

Positioning & Lifting Equipment Specialists Since 1899

PRODUCT LINE GUIDE

- Cylinders
- Hand Pumps
- Power Pumps
- System Accessories
- Bolting Products
- Lifting Jacks
- Hydraulic Tools
- Hydraulic Presses
- Mechanical Jacks



SIMPLEX®

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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: TechnicalService@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.

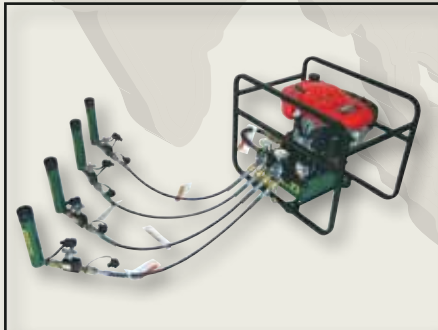


Positioning & Lifting Equipment Specialists



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

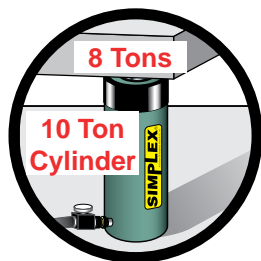
To assist our customers in selecting the proper components, Simplex offers System Development assistance to assure the correct products are used for your particular application. Contact the sales office for details.



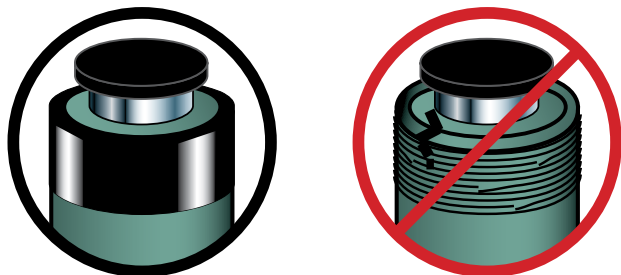
Corporate Website

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.

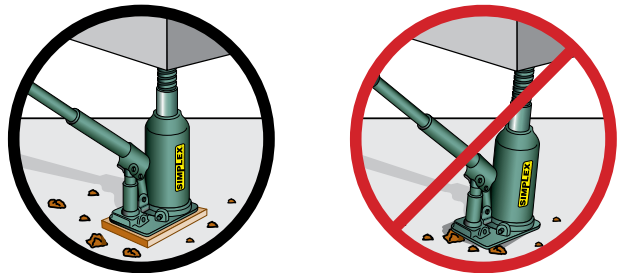
You must know the weight of what you intend to lift and choose a ram with at least 20% more capacity. Be aware of possible load shift requiring more capacity at any particular lifting point.

2. Inspect All System Components.

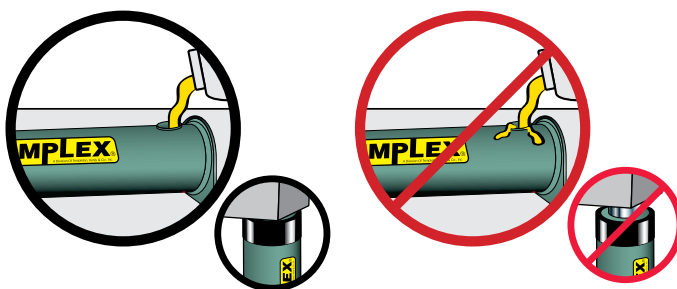
Check each component before you set up your hydraulic system. Do not use damaged or worn components. Turn them in for repair or replacement.

3. Safety Instructions.

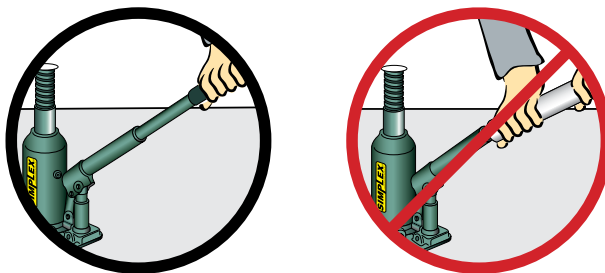
Read all warning labels and instructions. Operating instructions must be understood before using equipment. Never remove labels from equipment. Replace missing, worn, or damaged labels. Always wear safety goggles and protective clothing when using hydraulic equipment.

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

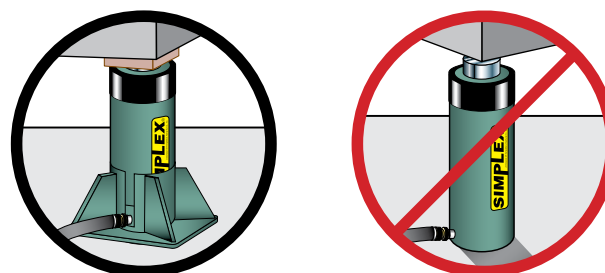
Every jack or ram, whether used individually or in a system, should be completely supported on a solid, firm, non-sliding foundation capable of supporting the load.

5. Fill Oil Reservoirs With Cylinder Retracted.

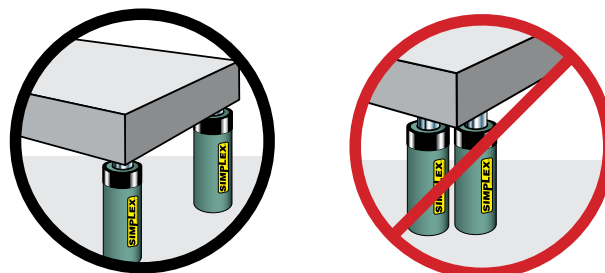
Only fill pump to recommended level, and fill only when connected cylinder is fully retracted.

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.

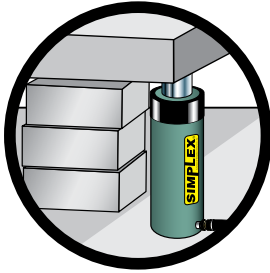
8. When Using Multiple Rams, Distribute The Load Evenly.

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. This is called load balance. Size, center of gravity, and load geometry must be considered in order to correctly determine load balance.

HELPFUL SAFETY TIPS

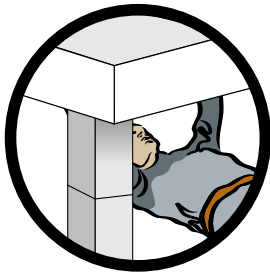
SIMPLEX®

9. Block Or Crib Your Load As It Raises.



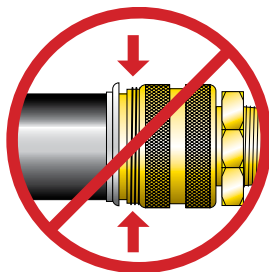
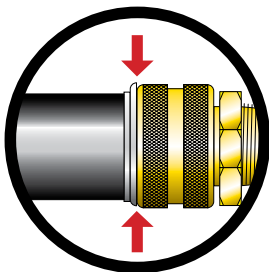
Place blocking or cribbing under the loads as you raise it. Each time you raise it higher, insert more blocking. Position yourself in a manner that will keep you clear of the load, and will not allow your hands or other body parts between the load and the cribbing.

10. Do Not Use Rams As Permanent Supports.



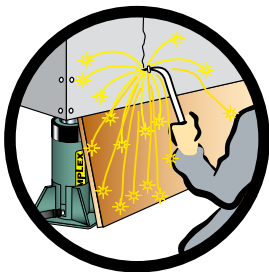
Hydraulic rams are not meant to be used as permanent supports, but are designed to lift and lower. If you need to hold the load for any length of time, cribbing or Simplex locknut cylinders should be used.

11. Hydraulic Connections.



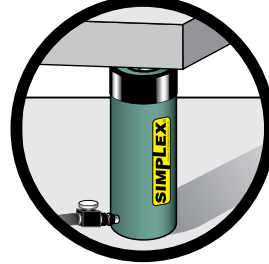
When making connections with quick couplers, make sure the couplings are fully engaged. Threaded connections such as fittings, gauges, etc. must be securely tightened and leak free. Never use excessive tightening force that may distort the fittings or strip the thread profile.

12. Avoid Extreme Heat Or Weld Splatter.



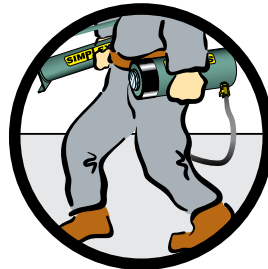
Weld splatter will damage plunger rods and hoses. Hydraulic fluid can ignite if vaporized or exposed to high temperatures.

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.



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SIMPLEX CYLINDER PRODUCT LINE OVERVIEW

✓ Wide Variety

Simplex offers the widest selection of cylinder styles, ton-nages 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.

How they operate:

- *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.

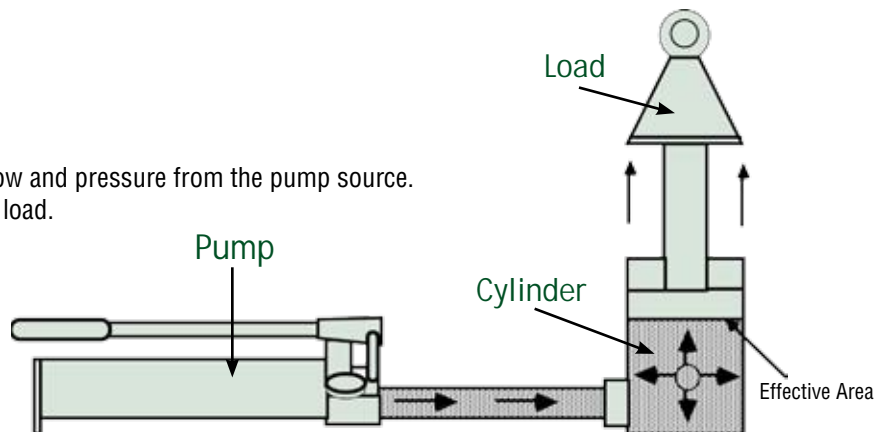
Both single acting and double acting center-hole cylinders are constructed and operated in a similar manner to their standard counterparts.

- *Single acting center-hole cylinders utilize a spring for retraction. This cylinder type requires a pump source with a single acting 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:

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

SIMPLEX CYLINDERS AT A GLANCE CHART

Cylinder Series	Description/Applications	Cylinder Type	Plunger Type	Capacity (Tons)	Strokes (in.)	Page No.(s)
R	General Purpose Spring Return For Fast Retraction	Single Acting	Solid	5 - 100	5/8 - 14 1/4	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 31/32 - 1 15/19	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 1/2 - 2 1/4	12
RFS	Very Low Height Spring Return			5 - 150	7/16 - 5/8	13
RP	Pull Cylinder Spring Return			2 - 5	5 - 5 1/2	14
RLR	Jacking Cylinder Load Return			30 - 1,000	2 - 12	18-19
RLN	Mechanical Load Holding / Locknut Load Return			30 - 1,000	2 - 12	20-21
RC	Single Acting Center Hole	Double Acting	Center Hole	12 - 100	5/16 - 6 1/8	16
RCD	Double Acting Center Hole			30 - 646	1 - 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

Spring Return
5-100 Tons



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.



R1006 Shown
See table for additional models

SIMPLEX ADVANTAGES

- ✓ 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.

HAND PUMPS



For manual portable power on demand, Simplex offers an extensive line of heavy duty, easy to transport Hand Pumps. - Pg. 30

HOSES



Large selection of standard, heavy duty and thermo plastic hydraulic hoses to meet your requirements and safety factor. - Pg. 82-83

GAUGES



Improve your system visibility and safety by adding an inline hydraulic gauge to your circuit. - Pg. 81

MANIFOLDS



Simplex manifolds are the ideal solution in obtaining precise control when operating multiple cylinders. - Pg. 77

R SERIES CYLINDERS



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

Design Construction

SPRING



High tensile strength material and spring rate ensures fast and reliable retraction.

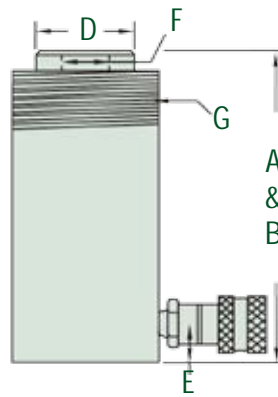
COLLAR THREADS



Standard collar threads on all models for easy fixturing.

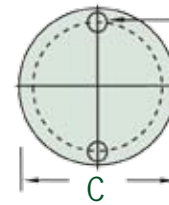
Standard Base Mounting Holes R51
through R10010 Cylinders

Model	Bolt Circle (in)	Thread (in)	Thread Depth (in)
5 Ton*	1	1/4 - 20 UNC	.56
10 Ton	1.56	5/16 - 18 UNC	.50
15 Ton	1.88	3/8 - 16 UNC	.50
25 Ton	2.31	1/2 - 13 UNC	.75
55 Ton	3.75	1/2 - 13 UNC	.75
100 Ton	5.50	3/4 - 10 UNC	1.00



STEEL CYLINDERS

Spring Return
5-100 Tons



Refer to Base Mounting Table

Product Ordering & Dimensional Specifications

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 Ht. (in)	Ext. Ht. (in)	Body O.D. (in)	Piston O.D. (in)	Base to Port C/L (in)	Piston I.D. Thrds (in)	Piston Thrds Depth (in)	Collar Thrds (in)	Collar Thru Lgth (in)	
R50	5	5/8	.6	1 1/8	.99	10,000	1 5/8	2 1/4	2 9/16	1	3/4	----	----	----	----	2.5
R51	5	1 1/8	1.0	1 1/8	1	10,000	4 3/16	5 5/16	1 1/2	1	3/4	3/4 --16	3/4	1 1/2 -- 16	1 1/8	2.3
R53	5	3 1/8	3.0	1 1/8	1	10,000	6 3/8	9 1/2	1 1/2	1	3/4	3/4 --16	3/4	1 1/2 -- 16	1 1/8	3.3
R55	5	5 1/4	5.0	1 1/8	1	10,000	8 3/8	13 9/16	1 1/2	1	3/4	3/4 --16	3/4	1 1/2 -- 16	1 1/8	4.1
R57	5	7 1/8	7.0	1 1/8	1	10,000	10 9/16	17 3/4	1 1/2	1	3/4	3/4 --16	3/4	1 1/2 -- 16	1 1/8	5.3
R59	5	9 1/8	9.1	1 1/8	1	10,000	12 9/16	21 3/4	1 1/2	1	3/4	3/4 --16	3/4	1 1/2 -- 16	1 1/8	6.1
R101	10	1 1/16	2.3	1 11/16	2 1/4	8,945	3 17/32	4 9/16	2 1/4	1 1/2	3/4	----	----	2 1/4 -- 14	1 1/8	4
R102	10	2 1/8	4.8	1 11/16	2 1/4	8,945	4 25/32	6 29/32	2 1/4	1 1/2	3/4	1 -- 8	3/4	2 1/4 -- 14	1 1/8	5.1
R104	10	4 1/8	9.2	1 11/16	2 1/4	8,945	6 3/4	10 7/8	2 1/4	1 1/2	3/4	1 -- 8	3/4	2 1/4 -- 14	1 1/8	7.2
R106	10	6	13.7	1 11/16	2 1/4	8,929	9 9/16	15 9/16	2 1/4	1 1/2	3/4	1 -- 8	3/4	2 1/4 -- 14	1 1/8	9.8
R108	10	8	18.0	1 11/16	2 1/4	8,929	11 9/16	19 9/16	2 1/4	1 1/2	3/4	1 -- 8	3/4	2 1/4 -- 14	1 1/16	12
R1010	10	10	22.7	1 11/16	2 1/4	8,929	13 9/16	23 9/16	2 1/4	1 1/2	3/4	1 -- 8	3/4	2 1/4 -- 14	1 1/8	14
R1012	10	12	26.8	1 11/16	2 1/4	8,929	15 9/16	27 9/16	2 1/4	1 1/2	3/4	1 -- 8	3/4	2 1/4 -- 14	1 1/16	15
R1014	10	14	36.3	1 11/16	2 1/4	8,929	17 9/16	31 9/16	2 1/4	1 1/2	3/4	1 -- 8	3/4	2 1/4 -- 14	1 1/16	18
R152	15	2 1/8	6.3	2	3 1/7	9,554	5 9/16	7 9/16	2 3/4	1 5/8	3/4	1 -- 8	1	2 3/4 -- 16	1 3/16	9
R154	15	4 1/8	12.6	2	3 1/7	9,554	7 3/4	11 3/4	2 3/4	1 5/8	3/4	1 -- 8	1	2 3/4 -- 16	1 3/16	11
R156	15	6 3/8	19.0	2	3 1/7	9,554	10 11/16	17 1/16	2 3/4	1 5/8	1	1 -- 8	1	2 3/4 -- 16	1 3/16	15
R1510	15	10 3/8	31.4	2	3 1/7	9,554	14 11/16	25 1/16	2 3/4	1 5/8	1	1 -- 8	1	2 3/4 -- 16	1 3/16	21
R1514	15	14 3/8	44.0	2	3 1/7	9,554	18 11/16	33 1/16	2 3/4	1 5/8	1	1 -- 8	1	2 3/4 -- 16	1 3/16	26
R251	25	1	5.2	2 9/16	5 1/6	9,690	5 1/4	6 1/4	3 1/2	2	1	1 1/2 -- 16	1 1/8	3 5/16 -- 12	1 15/16	13
R252	25	2	10.3	2 9/16	5 1/6	9,690	6 1/4	8 1/4	3 1/2	2	1	1 1/2 -- 16	1 1/8	3 5/16 -- 12	1 15/16	14
R254	25	4	20.6	2 9/16	5 1/6	9,690	8 1/4	12 1/4	3 1/2	2	1	1 1/2 -- 16	1 1/8	3 5/16 -- 12	1 15/16	18
R256	25	6 1/4	32.2	2 9/16	5 1/6	9,690	10 1/2	16 3/4	3 1/2	2	1	1 1/2 -- 16	1 1/8	3 5/16 -- 12	1 15/16	22
R258	25	8 1/4	42.6	2 9/16	5 1/6	9,690	12 1/2	20 3/4	3 1/2	2	1	1 1/2 -- 16	1 1/8	3 5/16 -- 12	1 15/16	27
R2510	25	10 1/4	52.8	2 9/16	5 1/6	9,690	14 1/2	24 3/4	3 1/2	2	1	1 1/2 -- 16	1 1/8	3 5/16 -- 12	1 15/16	31
R2512	25	12 1/4	63.2	2 9/16	5 1/6	9,690	16 1/2	28 3/4	3 1/2	2	1	1 1/2 -- 16	1 1/8	3 5/16 -- 12	1 15/16	36
R2514	25	14 1/4	73.5	2 9/16	5 1/6	9,690	18 1/2	32 3/4	3 1/2	2	1	1 1/2 -- 16	1 1/8	3 5/16 -- 12	1 15/16	39
R308	30	8 1/4	53.6	2 7/8	6 1/2	9,245	15 1/4	23 1/2	4	2 1/4	2 1/4	1 1/2 -- 16	1	3 5/16 -- 12	1 15/16	40
R552	55	2	22.1	3 3/4	11	9,960	6 11/16	8 11/16	5	3 1/8	1 3/8	----	----	5 -- 12	2 13/16	33
R554	55	4	44.0	3 3/4	11	9,960	8 11/16	12 11/16	5	3 1/8	1 3/8	----	----	5 -- 12	2 13/16	42
R556	55	6 1/4	69.0	3 3/4	11	9,960	11	17 1/4	5	3 1/8	1 3/8	----	----	5 -- 12	2 13/16	51
R5513	55	13 1/4	146.3	3 3/4	11	9,960	18 1/8	31 3/8	5	3 1/8	1 3/8	----	----	5 -- 12	2 13/16	83
R756	75	6	95.4	4 1/2	16	9,430	11 3/8	17 3/8	5 3/4	3 3/4	1 3/16	----	----	5 3/4 -- 12	1 3/4	65
R7513	75	13 1/16	208.0	4 1/2	16	9,430	18 3/8	31 7/16	5 3/4	3 3/4	1 3/16	----	----	5 3/4 -- 12	1 3/4	130
R1006	100	6 5/8	137.0	5 1/8	20 5/8	9,695	13 1/4	20 11/16	7	4 1/8	5/8	----	----	6 7/8 -- 12	1 3/4	90
R10010	100	10 1/4	212.0	5 1/8	20 5/8	9,695	16 7/8	27 15/16	7	4 1/8	5/8	----	----	6 7/8 -- 12	1 3/4	110

* R50 Base Mounting hole 7/32 through x 23/64 C bore (1/4" depth).

SIMPLEX

STEEL CYLINDERS

Low Profile Spring Return
10-100 Tons



Simplex RLS Series provides the ideal fit and force required for most bridge lifting and pier cap maintenance jobs. Compact, light weight and tough as nails, Simplex cylinders are at home on any construction site.

SIMPLEX ADVANTAGES

- ✓ 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
See table for additional models



PUMPS

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

- Pg. 42



HOSES

Large selection of standard, heavy duty and thermo plastic hydraulic hoses to meet your requirements and safety factor.

- Pg. 82-83



GAUGES

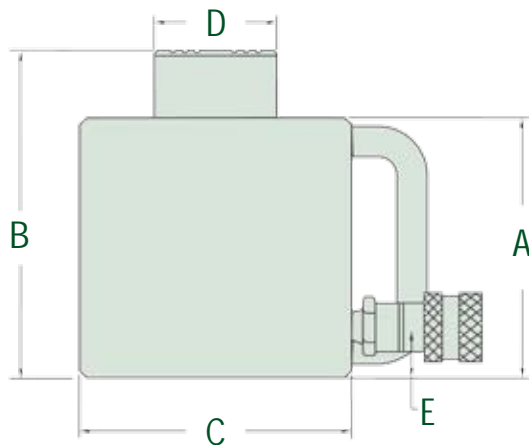
Improve your system visibility and safety by adding an inline hydraulic gauge to your circuit.

- Pg. 81



RLS SERIES CYLINDERS

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



Product Ordering & Dimensional Specifications

Model	Cap. (tons)	Stroke (in)	Oil Cap. Req'd (cu in)	Ram Bore Dia. (in)	Effect Area (sq in)	Pressure @ Cap. (psi)	A	B	C	D	E	Wgt. (lbs)
							Min. Ht. (in)	Ext. Ht. (in)	Body O.D. (in)	Piston O.D. (in)	Base to Port C/L (in)	
RLS101	10	1 1/2	3.4	1 1/16	2.24	8,940	3 15/32	4 31/32	2 3/4	1 1/2	1 1/16	9
RLS201	20	1 3/4	7.8	2 3/8	4.43	9,030	3 7/8	5 5/8	3 5/8	2	1 1/16	11
RLS302	30	2 1/16	15.8	2 7/8	6.49	9,250	4 5/8	7 1/16	4	2 5/8	3/4	15
RLS502	50	2 3/8	22.8	3 1/2	9.62	10,400	4 13/16	7 3/16	4 7/8	2 3/4	15/16	24
RLS1002	100	2 1/4	44.2	5	19.63	10,200	5 5/16	7 13/16	6 1/2	3 5/8	1 1/4	50



STEEL CYLINDERS

Flat Jack Spring Return
5-150 Tons



Simplex RFS Series are designed specifically for near impossible lifting, clamping or positioning jobs where space is at a premium. Ideal for break outs or start up spreading jobs. These mini-monsters pack up to 150 tons of force into a portable package.

SIMPLEX ADVANTAGES

- ✓ Plated piston to resist scoring & corrosion.
- ✓ Steel piston for protection against load damage.
- ✓ Mounting holes in 5, 10 & 20 ton models.
- ✓ Low profile, high tonnage design.
- ✓ High flow coupler.
- ✓ Rod wiper protects inner cylinder from dirt.



LIGHTWEIGHT HAND PUMPS
Built for industrial use, Simplex carries the widest variety of Hand Pumps for specific applications.

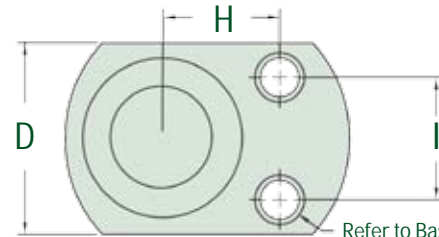
- Pg. 30



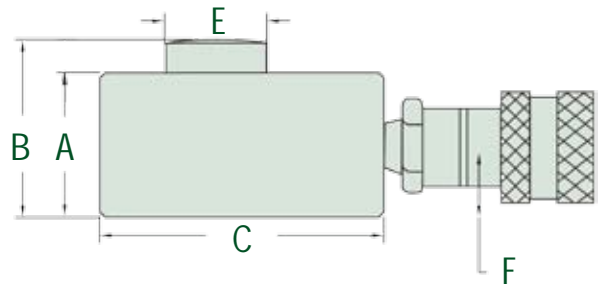
RFS SERIES CYLINDERS
Our Cylinder design specifications meet or exceed ANSI/ASME B30.1 Safety Standards.



RFS20 Shown
See table for additional models



Refer to Base Mounting Table



Base Mounting Table

Model	H (in)	I (in)	Base Mounting Hole Dimensions (in)
5 Ton	1	1 1/8	7/32 through x 23/64 C'Bore (1/4 Deep)
10 Ton	1 11/32	1 13/32	9/32 through x 27/64 C'Bore (5/16 Deep)
20 Ton	1 9/16	1 15/16	25/64 through x 19/22 C'Bore (25/64 Deep)

Product Ordering & Dimensional Specifications

Model	Cap. (tons)	Stroke (in)	Oil Cap. Req'd (cu in)	Ram Bore Dia. (in)	Effect Area (sq in)	Pressure @ Cap. (psi)	A Min. Ht. (in)	B Ext. Ht. (in)	C Body Length (in)	D Body Width (in)	E Piston O.D. (in)	F Base to Port C/L (in)	Wgt. (lbs)
R50	5	5/8	0.6	1 1/8	.99	10,000	1 5/8	2 1/4	2 5/16	1 5/8	1	3/4	2.5
RFS10	10	7/16	1.0	1 11/16	2.24	8,940	1 11/16	2 5/8	3 1/4	2 3/16	3/4	3/4	3.3
RFS20	20	7/16	1.9	2 3/8	4.43	9,030	2 1/32	2 15/32	4	3	1 1/8	3/4	6
RFS30	30	1/2	3.2	2 7/8	6.49	9,250	2 5/16	2 13/16	4 1/2	3 3/4	1 3/8	3/4	8.5
RFS50	50	5/8	6.0	3 1/2	9.62	10,400	2 5/8	3 1/4	5 1/2	4 1/2	1 3/4	3/4	14.3
RFS75	75	5/8	10.0	4 1/2	15.90	9,440	3 1/8	3 3/4	6 1/2	5 1/2	2 1/8	3/4	24.5
RFS100	100	5/8	12.3	5	19.63	10,200	3 3/8	4	7	6	2 1/2	3/4	31
RFS150	150	9/16	17.2	6 1/4	30.66	9,785	3 15/16	4 1/2	8 1/2	7 1/2	3	15/16	50.5

SIMPLEX

STEEL CYLINDERS

Pull Cylinder Single Acting
2-5 Tons



The RP55A pull cylinder and a G5 Air Pump was needed to position structural I-Beams for welding. "Simplex products are used for a variety of tough jobs on our site".



RP55A Shown
See table for additional models

SIMPLEX ADVANTAGES

- ✓ 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.



LIGHTWEIGHT HAND PUMPS

Built for industrial use, Simplex carries the widest variety of Hand Pumps for specific applications.

- Pg. 30



HOSES

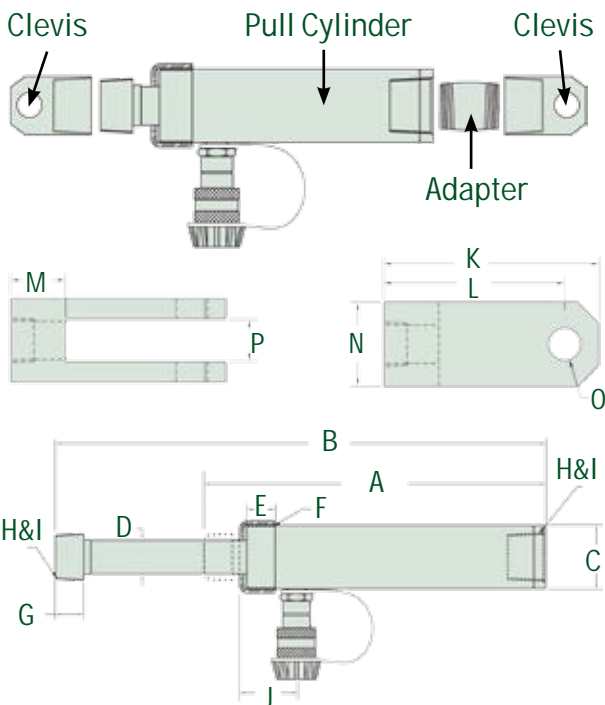
Large selection of standard, heavy duty and thermo plastic hydraulic hoses to meet your requirements and safety factor.

- Pg. 82-83



RP SERIES CYLINDERS

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



Clevis Dimensions

Model Number	K (in)	L (in)	M (in)	N (in)	O (in)	P (in)
RPC25	5 1/8	4 1/8	1 1/8	2	3/4	1
RPC55	6	5	1 1/2	2 1/2	7/8	1 1/2

Both models include adapter and clevis.

Product Ordering & Dimensional Specifications

Model	Cap. (tons)	Stroke (in)	Oil Cap. Req'd. (cu in)	Pres. @ Cap. (psi)	A Min. Ht. (in)	B Ext. Ht. (in)	C Body O.D. (in)	D Piston O.D. (in)	E Collar Thread (in)	F Collar Thread Length (in)	G Piston Adapter (in)	H NPTF Thread (in)	I NPTF Thread (in)	J Cylinder To Port (in)	Wgt. (lbs)
RP25A	2	5	2.8	7,250	9 1/8	14 1/8	1 3/4	3/4	1 1/2-16	1	1	3/4-14	3/4-14	1 11/16	4
RP55A	5	5 1/2	6.2	8,850	11 7/8	17 3/8	2 1/4	1 1/8	2 1/4-14	1	1 3/8	1 1/4-11 1/2	1 1/4-11 1/2	1 11/16	11





STEEL CYLINDERS

Pull Cylinder Double Acting
10-100 Tons

The Simplex RDP506 is used by this manufacturer of heavy steel cables. "We do numerous pull tests everyday; the Simplex equipment is fast and reliable".

SIMPLEX ADVANTAGES

- ✓ **High strength steel construction for long cylinder life.**
- ✓ **Hard chrome plated steel piston rods resist corrosion.**
- ✓ **Piston rod wiper reduces contamination.**
- ✓ **Ideal for joining steel plates for welding.**
- ✓ **Useful for the fabrication industry as well as cable tensioning.**
- ✓ **Double acting cylinder provides quick & full retraction.**



RDP506 Shown
See table for additional models



PUMPS

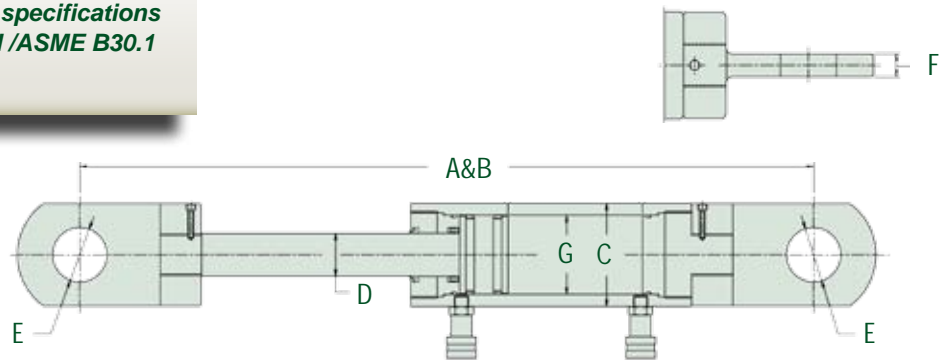
Simplex offers a wide variety of lightweight power pumps to fit any application.

- Pg. 42



RDP SERIES CYLINDERS

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



Product Ordering & Dimensional Specifications

Model	Cap. (tons)	Stroke (in)	Oil Cap. Req'd. (cu.in.)	Effect Area (sq in)	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 Dia. (in)	Clevis Width (in)	Bore Dia. (in)	
RDP106	10	6	14.39	2.4	21.1	27.1	2.4	1.6	1.2	0.8	2.4	30.8
RDP306	30	6	39.04	6.6	26.3	32.3	6.6	1.9	2.4	2.4	3.5	63.8
RDP506	50	6	69.25	11.7	25.2	31.2	11.7	2.4	2.8	2.8	4.5	99
RDP1006	100	6	131.33	22.2	29.1	35.1	22.2	2.6	3.2	3.2	5.9	193.6

SIMPLEX

STEEL CYLINDERS

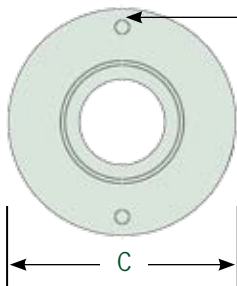
Center Hole Single Acting
12-100 Tons



Due to damage caused by earthquakes and age, the roof of the Mission San Juan Capistrano was in need of repair. Twenty - four Simplex RC121 cylinders were used to transfer the load so repairs could be made.



RC302 Shown
See table for additional models

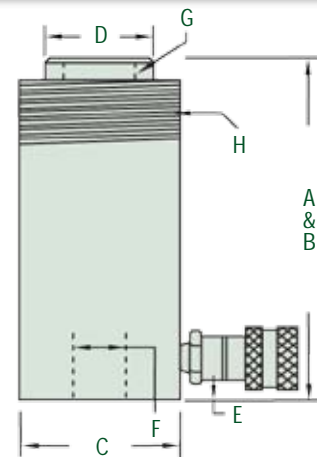


Base Mounting Hole Dimensions

Model	Bolt Circle (in)	Thread (in)	Thread Depth (in)
12 Ton	2.00	5/16 - 18 UNC	5/16
20 Ton	3.25	3/8 - 16 UNC	7/16
30 Ton	3.63	3/8 - 16 UNC	3/8
60 Ton	5.13	1/2 - 13 UNC	7/16
100 Ton	----	----	---

SIMPLEX ADVANTAGES

- ✓ Double wipers protect against contamination.
- ✓ Large center hole for greater flexibility.
- ✓ Heavy Duty spring for fast retraction.
- ✓ Designed for both push & pull forces.
- ✓ Collar threads for easy fixturing.
- ✓ Precision construction that prevents seal extrusion.



Product Ordering & Dimensional Specifications

Model	Cap. (tons)	Stroke (in)	Oil Cap. Req'd. (cu.in)	Effect Area (sq. in.)	Pres. @ Cap. (psi)	A	B	C	D	E	F	G		H		Wgt. (lbs)
						Min. Ht. (in)	Ext. Ht. (in)	Body O.D. (in)	Piston O.D. (in)	Base to Port C/L (in)	Center Hole Dia. (in)	Piston I.D. Threads (in)	Piston Thrd. Depth (in)	Collar Thrds. (in)	Collar Thrd. Lgth. (in)	
RC120	12	5/16	.90	2.36	10,185	2 3/16	2 1/2	2 3/4	1 3/8	7/16	49/64	3/4-16	5/8	2 3/4-16	1 13/16	3.5
RCQ120	12	5/16	.90	2.36	10,185	2 3/16	2 1/2	2 3/4	1 3/8	7/16	49/64	3/4-10	5/8	2 3/4-16	1 13/16	3.5
RC121	12	1 5/8	4.5	2.36	10,185	4 3/4	6 3/8	2 3/4	1 3/8	25/32	49/64	---	---	2 3/4-16	1 13/16	6.5
RC1211	12	1 5/8	4.5	2.36	10,185	4 3/4	6 3/8	2 3/4	1 3/8	25/32	49/64	3/4-16	5/8	2 3/4-16	1 13/16	6.5
RC123	12	3	8.3	2.36	10,185	7 1/4	10 1/4	2 3/4	1 3/8	25/32	49/64	---	---	2 3/4-16	1 13/16	10
RC202	20	2	11	5.30	7,545	6 3/16	8 3/16	4	2 1/8	51/64	1 1/16	1 9/16-16	3/4	3 7/8-12	1 1/2	17
RC206	20	6	32	5.30	7,545	11 3/16	17 3/16	4	2 1/8	51/64	1 1/16	1 9/16-16	3/4	3 7/8-12	1 1/2	31
RC302	30	2 1/2	22	8.64	6,950	7	9 1/2	5	2 1/2	13/16	1 5/16	1 13/16-16	7/8	4 1/2-12	1 3/4	26
RC306	30	6 1/8	64	8.64	6,950	12 1/4	18 3/8	5	2 1/2	13/16	1 5/16	1 13/16-16	7/8	4 1/2-12	1 3/4	52
RC603	60	3	44	14.58	8,230	8 21/32	11 21/32	6 3/4	4	13/16	2 1/8	2 3/4-16	3/4	6 1/4-12	2	68
RC606	60	6	88	14.58	8,230	12 21/32	18 21/32	6 3/4	4	13/16	2 1/8	2 3/4-16	3/4	6 1/4-12	2	80
RC1003	100	3	62	20.60	9,700	9	12	8 1/4	5	1	3 1/8	4-16	1	---	---	99





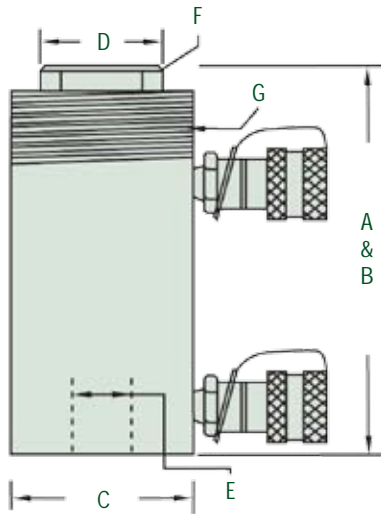
STEEL CYLINDERS

Center Hole Double Acting
30-500 Tons

These 100 ton RCD cylinders are being used to construct grid sections for a bridge being built over the Susquehanna River at the mouth of the Chesapeake Bay.

SIMPLEX ADVANTAGES

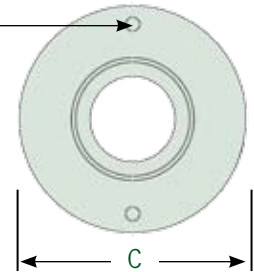
- ✓ Relief valve prevents damage in case of over pressurization.
- ✓ Stop ring for piston blow-out protection.
- ✓ Design allows for both push & pull forces.
- ✓ Double rod wiper protects against contamination.



RCD1006 Shown
See table for additional models

Base Mounting Hole Dimensions

Model	Bolt Circle (in)	Thread (in)	Thread Depth (in)
30 Ton	3.63	3/8 - 16 UNC	.375
60 Ton	5.12	1/2 - 13 UNC	.438
100 Ton	7	5/8 - 11 UNC	.75



Product Ordering & Dimensional Specifications

Model	Push Cap. (tons)	Pull Cap. (tons)	Stroke (in)	Oil Cap. Req'd. (cu in)	Push Effect Area (sq in)	Pres. @ Cap. (psi)	A	B	C	D	E	F		G		Wgt. (lbs)
							Min. Ht. (in)	Ext. Ht. (in)	Body O.D. (in)	Piston O.D. (in)	Center Hole Dia. (in)	Piston I.D. Thrds. (in)	Piston Thrd. Depth (in)	Collar Thrds. (in)	Collar Thrd. Lgth. (in)	
RCD302	30	17.7	2	8.6	8.6	6,950	7	9	5	2 1/2	1 5/16	4 1/2-12	1 3/4	1 13/16-16	7/8	48
RCD307	30	17.7	7	24.75	8.6	6,950	12 1/4	19 1/4	5	2 1/2	1 5/16	4 1/2-12	1 3/4	1 13/16-16	7/8	50
RCD6010	60	45	10	55	14.5	8,230	15 1/2	25 1/2	6 3/4	4	2 1/8	---	---	---	---	95
RCD1001	100	68	1	9.0	20.6	9,700	7	9	8 1/4	5	3 1/8	---	---	---	---	85
RCD1003	100	68	3	21.1	20.6	9,700	9	12	8 1/4	5	3 1/8	---	---	---	---	100
RCD1006	100	68	6	42.3	20.6	9,700	12	18	8 1/4	5	3 1/8	---	---	---	---	115
RCD10010	100	68	10	70.5	20.6	9,700	16	26	8 1/4	5	3 1/8	---	---	---	---	150
RCD1505	150	---	5	78	31.60	9,491	13 1/8	18 1/8	10	6	3 1/8	---	---	---	---	240
RCD2006	246	---	6	172	49.30	10,000	16 1/4	22 1/4	12	8	4 1/8	---	---	---	---	385
RCD3006C	434	---	6	296	91.50	10,000	18 3/4	24 3/4	15	9 1/2	4 1/4	---	---	---	---	720
RCD5006C	646	--	6	463	129.30	10,000	21 1/2	27 1/2	17 3/4	12	5 1/4	---	---	---	---	1230

SIMPLEX

STEEL CYLINDERS

Load Return
30-1000 Tons



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. "The Simplex gasoline power pump equipped with the Suc-O-Matic valve made retracting the jacks quick and easy."



RLR1006 Shown
See table for additional models

SIMPLEX ADVANTAGES

- ✓ Large bearings resist side load.
- ✓ Plated piston to resist scoring & corrosion.
- ✓ Stop ring for piston blow-out protection.
- ✓ Domed pistons on 150-1,000 ton capacities help resist side load.
- ✓ 5° swivel load caps on 30-100 ton models help stabilize the load.



SWIVEL EYE BOLTS

100 - 1000 ton models feature swivel eye bolts for transporting and positioning.



IN-LINE VALVES

Simplex offers a wide selection of In-Line Valves such as flow control, check and pressure relief.

- Pg. 76



GAUGES

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

- Pg. 81



PUMPS

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

- Pg. 42

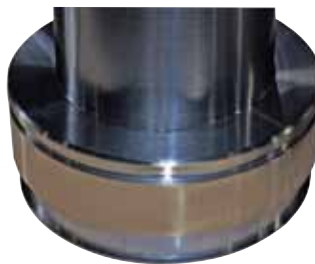
Design Construction

BRONZE INLAY



Thick bronze inlay on the inner diameter of the retaining nut protects the piston rod from scoring and minimizes the effect of damaging side loads.

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)**

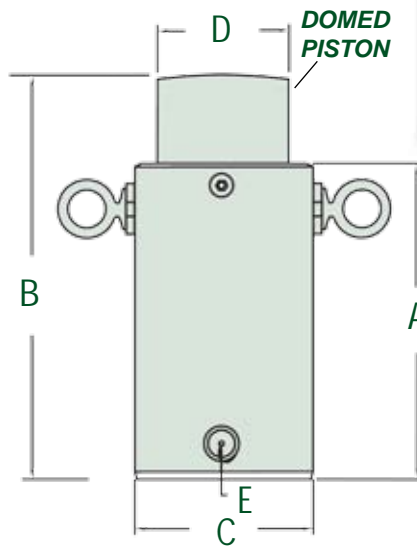
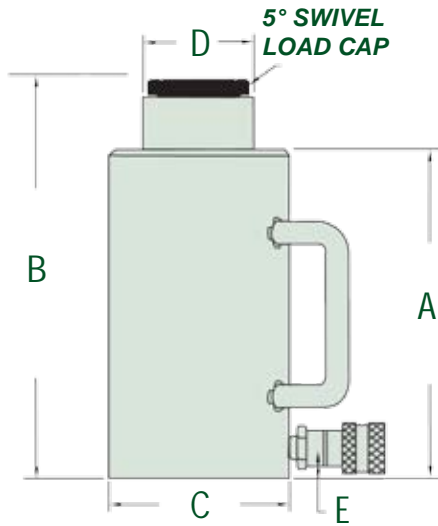


RLR SERIES CYLINDERS

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

30 - 100 TONS

150 - 1000 TONS



STEEL CYLINDERS

Load Return
30-1000 Tons

CUSTOM STROKES AND CAPACITIES UP TO 1,500 TONS AVAILABLE, CONTACT FACTORY

* Swivel Eye Bolts are installed on 100 tons and up.

