

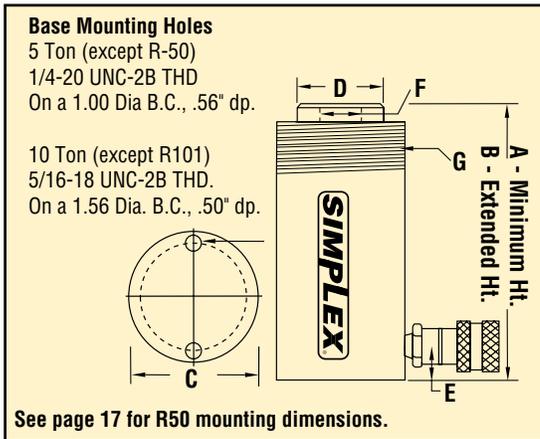
Simplex Cylinders Improve Manufacturing Efficiencies.



- 14 Models
- High flow quality couplers.
- Collar threads designed for full load.
- Base & piston mountings for easy fixturing.
- Removable load caps for flexibility & 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.



Simplex spring return cylinders, used in this fabricating fixture, provide fast and accurate forming of precision metal products.



Cylinder Accs. pg. 11	Hoses pgs. 70-71	Bases pg. 11	Pump & Cylinder Sets pg. 30

Spring Return Cylinders 5 & 10 Ton Capacities

Model Number	Cap. (tons)	Stroke (in)	A Min. Ht. (in)	B Ext. Ht. (in)	Ram Bore Dia. (in)	Effect Area (sq in)	Pres. @ Cap. (psi)	Oil Cap. Req'd (cu in)	C Body O.D. (in)	D Piston O.D. (in)	E Base To Port C/L (in)	F		G		Wgt. (lbs)	Sugstd. Hand Pump
												Piston I.D. Thrds. (in)	Piston Thrd. Depth (in)	Collar Thrds. (in)	Collar Thrd. Lgth. (in)		
R50	5	5/8	1 5/8	2 1/4	1 1/8	.99	10,000	.6	1.6x2.3	1	3/4	None	None	None	None	2.5	P41
R51		1	4 11/32	5 11/32				1.0	2.5								
R53		3	6 1/2	9 1/2				3.0	3.3								
R55		5	8 1/2	13 1/2				5.0	4.0								
R57		7	10 5/8	17 5/8				7.0	5.0								
R59	9 1/8	12 3/4	21 7/8	9.1	5.5												
R101	10	1	3 17/32	4 17/32	1 11/16	2.24	8,945	2.2	2 1/4	1 1/2	3/4	None	None	1 1/8	2 1/4 x 14	3.5	P42
R102		2 1/8	4 25/32	6 29/32				5.22				5.2					
R104		4 1/8	6 3/4	10 7/8				9.2				6.3					
R106		6 1/8	9 3/4	15 7/8				13.7				8.8					
R108		8	11 3/4	19 3/4				18.0				10.5					
R1010		10 1/8	13 3/4	23 7/8				22.7				12.0					
R1012		12	15 3/4	27 3/4				27.0				13.5					
R1014		14	17 3/4	31 3/4				31.5				15.3					

SPRING RETURN - 15-25 TON

CYLINDERS

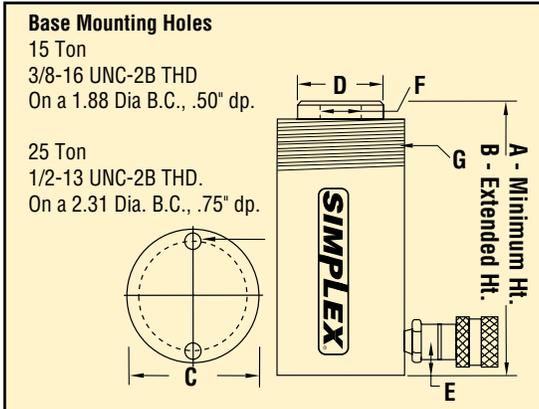
Simplex Cylinders Are Perfect For Heavy Maintenance.



- 13 Models
- High flow quality couplers.
- Collar threads designed for full load.
- Base & piston mountings for easy fixturing.
- Removable load caps for flexibility & 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.



Large steel coils that were damaged in handling are reshaped using a Simplex R256 cylinder and PE70 Series pump.



