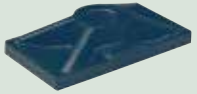
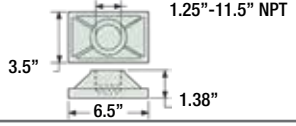

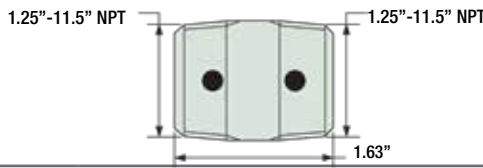
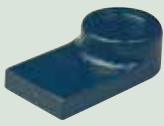
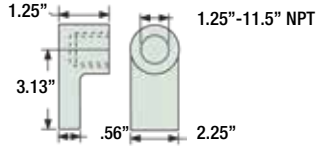

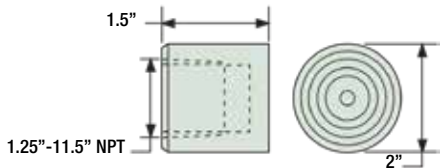
- ◀ Add a V-base and flat base for special spreading, holding and bending jobs.

| Model | Capacity (tons) | Cylinder | Hand Pump | Hose | Gauge | Gauge Adapter | Attachments | Spreader | Box | Weight (lbs) |
|-------|-----------------|----------|-----------|------|-------|---------------|-----------------|----------|-------|--------------|
| MK106 | 10 | R106 | P42 | HCA6 | G5 | GA1 | MK-4 thru MK-20 | S2000A | MK-21 | 84 |

HYDRAULIC TOOLS

MK Series – Kit Components

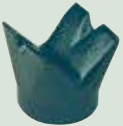
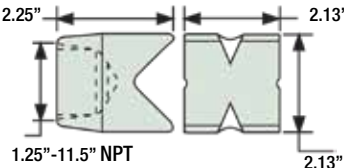

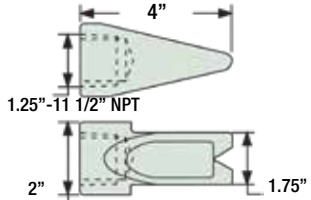

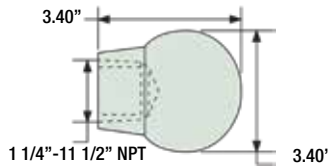

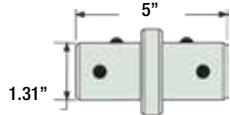

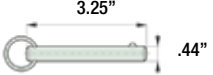

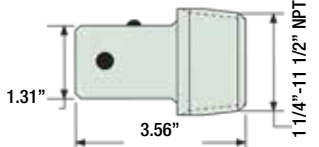

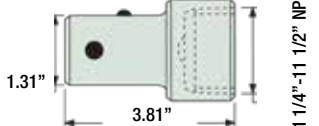

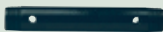
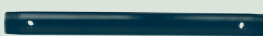

SIMPLEX

| Model | Description | Dimensions |
|---|---|---|
|  | MK-4 <i>Base Attachment (Qty. 1)</i> |  |
|  | MK-5 <i>Threaded Adaptor (Qty. 1)</i> |  |
|  | MK-6 <i>Collar Toe (Qty. 1)</i> |  |
|  | MK-7 <i>Flat Base (Qty. 1)</i> |  |
|  | MK-8 <i>Threaded Connector (Qty. 1)</i> |  |
|  | MK-9 <i>Threaded Plunger Toe (Qty. 1)</i> |  |
|  | MK-10 <i>Grooved Saddle (Qty. 1)</i> |  |

Hydraulic Tools



Maintenance Kit - MK106

| Model | Description | Dimensions |
|--|---|---|
|  MK-11 | 90° V-Base (Qty. 1) |  |
|  MK-12 | Wedge Head (Qty. 1) |  |
|  MK-13 | Flex Head (Qty. 1) |  |
|  MK-14 | Lock On Connector (Qty. 3) |  |
|  MK-15 | Lock Pin (Qty. 4) |  |
|  MK-16 | Male Lock On Adapter (Qty. 1) |  |
|  MK-17 | Female Lock On Adapter (Qty. 1) |  |
| Extensions and Box | | |
|  MK-18 | 5 Inch Extension Pipe (Qty. 1) | |
|  MK-19 | 10 Inch Extension Pipe (Qty. 1) | |
|  MK-20 | 18 Inch Extension Pipe (Qty. 1) | |
|  MK-21 | Wooden Box (Qty. 1) | |

* All components are included in the MK106 Maintenance Kit.

* All components can be ordered separately.

HYDRAULIC PRESSES



Double pinned & welded construction for strength & safety

Friction brake winch for easy adjustment of work bed. Will not drop if handle is released

Maximum daylight for larger jobs & easy loading

Adjustable work bed for maximum flexibility

Rigid frame under full load

Moveable work head allows movement across the entire length of the top cross bar

All electric pumps on 25 through 200 ton presses come standard with remote pendant control

Wide choice of electric, air or manual power sources

IES10010 H Frame Press

PRODUCT LINE OVERVIEW

► Wide Variety

Simplex offers presses with capacities from 10 through 200 tons. Choose from a wide range of pressing, cylinder strokes & styles, and your choice of Simplex manual or power pumps. Choose from a variety of H-Frame designs.

► Heavy Duty Construction/ Built for Safety

Simplex presses do not rely on "bolt together" construction for strength. Simplex H-Frames employ double pinned and heavy duty welded construction. This construction provides a frame that is rigid and provides an extra margin of safety.

► Maximum Flexibility

All Simplex H-Frame Presses include a moveable work head that easily rolls across the entire length of the top cross bar. This allows the pressing force to be positioned at any point of the press bed. The adjustable work bed can be raised or lowered to accommodate a wide variety of jobs.

► Maximum Daylight

Simplex presses have large work areas that accommodate larger jobs and makes loading and unloading easier. Open sides have large clearances for loading work through the side daylight.

► Easy To Use

H-Frame (25 ton & up) includes a friction brake winch that adjusts the bed height effortlessly and will not drop the bed if the handle is released (no kick back). The wide choice of pumps & valves provides a variety of controls. Moveable work head incorporates rollers for easy positioning.

► Custom Build Your Press

Along with many standard models, you can build custom presses by ordering the press without a pump. Order any Simplex pump & pump mounting kit separately to meet your requirements.

Selecting A Hydraulic Press

SIMPLEX Hydraulic H-frame presses are accepted in many industries because of their wide range of use. They are able to produce significant force, ranging from 10 through 200 tons. Hydraulic presses provide force through the use of fluid pressure on a piston by means of manual or powered pumping element. The power source provides the ability for infinite adjustment of stroke, speed, length and pressure while staying within the limits of press capacity. Refer to the individual presses for packaged systems.

Principal Parts To Review

Throat Clearance - The distance from the vertical centerline of the ram to the frame member at the back of the bed. The distance measures the largest diameter piece that can be positioned with the part centerline under the center of the ram.

Daylight - The vertical clearance from the top of the bed to the underside of the ram in its peak position upwards. It shows the maximum vertical capacity of the press.

Work Height - *The distance from the floor to the bolster.*

Simplex Hydraulic Presses



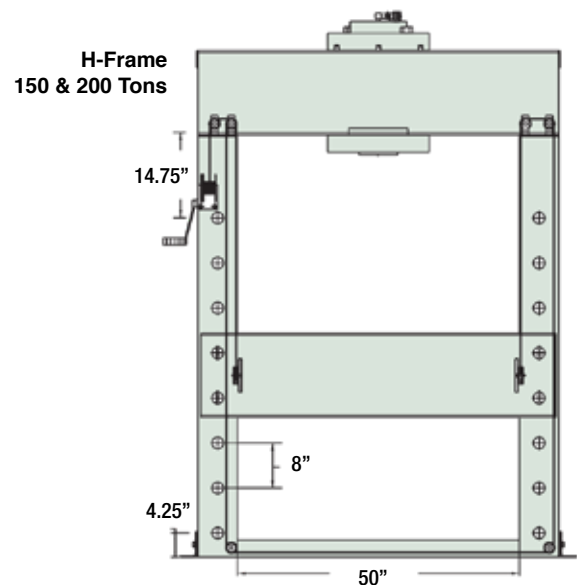
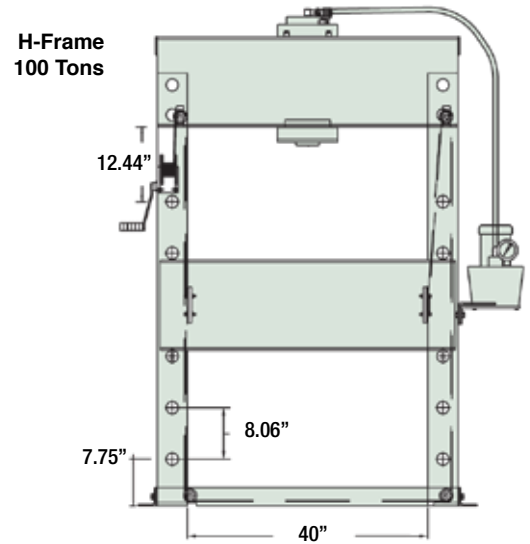
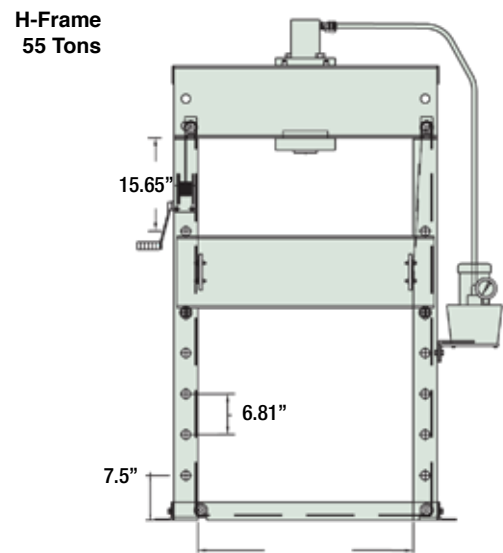
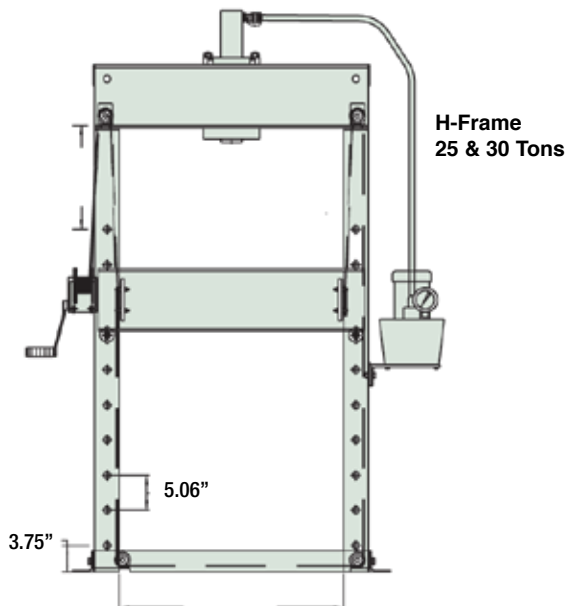
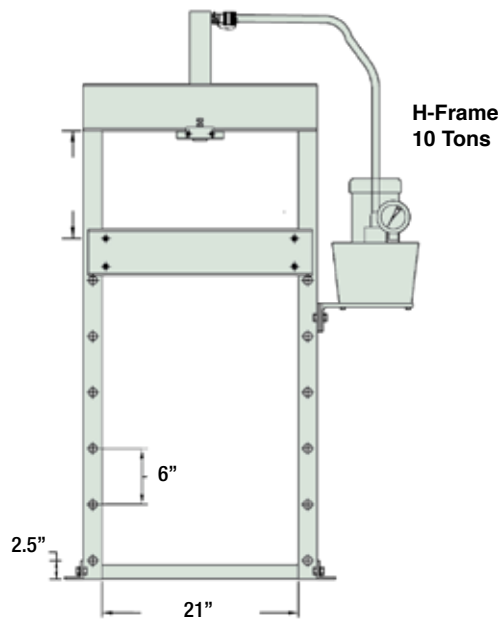
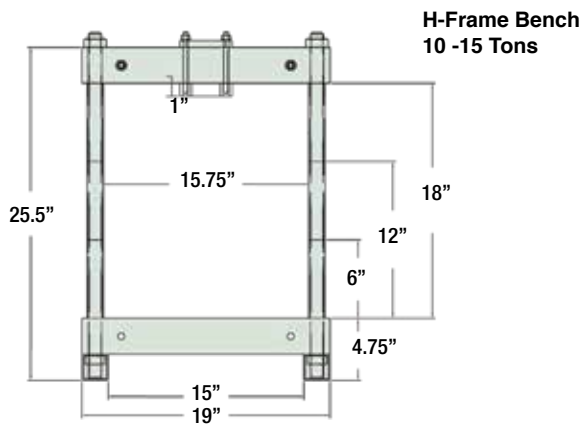
Bench

Only Simplex offers Bench Presses with up to 15 ton capacities, moveable work heads and adjustable beds for maximum flexibility. For small production jobs, the adjustable bed eliminates wasted time approaching the work. IBP1010 & IBP1510 presses include a 10" stroke cylinder.



Floor H - Frame

Simplex H-Frame Presses can be used professionally for assembly or straightening work up to 200 tons. They are also excellent for testing work pieces. H-Frame presses are robust and built to last. The frame is made of welded steel sections and the hydraulic system is excellent for precision work with the height of the work table easy to adjust and the cylinder head moveable.