Product Ordering & Dimensional Specifications

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	Wgt. (lbs)
							Min. Ht. (in)	Ext. Ht. (in)	Body O.D. (in)	Piston O.D. (in)	Base to Port C/L (in)	
RLR306	30	6	38.9	2 7/8	6.49	9,240	9 3/8	15 3/8	4	2	3/4	32
RLR502	50	2	22.1	3 3/4	11.05	9,054	5 7/16	7 7/16	5	3	25/32	30
RLR506	50	6	66.3	3 3/4	11.05	9,054	9 7/16	15 7/16	5	3	25/32	55
RLR5010	50	10	133.0	3 3/4	11.05	9,054	13 7/16	23 7/16	5	3	25/32	92
RLR1006	100	6	118.0	5	19.63	10,200	10 9/16	16 9/16	6 3/8	3 3/8	1 1/4	90
RLR10010	100	10	196.0	5	19.63	10,200	14 9/16	24 9/16	6 3/8	3 3/8	1 1/4	126
RLR1502	150	2	66.4	6 1/4	30.68	9,778	7	9	9	5 9/16	1 15/16	117
RLR1506	150	6	199.0	6 1/4	30.68	9,778	11	17	9	5 9/16	1 15/16	189
RLR15012	150	12	398.0	6 1/4	30.68	9,778	17	29	9	5 9/16	1 15/16	297
RLR2002	200	2	88.4	7 1/4	41.28	9,054	8	10	10	6 9/16	2 1/16	184
RLR2006	200	6	265.0	7 1/4	41.28	9,054	12	18	10	6 9/16	2 1/16	282
RLR20012	200	12	530.0	7 1/4	41.28	9,054	18	30	10	6 9/16	2 1/16	429
RLR3002	300	2	120.0	8 3/4	60.13	9,978	11 1/2	13 1/2	12	7 13/16	2 7/16	277
RLR3006	300	6	361.0	8 3/4	60.13	9,978	13 3/4	19 3/4	12	7 13/16	2 7/16	405
RLR30012	300	12	722.0	8 3/4	60.13	9,978	19 3/4	31 3/4	12	7 13/16	2 7/16	597
RLR4002	400	2	174.0	10 1/2	86.59	9,238	11 1/2	13 1/2	14	6 9/16	3	455
RLR4006	400	6	520.0	10 1/2	86.59	9,238	15 1/2	21 1/2	14	6 9/16	3	612
RLR40012	400	12	1040.0	10 1/2	86.59	9,238	21 1/2	33 1/2	14	6 9/16	3	842
RLR5002	500	2	208.0	11 1/2	103.87	9,628	12 5/8	14 5/8	16	10 9/16	3 3/16	627
RLR5006	500	6	623.0	11 1/2	103.87	9,628	16 5/8	22 5/8	16	10 9/16	3 3/16	855
RLR50012	500	12	1246.0	11 1/2	103.87	9,628	22 5/8	34 5/8	16	10 9/16	3 3/16	1197
RLR6002	600	2	246.0	12 1/2	122.71	9,778	13 1/2	15 1/2	17 1/2	11 9/16	3 1/2	655
RLR6006	600	6	738.0	12 1/2	122.71	9,778	17 1/2	23 1/2	17 1/2	11 9/16	3 1/2	902
RLR60012	600	12	1476.0	12 1/2	122.71	9,778	23 1/2	35 1/2	17 1/2	11 9/16	3 1/2	1273
RLR8002	800	2	330.0	14 1/2	165.13	9,690	14 7/16	16 7/16	18	13 3/16	4 1/8	997
RLR8006	800	6	991.0	14 1/2	165.13	9,690	18 7/16	24 7/16	18	13 3/16	4 1/8	1256
RLR80012	800	12	1982.0	14 1/2	165.13	9,690	24 7/16	36 7/16	18	13 3/16	4 1/8	1644
RLR10002	1000	2	402.0	16	201.06	9,950	16 1/8	18 1/8	21	14 15/16	4 1/4	1523
RLR10006	1000	6	1206.0	16	201.06	9,950	20 1/8	26 1/8	21	14 15/16	4 1/4	1883
RLR100012	1000	12	2412.0	16	201.06	9,950	26 1/8	38 1/8	21	14 15/16	4 1/4	2423

STEEL CYLINDERS

Locknut Load Return
30-1000 Tons



Simplex RLN1006 cylinders are used to lift and hold this large generator for routine maintenance during an annual outage at this power plant.

SIMPLEX ADVANTAGES

- ✓ Lock nuts offer extended load holding.
- ✓ Grease fitting for added weather protection.
- ✓ Stop ring for piston blow-out protection.
- ✓ Plated piston to resist scoring & corrosion.
- ✓ 5° swivel load caps on 30-50 ton models for side load protection.



RLN1006 Shown
See table for additional models



SWIVEL EYE BOLTS

100 - 1000 ton models feature swivel eye bolts for transporting and positioning.



HOSES

Large selection of standard, heavy duty and thermo plastic hydraulic hoses to meet your requirements and safety factor. - Pg. 82-83



MANIFOLDS

Simplex manifolds are the ideal solution in obtaining precise control when operating multiple cylinders. - Pg 77



Please refer to pages 4 & 5 for a complete list of safety tips and recommendations to ensure that your Simplex equipment will perform to its full potential.



RLN SERIES CYLINDERS

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

Design Construction

ACME SCREW



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

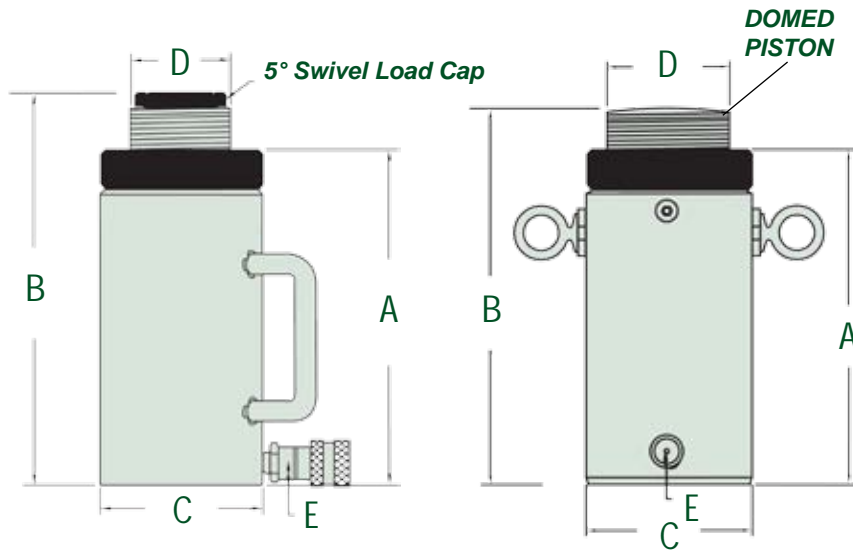
PISTON FLANGE



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

30 - 50 TONS

100 - 1000 TONS



STEEL CYLINDERS

Locknut Load Return
30-1000 Tons

CUSTOM STROKES AND CAPACITIES UP TO 1,500 TONS AVAILABLE, CONTACT FACTORY

* Swivel Eye Bolts are installed on 100 tons and up.

Product Ordering & Dimensional Specifications

Model	Cap. (tons)	Stroke (in)	Oil Cap. Req'd. (cu. in.)	Ram Bore Dia. (in)	Effect Area (sq in)	Pressure @ Cap. (psi)	A	B	C	D	E	Wgt. (lbs)
							Min. Ht. (in)	Ext. Ht. (in)	Body O.D. (in)	Piston O.D. (in)	Base to Port C/L (in)	
RLN302	30	2	13.0	2 7/8	6.49	9,240	6 3/8	8 3/8	4	2 7/16	3/4	21
RLN306	30	6	38.9	2 7/8	6.49	9,240	10 3/8	16 3/8	4	2 7/16	3/4	35
RLN502	50	2	22.1	3 3/4	11.05	9,054	6 3/4	8 3/4	5	3 3/16	25/32	38
RLN506	50	6	66.2	3 3/4	11.05	9,054	10 3/4	16 3/4	5	3 3/16	25/32	63
RLN5010	50	10	133.0	3 3/4	11.05	9,054	14 3/4	24 3/4	5	3 3/16	25/32	100
RLN1002	100	2	40.0	5	19.63	10,200	8	10	6 3/8	4 5/16	1 1/4	87
RLN1006	100	6	118.0	5	19.63	10,200	12	18	6 3/8	4 5/16	1 1/4	132
RLN10010	100	10	196.0	5	19.63	10,200	16	26	6 3/8	4 5/16	1 1/4	202
RLN1502	150	2	66.4	6 1/4	30.68	9,780	8	10	8 1/2	5 9/16	1 15/16	149
RLN1506	150	6	199.0	6 1/4	30.68	9,780	12 1/4	18	8 1/2	5 9/16	1 15/16	221
RLN15012	150	12	398.0	6 1/4	30.68	9,780	18	30	8 1/2	5 9/16	1 15/16	311
RLN2002	200	2	88.4	7 1/4	41.28	9,054	9 1/2	11 1/2	10	6 9/16	2 1/16	233
RLN2006	200	6	265.0	7 1/4	41.28	9,054	13 1/2	19 1/2	10	6 9/16	2 1/16	332
RLN20012	200	12	530.0	7 1/4	41.28	9,054	19 1/2	31 1/2	10	6 9/16	2 1/16	479
RLN3002	300	2	120.0	8 3/4	60.13	9,978	11 1/2	13 1/2	12	7 13/16	2 1/16	357
RLN3006	300	6	361.0	8 3/4	60.13	9,978	15 1/2	21 1/2	12	7 13/16	2 1/16	485
RLN30012	300	12	722.0	8 3/4	60.13	9,978	21 1/2	33 1/2	12	7 13/16	2 1/16	677
RLN4002	400	2	174.0	10 1/2	86.59	9,238	13 13/16	15 13/16	14	9 5/16	3	520
RLN4006	400	6	520.0	10 1/2	86.59	9,238	17 13/16	23 13/16	14	9 5/16	3	675
RLN40012	400	12	1040.0	10 1/2	86.59	9,238	23 13/16	25 13/16	14	9 5/16	3	905
RLN5002	500	2	208.0	11 1/2	103.87	9,628	14 3/4	16 3/4	16	10 5/16	3 3/16	927
RLN5006	500	6	623.0	11 1/2	103.87	9,628	18 3/4	24 3/4	16	10 5/16	3 3/16	1041
RLN50012	500	12	1246.0	11 1/2	103.87	9,628	24 3/4	36 3/4	16	10 5/16	3 3/16	1383
RLN6002	600	2	246.0	12 1/2	122.79	9,778	15 5/8	17 5/8	17 1/2	11 5/16	3 1/2	985
RLN6006	600	6	738.0	12 1/2	122.79	9,778	19 5/8	25 5/8	17 1/2	11 5/16	3 1/2	1232
RLN60012	600	12	1476.0	12 1/2	122.79	9,778	27 5/8	39 5/8	17 1/2	11 5/16	3 1/2	1603
RLN8002	800	2	330.0	14 1/2	165.13	9,690	16 15/16	18 15/16	18	13 3/16	4 1/8	1148
RLN8006	800	6	991.0	14 1/2	165.13	9,690	21 15/16	27 15/16	18	13 3/16	4 1/8	1407
RLN80012	800	12	1982.0	14 1/2	165.13	9,690	27 15/16	39 15/16	18	13 3/16	4 1/8	1795
RLN10002	1000	2	402.0	16	201.06	9,950	19 5/8	21 5/8	21	14 13/16	4 1/4	1818
RLN10006	1000	6	1206.0	16	201.06	9,950	23 5/8	29 5/8	21	14 13/16	4 1/4	2178
RLN100012	1000	12	2412.0	16	201.06	9,950	29 5/8	41 5/8	21	14 13/16	4 1/4	2718

STEEL CYLINDERS

Double Acting
10-1000 Tons



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. "Simplex cylinders were key to a fast and successful operation."



RDA10006 Shown - with o/c valve
See table for additional models

SIMPLEX ADVANTAGES

- ✓ Collar threads designed for full load.
- ✓ 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.



RELIEF VALVE

Safety pressure relief valve feature protects from over pressurization.



SWIVEL EYE BOLTS

100 - 1000 ton models feature swivel eye bolts for transporting and positioning.



PUMPS

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

- Pg. 42



GAUGES

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

- Pg. 81

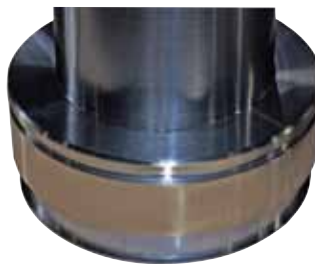
Design Construction

BRONZE INLAY



Thick bronze inlay on the inner diameter of the retaining nut protects the piston rod from scoring and minimizes the effect of damaging side loads.

PISTON FLANGE



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)



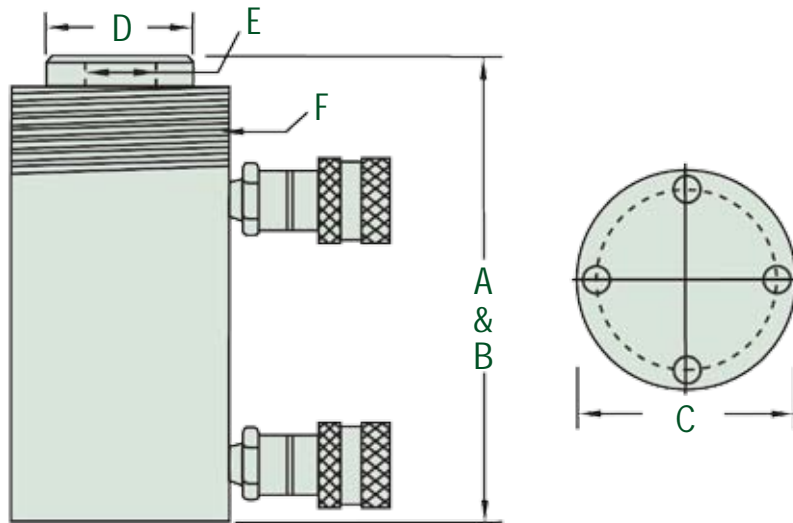
RDA SERIES CYLINDERS

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

STEEL CYLINDERS

Double Acting
10-1000 Tons

CUSTOM STROKES AND CAPACITIES UP TO
1,500 TONS AVAILABLE, CONTACT FACTORY



Base Mounting Hole Dimensions

Model	Thread		Bolt Circle Dia. (in)
	Size (in)	Depth (in)	
55 Ton	5/8-11	3/4	3 3/4
100 Ton	5/8-11	1	4 1/4
150 Ton	1-8	1 3/8	5
200 Ton	1-8	1 1/8	5

10 & 30 ton cylinders do not include mounting holes.

Product Ordering & Dimensional Specifications

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 Min. Ht. (in)	B Ext. Ht. (in)	C Body O.D. (in)	D Piston O.D. (in)	E Piston I.D. Thrds. (in)	Piston Thrd. Depth (in)	F Collar Thrds. (in)	Collar Thrd. Lgth. (in)	Wgt. (lbs)
RDA1010	10	4	10	22	1 11/16	2.23	.80	8,960	16 1/8	26 1/8	2 7/8	1 3/8	1-8	1	2 1/4-14	1 1/16	28
RDA308	30	12.5	8 1/8	34	2 7/8	6.51	3	9,250	15 3/4	23 3/4	4	2 1/8	1 1/2-16	1	3 5/16-12	1 15/16	40
RDA3014	30	12.5	14 1/2	91	2 7/8	6.51	3	9,250	21 1/8	36 1/8	4	2 1/8	1 1/2-16	1	3 5/16-12	1 15/16	64
RDA556	55	17	6 1/8	46	3 3/4	11.05	3.40	9,955	13 1/8	19 1/4	5	3 3/8	1-12	1 1/2	5-12	1 3/4	68
RDA5512	55	17	12	92	3 3/4	11.05	3.40	9,955	19 1/8	31 1/8	5	3 3/8	1-12	1 1/2	5-12	1 3/4	114
RDA5524	55	17	24	184	3 3/4	11.05	3.40	9,955	31 5/8	55 5/8	5	3 3/8	1-12	1 1/2	5-12	1 3/4	201
RDA1006	100	45	6 1/16	77	5 1/4	21.65	9.08	9,239	13 3/8	19 15/16	7	4	3 3/4-12	2 1/2	7-12	2 1/2	140
RDA10012	100	45	12	151	5 1/4	21.65	9.08	9,239	19 3/8	31 1/8	7	4	3 3/4-12	2 1/2	7-12	2 1/2	187
RDA1506	150	67	6 1/16	120	6 1/2	33.18	13.55	9,041	15 1/8	21 1/2	8 1/2	5	3 1/2-12	2 3/4	8 1/2-12	2 3/16	218
RDA15012	150	67	12	236	6 1/2	33.18	13.55	9,041	21 1/2	33 1/2	8 1/2	5	3 1/2-12	2 3/4	8 1/2-12	2 3/16	295
RDA2002	200	72	2	66	7 1/2	44.18	15.91	9,054	11 1/8	13 1/16	10	6	---	---	9 3/4-12	1 7/8	232
RDA2006	200	72	6	170	7 1/2	44.18	15.91	9,054	15 1/8	21 1/16	10	6	---	---	9 3/4-12	1 7/8	315
RDA20013	200	72	13	368	7 1/2	44.18	15.91	9,054	22 7/16	35 1/16	10	6	---	---	9 3/4-12	1 7/8	440
RDA3002	335	51.55	2	101	9 1/2	70.9	20.62	10,000	13 3/4	15 1/4	12	8	---	---	---	---	277
RDA3006	335	51.55	6	302	9 1/2	70.9	20.62	10,000	17 1/4	23 1/4	12	8	---	---	---	---	441
RDA30012	335	51.55	12	605	9 1/2	70.9	20.62	10,000	23 3/4	35 1/4	12	8	---	---	---	---	688
RDA4002	565	123	2	127	12	113	49.48	10,000	12 3/8	14 3/8	14 1/2	9	---	---	---	---	530
RDA4006	565	123	6	382	12	113	49.48	10,000	16 1/8	22 1/8	14 1/2	9	---	---	---	---	670
RDA40012	565	123	12	762	12	113	49.48	10,000	22 1/8	34 1/8	14 1/2	9	---	---	---	---	880
RDA5002	664	135	2	156	13	132	54.19	10,000	16 1/2	18 1/2	16	10	---	---	---	---	722
RDA5006	664	135	6	471	13	132	54.19	10,000	20 1/2	26 1/2	16	10	---	---	---	---	953
RDA50012	664	135	12	942	13	132	54.19	10,000	26 1/2	38 1/2	16	10	---	---	---	---	1300
RDA6002	600	110	2	158	12 1/2	122.71	44.17	10,000	15	17	17	10	---	---	---	---	917
RDA6006	600	110	6	472	12 1/2	122.71	44.17	10,000	19	25	17	10	---	---	---	---	1188
RDA60012	600	110	12	944	12 1/2	122.71	44.17	10,000	25	37	17	10	---	---	---	---	1595
RDA8002	800	130	2	226	14 1/2	165.13	52.03	9,690	16	18	18 1/2	10	---	---	---	---	1166
RDA8006	800	130	6	991	14 1/2	165.13	52.03	9,690	21 1/2	27 1/2	18 1/2	10	---	---	---	---	1461
RDA80012	800	130	12	1,360	14 1/2	165.13	52.03	9,690	26	38	18 1/2	10	---	---	---	---	1776
RDA10002	1000	75	2	354	17	227	50.27	8,810	16	18	21	15	---	---	---	---	1558
RDA10006	1000	75	6	1,071	17	227	50.27	8,810	20	26	21	15	---	---	---	---	2058
RDA100012	1000	75	12	2,142	17	227	50.27	8,810	27	39	21	15	---	---	---	---	2808

STEEL CYLINDERS

Pancake Locknut
60-500 Tons



Simplex CLP Series cylinders are designed specifically for lifting and load holding where space is at a minimum. They are ideal for bridge maintenance & shipyards where heavy lifting and tight clearances are common.



CLP-1002 Shown
See table for additional models

SIMPLEX ADVANTAGES

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



WEEP HOLE
Added protection against over extension.

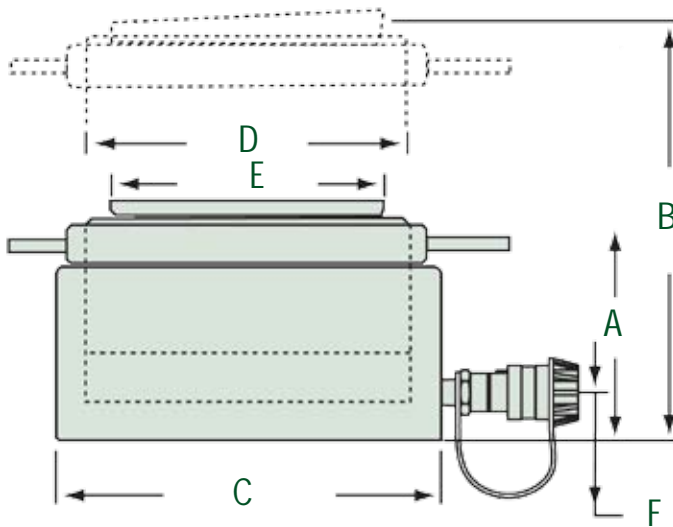


GAUGES
Improve your system visibility and safety by adding an inline hydraulic gauge to your circuit.

- Pg. 81



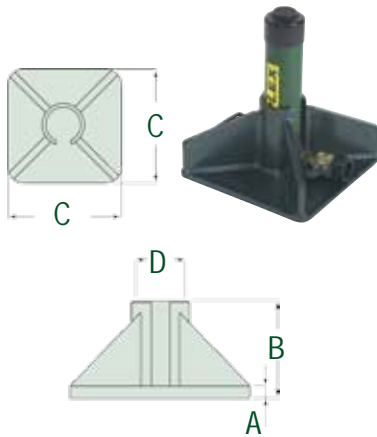
CLP SERIES CYLINDERS
Our Cylinder design specifications meet or exceed ANSI /ASME B30.1 Safety Standards.



Product Ordering & Dimensional Specifications

Model	Cap. Tons	Stroke (in)	Oil Cap. Required (cu.in.)	Ram Bore Dia. (in)	Effective Area (sq.in.)	A	B	C	D	E	F	Wgt. (lbs)
						Min. Ht. (in)	Ext. Ht. (in)	Body O.D. (in)	Piston O.D. Thrd (mm)	Saddle Dia. (in)	Base to Port (in)	
CLP-602	60	1.97	26.4	4.1	13.4	4.9	6.7	5.5	105X6	3.8	.8	33
CLP-1002	100	1.97	43.7	5.3	22.2	5.4	7.2	6.9	135X6	5	.8	57
CLP-1502	150	1.77	58.7	6.5	33.1	5.8	7.8	8.7	165X6	5.9	1.1	97
CLP-2002	200	1.77	77.8	7.5	49.9	6.1	8.1	9.6	190X6	7.1	1.2	125
CLP-2502	250	1.77	99.7	8.5	56.3	6.3	8.3	10.8	215X6	7.9	1.3	165
CLP-4002	400	1.77	157.1	10.6	88.7	7	9	13.8	270X8	9.9	1.5	297
CLP-5002	500	1.77	194	11.8	109.6	7.6	9.6	15.8	300X8	11.2	1.9	418

Cylinder Bases



Model	A	B	C	D
BA10	.39	4.72	9.06	2.28
BA25	.63	4.96	11.02	3.39

BA10 for R102 through R1014
BA25 for R252 through R2514

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

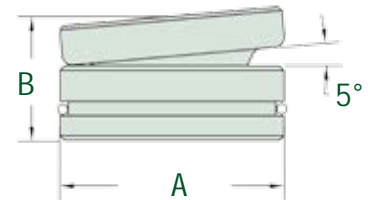
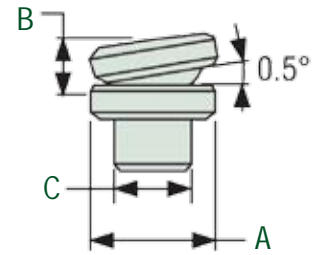
Tilt Saddles



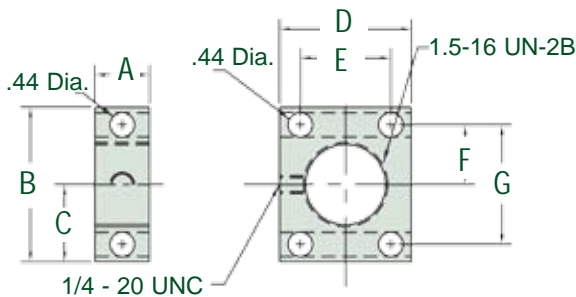
Model	A	B	C
ATS10	1.38	.59	.88
ATS25	1.97	.83	1.40
ATS100	2.82	1.55	----

ATS10 for R102 through R1014
ATS25 for R251 through R2514

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



Mounting Blocks For R5 Series Cylinders

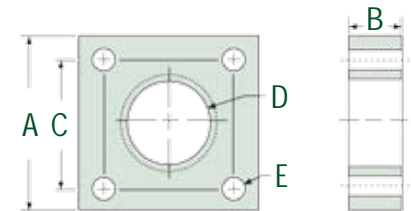


Model	A	B	C	D	E	F	G
BR5	.99	2.75	1.38	2.36	1.62	1.06	2.12

Mounting Blocks



Mounting Blocks For R10, R15 & R25 Series Cylinders

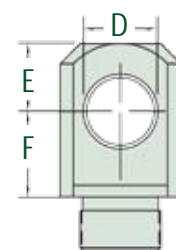
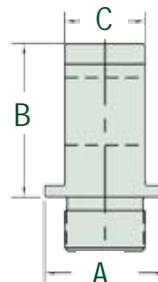


Model	A (in)	B (in)	C (in)	D (in)	E (in)
BR10	3.50	1	2.63	2 1/4 -14 UNS-2B	0.34
BR15	3.50	1	2.63	2 3/4 -16 UN-2B	0.34
BR25	5	2	3.66	3 5/16 -12 UN-2B	0.66

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

Model	A	B	C	D	E	F
BCR5	1.13	1.62	.56	.63	.63	.75
BCR10	1.69	2.31	1.00	.88	1.00	1.31
BCR15	1.69	2.31	1.00	.88	1.00	1.31
BCR25	2.25	2.93	1.50	1.25	1.25	1.38

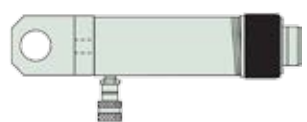
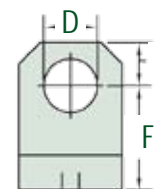
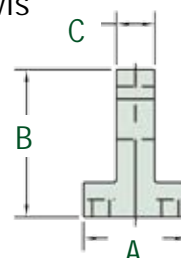
Piston Clevis



Base Clevis

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

Model	A	B	C	D	E	F
BC5	1.75	1.88	.56	.63	.63	1.00
BC10	2.50	2.63	1.00	.88	1.00	1.38
BC15	2.50	2.63	1.00	.88	1.00	1.38
BC25	3.75	3.13	1.50	1.25	1.25	1.63



ALUMINUM CYLINDERS

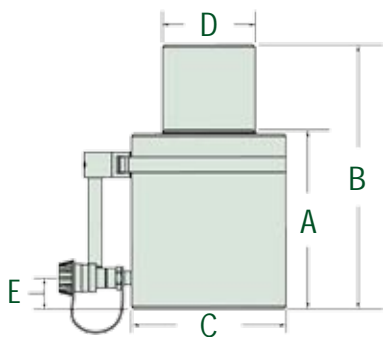
Spring Return
30-150 Tons



The aft section of a vacuum pump used to extract sludge is being lifted for weld repairs. The Simplex RAS302B spring return cylinder along with a Simplex P32 aluminum hand pump are easy to carry and position in tight places.



RAS306B Shown
See table for additional models



SIMPLEX ADVANTAGES

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

HOSES



Large selection of standard, heavy duty and thermo plastic hydraulic hoses to meet your requirements and safety factor. - Pg. 82-83



RAS SERIES CYLINDERS

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

Product Ordering & Dimensional Specifications

Model	Cap. (tons)	Stroke (in)	Oil Cap. Req'd (cu.in.)	Effect Area (sq. in)	A	B	C	D	E	Wgt. (lbs)
					Min. Ht. (in)	Ext. Ht. (in)	Body O.D. (in)	Piston O.D. (in)	Base to Port C/L (in)	
RAS302B	30	2	13	6.5	6 ½	8 ½	4 ½	2 ½	1 ½	14
RAS306B	30	6	39	6.5	10 ½	16 ½	4 ½	2 ½	1 ½	18
RAS502B	50	2	22.1	11	6 ½	8 ½	5 ½	3 ⅜	1 ½	13
RAS504B	50	4	44.2	11	8 ½	12 ½	5 ½	3 ⅜	1 ½	17
RAS506B	50	6	66.2	11	10 ½	16 ½	5 ½	3 ⅜	1 ½	28
RAS5010B	50	10	110.4	11	14 ½	24 ½	5 ½	3 ⅜	1 ½	36
RAS1002B	100	2	41.2	20.7	6 ½	8 ½	8	4 ¼	1 ½	40
RAS1004B	100	4	82.4	20.7	8 ½	12 ½	8	4 ¼	1 ½	45
RAS1006B	100	6	123.7	20.7	10 ½	16 ½	8	4 ¼	1 ½	50
RAS10010B	100	10	206	20.7	14 ½	24 ½	8	4 ¼	1 ½	68
RAS1502B	150	2	61.4	30.7	6 ½	8 ½	10	4 ⅞	1 ½	58
RAS1506B	150	6	184.1	30.7	10 ½	16 ½	10	4 ⅞	1 ½	86
RAS15010B	150	10	306.8	30.7	14 ½	24 ½	10	4 ⅞	1 ½	110





ALUMINUM CYLINDERS

Locknut Spring Return
50-150 Tons

Simplex 150 ton aluminum locknut spring return cylinders are used to lift this large crane for routine maintenance on bearings.

SIMPLEX ADVANTAGES

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



MANIFOLDS

Simplex manifolds are the ideal solution in obtaining precise control when operating multiple cylinders.

- Pg. 77

Advisory



Please refer to pages 4 & 5 for a complete list of safety tips and recommendations to ensure that your Simplex equipment will perform to its full potential.

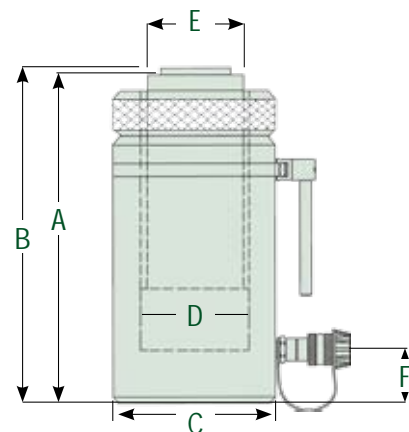


RAL SERIES CYLINDERS

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



RAL502 Shown
See table for additional models



Product Ordering & Dimensional Specifications

Model	Cap. (tons)	Stroke (in)	Oil Cap. Required (cu.in.)	Effect Area (sq.in.)	A	B	C	D	E	F	Wgt. (lbs)
					Min. Ht. (in)	Ext. Ht. (in)	Body O.D. (in)	Cyl. Bore Dia. (in)	Piston O.D. (in)	Base to Port C/L (in)	
RAL502	50	2	21.65	11.04	8 ½	10 ½	5 ½	3 ¾	3 ⅝	1 ½	20
RAL504	50	4	43.30	11.04	10 ½	14 ½	5 ½	3 ¾	3 ⅝	1 ½	25
RAL506	50	6	64.92	11.04	12 ½	18 ½	5 ½	3 ¾	3 ⅝	1 ½	30
RAL5010	50	10	108.20	11.04	16 ½	26 ½	5 ½	3 ¾	3 ⅝	1 ½	40
RAL1002	100	2	40.51	20.68	8 ¾	10 ¾	8	5 ⅝	4 ¼	1 ½	45
RAL1004	100	4	81.00	20.68	10 ¾	14 ¾	8	5 ⅝	4 ¼	1 ½	55
RAL1006	100	6	121.50	20.68	12 ¾	18 ¾	8	5 ⅝	4 ¼	1 ½	64
RAL10010	100	10	202.50	20.68	16 ¾	26 ¾	8	5 ⅝	4 ¼	1 ½	82
RAL1502	150	2	60.60	30.68	8 ¾	10 ¾	10	6 ¼	5	1 ½	65
RAL1506	150	6	181.80	30.68	12 ¾	18 ¾	10	6 ¼	5	1 ½	101
RAL15010	150	10	303.00	30.68	16 ¾	26 ¾	10	6 ¼	5	1 ½	156

SIMPLEX

ALUMINUM CYLINDERS

Center Hole Single Acting
30-60 Tons



The Simplex RAC306 30 ton single acting aluminum center hole cylinder is used to pull pins from off road equipment. "The Simplex Silver Lite cylinders give us the power we need and is light enough to transport effortlessly."



RAC303 Shown
See table for additional models

SIMPLEX ADVANTAGES

- ✓ Half the weight of steel cylinders.
- ✓ Heavy duty spring for fast & full retraction.
- ✓ Chrome plated center hole for extra protection.
- ✓ Carrying handles standard on all models.
- ✓ Technical coating reduces wear & corrosion.
- ✓ Stop rings for piston blow-out protection.
- ✓ Rod wiper protects inner cylinder from dirt.



HAND PUMPS

For manual portable power on demand, Simplex offers an extensive line of heavy duty, easy to transport Hand Pumps.

- Pg. 30



HOSES

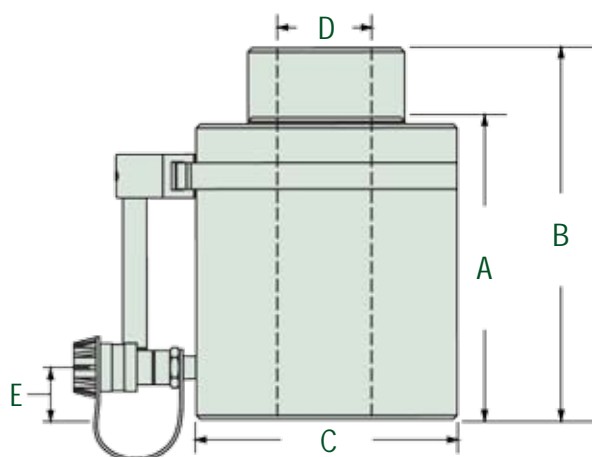
Large selection of standard, heavy duty and thermo plastic hydraulic hoses to meet your requirements and safety factor.

- Pg. 82-83



RAC / RACD SERIES CYLINDERS

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



Product Ordering & Dimensional Specifications

Model	Cap. (tons)	Stroke (in)	Oil Cap. Req'd (cu in)	Effect Area (sq. in)	A	B	C	D	E	Wgt. (lbs)
					Min. Ht. (in)	Ext. Ht. (in)	Body O.D. (in)	Center Hole (in)	Base to Port C/L (in)	
RAC303	30	3	22	7.21	8 3/4	11 3/4	5 1/2	1 3/16	1	22
RAC306	30	6	44	7.21	11 3/4	17 3/4	5 1/2	1 3/16	1	30
RAC603	60	3	37	12.3	10 1/8	13 1/8	7 1/2	2 1/8	1	42
RAC606	60	6	74	12.3	13 1/4	19 1/4	7 1/2	2 1/8	1	55

ALUMINUM CYLINDERS

Center Hole Double Acting
30-150 Tons

This RACD cylinder was the perfect solution for pulling tube bundles from large heat exchangers. "With half the weight of steel cylinders, positioning the RACD506 cylinder over the rod made the job easier and safer for our maintenance crew."

SIMPLEX ADVANTAGES

- ✓ Half the weight of steel cylinders.
- ✓ Technical coating reduces wear & corrosion.
- ✓ Steel piston for protection against load damage.
- ✓ Chrome plated center sleeve for extra protection.
- ✓ Carrying handles standard on all models.
- ✓ Stop rings for piston blow-out protection.
- ✓ Rod wiper protects inner cylinder from dirt.



PUMPS

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

- Pg. 42



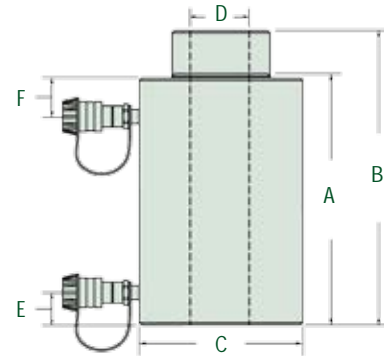
GAUGES

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

- Pg. 81



RACD306 Shown
See table for additional models



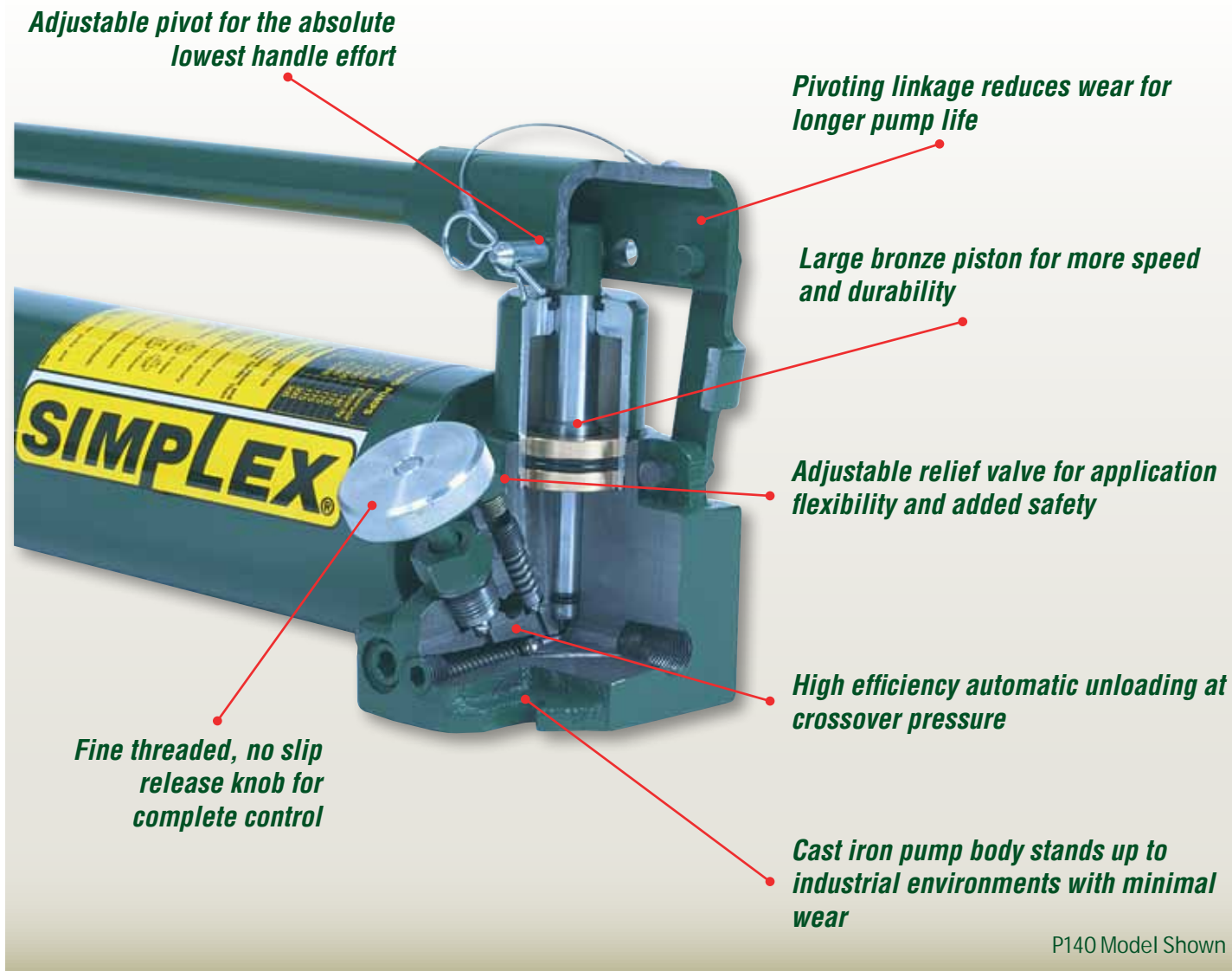
Product Ordering & Dimensional Specifications

Model	Cap. (tons)	Stroke (in)	Oil Cap. Req'd (cu.in.)		Effect Area (sq.in.)		A		C	D	E	F	Wgt. (lbs)
			Push	Pull	Push	Pull	Min. Ht. (in)	Ext. Ht. (in)					
RACD302	30	2	14.34	6.50	6.35	3.25	7	9	5 1/2	1 1/2	1 3/4	1 3/4	20
RACD306	30	6	43.02	19.50	6.35	3.25	11	17	5 1/2	1 1/2	1 3/4	1 3/4	28
RACD3010	30	10	71.70	32.50	6.35	3.25	15	25	5 1/2	1 1/2	1 3/4	1 3/4	35
RACD502	50	2	21.71	6.86	10.30	3.43	7	9	7 1/2	2 1/8	1 3/4	1 3/4	33
RACD504	50	4	43.44	13.72	10.30	3.43	9	13	7 1/2	2 1/8	1 3/4	1 3/4	41
RACD506	50	6	65.16	20.58	10.30	3.43	11	17	7 1/2	2 1/8	1 3/4	1 3/4	49
RACD5010	50	10	108.60	34.30	10.30	3.43	15	25	7 1/2	2 1/8	1 3/4	1 3/4	65
RACD1002	100	2	41.52	15.60	20.28	7.8	10	12	11	3 1/2	2 1/2	2 1/2	85
RACD1004	100	4	83.04	31.20	20.28	7.8	12	16	11	3 1/2	2 1/2	2 1/2	93
RACD1006	100	6	124.56	46.80	20.28	7.8	14	20	11	3 1/2	2 1/2	2 1/2	102
RACD10010	100	10	206.60	78.00	20.28	7.8	18	28	11	3 1/2	2 1/2	2 1/2	132
RACD1502	150	2	61.26	17.96	31.47	9	10	12	12	3 1/2	2 1/2	2 1/2	109
RACD1506	150	6	183.73	53.98	31.47	9	14	20	12	3 1/2	2 1/2	2 1/2	132
RACD15010	150	10	306.30	89.82	31.47	9	18	28	12	3 1/2	2 1/2	2 1/2	156

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SIMPLEX HAND PUMP PRODUCT 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

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



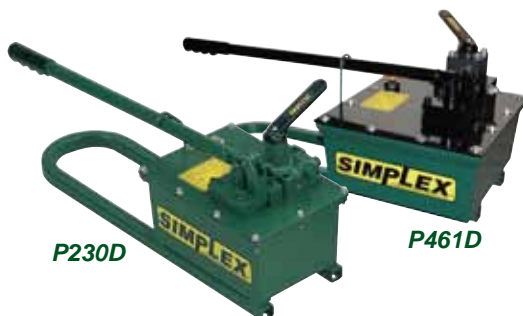
Heavy duty, two speed hand pumps in the low pressure stage deliver a high volume of oil per stroke for fast cylinder speed. Once the load is engaged, the pump automatically switches to the high pressure stage.

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.



Two high tonnage cylinders with heavy duty hand pump with a high volume of oil per stroke.



PROPER SIZE & SELECTION

HAND PUMPS

SIZING THE PROPER HAND PUMP TO YOUR CYLINDER

Once you have selected your cylinder, find the required reservoir capacity in the cylinder specification chart, and choose a hand pump with at least 10% more reservoir capacity per cylinder.

EXAMPLE

An R256 cylinder (page 11) has a required oil capacity of 32.2 cu. in. The P42 hand pump (page 34) with a reservoir capacity of 45 cu. in. can pump this cylinder to its full stroke. If two R256 cylinders are to be raised, use a P140 with a reservoir capacity of 180 cu. in. 1/4" I.D. hose requires .6 cu. in. oil per foot. 3/8" I.D. hose requires 1.3 cu. in. per foot.