Cylinder Accys. pg. 11	Hoses pgs. 70-71	Bases pg. 11	Pump & Cylinder Sets pg. 30

Spring Return Cylinders 15 & 25 Ton Capacities

Model Number	Cap. (tons)	Stroke (in)	A Min. Ht. (in)	B Ext. Ht. (in)	Ram Bore Dia. (in)	Effect Area (sq in)	Pres. @ Cap. (psi)	Oil Cap. Req'd (cu in)	C Body O.D. (in)	D Piston O.D. (in)	E Base To Port C/L (in)	F		G		Wgt. (lbs)	Sugstd. Hand Pump
												Piston I.D. Thrds. (in)	Piston Thrd. Depth (in)	Collar Thrds. (in)	Collar Thrd. Lgth. (in)		
R152	15	2	5 7/8	7 7/8	2	3.14	9,554	6.3	2 3/4	15/8	3/4	1 x 8	1	23/4 x 16	1 3/16	8.3	P42
R154		4	7 7/8	11 7/8				12.6								10.8	
R156		6	10 11/16	16 11/16				19.0								14.5	
R1510		10	14 11/16	24 11/16				31.4								19.5	
R1514		14	18 11/16	32 11/16				44.0								24.5	
R251	25	1	5 1/2	6 1/2	2 9/16	5.15	9,700	5.2	3 3/8	2 1/4	1	1 1/2 x 16	1 1/8	35/16x12	1 15/16	12.0	P42
R252		2	6 1/2	8 1/2				10.3								15.0	
R254		4	8 1/2	12 1/2				20.6								18.0	
R256		6 1/4	10 3/4	17				32.2								23.0	
R258		8 1/4	12 3/4	21				42.5								27.0	
R2510		10 1/4	14 3/4	25				52.8								31.0	
R2512		12 1/4	16 3/4	29				63.1								35.0	
R2514		14 1/4	18 3/4	33				73.4								39.0	

CYLINDERS

SPRING RETURN - 30-100 TON

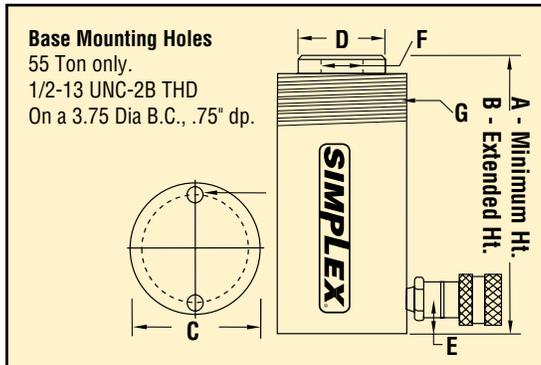
Simplex Cylinders Help Stand Up To Tough Construction Jobs.



- 9 Models
- High flow quality couplers.
- Collar threads designed for full load.
- Base & piston mountings for easy fixturing.
- Removable load caps for flexibility & safety.
- Stop rings for piston blow-out protection.
- Plated piston to resist scoring & corrosion.
- Large bearings resist side load.
- Rod wiper protects inner cylinder from dirt.
- Removable carrying handles included on models R556 through R10010.



Contractors called on the brute force of Simplex R5513 cylinders to lift and position highway ramps in San Diego. PE50 power units provided the power and control in this rough outdoor application.