HYDRAULIC PRESSES

10 - 15 Ton - H Frame Bench

SIMPLEX



IBP1010 Shown

Capacity► 10 - 15 tons
Stroke► 10 in.
Maximum Pressure► 10,000 psi

- 10 or 15 ton capacities.
- Adjustable bed with large daylight.
- Moveable work head.
- Wide variety of power sources.

COUPLERS - pages 74 - 75

High flow quick disconnect couplers provide a quick change to a variety of pumps.



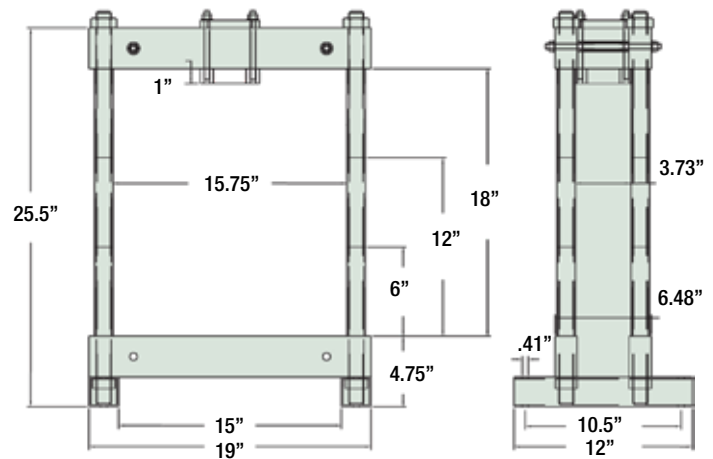
SIMPLEX CYLINDERS - pages 7 - 29

Cylinder design specifications meet or exceed ANSI /ASME B30.1 Safety Standards.



Hydraulic Presses

Simplex bench mounted press frame simplified the work so it can be performed safely and more productively.▼



Contact Factory for additional dimensions.

| Model Number with Cylinder | Capacity (tons) | Type | Ram | Stroke (in) | Model Number w/o Cylinder | Weight (lbs) |
|----------------------------|-----------------|------|-------|-------------|---------------------------|--------------|
| IBP1010 | 10 | S/A | R1010 | 10 | IBP10 | 142 |
| IBP1510 | 15 | S/A | R1510 | 10.38 | IBP15 | 150 |

Products listed below are ordered separately.

| Capacity (tons) | Suggested Hand Pump | Suggested Electric Pump | Suggested Hose | Suggested Gauge | Gauge Adapter | Weight (lbs) |
|-----------------|---------------------|-------------------------|----------------|-----------------|---------------|--------------|
| 10 | P42 | G1121 | HCA6 | G6 | GA1 | 130 |
| 15 | P42 | G1121 | HCA6 | G6 | GA1 | 130 |



IMS1010 Shown

Capacity► 10 tons
 Stroke► 10 - 10.13 in.
 Maximum Pressure► 10,000 psi

- Single or double acting models available.
- Large daylight with open sides for easy loading.
- Heavy duty welded construction.
- Moveable work head for maximum versatility.
- IES Series comes with motor pendant control.



HAND PUMPS - pages 31 - 41

Handpump design specifications meet or exceed ANSI /ASME B30.1 Safety Standards.



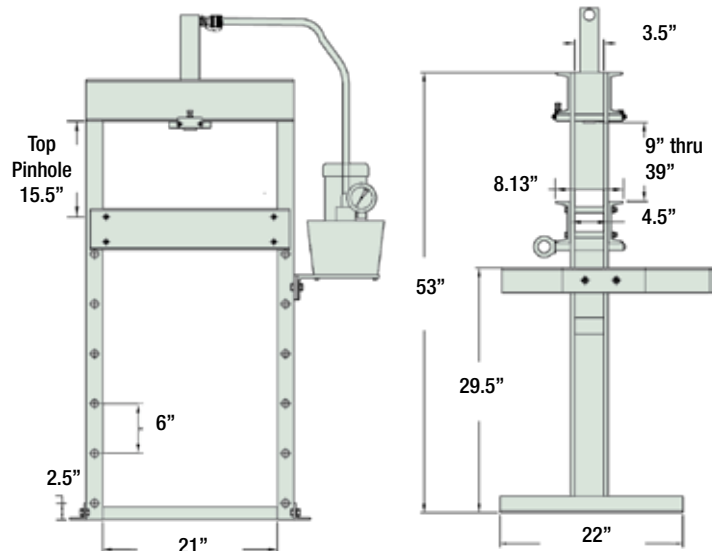
POWER PUMPS - pages 43 - 65

Simplex offers a wide variety of lightweight power pumps to fit any application.

PUMP MOUNTING KIT

For Hand PumpsModel IM2
 Order #40959

For Power PumpsModel IM3
 Order #40960



| Model Number Without Pump | Model Number With Pump | Type of Cylinder | Cylinder Stroke (in) | Type of Pump | Pump Model | Operation | Speed (in/min) * Indicates Inches per Stroke | | Weight With Pump (lbs) | Weight Without Pump (lbs) |
|---------------------------|------------------------|-------------------------------------|----------------------|------------------|------------|----------------------|---|----------|------------------------|---------------------------|
| | | | | | | | Advance | Pressing | | |
| ---- | IAS1010 | R1010 Single Acting 10 Ton Capacity | 10 | Air Powered | GA90 | Advance Hold Retract | 31 | 4.5 | 202 | 172 |
| IS1010 | IES1010 | | 10 | Electric Powered | G1121 | | 104 | 9 | 204 | 172 |
| ---- | IMS1010 | | 10 | Manual | P42 | | .38* | .06* | 208 | 172 |
| IDD1010 | IED1010 | RDA1010 D/A | 10 | Electric Powered | G1141 | | 104 | 9 | 226 | 188 |
| ---- | IMD1010 | 10 Ton Capacity | 10 | Manual | P140D | | 1.25* | .10* | 236 | 188 |

HYDRAULIC PRESSES

25 - 30 Ton - H Frame

SIMPLEX



IES256 Shown

Capacity Range► 25 - 30 tons
Stroke► 6.25 - 14.25 in.
Maximum Pressure► 10,000 psi

- Large daylight with open sides for easy loading.
- Wide choice of pumps & pressing cylinders.
- Includes tonnage gauge.
- IES & IED Series comes with pendant control.
- Moveable work head for maximum versatility.
- Adjustable work bed with friction brake winch.

COUPLERS - pages 74 - 75



High flow quick disconnect couplers provide a quick change to a variety of pumps.

HAND PUMPS - pages 31 - 41

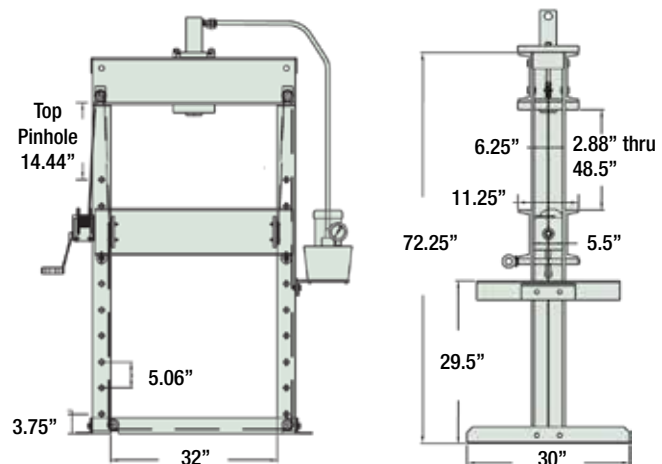


Handpump design specifications meet or exceed ANSI /ASME B30.1 Safety Standards.

PUMP MOUNTING KIT

For Hand PumpsModel IM2
Order # 40959

For Power PumpsModel IM3
Order # 40960



* For Presses with an electric 230V pump, add an "A" to the end of the model number.

| Model Number Without Pump | * Model Number With Pump | Type of Cylinder | Cylinder Stroke (in) | Type of Pump | Pump Model | Operation | Speed (in/min) * Indicates Inches Per Stroke | | Weight With Pump (lbs) | Weight Without Pump (lbs) |
|---------------------------|--------------------------|---|----------------------|------------------|------------|----------------------------|---|----------|------------------------|---------------------------|
| | | | | | | | Advance | Pressing | | |
| ---- | IAS256 | R256/ R2514 Single Acting 25 Ton Capacity | 6.25 | Air | GA90 | Advance Hold Retract | 14 | 2 | 417 | ---- |
| ---- | IAS2514 | | 14.25 | Air | GA90 | | 14 | 2 | 433 | ---- |
| IS256 | IES256 | | 6.25 | Electric 115V | G1121 | | 50 | 4 | 419 | 387 |
| IS2514 | IES2514 | | 14.25 | | G1121 | | 50 | 4 | 435 | 403 |
| ---- | IMS256 | | 6.25 | Manual | P82A | | .15* | .03* | 423 | ---- |
| ---- | IMS2514 | | 14.25 | Manual | P82A | | .15* | .03* | 439 | ---- |
| ID3014 | IED3014 | RDA3014 | 14.25 | Elec. 115V | G4172 | | 40 | 3 | 462 | 428 |
| ---- | IMD3014 | RDA3014 | 14.25 | Manual | P140D | | .43* | .04* | 458 | ---- |



IES556 Shown

Capacity► 55 tons
 Stroke► 6.25 - 13.25 in.
 Maximum Pressure► 10,000 psi

- Large daylight with open sides for easy loading.
- Adjustable work bed with friction brake winch.
- Moveable work head for maximum versatility.
- Rigid frame under full load.
- IED & IES Series are equipped with a pendant control.



THINK SAFETY

Please refer to pages 4&5 for a complete list of safety tips and recommendations.



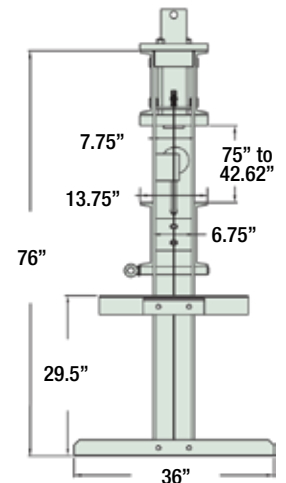
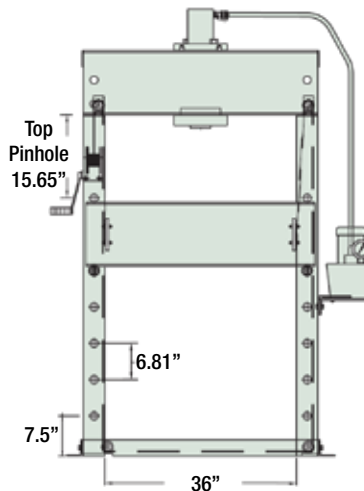
POWER PUMPS - pages 43 - 65

Simplex offers a wide variety of lightweight power pumps to fit any application.

PUMP MOUNTING KIT

For Hand PumpsModel IM2
 Order # 40959

For Power PumpsModel IM3
 Order # 40960



* For Presses with an electric 230V pump, add an "A" to the end of the model number.

| Model Number Without Pump | * Model Number With Pump | Type of Cylinder | Cylinder Stroke (in) | Type of Pump | Pump Model | Operation | Speed (in/min) * Indicates Inches per Stroke | | Weight With Pump (lbs) | Weight Without Pump (lbs) |
|---------------------------|--------------------------|------------------|----------------------|---------------|------------|----------------------------|---|----------|------------------------|---------------------------|
| | | | | | | | Advance | Pressing | | |
| IS556 | IES556 | R556 S/A | 6.25 | Electric 115V | G1121 | Advance Hold Retract | 23 | 2 | 707 | 675 |
| IS5513 | IES5513 | R5513 S/A | 13.25 | | G1121 | | 23 | 2 | 735 | 703 |
| ID556 | IED556 | RDA556 D/A | 6.13 | | G4172 | | 35 | 5 | 748 | 710 |
| ID5512 | IED5512 | RDA5512 D/A | 12 | | G4172 | | 35 | 5 | 793 | 755 |
| ---- | IMS556 | R556 S/A | 6.25 | Manual | P82A | | .07* | .02* | 711 | ---- |

HYDRAULIC PRESSES

100 Ton – H Frame

SIMPLEX



IES1006 Shown

Capacity Range► 100 tons
Stroke► 6.06 - 12 in.
Maximum Pressure► 10,000 psi

- Moveable work head for maximum versatility.
- Wide choice of pumps & pressing cylinders.
- Includes tonnage gauge.
- IED & IES Series comes with pendant control.
- Choose double-acting presses for fast retraction.
- Adjustable work bed with friction brake winch.

SIMPLEX CYLINDERS - pages 7 - 29

Cylinder design specifications meet or exceed ANSI /ASME B30.1 Safety Standards.



PUMP MOUNTING KIT

For Hand Pumps Model IM2
Order # 40959

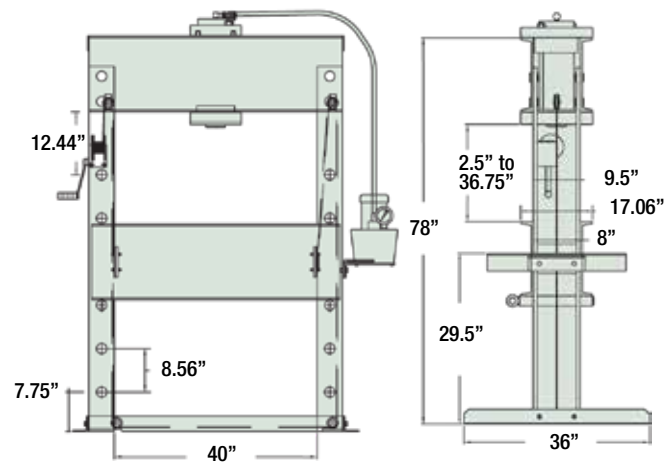
For Power Pumps Model IM3
Order # 40960

A machine shop needed to straighten forgings prior to machining and the Simplex 100 ton H Frame press was a perfect fit for the job. ▼



POWER PUMPS - pages 43 - 65

Simplex offers a wide variety of lightweight power pumps to fit any application.