TYPE OF CYLINDERS

Most hand pumps are designed to operate single-acting cylinders. Hand pumps with 4-way valves can operate double-acting cylinders.

QUICK REFERENCE CHART

Use this chart to match the appropriate size hand pump to your single-acting Simplex cylinders. Match your cylinder capacity (across the top) with the cylinder strokes listed (in the left hand column). The intersecting box will give you the recommended hand pump for general applications.

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	----	----	P82/P140	P140
3	P22/P32	----	----	----	----	----	----	P82/P140	----	----	----
4	----	P22/P32	P42/P72	----	P42/P72	----	----	----	----	----	----
5	P22/P32	----	----	----	----	----	----	----	----	----	----
6	----	P42/P72	P42/P72	----	P42/P72	P82/P140	P82/P140	----	P82/P140	P230	P230
7	P42/P72	----	----	----	----	----	----	----	----	----	----
8	----	P42/P72	P42/P72	----	P82/P140	P82/P140	----	----	----	P230	P300
9	P42/P72	----	----	----	----	----	----	----	----	----	----
10	----	P42/P72	P42/P72	----	P82/P140	----	----	----	----	P230	P461
12	----	P42/P72	----	----	P82/P140	----	----	----	----	----	----
13	----	----	----	----	----	----	P230	----	----	----	----
14	----	P42/P72	P82/P140	----	P82/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 inch 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/P82	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

Lightweight Steel
Hand Pumps



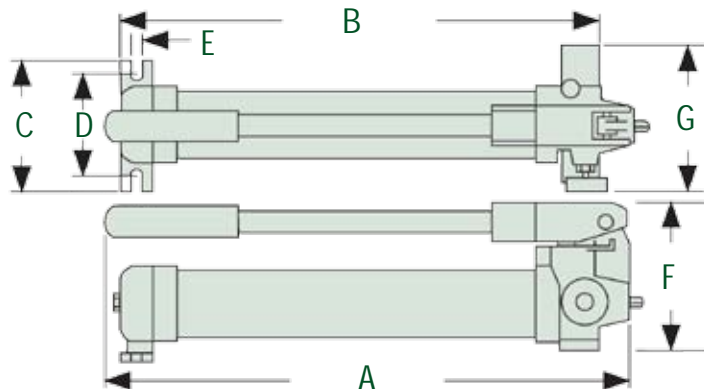
With its compact footprint, the Simplex P22 hand pump is perfect for fixed mounting. In this application, the hand pump supplies the hydraulic power to adjust the feed tables on this fiber processing machine.

SIMPLEX ADVANTAGES

- ✓ **Welded carrying handles on P41, P42 & P82 for easy pick-up.**
- ✓ **Large 3/8" pressure port for maximum flow.**
- ✓ **Low handle effort for easy operation.**
- ✓ **Single and two speed models.**
- ✓ **All metal construction for durability.**



P22 & P82 Shown
See table for additional models



HANDLE LATCH

Wire spring latch simplifies transport on P20 and P22 models.



HOSES

Large selection of standard, heavy duty and thermo plastic hydraulic hoses to meet your requirements and safety factor. - Pg. 82-83



P SERIES STEEL HAND PUMPS

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

Product Ordering & Dimensional Specifications

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	.82	.16	20	13	11 1/2	2 5/8	1 1/2	1 1/32	5 3/4	4 3/4	10
P22	2	1st Stage 200 2nd Stage 10,000	.23	.06	20	13 1/2	11 1/2	2 5/8	1 1/2	1 1/32	5 3/4	5 3/4	10
P41	1	10,000	.16	----	45	23	21 3/4	5	---	---	5 3/4	5 3/4	18
P42	2	1st Stage 200 2nd Stage 10,000	.82	.16		23	21 3/4	5	---	---	5 3/4	5 3/4	19
P82	2	1st Stage 200 2nd Stage 10,000	.82	.16	145	23	17 1/2	5 1/2	5	1/2	6 5/8	5 3/4	24



HAND PUMPS

Lightweight Aluminum
Hand Pumps



From the shop floor to large construction sites, the Silver Lite line of hand pumps are your best choice when portability and easy handling is needed. This P32 provided the power and control to lift this 10 ton CNC machine during routine maintenance.

SIMPLEX ADVANTAGES

- ✓ All aluminum construction makes these pumps extremely lightweight and easy to handle.
- ✓ P30 is ideal for low pressure applications when a small, light weight pump is required.
- ✓ 25% faster per stroke than comparative pumps means less work for operator.
- ✓ Large 3/8" NPT pressure port for maximum flow.
- ✓ Integrated handle latch simplifies transport.



PRECISION GRIP RELEASE KNOB
Precise load lowering with large knob and fine pitched threads.



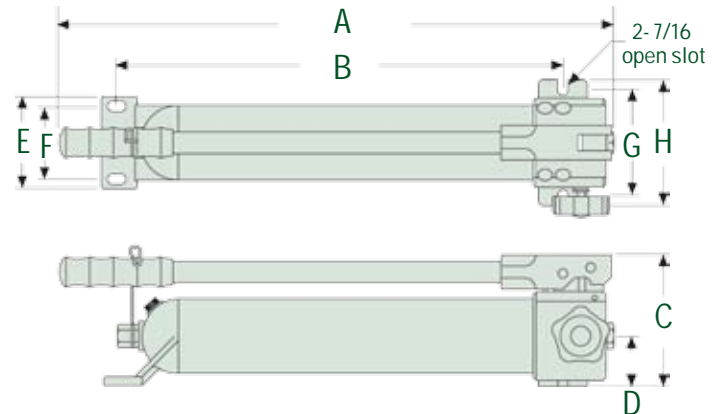
SPRING LATCH
An easy to use spring latch handle provides quick carrying mobility.



P SERIES ALUMINUM HAND PUMPS
Our Hand Pump design specifications meet or exceed ANSI /ASME B30.1 Safety Standards.



P32 & P72 Shown
See table for additional models



Product Ordering & Dimensional Specifications

Model	Speed	Pressure Rating (PSI)	Oil Volume Per Stroke (cu.in.)	Usable Oil Capacity (cu.in.)	A	B	C	D	E	F	G	H	Wgt. (lbs)
					(in)	(in)	(in)	(in)	(in)	(in)	(in)	(in)	
P30	2	1st Stage 200	.91	30	16.46	11.81	5.55	2	4.41	3.19	4.56	5.50	8
		2nd Stage 3,000	.19										
P32	2	1st Stage 200	.82	30	16.46	11.81	5.55	2	4.41	3.19	4.56	5.50	8
		2nd Stage 10,000	.16										
P71	1	10,000	.19	70	24.09	19.44	5.55	2	4.41	3.19	4.56	5.50	10
P71V*	1	10,000	.19	70	24.09	19.44	5.55	2	4.41	3.19	4.56	5.50	10
P72	2	1st Stage 200	.91	70	24.09	19.44	5.55	2	4.41	3.19	4.56	5.50	11
		2nd Stage 10,000	.19										

* Viton Seals

SIMPLEX

HAND PUMPS

Heavy Duty
Hand Pumps



When US recovery teams needed to dismantle and remove a downed US Navy aircraft, they used Simplex P140D hand pumps and 50 ton cylinders. With the short time frame in which to complete the job, crews used the fastest portable hand pump in the industry.

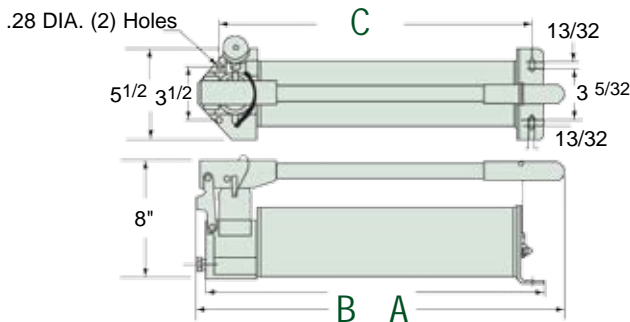
SIMPLEX ADVANTAGES

- ✓ Heavy duty, all metal construction for durability.
- ✓ High displacements of oil per stroke.
- ✓ Adjustable handle effort / dual pivot points.
- ✓ Low, back saving handle effort.
- ✓ Handle latch for easy carrying.
- ✓ Large, easy fill reservoirs.
- ✓ External adjustable relief valves.

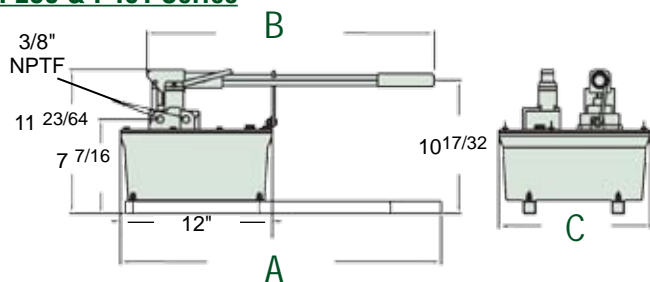


P140 & P461D Shown
See table for additional models

P140 & P300 Series



P230 & P461 Series



PRESSURE PORT

Large 3/8" NPT pressure port for maximum flow.



GAUGES

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

- Pg. 86



P SERIES HAND PUMPS

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

Product Ordering & Dimensional Specifications

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	180	24 13/16	27 1/4	23 5/16	26
P300			2.8	.24	300	28 1/2	31	26 1/2	37
P230			7.7	.3	230	25 3/8	22 3/4	9	49
P461			7.7	.3	460	25 3/8	22 3/4	12	61
P140D	Double Acting	1st Stage 400 2nd Stage 10,000	2.8	.24	180	29 1/2	31 1/2	23 5/16	30
P300D			2.8	.24	300	32 11/16	34 11/16	26 1/2	41
P230D			7.7	.3	230	25 3/8	22 3/4	9	49
P461D			7.7	.3	460	25 3/8	22 3/4	12	61

HAND PUMPS

Special Application
Hand Pumps

This Simplex P10006A is used as an auxiliary pump to position scaffolding for fabrication of the docking system for a new airline maintenance hangar. Their compact size and standard mounting holes make these pumps the perfect choice for OEM applications.

SIMPLEX ADVANTAGES

- ✓ Ideal for tight mounting space, backup manual power or lower pressure and high flows.
- ✓ Ideal for fixed applications when pumps need to be bolted in place.
- ✓ Wide range of operating pressures to select from.
- ✓ P1000A offers a swivel pump head for flexible fixturing.
- ✓ Adjustable linkage for reduced handle force.



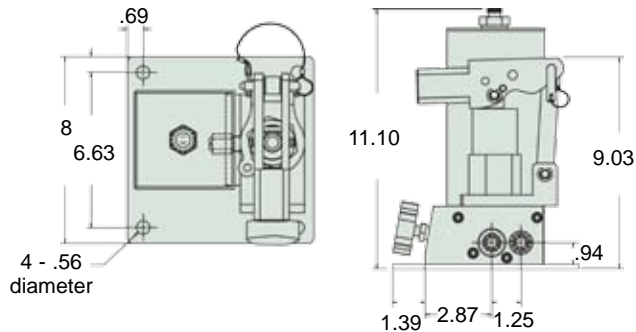
P SERIES HAND PUMPS

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

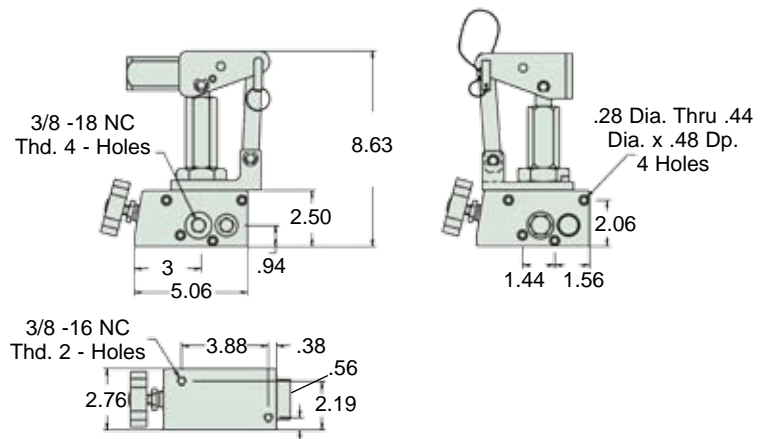


P10004A & P1606A Shown
See table for additional models

P160A Series



P1000A Series



Product Ordering & Dimensional Specifications

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	119	20
P1604A	148	6,500	.53	116	20
P1606A	148	3,000	1.33	119	20
P10003A	---	12,000	.30	119	9
P10004A	---	6,500	.53	116	9
P10006A	---	3,000	1.33	119	9
P10008A	---	1,000	2.11	106	11
P100012A	---	750	4.56	79	11

SIMPLEX

HAND PUMPS

Ultra High Pressure
Hand Pump



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



P60 Shown

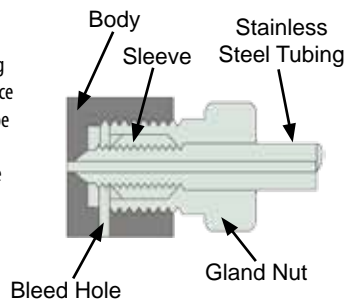
SIMPLEX ADVANTAGES

- ✓ 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.
- ✓ Closed back mounting hole feet for easy mounting.
- ✓ Slotted front mounting hole offers more flexibility.

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.

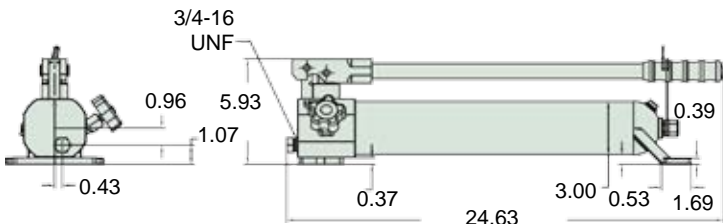


SPRING LATCH

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



P SERIES ALUMINUM HAND PUMPS
Our Hand Pump design specifications meet or exceed ANSI /ASME B30.1 Safety Standards.



Product Ordering & Dimensional Specifications

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	0.86	0.04	90	10

ACCESSORIES

HAND PUMPS Ultra High Pressure

Note: .25" cone fittings use 9/16" - 18 threads, 3/8" cone fittings use 3/4" - 16 . * Actual tubing lengths are .75" less than nominal size shown. These dimensions make distance between centers of valves and fittings multiple of 4" spaces.

P60 ULTRA HIGH PRESSURE ACCESSORIES			
Model	Item No.	Connection	
	Gland Nut Plug	UH1	.38" cone
	Elbow	UH2	.38" cone
	Tee	UH3	.38" cone
	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 AND CYLINDER SETS

Steel Hand Pump, Hose, Gauge and Cylinder



Eliminate the hassle of matching the right pump to the right cylinder by ordering our pre-matched pump & cylinder sets. All 2 speed pumps have been carefully chosen to provide maximum efficiency and service.

SIMPLEX ADVANTAGES

- ✓ All steel construction.
- ✓ 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.
- ✓ Heavy duty spring for fast and full cylinder retraction.
- ✓ Maximum control and safety is provided with the pressure gauge.
- ✓ Optimal performance provided with matched pump and cylinder.



ST106A

See table for additional models

Center Hole Cylinder Sets

Product Ordering & Dimensional Specifications

Model	Cap. (tons)	Stroke (in)	Closed Height (in)	Included in Set				
				Cylinder Model	Pump Model	Hose	Gauge	Gauge Adapter
ST302HCA	30	2 ½	7	RC302	P42	HCA6	GTH12	GA1
ST306HCA	30	6 ½	12 ¼	RC306	P82	HCA6	GTH12	GA1

Low Profile Cylinder Sets

Model	Cap. (tons)	Stroke (in)	Closed Height (in)	Included in Set				
				Cylinder Model	Pump Model	Hose	Gauge	Gauge Adapter
ST101A	10	1 ½	3 15/32	RLS101	P42	HCA6	GT5	GA1
ST201A	20	1 ¾	3 7/8	RLS201	P42	HCA6	GT20	GA1
ST302A	30	2 7/16	4 5/8	RLS302	P42	HCA6	GT30	GA1
ST502A	50	2 ¾	4 13/16	RLS502	P42	HCA6	GT20	GA1
ST1002A	100	2 ¼	5 9/16	RLS1002	P82	HCA6	GT20	GA1

Spring Return Cylinder Sets

Model	Cap. (tons)	Stroke (in)	Closed Height (in)	Included in Set				
				Cylinder Model	Pump Model	Hose	Gauge	Gauge Adapter
ST102A	10	2 1/8	4 25/32	R102	P42	HCA6	GT5	GA1
ST106A	10	6 1/8	9 3/4	R106	P42	HCA6	GT5	GA1
ST1010A	10	10 1/8	13 3/4	R1010	P42	HCA6	GT5	GA1
ST252A	25	2	6 1/2	R252	P42	HCA6	GT25	GA1
ST254A	25	4	8 1/2	R254	P42	HCA6	GT25	GA1
ST256A	25	6 1/4	10 3/4	R256	P82	HCA6	GT25	GA1
ST2514A	25	14 1/4	18 3/4	R2514	P82	HCA6	GT25	GA1
ST556A	55	6 1/4	11 1/8	R556	P82	HCA6	GT25	GA1



PUMP AND CYLINDER SETS

Aluminum Hand Pump, Hose, Gauge and Cylinder

Simplex Aluminum pump and cylinder sets are ideal for shop equipment servicing, such as this scrap metal receptacle requiring welding maintenance.

SIMPLEX ADVANTAGES

- ✓ All aluminum construction.
- ✓ Optimal performance is provided with matched hand pump and cylinder.
- ✓ Cylinders can be used in upright, inverted or horizontal position.
- ✓ Maximum control and safety is provided with the pressure gauge.
- ✓ Heavy duty spring for fast and full cylinder protection.
- ✓ Each set comes with a 6' hose equipped with a high flow coupler, gauge and gauge adapter.

Advisory



Please refer to pages 4 & 5 for a complete list of safety tips and recommendations to ensure that your Simplex equipment will perform to its full potential.

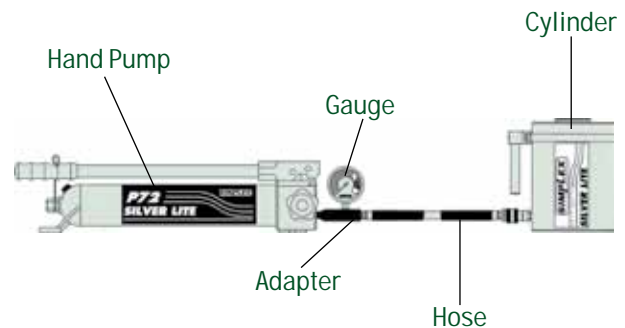


PUMP & CYLINDER SETS
Our Pump & Cylinder design specifications meet or exceed ANSI /ASME B30.1 Safety Standards.



STL306

See table for additional models



Silver Lite Aluminum Spring Return Sets

Product Ordering & Dimensional Specifications

Model	Cap. (tons)	Stroke (in)	Closed Height (in)	Included in Set				
				Cylinder Model	Pump Model	Hose	Gauge	Gauge Adapter
STL302	30	2	6 1/2	RAS302B	P72	HCA6	G5	GA1
STL306	30	6	10 1/2	RAS306B	P72	HCA6	G5	GA1
STL502	50	2	6 1/2	RAS502B	P72	HCA6	G5	GA1
STL504	50	4	8 1/2	RAS504B	P72	HCA6	G5	GA1
STL1002	100	2	6 1/2	RAS1002B	P72	HCA6	G5	GA1

Silver Lite Aluminum Spring Return Center Hole Sets

Model	Cap. (tons)	Stroke (in)	Closed Height (in)	Included in Set				
				Cylinder Model	Pump Model	Hose	Gauge	Gauge Adapter
STL303HC	30	3	13 3/4	RAC303	P72	HCA6	G5	GA1
STL306HC	30	6	17 3/4	RAC306	P72	HCA6	G5	GA1
STL603HC	60	3	13 1/8	RAC603	P72	HCA6	G5	GA1

SIMPLEX

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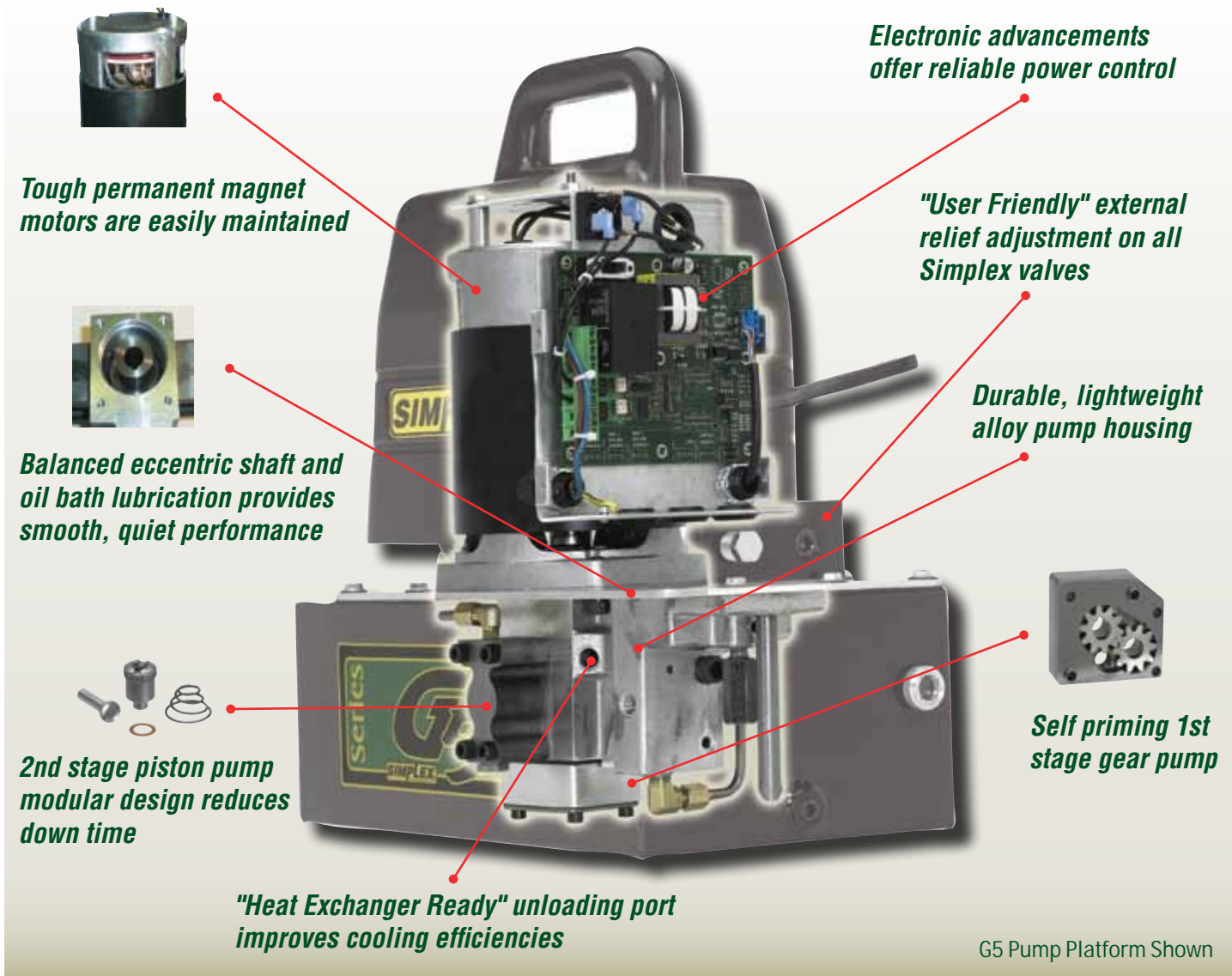
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INTRODUCTION

POWER PUMPS G SERIES



SIMPLEX POWER PUMP PRODUCT LINE OVERVIEW

✓ Wide Variety

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

✓ Maximum Flexibility

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.

✓ Built for Long Life & Continuous Duty

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

✓ High Performance / Fast Cycle Times

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.

✓ Cool Running & Dependable Performance

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.

✓ Quiet Operation

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

G1 POWER PUMPS

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



An intermittent 1/2 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.

20 SERIES POWER PUMPS

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



A 1/2 hp continuous duty power pump that is best suited to power small to medium tools and cylinders. Ideal for systems that require high performance, lightweight and portable.

G3 POWER PUMPS

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



A 1 1/8 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.

G4 POWER PUMPS

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



Continuous duty 1 1/2 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.

G5 POWER PUMPS

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



Continuous duty 1 1/2 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.

50 SERIES POWER PUMPS

110 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.

60 SERIES POWER PUMPS

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



A continuous duty 5 hp pump ideal for large size tools and cylinders. The high flow rate runs multiple cylinders for heavy lifting, high tonnage and large positioning jobs and applications effectively.

COMPACT AIR FOOT PUMPS




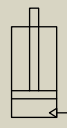

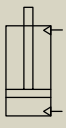
6 or 10 cu.in. / min. @ 10,000 psi



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

PROPER SIZE & SELECTION

POWER PUMPS

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	●	●	●	----	----	●

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	20 Series	G3 Series	G4/G5 Series	50/60 Series	
10	Loaded	9	9	9	24	45	76
	Unloaded	104	169	169	169	200	290
20/25	Loaded	4	4	4	10	20	33
	Unloaded	50	75	75	75	132	132
30	Loaded	3	3	3	8 1/2	16	26
	Unloaded	39	60	60	60	104	104
50/55	Loaded	2	2	2	5	9	15
	Unloaded	23	35	35	35	61	61
60/75	Loaded	1 1/2	1 1/2	1 1/2	3 1/2	6	10
	Unloaded	16	24	24	24	43	43
100	Loaded	1	1	1	3	5	8 1/2
	Unloaded	13	19	19	19	34	34
150	Loaded	1/2	1/2	1/2	1 3/4	3	5
	Unloaded	7	11	11	11	20	20
200	Loaded	3/8	3/8	3/8	1	2	4
	Unloaded	5	8	8	8	15	15

$$\frac{\text{Inches Per Minute}}{60} = \text{Cylinder Speed In Seconds}$$

POWER PUMPS

G1 SERIES
ELECTRIC



G1131 Shown
See table for additional models

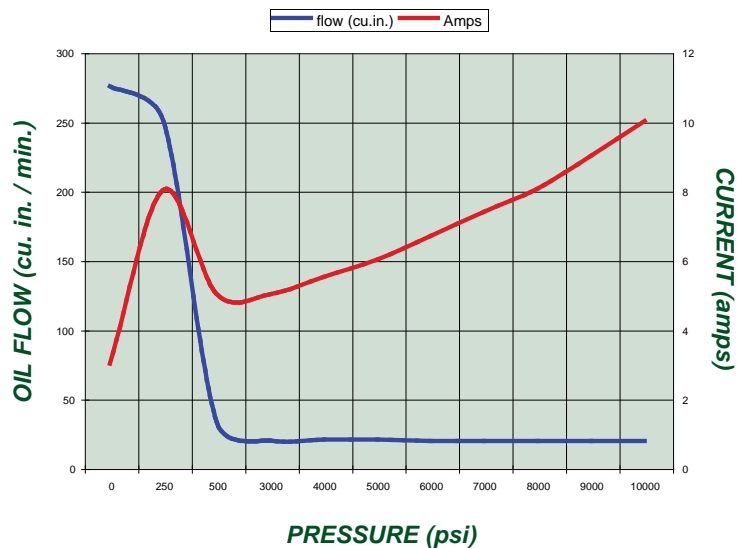


With its mobility and power, the G1 power pump with a low profile locknut cylinder was the perfect choice for adjusting loaded shelving racks in this warehouse.

SIMPLEX ADVANTAGES

- ✓ Powered by a 115V - 60HZ, 1/2 hp universal motor (14,640 rpm); low startup voltage, draws 10 amps at full load (230V models available).
- ✓ Equipped with a 15' remote power controlled pendant.
- ✓ Two-speed pump operation provides fast tool performance; 19 cubic inches / minute @ 10,000 PSI.
- ✓ Precision designed valve offers reliability and secure load holding; external adjustable relief standard on all models.
- ✓ Reservoirs available in 1 gallon; steel or plastic designs.
- ✓ Ideal for use with smaller hydraulic cylinders or tools.
- ✓ Compact, lightweight design, starting at 30 lbs.

Performance Chart



SITE GAUGE

Metal reservoir site gauge for easy viewing of oil level.



HOSES

Large selection of standard, heavy duty and thermo plastic hydraulic hoses to meet your requirements and safety factor. - Pg. 82-83



MANIFOLDS

Simplex manifolds are the ideal solution in obtaining precise control when operating multiple cylinders. - Pg. 77

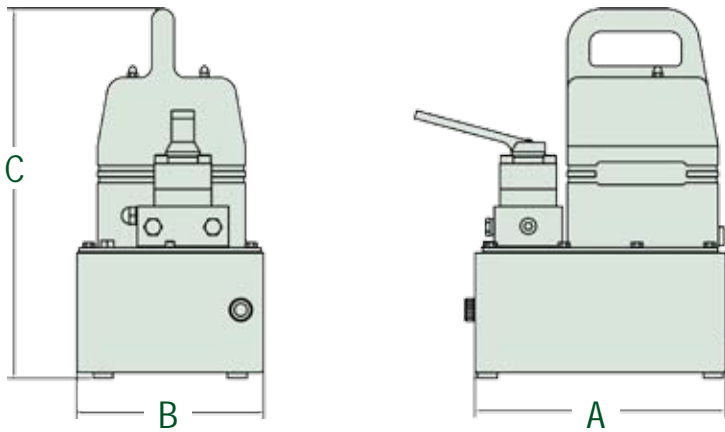


Please refer to pages 4 & 5 for a complete list of safety tips and recommendations to ensure that your Simplex equipment will perform to its full potential.

POWER PUMPS

G1 SERIES
ELECTRIC

Model Shown
G1121



Usable Oil Capacity (Gallons)	A	B	C
	(in)	(in)	(in)
1 (plastic)	10.52	8.08	15.95
1 (metal)	11.00	8.17	16.17



Product Ordering & Specifications										
Model	Pressure Rating (psi)		Output Flow (cu.in. / min.)		Motor Spec.		Valve Type	Pendant Control	Reservoir Capacity	Weight (lbs)
	1st Stage	2nd Stage	1st Stage	2nd Stage	(vac)	(amps)				
G1100	400	10,000	250	19	115	10	DUMP	MOTOR	1	30
G1101	400	10,000	250	19	115	10	DUMP	MOTOR	1	32
G1121	400	10,000	250	19	115	10	2W, 2P	MOTOR	1	33
G1131	400	10,000	250	19	115	10	3W, 3P	MOTOR	1	34
G1141	400	10,000	250	19	115	10	4W, 3P	MOTOR	1	34

* For 230 VAC pump use "2" in the 3rd character of the model number. Motor specifications 0,8 kw single phase, 5 amps @ 230 VAC.

* Motor pendant is standard on all models.

Additional Pump Configurations

	MODEL	SELECTIONS
Class	G	Power Pump
Series	1	1/2 HP Universal Motor / 19 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 5 = 2 Way Solenoid 8 = Port Block
Reservoir Size	1	0 = 1 Gal. (plastic) 1 = 1 Gal. (metal)



SIMPLEX

POWER PUMPS

20 SERIES
ELECTRIC



The versatility and mobility of the 20 Series Pump made the repair of this bridge support simple and timesaving.

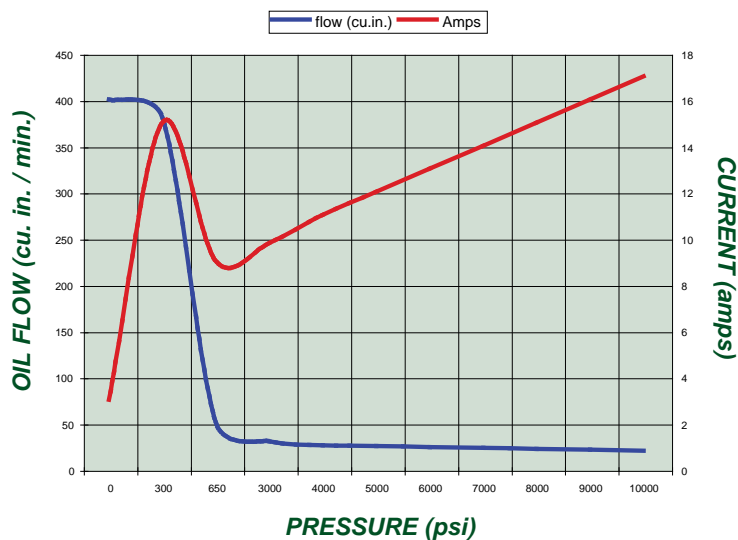


PEM2022 Shown
See table for additional models

SIMPLEX ADVANTAGES

- ✓ **Powered by a 115V - 60HZ, 1/2 hp permanent magnet motor (3,000 rpm); low startup voltage, draws 17 amps at full load (230V models available).**
- ✓ **Two-stage pump operation provides fast tool performance; 20 cubic inches / minute @ 10,000 PSI.**
- ✓ **Precision designed valve offers reliability and secure load holding; external adjustable relief standard on all models.**
- ✓ **Reservoirs available in 1 - 5 gallons; welded steel design.**
- ✓ **Ideal for use with small - mid sized hydraulic cylinders or tools.**
- ✓ **Compact, lightweight design, starting at 56 lbs.**

Performance Chart



HOSES



Large selection of standard, heavy duty and thermo plastic hydraulic hoses to meet your requirements and safety factor. - Pg. 82-83

MANIFOLDS



Simplex manifolds are the ideal solution in obtaining precise control when operating multiple cylinders. - Pg. 77

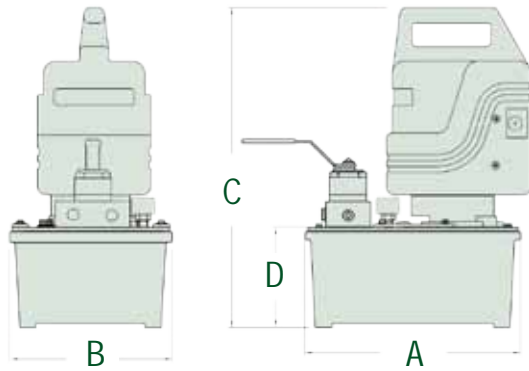
Advisory



Please refer to pages 4 & 5 for a complete list of safety tips and recommendations to ensure that your Simplex equipment will perform to its full potential.

POWER PUMPS

20 SERIES
ELECTRIC



Model Shown
PEM2022



Usable Reservoir Capacity Gallons	Usable Oil Capacity	A	B	C	D
		(in)	(in)	(in)	(in)
1 (metal)	230	11 5/16	7 7/8	18 9/16	5 3/16
2 (metal)	400	12 1/4	12 1/4	19 1/32	6
5 (metal)	1,150	25 3/32	12 1/4	18 9/16	8

Product Ordering & Specifications

Model	Pressure Rating (psi)		Output Flow (cu.in./min.)		Motor Spec.		Valve Type	Pendant Control	Reservoir Capacity	Weight (lbs)
	1st Stage	2nd Stage	1st Stage	2nd Stage	(vac)	(amps)				
PED2001	600	10,000	400	20	115	10	Dump	Motor	1	56
PED2002	600	10,000	400	20	115	10	Dump	Motor	2	64
PEM2021	600	10,000	400	20	115	10	2W, 2P	----	1	56
PEM2022	600	10,000	400	20	115	10	2W, 2P	----	2	64
PEM2031	600	10,000	400	20	115	10	3W, 3P	----	1	62
PEM2032	600	10,000	400	20	115	10	3W, 3P	----	2	70
PEM2052	600	10,000	400	20	115	10	3W, 3P (L)	----	2	71
PES2031	600	10,000	400	20	115	10	3W, 3P	Solenoid	1	66
PES2032	600	10,000	400	20	115	10	3W, 3P	Solenoid	2	73
PES2052	600	10,000	400	20	115	10	3W, 3P (L)	Solenoid	2	74
PEM2041	600	10,000	400	20	115	10	4W, 3P	----	1	62
PEM2042	600	10,000	400	20	115	10	4W, 3P	----	2	70
PEM2062	600	10,000	400	20	115	10	4W, 3P (L)	----	2	71
PES2041	600	10,000	400	20	115	10	4W, 3P	Solenoid	1	66
PES2042	600	10,000	400	20	115	10	4W, 3P	Solenoid	2	73
PES2062	600	10,000	400	20	115	10	4W, 3P (L)	Solenoid	2	74

* For 230 VAC pump use "A" in the 8th character of the model number.
Motor specifications 0,8 kw single phase, 5 amps @ 230 VAC.

(L) = Lock Valve Manifold

Additional Pump Configurations

MODEL	SELECTIONS
Class	P = Power Pump
Motor Controls	E = No Options F = Foot Switch P = Pendant Switch
Valve Style	S = Solenoid M = Manual D = Dump
Pump Series	2 = 1/2 HP, 50/60 Hz, Permanent Magnet Motor / 20 cu.in.
Options	1 = 0 = No Options 1 = Roll Bars 4 = Filter 5 = Roll Bars & Filter
Valve Type	3 = 0 = Dump 2 = 2 Way 2 Position 3 = 3 Way 3 Position 4 = 4 Way 3 Position 5 = 3 Way Locking Style 6 = 4 Way Locking Style
Reservoir Size	5 = 1 = 1 Gallon 2 = 2 Gallon 5 = 5 Gallon
Motor Voltage	Blank = 115 VAC Single Phase A = 230 VAC Single Phase

SIMPLEX

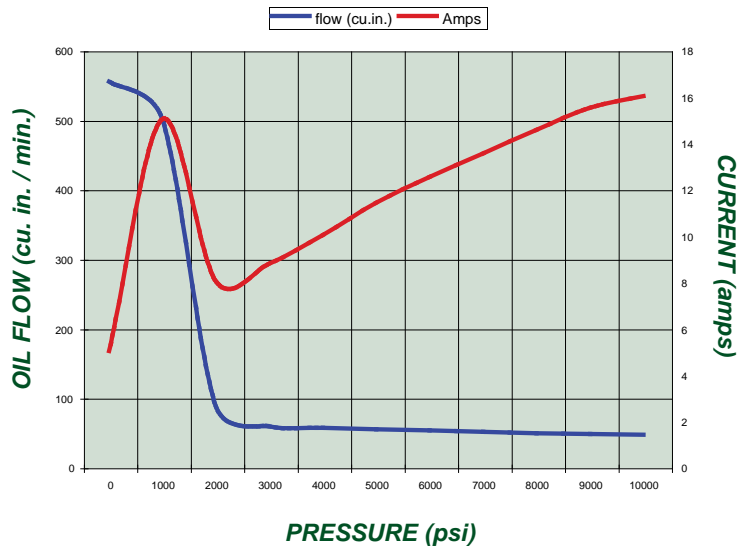
POWER PUMPS

G3 SERIES
ELECTRIC



G3132 Shown
See table for additional models

Performance Chart



A Simplex G3 power pump was used at a testing facility to pressurize manifolds for leaks. "This portable pump gave us more than enough power for our component testing and could also be used throughout the facility".

SIMPLEX ADVANTAGES

- ✓ Powered by a 115V - 60Hz, 1-1/8 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.
- ✓ High performance two-stage pump provides higher cross-over pressure for faster cycle times and equipment operation; 46 cubic inches / minute @ 10,000 PSI.
- ✓ Precision designed valve offers reliability and secure load holding; external adjustable relief standard on all models.
- ✓ Reservoirs available in 1 - 10 gallons; welded steel design.
- ✓ Ideal for use with small - mid sized hydraulic cylinders or tools.
- ✓ Heavy duty design for extended service applications.



GAUGES

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

- Pg. 81



HOSES

Large selection of standard, heavy duty and thermo plastic hydraulic hoses to meet your requirements and safety factor.

- Pg. 82-83



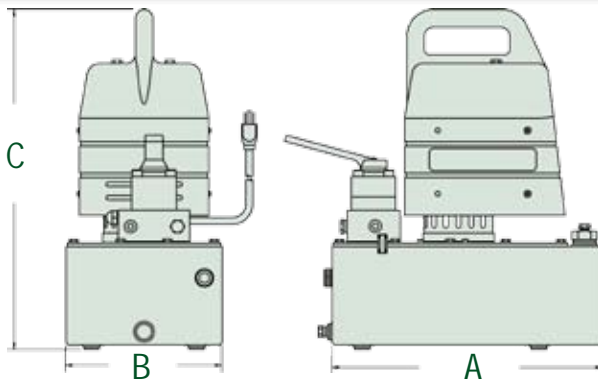
ROLL CAGE

Protect your power pump from unexpected worksite mishaps with a heavy duty roll cage. Dimensions: L - 25.13" x W - 15.13" x H - 22.13"

POWER PUMPS

G3 SERIES
ELECTRIC

Model Shown
G3122



Usable Reservoir Capacity 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

Product Ordering & Specifications

Model	Pressure Rating (psi)		Output Flow (cu.in./min.)		Motor Spec.		Valve Type	Pendant Control	Reservoir Capacity	Weight (lbs)
	1st Stage	2nd Stage	1st Stage	2nd Stage	(vac)	(amps)				
G3100	1,100	10,000	650	46	115	16	Dump	Motor	1	38
G3101	1,100	10,000	650	46	115	16	Dump	Motor	1	45
G3102	1,100	10,000	650	46	115	16	Dump	Motor	1.5	50
G3121	1,100	10,000	650	46	115	16	2W, 2P	Motor	1	45
G3122	1,100	10,000	650	46	115	16	2W, 2P	Motor	1.5	52
G3131	1,100	10,000	650	46	115	16	3W, 3P	Motor	1	48
G3132	1,100	10,000	650	46	115	16	3W, 3P	Motor	1.5	53
G3133	1,100	10,000	650	46	115	16	3W, 3P	Motor	2.5	63
G3162	1,100	10,000	650	46	115	16	3W, 3P	Motor / Solenoid	1.5	57
G3163	1,100	10,000	650	46	115	16	3W, 3P	Motor / Solenoid	2.5	67
G3141	1,100	10,000	650	46	115	16	4W, 3P	Motor	1	48
G3142	1,100	10,000	650	46	115	16	4W, 3P	Motor	1.5	53
G3143	1,100	10,000	650	46	115	16	4W, 3P	Motor	2.5	63
G3172	1,100	10,000	650	46	115	16	4W, 3P	Motor / Solenoid	1.5	57
G3173	1,100	10,000	650	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 1/8 HP Universal Motor / 46 cu.in.
Motor Voltage	1 — 115 VAC Single Phase 2 — 230 VAC Single Phase
Valve Function	<div> 3 — 0 = Dump 1 = 2 Way Dump 2 = 2 Way Manual </div> <div> 3 — 3 = 3 Way Manual 4 = 4 Way Manual 5 = 2 Way Solenoid </div> <div> 3 — 6 = 3 Way Solenoid 7 = 4 Way Solenoid 8 = Port Block </div>
Reservoir Size	<div> 2 — 1 = 1 Gal. (metal) 2 = 1.5 Gal. (metal) </div> <div> 2 — 3 = 2.5 Gal. (metal) 5 = 5 Gal. (metal) </div> <div> 2 — 6 = 10 Gal. (metal) </div>
Factory Installed Options*	<div> C = Caster Wheel Kit F = Foot Switch (Motor) G = Pump Mounted Gauge </div> <div> L = Locking Style Manifold O = Oil Filter P = Pressure Switch </div> <div> R = Roll Cage S = Foot Switch (Valve) </div>



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

SIMPLEX

POWER PUMPS

G4 SERIES
ELECTRIC



G4173M Shown
See table for additional models

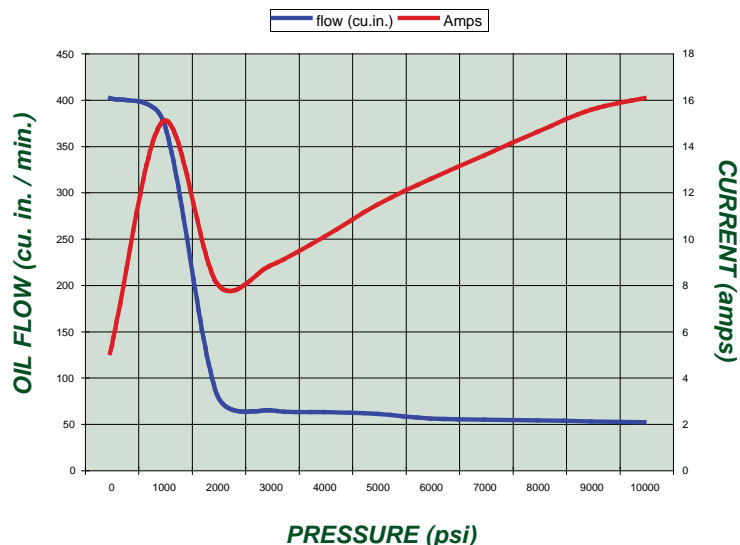


The Simplex G4 power pump along with the S3000A spreader was used to pry apart the rusted doors on this steel shipping container.