		
Power Pumps pgs. 39-62	Hoses pgs. 70-71	Cylinder Accessories pg. 11

Spring Return Cylinders 30 Through 100 Ton Capacities

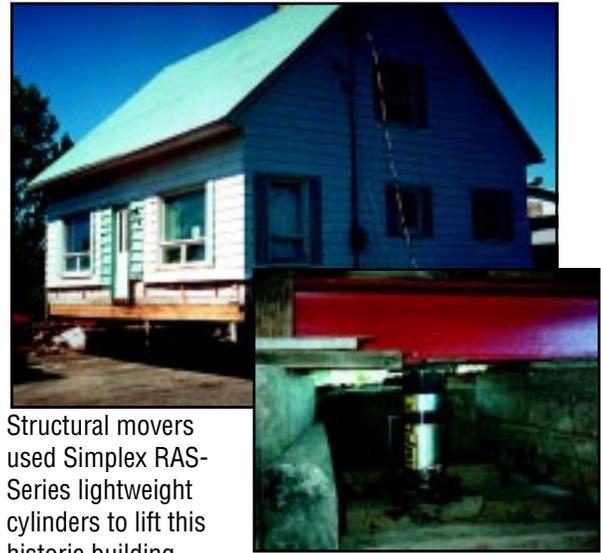
Model Number	Cap. (tons)	Stroke (in)	A Min. Ht. (in)	B Ext. Ht. (in)	Ram Bore Dia. (in)	Effect Area (sq in)	Pres. @ Cap. (psi)	Oil Cap. Req'd (cu in)	C Body O.D. (in)	D Piston O.D. (in)	E Base To Port C/L (in)	F		G		Wgt. (lbs)	Sugstd. Hand Pump
												Piston I.D. Thrds. (in)	Piston Thrd. Depth (in)	Collar Thrds. (in)	Collar Thrd. Lgth. (in)		
R308	30	8 1/4	15 1/4	23 1/2	2 7/8	6.49	9,245	53.6	4	2 1/4	2 1/4	1 1/2 x 16	1 3/16	35/16x12	1 15/16	40.0	P82
R552		2	6 15/16	8 15/16				22.1									
R554	55	4	8 15/16	12 15/16	3 3/4	11.05	9,955	54.0	5	3 1/8	1 3/8	N/A	N/A	5 x 12	2 1/8	42.0	P82
R556		6 1/4	11 1/8	17 3/8				69.0								50.0	
R5513		13 1/4	18 1/8	31 3/8				146.3								78.0	
R756	75	6 1/8	11 1/4	17 3/8	4 1/2	15.90	9,430	97.4	5 3/4	3 3/4	1 3/16	N/A	N/A	53/4 x 12	1 3/4	63.0	*
R7513		13 1/8	19 3/8	32 1/2				208.0								130.0	
R1006	100	6 5/8	13 1/4	20 11/16	5 1/8	20.63	9,695	137.0	6 1/4	4 1/8				61/4 x 12	2 1/4	90.0	
R10010		10 1/4	16 7/8	27 15/16				212.0								110.0	

*Power pumps are suggested for these units (see pages 39-62)

50 - 150 TON ALUMINUM

CYLINDERS

Simplex Aluminum Cylinders Cut Carrying Weights By Over 40%.

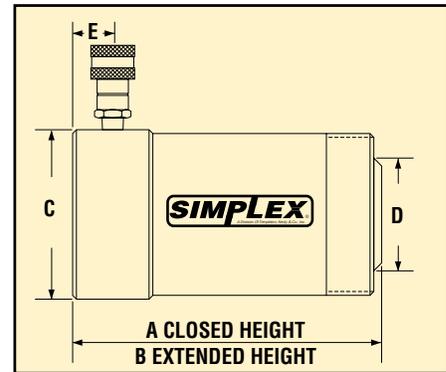


Structural movers used Simplex RAS-Series lightweight cylinders to lift this historic building.

"Simplex lightweight cylinders were easy to carry and position and the 8" stroke reduced cribbing time."

- 5 Models
- Steel Load Caps
- Spring Return
- High flow quality couplers.
- Lightweight
- Larger bearing surfaces for side load protection.
- 8" stroke for more cribbing block clearance.
- Rod wiper protects inner cylinder from dirt.

		
Power Pumps pgs. 39-62	Hoses pgs. 70-71	Accessories & Fittings pg. 68-72



Aluminum Spring Return Cylinders 50 Through 150 Ton Capacities

Model Number	Cap. (tons)	Stroke (in)	A Min. Ht. (in)	B Ext. Ht. (in)	Effect Area (sq in)	Pres. @ Cap. (psi)	Oil Cap. Req'd (cu in)	C Body O.D. (in)	D Piston O.D. (in)	E Base To Port C/L (in)	Weight (lbs)	Sugstd. Hand Pump
RAS502A	50	2	7.09	9.09	12.18	8,210	25	5.32	3.14	.87	18	P42
RAS508A		8	12.99	20.99			98				28	*
RAS1002A	100	2	7.83	9.83	19.03	10,500	38	6.69	4.33	.95	30.6	P82
RAS1008A		8	13.74	21.74			153				50	*
RAS1508A	150	8	14.45	22.45	31.18	9,620	295	8.66	5.51	1.06	82.7	*