* For Presses with an electric 230V pump, add an "A" to the end of the model number.

| Model Number Without Pump | * Model Number With Pump | Type of Cylinder | Cylinder Stroke (in) | Type of Pump | Pump Model | Operation | Speed (in/min) | | Weight With Pump (lbs) | Weight Without Pump (lbs) |
|---------------------------|--------------------------|------------------|----------------------|---------------|------------|----------------------------|----------------|----------|------------------------|---------------------------|
| | | | | | | | Advance | Pressing | | |
| IS1006 | IES1006 | R1006 S/A | 6.62 | Electric 115V | G4163 | Advance Hold Retract | 19 | 2.75 | 1558 | 1470 |
| IS10010 | IES10010 | R10010 S/A | 10.25 | | G4163 | | 19 | 2.75 | 1578 | 1490 |
| ID1006 | IED1006 | RDA1006 D/A | 6.06 | | G4173 | | 19 | 2.75 | 1620 | 1532 |
| ID10012 | IED10012 | RDA10012 D/A | 12 | | G4173 | | 19 | 2.75 | 1655 | 1567 |



ID15012 Shown

Capacity► 150 - 200 tons
 Stroke► 12 - 13 in.
 Maximum Pressure► 10,000 psi

- Large daylight with open sides for easy loading.
- Adjustable work bed with friction brake winch.
- Rigid frame under full load.
- IED Series comes with pendant control.
- Includes tonnage gauge.
- Presses ordered with pumps include remote pendant control and large 5 gallon reservoir.



THINK SAFETY

Please refer to pages 4&5 for a complete list of safety tips and recommendations.



GAUGES - page 77

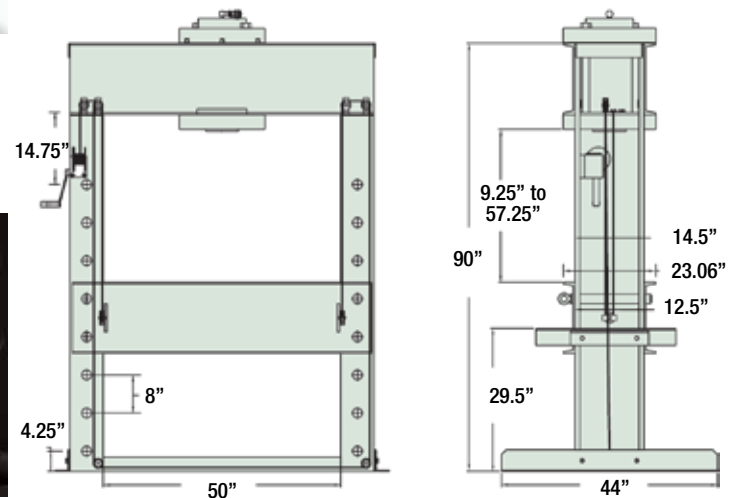
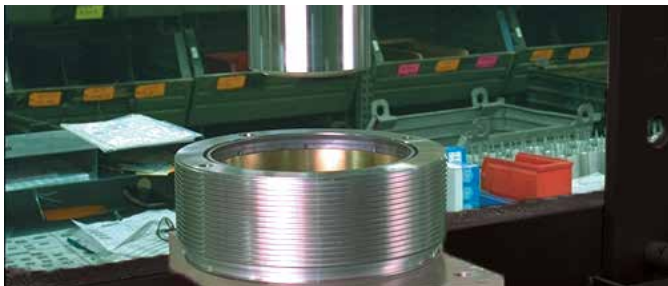
Improve your system visibility and safety by adding an inline hydraulic gauge to your circuit.

PUMP MOUNTING KIT

For Hand Pumps Model IM2
 Order #40959

For Power Pumps Model IM3
 Order #40960

Rail car repair shops are constantly faced with large jobs, these applications require a reliable and safe high tonnage press.▼



* For Presses with an electric 460V 3Ph pump, add an "A" to the end of the model number.

| Model Number Without Pump | * Model Number With Pump | Type of Cylinder | Cylinder Stroke (in) | Type of Pump | Pump Model | Operation | Speed (in/min) | | Weight With Pump (lbs) | Weight Without Pump (lbs) |
|---------------------------|--------------------------|------------------|----------------------|-------------------|------------|----------------------|----------------|----------|------------------------|---------------------------|
| | | | | | | | Advance | Pressing | | |
| ID15012 | IED15012 | RDA15012 D/A | 12 | Electric 230V 3Ph | G6375 | Advance Hold Retract | 20 | 4.5 | 3035 | 2839 |
| ID20013 | IED20013 | RDA20013 D/A | 13 | | | | 14 | 3.5 | 3180 | 2984 |

MECHANICAL JACKS



Multiple-toothed pawls provide greater contact with rack bar

Plated Springs Resist Corrosion

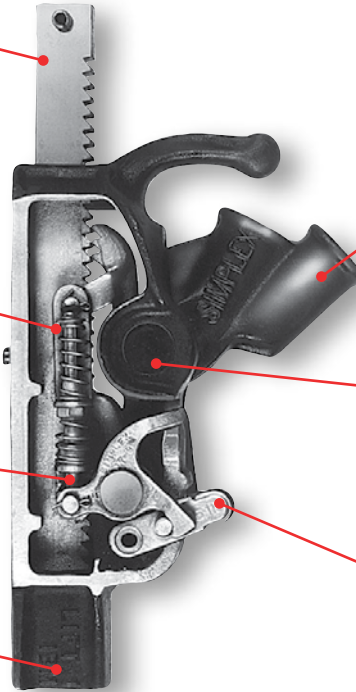
Adjustable Spring Links

Ductile iron housing for maximum strength

Double-lever sockets for changing handle angle

Replaceable Trunnion Bearings

Reversing Lever



Ratchet Model Jack Shown

PRODUCT LINE OVERVIEW

► The Industry Standard

With over a century of experience in designing and manufacturing mechanical jacks, Simplex is the undisputed market leader that has set the standard for high quality and reliability in the mechanical jack industry.

► The Widest Selection

Only Simplex can offer a full range of Ratchet Jacks, Screw Jacks, Superjacks, Push/Pull Jacks and Mine Roof Supports to fit a broad range of applications and use.

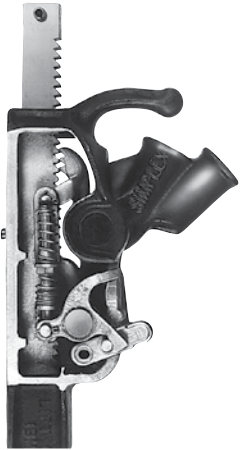
► Unsurpassed Quality

Simplex Jacks have proven to withstand the toughest application and use in today's market. Each Jack component is carefully inspected and assembled by highly skilled assemblers and tested to meet or exceed ANSI B30.1 Safety Standards.

► Value and Service

Simplex stands behind every mechanical jack we sell with a NO SMALL PRINT WARRANTY supported by our global network of Industrial Distributors and Authorized Service Centers.

Methods Of Mechanical Force



Ratchet Jacks

◀ *Ratcheting mechanism used to create leverage for movement.*



Screw Jacks

◀ *Mechanical advantage is gained by using a specialized Acme threaded screw.*

Points To Review When Selecting A Mechanical Jack

Determine the Proper Jack for your Application

Ratchet jacks are designed for lifting and positioning up to 15 tons. For higher tonnage applications, you should consider using our Superjacks for lifting and sustaining up to 50 tons. For all sustaining load applications, consider the screw jack as a suitable solution up to 24 tons.

Handle Effort

Reference each table within this section to determine the amount of handle effort required for an application. Each model number specifies the amount of force required per ton. Also consult your local codes, safety standards or contracts that may specify maximum allowable handle effort per user. Proper jack sizing is required to maintain reasonable handle effort.

Lift and Height of Jack

The available clearance under the load often determines which jack should be used. For the greatest versatility, select a jack that has the longest available stroke, but still fits under the load. The ratchet jack toe can be used in very low clearance situations where other products are not suited.

Travel Speed

Ratchet jacks provide greatest travel per stroke, but accommodate lighter loads. Superjacks provide greater lifting capacity with less movement per stroke.

Portability

If ease of portability is a factor, consider lightweight Ratchet Jack models: RJA1022, RJA1538, or Superjack models: JJA1510C, JJA2510C, JJA2515C, JJA3510D, JJA5010B.

Ratchet Jacks

Are ideal for mills and factory maintenance, oil fields, shipyards, farms, machinery riggers, construction contactors, mining operators, bridge and rail car repair and heavy-duty industrial maintenance. These are the most versatile, general-purpose jacks available. Rugged construction permits safe, efficient lifting, lowering, skidding, moving, sustaining and leveling with the important SIMPLEX feature that provides full lift capacity on the toe or on the cap.

**Super Jacks**

Are used for inspecting and renewing journal brasses, bridge, tank and structural steel erectors, presses, shipbuilding and all industries where powerful, all-position jacks are required. These jacks will hold the load indefinitely and offer heat treated, alloy steel forgings, bronze nuts, ball bearings, positive shoulder stops and high gear ratios. The ratchet mechanisms are fully enclosed to protect them from the elements.

**Screw Jacks**

Are suitable for house movers, leveling, supporting, shop and factory maintenance, riggers, locomotive repairs, drillers and farm applications. Malleable housings are lighter and unbreakable. A hardened, large chrome-moly ball floating cap centers the load automatically and reduces friction by 88%. The steel cap is constructed of corrugated, drop-forged steel with a self-leveling 9 degree float.

**Push-Pull Jacks**

Are essential for any maintenance repair or production work in all types of shops and field applications. Loadbinder Jacks are used on the construction of bridges and concrete and steel engineering projects. Gravity type pawl is used on boats and barges.

**Trench Braces & Roof Supports**

Are designed for putting up cross timbers and steel beams, aligning steel mine cars, a temporary prop in connection with loading equipment, pulling up and removing slack in power cables and pulling and pushing conveyor lines and controlling the tail piece.



MECHANICAL JACKS

RJ Series Ratchet Jacks

SIMPLEX



RJ84A, RJ85A, RJ1017 & RJ86A Shown

Capacity Range► 5 - 20 tons
Stroke Range► 7 - 21.25 in.
Maximum Toe Height Range► 1.62 - 2.25 in.

- Multiple-tooth pawls for strength & safety.
- Large base ensures a firm foundation.
- Drop-forged, alloy steel, heat-treated components.
- Plated springs to resist corrosion.
- Double-lever sockets for jacking in close quarters.
- The RJA1538 pole jack is designed for pole pulling applications. Chain and I-Beam are ordered separately.

THINK SAFETY



Please refer to pages 4&5 for a complete list of safety tips and recommendations.

CE COMPLIANT



Our Jack design specifications meet or exceed ANSI /ASME B30.1 Safety Standards.

CARRYING HANDLE



Carrying handles make the positioning and transporting of the 10, 15 and 20 ton ratchet jacks simple.



RJA1022

RJ22B

RJ24A

RJ2029



RJA1538
Pole Jack



IB1538
I-Beam Base



CHA1538
Alloy Chain

Its large lifting and holding capacity and heavy-duty housing, makes the RJ Series Jacks universal tools on any jobsite. ▼



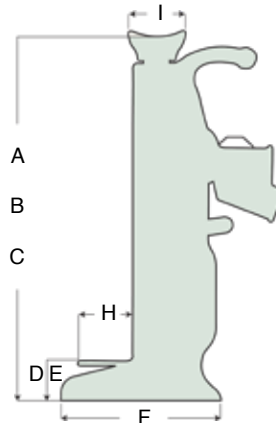
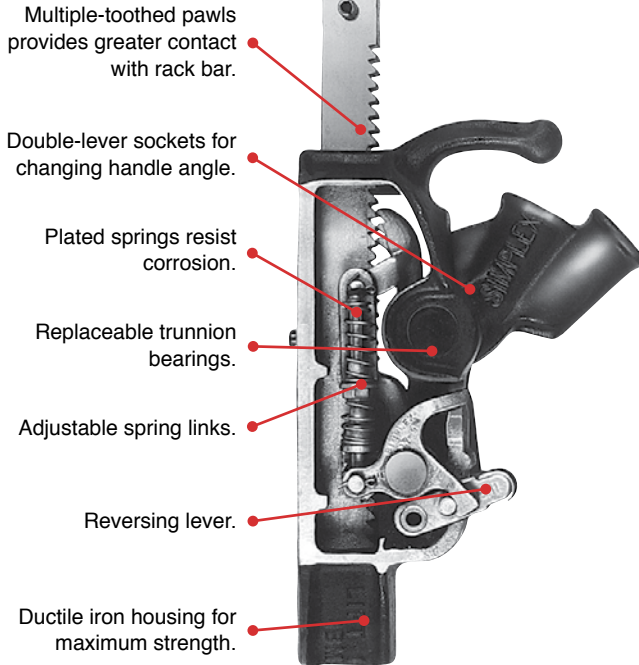
| Model | Jack Housing Material | Support Capacity (tons) | Lifting Capacity (tons) | Handle Effort per Ton (lbs) |
|---------|-----------------------|-------------------------|-------------------------|-----------------------------|
| RJ84A | Steel | 5 | 5 | 32 |
| RJ85A | | | | 32 |
| RJ86A | | | | 32 |
| RJ1017 | | 10 | 10 | 30 |
| RJ22B | | | | 30 |
| RJ24A | | 20 | 15 | 32 |
| RJ2029 | | | | 32 |
| RJA1022 | Aluminum | 10 | 10 | 30 |
| RJA1538 | | 15 | 8 | 32 |

RECOMMENDED LEVER BARS

Please refer to page 148 for additional details.