SIMPLEX ADVANTAGES

- ✓ Powered by a 115V - 60Hz, 1-1/2 hp induction motor (1,725 rpm); low startup voltage, draws 16 amps at full load (230V models available).
- ✓ High performance two-stage pump provides higher cross-over pressure for faster cycle times and equipment operation; 55 cubic inches / minute @ 10,000 PSI.
- ✓ Precision designed valve offers reliability and secure load holding; external adjustable relief standard on all models.
- ✓ Reservoirs available in 1.5 - 20 gallons; welded steel design.
- ✓ Ideal for use with mid sized hydraulic cylinders or tools.
- ✓ Quiet operation, plus heavy duty design for extended applications.

Performance Chart



COUPLERS



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

- Pg. 78-79

HOSES



Large selection of standard, heavy duty and thermo plastic hydraulic hoses to meet your requirements and safety factor.

- Pg. 82-83

ROLL CAGE



Protect your power pump from unexpected worksite mishaps with a heavy duty roll cage. Dimensions: L - 25.13" x W - 15.13" x H - 22.13"

CONTROL VALVES



Simplex offers 2, 3 and 4 way valves to operate single and double acting cylinders and tools.

- Pg. 74-75




*G4 SERIES
ELECTRIC*



Product Ordering & Specifications										
Model	Pressure Rating (psi)		Output Flow (cu.in./min.)		Motor Spec.		Valve Type	Pendant Control	Reservoir Capacity	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

Additional Pump Configurations

	MODEL	SELECTIONS
Class	G	Power Pump
Series	4	1 1/2 HP Induction Motor / 55 cu.in.
Motor Voltage	1	1 = 115 VAC Single Phase 2 = 230 VAC Single Phase
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> <div>8 = Port Block</div>
Reservoir Size	2	<div>2 = 1.5 Gal. (metal)</div> <div>3 = 2.5 Gal. (metal)</div> <div>5 = 5 Gal. (metal)</div> <div>6 = 10 Gal. (metal)</div> <div>7 = 20 Gal. (metal)</div>
Factory Installed Options*		<div>C = Caster Wheel Kit</div> <div>F = Foot Switch (Motor)</div> <div>G = Pump Mounted Gauge</div> <div>L = Locking Style Manifold</div> <div>M = Motor Pendant</div> <div>O = Oil Filter</div> <div>P = Pressure Switch</div> <div>R = Roll Cage</div> <div>S = Foot Switch (Valve)</div>





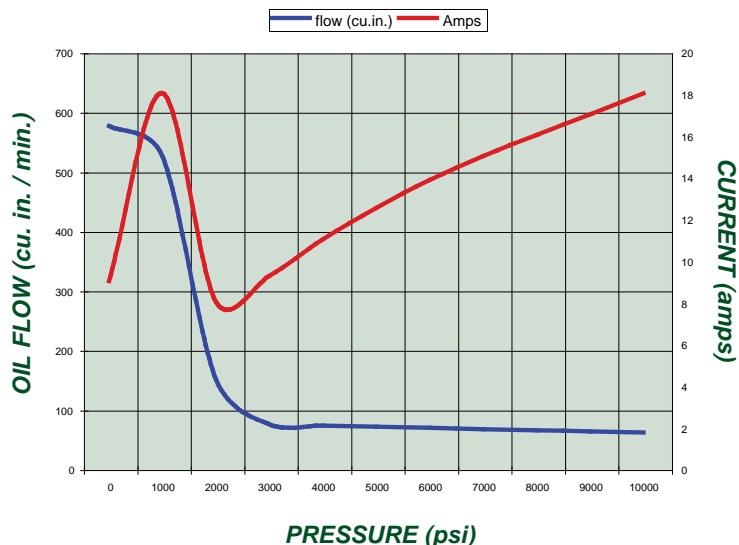
POWER PUMPS

G5 SERIES
ELECTRIC



G5132G Shown
See table for additional models

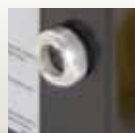
Performance Chart



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.

SIMPLEX ADVANTAGES

- ✓ 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).
- ✓ Equipped with a 15' remote power controlled pendant.
- ✓ High performance two-stage pump provides higher cross-over pressure for faster cycle times and equipment operation; 55 cubic inches / minute @ 10,000 PSI. Optional 3 stage for progressive force.
- ✓ Precision designed valve offers reliability and secure load holding; external adjustable relief standard on all models.
- ✓ Reservoirs available in 1.5 - 20 gallons; welded steel design.
- ✓ Ideal for use with mid to large sized hydraulic cylinders or tools.
- ✓ Best weight-to-performance ratio in its class, starting at 64 lbs.



SITE GAUGE

Metal reservoir site gauge for easy viewing of oil level.



MANIFOLDS

Simplex manifolds are the ideal solution in obtaining precise control when operating multiple cylinders.

- Pg. 77



HOSES

Large selection of standard, heavy duty and thermo plastic hydraulic hoses to meet your requirements and safety factor.

- Pg. 82-83

*G5 SERIES
ELECTRIC*



Product Ordering & Specifications

* 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.



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

POWER PUMPS

50 SERIES
ELECTRIC



The 50 Series pump can power a variety of Simplex tools and withstands the daily wear and tear in this shipyard.

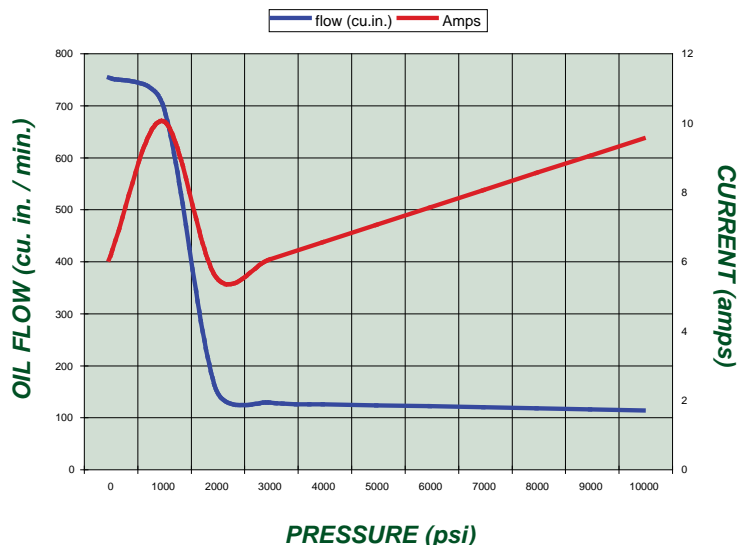


PEM5045 Shown
See table for additional models

SIMPLEX ADVANTAGES

- ✓ Powered by a dual voltage - 3 phase, 3 hp ac motor (3,450 rpm); low startup voltage, draws 9.5 amps at full load.
- ✓ Starter box is equipped on all models.
- ✓ Two-stage pump operation provides fast tool performance; 110 cubic inches / minute @ 10,000 PSI.
- ✓ Precision designed valve offers reliability and secure load holding; external adjustable relief standard on all models.
- ✓ Reservoirs available in 5 - 40 gallons; welded steel design.
- ✓ Ideal for use with mid - large sized hydraulic cylinders or tools.
- ✓ Ideal for production and multi-cylinder lift systems, starting at 162 lbs.
- ✓ Quiet running (80dBA).

Performance Chart



GAUGES

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

- Pg. 81



MANIFOLDS

Simplex manifolds are the ideal solution in obtaining precise control when operating multiple cylinders.

- Pg. 77



COUPLERS

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

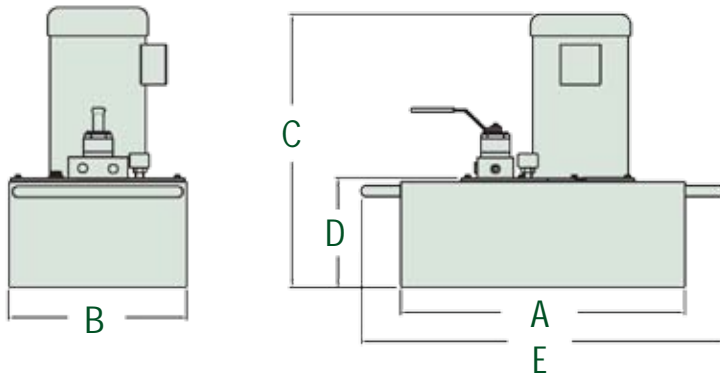
- Pg. 78-79



POWER PUMPS

50 SERIES
ELECTRIC

Model Shown
PEM5045



Usable Reservoir Capacity (Gal.)	Usable Oil Capacity (cu.in.)	A	B	C	D	E
		(in)	(in)	(in)	(in)	(in)
5	1,150	19 5/8	12 5/16	18 5/16	8	25 3/32
10	2,300	19 5/8	12 5/16	23 3/4	12 1/2	25 3/32
20	4,600	19 5/8	23 1/2	23 3/4	12 1/2	25 3/32

Product Ordering & Specifications										
Model	Pressure Rating (psi)		Output Flow (cu.in./min.)		Motor Spec.		Valve Type	Pendant Control	Reservoir Capacity	Weight (lbs)
	1st Stage	2nd Stage	1st Stage	2nd Stage	(vac)	(amps)				
PEM5035	1,500	10,000	650	110	230	10	3W, 3P	----	5	162
PEM5036	1,500	10,000	650	110	230	10	3W, 3P	----	10	217
PEM5056	1,500	10,000	650	110	230	10	3W, 3P (L)	----	10	218
PES5035	1,500	10,000	650	110	230	10	3W, 3P	Solenoid	5	165
PES5036	1,500	10,000	650	110	230	10	3W, 3P	Solenoid	10	220
PES5056	1,500	10,000	650	110	230	10	3W, 3P (L)	Solenoid	10	221
PEM5045	1,500	10,000	650	110	230	10	4W, 3P	----	5	162
PEM5046	1,500	10,000	650	110	230	10	4W, 3P	----	10	217
PEM5066	1,500	10,000	650	110	230	10	4W, 3P (L)	----	10	218
PES5045	1,500	10,000	650	110	230	10	4W, 3P	Solenoid	5	165
PES5046	1,500	10,000	650	110	230	10	4W, 3P	Solenoid	10	220
PES5066	1,500	10,000	650	110	230	10	4W, 3P (L)	Solenoid	10	221

(L) = Lock Valve Manifold

Additional Pump Configurations

MODEL	SELECTIONS
Class	P — Power Pump
Motor Controls	E — E = No Options F = Foot Switch P = Pendant Switch
Valve Style	S — S = Solenoid M = Manual
Pump Series	5 — 3 HP, 3 Phase Motor with Starter Box
Options	2 — 0 = No Options 4 = Filter Only 2 = Heat Exchanger & Filter
Valve Type	3 — 3 = 3 Way 3 Position 5 = 3 Way Locking Style 4 = 4 Way 3 Position 6 = 4 Way Locking Style
Reservoir Size	5 — 5 = 5 Gallon 7 = 20 Gallon 6 = 10 Gallon 8 = 40 Gallon
Motor Voltage	Blank = 230 VAC 3 Phase B = 380 VAC, 3 Phase A = 460 VAC 3 Phase C = 515 VAC, 3 Phase

SIMPLEX

POWER PUMPS

60 SERIES
ELECTRIC



When it comes to large projects, this Simplex 60 Series pump provides the highest available flows and industrial grade quality to power numerous high tonnage lifts.

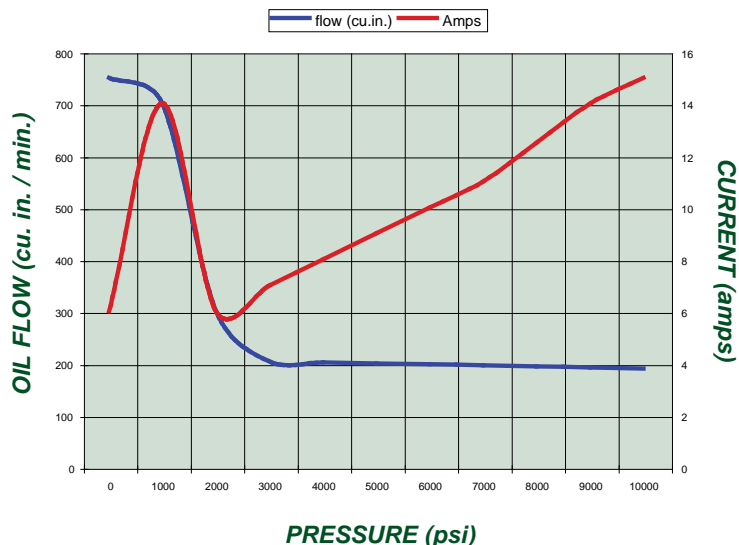


PES6045 Shown
See table for additional models

SIMPLEX ADVANTAGES

- ✓ **Powered by a dual voltage - 3 phase, 5 hp ac motor (3,450 rpm); low startup voltage, draws 15 amps at full load.**
- ✓ **Starter box is equipped on all models.**
- ✓ **Two-stage pump operation provides fast tool performance; 175 cubic inches / minute @ 10,000 PSI.**
- ✓ **Precision designed valve offers reliability and secure load holding; external adjustable relief standard on all models.**
- ✓ **Reservoirs available in 5 - 40 gallons; welded steel design.**
- ✓ **Ideal for use with mid - large sized hydraulic cylinders or tools.**
- ✓ **Ideal for production and multi-cylinder lift systems, starting at 162 lbs.**
- ✓ **Quiet running (80dBA).**

Performance Chart



START / STOP SWITCH TERMINAL

Durable plastic, industrial rated on / off switch located on the right side of the control box ensures safety in the harshest work environments.



GAUGES

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

- Pg. 81



MANIFOLDS

Simplex manifolds are the ideal solution in obtaining precise control when operating multiple cylinders.

- Pg. 77



HOSES

Large selection of standard, heavy duty and thermo plastic hydraulic hoses to meet your requirements and safety factor.

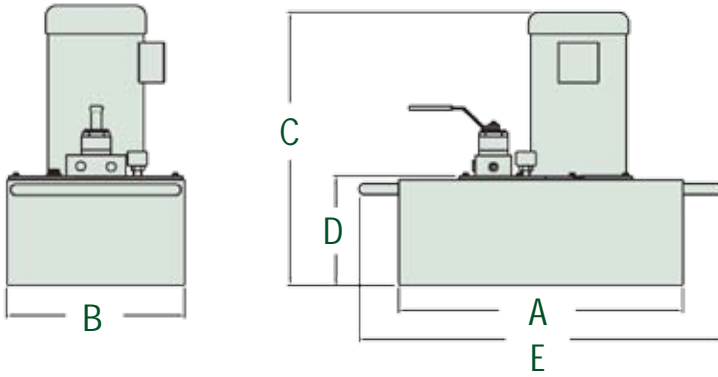
- Pg. 82-83



POWER PUMPS

60 SERIES
ELECTRIC

Model Shown
PES6045



Usable Reservoir Capacity (Gal.)	Usable Oil Capacity (cu.in.)	A	B	C	D	E
		(in)	(in)	(in)	(in)	(in)
5	1,150	19 5/8	12 5/16	18 5/16	8	25 5/32
10	2,300	19 5/8	12 5/16	23 3/4	12 1/2	25 5/32
20	4,600	19 5/8	23 1/2	23 3/4	12 1/2	25 5/32



Product Ordering & Specifications										
Model	Pressure Rating (psi)		Output Flow (cu.in./min.)		Motor Spec.		Valve Type	Pendant Control	Reservoir Capacity	Weight (lbs)
	1st Stage	2nd Stage	1st Stage	2nd Stage	(vac)	(amps)				
PEM6035	2,000	10,000	650	175	230	15	3W, 3P	----	5	162
PEM6036	2,000	10,000	650	175	230	15	3W, 3P	----	10	217
PES6035	2,000	10,000	650	175	230	15	3W, 3P	Solenoid	5	165
PES6036	2,000	10,000	650	175	230	15	3W, 3P	Solenoid	10	220
PEM6045	2,000	10,000	650	175	230	15	4W, 3P	----	5	162
PEM6046	2,000	10,000	650	175	230	15	4W, 3P	----	10	217
PES6045	2,000	10,000	650	175	230	15	4W, 3P	Solenoid	5	165
PES6046	2,000	10,000	650	175	230	15	4W, 3P	Solenoid	10	220

Additional Pump Configurations

MODEL	SELECTIONS
Class	P — Power Pump
Motor Controls	E — E = No Options F = Foot Switch P = Pendant Switch
Valve Style	S — S = Solenoid M = Manual
Pump Series	6 — 5 HP, Multi-Volt, 3 Phase motor with Starter Box / 175 cu.in.
Options	2 — 0 = No Options 4 = Filter Only 2 = Heat Exchanger & Filter
Valve Type	3 — 3 = 3 Way 3 Position 5 = 3 Way Locking Style 4 = 4 Way 3 Position 6 = 4 Way Locking Style
Reservoir Size	5 — 5 = 5 Gallon 7 = 20 Gallon 6 = 10 Gallon 8 = 40 Gallon
Motor Voltage	Blank = 230 VAC 3 Phase B = 380 VAC A = 460 VAC 3 Phase C = 515 VAC

SIMPLEX

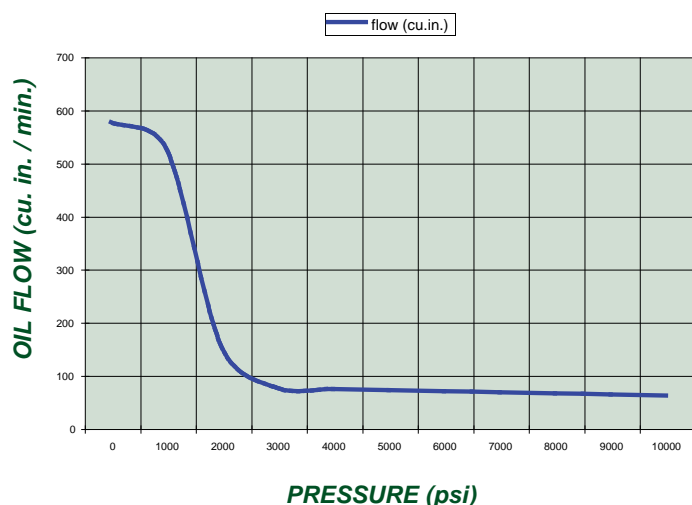
POWER PUMPS

G5 SERIES
AIR



G5773 Shown
See table for additional models

Performance Chart



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.

SIMPLEX ADVANTAGES

- ✓ 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.
- ✓ High performance two-stage pump provides higher cross-over pressure for faster cycle times and equipment operation; 55 cubic inches / minute @ 10,000 PSI. Optional 3 stage for progressive force.
- ✓ Precision designed valve offers reliability and secure load holding; external adjustable relief standard on all models.
- ✓ Reservoirs available in 1.5 - 20 gallons; welded steel design.
- ✓ Ideal for use with mid sized hydraulic cylinders or tools.
- ✓ Compact, lightweight design within its class, starting at 50 lbs.



FILTER & LUBRICATOR

All models come equipped with a filter / lubricator assembly.



HOSES

Large selection of standard, heavy duty and thermo plastic hydraulic hoses to meet your requirements and safety factor. - Pg. 82-83



COUPLERS

High flow quick disconnect couplers provide a quick change to a variety of pumps. - Pg. 78-79



ROLL CAGE

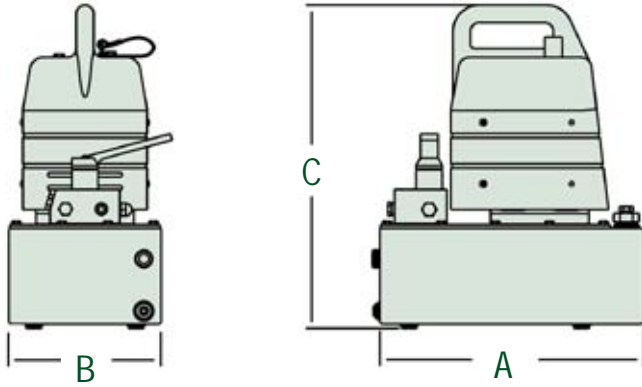
Protect your power pump from unexpected worksite mishaps with a heavy duty roll cage. Dimensions: L - 25.13" x W - 15.13" x H - 22.13"

POWER PUMPS

G5 SERIES

AIR

Model Shown
G5773



Usable Reservoir Capacity Gallons	A	B	C
	(in)	(in)	(in)
1.5	15.13	8.75	18.59
2.5	17	9.75	18.59
5	25.10	11.75	18.59
10	25.10	11.75	22.84
20	28	19.60	22.84

Product Ordering & Specifications

Model	Pressure Rating (psi)		Output Flow (cu.in. / min.)		Motor Spec.		Valve Type	Pendant Control	Reservoir Capacity	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

Class	MODEL	SELECTIONS	
	G	Power Pump	
Series	5	3 HP Air Motor / 55 cu.in.	
Motor Type	7	7 = Rotary Vane	
Valve Function	3	0 = Dump 1 = 2 Way Dump 2 = 2 Way Manual	3 = 3 Way Manual 4 = 4 Way Manual 5 = 2 Way Solenoid
Reservoir Size	5	2 = 1.5 Gal. (metal) 3 = 2.5 Gal. (metal)	5 = 5 Gal. (metal) 6 = 10 Gal. (metal)
Factory Installed Options*		B = 3 Stage Pump C = Caster 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.

SIMPLEX

POWER PUMPS

G4 SERIES
GAS



G4833 Shown
See table for additional models

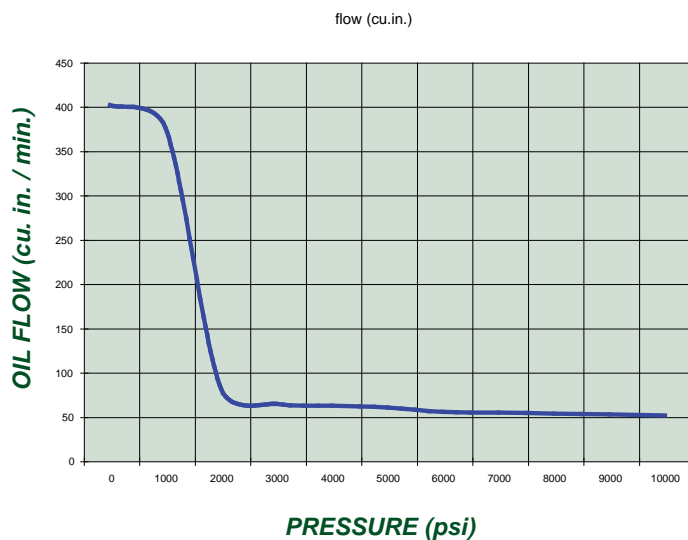


The location to repair this dock foundation needed the versatility of the G4 gas power pump. "Worksites know no boundaries; the G4 performance proved itself in the most rugged, remote areas".

SIMPLEX ADVANTAGES

- ✓ **Powered by a 4 hp Briggs & Stratton® gas motor.**
- ✓ **Equipped with a carry handlebar on all models.**
- ✓ **High performance two-stage pump provides higher cross-over pressure for faster cycle times and equipment operation; 50 cubic inches / minute @ 10,000 PSI.**
- ✓ **Precision designed valve offers reliability and secure load holding; external adjustable relief standard on all models.**
- ✓ **Reservoirs available in 1.5 - 20 gallons; welded steel design.**
- ✓ **Ideal for use with mid sized hydraulic cylinders or tools.**
- ✓ **Compact, self contained design, starting at 53 lbs.**

Performance Chart



HOSES



Large selection of standard, heavy duty and thermo plastic hydraulic hoses to meet your requirements and safety factor. - Pg. 82-83



GAUGES

Improve your system visibility and safety by adding an inline hydraulic gauge to your circuit. - Pg. 81

Advisory

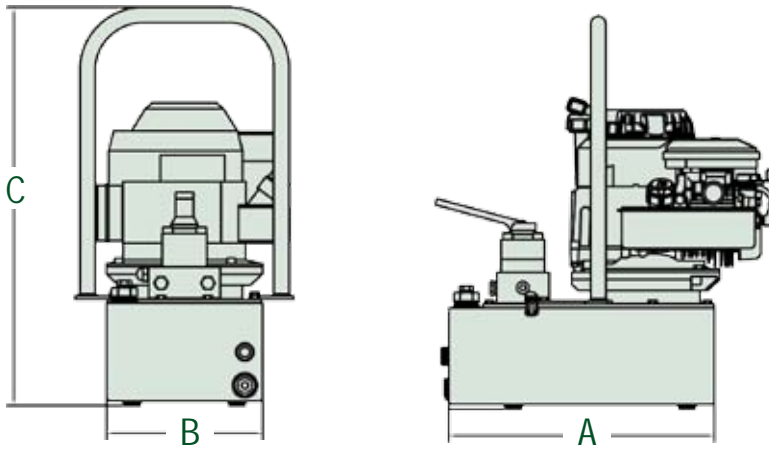


Please refer to pages 4 & 5 for a complete list of safety tips and recommendations to ensure that your Simplex equipment will perform to its full potential.

POWER PUMPS

G4 SERIES
GAS

Model Shown
G4833



Usable Reservoir Capacity 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

Product Ordering & Specifications								
Model	Pressure Rating		Output Flow		Motor	Valve Type	Reservoir Capacity	Weight (lbs)
	1st Stage	2nd Stage	1st Stage	2nd Stage	B&S			
G4833	1,100	10,000	700	50	4 HP	3W, 3P	2.5	53
G4835	1,100	10,000	700	50	4 HP	3W, 3P	5	108
G4843	1,100	10,000	700	50	4 HP	4W, 3P	2.5	53
G4845	1,100	10,000	700	50	4 HP	4W, 3P	5	108

Additional Pump Configurations



	MODEL	SELECTIONS
Class	G	Power Pump
Series	4	4 HP Gas Motor
Motor Type	8	8 = 4 HP Briggs & Stratton® Gas Engine / 50 cu.in.
Valve Function	3	0 = Dump 1 = 2 Way Dump 2 = 2 Way Manual 3 = 3 Way Manual 4 = 4 Way Manual 8 = Port Block
Reservoir Size	5	2 = 1.5 Gal. (metal) 3 = 2.5 Gal. (metal) 5 = 5 Gal. (metal) 6 = 10 Gal. (metal) 7 = 20 Gal. (metal)
Factory Installed Options*		C = Caster 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.

POWER PUMPS

50 SERIES
GAS



The Simplex 50 Series gas pump powered a 4 point lift system to raise this historic structure for relocation.

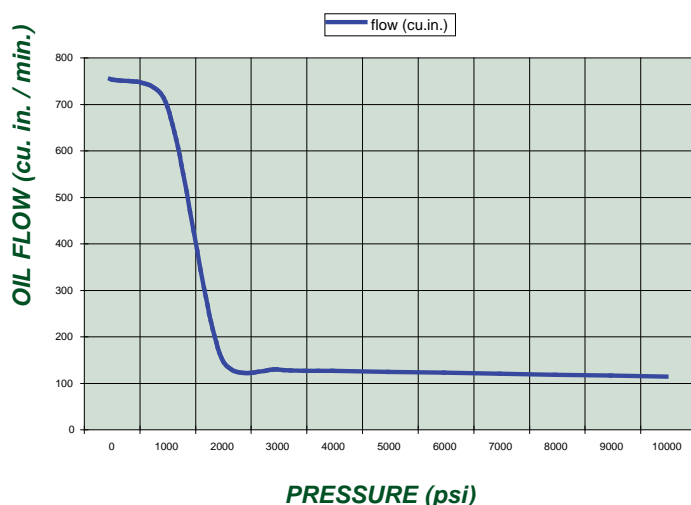


PGHM5132 Shown
See table for additional models

SIMPLEX ADVANTAGES

- ✓ Powered by a 5.5 hp Honda® gas motor.
- ✓ Equipped with a roll cage on all models.
- ✓ High performance two-stage pump provides higher cross-over pressure for faster cycle times and equipment operation; 110 cubic inches / minute @ 10,000 PSI.
- ✓ Precision designed valve offers reliability and secure load holding; external adjustable relief standard on all models.
- ✓ Reservoirs available in 2 - 20 gallons; welded steel design.
- ✓ Ideal for use with mid - large sized hydraulic cylinders or tools.
- ✓ Compact, self contained design, starting at 68 lbs.

Performance Chart



MANIFOLDS



Simplex manifolds are the ideal solution in obtaining precise control when operating multiple cylinders.

- Pg. 77

COUPLERS



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

- Pg. 78-79

HOSES



Large selection of standard, heavy duty and thermo plastic hydraulic hoses to meet your requirements and safety factor.

- Pg. 82-83

GAUGES



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

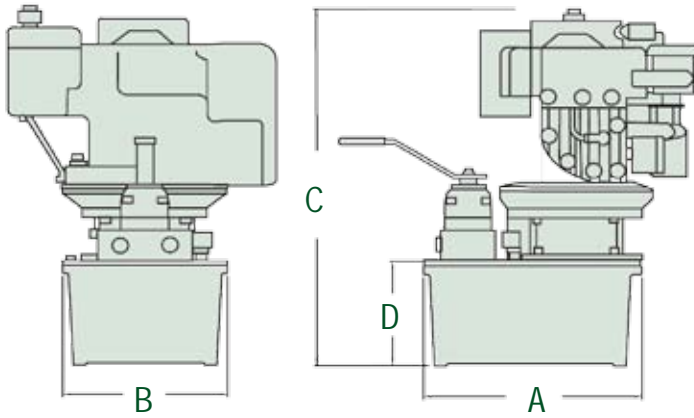
- Pg. 81



POWER PUMPS

50 SERIES
GAS

Model Shown
PGHM5132






Usable Reservoir Capacity	A	B	C	D
Gallons	(in)	(in)	(in)	(in)
2	12 1/4	12 1/4	22	6
5	19 5/8	12 1/4	24	8
10	19 5/8	12 1/4	28 1/2	12 1/2
20	19 5/8	23 1/2	28 1/2	12 1/2

Roll Bar Dimensions: 25 7/16" L x 20 1/2" H x 16 3/4" W

Product Ordering & Specifications								
Model	Pressure Rating (psi)		Output Flow (cu.in./ min.)		Motor Spec	Valve Type	Reservoir Capacity	Weight (lbs)
	1st Stage	2nd Stage	1st Stage	2nd Stage				
PGHM5032	1,200	10,000	650	110	5 1/2 HP	3W, 3P	2	68
PGHM5035	1,200	10,000	650	110	5 1/2 HP	3W, 3P	5	123
PGHM5042	1,200	10,000	650	110	5 1/2 HP	4W, 3P	2	68
PGHM5045	1,200	10,000	650	110	5 1/2 HP	4W, 3P	5	123

Additional Pump Configurations

MODEL	SELECTIONS
Class	P — Power Pump
Motor Controls	G — G = Gas Motor
Motor Type	H — H = 5 1/2 HP Honda® Motor
Valve Style	M — M = Manual
Pump Series	5 — 5 = 5 1/2 HP Gas Motor / 110 cu.in.
Factory Installed Options	1 — 0 = No Options 1 = Roll Bars Only 4 = Filter Only 5 = Roll Bars & Filter
Valve Type	3 — 2 = 2 Way 2 Position 3 = 3 Way 3 Position 4 = 4 Way 3 Position 5 = 3 Way Locking Style 6 = 4 Way Locking Style
Reservoir Size	2 — 2 = 2 Gallon 5 = 5 Gallon 6 = 10 Gallon 7 = 20 Gallon

Model	Order #	Description
	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 <i>Includes</i> * SHCS 3/8-16 X 2 1/24 GAUGE SHROUD MOUNTING2 * GAUGE BRACKET MANUAL1 * BHCS 10-24 X .50 316SS.....4 MANIFOLD ASSEMBLY1 * VALVE HANDLE ASSEMBLY.....1 GAUGE SHROUD ASSEMBLY1 INSTRUCTION SHEET1 * 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 <i>Includes</i> FOOT SWITCH1 18-3 POWER CORD 15 FOOT CORD SPADE TERMINAL3 INSTRUCTION SHEET1
	Order # G03 Protect your G Series pump from jobsite mishaps with a lightweight industrial grade Roll Cage.	ROLL CAGE KIT <i>Includes</i> 1/4 FENDER WASHER4 HHCS 1/4-20 X .75 W/NYLON S.S4 ROLL CAGE1 INSTRUCTION SHEET1
	Order # G04 - 115 (FOR 115 VOLT) 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 <i>Includes</i> HEAT EXCHANGER ASSEMBLY G5 115V1 BULKHEAD ELBOW 3/8" FLARE TUBE2 SWIVEL FITTING1 ELBOW 1/4" NPT TO 3/8" FLARE TUBE1 TUBE HEAT EXCHANGER PUMP TO COVER PLATE1 TUBE HEAT EXCHANGER COVER PLATE TO TANK1 STANDOFF HEAT EXCHANGER4 BHCS 1/4-20 X 3/84 HEX NUT 1/4-20 PLATD4 O-RING 7/16 X 5/82 RING TERMINAL 1/4"1 INSTRUCTION SHEET1





Accessory Adaptable G Series Pumps



ACCESSORY KITS

POWER PUMPS

G Series

Model	Order #	Description
	Order # G05 Protect your system from unwanted contaminants with an easy to install External Filter Kit.	EXTERNAL FILTER KIT <div>Includes</div> FILTER BLOCK W/ RELIEF ASSEMBLY1 ROLL PIN 1/8 X 3/8 LG1 SHCS 3/8-16 X 5.251 SHCS 3/8-16 X 6.254 INSTRUCTION SHEET4
	Order # G01 Provide a safe distance from large loads with a handy 15 ft. heavy duty Pendant Control Kit.	PENDANT MOTOR CONTROL KIT <div>Includes</div> PENDANT ASSEMBLY1 MEMBRANE SWITCH LABEL3 DECAL PENDANT INSTRUCTION1 SIMPLEX DECAL1 INSTRUCTION SHEET GO11
	Order # G06 Give your G Series pump mobility with heavy duty Swivel Casters for easier movement on tough terrain.	CASTER KIT <div>Includes</div> CASTER STRIP2 SWIVEL CASTER4 ACORN NUT 3/8-16 PLT4 FHCS 1/4-20 X 3/4 LGL4 INSTRUCTION SHEET GO61
	Order # WMT4 Run up to 4 different tools to add versatility to your G Series pump with a MultiPort Adapter Kit. FOR TORQUE WRENCH ONLY.	MULTI-PORT ADAPTER KIT <div>Includes</div> MULTI-PORT ADAPTER BLOCK1 VALVE ADAPTER MULTIPOINT ASSEMBLY2 PIPE PLUG 1/8" FLUSH W/ COATING4 SHCS 1/4-20 X 2" LG2 HEX PIPE PLUG 1/4" W/ COATING1 INSTRUCTION SHEET WMT41

Accessory Adaptable G Series Pumps



POWER PUMPS

Air Powered
Hydraulic Foot Pumps



Engineers selected the Simplex air pump when reliable 10,000 psi power was needed to run this production line fixture. "The three position treadle is easy to use and the pump runs on standard shop air."



Air Foot Pump Family Shown

SIMPLEX ADVANTAGES

- ✓ Powers a wide variety of single and double acting tools.
- ✓ Rugged all metal construction.
- ✓ High performance, reciprocating air motor for fast operation.
- ✓ Pressure relief valve protects hydraulic circuit.
- ✓ Quiet operation for in house production.
- ✓ 3 position treadle for advance, hold and retract.
- ✓ Runs efficiently on standard shop air @ 10cfm, 90psi.



GAUGES

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

- Pg. 81



COUPLERS

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

- Pg. 78-79



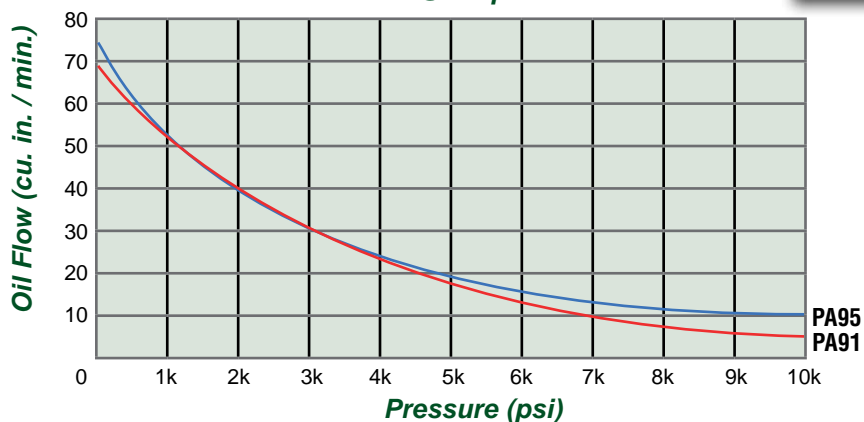
HOSES

Large selection of standard, heavy duty and thermo plastic hydraulic hoses to meet your requirements and safety factor.

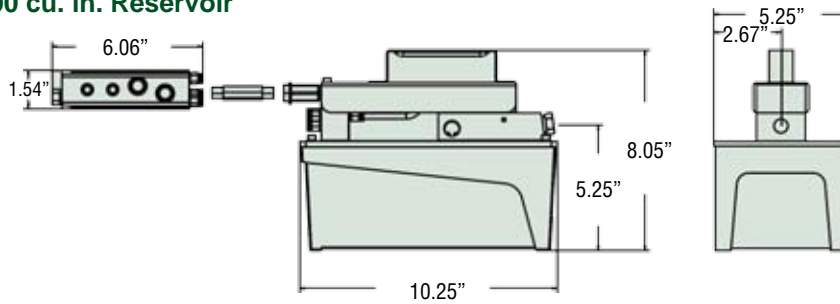
- Pg. 82-83

Performance Chart

Flow @100 psi Air



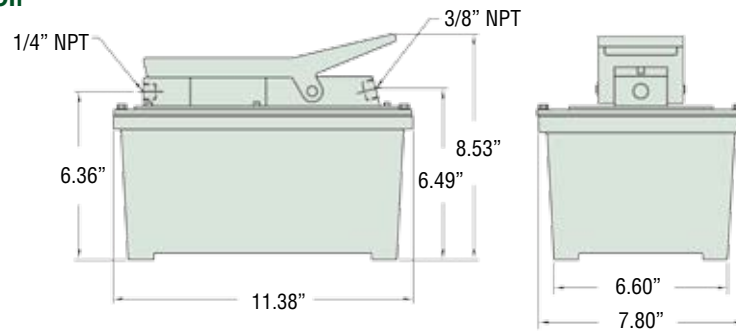
PA91-R
90 cu. in. Reservoir



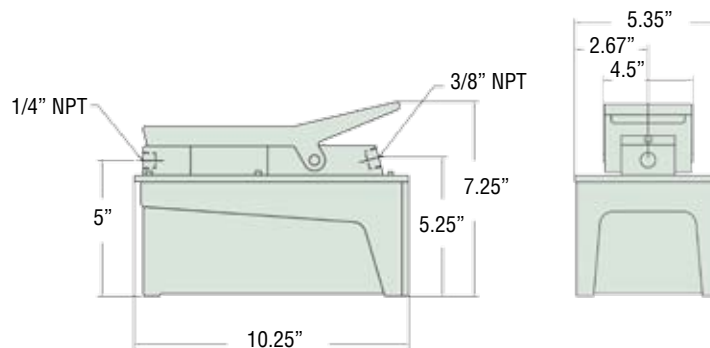
POWER PUMPS

*Air Powered
Hydraulic Foot Pumps*

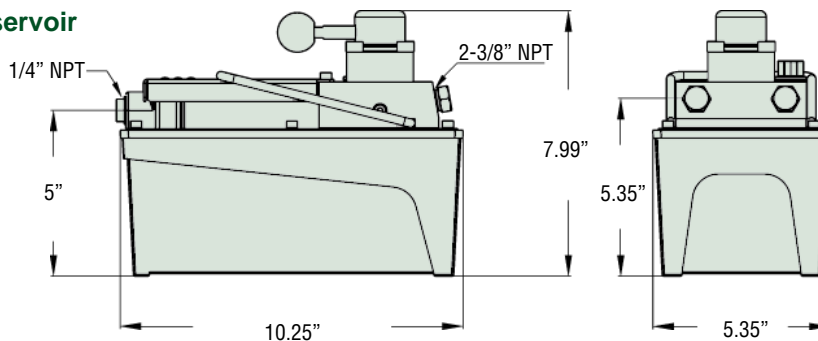
PA91-1 & PA95-1
230 cu. in. Reservoir



PA91 & PA95
90 cu. in. Reservoir



PA91D
90 cu. in. Reservoir



Product Ordering & Specifications

Model	Tool Type	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)
PA91	S/A	90	75	6	60 - 150	20
PA91-R	S/A	90	75	6	60 - 150	21
PA91-1	S/A	230	75	6	60 - 150	28
PA91-1R	S/A	230	75	6	60 - 150	29
PA91D	D/A	90	75	6	60 - 150	19
PA95	S/A	90	70	10	60 - 150	20
PA95-1	S/A	230	70	10	60 - 150	28

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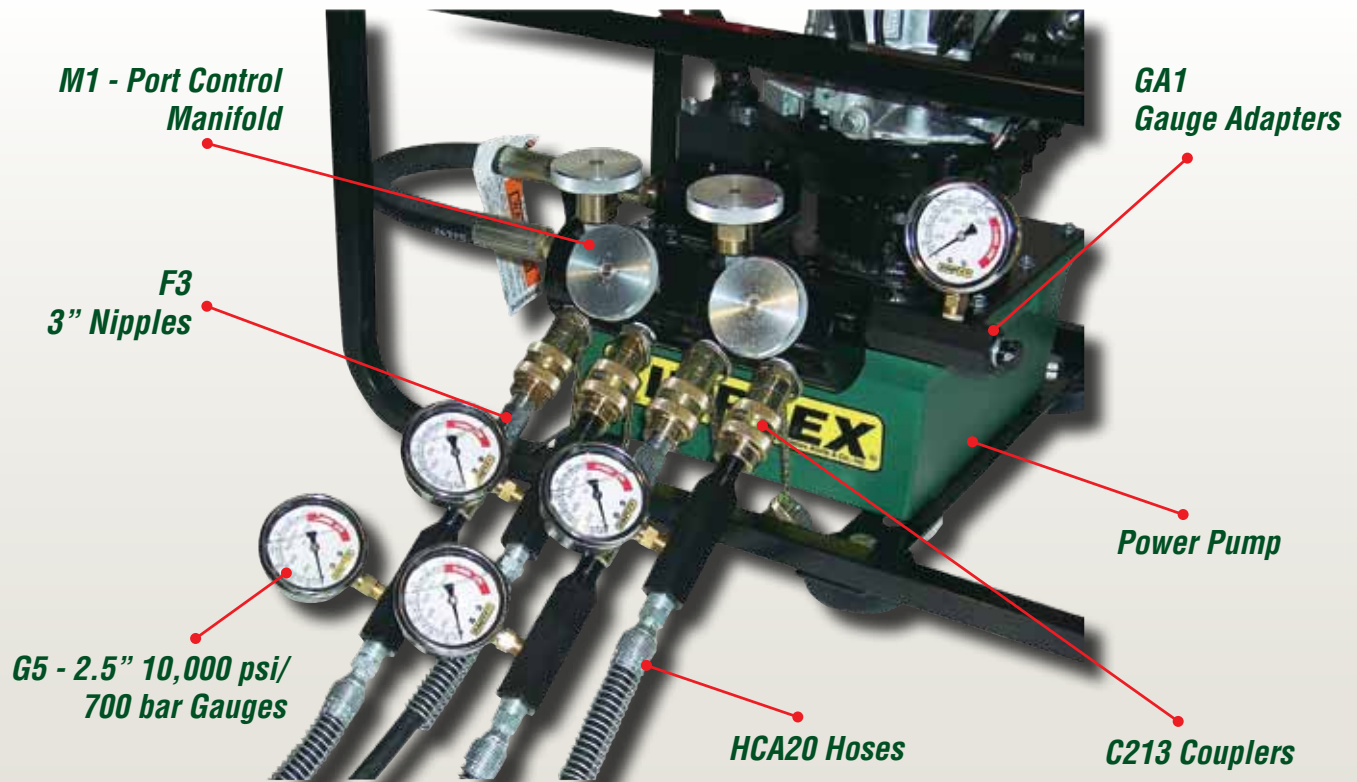
High Performance

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INTRODUCTION

SYSTEM ACCESSORIES



Pump with 4 port Manifold Shown

SIMPLEX SYSTEM ACCESSORY OVERVIEW

✓ Increase Your System Visibility

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.