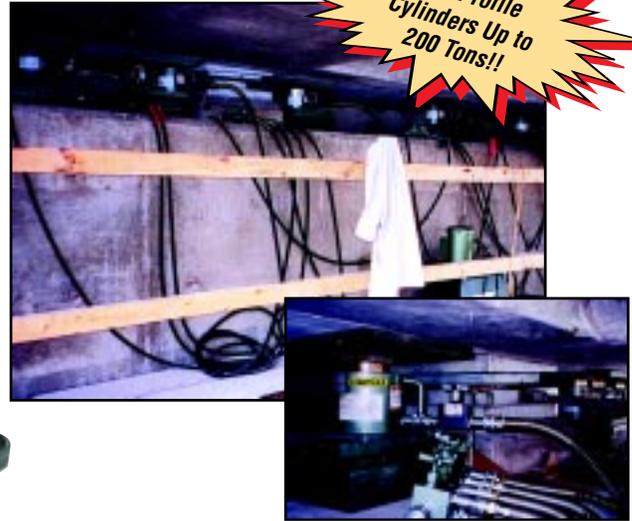
Order carrying handles separately: For 100 ton AHA100 & for 150 ton AHA150.

*Power pumps are suggested for these units (see pages 39 - 62).

CYLINDERS

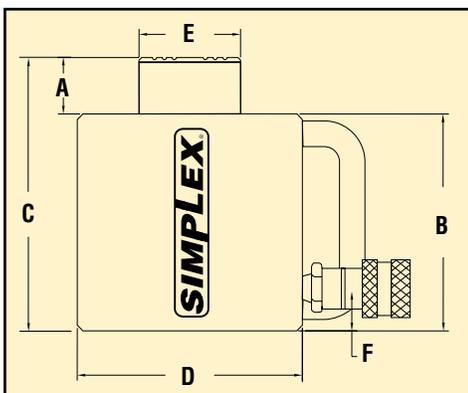
LOW PROFILE 10 - 200 TONS

"These Low Profile Cylinders Gave Us The Power We Wanted In The Compact Sizes We Needed."



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

- 12 Models
- Plated pistons to resist scoring & corrosion.
- High flow quality couplers.
- Available in spring or load return.
- Stop rings for piston blow-out protection.
- Rod wiper protects inner cylinder from dirt.
- Exceeds ANSI/ASME B30.1 safety standards.



Power Pumps pgs. 39-62	Hoses pgs. 70-71	Pump & Cylinder Sets pg. 30

Spring & Load Return Low Profile Cylinders 10 Through 200 Ton Capacities

Model Number Spring Return	Model Number Load Return	Cap. (tons)	A Stroke (in)	B Min. Ht. (in)	C Ext. Ht. (in)	Ram Bore Dia. (in)	Effect Area (sq in)	Pres. @ Cap. (psi)	Oil Cap. Req'd (cu in)	D Body O.D. (in)	E Piston O.D. (in)	F Base To Port C/L (in)	Wgt. (lbs)	Sugstd. Hand Pump	Suggested Power Pump
RLS101	RL101	10	1 1/2	3 15/32	4 31/32	1 11/16	2.23	8,940	3.4	2 3/4	1 1/2	11/16	5.8	P42	Simplex Suc-O-Matic™ equipped Power Pumps are highly recommended to power load return cylinders.
RLS201	RL201	20	1 3/4	3 7/8	5 5/8	2 3/8	4.43	9,030	7.8	3 5/8	2		10.5		
RLS302	RL302	30	2 7/16	4 5/8	7 1/16	2 7/8	6.49	9,250	15.8	4	2 1/4	3/4	13.8		
RLS502	RL502	50	2 3/8	4 13/16	7 3/16	3 1/2	9.62	10,400	22.8	5	2 1/4	15/16	22.8		
RLS1002	RL1002	100	2 1/4	5 9/16	7 13/16	5	19.63	10,200	44.2	6 1/2	3 5/8	1 1/4	44.5		
	RLR1502	150	2	7	9	6 1/4	33.18	9,041	66.4	9	5 9/16	1 15/16	117	P140	
	RLR2002	200		8	10	7 1/4	44.18	9,054	88.4	10	6 9/16	2 1/16	184		