* Lever Bars Sold Separately

| Ratchet Jack Model | Lever Bar Model |
|--------------------|-----------------|
| <i>RJ84A</i> | SLB36 |
| <i>RJ85A</i> | SLB36 |
| <i>RJ86A</i> | SLB36 |
| <i>RJ1017</i> | SLB60 |
| <i>RJ22B</i> | SLB60 |
| <i>RJ24A</i> | SLB70 |
| <i>RJ2029</i> | SLB70 |
| <i>RJA1022</i> | SLB60 |
| <i>RJA1538</i> | SLB70 |



| Dimensions (in) | | | | | | | | | | Weight (lbs) | Model |
|-----------------|----------------|--------|--------------------|--------------------|-------------|------------|------------|------------|-----------|--------------|----------------|
| A | B | C | D | E | F | G | H | I | J | | |
| Minimum Height | Maximum Height | Stroke | Toe Minimum Height | Toe Maximum Height | Base Length | Base Width | Toe Length | Cap Length | Cap Width | | |
| 14 | 21 | 7 | 1.75 | 8.75 | 7.38 | 5 | 2.5 | 2.62 | 2.31 | 28 | <i>RJ84A</i> |
| 17 | 27 | 10 | 1.75 | 11.75 | 7.38 | 5 | 2.5 | 2.62 | 2.31 | 30 | <i>RJ85A</i> |
| 20 | 33 | 13 | 1.75 | 14.75 | 7.38 | 5 | 2.5 | 2.62 | 2.31 | 35 | <i>RJ86A</i> |
| 17.25 | 26.75 | 9.5 | 1.62 | 11.13 | 8.75 | 6 | 2.4 | 2.87 | 2.62 | 40 | <i>RJ1017</i> |
| 21.62 | 33.62 | 12 | 2 | 14 | 10.25 | 6.5 | 2.4 | 3 | 2.5 | 70 | <i>RJ22B</i> |
| 23.25 | 36 | 12.75 | 2.25 | 15 | 10.25 | 8 | 2.62 | 3.5 | 2.87 | 93 | <i>RJ24A</i> |
| 28 | 46 | 18 | 2.25 | 20.25 | 11 | 8 | 2.62 | 3.5 | 2.87 | 104 | <i>RJ2029</i> |
| 21.62 | 33.62 | 12 | 2 | 14 | 10.25 | 6.5 | 2.4 | 3 | 2.5 | 42 | <i>RJA1022</i> |
| 37.62 | 59.13 | 21.25 | --- | --- | 8.13 | 8.25 | --- | --- | --- | 62 | <i>RJA1538</i> |

MECHANICAL JACKS

CR Series – Reel Jacks

SIMPLEX



CR321B Shown

Capacity Range► 5 - 20 tons
Stroke Range► 9.5 - 14 in.
Minimum Height Range► 21 - 34.5 in.

- Double-lever sockets for jacking in close quarters.
- Multiple-tooth pawls for strength & safety.
- Drop-forged, alloy steel, heat-treated components.
- Adjustable spring links for added serviceability.
- Plated springs to resist corrosion.
- Precision machining throughout.
- Steel lever bars sold separately.

CARRYING HANDLES



Convenient center mounted carrying handle makes this jack easy to position and move.

LAMINATED BASE



Treated laminated hardwood base provides solid support along with durability.



CE COMPLIANT

Our Jack design specifications meet or exceed ANSI /ASME B30.1 Safety Standards.

The large wooden bases and low handle efforts on these Reel Jacks enhance safety and reduce operator fatigue. ▼



CR320B



CRA1029R



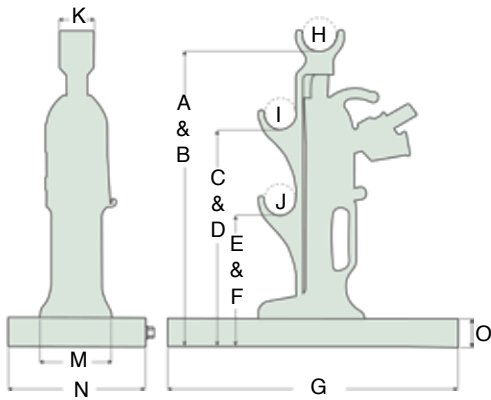
| Model | Capacity / Pair | | Handle Effort per Tons (lbs) | Stroke (in) | Dimensions (in) | | | | | |
|----------|----------------------|---------------------|------------------------------------|----------------|-------------------|-------------------|-------------------|----------------|----------------|----------------|
| | | | | | A | B | C | C ¹ | C ² | C ³ |
| | Side Hooks (tons) | Top Hooks (tons) | | | Minimum Height | Maximum Height | Minimum Height | | | |
| CR320B | 5 | 10 | 72 | 9.5 | 20.75 | 30.25 | 15.25 | --- | --- | --- |
| CR321B | 10 | 20 | 48 | 14 | 34.50 | 48.50 | 9.25 | 15.63 | 22.00 | 28.38 |
| CRA1029R | | | 40 | 11.63 | 31.13 | 42.75 | 24.87 | --- | --- | --- |
| CRA1029L | | | | 11.63 | 31.13 | 42.75 | 24.87 | --- | --- | --- |

RECOMMENDED LEVER BARS

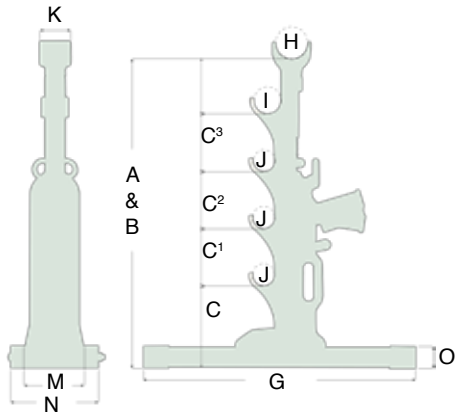
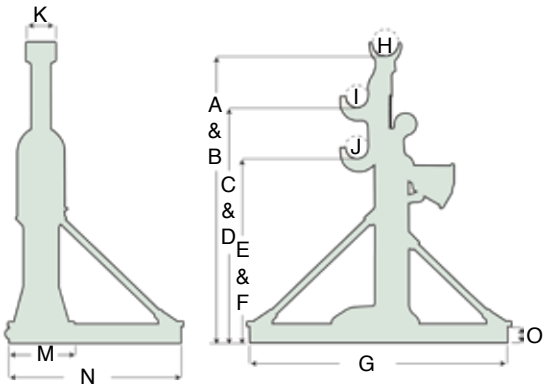
Please refer to page 148 for additional details.

* Lever Bars Sold Separately

| Reel Jack Model | Lever Bar Model |
|-----------------|-----------------|
| CR320B | SLB36 |
| CR321B | SLB60 |
| CRA1029R | SLB60 |
| CRA1029L | SLB60 |

CR320B

◀ Two CR321B Reel Jacks are used to support this cable spool for line feeding.

CR321B**CRA1029R & CRA1029L**

| Dimensions (in) | | | | | | | | | | | Weight (lbs) | Model |
|-----------------|---------|---------|--------|----------|----------|----------|-------|--------|-------|--------|--------------|-----------------|
| D | E | F | G | H | I | J | K | M | N | O | | |
| Maximum | Minimum | Maximum | Length | Diameter | Diameter | Diameter | Width | Length | Width | Height | | |
| 24.75 | 9.25 | 18.75 | 20.38 | 2.62 | 2.25 | 2.25 | 2.38 | 5.00 | 9.38 | 2.00 | 51 | CR320B |
| --- | --- | --- | 30.37 | 3.63 | 3.00 | 2.38 | 3.50 | 6.50 | 9.75 | 2.50 | 125 | CR321B |
| 36.50 | 18.87 | 30.50 | 30.00 | 3.12 | 2.62 | 2.62 | 3.50 | 6.62 | 7.50 | 2.25 | 86 | CRA1029R |
| 36.50 | 18.87 | 30.50 | 30.00 | 3.12 | 2.62 | 2.62 | 3.50 | 6.62 | 7.50 | 2.25 | 86 | CRA1029L |

MECHANICAL JACKS

CJ Series Rack Jacks

SIMPLEX



CJ15 & CJ100 Shown

Capacity Range► 1.65 - 11.13 tons

Stroke Range► 13.78 in.

Minimum Height Range► 28.54 in.

- Developed in accordance with the latest safety regulations.
- Suitable for lifting loads of any type.
- The jack is rated for full capacity at both the head and toe lifts.
- Lifting with either fixed toe or on clawed head.
- Low expenditure of force through optimal ratio.



FOLDING HANDLE

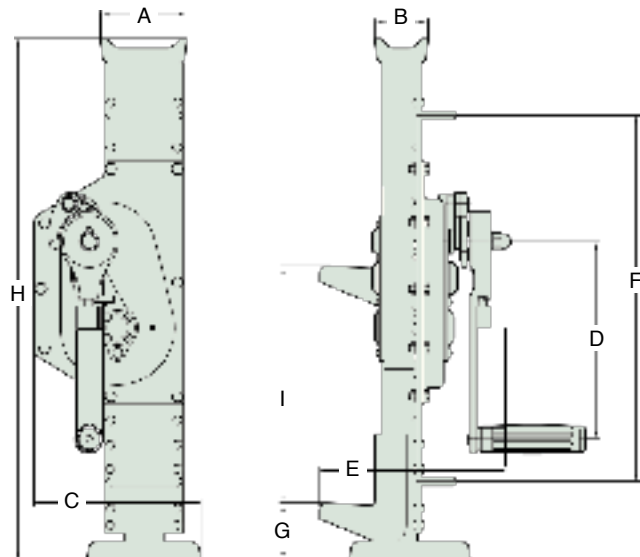
Safety crank with folding handle.



CE COMPLIANT

Our Jack design specifications meet or exceed ANSI /ASME B30.1 Safety Standards.

Here a CJ100 is used to position this cargo container for repair. Its solid base provides greater stability and more surface area. ▼



| Model | Head/Toe Capacity (tons) | Dimensions (in) | | | | | | | | | Weight (lbs) |
|--------------|--------------------------|-----------------|-------|-------|--------|-------|--------|--------|----------------|--------|--------------|
| | | A | B | C | D | E | F | G | H | I | |
| | | Width | Depth | Width | Length | Depth | Length | Height | Minimum Height | Stroke | |
| CJ15 | 1.65 | 3.54 | 1.97 | 5.94 | 9.84 | 7.95 | 20.67 | 2.56 | 28.54 | 13.78 | 29.76 |
| CJ30 | 3.31 | 3.94 | 1.97 | 8.03 | 9.84 | 8.39 | 20.67 | 2.76 | 28.54 | 13.78 | 48.50 |
| CJ50 | 5.51 | 4.33 | 2.68 | 8.31 | 9.84 | 9.29 | 20.67 | 2.76 | 28.54 | 13.78 | 61.72 |
| CJ100 | 11.13 | 5.51 | 2.76 | 10.12 | 11.81 | 11.69 | 23.23 | 3.15 | 31.50 | 13.78 | 101.41 |



LPC30 & LPC100 Shown

Capacity Range► 1.65 - 11.13 tons
 Stroke Range► 11.81 - 13.78 in.
 Minimum Height► 28.50 in.

- Low body height.
- Milled rack, geared wheels and tempered gears.
- Suitable for lifting loads of any type.
- Safety crank with folding handle.
- Low expenditure of force through optimal ratio.
- Lifting with either fixed toe or clawed head.
- All construction components standardized.

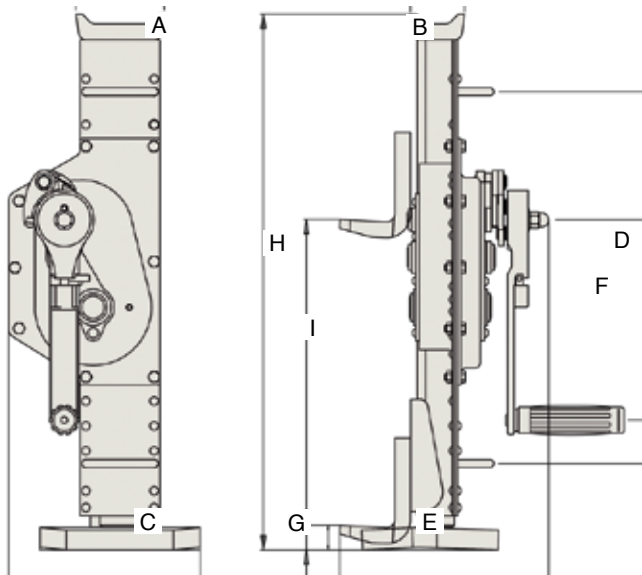


CE COMPLIANT
 Our Jack design specifications meet or exceed ANSI /ASME B30.1 Safety Standards.



THINK SAFETY
 Please refer to pages 4&5 for a complete list of safety tips and recommendations.