✓ Increase Your System Control

Take advantage of the wide selection of configured inline system valves to maximize individual tool speed for safe and efficient control.

✓ Load Holding

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.

✓ Flexibility

Select from a large assortment of SIMPLEX forged 10,000 psi fittings to customize your plumbing configurations to your individual requirements.

✓ Easy Setup

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 3/8" ports are standard. Manifolds can be connected together to accommodate any size system.

COUPLERS / FITTINGS



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

GAUGES



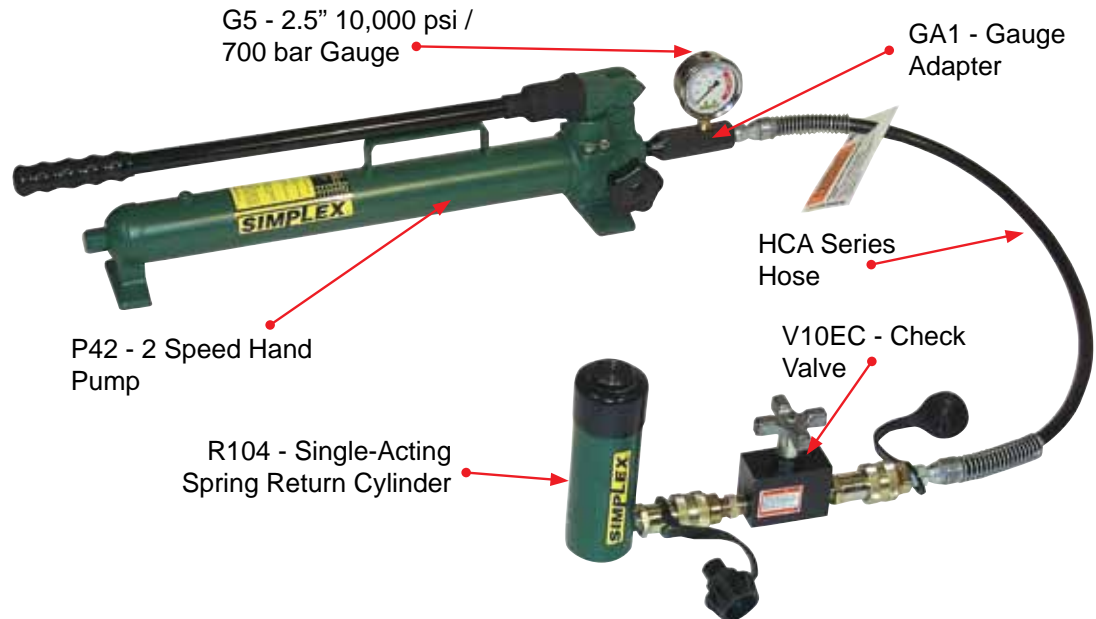
These analog and digital gauges give the operator a window to the system. Select from PSI or tonnage readings to meet your specific requirements. Simplex high pressure gauges offer reliability along with durability.

HOSES

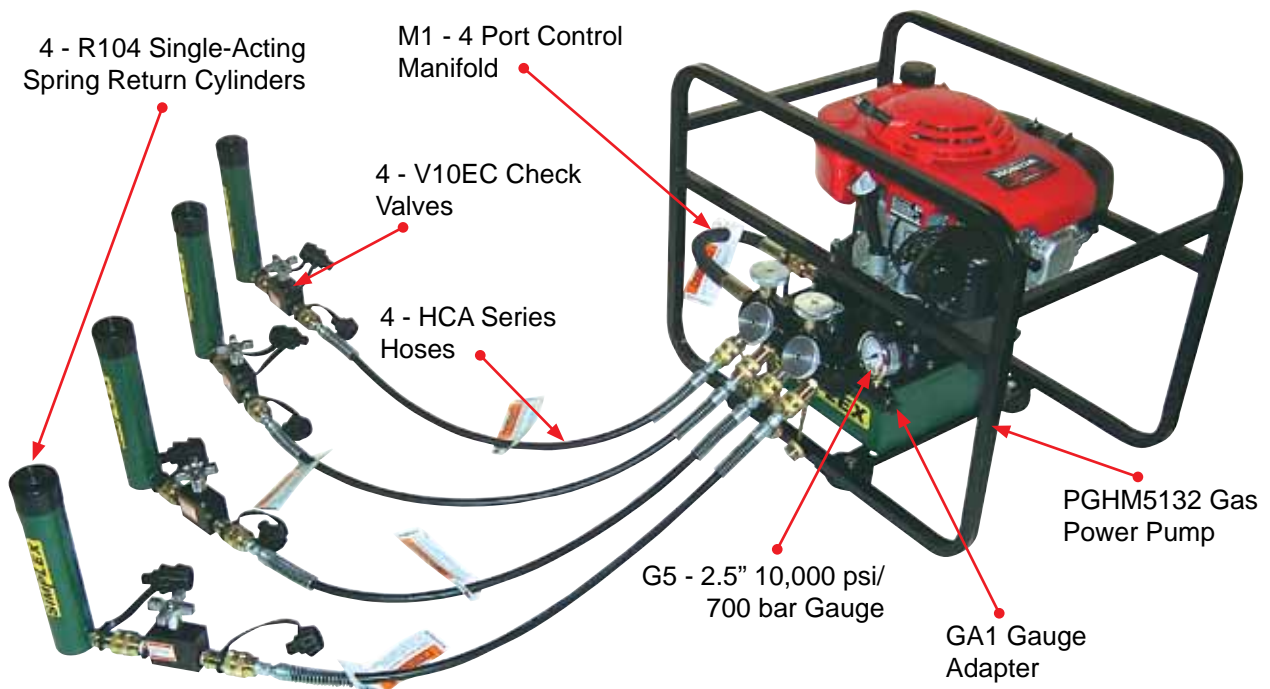



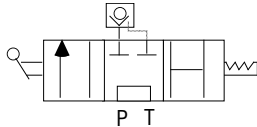
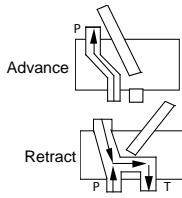

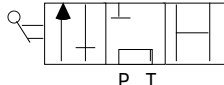
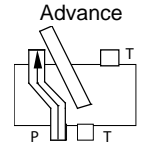

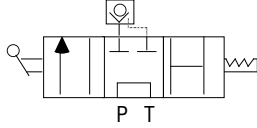
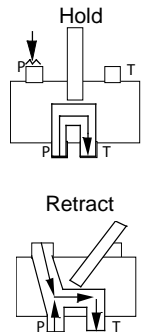

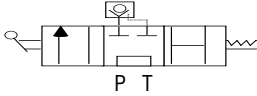
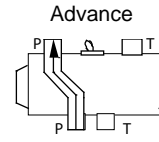

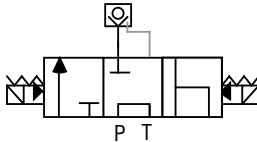
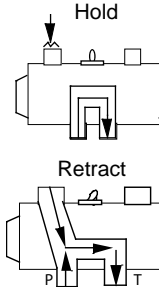

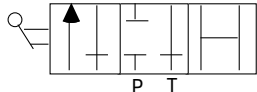
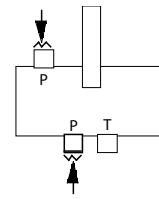

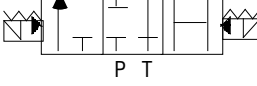
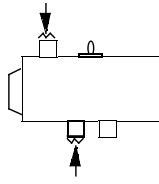
HD rubber and non-conductive thermo-plastic style hoses are ideal for demanding and continuous operation with up to a 4:1 safety factor.

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




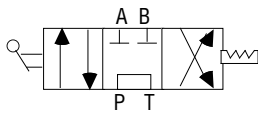
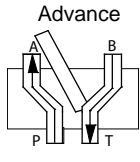

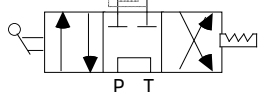
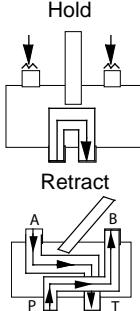

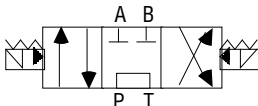
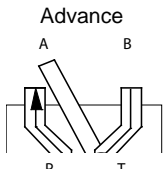

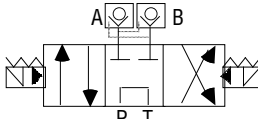
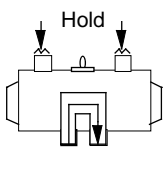

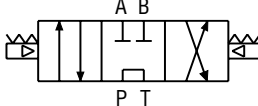
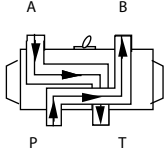
Detailed example of a 4 point lift, gas driven with M1 manifold & check valves.




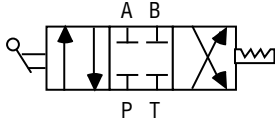
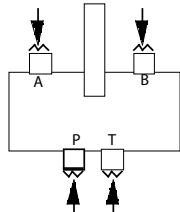

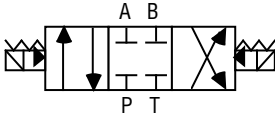
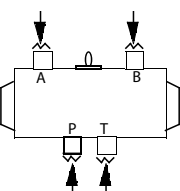
Model	Description	Hydraulic Schematic	Functional Flow Schematic
	VP2 Pump mounted, 2 position, 2 way valve is ideal for pressing, punching, crimping, staking or pulling applications when load holding is not needed.		
	VP3 Pump mounted, 3 position, 3 way valve is commonly used with single-acting cylinders for lifting applications or production work. The center position holds the load with the pump motor on or off.		
	VPL3 Pump mounted, 3 position, 3 way valve is the same as VP3, but with a built in pilot check valve. The VPL3 provides positive load holding in the center position, and will not allow pressure drop while shifting. Recommended for prestressing, post tensioning and precision holding applications.		
	VPS3 Pump mounted, electric solenoid actuated, 3 position, 3 way valve with remote pendant switch allows remote operation of system directional control.		
	VPSL3 Pump mounted, electric solenoid actuated, 3 position, 3 way valve with remote pendant switch is the same as the VPS3, but with a built in pilot operated check valve. The VPSL3 provides positive load holding in the center position, and will not allow pressure drop while shifting.		
Remote Mounted Valves - For Single Acting Cylinders & Tools			
	VRM3 & VRM3CC VRM3 is remote mounted, manual valve, 3 position, 3 way tandem center. (reference VP3 schematic) VRM3CC is remote mounted, manual valve, 3 position, 3 way closed center.		
	VRS3 & VRS3CC VRS3 is remote mounted, solenoid valve, 3 position, 3 way tandem center. (reference VPS3 schematic) VRS3CC is remote mounted, solenoid valve, 3 position, 3 way closed center.		


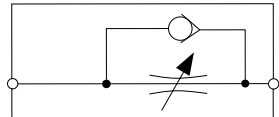

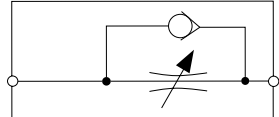

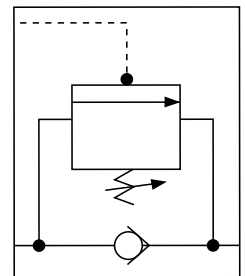

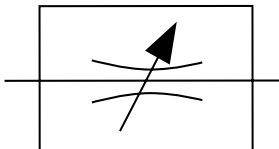

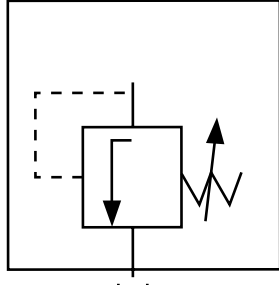

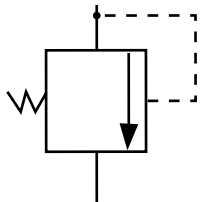
4 WAY CONTROL VALVES

SYSTEM ACCESSORIES

Model	Description	Hydraulic Schematic	Functional Flow Schematic
	VP4 Pump mounted, 3 position, 4 way valve is used with double-acting cylinders and tools. This valve controls direction of oil for advancing, holding & retracting. The center position holds the load with the pump motor running or off.		
	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 .		
	VPS4 Pump mounted, electric solenoid actuated, 3 position, 4 way valve with remote pendant switch. Same as VP4, but allows remote operation of directional control.		
	VPSL4 Pump mounted, electric solenoid actuated, 3 position, 4 way valve with remote pendant switch functions the same as VPS4, but with a built in pilot operated check valve. The VPSL4 provides positive load holding in the center position, and will not allow pressure drop while shifting.		
	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.		


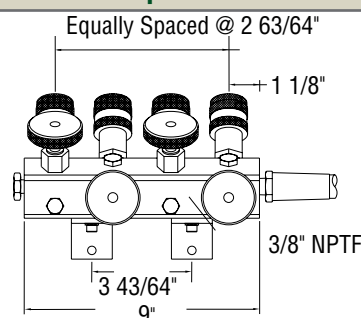

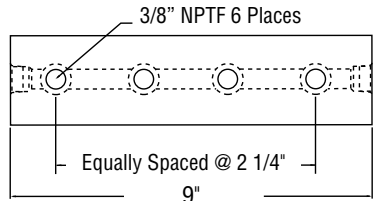

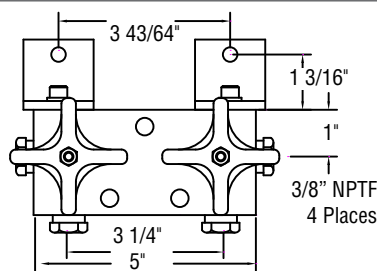

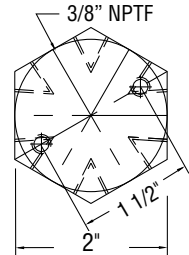

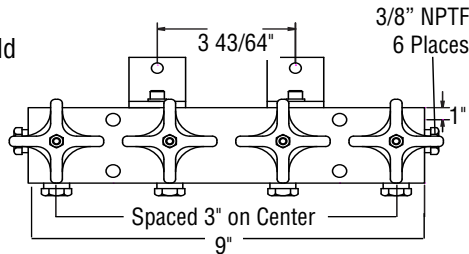
Remote Mounted Valves - For Double Acting Cylinders & Tools

	VRM4 & VRM4CC VRM4 is remote mounted, manual valve, 3 position, 4 way tandem center. (reference VP4 schematic) VRM4CC is remote mounted, manual valve, 3 position, 4 way closed center.	VRM4CC 	
	VRS4 & VRS4CC VRS4 is remote mounted, solenoid valve, 3 position, 4 way tandem center. (reference VPS4 schematic) VRS4CC is remote mounted, solenoid valve, 3 position, 4 way closed center.	VRS4CC 	

Model	Description	Hydraulic Schematic
	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).	
	Check Valve is a V10E with polarized high flow couplers for direct, rapid mounting to cylinder couplers.	
	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.	
	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)	
	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).	
	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	

HIGH PRESSURE MANIFOLDS

SYSTEM ACCESSORIES

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	
	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.	

Model	Description	
1/4" NPTF HIGH - FLOW COUPLERS		
For use on smaller tools, pumps and any tool with 1/4" threads. These couplers are plated to resist corrosion. Cylinder Half Couplers have male 1/4" NPTF threads; Hose Half Couplers have female 1/4" NPTF threads.		
	CT201	Ram Coupler Half with Dust Cap
	CT202	Hose Coupler Half with Dust Cap
	CT200	Ram & Hose Coupler Set with 2 Dust Caps
1/4" NPTF FLUSH FACE / NO SPILL COUPLERS		
Unique flush face design features push to connect operation with an auto lock sleeve on the CT211, and non-spill "dry" disconnect operation. Easy cleaning minimizes system contamination. This coupler should be used wherever oil spillage constitutes a safety or environmental hazard. Couplers have 1/4" NPTF threads.		
	CT210	Hose Coupler Half with Dust Cap
	CT211	Ram Coupler Half with Dust Cap
	CT212	Coupler Complete with 2 Dust Caps

3/8 NPTF COUPLERS











SYSTEM ACCESSORIES

Model	Description	
3/8" NPTF HIGH - FLOW COUPLERS		
These premium grade couplers provide maximum fluid flow and are plated to resist corrosion. Cylinder Half Couplers have male 3/8" NPTF threads & high strength rubber dust caps; Hose Half Couplers have female 3/8" NPTF threads.		
	C213	Hose Coupler Half with Dust Cap
	C211	Ram Coupler Half with Dust Cap
	C209	Coupler Set Complete with 2 Dust Caps
	CR215	Dust Cap
3/8" NPTF FLUSH FACE / NO SPILL COUPLERS		
Unique flush face design features push to connect operation with a sleeve lock, and non-spill "dry" disconnect operation. Easy cleaning minimizes system contamination. This coupler should be used wherever oil spillage constitutes a safety or environmental hazard. Couplers have 3/8" NPTF threads.		
	C513	Hose Coupler Half
	C511	Ram Coupler Half
	C509	Coupler Set Complete with 2 Dust Caps
	CD515 CD516	Dust Cap Ram Half Dust Cap Hose Half

SIMPLE

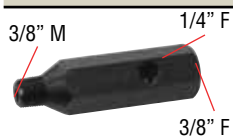
SYSTEM ACCESSORIES

NPTF FITTINGS & OIL

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

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

Gauge Adapter



GA1

Gauge Adapter Simplifies Your Connection Point

Simplex Hydraulic Oil

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



MODEL	HYDRAULIC OIL QUANTITY
A01	1 GALLON
A05	5 GALLONS
A055	55 GALLONS

VISCOSITY INDEX - 100 MINIMUM

VIS, SSU @ 100° F - 150 - 155

VIS, SSU @ 210° F - 45 - 50

VIS, SSU @ 0° F - < 15,000

POUR POINT - -50° F

FLASH POINT - 400° F

ANALINE POINT - 204.8° F






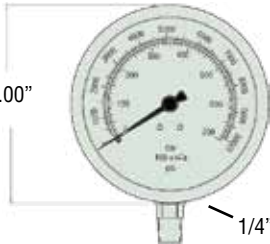





INCLUDES: ANTI-FOAM, ANTI-RUST

AND LOW TEMPERATURE ADDITIVES



ANALOG & DIGITAL GAUGES







SYSTEM ACCESSORIES

Model	Description		Dimensions																								
	G5	<p>The G5 is a high quality compact liquid filled gauge that reads in both PSI and Bar. Liquid filled to dampen needle vibration, the G5 is perfect for applications up to 10,000 psi.</p> <ul style="list-style-type: none">■ Liquid filled dampens needle vibration.■ 1% full scale accuracy.■ 500 psi increment.■ Stainless steel casing.	<p>2.50"</p>  <p>9/16" Square 1/4" NPT</p>																								
	G6	<p>The G6 is a larger, easy to read liquid filled gauge that reads in both PSI and Bar with increments of 500 psi. The calibrated scale reads from 0-10,000 psi with 10,000 psi to 15,000 psi as a warning zone.</p> <ul style="list-style-type: none">■ Liquid filled dampens needle vibration.■ 1% full scale accuracy.■ Large easy to read 4" face.■ Rubber blowout plugs for safety.■ Stainless steel casing.	<p>4.00"</p>  <p>9/16" Square 1/4" NPT</p>																								
	G7	<p>The G7 is a larger, easy to read liquid filled gauge that reads in both PSI and Bar with increments of 100 PSI/10bar. The calibrated scale reads from 0-10,000 psi.</p> <ul style="list-style-type: none">■ Liquid filled dampens needle vibration.■ 1% full scale accuracy.■ Large easy to read 4" face.■ Rubber blowout plugs for safety.■ Stainless steel casing.■ Standard on all Simplex Torque Wrench Pumps.	<p>4.00"</p>  <p>1/4" NPT</p>																								
	GD1	<p>The GD1 is designed for the high cycle pressure application where mechanical gauges don't hold up. The GD1 is a direct mount, compact gauge with an all stainless steel sensor that is vibration & shock resistant. (0-10,000 psi)</p> <ul style="list-style-type: none">■ Self powered Lithium batteries.■ Full 4 digit display.■ + / - .25% full scale accuracy.■ 10 million cycle life minimum.	 <p>2.66" 5/8" 1/4" NPT</p>																								
	GD2	<p>The GD2 digital gauge combines the best features of analog and digital instruments. The 0.75" high full 4 digit display is easily read at a distance and the "analog" bar graph allows instant estimation of changing pressures. The all stainless steel sensor is vibration and shock resistant. (0-10,000 psi)</p> <ul style="list-style-type: none">■ 0.75" characters and 270° bar graph "analog" readout.■ Splash proof phenolic housing.■ + / - .25% full scale accuracy.■ Keypad enable/disable of peak high or peak low hold.	 <p>5.45" 1.33" 7/8" Flats 1/4" NPT</p>																								
	GT5 GT20 GT25 GT30 GT100 GTH12 GTH60	<table><tr><th>CALIBRATED RANGE 0-10,000 PSI/TONS</th><th>FACE DIA.</th><th>CYLINDERS USED WITH</th></tr><tr><td>0-5, 10, 15</td><td>4"</td><td>ALL 5, 10 & 15 TON MODELS</td></tr><tr><td>0-20, 50</td><td>4"</td><td>ALL 20 RFS & RLS 50 TON MODELS</td></tr><tr><td>0-25, 55, 100</td><td>4"</td><td>ALL 25 & 55 RFS & RLS 100 TON MODELS</td></tr><tr><td>0-30, 50, 100</td><td>4"</td><td>30 TON MODELS, 50 & 100 RLR & RLN</td></tr><tr><td>0-100, 150, 200</td><td>4"</td><td>RDA 100 & 200 SERIES RLR & RLN 150 & 200</td></tr><tr><td>0-12, 20, 30</td><td>4"</td><td>12, 20 & 30 TON RC & RCD SERIES</td></tr><tr><td>0-60, 100, 150</td><td>4"</td><td>60, 100 & 150 TON RC & RCD SERIES</td></tr></table>	CALIBRATED RANGE 0-10,000 PSI/TONS	FACE DIA.	CYLINDERS USED WITH	0-5, 10, 15	4"	ALL 5, 10 & 15 TON MODELS	0-20, 50	4"	ALL 20 RFS & RLS 50 TON MODELS	0-25, 55, 100	4"	ALL 25 & 55 RFS & RLS 100 TON MODELS	0-30, 50, 100	4"	30 TON MODELS, 50 & 100 RLR & RLN	0-100, 150, 200	4"	RDA 100 & 200 SERIES RLR & RLN 150 & 200	0-12, 20, 30	4"	12, 20 & 30 TON RC & RCD SERIES	0-60, 100, 150	4"	60, 100 & 150 TON RC & RCD SERIES	
CALIBRATED RANGE 0-10,000 PSI/TONS	FACE DIA.	CYLINDERS USED WITH																									
0-5, 10, 15	4"	ALL 5, 10 & 15 TON MODELS																									
0-20, 50	4"	ALL 20 RFS & RLS 50 TON MODELS																									
0-25, 55, 100	4"	ALL 25 & 55 RFS & RLS 100 TON MODELS																									
0-30, 50, 100	4"	30 TON MODELS, 50 & 100 RLR & RLN																									
0-100, 150, 200	4"	RDA 100 & 200 SERIES RLR & RLN 150 & 200																									
0-12, 20, 30	4"	12, 20 & 30 TON RC & RCD SERIES																									
0-60, 100, 150	4"	60, 100 & 150 TON RC & RCD SERIES																									

SYSTEM ACCESSORIES

HIGH PRESSURE HOSES

HA & HCA Industrial Grade 1/4" I.D. series hoses are rated at 10,000 psi operating pressure and 20,000 psi minimum burst pressure. This hose is the recommended choice for hand pump & cylinder sets, as well as a wide range of other intermittent applications.

Model	Length (ft)	Hose Ends		I.D. (in)
HA3	3	 3/8" NPTF Male	 3/8" NPTF Male	1/4"
HA6	6			
HA10	10			
HA20	20			
HA36	36			
HA50	50			
HCA3	3	 3/8" NPTF Male	 C213 Coupler*	
HCA6	6			
HCA10	10			
HCA20	20			
HCA36	36	 C213 Coupler*	 C213 Coupler*	
HCA50	50			

*All hoses with couplers includes CR215 Dust Cap.

High Flow HD & HDC 3/8" I.D. series hoses are recommended to achieve higher retraction speeds and minimal flow restrictions. These heavy duty hoses are rated at 10,000 psi with a minimum burst pressure of 30,000 psi.





Model	Length (ft)	Hose Ends		I.D. (in)
HD3	3			3/8"
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.

HIGH PERFORMANCE HOSES







SYSTEM ACCESSORIES

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

Model	Length (ft)	Hose Ends		I.D. (in)
HR3	3	 3/8" NPTF Male	 3/8" NPTF Male	1/4"
HR6	6			
HR10	10			
HR20	20			
HRC3	3	 3/8" NPTF Male	 C213 Coupler*	
HRC6	6			
HRC10	10			
HRC20	20			





*All hoses with couplers includes CR215 Dust Cap.

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

Model	Length (ft)	Hose Ends		I.D. (in)
HP3	3			1/4"
HP6	6			
HP10	10			
HP20	20			
HP36	36			
HP50	50			
HPC3	3			
HPC6	6			
HPC10	10			
HPC20	20			
HPC36	36			
HPC50	50			
		C213 Coupler*	C213 Coupler*	

*All hoses with couplers includes CR215 Dust Cap.

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

Model	Length (ft)	Hose Ends		I.D. (in)	
HE6	6	 3/8" NPTF Male	 3/8" NPTF Male	1/4"	
HE10	10				
HE20	20				
HEC6	6	 3/8" NPTF Male	 C213 Coupler*		
HEC10	10				
HEC20	20				

*All hoses with couplers includes CR215 Dust Cap.

SECTION INDEX

<i>Proper Size & Selection</i>	<i>86 - 87</i>
<i>G1 Lightweight Torque Pump</i>	<i>88</i>
<i>G3 Heavy Duty Torque Pump</i>	<i>89</i>
<i>G5 Heavy Duty Torque Pump</i>	<i>90</i>
<i>G5 Heavy Duty Air Torque Pump</i>	<i>91</i>
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<i>Square Drive Accessories</i>	<i>95</i>
<i>Low Clearance Torque Wrenches</i>	<i>96 - 97</i>



INTRODUCTION

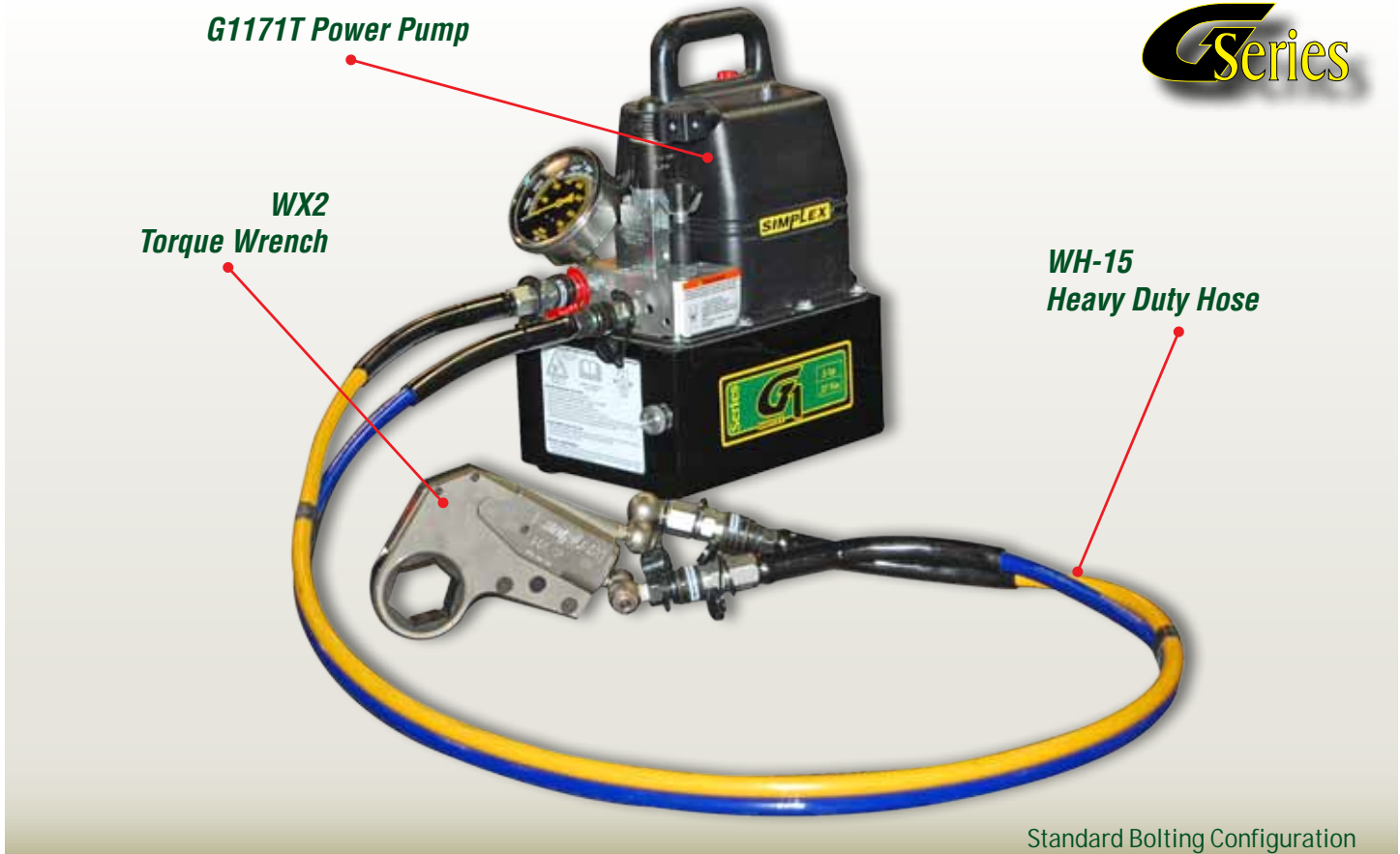
BOLTING PRODUCTS

G Series

G1171T Power Pump

**WX2
Torque Wrench**

**WH-15
Heavy Duty Hose**



Standard Bolting Configuration

SIMPLEX BOLTING PRODUCTS 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 3/4", 1" and 1 1/2" 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 1/16" 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

G1 BOLTING PUMP

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



An intermittent 1/2 hp pump that is best suited to power small size torque wrenches. It's easy to transport and very lightweight.

Starting weight @ 36 lbs.

G3 BOLTING PUMP

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



A continuous duty 1 1/8 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.

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 wrenches. Optional attachments and accessories are available for both style wrenches to simplify your task.

G5 BOLTING PUMP

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



A continuous duty 1 1/2 hp pump that is best suited for medium to large torque wrenches.

Starting weight @ 75 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.

HOSES & MANIFOLDS



A complete set of high performance and 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.

PROPER SIZE & SELECTION

BOLTING PRODUCTS

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 multiple 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

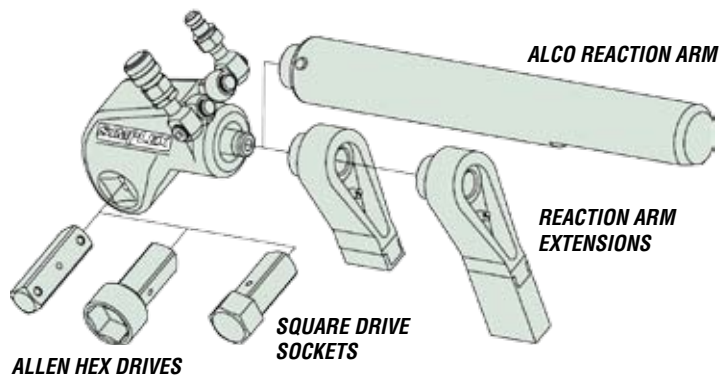
All of the SIMPLEX hoses are thermo-plastic, banded together, color coded are polarized for plug and play operation. Lengths are available in 15, 20 and 40 feet. Each bolting hose has a 4:1 safety factor that provides you with the flexibility to meet any project requirement.



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. These tools allow the operator to measure the torque (rotational force) applied to the bolt so it can be matched to the specifications by the means of a power pump. Consider the amount of torque, footprint requirements and retraction area when selecting your wrench.

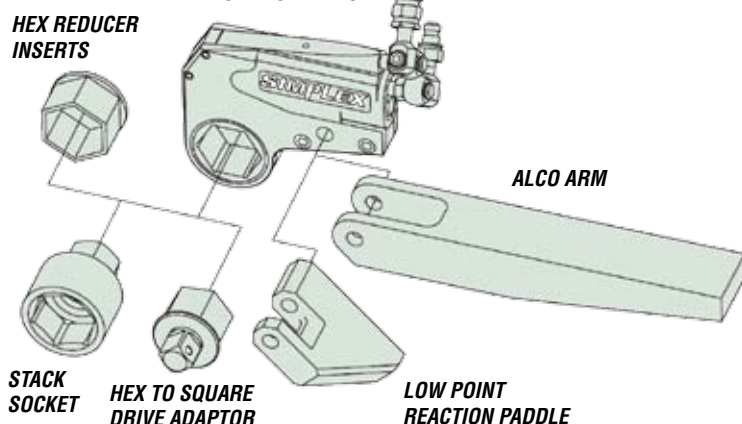
WT SERIES WRENCH



WT SERIES SQUARE DRIVE WRENCH

Simplex square drive wrenches come with a push through drive in the 3/4", 1" and 1 1/2" 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 WRENCH



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 1/16" increments. Several optional accessories are available such as hex reducers, hex to square drive adaptors and different reaction arms.

BOLTING PUMPS

G1 Lightweight
Torque Pump



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



G1171T Shown

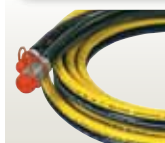
SIMPLEX ADVANTAGES

- ✓ Turnkey bolting pump configuration, ideal for use with small sized torque wrenches.
- ✓ 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; 19 cubic inches / minute @ 10,000 PSI.
- ✓ Precision machined valve design offers reliability in the most demanding applications.
- ✓ Reservoirs available in 1 gallon; steel.
- ✓ Compact, lightweight design, starting at 36 lbs.



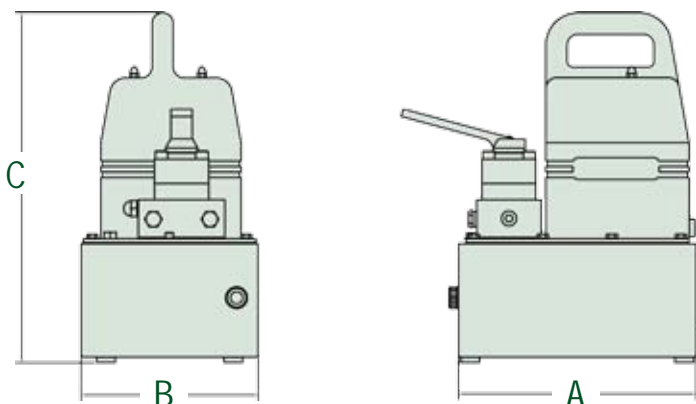
TORQUE WRENCHES

A wide variety of hydraulic torque wrenches available in lightweight, square drive, or low clearance wrenches. - Pg. 94-97



HOSES

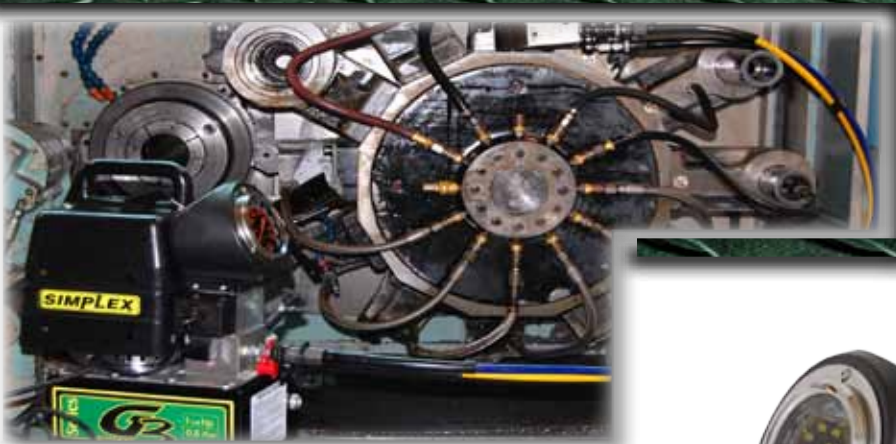
Large selection of heavy duty, thermo-plastic torque wrench hoses to meet your requirements. - Pg. 95



Usable Oil (Gallons)	A (in)	B (in)	C (in)
1 (metal)	11.00	8.17	16.17

* 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.

Product Ordering & Specifications										
Model	Pressure Rating (psi)		Output Flow (cu.in./min.)		Motor Spec.		Valve Type	Pendant Control	Reservoir Capacity	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



BOLTING PUMPS

G3 Heavy Duty
Torque Pump



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

SIMPLEX ADVANTAGES

- ✓ Turnkey bolting pump configuration, ideal for use with small to mid-sized torque wrenches.
- ✓ Powered by a 115V - 60Hz, 1-1/8 hp universal motor (21,000 rpm); low startup voltage, draws 16 amps at full load (230V models available).
- ✓ Equipped with an integrated gauge, adjustable relief and 15' remote power controlled pendant.
- ✓ High performance two-stage pump provides higher cross-over pressure for faster cycle times and tool operation; 46 cubic inches / minute @ 10,000 PSI.
- ✓ Precision machined shear seal slider valve design offers reliability in the most demanding applications.
- ✓ Reservoirs available in 1 – 2.5 gallons; welded steel design.
- ✓ Compact, lightweight design, starting at 57 lbs.



G3171T Shown
See table for additional models

G3 TORQUE PUMP FACTORY INSTALLED OPTIONS
For ordering, add option letter to end of the model number.



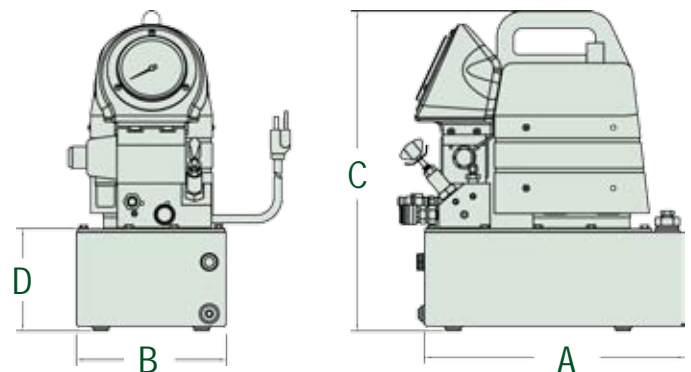
Z = Multi-Port Manifold



C = Caster Kit



R = Roll Cage



Usable Oil (Gallons)	A (in)	B (in)	C (in)	D (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.

Product Ordering & Specifications										
Model	Pressure Rating (psi)		Output Flow (cu.in./min.)		Motor Spec.		Valve Type	Pendant Control	Reservoir Capacity	Weight (lbs)
	1st Stage	2nd Stage	1st Stage	2nd Stage	(vac)	(amps)				
G3171T	1,100	10,000	700	46	115	16	4W, 2P	Motor / Solenoid	1	57
G3172T	1,100	10,000	700	46	115	16	4W, 2P	Motor / Solenoid	1.5	62
G3173T	1,100	10,000	700	46	115	16	4W, 2P	Motor / Solenoid	2.5	69

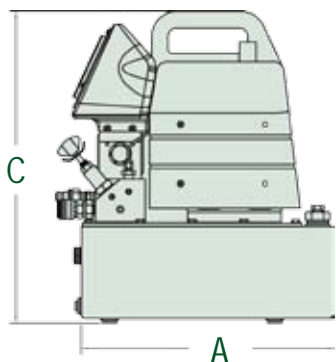
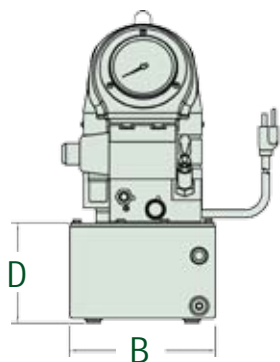


BOLTING PUMPS

G5 Heavy Duty
Torque Pump



G5172T Shown
See table for additional models



Usable Oil (Gallons)	A (in)	B (in)	C (in)	D (in)
1.5	15.13	8.75	19	5.96
2.5	17	9.75	19	5.96

Larger capacities available upon request.



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

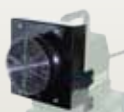
SIMPLEX ADVANTAGES

- ✓ Turnkey bolting pump configuration, 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).
- ✓ Equipped with an integrated gauge, adjustable relief and 15' remote power controlled pendant.
- ✓ High performance two-stage pump provides higher cross-over pressure for faster cycle times and tool operation; 55 cubic inches / minute @ 10,000 PSI. Optional 3 stage for progressive force.
- ✓ Precision machined shear seal slider valve design offers reliability in the most demanding applications.
- ✓ Reservoirs available in 1.5 & 2.5 gallons; welded steel design.
- ✓ Best performance to weight ratio, starting at 75 lbs.

G5 FACTORY INSTALLED OPTIONS

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

H



H = Heat Exchanger

Z



Z = Multi-Port Manifold

C



C = Caster Kit

R



R = Roll Cage

* 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.

Product Ordering & Specifications

Model	Pressure Rating (psi)		Output Flow (cu.in./min.)		Motor Spec.		Valve Type	Pendant Control	Reservoir Capacity	Weight (lbs)
	1st Stage	2nd Stage	1st Stage	2nd Stage	(vac)	(amps)				
G5172T	1,100	10,000	700	55	115	18	4W, 2P	Motor / Solenoid	1.5	75
G5173T	1,100	10,000	700	55	115	18	4W, 2P	Motor / Solenoid	2.5	85



BOLTING PUMPS

G5 Heavy Duty
Air Torque Pump



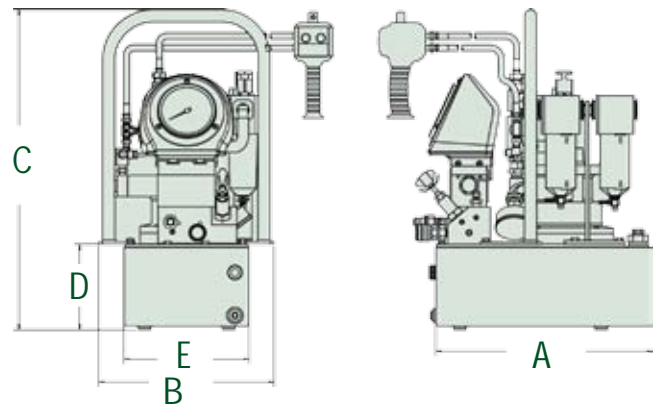
A Simplex G5 Air Torque pump is used with a WT-2 to remove the shroud on this steel cutter.