5 - 150 TON FLAT JACK

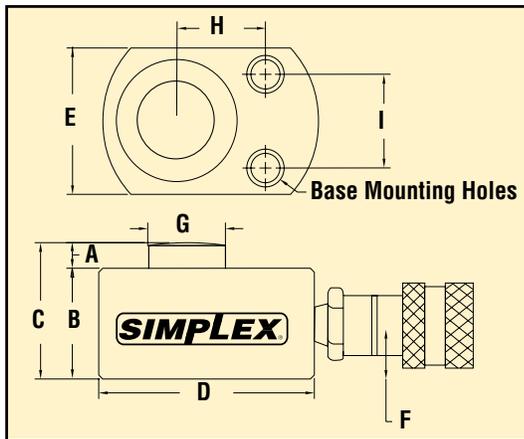
CYLINDERS

Simplex Flat Jacks, Designed To Fit In Tight Spots.



- 15 Models
- Stop rings for piston blow-out protection.
- Available in spring or load return.
- Domed piston resists side load.
- Plated pistons to resist scoring & corrosion.
- High flow quality couplers.
- Mounting holes in 5, 10, & 20 ton models.
- Rod wiper protects inner cylinder from dirt.
- Exceeds ANSI/ASME B30.1 safety standards.
- Power pumps with Suc-O-Matic™ feature are ideal for load return cylinders.

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



Power Pumps pgs. 39-62	Hoses pgs. 70-71	Pump & Cylinder Sets pg. 30

Mounting Hole Dimensions

Capacity	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)

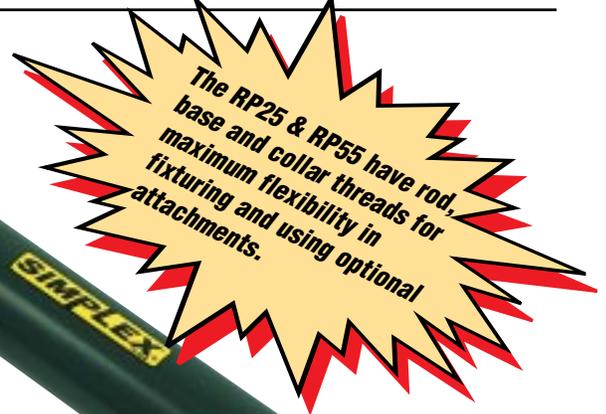
Spring & Load Return Flat Jacks 5 Through 150 Ton Capacities

Model Number Spring Return	Model Number Load Return	Cap. (tons)	A Stroke (in)	B Min. Ht. (in)	C Ext. Ht. (in)	Ram Bore Dia. (in)	Effect Area (sq in)	Pres. @ Cap. (psi)	Oil Cap. Req'd (cu in)	D Body Length (in)	E Body Width (in)	F Base To Port C/L (in)	G		Wgt. (lbs)	Suggested Hand Pump		
													Piston O.D. Spring Ret. (in)	Piston O.D. Load Ret. (in)				
R50		5	5/8	1 5/8	2 1/4	1 1/8	.99	10,000	.6	2 9/16	1 5/8	3/4	1	---	2.5	P41		
RFS10	RF10	10	7/16	1 11/16	2 1/8	1 11/16	2.24	8,940	1.0	3 1/4	2 3/16		3/4	1 1/2	3.3			
RFS20	RF20	20		2 1/32	2 15/32	2 3/8	4.43	9,030	1.9	4	3		1 1/8	2	6.0			
RFS30	RF30	30		2 5/16	2 13/16	2 7/8	6.49	9,250	3.2	4 1/2	3 3/4		1 3/8	2	8.5			
RFS50	RF50	50	5/8	2 5/8	3 1/4	3 1/2	9.62	10,400	6.0	5 1/2	4 1/2		1 3/4	2 1/4	14.3	P42		
RFS75	RF75	75		3 1/8	3 3/4	4 1/2	15.90	9,440	10.0	6 1/2	5 1/2		2 1/8	3 1/4	24.5			
RFS100	RF100	100		3 3/8	4	5	19.63	10,200	12.3	7	6		2 1/2	3 3/8	31.0			
RFS150	RF150	150		9/16	3 15/16	4 1/2	6 1/4	30.66	9,785	17.2	8 1/2		7 1/2	15/16	3		4 1/2	50.5

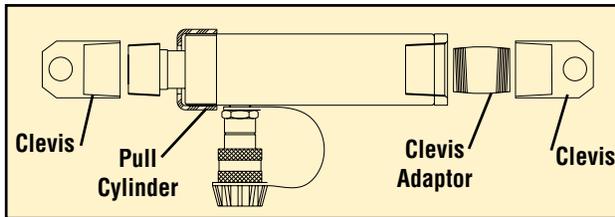
CYLINDERS

2 - 5 TON PULL CYLINDERS

Simplex Pull Cylinders Are Designed For Pulling & Tensioning Applications.