The LPC50 is used to lift this concrete slab. The head and toe capacity along with its mobility, makes the Rack Jacks ideal for various applications. ▼



| Model | Head/Toe Capacity (tons) | Dimensions (in) | | | | | | | | | Weight (lbs) |
|--------|--------------------------|-----------------|-------|-------|--------|-------|--------|--------|----------------|--------|--------------|
| | | A | B | C | D | E | F | G | H | I | |
| | | Width | Depth | Width | Length | Depth | Length | Height | Minimum Height | Stroke | |
| LPC15 | 1.65 | 3.54 | 1.97 | 6.54 | 20.67 | 8.58 | 9.84 | 1.18 | 28.50 | 13.78 | 35.27 |
| LPC30 | 3.31 | 3.94 | 1.97 | 8.54 | 20.67 | 9.21 | 9.84 | 1.18 | 28.86 | 13.78 | 55.12 |
| LPC50 | 5.51 | 4.33 | 2.68 | 9.41 | 20.67 | 10.24 | 9.84 | 1.18 | 28.74 | 11.81 | 70.55 |
| LPC100 | 11.13 | 5.51 | 2.76 | 11.57 | 23.23 | 12.56 | 11.81 | 1.38 | 31.57 | 11.81 | 121.25 |

MECHANICAL JACKS

PP Series — Push / Pull Jacks

SIMPLEX

PP610 Shown



PP61015 Shown



Centered Capacity► 10 tons

Weight► 5 - 13 lbs.

Screw Diameter► 1.25 in.

- Used for pushing, pulling, holding and more.
 - Ideal for weld shops.
 - End nuts are designed to permit the use of chains with eye hooks.
- Suitable for adjusting forms, dampers, fixtures and flues.
- Incorporates 1.25-6 ACME 2G Class, right and left hand.

THINK SAFETY

Please refer to pages 4&5 for a complete list of safety tips and recommendations.



CE COMPLIANT

Our Jack design specifications meet or exceed ANSI /ASME B30.1 Safety Standards.

A Simplex PP610 is used to separate these I-Beams for proper bridge repair operation and maintenance. ▼

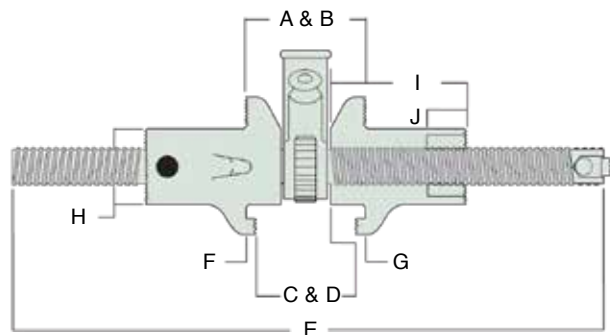


RECOMMENDED LEVER BARS

Please refer to page 148 for additional details.

* Lever Bars Sold Separately

| Push/Pull Jack Model | Lever Bar Model |
|----------------------|-----------------|
| PP610 | SLB24 |
| PP61015 | SLB24 |



| Model | Dimensions (in) | | | | | | | | | |
|---------|-----------------|---------|---------|---------|--------|--------|--------|--------|--------|--------|
| | A | B | C | D | E | F | G | H | I | J |
| | Minimum | Maximum | Minimum | Maximum | Length | Length | Length | Length | Length | Length |
| PP610 | 3.38 | 8.13 | 2.87 | 7.62 | 10 | .31 | .31 | 2.38 | 3.19 | 1.25 |
| PP61015 | ---- | ---- | ---- | ---- | 10 | ---- | ---- | ---- | ---- | ---- |

| Model | Centered Capacity (tons) | Hook/Toe Offset Load Capacity (tons) | Travel (in) | Handle Effort per ton (lbs) | Screw Diameter (in) | Weight (lbs) |
|---------|--------------------------|--------------------------------------|-------------|-----------------------------|---------------------|--------------|
| PP610 | 10 | 2 | 4.5 | 15 | 1.25 | 13 |
| PP61015 | 10 | 2 | ---- | 15 | 1.25 | 5 |



JJA2515C, JJ2510C Shown

Capacity Range► 15 - 50 tons

Stroke Range► 4 - 9 in.

Minimum Height► 10.25 - 15 in.

- Ratcheting screw jack design.
- Holds the load indefinitely, and will not creep down.
- Positive shoulder stop for safety.
- Available with aluminum or ductile iron housing.
- Ball bearings for smooth operation and low handle effort.



CE COMPLIANT

Our Jack design specifications meet or exceed ANSI /ASME B30.1 Safety Standards.



REVERSAL RATCHET

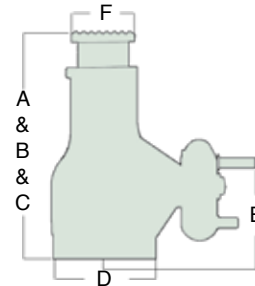
Raise or lower the load precisely with the reversal ratchet socket with quick spin handle.

RECOMMENDED LEVER BARS

Please refer to page 148 for additional details.

* Lever Bars Sold Separately

| Super Jack Model | Lever Bar Model |
|------------------|-----------------|
| JJ2510C | SLB36 |
| JJ3510D | SLB36 |
| JJ5010B | SLB56 |
| JJA1510C | SLB36 |
| JJA2510C | SLB36 |
| JJA2515C | SLB36 |
| JJA3510D | SLB36 |
| JJA5010B | SLB56 |



| Model | Jack Housing Material | Capacity (tons) | Dimensions (in) | | | | | | Handle Effort Per Ton (lbs) | Weight (lbs) |
|-----------------|-----------------------|-----------------|-----------------|----------------|--------|---------------|--------|--------------|-----------------------------|--------------|
| | | | A | B | C | D | E | F | | |
| | | | Minimum Height | Maximum Height | Stroke | Base Diameter | Socket | Cap Diameter | | |
| JJ2510C | Steel | 25 | 10.25 | 15.25 | 5 | 5.5 | 7.5 | 3.13 | 6 | 43 |
| JJ3510D | | 35 | 10.25 | 15.25 | 5 | 5.5 | 7.5 | 3.13 | 6 | 44 |
| JJ5010B | | 50 | 10.31 | 14.31 | 4 | 7.25 | 8.81 | 3.93 | 4 | 80 |
| JJA1510C | Aluminum | 15 | 10.25 | 15.25 | 5 | 5.5 | 7.5 | 2.38 | 6 | 38 |
| JJA2510C | | 25 | 10.25 | 15.25 | 5 | 5.5 | 7.5 | 3.13 | 6 | 34 |
| JJA2515C | | 25 | 14.87 | 23.87 | 9 | 5.5 | 7.5 | 3.13 | 6 | 43 |
| JJA3510D | | 35 | 10.25 | 15.25 | 5 | 5.5 | 7.5 | 3.13 | 5 | 34 |
| JJA5010B | | 50 | 10.31 | 14.31 | 4 | 7.25 | 8.81 | 3.93 | 4 | 61 |

MECHANICAL JACKS

SJ Series — Screw Jacks

SIMPLEX



Mechanical Screw Jack Family Shown

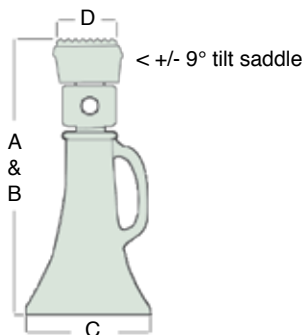
Capacity Range► 12 - 24 tons
 Stroke Range► 3.75 - 14.25 in.
 Minimum Height► 9.62 - 23 in.

- Positive welded stop for safety.
- Supports loads indefinitely, and will not creep down.
- Carry handle for ease of transport.
- Four holes for easy positioning of lever bar.
- 9° tilt saddle assists in centering load point.



CE COMPLIANT

Our Jack design specifications meet or exceed ANSI /ASME B30.1 Safety Standards.



RECOMMENDED LEVER BARS

Please refer to page 148 for additional details.

* Lever Bars Sold Separately

| Screw Jack Model | Lever Bar Model |
|------------------|-----------------|
| <i>SJ156</i> | SLB24 |
| <i>SJ158</i> | SLB24 |
| <i>SJ1512</i> | SLB24 |
| <i>SJ208</i> | SLB35 |
| <i>SJ2010</i> | SLB35 |
| <i>SJ2012</i> | SLB35 |
| <i>SJ258</i> | SLB42 |
| <i>SJ2512</i> | SLB42 |
| <i>SJ2518</i> | SLB42 |

| Model | Sustaining Capacity (tons) | Dimensions (in) | | | | Handle Effort Per Ton (lbs) | Weight (lbs) |
|---------------|----------------------------|-----------------|--------|---------------|--------------|-----------------------------|--------------|
| | | A | B | C | D | | |
| | | Closed Height | Stroke | Base Diameter | Cap Diameter | | |
| <i>SJ156</i> | 12 | 9.63 | 3.75 | 4.75 | 2.88 | 15 | 10 |
| <i>SJ158</i> | | 11.63 | 5.75 | 5.5 | 2.88 | 15 | 12 |
| <i>SJ1512</i> | | 15.75 | 9.75 | 6.25 | 2.88 | 15 | 16 |
| <i>SJ208</i> | 20 | 11.88 | 5 | 6 | 3.13 | 15 | 17 |
| <i>SJ2010</i> | | 13.75 | 7 | 6.5 | 3.13 | 15 | 20 |
| <i>SJ2012</i> | | 15.75 | 9 | 6.75 | 3.13 | 15 | 24 |
| <i>SJ258</i> | 24 | 13 | 4.25 | 6.5 | 3.25 | 15 | 28 |
| <i>SJ2512</i> | | 17 | 8.25 | 7.25 | 3.25 | 15 | 37 |
| <i>SJ2518</i> | | 23 | 14.25 | 8.5 | 3.25 | 15 | 52 |



SCN15 & SC156 Shown

Sustaining Capacity► 12 - 24 tons

Thread Pitch Range.....► 1.5 - 3 in.

Weight Range.....► 5.5 - 29.25 lbs.

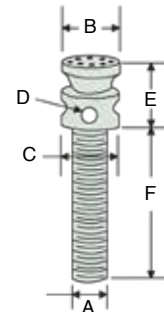
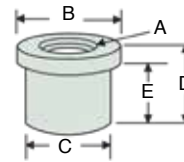
- Holds the load indefinitely without creep down.
- The shoulder nut is placed into piping or other fixed form, and the screw & cap assembly is threaded through it.

RECOMMENDED LEVER BARS

Please refer to page 148 for additional details.

* Lever Bars Sold Separately

| Screw Jack Model | Lever Bar Model |
|------------------|-----------------|
| <i>SJ156</i> | <i>SLB24</i> |
| <i>SJ158</i> | <i>SLB24</i> |
| <i>SJ1512</i> | <i>SLB24</i> |
| <i>SJ208</i> | <i>SLB35</i> |
| <i>SJ2010</i> | <i>SLB35</i> |
| <i>SJ2012</i> | <i>SLB35</i> |
| <i>SJ258</i> | <i>SLB42</i> |
| <i>SJ2512</i> | <i>SLB42</i> |
| <i>SJ2518</i> | <i>SLB42</i> |



| Model | Sustaining Capacity (tons) | Dimensions (in) | | | | | | Weight (lbs) |
|---------------|----------------------------|--|-------|------|----------|--------|-------|--------------|
| | | A | B | C | D | E | F | |
| | | Modified Acme Thread Diameter - Pitch A (Thread) | Width | | Diameter | Height | | |
| SC156 | 12 | 1.5 - 3 | 2.87 | 2.25 | .87 | 3.75 | 5.68 | 5.5 |
| SC158 | | 1.5 - 3 | 2.87 | 2.25 | .87 | 3.75 | 7.68 | 6.25 |
| SC1512 | | 1.5 - 3 | 2.87 | 2.25 | .87 | 3.75 | 11.68 | 7.75 |
| SC208 | 20 | 2 - 2.5 | 3.13 | 2.87 | .93 | 4 | 7.56 | 10.5 |
| SC2010 | | 2 - 2.5 | 3.13 | 2.87 | .93 | 4 | 9.56 | 12 |
| SC2012 | | 2 - 2.5 | 3.13 | 2.87 | .93 | 4 | 11.56 | 13.5 |
| SC258 | 24 | 2.5 - 2.5 | 3.25 | 3.25 | 1.81 | 5 | 7.81 | 16.75 |
| SC2512 | | 2.5 - 2.5 | 3.25 | 3.25 | 1.81 | 5 | 11.86 | 21.75 |
| SC2518 | | 2.5 - 2.5 | 3.25 | 3.25 | 1.81 | 5 | 17.81 | 29.25 |
| Shoulder Nuts | | | | | | | | |
| SCN15 | --- | 1.5 - 3 | 3 | 2.41 | 3 | 2.25 | --- | 3.25 |
| SCN20 | --- | 2 - 2.5 | 4 | 3 | 3.25 | 2.25 | --- | 5 |
| SCN25 | --- | 2.5 - 2.5 | 5 | 3.93 | 4 | 3 | --- | 11 |

MECHANICAL JACKS

44 Series Tank Jacks

SIMPLEX



Tank Jack Family Shown

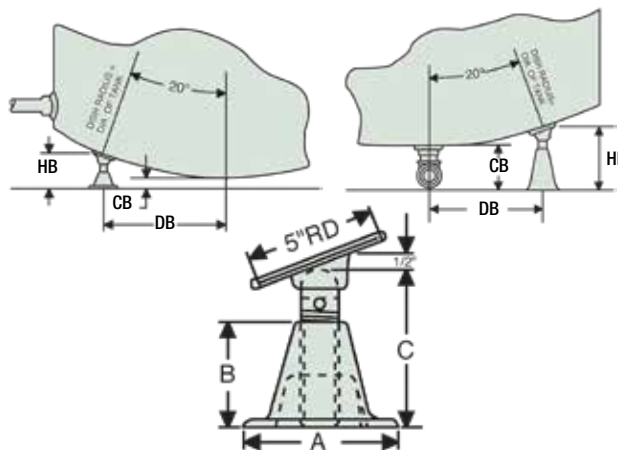
Capacity► 7.5 tons

Stroke► 2 in.