SIMPLEX ADVANTAGES

- ✓ Turnkey bolting pump configuration, ideal for use with mid to large sized torque wrenches.
- ✓ Powered by a rotary air vane, 3 hp motor (3,000 rpm).
- ✓ Equipped with a filter-lubricator assembly, air muffler, carrying handlebar, 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. Optional 3 stage for progressive force.
- ✓ Precision machined shear seal slider valve design offers reliability in the most demanding applications.
- ✓ Reservoirs available in 1.5 & 2.5 gallons; welded steel design.
- ✓ High-performance, compact design, starting at 75 lbs.



G5772T Shown
See table for additional models



G5 TORQUE AIR FACTORY INSTALLED OPTIONS
For ordering, add option letter to end of the model number.

Z



Z = Multi-Port Manifold

C



C = Caster Kit

R



R = Roll Cage

Usable Oil (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.

Product Ordering & Specifications

Model	Pressure Rating (psi)		Output Flow (cu.in./min.)		Motor Spec.		Valve Type	Pendant Control	Reservoir Capacity	Weight (lbs)
	1st Stage	2nd Stage	1st Stage	2nd Stage	(psi)	(cfm)				
G5772T	1,100	10,000	700	55	90	50	4W, 2P	Motor / Solenoid	1.5	75
G5773T	1,100	10,000	700	55	90	50	4W, 2P	Motor / Solenoid	2.5	85

SIMPLEX

BOLTING PUMPS

G5 Auto-Cycle
Torque Pump



TORQUE
AUTO-CYCLE



G5173A Shown
See table for additional models

Pendant Features:

- Large LCD Display.
- Raised Rubberized Keypad.
- Tough ABS Enclosure.

Lightweight
Auto-Cycle Pendant

Control Menu Options:

- Manual Mode provides the user the ability to manually cycle the tool.
- Auto-Cycle Mode continuously cycles tool until selected torque has been achieved.
- Output measurements are displayed in Imperial or Metric units.
- Full diagnostic capabilities keeps the user informed on system operations.



With hundreds of fasteners needed to be torqued within the time constraint of our outage, the Simplex Auto-cycle pump was our only choice. "It provides the fastest, most reliable power available for bolting applications".

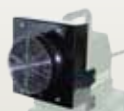
SIMPLEX ADVANTAGES

- ✓ Turnkey bolting pump configuration, 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).
- ✓ Equipped with an integrated hand-held digital LCD pendant, adjustable relief and 15' remote power controlled pendant.
- ✓ High performance three-stage pump provides higher cross-over pressure for faster cycle times throughout the pressure range; 55 cubic inches / minute @ 10,000 PSI.
- ✓ Precision machined shear seal slider valve design offers reliability in the most demanding applications.
- ✓ Reservoirs available in 1.5 – 2.5 gallons; welded steel design.
- ✓ Progressive force, high-performance pump, starting at 71 lbs.

G5 AUTO-CYCLE FACTORY INSTALLED OPTIONS

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

H



H = Heat Exchanger

Z



Z = Multi-Port Manifold

C



C = Caster Kit

R



R = Roll Cage

* 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.

Product Ordering & Specifications

Model	Pressure Rating (psi)		Output Flow (cu.in./min.)		Motor Spec.		Valve Type	Pendant Control	Reservoir Capacity	Weight (lbs)
	1st Stage	2nd Stage	1st Stage	2nd Stage	(vac)	(amps)				
G5172A	1,100	10,000	700	55	115	18	4W, 2P	Motor / Solenoid	1.5	71
G5173A	1,100	10,000	700	55	115	18	4W, 2P	Motor / Solenoid	2.5	81

BOLTING PUMPS

Torque Intensifier



The PIT4 torque wrench intensifier was used by a rail repair crew to loosen the joint brackets on segmented rail.

SIMPLEX ADVANTAGES

- ✓ Converts on board mobile hydraulic systems into high pressure (10,000 psi) power source.
- ✓ Ideal for utilities, railroads, construction, riggers and aerial buckets.
- ✓ Compact and easy to carry.
- ✓ No reservoir oil level to maintain; uses low pressure system as oil supply.
- ✓ Integrated pressure gauge.
- ✓ 1/4" NPTF ports with quick disconnect couplers.



TORQUE WRENCHES

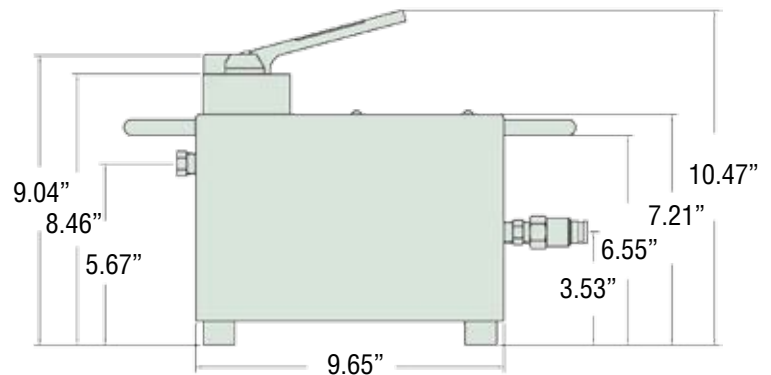
Simplex offers a wide variety of hydraulic torque wrenches available in lightweight square drive design or flat low clearance. - Pgs. 94-97



Please refer to pages 4 & 5 for a complete list of safety tips and recommendations to ensure that your Simplex equipment will perform to its full potential.



PIT4 Shown



Product Ordering & Specifications

Model	Valve		Input Flow Range (GPM)	Input Pres. (PSI)	Output Pres. Max. (PSI)	Output Flow Range (GPM)	Output Flow Ratio	Output Pres. Ratio	Weight (lbs)
	Type	Function							
PIT4	4 Way/3 Position	Advance/Hold/Retract	5 - 10	300-2,000	10,000	2	1:5	5:1	30

SIMPLEX

TORQUE WRENCHES

Square Drive

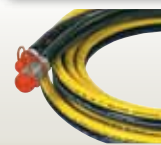
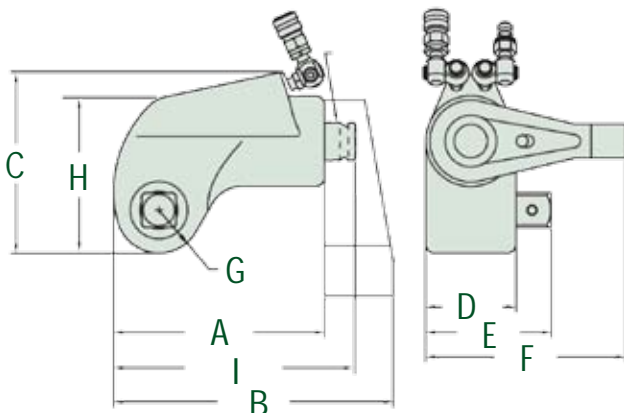


Lightweight, easy to use and reliable - This Simplex WT-5 torque wrench is used to certify flange assemblies every day in this fabricating shop.



SIMPLEX ADVANTAGES

- ✓ **Hardened alloy square drive provides long life.**
- ✓ **No reaction pawl eliminates tool lockup.**
- ✓ **27 degree stroke for high performance & speed.**
- ✓ **Light weight, high torque ratio.**
- ✓ **Push through square drive switches from tighten to loosen instantly.**
- ✓ **Accurate to within + / - 3%.**
- ✓ **Slim nose radius for tight spaces.**
- ✓ **No leak couplers that swivel on double axis for ease of operation.**
- ✓ **Anti-Backlash mechanism prevents tool from back-driving.**



HOSES

Large selection of heavy duty, thermo-plastic torque wrench hoses to meet your requirements.

- Pg. 95



Please refer to pages 4 & 5 for a complete list of safety tips and recommendations to ensure that your Simplex equipment will perform to its full potential.

Product Ordering & Dimensional Specifications

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	2.00	2.76	4.42	0.98	3.42	5.32	3.90	1,270	3/4	1/2 - 2 3/8	13 - 60
WT-3	6.10	8.10	5.30	2.62	3.68	5.81	1.30	4.54	6.68	9.00	3,330	1	3/4 - 4 1/2	19 - 114
WT-5	8.00	10.74	6.99	3.61	5.06	7.98	1.70	6.05	9.48	19.00	7,170	1 1/2	1 5/16 - 5 3/8	33 - 137
WT-10	9.21	12.21	7.79	3.93	5.43	8.72	1.95	6.70	10.36	29.00	11,010	1 1/2	1 5/16 - 5 3/8	33 - 137
WT-27	12.29	16.29	10.19	5.26	7.73	11.63	2.43	8.82	13.87	70.00	27,200	2 1/2	1 5/8 - 9 1/4	41 - 235



TORQUE WRENCHES

Square Drive Accessories

SOCKETS FOR 3/4", 1" AND 1 1/2" DRIVE WRENCHES

Model Number for 3/4" 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 1/2" Drive WT-5 & 10	Socket Size (in)	Model Number for 1 1/2" Drive WT-5 & 10	Socket Size (in)
WST1212	3/4 x 3/4	WST1612	1 x 3/4	WST1633	1 x 2 1/16	WST1654	1 x 3 3/8	WST2422	1 1/2 x 1 3/8	WST2443	1 1/2 x 2 11/16
WST1213	3/4 x 13/16	WST1613	1 x 13/16	WST1634	1 x 2 1/8	WST1655	1 x 3 7/16	WST2423	1 1/2 x 1 7/16	WST2444	1 1/2 x 2 3/4
WST1214	3/4 x 7/8	WST1614	1 x 7/8	WST1635	1 x 2 3/16	WST1656	1 x 3 1/2	WST2424	1 1/2 x 1 1/2	WST2445	1 1/2 x 2 13/16
WST1215	3/4 x 15/16	WST1615	1 x 15/16	WST1636	1 x 2 1/4	WST1657	1 x 3 9/16	WST2425	1 1/2 x 1 9/16	WST2446	1 1/2 x 2 7/8
WST1216	3/4 x 1	WST1616	1 x 1	WST1637	1 x 2 5/16	WST1658	1 x 3 5/8	WST2426	1 1/2 x 1 5/8	WST2447	1 1/2 x 2 15/16
WST1217	3/4 x 1 1/16	WST1617	1 x 1 1/16	WST1638	1 x 2 3/8	WST1659	1 x 3 11/16	WST2427	1 1/2 x 1 11/16	WST2448	1 1/2 x 3
WST1218	3/4 x 1 1/8	WST1618	1 x 1 1/8	WST1639	1 x 2 7/16	WST1660	1 x 3 3/4	WST2428	1 1/2 x 1 3/4	WST2449	1 1/2 x 3 1/16
WST1219	3/4 x 1 3/16	WST1619	1 x 1 3/16	WST1640	1 x 2 1/2	WST1661	1 x 3 13/16	WST2429	1 1/2 x 1 13/16	WST2450	1 1/2 x 3 1/8
WST1220	3/4 x 1 1/4	WST1620	1 x 1 1/4	WST1641	1 x 2 9/16	WST1662	1 x 3 7/8	WST2430	1 1/2 x 1 7/8	WST2451	1 1/2 x 3 3/16
WST1221	3/4 x 1 5/16	WST1621	1 x 1 5/16	WST1642	1 x 2 5/8	----	----	WST2431	1 1/2 x 1 15/16	WST2452	1 1/2 x 3 1/4
WST1222	3/4 x 1 3/8	WST1622	1 x 1 3/8	WST1643	1 x 2 11/16	----	----	WST2432	1 1/2 x 2	WST2453	1 1/2 x 3 5/16
WST1223	3/4 x 1 7/16	WST1623	1 x 1 7/16	WST1644	1 x 2 3/4	----	----	WST2433	1 1/2 x 2 1/16	WST2454	1 1/2 x 3 3/8
WST1224	3/4 x 1 1/2	WST1624	1 x 1 1/2	WST1645	1 x 2 13/16	----	----	WST2434	1 1/2 x 2 1/8	WST2455	1 1/2 x 3 7/16
WST1225	3/4 x 1 9/16	WST1625	1 x 1 9/16	WST1646	1 x 2 7/8	----	----	WST2435	1 1/2 x 2 3/16	WST2456	1 1/2 x 3 1/2
WST1226	3/4 x 1 5/8	WST1626	1 x 1 5/8	WST1647	1 x 2 15/16	----	----	WST2436	1 1/2 x 2 1/4	WST2457	1 1/2 x 3 9/16
WST1227	3/4 x 1 11/16	WST1627	1 x 1 11/16	WST1648	1 x 3	----	----	WST2437	1 1/2 x 2 5/16	WST2458	1 1/2 x 3 5/8
WST1228	3/4 x 1 3/4	WST1628	1 x 1 3/4	WST1649	1 x 3 1/16	----	----	WST2438	1 1/2 x 2 3/8	WST2459	1 1/2 x 3 11/16
WST1229	3/4 x 1 13/16	WST1629	1 x 1 13/16	WST1650	1 x 3 1/8	----	----	WST2439	1 1/2 x 2 7/16	WST2460	1 1/2 x 3 3/4
WST1230	3/4 x 1 7/8	WST1630	1 x 1 7/8	WST1651	1 x 3 3/16	----	----	WST2440	1 1/2 x 2 1/2	----	----
WST1231	3/4 x 1 15/16	WST1631	1 x 1 15/16	WST1652	1 x 3 1/4	----	----	WST2441	1 1/2 x 2 9/16	----	----
WST1232	3/4 x 2	WST1632	1 x 2	WST1653	1 x 3 5/16	----	----	WST2442	1 1/2 x 2 5/8	----	----

ALLEN HEX DRIVE FOR WT SERIES WRENCHES

Model	Wrench Model	Allen Hex Size (in)	Maximum Torque (ft./lbs)
WA-1208	WT-2	1/2	395
WA-1210	WT-2	5/8	740
WA-1212	WT-2	3/4	1,270
WA-1214	WT-2	7/8	1,270
WA-1216	WT-2	1	1,270
WA-1610	WT-3	5/8	740
WA-1612	WT-3	3/4	1,330
WA-1614	WT-3	7/8	2,070
WA-1616	WT-3	1	3,100
WA-1618	WT-3	1 1/8	3,330
WA-1620	WT-3	1 1/4	3,330
WA-2414	WT-5	7/8	2,070
WA-2416	WT-5	1	3,100
WA-2418	WT-5	1 1/8	4,355
WA-2420	WT-5	1 1/4	6,275
WA-2422	WT-5	1 3/8	7,170
WA-2424	WT-5	1 1/2	7,170
WA-2420-10	WT-10	1 1/4	6,275
WA-2422-10	WT-10	1 3/8	7,750
WA-2424-10	WT-10	1 1/2	10,500
WA-2426-10	WT-10	1 5/8	10,500
WA-2428-10	WT-10	1 3/4	10,500
WA-4024	WT-27	1 1/2	10,500
WA-4026	WT-27	1 5/8	13,280
WA-4028	WT-27	1 3/4	16,230
WA-4030	WT-27	1 7/8	27,200
WA-4032	WT-27	2	27,200
WA-4036	WT-27	2 1/4	27,200

ALCO REACTION ARMS



Model	Length (in)
WT2-ALCO	18.00
WT3-ALCO	22.25
WT5-ALCO	21.00
WT10-ALCO	23.50
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

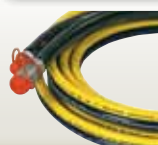
Low Clearance Wrenches



The WX-4 in-line reaction coupled with an ALCO arm was the perfect solution for this bolting application.

SIMPLEX ADVANTAGES

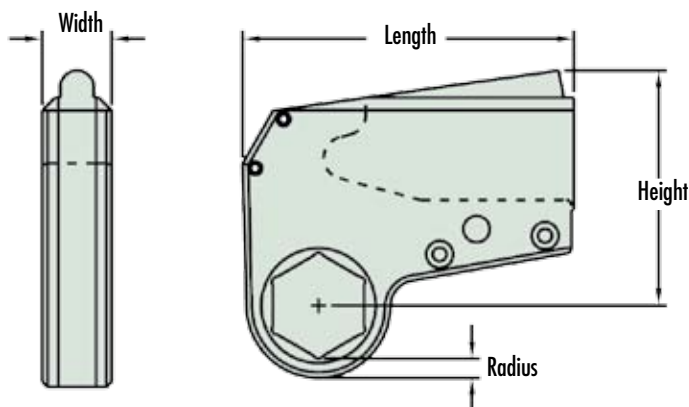
- ✓ Patented piston design for lower profile.
- ✓ Quick and easy interchangeable links requiring no tools.
- ✓ Light weight, high torque ratio.
- ✓ Slim nose radius for easy positioning in close quarters.
- ✓ Accurate to within + / - 3%.
- ✓ Slim nose radius for tight spaces.
- ✓ Plated wrenches resist corrosion.
- ✓ Custom wrenches available upon request.



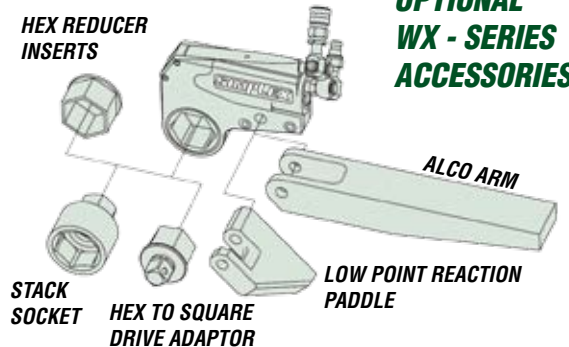
HOSES

Large selection of heavy duty, thermo-plastic torque wrench hoses to meet your requirements.

- Pg. 95



HEX REDUCER INSERTS



OPTIONAL WX - SERIES ACCESSORIES

LOW CLEARANCE DRIVE UNITS

*Weight on Links will vary by size.

Product Ordering & Dimensional Specifications						
Model	Length (in.)	Height (in.)	Radius (in.)	Max. Tool Width (in.)	Output (ft./lbs.)	Weight (lbs.)
WX-2	5.67	4.00	0.36	1.25	1,930	3.5
WX-4	7.80	5.60	0.46	1.63	3,950	6
WX-8	9.80	7.00	0.54	2.05	8,630	11.7
WX-16	12.93	7.58	0.65	2.50	16,600	16
WX-32	15.30	10.90	0.93	3.24	35,600	26

Available Link Sizes (in./mm)		*Weight (lbs.)
From	To	
3/4" / 19mm	2 9/16" / 65mm	2.5-3.5
1" / 25mm	3 1/8" / 80mm	5.4-7.6
1 7/8" / 50mm	4" / 105mm	11.9-14.5
2 5/8" / 65mm	4 5/8" / 115mm	21-28
3 1/8" / 80mm	6 1/8" / 155mm	29-39.5

WX DRIVE UNIT



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

TORQUE WRENCHES

Low Clearance Wrenches

WXL HEX LINK



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

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.

Accessories are available in imperial and metric sizes.

Product Ordering & Dimensional Specifications

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	3/4	WXL4-16	1	WXL4-43	2 11/16	WXL8-30	1 7/8	WXL8-57	3 9/16	WXL16-42	2 5/8	WXL32-50	3 1/8	WXL32-87	5 7/16
WXL2-13	13/16	WXL4-17	1 1/16	WXL4-44	2 3/4	WXL8-31	1 15/16	WXL8-58	3 5/8	WXL16-43	2 11/16	WXL32-51	3 3/16	WXL32-88	5 1/2
WXL2-14	7/8	WXL4-18	1 1/8	WXL4-45	2 13/16	WXL8-32	2	WXL8-59	3 11/16	WXL16-44	2 3/4	WXL32-52	3 1/4	WXL32-89	5 9/16
WXL2-15	15/16	WXL4-19	1 3/16	WXL4-46	2 7/8	WXL8-33	2 1/16	WXL8-60	3 3/4	WXL16-45	2 13/16	WXL32-53	3 5/16	WXL32-90	5 5/8
WXL2-16	1	WXL4-20	1 1/4	WXL4-47	2 15/16	WXL8-34	2 1/8	WXL8-61	3 13/16	WXL16-46	2 7/8	WXL32-54	3 3/8	WXL32-91	5 11/16
WXL2-17	1 1/16	WXL4-21	1 5/16	WXL4-48	3	WXL8-35	2 3/16	WXL8-62	3 7/8	WXL16-47	2 15/16	WXL32-55	3 7/16	WXL32-92	5 3/4
WXL2-18	1 1/8	WXL4-22	1 3/8	WXL4-49	3 1/16	WXL8-36	2 1/4	WXL8-63	3 15/16	WXL16-48	3	WXL32-56	3 1/2	WXL32-93	5 13/16
WXL2-19	1 3/16	WXL4-23	1 7/16	WXL4-50	3 1/8	WXL8-37	2 5/16	WXL8-64	4	WXL16-49	3 1/16	WXL32-57	3 9/16	WXL32-94	5 7/8
WXL2-20	1 1/4	WXL4-24	1 1/2	----	----	WXL8-38	2 3/8	----	----	WXL16-50	3 1/8	WXL32-58	3 5/8	WXL32-95	5 15/16
WXL2-21	1 5/16	WXL4-25	1 9/16	----	----	WXL8-39	2 7/16	----	----	WXL16-51	3 3/16	WXL32-59	3 11/16	WXL32-96	6
WXL2-22	1 3/8	WXL4-26	1 5/8	----	----	WXL8-40	2 1/2	----	----	WXL16-52	3 1/4	WXL32-60	3 3/4	WXL32-97	6 1/16
WXL2-23	1 7/16	WXL4-27	1 11/16	----	----	WXL8-41	2 9/16	----	----	WXL16-53	3 5/16	WXL32-61	3 13/16	WXL32-98	6 1/8
WXL2-24	1 1/2	WXL4-28	1 3/4	----	----	WXL8-42	2 5/8	----	----	WXL16-54	3 3/8	WXL32-62	3 7/8	----	----
WXL2-25	1 9/16	WXL4-29	1 13/16	----	----	WXL8-43	2 11/16	----	----	WXL16-55	3 7/16	WXL32-63	3 15/16	----	----
WXL2-26	1 5/8	WXL4-30	1 7/8	----	----	WXL8-44	2 3/4	----	----	WXL16-56	3 1/2	WXL32-64	4	----	----
WXL2-27	1 11/16	WXL4-31	1 15/16	----	----	WXL8-45	2 13/16	----	----	WXL16-58	3 5/8	WXL32-65	4 1/16	----	----
WXL2-28	1 3/4	WXL4-32	2	----	----	WXL8-46	2 7/8	----	----	WXL16-60	3 3/4	WXL32-66	4 1/8	----	----
WXL2-29	1 13/16	WXL4-33	2 1/16	----	----	WXL8-47	2 15/16	----	----	WXL16-62	3 7/8	WXL32-68	4 1/4	----	----
WXL2-30	1 7/8	WXL4-34	2 1/8	----	----	WXL8-48	3	----	----	WXL16-64	4	WXL32-70	4 3/8	----	----
WXL2-31	1 15/16	WXL4-35	2 3/16	----	----	WXL8-49	3 1/16	----	----	WXL16-66	4 1/8	WXL32-72	4 1/2	----	----
WXL2-32	2	WXL4-36	2 1/4	----	----	WXL8-50	3 1/8	----	----	WXL16-68	4 1/4	WXL32-74	4 5/8	----	----
WXL2-33	2 1/16	WXL4-37	2 5/16	----	----	WXL8-51	3 3/16	----	----	WXL16-70	4 3/8	WXL32-76	4 3/4	----	----
WXL2-34	2 1/8	WXL4-38	2 3/8	----	----	WXL8-52	3 1/4	----	----	WXL16-72	4 1/2	WXL32-78	4 7/8	----	----
WXL2-35	2 3/16	WXL4-39	2 7/16	----	----	WXL8-53	3 5/16	----	----	WXL16-74	4 5/8	WXL32-80	5	----	----
WXL2-36	2 1/4	WXL4-40	2 1/2	----	----	WXL8-54	3 3/8	----	----	----	----	WXL32-82	5 1/8	----	----
WXL2-37	2 5/16	WXL4-41	2 9/16	----	----	WXL8-55	3 7/16	----	----	----	----	WXL32-84	5 1/4	----	----
WXL2-38	2 3/8	WXL4-42	2 5/8	----	----	WXL8-56	3 1/2	----	----	----	----	WXL32-86	5 3/8	----	----

SECTION INDEX

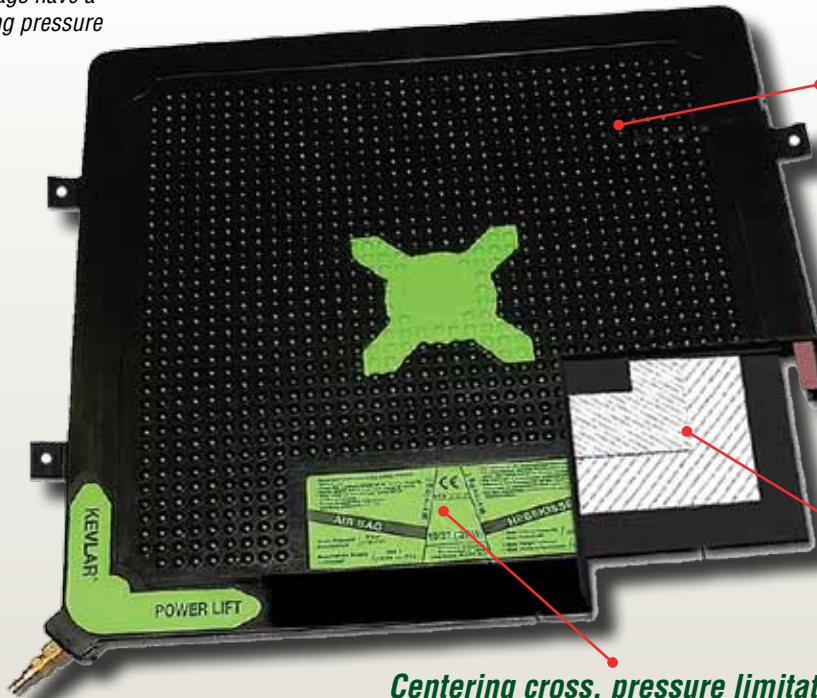
<i>Proper Size & Selection.....</i>	<i>100 - 101</i>
<i>Hand Jacks.....</i>	<i>102</i>
<i>Toe Jacks Heavy Duty.....</i>	<i>103</i>
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<i>Air Bag Accessories</i>	<i>106 - 107</i>



INTRODUCTION

LIFTING JACKS

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



Load contact surface (top and bottom) has molded positive gripping, interlocking, convex rubber dimples.

Reinforced edge protects the bag where damage often occurs.

Patented Kevlar® reinforced diagonal crosshatch pattern.

Interchangeable couplers. Compatible (or adaptable) with all other air bag types.

Centering cross, pressure limitations, capacities, and important safety warnings are brightly colored and bonded to the rubber for long life.

Heavy Duty Air Bag Shown

SIMPLEX LIFTING JACK PRODUCT LINE OVERVIEW

✓ Something for Every Job

From the thinnest of air lifting bags to the widest assortment of controls, Simplex heavy duty air lifting bags provide a solution to the most unique and specialized application.

✓ General Maintenance

From factory maintenance to portable tool chests, Simplex hand jacks are the standard utility tools for all maintenance applications.

✓ Self Contained Mobile Force

From structural movers to plant maintenance crews, Simplex Toe Jacks offer high capacities in a broad range of lifting.

✓ Specialty Tools

Whether it's a construction site or production fabrication, Simplex single and double acting 35 ton portable punches offer 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 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 5/8" minimum toe height and over 4" of travel.



AIR LIFTING BAGS

1.1 Through 74.1 Tons Air Lifting Bags

Thin, powerful & light weight, the 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.

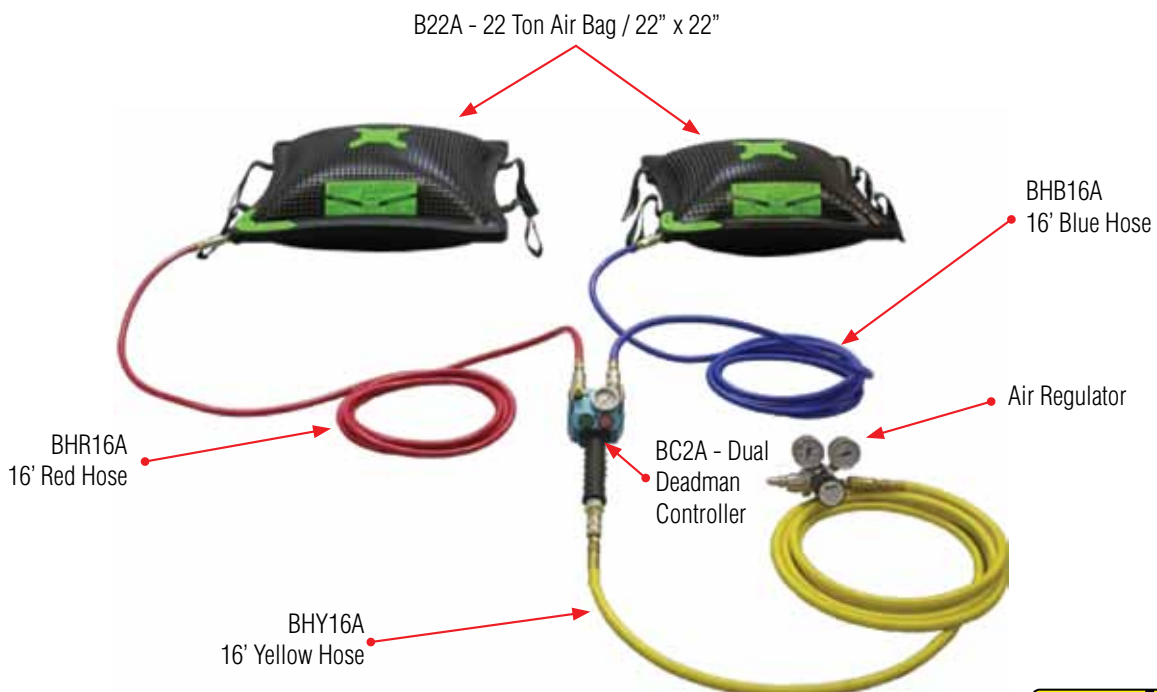


Lifting Capacity and Height Guidelines

When selecting the proper air bag arrangement, proper size and selection is critical. 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 104.

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



LIFTING JACKS

Hand Jacks



"We needed a jack of all trades." Applications ranged from spreading, leveling, lifting and holding. "Simplex Jacks are the best utility tool for the wide variety of jobs that come up day after day."

SIMPLEX ADVANTAGES

- ✓ **Drop forged base and rugged welded housing construction.**
- ✓ **Operates in horizontal position with handle down.**
- ✓ **All models include over travel protection.**
- ✓ **Grooved saddles help prevent load slippage.**
- ✓ **Super low profile versions available in 12 & 22 ton capacities.**
- ✓ **Piston rods are chrome plated to resist corrosion.**



HJ Family Shown
See table for additional models



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



SCREW EXTENSIONS
2 through 22 ton models include screw extensions for quick setup.



CARRYING HANDLE
Conveniently located handle at the top of high tonnage jacks makes positioning quick and easy.

Product Ordering & Dimensional Specifications

Model	Cap. (tons)	Stroke (in)	Min. Ht. (in)	Ext. Screw Ht. (in)	Max. Ht. (in)	Base Area (in)	Piston Dia. (in)	Max. Handle Effort (lbs)	Weight (lbs)
HJ2	2	4 1/2	7 1/8	2	13 5/8	4.33 x 2.56	3/4	64	5.3
HJ3	3	4 1/2	7 1/2	2 3/8	14 3/8	4.53 x 2.83	7/8	64	7.3
HJ5	5	4 3/4	7 7/8	2 3/4	15 3/8	5.59 x 3.22	1 1/4	48	8.2
HJ8	8	4 3/4	7 7/8	2 3/4	15 3/8	5.94 x 3.54	1 3/8	69	12.8
HJ12	12	5 7/8	9 1/2	3 1/8	18 1/2	6.53 x 4.17	1 5/8	73	19.7
HJ12/LP	12	3 3/4	6 3/4	3	13 1/2	6.53 x 4.17	1 5/8	73	15
HJ22	22	6 3/8	10 5/8	----	17	7.17 x 5.03	2 1/8	73	29.8
HJ22/LP	22	3 3/8	7 1/8	1 5/8	12 1/8	7.17 x 5.03	2 1/8	73	24.3
HJ35	35	6 3/8	11	----	17 3/8	7.56 x 5.59	2 1/2	69	45.2
HJ55	55	6 11/16	12	----	18 3/4	9.33 x 7.40	3 1/4	73	97
HJ100	100	5 3/4	12	----	17 23/32	12.52 x 10.43	4 29/32	93	194





LIFTING JACKS

Heavy Duty Toe Jacks

Its small footprint and ease of mobility make the TJH10 perfect for lifting a variety of equipment when space and clearance are at a premium.

SIMPLEX ADVANTAGES

- ✓ 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. (TJH5 & TJH10 only).



PISTOL GRIP

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



TOE LIFTS

Toe Lifts are rated at maximum capacity on all models.



TJH SERIES JACKS

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



TJH Family Shown
See table for additional models



TJH2, TJH5 and TJH10 Toe Jacks come equipped with a 3 piece Lever Bar set to accommodate space limitations.

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

Note: Lever Bars are included with all models.

Product Ordering & Dimensional Specifications

Model	Cap. (tons)	Stroke (in)	Minimum Ht. (in)		Base Area (in)	Max. Handle Effort (lbs)	Method Of Return	Weight (lbs)
			Toe (in)	Cap (in)				
TJH2	2	4 7/16	5/8	9 1/4	4 59/64 x 7	51	Load	18
TJH5	5	4 5/8	1	11 3/4	7 1/4 x 10 5/8	33	Spring	53
TJH10	10	5 7/8	1 1/4	13 1/8	9 1/2 x 11 1/4	38	Spring	85
TJH109	10	9	2 1/4	22	6 1/2 x 10	80	Spring	56
TJH109LS	10	9	2 11/64	16 1/8	6 x 9	73	Spring	41

LIFTING JACKS

Air Lifting Bags



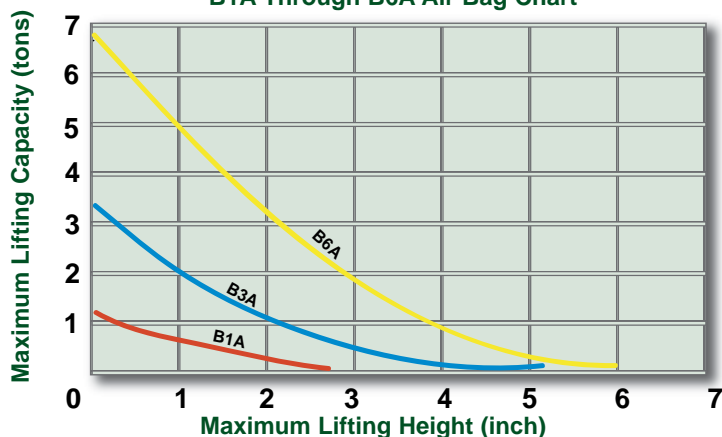
Durability and strength makes Simplex Air Lifting Bags the perfect solution to raise these collapsed concrete slabs for repair. They are ideal for use in quarries, demolition and light construction.

SIMPLEX ADVANTAGES

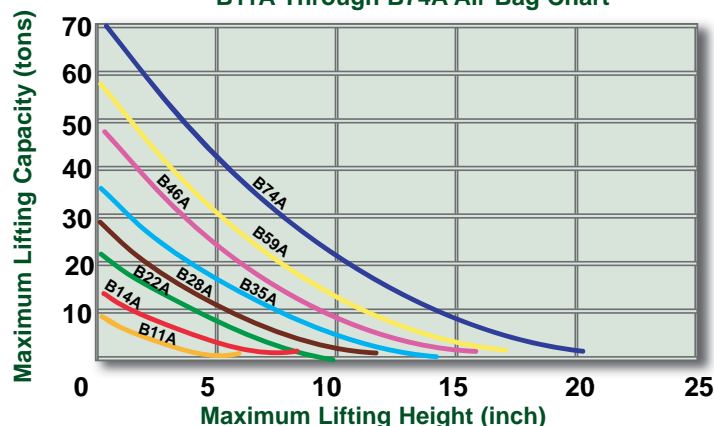
- ✓ 11 models with capacities ranging from 1.1 through 74.1 tons.
- ✓ Simplex air bags operate on standard shop air up to 116 psi.
- ✓ All models include 2 ply Kevlar with neoprene.
- ✓ Serrated lifting surface on each side of the air bag helps prevent load slippage.
- ✓ Wide variety of safety controllers for single & multiple bag systems.
- ✓ Light weight makes the Simplex air bags easy to set up.
- ✓ B22A through B74A bags come with side holes for attaching bags together.

Lifting Bag Performance

B1A Through B6A Air Bag Chart



B11A Through B74A Air Bag Chart



DUAL DEADMAN CONTROLLER

Control two bags from one air source with the dual deadman controller. Ideal for extreme temperature change.

- Pg. 106



HOSES

Industrial duty, color coded supply hoses offers the user the ability to coordinate the lift properly and safely.

- Pg. 106



SAFETY CONTROLLER

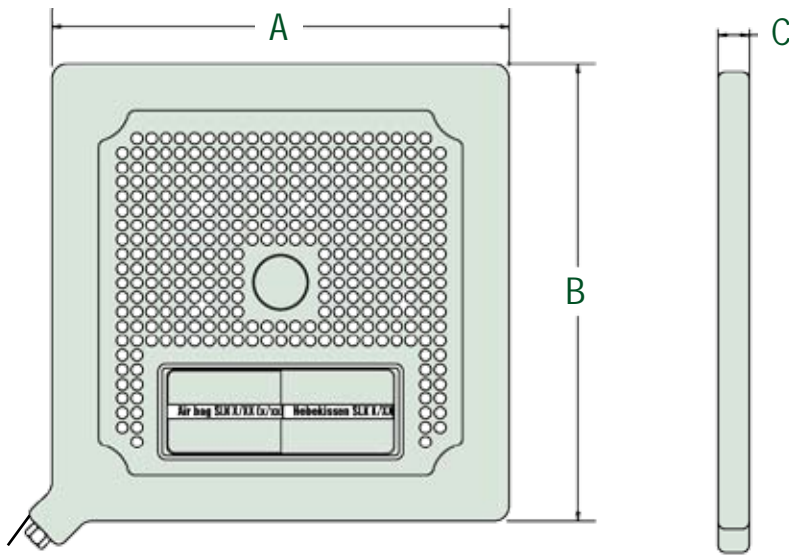
Safety controller has a single stage regulator designed for high pressure air tank compatibility.

- Pg. 107



LIFTING JACKS

Air Lifting Bags



1/4" - 18 NPTF



B22A - 22 Ton Air Bag
22" x 22"

BC3A - Single Deadman
Controller

Air Regulator





BHY16A
16' Yellow Hose


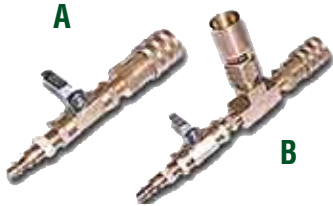



BHB16A
16' Blue Hose

Product Ordering & Dimensional Specifications

Model	Cap. (tons)	Max Lifting Hts. (in)	A	B	C	Air Req. @116 PSI (cu.ft.)	Max. Burst Pres. (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
B74A	74.1	20	36	36	1.2	53.1	348	55.8

SIMPLEX

Model	Description
 <p> BHR16A - 16' Red Hose BHR32A - 32' Red Hose BHB16A - 16' Blue Hose BHB32A - 32' Blue Hose BHY16A - 16' Yellow Hose 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 <i>Y Connector</i> allows control of 2 bags from one single fitting controller.
	A - BC8A B - BC6A <i>In-Line Control Shut Off and Relief Valves</i> enable the user to disconnect a hose without deflating the bag.
	BC11 <i>Dual Safety Controller</i> with pressure gauge and pressure relief valve. Cost effective and reliable over a wide range of control applications.
	BC1A <i>Pressure Regulator Controller</i> is a diaphragm type single stage regulator with high pressure air tank compatibility.
	BC4A <i>Single Safety Controller</i> with pressure gauge and pressure relief valve. Cost effective and easy to use.

SECTION INDEX

*Proper Size
& Selection* 110 - 111

*Single / Double
Acting Punch* 112 - 113

*GAT'R Jaw Hydraulic
Spreaders* 114 - 115

Nut Splitters 116

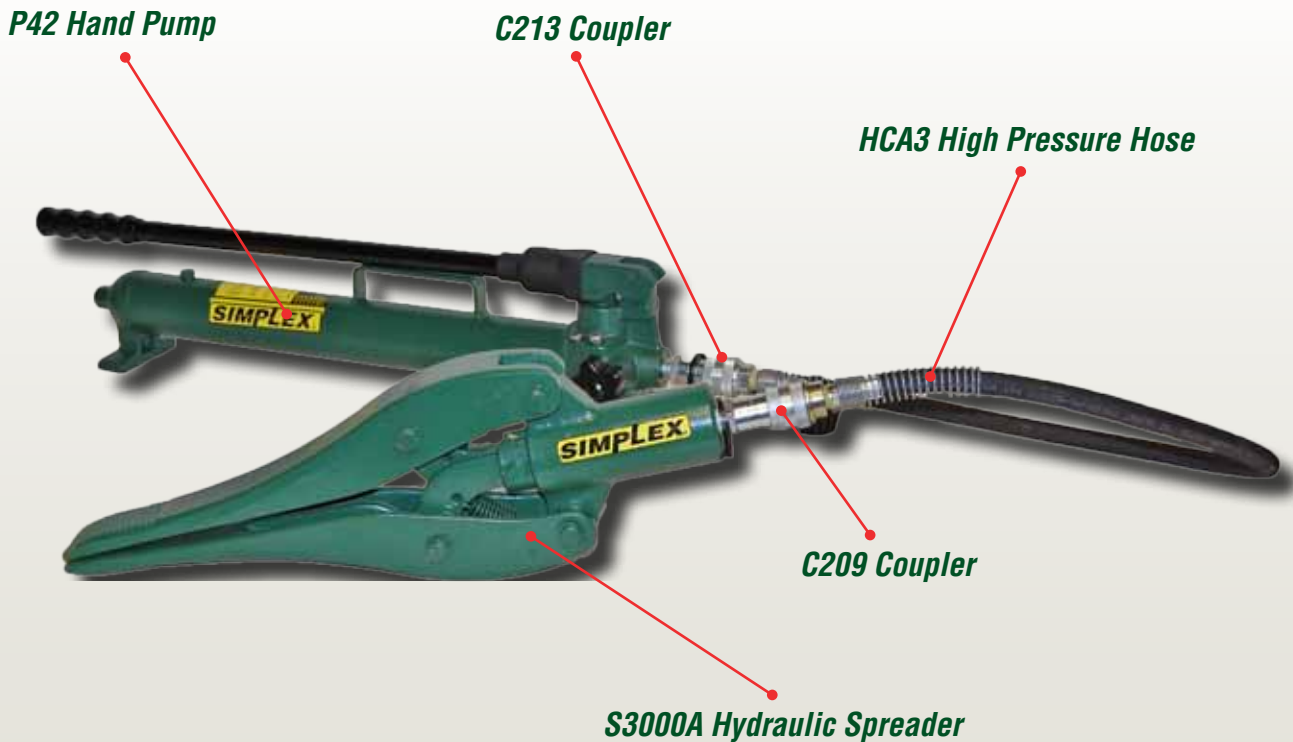
Maintenance Kit 117

*Maintenance Kit
Components* 118 - 119



INTRODUCTION

HYDRAULIC TOOLS



S3000A Spreader with a P42 Hand Pump

SIMPLEX HYDRAULIC TOOLS PRODUCT LINE OVERVIEW

✓ General Maintenance

From factory maintenance to portable tool chests, Simplex hand jacks are the standard utility tools for all maintenance applications.

✓ Self Contained Mobile Force

From structural movers to plant maintenance crews, Simplex Toe Jacks offer high capacities in a broad range of lifting.

✓ Specialty Tools

Whether it's a construction site or production fabrication, Simplex single and double acting 35 ton portable punches offer 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 hex, square and 12 point nuts. 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 1/8" starting clearance. It is one of Simplex's most versatile tools for spreading.