- 2 Models
- High flow quality couplers.
- Designed for pulling & tensioning applications.
- High strength all steel construction.
- Chrome plated piston rods resist corrosion.
- Rod wiper protects against contamination.
- Piston rod automatically extends when pressure is released.
- High strength compression spring provides long cycle life and quick piston extension.



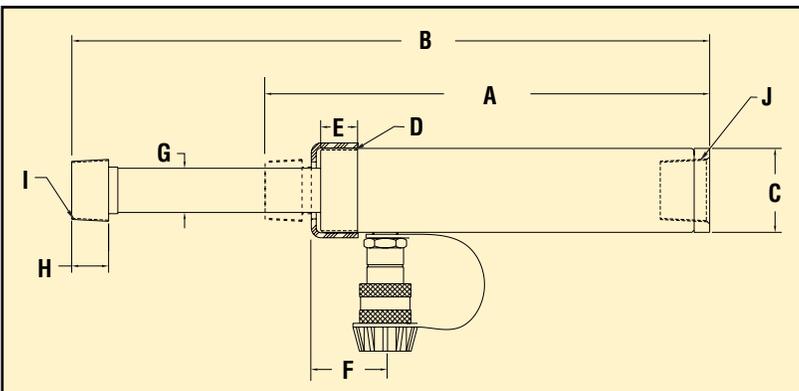
Base Clevis Adaptor

Clevis

Clevis Ends

Model Number	A (in)	B (in)	C (in)	D (in)	E (in)	F (in)
RPC25	5 1/8	4 5/16	1 5/16	2	3/4	1
RPC55	6	5	1 1/2	2 1/2	7/8	1 1/2

Base mounting attachment for RPC25 order: 43632.
Base mounting attachment for RPC55 order: MK-8.



Hydraulic Pull Cylinders

Model Number	Cap. (tons)	Stroke (in)	A Min. Ht. (in)	B Ext. Ht. (in)	C O.D. (in)	D Collar Thrd. (in)	E Collar Thrd. Length (in)	F Cyl. to Port (in)	G Piston Dia. (in)	H Piston Adpt. (in)	I NPTF Thrd. (in)	J NPTF Thrd. (in)	Oil Cap. (cu. in.)	Pres. @ Cap. (psi)	Wgt. (lbs)
RP25	2	5	9 9/16	14 9/16	1 3/4	1 1/2-16	1	1 11/16	3/4	1	3/4-14	3/4-14	2.8	7,250	4
RP55	5	5 1/2	11 7/8	17 3/8	2 1/4	2 1/4-14	1	1 11/16	1 3/16	1 3/8	1 1/4-11 1/2	1 1/4-11 1/2	6.2	8,850	11

P42 is the suggested hand pump.

THE HARD-KOR™ HOLLOW CYLINDER

■ Wide Variety.

Hard-Kor™ Hollow Cylinders are available from 12 through 600 tons with a variety of strokes to meet every requirement.

■ Built Solid For Maximum Durability.

Hard-Kor™ cylinders are manufactured from solid alloy steel, **eliminating sloppy threaded and welded tolerances**, potential leak points, and weak spots that cause base blowout.

■ Fast Retraction For Speed & Efficiency.

Simultaneous machining of the center tube & cylinder bore provides Hard-Kor™ cylinders with precision alignment that significantly **improves retraction time** and minimizes seal extrusion.