Minimum Height► 6 - 18 in.

- Supports and levels verticle, bottom, or side opening filter and storage tanks.
- Rated capacity for all models is 15,000 lbs.
- Screw operation provides infinite adjustment for exact tank leveling and gravity flow.

| Model | Order Number | Base Dia. "A" (in) | Base Height "B" (in) | Min. Height "C" (in) | Max. Height "C" (in) | Weight (lbs) |
|--------|--------------|--------------------|----------------------|----------------------|----------------------|--------------|
| 4406 | 03820 | 5.75 | 4 | 6 | 8 | 10 |
| 4410 | 03840 | 6 | 8 | 10 | 12 | 12 |
| 4414 | 03860 | 6.5 | 12 | 14 | 16 | 17 |
| 4418 | 03880 | 8 | 16 | 18 | 20 | 26 |
| Saddle | | | | | | |
| 4846 | 03993 | ----- | ----- | ----- | ----- | 2.5 |



Use the installation data charts, with accompanying drawings, to determine the size and number of jacks your application will require.

| Model | Tank Dia. (ft-in) | Pipe Dia. (in) | “DB” (in) | “HB” (in) | “CB” (in) | Quantity Required | |
|---------------------------|----------------------|-------------------|--------------|--------------|--------------|-------------------|-------------|
| | | | | | | Under 12 Ft. | Over 12 Ft. |
| For Side Pipe Connections | | | | | | | |
| 4406 | 3-6 | --- | 14 | 6.5 | 4 | 4 | 4 |
| 4406 | 4-0 | --- | 16 | 6.38 | 3.5 | 4 | 4 |
| 4406 | 4-6 | --- | 18 | 6.75 | 3.5 | 4 | 4 |
| 4406 | 5-0 | --- | 20 | 7.13 | 3.5 | 4 | 4 |
| 4406 | 5-6 | --- | 22 | 7.5 | 3.5 | 4 | 4 |
| 4406 | 6-0 | --- | 24 | 6 | 1.5 | 4 | 4 |
| 4406 | 6-6 | --- | 26 | 6.13 | 1.5 | 4 | 4 |
| 4406 | 7-0 | --- | 28 | 6.5 | 1.5 | 4 | 6 |
| 4406 | 7-6 | --- | 30 | 6.87 | 1.5 | 4 | 6 |
| 4406 | 8-0 | --- | 32 | 7.25 | 1.5 | 6 | 8 |
| 4406 | 8-6 | --- | 34 | 7.62 | 1.5 | 6 | 8 |
| 4406 | 9-0 | --- | 36 | 8 | 1.5 | 6 | 8 |
| 4410 | 9-6 | --- | 38 | 10.38 | 3.5 | 8 | 8 |
| 4410 | 10-0 | --- | 42 | 10.75 | 3.5 | 8 | 8 |

| Model | Tank Dia. (ft-in) | Pipe Dia. (in) | "DB" (in) | "HB" (in) | "CB" (in) | Quantity Required | |
|-----------------------------|----------------------|-------------------|--------------|--------------|--------------|-------------------|-------------|
| | | | | | | Under 12 Ft. | Over 12 Ft. |
| For Bottom Pipe Connections | | | | | | | |
| 4410 | 3-6 | 2 | 14 | 10.5 | 8 | 4 | 4 |
| 4410 | 4-0 | 2.5 | 16 | 11.87 | 9 | 4 | 4 |
| 4410 | 4-6 | 2.5 | 18 | 12.25 | 9 | 4 | 4 |
| 4414 | 5-0 | 2.5 | 20 | 14.62 | 11 | 4 | 4 |
| 4414 | 5-6 | 2.5 | 22 | 15 | 11 | 4 | 4 |
| 4414 | 6-0 | 3 | 24 | 16.38 | 12 | 4 | 4 |
| 4414 | 6-6 | 3 | 26 | 14.62 | 10 | 4 | 4 |
| 4418 | 7-0 | 4 | 28 | 18.25 | 13.25 | 4 | 6 |
| 4418 | 7-6 | 4 | 30 | 18.62 | 13.25 | 4 | 6 |
| 4418 | 8-0 | 4 | 32 | 19 | 13.25 | 6 | 8 |
| 4418 | 8-6 | 5 | 35 | 20 | 14 | 6 | 8 |
| 4418 | 9-0 | 5 | 37 | 19.5 | 13 | 6 | 8 |
| 4418 | 9-6 | 5 | 39 | 20 | 13 | 8 | 8 |
| 4418 | 10-0 | 6 | 41 | 21 | 14 | 8 | 8 |



Capacity► 20 tons
 Travel Range► 14 - 38 in.
 Barrel Range► 18 - 42 in.
 Weight► 57 - 92 lbs.

- 20 ton capacity models are used for connecting river barges, pulling forms and steel plates.
- Ideal for bridge construction and steel engineering projects.
- Equipped with spring activated pawl and 26 in. integrated handle.
- Can be used in “push” or “pull” applications.

SER20 & SER30 Shown

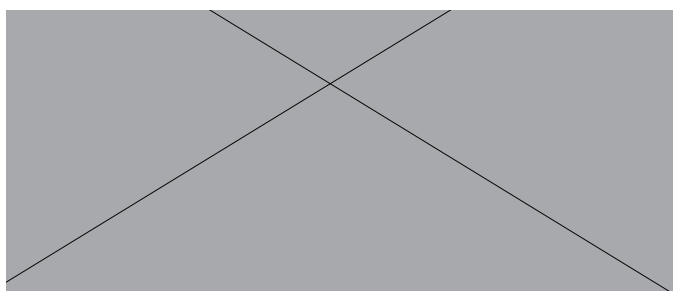

CE COMPLIANT

Our Jack design specifications meet or exceed ANSI /ASME B30.1 Safety Standards.


THINK SAFETY

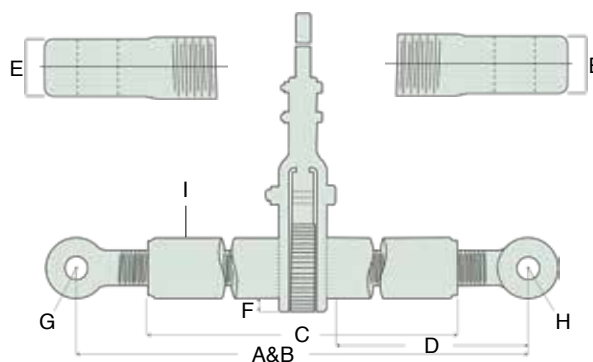
Please refer to pages 4&5 for a complete list of safety tips and recommendations.

The Loadbinder Jack was used to tie in the sections of this platform. ▼



Left Side View

Right Side View



| Model | Travel Length (in) | Screw Diameter (in) | Dimensions (in) | | | | | | | | | Weight (lbs) |
|-------|--------------------|---------------------|-----------------|---------|---------------|---------------------------|----------------------------------|-----------------------|---------------------------------------|--------|------------------------------|--------------|
| | | | A | B | C | D | E | F | G | H | I | |
| | | | Eye to Eye | | Barrel Length | Left / Right Screw Length | Left / Right Screw Eye Thickness | Ratchet Socket Length | Inner Diameter Left / Right Screw Eye | Radius | Pipe Barrel Outside Diameter | |
| | | | Minimum | Maximum | | | | | | | | |
| SER10 | 14 | 2 | 23 | 37 | 18 | 11 | 1.87 | .75 | 1.31 | 1.75 | 3.5 | 57 |
| SER20 | 20 | 2 | 29 | 49 | 24 | 14 | 1.87 | .75 | 1.31 | 1.75 | 3.5 | 66 |
| SER30 | 26 | 2 | 35 | 61 | 30 | 17 | 1.87 | .75 | 1.31 | 1.75 | 3.5 | 74 |
| SER40 | 38 | 2 | 47 | 85 | 42 | 23 | 1.87 | .75 | 1.31 | 1.75 | 3.5 | 92 |

MECHANICAL JACKS

PJ Series Planer Jacks

SIMPLEX



PJ1P, PJ2P, PJ3P & PJ4P Shown

Sustaining Capacity► 2 - 8 tons
Weight► 1.5 - 12 lbs.
Operable Rise► 1 - 4 in.

- Side locking screw keeps the jack extended and prevents lowering due to vibration.
- Screw operation provides countless adjustments for exact leveling.
- Ideal jack for leveling plane beds, millers and machinery.
- Ball and socket cap swivels to center load forces.
- Notched base fastens easily to machine beds.

THINK SAFETY



Please refer to pages 4&5 for a complete list of safety tips and recommendations.

LOAD CAP



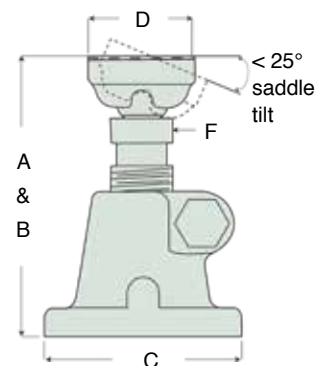
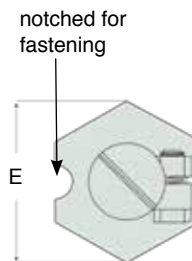
Slotted load cap prevents the load from possible slippage with inline applications.



CE COMPLIANT

Our Jack design specifications meet or exceed ANSI /ASME B30.1 Safety Standards.

The notched base and swivel socket cap makes the versatile Planer Jack the perfect choice for repair & maintenance. ▼



| Model | Sustaining Capacity (tons) | Operable Rise (in) | Dimensions (in) | | | | | | Weight (lbs) |
|-------|----------------------------|--------------------|-----------------|----------------|--------------|--------------|---------------|------------------|--------------|
| | | | A | B | C | D | E | F | |
| | | | Minimum Height | Maximum Height | Across Flats | Cap Diameter | Across Points | Hex Across Flats | |
| PJ1P | 2 | 1 | 2.75 | 3.75 | 2.38 | 1.25 | 2.75 | .75 | 1.5 |
| PJ2P | 4 | 1.5 | 3.75 | 5.25 | 3.13 | 1.68 | 3.62 | 1 | 3 |
| PJ3P | 6 | 2.25 | 5.25 | 7.5 | 4 | 2.06 | 4.62 | 1.25 | 6 |
| PJ4P | 8 | 4 | 7.5 | 11.5 | 5.38 | 2.5 | 6.19 | 1.5 | 12 |



S3A Shown

Sustaining Capacity► 3 tons
Operable Rise► 1 in.
Weight► 3.3 lbs.

- Perfect for close quarters and tight spaces.
- Supports 3 tons and has a 1 in. stroke for adjustments.
- Closed height of 3 in.
- Serrated cap rotates and prevents load slippage.



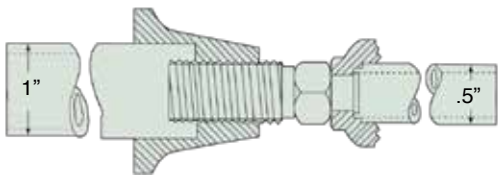
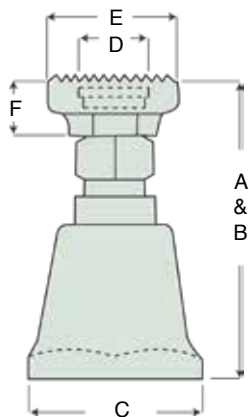
CE COMPLIANT

Our Jack design specifications meet or exceed ANSI /ASME B30.1 Safety Standards.



LOAD CAP

Steel serrated load cap prevents the load from possible slippage.



▲ The spreader jack can easily be extended by fitting a .5 in. diameter pipe in the cap well and a 1 in. diameter pipe in the housing well.

The S3A, with its low profile and small footprint was the perfect solution to level the bed of this milling machine. ▼



| Model | Sustaining Capacity (tons) | Operable Rise (in) | Dimensions (in) | | | | | | Weight (tons) |
|-------|----------------------------|--------------------|-----------------|----------------|------|---------------|-----------|------------|---------------|
| | | | A | B | C | D | E | F | |
| | | | Minimum Height | Maximum Height | Base | Well Diameter | Cap Width | Cap Height | |
| S3A | 3 | 1 | 3 | 4 | 2 | .84 | 1.5 | .68 | 3.25 |

MECHANICAL JACKS

RS Series — Roof Support

SIMPLEX



09618, RS139AS78114 Shown

Stroke► 20 - 38 in.
Minimum Height► 66 - 78 in.
Maximum Height► 102 - 114 in.

- The 9225A family is a ratcheting style roof support rated at 4 tons sustaining capacity.
- The 139A family is a screw extension type roof support rated at 5 tons sustaining capacity.
- Aluminum alloy housing and base makes this unit light-weight and portable (A9225 Family).
- Holds the load indefinitely without creep down.

THINK SAFETY



Please refer to pages 4&5 for a complete list of safety tips and recommendations.



CE COMPLIANT

Our Jack design specifications meet or exceed ANSI /ASME B30.1 Safety Standards.



CARRYING HANDLE

Integrated welded handle for ease of transport and positioning.

HEAD STYLES



E Type Head

For all standard work.
Dimension between flanges: 8.13"



F Type Head

For use with electrical wiring. Dimension between flanges: 10.25"



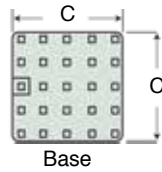
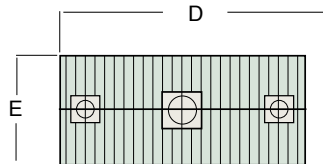
S Type Head

36 square inches in support area.