PROPER SIZE & SELECTION

HYDRAULIC TOOLS

SINGLE and DOUBLE ACTING PORTABLE PUNCH

Simplex 35 Ton Single-Acting Portable Punch mounted motor control handle (included with SPH35SP) provides easy operation and greater operator safety. The Simplex punch is also offered in a double-acting model for increased speed and positive stripping on every punch. 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

Single / Double
Acting Punch 35 Ton



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



SIMPLEX ADVANTAGES

- ✓ Punches .50" hole through mild steel.
- ✓ Uses competitive interchangeable punches & dies.
- ✓ Mounting holes for production punching.
- ✓ 10% lighter than other portable punches.
- ✓ Punch mounted motor control for safety.

HOSES



Large selection of standard, heavy duty and thermo plastic hydraulic hoses to meet your requirements and safety factor.

- Pg. 82-83



GAUGES

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

- Pg 81

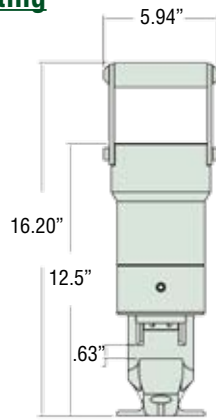
Contact Factory for additional dimensions.

Single Acting - Product Ordering					
Model	Punch	Punch & Die Set	Pump	Hose	Weight Punch Only (lbs.)
SPH35	SPH35	----	----	----	32
SPH35S	SPH35	Standard Set	----	----	32
SPH35SP	SPH35	DS-44, DS-56, DS-69, DS-81	SPH1001	HCA6	32
SPH35M	SPH35	Metric Set	----	----	32
SPH35MP	SPH35	DS-38, DS-44, DS-53, DS-69	SPH1001	HCA6	32

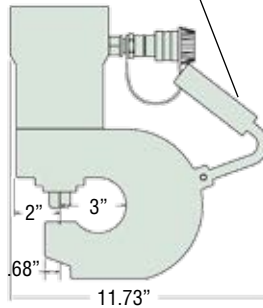
Double Acting - Product Ordering					
Model	Punch	Punch & Die Set	Pump	Hose	Weight Punch Only (lbs.)
SPD35	SPD35	----	----	----	45
SPD35S	SPD35	Standard Set	----	----	45
SPD35SP	SPD35	DS-44, DS-56, DS-69, DS-81	SPD2041	HCA6	45
SPD35M	SPD35	Metric Set	----	----	45
SPD35MP	SPD35	DS-38, DS-44, DS-53, DS-69	SPD2041	HCA6	45



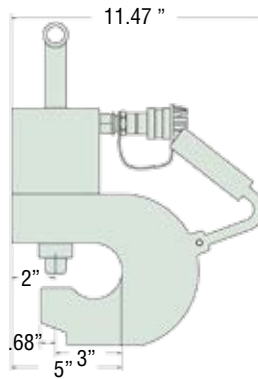
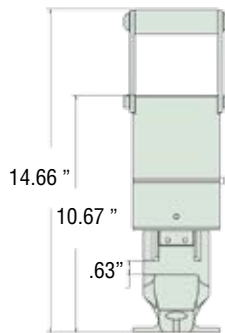
Double Acting



Punch mounted pendant control standard on the SPD35SP & SPD35MP



Single Acting



HYDRAULIC TOOLS

Single / Double Acting Punch 35 Ton



SPH35 and SPD35 Shown

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.

Product Ordering & Dimensional Specifications

Punch and Die Type	Standard Punch Model	Standard Die Model	Standard Punch & Die Set	Bevel Punch & Die Set for I-Beams	Bevel Punch & Die Set for U-Beams	Hole Size (in./mm)	Bolt Size (in./mm)	A	B	C	D	E	F	G	H	I	J	K
								* Maximum Metal Thickness To Be Punched (in.)										
Round	DP-31	DD-31	DS-31	DSB-31	---	.31/7.9	1/4----	.31	.31	.25	.25	.25	.25	.13	.19	.25	.25	.25
Round	DP-38	DD-38	DS-38	DSB-38	---	.38/9.5	5/16/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	3/8/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	7/16/M12	.50	.50	.44	.44	.44	.38	.25	.31	.38	.38	.38
Round	DP-56	DD-56	DS-56	DSB-56	---	.56/14.3	1/2----	.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	5/8/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	3/4----	.50	.50	.50	.44	.50	.31	.19	.31	.31	.31	.31
Square	DP-45	DD-45	DS-45	---	---	.31/7.9	1/4----	.31	.31	.25	.25	.25	.25	.13	.19	.25	.25	.25
Square	DP-54	DD-54	DS-54	---	---	.38/9.5	5/16/M8	.38	.38	.31	.31	.31	.31	.19	.25	.31	.31	.31
Square	DP-63	DD-63	DS-63	---	---	.44/11.1	3/8/M10	.44	.44	.38	.38	.38	.31	.19	.31	.31	.31	.31
Square	DP-72	DD-72	DS-72	---	---	.50/12.7	7/16/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	1/4----	.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	3/16/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	3/8/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	7/16/M12	.50	.50	.44	.44	.44	.38	.25	.31	.38	.38	.38

HYDRAULIC TOOLS

Hydraulic Spreaders
GAT'R Jaw 3/4 to 1 Ton



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



S2000A and S3000A Shown

SIMPLEX ADVANTAGES

- ✓ Closed narrow ends starting at .38".
- ✓ Large spreading range up to 11 1/2".
- ✓ 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.



GAUGES

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

- Pg. 81

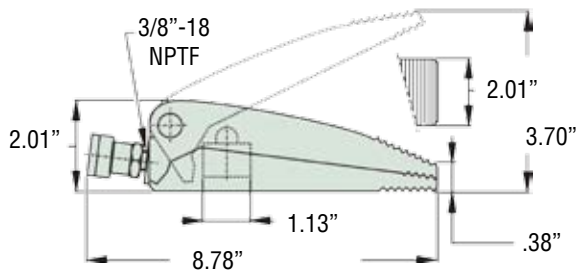


HAND PUMPS

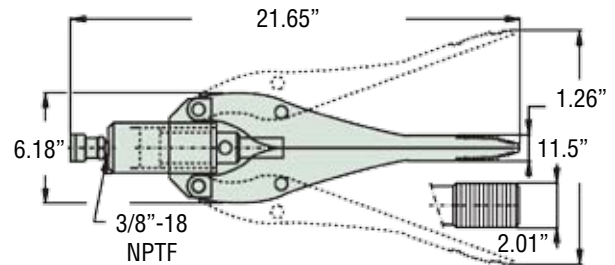
For manual portable power on demand, Simplex offers an extensive line of heavy duty, easy to transport Hand Pumps.

- Pg. 30

S2000A



S3000A



Product Ordering & Dimensional Specifications

Model	Cap. (tons)	Pres. @ Cap. (PSI)	Oil Cap. Req. (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





HYDRAULIC TOOLS

Hydraulic Spreaders
5 Ton

Boasting 5 tons of spreading force and 3 inches of operational lift, the SF5 is the most versatile tool for working on pipe flanges or heavy field equipment maintenance.

SIMPLEX ADVANTAGES

- ✓ 5 tons of spreading force.
- ✓ 1/8" through 3" spreading capability.
- ✓ Jaws open parallel.
- ✓ Will not drift or creep-down.
- ✓ All metal construction.



HOSES

Large selection of standard, heavy duty and thermo plastic hydraulic hoses to meet your requirements and safety factor. - Pg. 82-83



PUMPS

Simplex offers a wide variety of lightweight power pumps to fit any application. - Pg. 42



610 MECHANICAL SPREADER

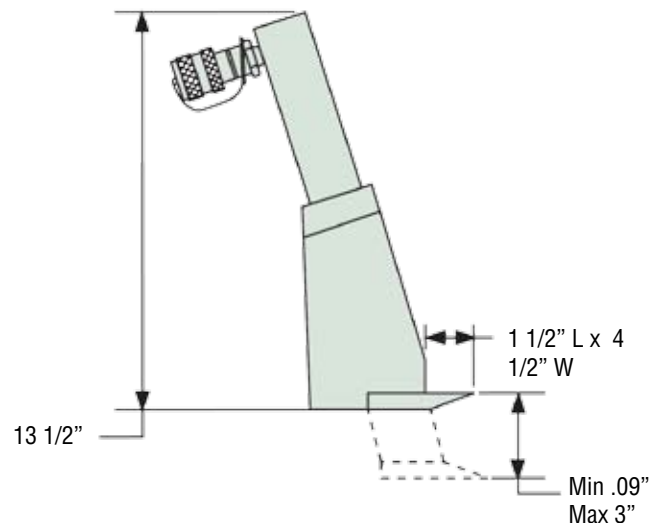
These push-pull jacks are essential for any maintenance, production work or field applications. - Pg. 141



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



SF5 Shown



Product Ordering & Dimensional Specifications							
Model	Cap. (tons)	Oil Cap. Req. (cu. in.)	Pres. @ Cap. (PSI)	Weight (lbs)	Spread		Suggested Hand Pump
					Min. (in)	Max. (in)	
SF5	5	5	10,000	17	.09	3	P22

HYDRAULIC TOOLS

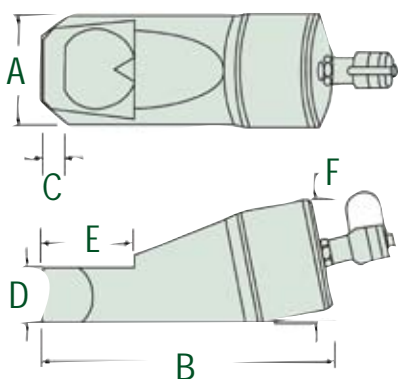
Nut Splitters



Refineries, steel mills and power plants rely heavily on Simplex nut splitters for removing stubborn or rusted nuts easily and safely. The Simplex nut splitters offer a wide range of sizes at exceptional values.

SIMPLEX ADVANTAGES

- ✓ 7 different models.
- ✓ Cuts hardened nuts up to grade 8 & 2H.
- ✓ Safety, no sparks, no flame, no impact.
- ✓ Replacement chisel and set screws included.
- ✓ Cuts any shape nut.
- ✓ Cuts nuts from 1/2" to 2 15/16" (13 to 75mm).
- ✓ Rugged carrying case included.
- ✓ Broadest Range / Best Value.



COUPLERS



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

- Pg. 78-79

HOSES



Large selection of standard, heavy duty and thermo plastic hydraulic hoses to meet your requirements and safety factor.

- Pg. 82-83

Product Ordering & Dimensional Specifications

Model	Stud Dia. (in)	Nut A/F (in)	A (in.)	B (in.)	C (in.)	D (in.)	E (in.)	F (in.)	Wgt. (lbs.)	Suggested Hand Pump
NS1319	1/4 - 7/16	1/2 - 3/4	1.57	7.87	.24	.75	1.10	1.89	1.8	P42 / P72
NS1924	7/16 - 9/16	3/4 - 15/16	2.17	8.94	.32	.98	1.50	2.80	4.4	P42 / P72
NS2432	9/16 - 3/4	15/16 - 1 1/4	2.52	7	.51	1.18	2.05	2.99	6.6	P42 / P72
NS3241	3/4 - 1	1 1/4 - 1 5/8	2.95	11.26	.59	1.38	2.60	3.50	9.7	P42 / P72
NS4150	1 - 1 1/4	1 5/8 - 2	3.78	12.80	.83	1.77	2.87	4.29	18	P140
NS5060	1 1/4 - 1 1/2	2 - 2 3/8	4.17	14.41	1.06	2.13	4.96	4.96	26	P140
NS6075	1 1/2 - 1 7/8	2 3/8 - 2 15/16	6.14	14.43	1.06	2.95	4.33	7.09	75.1	P140



HYDRAULIC TOOLS

Maintenance Kit



SIMPLEX ADVANTAGES

- ✓ 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.

Advisory



Please refer to pages 4 & 5 for a complete list of safety tips and recommendations to ensure that your Simplex equipment will perform to its full potential.



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.




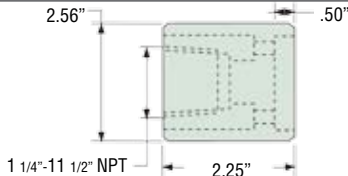

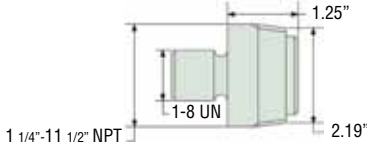

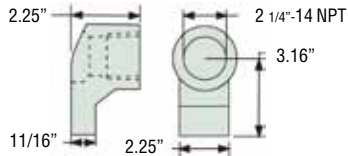

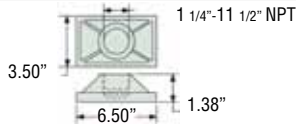

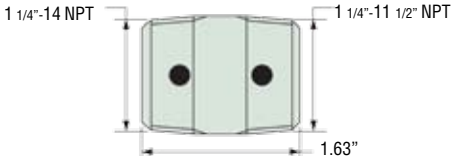
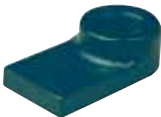
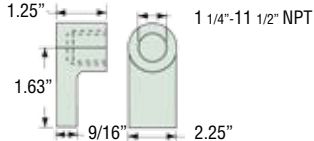

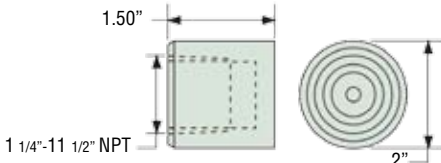
Add a V-base and flat base for special spreading, holding and bending jobs.

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.

Product Ordering & Dimensional Specifications

	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

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>	


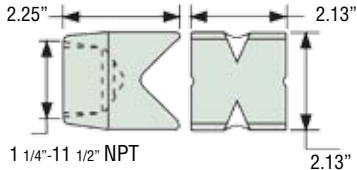

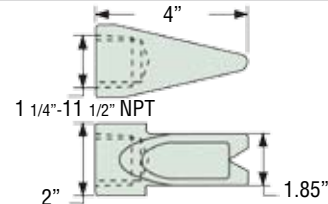

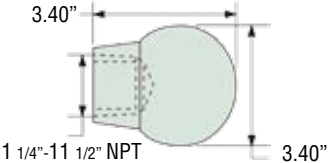

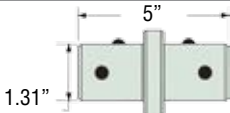



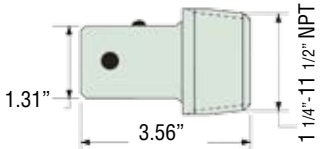

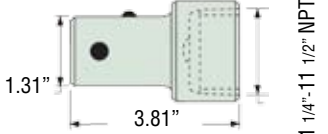






Maintenance Kit - MK106

* All components are included inside the MK106 Maintenance Kit.
* All components can be ordered separately.

KIT COMPONENTS

HYDRAULIC TOOLS

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

* All components are included in the MK106 Mainitenence Kit.

* All components can be ordered separately.

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H - Frame

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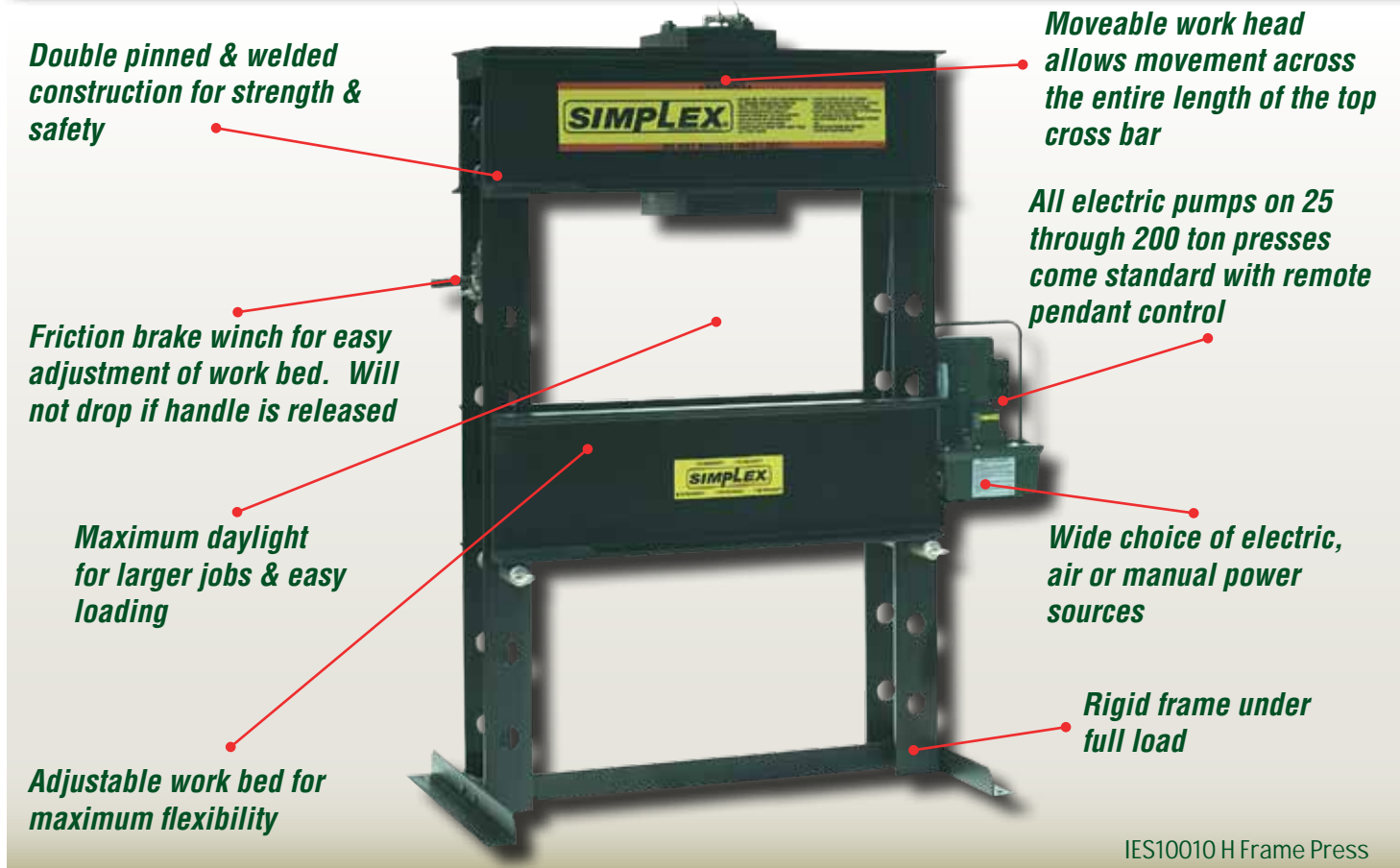
H - Frame

150 - 200 Tons..... 129



INTRODUCTION

HYDRAULIC PRESSES



IES10010 H Frame Press

SIMPLEX HYDRAULIC PRESSES 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 WHEN SELECTING A PRESS

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.

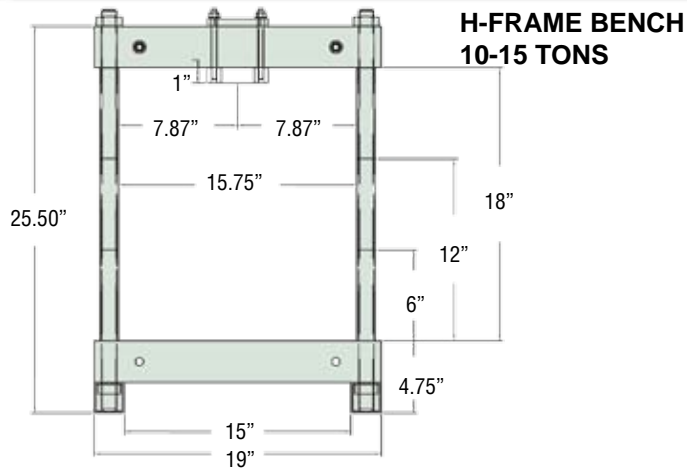


FLOOR H - FRAME

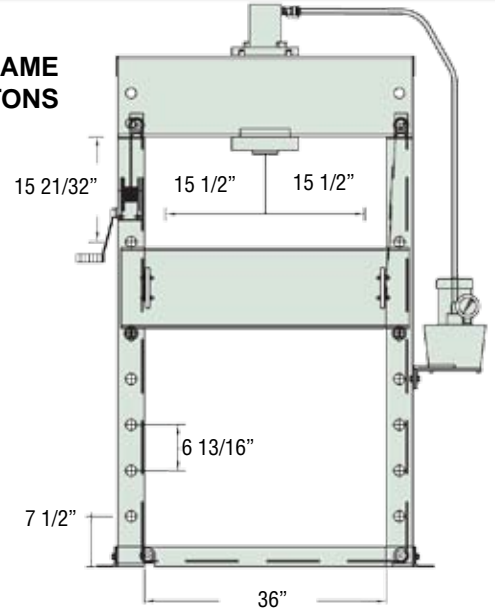
Simplex H-Frame Presses can be used professionally for assembly or straightening work up to 200 tons. They are also excellent for testing work pieces. H-Frame presses are robust and built to last. The frame is made of welded steel sections and the hydraulic system is excellent for precision work with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

PROPER SIZE & SELECTION

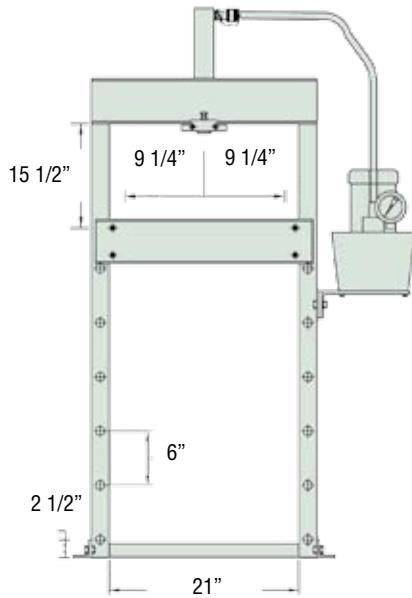
HYDRAULIC PRESSES



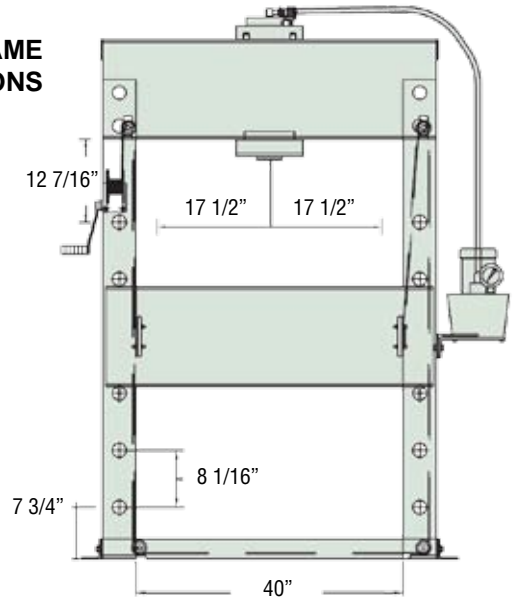
**H-FRAME
55 TONS**



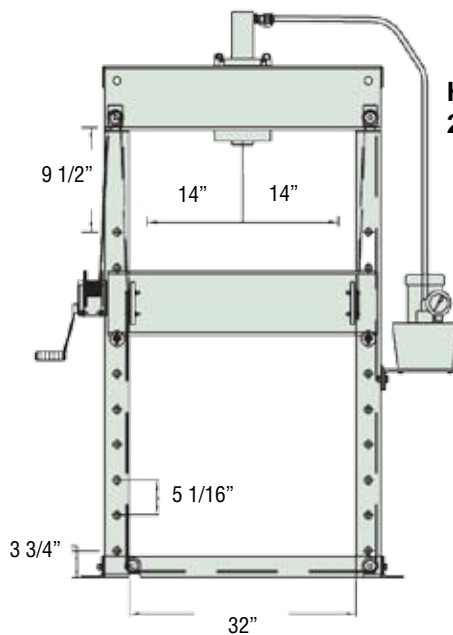
**H-FRAME
10 TONS**



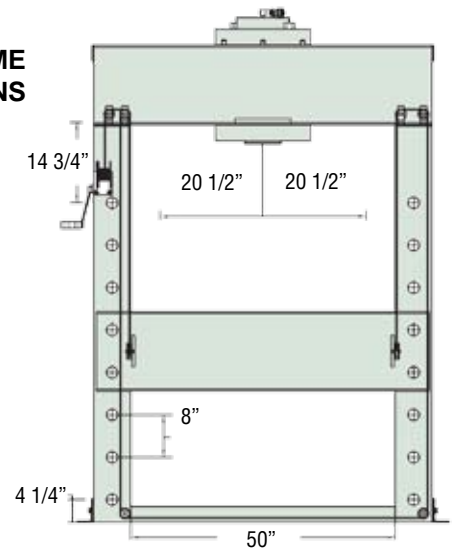
**H-FRAME
100 TONS**



**H-FRAME
25 & 30 TONS**



**H-FRAME
150 & 200 TONS**



HYDRAULIC PRESSES

H-Frame Bench
10 & 15 Tons

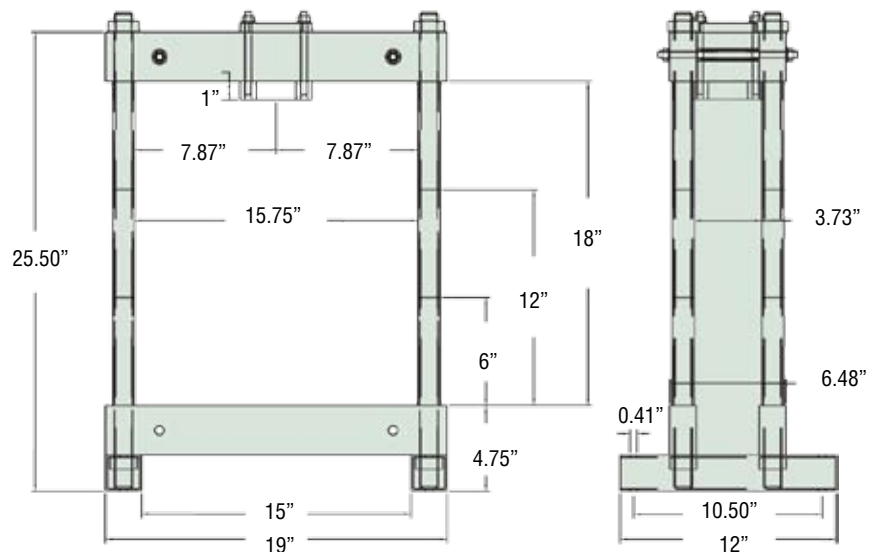


Simplex bench mounted press frame simplified the work so it can be performed safely and more productively as shown in this small fabricating shop.



SIMPLEX ADVANTAGES

- ✓ 10 or 15 ton capacities.
- ✓ Adjustable bed.
- ✓ Moveable work head.
- ✓ Wide variety of power sources.
- ✓ Large daylight.
- ✓ Heavy duty construction.



Contact Factory for additional dimensions.

Product Ordering & Dimensional Specifications						
Model Number w/ Cyl.	Cap. (tons)	Type	Ram	Stroke (in)	Model Number w/o Cyl.	Weight (lbs)
IBP1010	10	S/A	R1010	10	IPB10	142
IBP1510	15	S/A	R1510	10	IPB15	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	PEM2031	HCA6	G6	GA1	130
15	P42	PEM2031	HCA6	G6	GA1	130





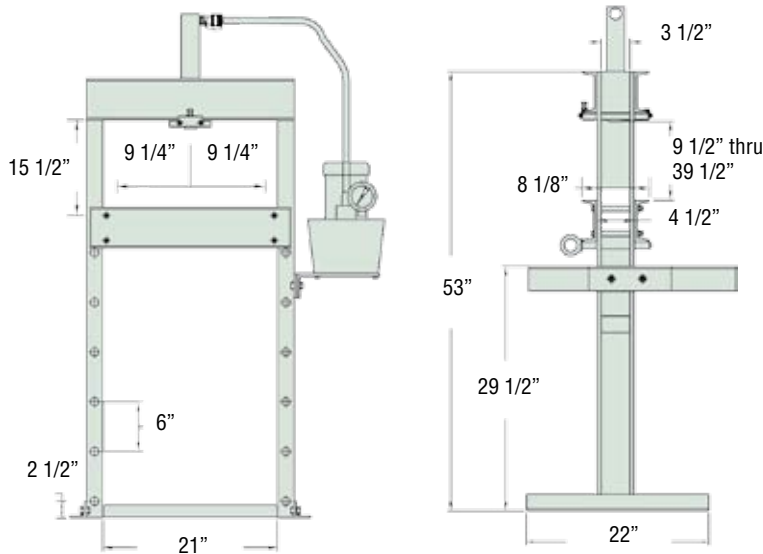
HYDRAULIC PRESSES

H-Frame
10 Tons

A manufacturer of small hoists performs light assembly effortlessly using the Simplex IMS-1010 ten ton press. "The compact size doesn't take up a lot of floor space, and we can easily move the press to different locations in the shop."

SIMPLEX ADVANTAGES

- ✓ **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.**



Pump Mounting Kit
For Hand Pumps: Model IM2
For Power Pumps: Model IM3

Custom Build Your Press by ordering press models without pumps. For foot or pendant control, higher pressing speeds or optional pump motors order separately the Simplex pump and pump mounting kit that meet your requirements, and you're ready for operation.

Product Ordering & Dimensional Specifications

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		
IS1010	IAS1010	R1010 Single Acting 10 Ton Capacity	10 1/8	Air Powered	PA91	Advance Hold Retract	31	4.5	202	172
IS1010	IES1010		10 1/8	Electric Powered	G1121		104	9	204	172
IS1010	IMS1010		10 1/8	Manual	P42		.38*	.06*	208	172
IDD1010	IED1010	RDA1010 D/A 10 Ton Capacity	10	Electric Powered	G1141	Advance Hold Retract	104	9	226	188
IDD1010	IMD1010		10	Manual	P140D		1*	.10*	236	188

* Inches Per Stroke.

SIMPLEX

HYDRAULIC PRESSES

H-Frame
25 & 30 Tons



A manufacturer of gear boxes used the Simplex 25 ton press in their production assembly line to press various size bearings on gear assemblies. "We can press up to 100 bearings an hour. The hydraulics is reliable and easy to use and they keep working day after day."

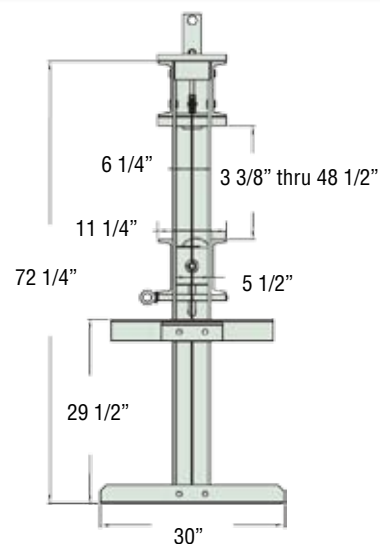
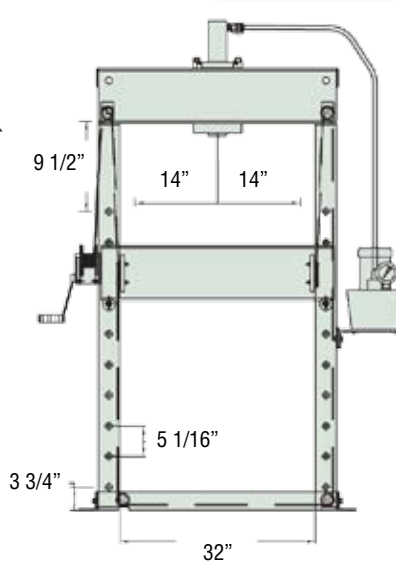
SIMPLEX ADVANTAGES

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



Pump Mounting Kit

For Hand Pumps: Model IM2
For Power Pumps: Model IM3



* Inches per stroke

Product Ordering & Dimensional Specifications

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		
----	IAS256	R256/ R2514 Single Acting 25 Ton Capacity	6 1/4	Air	PA91	Advance Hold Retract	14*	2*	417	----
----	IAS2514		14 1/4	Air	PA91		14*	2*	433	----
IS256	IES256		6 1/4	Electric	G1121		50*	4*	419	387
IS2514	IES2514		14 1/4	Electric	G1121		50*	4*	435	403
----	IMS256		6 1/4	Manual	P82		.5*	.05*	423	----
----	IMS2514		14 1/4	Manual	P82		.5*	.05*	439	----
ID3014	IED3014	RDA3014	14 1/2	Electric	G4142M		40*	3*	462	428
----	IMD3014	RDA3014	14 1/2	Manual	P140D		.5*	.05*	458	----





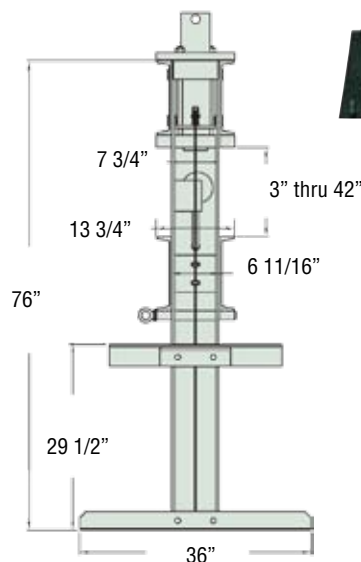
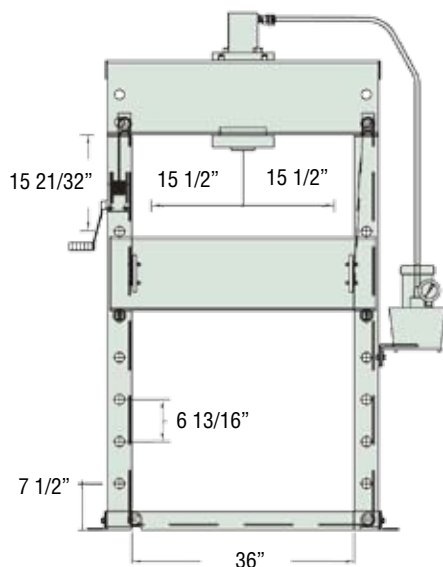
HYDRAULIC PRESSES

H-Frame
55 Tons

"Almost every day we have to remove bearings, straighten cylinder rods, perform wheel repair, and rebuild gear boxes. The 55 ton press is perfect; its adjustable bed and moveable work head gives us the flexibility to work on a wide variety of jobs."

SIMPLEX ADVANTAGES

- ✓ 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.



Pump Mounting Kit
For Hand Pumps: Model IM2
For Power Pumps: Model IM3

* Inches per stroke

Product Ordering & Dimensional Specifications										
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		
IS556	IES556	R556 S/A	6 1/4	Electric Powered	G1121	Advance Hold Retract	23*	2*	707	675
IS5513	IES5513	R5513 S/A	13 1/4		G1121		23*	2*	735	703
ID556	IED556	RDA556 D/A	6 1/8		G4172M		35*	5*	748	710
ID5512	IED5512	RDA5512 D/A	12		G4172M		35*	5*	793	755
----	IMS556	R556 S/A	6 1/4	Manual	P82		.25*	.02*	711	----

SIMPLEX

HYDRAULIC PRESSES

H-Frame
100 Tons



A machine shop needed to straighten forgings prior to machining. "We needed a pressing force of 100 tons and we didn't want to cut corners when it came to safety. Simplex presses do not rely on "bolt together" construction.

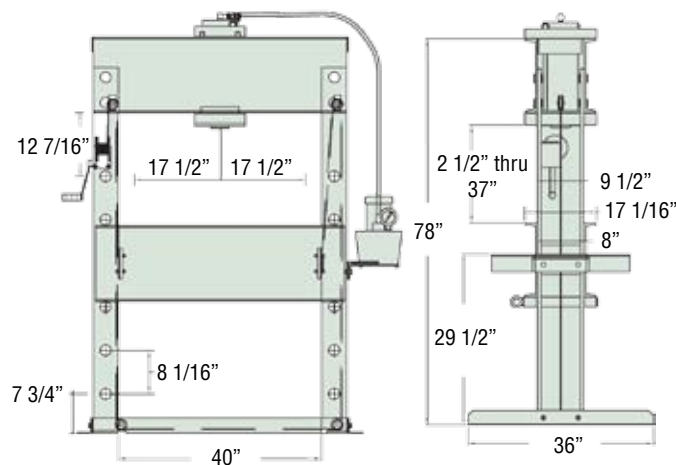
SIMPLEX ADVANTAGES

- ✓ 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.



Pump Mounting Kit

For Hand Pumps: Model IM2
For Power Pumps: Model IM3



Product Ordering & Dimensional Specifications

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 5/8	Electric Powered	G4163	Advance Hold Retract	19	2 3/4	1558	1470
IS10010	IES10010	R10010 S/A	10 1/4		G4163		19	2 3/4	1578	1490
ID1006	IED1006	RDA1006 D/A	6 1/16		G4173		19	2 3/4	1620	1532
ID10012	IED10012	RDA10012 D/A	12		G4173		19	2 3/4	1655	1567



HYDRAULIC PRESSES

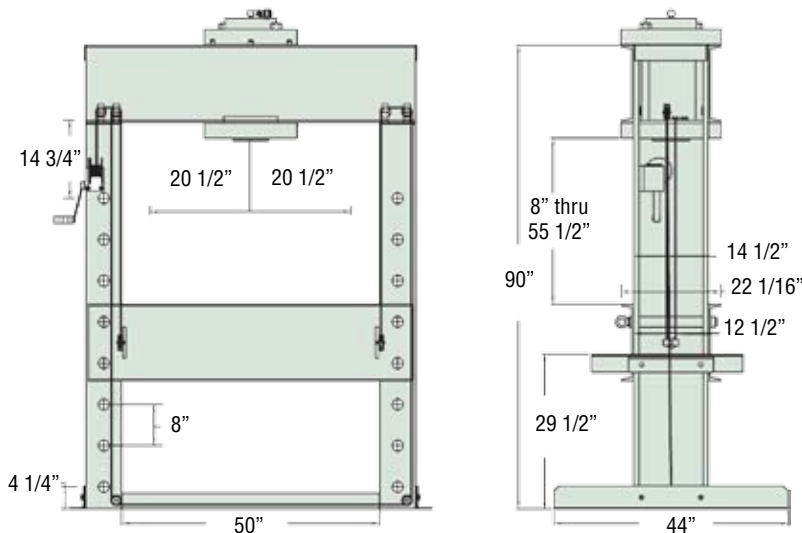
H-Frame
150-200 Tons

Rail car repair shops are constantly faced with large jobs, reforming rail car components, installing and removing bolster parts and straightening or bending under-carriage assemblies. These applications require a reliable and safe high tonnage press.

SIMPLEX ADVANTAGES

- ✓ 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 Series comes with pendant control.
- ✓ Includes tonnage gauge.

Presses ordered with pumps include remote pendant control and large 5 gallon reservoir. The pump is floor mounted.



Product Ordering & Dimensional Specifications

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 Powered	PES6045	Advance Hold Retract	20	4.5	3035	2839
ID20013	IED20013	RDA20013 D/A	13		230 3 Ph.		14	3.5	3180	2984

SIMPLEX

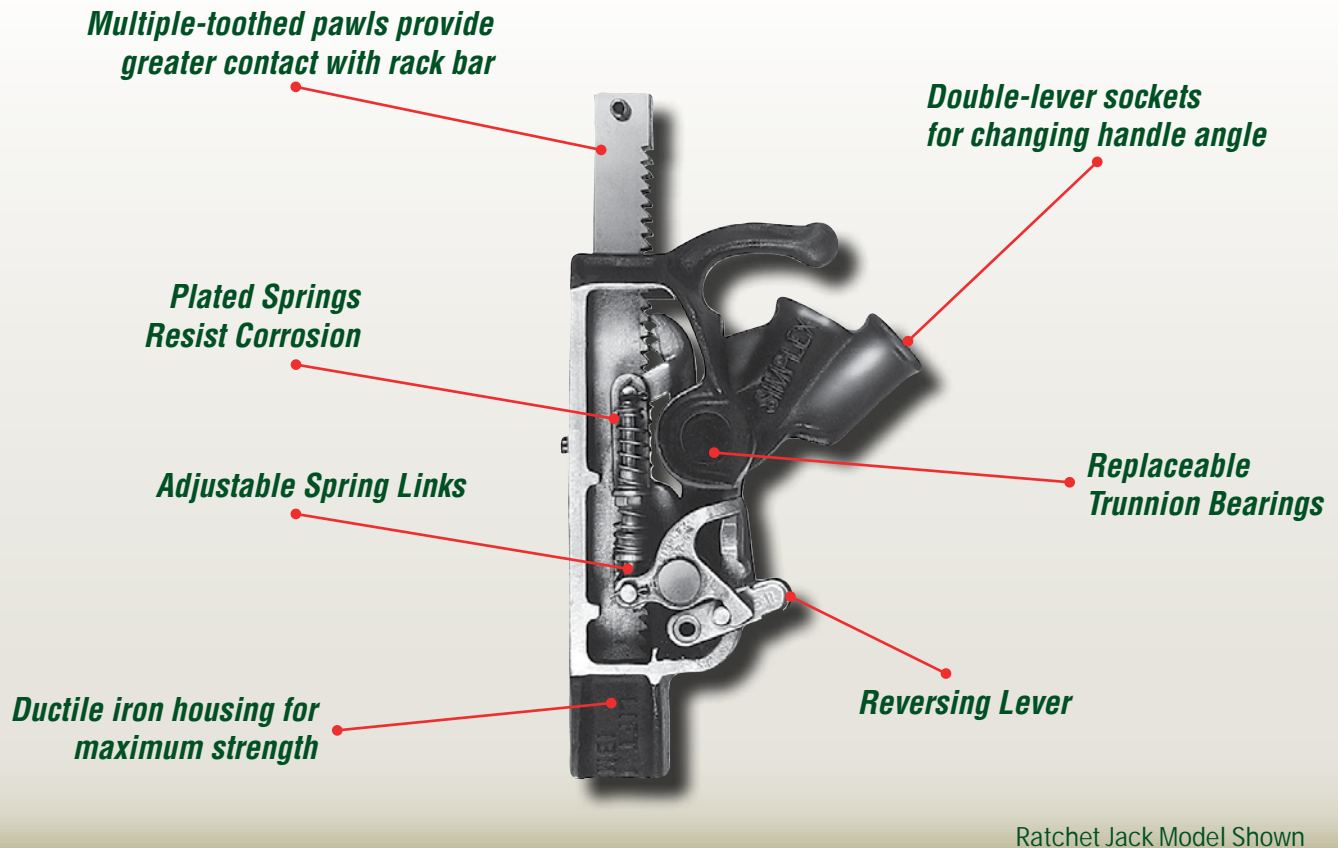
SECTION INDEX

<i>Proper Size & Selection</i>	<i>132 - 133</i>
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<i>Reel Jacks</i>	<i>136</i>
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<i>Screw and Cap Assemblies.....</i>	<i>139</i>
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<i>Mine Roof Supports.....</i>	<i>144 - 145</i>



INTRODUCTION

MECHANICAL JACKS



SIMPLEX MECHANICAL JACKS 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.

MECHANICAL JACKS

PROPER SIZE & SELECTION

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 20 tons.

Handle Effort

Reference each table within this section to determine the amount 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:** A1022, A1538, A1029-R, A1029-L or **Superjack models:** A1510C, A2510C, A2515C, A3510D, A5010B.

PROPER SIZE & SELECTION

MECHANICAL JACKS

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.



Trench Braces provide a safe, efficient and economical solution for utility maintenance, along with protection against cave-ins and costly reconstruction. Blunt, drop forged steel safety lever nut prevents injuries and damage. The ball and socket joints provide maximum tilting action with lugs at each end to ensure quick adjustment and tight grip at all angles. The pipe sleeve can be used to adapt the brace to the width of the trench.



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. Steamboat Jacks are used on the construction of bridges and concrete and steel engineering projects. Gravity type pawl is used on boats and barges.