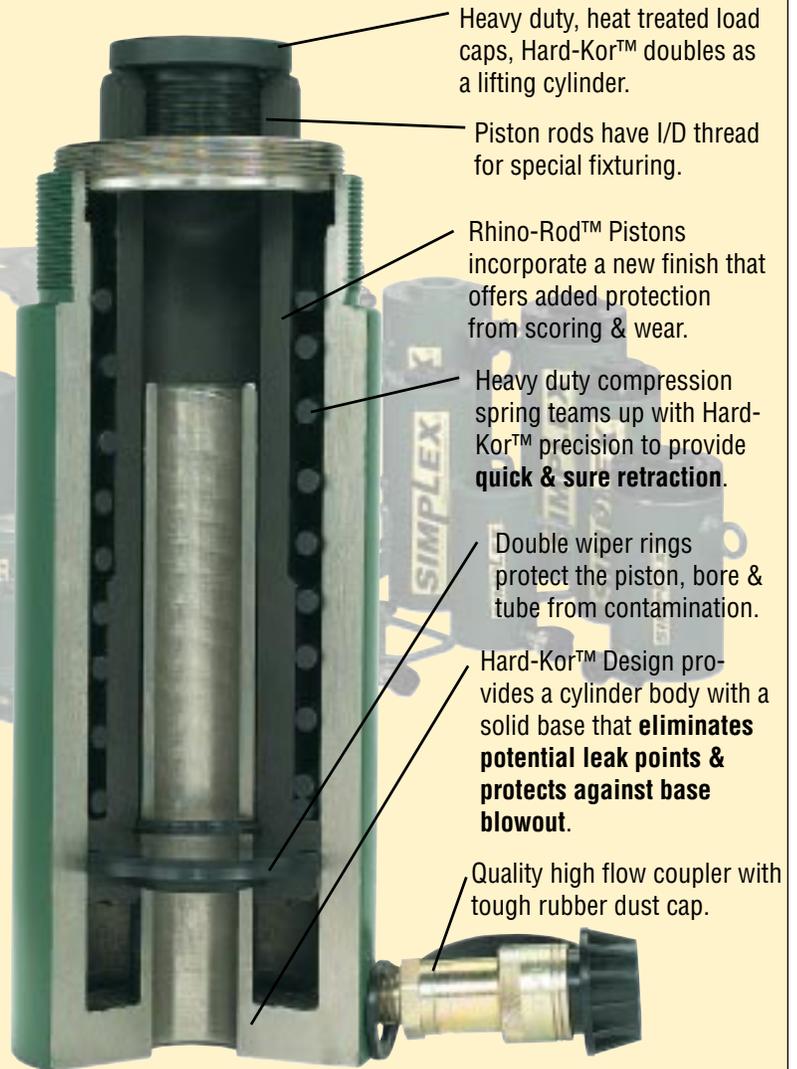
■ Low Profile For Greater Flexibility.

With lower profile & longer strokes, Hard-Kor™ cylinders fit in the tightest spaces.

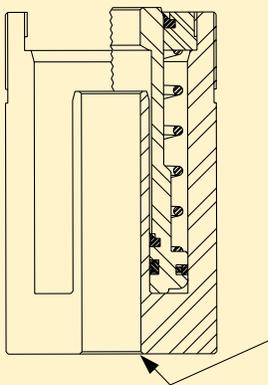
■ Reserve Power For The Toughest Jobs.

Most Hard-Kor™ cylinders develop their cataloged capacity below their maximum pressure rating. This provides Hard-Kor™ with reserve power that can be used for the toughest of jobs. The lower operating pressure extends pump life and reduces handle force and operator fatigue.

■ Exceeds ANSI/ASME B30.1 Safety Standards.

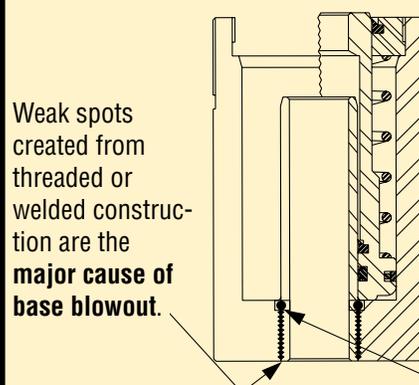


SIMPLEX HARD-KOR™ CYLINDERS



A **one piece, unified body** is significantly stronger than standard hollow cylinders. Special manufacturing eliminates potential leak points at the base, enhancing the integrity & alignment of the base and center tube.

TRADITIONAL HOLLOW CYLINDER



Weak spots created from threaded or welded construction are the **major cause of base blowout.**

The additional base seals are potential leak points that contribute to early failure.