This RS Series Roof Support was used to support a horizontal I-Beam while weld work was being done on the verticle I-Beam. ▼

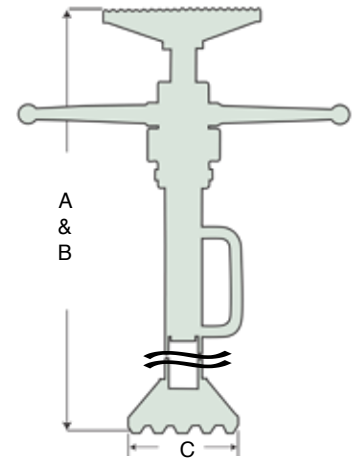
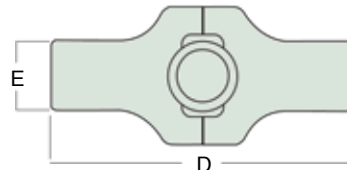


S Style Head



Base

E & F Style Head



| Dimensions (in) | | | | | | | | |
|--|--------------|-------------|---------------------|---------------------|-----------|------------------|-----------------|--------------|
| Model | Order Number | Stroke (in) | A | B | C | D | E | Weight (lbs) |
| | | | Minimum Height (in) | Maximum Height (in) | Base (in) | Head Length (in) | Head Width (in) | |
| Complete Unit Ratchet Lever Series - A9225 Family | | | | | | | | |
| E | 09602 | 20 | 39 | 59 | 7.38 | 8.13 | 2 | 29 |
| F | 09603 | 20 | 39 | 59 | 7.38 | 10.25 | 2 | 29 |
| S | 09620 | 20 | 39 | 59 | 7.38 | 9 | 4 | 29 |
| E | 09606 | 26 | 45 | 71 | 7.38 | 8.13 | 2 | 33 |
| F | 09607 | 26 | 45 | 71 | 7.38 | 10.25 | 2 | 33 |
| S | 09621 | 26 | 45 | 71 | 7.38 | 9 | 4 | 33 |
| E | 09610 | 38 | 57 | 95 | 7.38 | 8.13 | 2 | 36 |
| F | 09611 | 38 | 57 | 95 | 7.38 | 10.25 | 2 | 36 |
| S | 09622 | 38 | 57 | 95 | 7.38 | 9 | 4 | 36 |
| E | 09614 | 38 | 69 | 107 | 7.38 | 8.13 | 2 | 39 |
| F | 09615 | 38 | 69 | 107 | 7.38 | 10.25 | 2 | 39 |
| S | 09623 | 38 | 69 | 107 | 7.38 | 9 | 4 | 39 |
| E | 09616 | 38 | 75 | 113 | 7.38 | 8.13 | 2 | 42 |
| F | 09617 | 38 | 75 | 113 | 7.38 | 10.25 | 2 | 42 |
| S | 09624 | 38 | 75 | 113 | 7.38 | 9 | 4 | 42 |
| E | 09618 | 38 | 88 | 126 | 7.38 | 8.13 | 2 | 48 |
| F | 09619 | 38 | 88 | 126 | 7.38 | 10.25 | 2 | 48 |
| S | 09625 | 38 | 88 | 126 | 7.38 | 9 | 4 | 48 |
| Complete Unit Screw Extension Series - 139A Family | | | | | | | | |
| E | 09802 | 24 | 42 | 66 | 6 | 8.13 | 2 | 50 |
| F | 09803 | 24 | 42 | 66 | 6 | 10.25 | 2 | 50 |
| S | 09820 | 24 | 42 | 66 | 6 | 9 | 4 | 50 |
| E | 09806 | 30 | 48 | 78 | 6 | 8.13 | 2 | 52 |
| F | 09807 | 30 | 48 | 78 | 6 | 10.25 | 2 | 52 |
| S | 09821 | 30 | 48 | 78 | 6 | 9 | 4 | 52 |
| E | 09814 | 36 | 66 | 102 | 6 | 8.13 | 2 | 58 |
| F | 09815 | 36 | 66 | 102 | 6 | 10.25 | 2 | 58 |
| S | RS139AS66102 | 36 | 66 | 102 | 6 | 9 | 4 | 58 |
| E | 09818 | 36 | 78 | 114 | 6 | 8.13 | 2 | 64 |
| F | 09819 | 36 | 78 | 114 | 6 | 10.25 | 2 | 64 |
| S | RS139AS78114 | 36 | 78 | 114 | 6 | 9 | 4 | 64 |

MECHANICAL JACKS

RS Series — Roof Support Base & Head Assembly

SIMPLEX



Head Assembly
Model 09267



Base Assembly
Model 09220

Stroke► 15 in.

Sustaining Capacity► 8 - 16 tons

Maximum Extended Height► 73 - 93 in.

Maximum pipe length recommendations are based upon the following conditions:

- Fully extended assemblies loaded to maximum rated capacity.
- All models incorporate a lever nut handle.
- The 8 ton models are available with either FS or S style heads.
- The 16 ton model is available with FS style head only.
- Head and base securely fixed to prevent lateral movement.
- A round base (ordered separately) is available to fit the 2" pipe.

THINK SAFETY



Please refer to pages 4&5 for a complete list of safety tips and recommendations.



CE COMPLIANT

Our Jack design specifications meet or exceed ANSI /ASME B30.1 Safety Standards.

HEAD STYLES



S Type Head
36 square inches in support area.

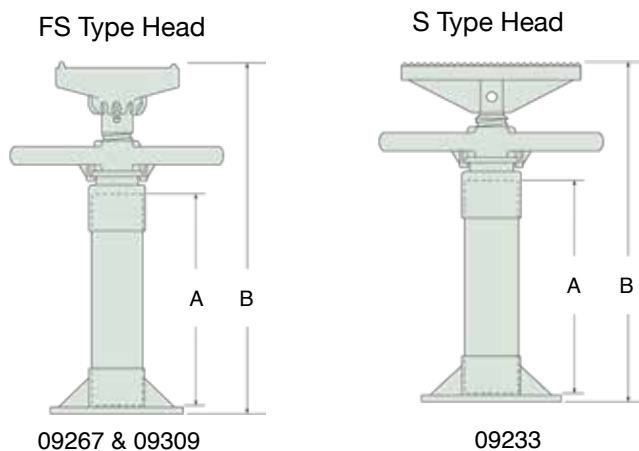


FS Type Head
For support with wooden or rubber cap pieces.

Optional Pipe Specifications

Simplex head assemblies are designed for roof support in mines and other areas where ceiling heights vary greatly. Use your own pipe to custom build a support for nearly any application.

- ▶ The 8 ton MS9 models use 2" schedule 40 pipe with a minimum yield strength of 35,000 psi.
- ▶ The 16 ton MS17 model requires 2" schedule 80 pipe with a minimum yield strength of 48,000 psi / 16 ton model.



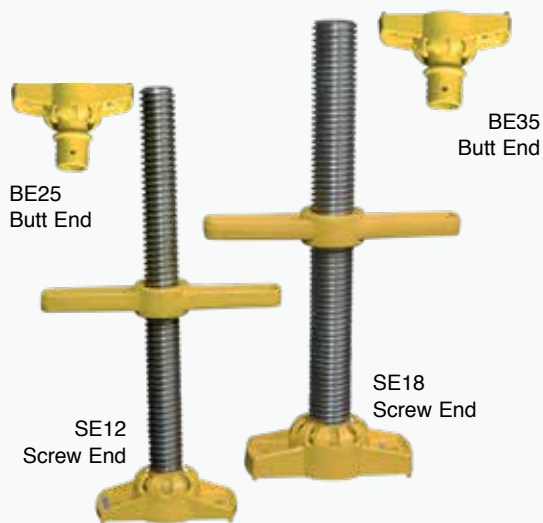
| Dimensions (in) | | |
|-----------------|----------------------------|------------------------------|
| Model | "A" Minimum Pipe Length | "B" Minimum Closed Height |
| MS9L-FS | 20.5 | 27 |
| MS9L-S | 20.62 | 25.5 |
| MS17L-FS | 21.75 | 28.75 |

| Model | Order Number | Head Style | Sustaining Capacity (tons) | Stroke (in) | *Maximum Pipe Length (in) | Maximum Extended Height (in) | Dimension Between Flanges (in) | Weight (lbs) |
|------------|--------------|------------|----------------------------|-------------|---------------------------|------------------------------|--------------------------------|--------------|
| MS9L-FS | 09267 | FS | 8 | 15 | 51.75 | 73 | 5.75 | 19 |
| MS9L-S | 09233 | S | 8 | 15 | 73.25 | 93 | --- | 19 |
| MS17L-FS | 09309 | FS | 16 | 15 | 46.25 | 68 | 5.75 | 34 |
| Base MB-17 | 09220 | ---- | ---- | ---- | ---- | ---- | ---- | 6 |

MECHANICAL JACKS

SE & BE Series – Trench Braces

SIMPLEX



* Screw & Butt Ends Sold Separately

Adjustable Range► 7 - 10 in.

Pipe Size► 1.5 - 2 in.

Lever Length► 9.5 - 11 in.

- Provides an efficient, economical protection against cave-ins and costly re-digging in construction & maintenance.
- Ball socket joints tilt for added safety on angular mounting.
- Holes on each end facilitates mounting to wood members.



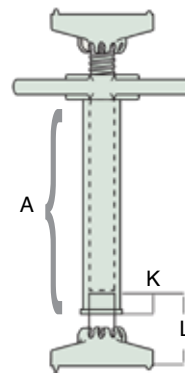
THINK SAFETY

Please refer to pages 4&5 for a complete list of safety tips and recommendations.

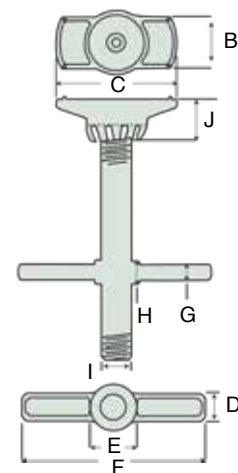


CE COMPLIANT

Our Jack design specifications meet or exceed ANSI /ASME B30.1 Safety Standards.



Note:
Customer Supplied DN
"Diameter Nominal"
1.5 in. or 2 in. pipe.



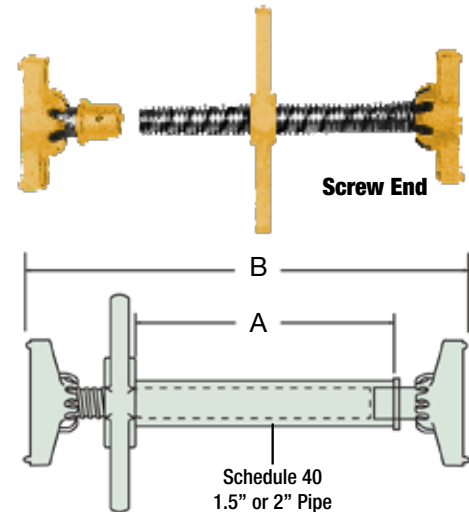
Dimensions assume the use of both screw & butt ends together as an assembly.

| Model (Screw End) | Adjust Range (in) | Pipe Size (in) | Dimensions (in) | | | | | | | | | | | |
|----------------------|-------------------------------------|-------------------|---------------------|-------|--------|-------------|-----------------|--------------|--------------|------------------|-----------------|--------|----------------------|---------------|
| | | | A | B | C | D | E | F | G | H | I | J | K | L |
| | | | Minimum Pipe Length | Width | Length | Lever Width | Lever Dia. O.D. | Lever Length | Lever Height | Lever Nut Height | Screw Dia. O.D. | Height | I.D. Butt End Height | Collar Height |
| SE12 | 7 | 1.5 | 12 | 2.44 | 5.75 | 1.25 | 2.13 | 9.5 | .68 | 1.13 | 1.38 | 2.44 | ---- | ---- |
| SE16 | 10 | 1.5 | 16 | 2.44 | 5.75 | 1.25 | 2.13 | 9.5 | .68 | 1.13 | 1.38 | 2.44 | ---- | ---- |
| SE18 | 10 | 2 | 18 | 2.75 | 7.5 | 1.5 | 2.68 | 11 | .81 | 1.38 | 1.87 | 3 | ---- | ---- |
| Model (Butt End) | Screw Ends to be used with Butt End | | | | | | | | | | | | | |
| BE25 | SE12 / SE16 | | ---- | 2.44 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | 1.5 | 3.87 |
| BE35 | SE18 | | ---- | 2.75 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | 1.93 | 4.87 |

Simplex Trench Braces provide efficient, economical protection against cave-ins and costly redigging in construction and utility maintenance. Braces extend by turning the lever nut handle. The ball socket joints tilt for added safety on angular mounting. Holes on each end facilitate mounting to wood members.

Simplex trench braces are designed for use with standard schedule 40 pipe. Screw end models SE12, SE16 and butt end model BE25 use 1.5" diameter pipe. Model SE18 and butt end BE35 use 2" diameter pipe. Pipe should be cut to length based on the chart below and drawing in Fig. 1.

Simplex SE Series Trench Braces are used to shore up the walls of this trench for the repair work of underground water pipes. ▼



(Fig. 1) All Trench Brace Models

Quick Reference Timber / Trench Brace Equivalency Tables*

The following charts are based on OSHA Timber/Trench Brace Charts* which do not consider transverse loading conditions.