Mine 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, pulling and pushing conveyor lines and controlling the tail piece. These mine roof supports are available in a ratchet or screw style head. The A9225 double acting mechanism lifts and lowers on both the up and down stroke. The 139A uses the screw type and is ideal for tight quarters. The M9 and M17 screw assemblies and bases can be adapted to a 2" pipe, which is universally used in mines with coal seams of varying heights.



MECHANICAL JACKS

Ratchet Jacks



Model 85A is used to lift a CNC machine for installation. Five ton lifting capacity, low toe height and light weight make the models 84A, 85A, & 86A universal tools. Ten ton models are used extensively by structural movers, riggers & maintenance crews.



Ratchet Family Shown
For additional models, see table.

SIMPLEX ADVANTAGES

- ✓ **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.**
- ✓ **Large base ensures a firm foundation.**
- ✓ **Supports full rated capacity on the toe or the cap.**
- ✓ **Steel lever bars sold separately.**



CARRYING HANDLE

Right and left side carrying handles make the positioning and transporting of the 10, 15 and 20 ton ratchet jacks simple.



HYDRAULIC JACKS

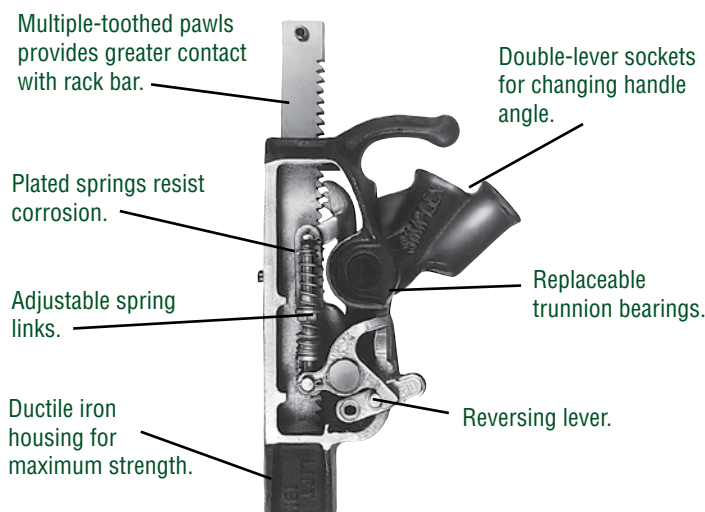
Please refer to our Hydraulic Jack section for a complete line of Toe Jacks to fit your lifting needs.

- Pg. 103



Advisory

Please refer to pages 4 & 5 for a complete list of safety tips and recommendations to ensure that your Simplex equipment will perform to its full potential.



MECHANICAL JACKS

Ratchet Jacks



A1538 Utility Pole Jack Shown
For additional models, see table.



I-Beam Base Order # - 10800

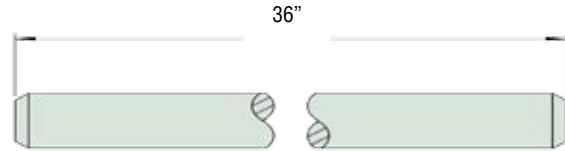


Alloy Chain Order # - 10760

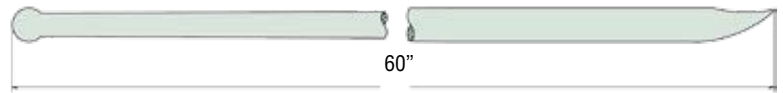
A1538 Utility Pole Jack is used for pole lining maintenance by telephone, light, power and railroad companies and has a lightweight aluminum alloy housing. The I-Beam assures a firm foundation - ratchet jack base pivots for positioning and the alloy chain inter-connects to the jack to the pole for lifting objects upwards.



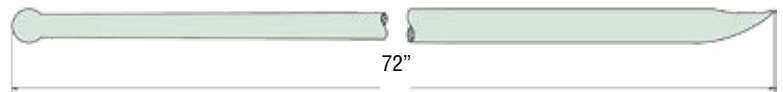
A1022 Ratchet Jack Shown
For additional models, see table.



Steel Lever Bar
10640



Steel Lever Bar
10665



Steel Lever Bar
10675

Product Ordering & Dimensional Specifications

Model	Supporting Cap. (tons)	Lifting Cap. (tons)	Stroke (in)	Handle Effort per Ton (lbs)	Toe Min. Height (in)	Base Size (in)	Weight (lbs)	Steel Lever Bars			
								Order Number	Length (in)	Dia. (in)	Weight (lbs)
84A	5	5	7	32	1 3/4	5 x 7 3/8	28	10640	36	1	8
85A	5	5	10	32	1 3/4	5 x 7 3/8	30	10640	36	1	8
86A	5	5	13	32	1 3/4	5 x 7 3/8	35	10640	36	1	8
1017	10	10	9 1/2	30	2	6 x 8 3/4	40	10665	60	1 1/4	17
A1022	10	10	12	30	2 1/4	6 1/2 x 10 1/4	42	10665	60	1 1/4	17
22B	10	10	12	30	2 1/4	6 1/2 x 10 1/4	70	10665	60	1 1/4	17
A1538	15	8	22	32	-----	8 x 8 1/4	62	10675	72	1 1/4	20
24A	20	15	13	32	2 1/4	8 x 10 1/4	93	10675	72	1 1/4	20
2029	20	15	18	32	2 1/4	8 x 11	104	10675	72	1 1/4	20

Note: 10665 & 10675 lever bars are interchangeable. The longer 10675 bar results in lower handle efforts.

MECHANICAL JACKS

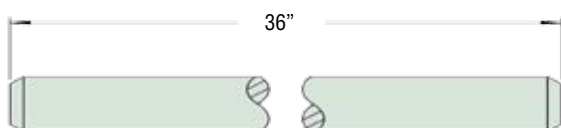
Reel Jacks



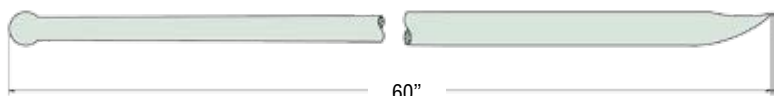
Using A1029-R and A1029-L, utilities can easily handle large reels. The large wooden bases and low handle efforts enhance safety and reduce operator fatigue. Simplex Reel Jacks are also an excellent choice for wire rope and sling manufacturers.



Reel Jack Family Shown
For additional models, see table.



Steel Lever Bar
10640



Steel Lever Bar
10665

SIMPLEX ADVANTAGES

- ✓ 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.
- ✓ Tough hardwood bases laminated for extra strength.
- ✓ 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 to withstand harsh conditions.

* 10675 Lever Bar can be substituted with order number 10665 for reduced handle effort.

Product Ordering & Dimensional Specifications

Model	Capacity per Pair		Handle Effort per Ton (lbs)	Stroke (in)	Reel Dia. (in)	Top Hook Height (in)	Weight (lbs)	Steel Lever Bars			
	Side Hooks (tons)	Top Hooks (tons)						Order Number	Length (in)	Dia. (in)	Weight (lbs)
320B	5	10	32	10	20-60	21	51	10640	36	1	8
321B	10	20	22	12	20-96	34 1/2	128	*10665	60	1 1/4	17
A1029-R	10	20	22	11 5/8	36-84	31 1/8	86	*10665	60	1 1/4	17
A1029-L	10	20	22	11 5/8	36-84	31 1/8	86	*10665	60	1 1/4	17

MECHANICAL JACKS

Super Jacks



Outdoor use and weld splatter can shorten the life of standard jacks. "We chose Simplex Superjacks for the bullet proof construction and holding power." They provide trouble-free service in the roughest applications.

SIMPLEX ADVANTAGES

- ✓ **Ratcheting screw jack design.**
- ✓ **Holds the load indefinitely without creep down.**
- ✓ **Positive Shoulder Stops for safety.**
- ✓ **Available with aluminum or ductile iron housing.**
- ✓ **Ball Bearings for smooth operation & low handle effort.**
- ✓ **Jacking capacity ranges 15 - 50 tons.**
- ✓ **Low backsaving handle effort.**
- ✓ **Steel lever bars sold separately.**



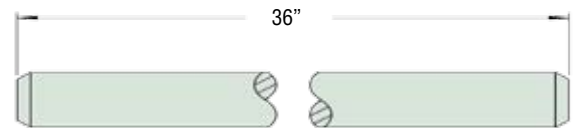
Super Jack Family Shown
For additional models, see table.



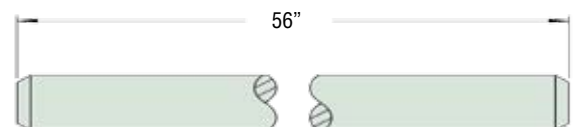
REVERSAL RATCHET
Raise or lower the load precisely with the reversal ratchet socket with quick spin handle.



LOAD CAP
Steel serrated load cap prevents the load from possible slippage.



Steel Lever Bar
10640



Steel Lever Bar
10660

Product Ordering & Dimensional Specifications

Model	Cap. (tons)	Min. Height (in)	Stroke (in.)	Handle Effort Per Ton (lbs.)	Base Dia. (in)	Weight (lbs)	Steel Lever Bars			
							Order Number	Length (in)	Dia. (in)	Weight (lbs)
A1510C	15	10 1/4	5	9	5 1/2	28	10640	36	1	8
2510C	25	10 1/4	5	6	5 1/2	43	10640	36	1	8
A2510C	25	10 1/4	5	6	5 1/2	34	10640	36	1	8
A2515C	25	15	9	6	5 1/2	43	10640	36	1	8
3510D	35	10 1/4	5	5	5 1/2	44	10640	36	1	8
A3510D	35	10 1/4	5	5	5 1/2	34	10640	36	1	8
5010B	50	10 5/16	4	4	7 1/4	80	10660	56	1 1/8	16
A5010B	50	10 5/16	4	4	7 1/4	61	10660	56	1 1/8	16

MECHANICAL JACKS

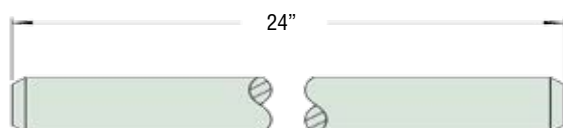
Screw Jacks



Simplex screw jacks are used to adjust the height of this roller fixture. "We use this fixture during the assembly of long pieces of screw stock." "Simplex screw jacks makes fixturing easy and precise."



Mechanical Screw Jack Family Shown
See table for additional models.



Steel Lever Bar
10621

SIMPLEX ADVANTAGES

- ✓ Ductile iron bodies for strength.
- ✓ Positive welded stop for safety.
- ✓ Supports loads indefinitely, and won't creep down.
- ✓ Carry handle for ease of transport.
- ✓ Steel lever bars sold separately.
- ✓ Four way head for easy positioning of lever bar.
- ✓ Tilt saddle assists in centering load point.



LOAD CAP
Drop forged steel load cap is serrated to prevent load slippage.



SITE HOLE
Built in site hole for safety, allows the user to determine the height of the lifting screw without guessing.

- 36" and 42" Lengths Also Available - See Table -

Product Ordering & Dimensional Specifications

Model	Order Number	Sustaining Capacity (tons)	Closed Height (in)	Stroke (in)	Handle Effort Per Ton (lbs)	Base Dia. (in)	Weight (lbs)	Steel Lever Bars			
								Order Number	Length (in)	Dia. (in)	Weight (lbs)
1 1/2 x 6	03060	12	9 3/4	3 3/4	16	4 3/4	10	10621	24	3/4	4
1 1/2 x 8	03090	12	11 5/8	5 3/4	16	5 1/2	12	10621	24	3/4	4
1 1/2 x 12	03120	12	15 5/8	9 3/4	16	6 1/4	16	10621	24	3/4	4
2 x 8	03165	20	11 3/4	5	15	6	17	10635	36	13/16	6
2 x 10	03195	20	13 3/4	7	15	6 1/2	20	10635	36	13/16	6
2 x 12	03210	20	15 3/4	9	15	6 3/4	24	10635	36	13/16	6
2 1/2 x 8	03240	24	13	4 1/4	15	6 1/2	28	10655	42	1 1/8	12
2 1/2 x 12	03255	24	17	8 1/4	15	7 1/4	37	10655	42	1 1/8	12
2 1/2 x 18	03300	24	23	14 1/4	15	8 1/2	52	10655	42	1 1/8	12



MECHANICAL JACKS

Screw & Cap Assemblies

144 Screw and Cap assemblies support the outer wall of a large generator assembly at the Grand Coulee Dam. The assemblies also are used to exert pressure, stabilizing the generator laminations.

The shoulder nut is placed into piping, fixtures or other fixed forms supplied by the user.



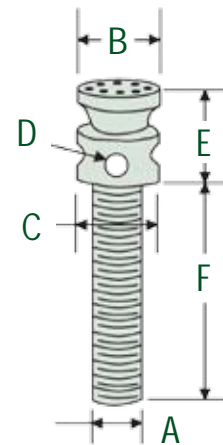
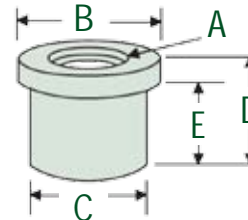
SIMPLEX ADVANTAGES

- ✓ Holds the load indefinitely without creep down.
- ✓ Versatile accessories for outrigger supports, holding and adjusting concrete forms, or for any application requiring special holding or shoring support.
- ✓ The shoulder nut is placed into piping or another fixed form, and the screw & cap assembly is threaded through it.
- ✓ Four-way head assembly accommodates the lever bar at four different positions for infinite height adjustments and exact leveling.
- ✓ Drop forged serrated steel cap floats 9° on a chrome-moly ball, reducing friction by 88%.

Advisory



Please refer to pages 4 & 5 for a complete list of safety tips and recommendations to ensure that your Simplex equipment will perform to its full potential.



Product Ordering & Dimensional Specifications

Model	Order Number	Sustaining Capacity (tons)	Modified Acme Thread Dia. - Pitch A (Thread)	Dimensions					Weight (lbs)	Steel Lever Bars			
				B (in)	C (in)	D (in)	E (in)	F (in)		Order Number	Length (in)	Dia. (in)	Weight (lbs)
1 1/2 BC-30-6	03568	12	1 1/2 - 3	2 7/8	2 1/4	7/8	3 3/4	5 11/16	5 1/2	10621	24	3/4	4
1 1/2 BC-30-8	03570	12	1 1/2 - 3	2 7/8	2 1/4	7/8	3 3/4	7 11/16	6 1/4	10621	24	3/4	4
1 1/2 BC-30-12	03574	12	1 1/2 - 3	2 7/8	2 1/4	7/8	3 3/4	11 11/16	7 3/4	10621	24	3/4	4
2 BC-30-8	03582	20	2 - 2 1/2	3 1/8	2 7/8	15/16	4	7 9/16	10 1/2	10635	36	13/16	6
2 BC-30-10	03584	20	2 - 2 1/2	3 1/8	2 7/8	15/16	4	9 9/16	12	10635	36	13/16	6
2 BC-30-12	03586	20	2 - 2 1/2	3 1/8	2 7/8	15/16	4	11 9/16	13 1/2	10635	36	13/16	6
2 1/2 BC-30-8	03600	24	2 1/2 - 2 1/2	3 1/4	3 1/4	1 3/16	5 1/16	7 13/16	16 3/4	10655	42	1 1/8	12
2 1/2 BC-30-12	03602	24	2 1/2 - 2 1/2	3 1/4	3 1/4	1 3/16	5 1/16	11 13/16	21 3/4	10655	42	1 1/8	12
2 1/2 BC-30-18	03608	24	2 1/2 - 2 1/2	3 1/4	3 1/4	1 3/16	5 1/16	17 13/16	29 1/4	10655	42	1 1/8	12
Shoulder Nuts													
1 1/2 NS-25	03620	----	1 1/2 - 3	3	2 13/32	3	2 1/4	----	3 1/4				
2 NS-25	03625	----	2 - 2 1/2	4	3	3 1/4	2 1/4	----	5				
2 1/2 NS-25	03630	----	2 1/2 - 2 1/2	5	3 15/16	4	3	----	11				



SIMPLEX FILTER & STORAGE TANK JACKS

Simplex Tank Jacks offer an economical means of supporting and leveling vertical, bottom, or side-opening filter and storage tanks. Screw operation provides infinite adjustment for exact tank leveling and gravity flow. Rated capacity for all models is 15,000 lbs.

C1025 steel saddle is welded to the tank before being set on the jack.

Product Ordering & Dimensional Specifications

Model	Tank Dia. (ft-in)	Pipe Dia. (in)	“DB” (in)	“HB” (in)	“CB” (in)	Qty. Required	
						Under 12 Ft.	Over 12 Ft.
For Side Pipe Connections							
4406	3-6	---	14	6 1/2	4	4	4
4406	4-0	---	16	6 3/8	3 1/2	4	4
4406	4-6	---	18	6 3/4	3 1/2	4	4
4406	5-0	---	20	7 1/8	3 1/2	4	4
4406	5-6	---	22	7 1/2	3 1/2	4	4
4406	6-0	---	24	6	1 1/2	4	4
4406	6-6	---	26	6 1/8	1 1/2	4	4
4406	7-0	---	28	6 1/2	1 1/2	4	6
4406	7-6	---	30	6 7/8	1 1/2	4	6
4406	8-0	---	32	7 1/4	1 1/2	6	8
4406	8-6	---	34	7 5/8	1 1/2	6	8
4406	9-0	---	36	8	1 1/2	6	8
4410	9-6	---	38	10 3/8	3 1/2	8	8
4410	10-0	---	42	10 3/4	3 1/2	8	8
For Bottom Pipe Connections							
4410	3-6	2	14	10 1/2	8	4	4
4410	4-0	2 1/2	16	11 7/8	9	4	4
4410	4-6	2 1/2	18	12 1/4	9	4	4
4414	5-0	2 1/2	20	14 5/8	11	4	4
4414	5-6	2 1/2	22	15	11	4	4
4414	6-0	3	24	16 3/8	12	4	4
4414	6-6	3	26	14 5/8	10	4	4
4418	7-0	4	28	18 1/4	13 1/4	4	6
4418	7-6	4	30	18 5/8	13 1/4	4	6
4418	8-0	4	32	19	13 1/4	6	8
4418	8-6	5	35	20	14	6	8
4418	9-0	5	37	19 1/2	13	6	8
4418	9-6	5	39	20	13	8	8
4418	10-0	6	41	21	14	8	8

Model	Order Number	Base Dia. "A" (in)	Base Height "B" (in)	Min. Height "C" (in)	Max. Height "C" (in)	Weight (lbs)
4406	03820	5 3/4	4	6	8	10
4410	03840	6	8	10	12	12
4414	03860	6 1/2	12	14	16	17
4418	03880	8	16	18	20	26
Saddle	03993	-----	-----	-----	-----	2.5

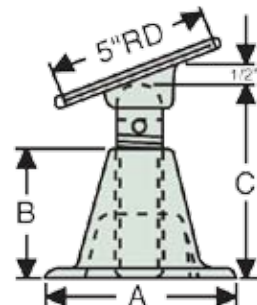
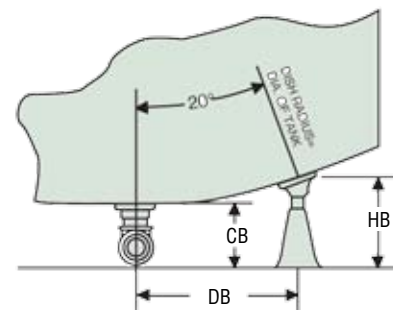
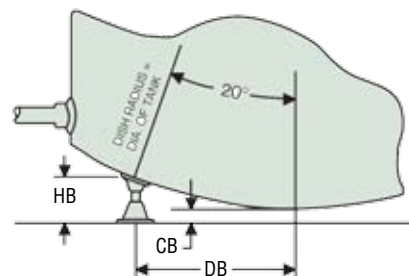


FIGURE 1



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



PUSH / PULL JACKS

MECHANICAL JACKS

SIMPLEX STEAMBOAT JACK

These 20 ton capacity models are used for connecting river barges, pulling forms and steel plates together and other applications in bridge construction and concrete and steel engineering projects. Units are equipped with spring activated pawls and 26" long attached handles. The handle effort per ton is 16 lbs. The I.D. of the eye is 1 5/16". Depth of eye is 1 7/8".

Product Ordering & Dimensional Specifications					
Model	Dim. "A" (in)	Travel Length (in)	Barrel Length (in)	Screw Dia. (in)	Weight (lbs)
ER-10	23	14	18	2	57
ER-20	29	20	24	2	66
ER-30	35	26	30	2	74
ER-40	47	38	42	2	92



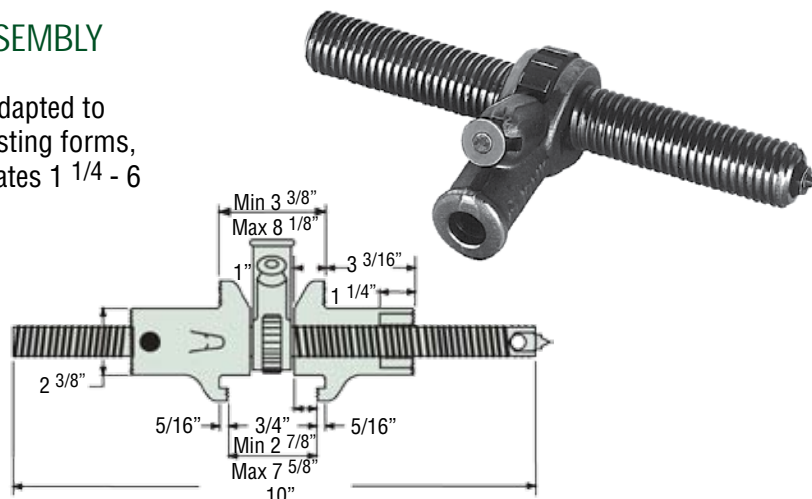
SIMPLEX 610 PUSH/PULL JACK

The model 610 is used for pushing or pulling, holding & more; ideal for weld shops. For added versatility, the end nuts are designed to permit the use of chains with eye hooks. Steel lever bar is ordered separately.



SIMPLEX 610-15 RATCHET SCREW ASSEMBLY

The ratchet screw assembly may be custom adapted to almost any push/pull application such as adjusting forms, fixtures, doors, flues, and dampers. Incorporates 1 1/4 - 6 Acme class 2G, right and left hand thread.



Product Ordering & Dimensional Specifications											
Model	Centered Capacity (tons)	Hook/Toe Offset Load Capacity (tons)	Travel (in)	Handle Effort Per Ton (lbs)	Screw Dia. (in)	Length (in)	Weight (lbs)	Steel Lever Bars			
								Order Number	Length (in)	Dia. (in)	Weight (lbs)
610	10	2	4 1/2	15	1 1/4	10	13	10621	24	3/4	4
610-15	10	2	----	15	1 1/4	----	5	10621	24	3/4	4



Spreader Jack 3A Shown

SPREADER JACK

The model 3A Spreader Jack is used when working in close quarters. The Spreader Jack has a closed height of only 3", with 1" stroke for adjustments, yet it can support 3 tons. The serrated cap rotates to prevent twist out, but does not pivot. The Spreader Jack may also be used as a planer jack.

Product Ordering & Dimensional Specifications

<i>Model</i>	<i>Sustaining Cap. (tons)</i>	<i>Minimum Height (in)</i>	<i>Operable Rise (in)</i>	<i>"A" Across Flats (in)</i>	<i>Weight (lbs)</i>
3A	3	3	1	2	3 1/4



2P Planer Jack Shown

PLANER JACKS

Four different models are available, with capacities ranging from 2 to 8 tons. They are used in leveling work on plane beds, millers and other machinery.

Screw's operation provides infinite height adjustments for exact leveling. The side-locking screw keeps the jack extended and prevents lowering due to vibration. The ball and socket cap swivels to center load forces. The notched base fastens easily to machine beds.

Product Ordering & Dimensional Specifications

<i>Model</i>	<i>Sustaining Cap. (tons)</i>	<i>Minimum Height (in)</i>	<i>Operable Rise (in)</i>	<i>"A" Across Flats (in)</i>	<i>Weight (lbs)</i>
1P	2	2 3/4	1	2 3/8	1 1/2
2P	4	3 3/4	1 1/2	3 1/8	3
3P	6	5 1/4	2 1/4	4	6
4P	8	7 1/2	4	5 3/8	12

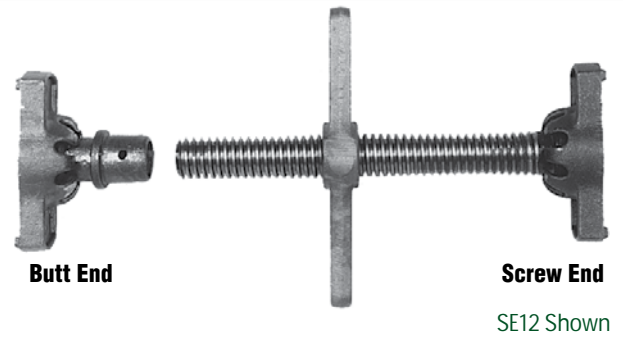


TRENCH BRACES

MECHANICAL JACKS

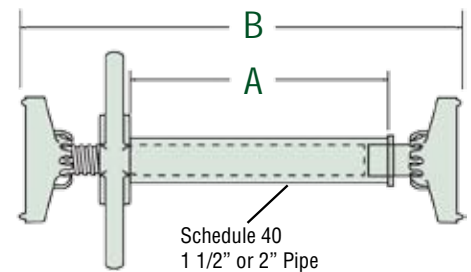
Simplex Trench Braces provide efficient, economical protection against cave-ins and costly redigging in construction and utility maintenance. Braces extend by turning the lever nut handle. The ball socket joints tilt for added safety on angular mounting. Holes on each end facilitate mounting to wood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

Simplex trench braces are designed for use with standard schedule 40 pipe. Screw end models SE-12, SE-16 and butt end model BE-25 use 1 1/2" diameter pipe. Model SE-18 and butt end BE-35 use 2" diameter pipe. Pipe should be cut to length based on the chart below and drawing in Fig. 1.



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

Product Ordering & Dimensional Specifications					
Model	Adjust Range (in)	Pipe Size (in)	Butt End	"A" Min. Pipe Length (in)	"B" Min. Closed Ht. (in)
SE-12	7	1 1/2	BE-25	12	18
SE-16	10	1 1/2	BE-25	16	22
SE-18	10	2	BE-35	18	25 1/2



(Fig. 1) All Trench Brace Models

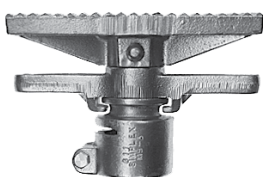
Quick Reference Timber / Trench Brace Equivalency Tables*

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

Product Ordering & Dimensional Specifications												
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	SE-18		SE-18	5	6 x 8	5	2"x 6"				



Head Assembly
Model 09167



Type S Head
36 square inches
in support area.



Base Assembly
Model 09220



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

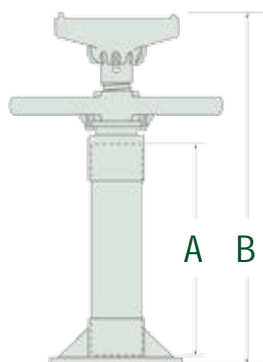
Simplex head assemblies are designed for roof support in mines and other areas where ceiling heights vary greatly. Use your own pipe to custom build a support for nearly any application.

The 8 ton MS-9 models use 2" schedule 40 pipe. The 16 ton MS-17 models require 2" schedule 80 pipe. A round base (ordered separately) is available to fit the 2" pipe. All models incorporate a lever nut handle. The 8 ton models are available with either FS or S style heads, and the 16 ton model is available with FS style head only.

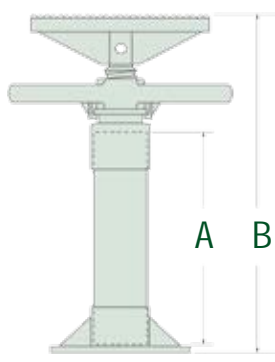
For economy, use the import version. If U.S. manufacture is required, use the domestic version. Simplex quality is assured with either choice.

Maximum pipe length recommendations are based upon the following conditions:

- Fully extended assemblies loaded to maximum rated capacity.
- Head and base securely fixed to prevent lateral movement.
- Schedule 40 pipe with a minimum yield strength of 35,000 psi/8 ton models.
- Schedule 80 pipe with a minimum yield strength of 48,000 psi/16 ton model.



09167 & 09267



09309

Product Ordering & Dimensional Specifications

Model	"A" Min. Pipe Length (in)	"B" Min. Closed Height (in)
MS9L-FS	20 1/2	27
MS9L-S	20 5/8	25 1/2
MS17L-FS	21 3/4	28 3/4

Mine Roof Support Head Assemblies

Product Ordering & Dimensional Specifications

Model	Order Number Domestic	Order Number Import	Head Style	Sustaining Capacity (tons)	Stroke (in)	*Max. Pipe Length (in)	Max. Extended Ht. (in)	Dim. Between Flanges (in)	Weight (lbs)
MS9L-FS	09167	09267	FS	8	15	51 3/4	73	5 3/4	19
MS9L-S	09233	-----	S	8	15	73 1/4	93	---	19
MS17L-FS	----	09309	FS	16	15	46 1/4	68	5 3/4	34
Base MB-17	09220	-----	---	16	---	---	---	---	6



MINE ROOF SUPPORTS

MECHANICAL JACKS

The A9225 Family is rated at 4 tons sustaining capacity, and is suitable for a wide range of mine maintenance applications. The aluminum alloy housing and base, coupled with a convenient carrying handle, make this unit exceptionally light and portable.

The A9225 Family incorporates a ratchet mechanism for speedy operation. Lever bar #10635 is ordered separately.

The 139A Family is a screw extension type roof support rated at 5 tons sustaining capacity. Designed for use as a safety prop, the 139A Family is suitable for cross timbering with wood or steel beams.

Complete Unit Ratchet Lever Series - A9225 Family

Product Ordering & Dimensional Specifications

Model	Order Number	Minimum Height (in)	Stroke (in)	Weight (lbs)
Complete Unit Ratchet Lever Series - A9225 Family				
<i>E</i>	<i>09602</i>	39	20	29
<i>F</i>	<i>09603</i>	39	20	29
<i>S</i>	<i>09620</i>	39	20	29
<i>E</i>	<i>09606</i>	45	26	33
<i>F</i>	<i>09607</i>	45	26	33
<i>S</i>	<i>09621</i>	45	26	33
<i>E</i>	<i>09610</i>	57	38	36
<i>F</i>	<i>09611</i>	57	38	36
<i>S</i>	<i>09622</i>	57	38	36
<i>E</i>	<i>09614</i>	69	38	39
<i>F</i>	<i>09615</i>	69	38	39
<i>S</i>	<i>09623</i>	69	38	39
<i>E</i>	<i>09616</i>	75	38	42
<i>F</i>	<i>09617</i>	75	38	42
<i>S</i>	<i>09624</i>	75	38	42
<i>E</i>	<i>09618</i>	88	38	48
<i>F</i>	<i>09619</i>	88	38	48
<i>S</i>	<i>09625</i>	88	38	48
Complete Unit Screw Extension Series - 139A Family				
<i>E</i>	<i>09802</i>	42	24	50
<i>F</i>	<i>09803</i>	42	24	50
<i>S</i>	<i>09820</i>	42	24	50
<i>E</i>	<i>09806</i>	48	30	52
<i>F</i>	<i>09807</i>	48	30	52
<i>S</i>	<i>09821</i>	48	30	52
<i>E</i>	<i>09810</i>	54	36	54
<i>F</i>	<i>09811</i>	54	36	54
<i>S</i>	<i>09822</i>	54	36	54
<i>E</i>	<i>09814</i>	66	36	58
<i>F</i>	<i>09815</i>	66	36	58
<i>S</i>	<i>09823</i>	66	36	58
<i>E</i>	<i>09818</i>	78	36	64
<i>F</i>	<i>09819</i>	78	36	64
<i>S</i>	<i>09824</i>	78	36	64



HEAD STYLES



E Type Head

For all standard work. Dimension between flanges: 8 1/8".



F Type Head

For use with electrical wiring. Dimension between flanges: 10 1/4".



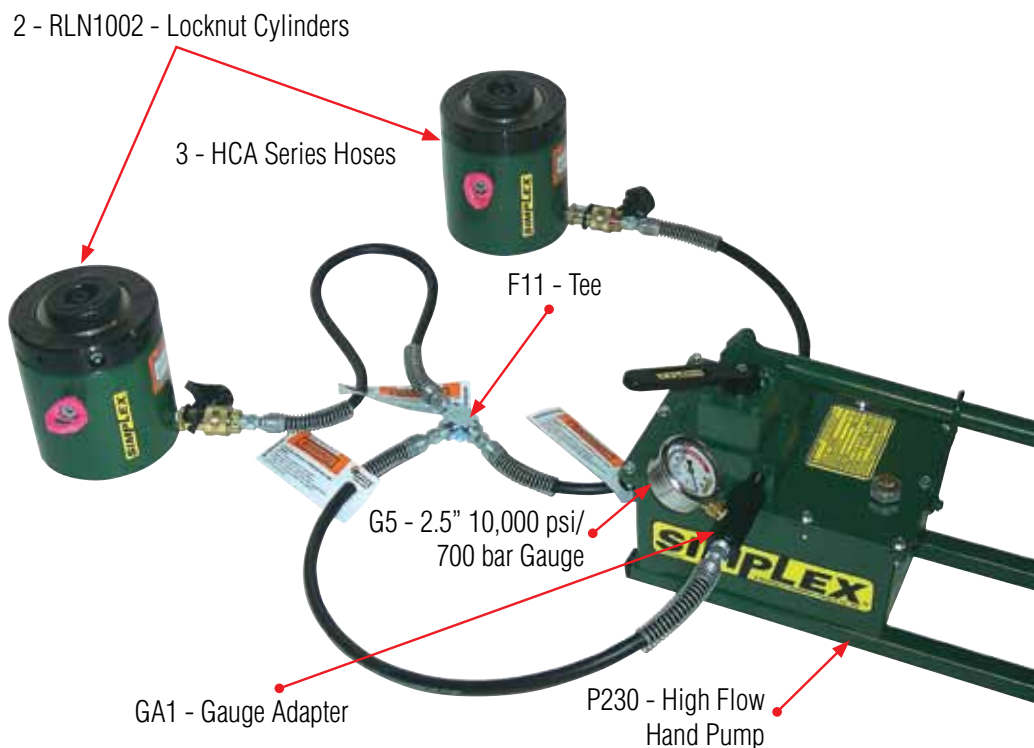
S Type Head

36 square inches in support area.

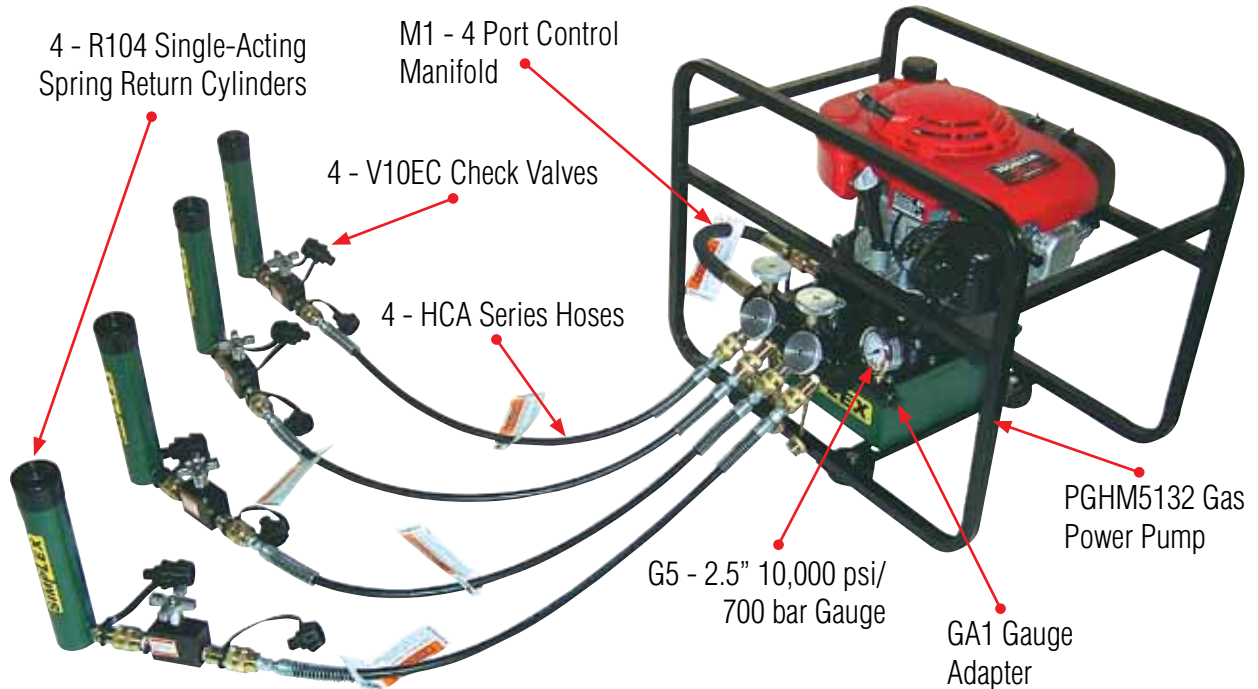
1 POINT LIFT SYSTEM - MANUAL POWER



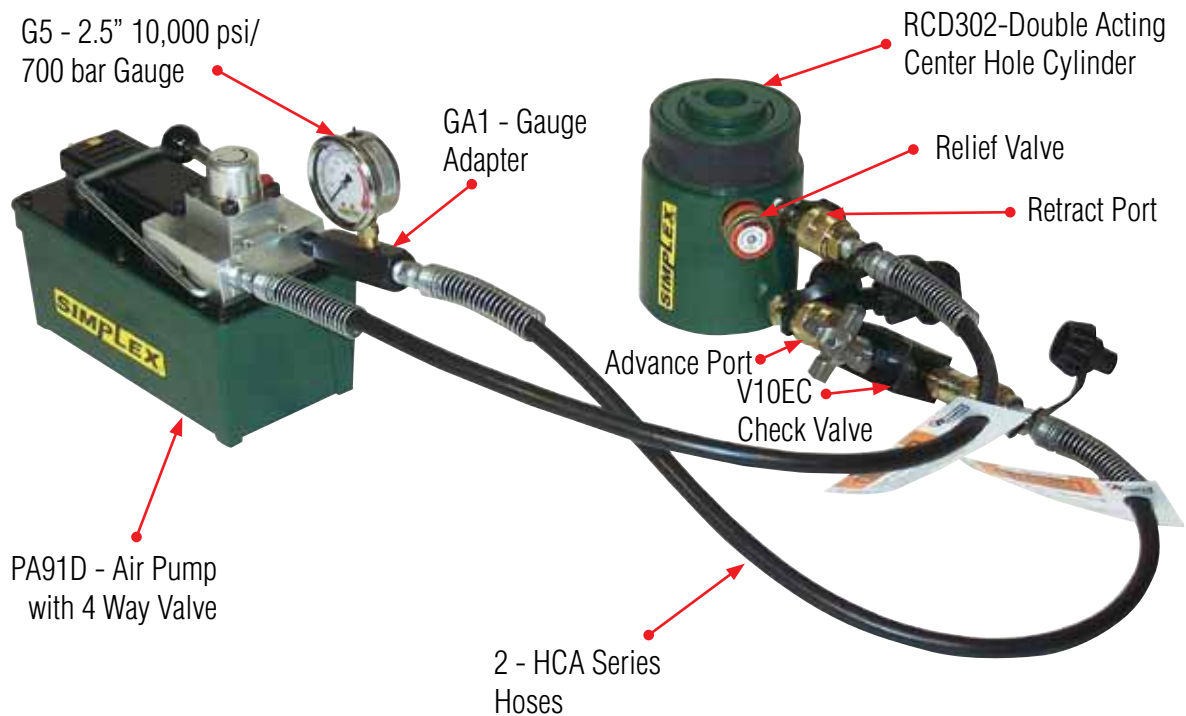
2 POINT LIFT SYSTEM - MANUAL POWER



4 POINT LIFT SYSTEM - GAS POWERED



1 POINT LIFT SYSTEM - AIR POWERED

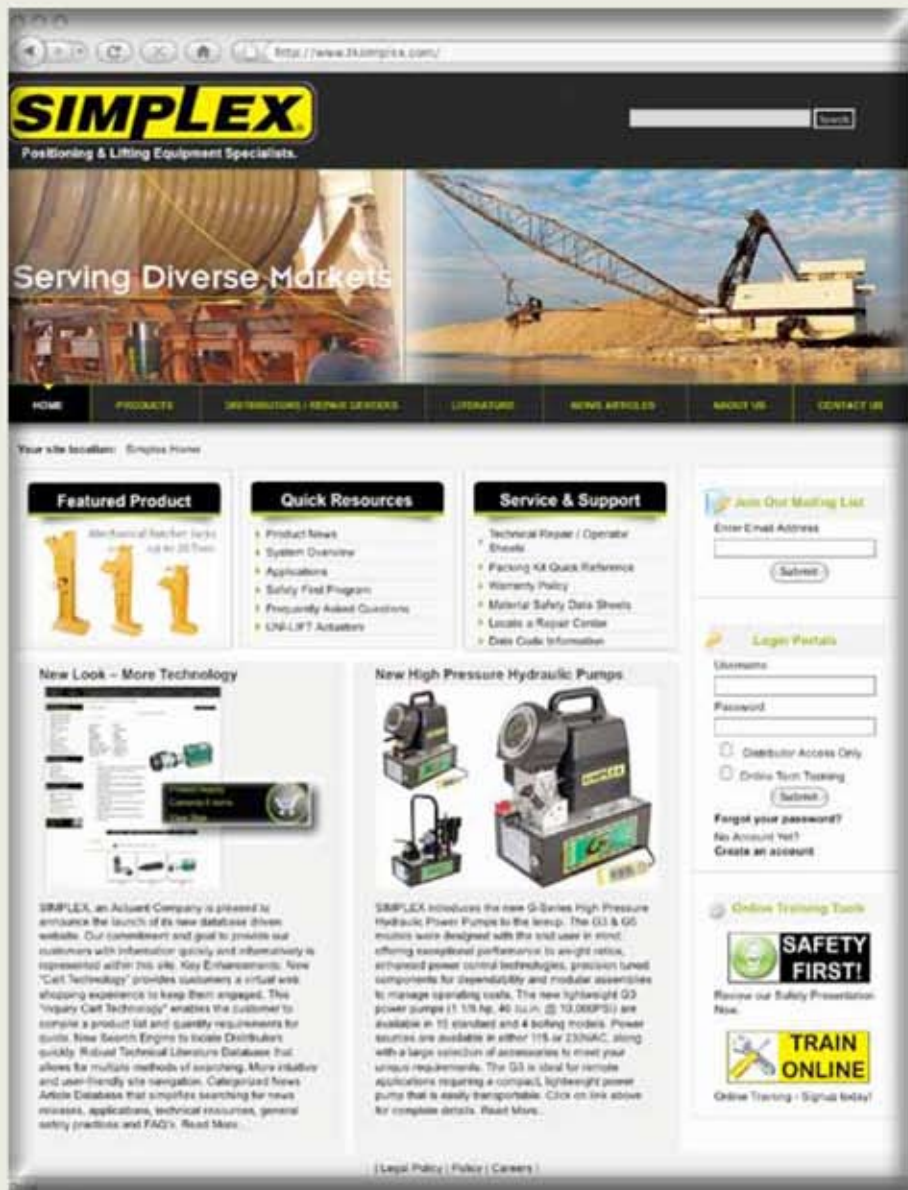


<i>Fractions</i>	<i>Inches</i>	<i>Millimeters</i>	<i>Fractions</i>	<i>Inches</i>	<i>Millimeters</i>
1/64	.07	.39	33/64	.52	13.10
1/32	.03	.79	17/32	.53	13.49
3/64	.05	1.19	35/64	.55	13.89
1/16	.06	1.59	9/16	.56	14.29
5/64	.08	1.98	37/64	.58	14.68
3/32	.09	2.38	19/32	.59	15.08
7/64	.10	2.78	39/64	.61	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	.6875	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	.875	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	12.700	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./cm
1 liter	= 61.02 cu. in.
1 liter	= .264 gallon
1 U.S. gallon	= 3.785 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)



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