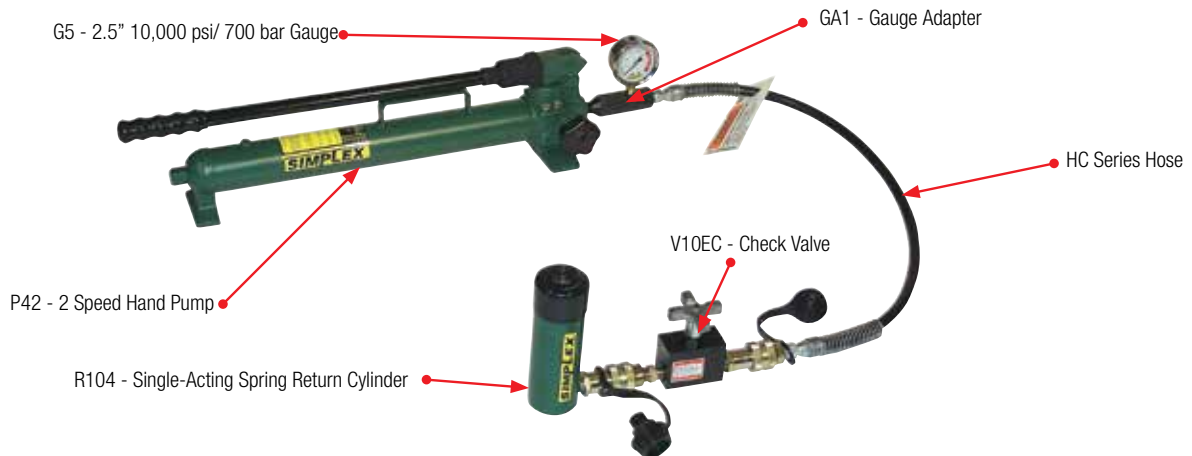
| Trench Depth (ft) | Horizontal Spacing (ft) | Cross Brace | | | | Wales | | Uprights (in) | | | |
|---|-------------------------|----------------------|--------------|-----------------------|-----------------------|-----------------------|--|--|--------|---------|--------|
| | | Width of Trench (ft) | | | Vertical Spacing (ft) | Size (in) | Vertical Spacing (ft) | Max. Allowable Horizontal Spacing (ft) | | | |
| | | up to 4 | up to 6 | up to 8 | | | | 4' | 5' | 6' | 8' |
| Soil Type - A $P^a = 25 \times H + 72$ psf (2ft. Surcharge) | | | | | | | | | | | |
| 5 to 10 | up to 6 | SE12 SE16 | SE12 SE16 | SE18 | 4 | --- | | --- | --- | 2"x 6" | --- |
| | up to 8 | SE12 SE16 | SE12 SE16 | SE18 | 4 | | | --- | --- | --- | 2"x 6" |
| | up to 10 | SE18 | SE18 | SE18 | 4 | 8 x 8 | 4 | --- | 2"x 6" | --- | --- |
| | up to 12 | SE18 | SE18 | --- | 4 | 8 x 8 | 4 | --- | --- | 2"x 6 " | --- |
| 10 to 15 | up to 6 | SE12 SE16 | SE12 SE16 | SE18 | 4 | --- | | --- | --- | 3"x 8" | --- |
| | up to 8 | SE18 | SE18 | --- | 4 | 8 x 8 | 4 | 2"x 6" | --- | --- | --- |
| Soil Type - B $P^a = 45 \times H + 72$ psf (2ft. Surcharge) | | | | | | | | | | | |
| Trench Depth (ft) | Horizontal Spacing (ft) | Cross Brace | | Vertical Spacing (ft) | Wales | | Uprights (in) | | | | |
| | | Width of Trench (ft) | | | Size (in) | Vertical Spacing (ft) | Max. Allowable Horizontal Spacing (ft) | | | | |
| | | up to 4 | up to 6 | | | | 3' | | | | |
| 5 to 10 | up to 6 | SE18 | SE18 | 5 | 6 x 8 | 5 | 2"x 6" | | | | |

STEEL LEVER BARS & ACCESSORIES

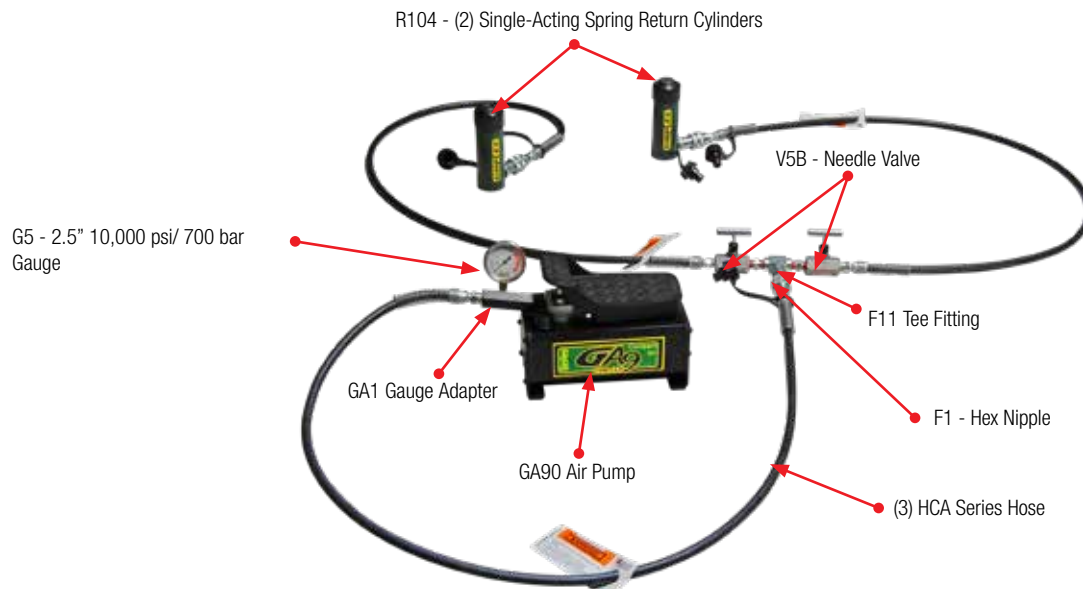
| <i>Model</i> | <i>Description</i> | <i>Length (in)</i> | <i>Diameter (in)</i> | <i>Weight (lb)</i> |
|----------------|------------------------------|------------------------|--------------------------|------------------------|
| SLB24 | Round Lever Bar | 24 | .75 | 4 |
| SLB35 | Round Lever Bar | 36 | .81 | 6 |
| SLB36 | Round Lever Bar | 36 | 1 | 8 |
| SLB42 | Round Lever Bar | 42 | 1.13 | 12 |
| SLB56 | Round (Tapered) Lever Bar | 56 | 1.14 | 16 |
| SLB60* | Chisel Point Lever Bar | 60 | 1.25 | 17 |
| SLB70 | Chisel Point Lever Bar | 72 | 1.25 | 20 |
| IB1538 | I - Beam Base | 20 | --- | 44 |
| CHA1538 | Heavy Duty Chain | 84 | .62 | 29 |

* Note: The SLB60 lever bars can be interchangeable with the SLB70 model, resulting in lower handle efforts.

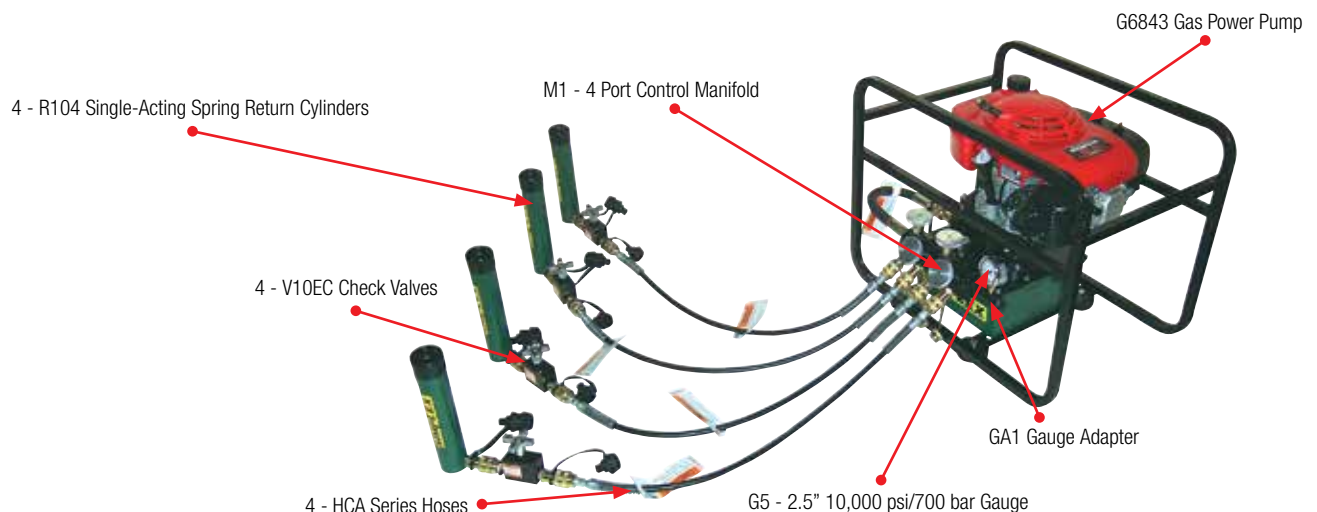
1 POINT LIFT, MANUALLY DRIVEN WITH CHECK VALVE



2 POINT LIFT, AIR DRIVEN WITH INDIVIDUAL CYLINDER CONTROL



4 POINT LIFT, GAS DRIVEN WITH M1 MANIFOLD & CHECK VALVES



CONVERSION CHART

SIMPLEX

| Fractions | Inches | Millimeters | Fractions | Inches | Millimeters |
|-----------|--------|-------------|-----------|--------|-------------|
| 1/64 | .07 | .39 | 33/64 | .52 | 13.10 |
| 1/32 | .03 | .79 | 17/32 | .53 | 13.49 |
| 3/64 | .05 | 1.19 | 35/64 | .55 | 13.89 |
| 1/16 | .06 | 1.59 | 9/16 | .56 | 14.29 |
| 5/64 | .08 | 1.98 | 37/64 | .58 | 14.68 |
| 3/32 | .09 | 2.38 | 19/32 | .59 | 15.08 |
| 7/64 | .10 | 2.78 | 39/64 | .61 | 15.49 |
| 1/8 | .13 | 3.17 | 5/8 | .62 | 15.88 |
| 9/64 | .14 | 3.57 | 41/64 | .64 | 16.27 |
| 5/32 | .16 | 3.97 | 21/32 | .65 | 16.67 |
| 11/64 | .17 | 4.37 | 43/64 | .67 | 17.07 |
| 3/16 | .19 | 4.76 | 11/16 | .68 | 17.46 |
| 13/64 | .20 | 5.16 | 45/64 | .70 | 17.86 |
| 7/32 | .22 | 5.56 | 23/32 | .72 | 18.26 |
| 15/64 | .23 | 5.95 | 47/64 | .73 | 18.65 |
| 1/4 | .25 | 6.35 | 3/4 | .75 | 19.05 |
| 17/64 | .27 | 6.75 | 49/64 | .77 | 19.45 |
| 9/32 | .28 | 7.14 | 25/32 | .78 | 19.84 |
| 19/64 | .30 | 7.54 | 51/64 | .80 | 20.24 |
| 5/16 | .31 | 7.94 | 13/16 | .81 | 20.64 |
| 21/64 | .33 | 8.33 | 53/64 | .83 | 21.03 |
| 11/32 | .34 | 8.73 | 27/32 | .84 | 21.43 |
| 23/64 | .36 | 9.13 | 55/64 | .86 | 21.83 |
| 3/8 | .38 | 9.53 | 7/8 | .87 | 22.23 |
| 25/64 | .39 | 9.92 | 57/64 | .89 | 22.62 |
| 13/32 | .41 | 10.32 | 29/32 | .90 | 23.02 |
| 27/64 | .42 | 10.72 | 59/64 | .92 | 23.42 |
| 7/16 | .44 | 11.11 | 15/16 | .93 | 23.81 |
| 29/64 | .45 | 11.51 | 61/64 | .95 | 24.20 |
| 15/32 | .47 | 11.91 | 31/32 | .97 | 24.60 |
| 31/64 | .48 | 12.30 | 63/64 | .98 | 25.00 |
| 1/2 | .5 | 12.70 | 1.00 | 1.00 | 25.40 |

| | |
|---------------|-----------------|
| 1 psi | = .069 bar |
| 1 bar | = 14.7 psi |
| 1 kPa | = .145 psi |
| 1 cu. in. | = 16.39 cu./cm |
| 1 cu./cm | = .061 cu./in. |
| 1 liter | = 61.02 cu. in. |
| 1 liter | = .264 gallon |
| 1 U.S. gallon | = 3.78 liters |
| 1 lbs. | = .4536 kg |
| 1 kg | = 2.205 lbs. |

| | |
|---------------|----------------|
| 1 Metric Ton | = 2,205 lbs. |
| 1 Metric Ton | = 1,000 kg |
| 1 Ton (Short) | = 2,000 lbs. |
| 1 Ton (Short) | = 907.18 kg |
| 1 Inch | = 2.54 cm |
| 1 Inch | = 25.4 mm |
| 1mm | = .039 in. |
| 1 sq. in. | = 6.452 cm/sq. |
| 1 cm/sq. | = .155 sq. in. |
| 1 Meter | = 39.37 in. |

| | |
|--------------|------------------|
| 1 Horsepower | = .735 kW |
| 1 Nm | = .73756 ft.lbs. |
| 1 Ft. lbs. | = 1.355818 |
| Centigrade | = 5/9 (F-32) |
| Fahrenheit | = 9/5 (C+32) |