CYLINDERS

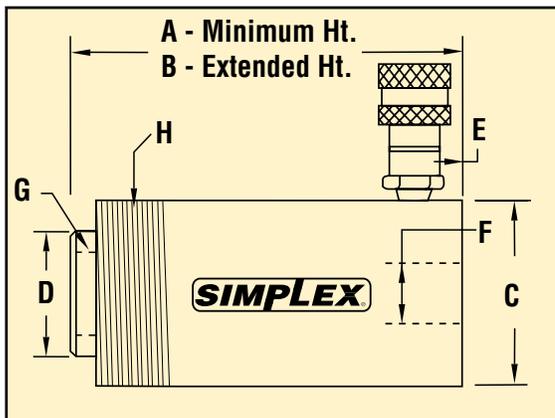
SINGLE-ACTING HOLLOW

Simplex Hard-Kor™ Cylinders Make Light Work Of Rolling Mill Maintenance.



SIMPLEX HARD-KOR™ DESIGN

Only Simplex Hard-Kor™ cylinders incorporate a solid, one piece body design. No one else comes close in safety, strength, reliability and long life.



Base Mounting Holes

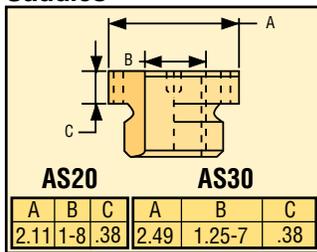
Capacity	Thread		Bolt Circle Dia. (in)
	Size (in)	Dpth. (in)	
12 Ton	5/16-18	5/16	2
20 Ton	3/8-16	7/16	3 1/4
30 Ton	3/8-16	3/8	3 5/8
60 Ton	1/2-13	7/16	5 1/8
100 Ton	5/8-11	3/4	7

Single-Acting Hollow Cylinders 12 Through 100 Ton Capacities

Model Number	Cap. (tons)	Stroke (in)	A Min. Ht. (in)	B Ext. Ht. (in)	Effect Area (sq in)	Pres. @ Cap. (psi)	Oil Cap. Req'd (cu in)	C Body O.D. (in)	D Piston O.D. (in)	E Base To Port C/L (in)	F Center Hole Dia. (in)	G		H		Wgt. (lbs)										
												Collar Thrds. (in)	Collar Thrd. Lgth. (in)	Piston Thrds. (in)	Piston Thrd. Lgth. (in)											
RC120	12	5/16	2 3/16	2 1/2	2.36	8,690	.90	2 3/4	1 3/8	7/16	49/64	2 3/4 - 16	1 13/16	3/4 - 16	5/8	3.5										
RCQ120																										
RC121		1 5/8	4 3/4	6 3/8																				6.5		
RC1211																										
RC123		3	7 1/4	10 1/4			8.3			25/32						10										
RC202	20	2	6 3/16	8 3/16	5.30	7,545	11	4	2 1/8	51/64	1 1/16	3 7/8 - 12	1 1/2	1 9/16 - 16	3/4	17										
RC206		6	11 3/16	17 3/16			32																			31
RC302	30	2 1/2	7	9 1/2	8.64	6,950	22	5	2 1/2	13/16	1 5/16	4 1/2 - 12	1 3/4	1 13/16 - 16	7/8	26										
RC306		6 1/8	12 1/4	18 3/8			64																			52
RC603	60	3	8 21/32	11 21/32	14.58	8,230	44	6 3/4	4	1	2 1/8	6 1/4 - 12	2	2 3/4 - 16	3/4	68										
RC606		6	12 21/32	18 21/32			88																			80
RC1003	100	3	9	12	20.60	9,700	62	8 1/4	5	1	3 1/8	----	----	4 - 16	1	99										

- 12 standard models.
- **HARD-KOR™ DESIGN!**
- No potential leak points at base.
- Extra protection against base blow-out.
- Lower profiles for more versatility.
- Double wipers protect against contamination.
- Faster retraction increases productivity.
- Large center holes for greater flexibility.
- Rhino-Rod™ pistons resist scoring & corrosion.
- Lower operating pressures.
- Doubles as lifting cylinder.
- High flow coupling with tough rubber dust cap.
- Precision construction that prevents seal extrusion.

Optional Threaded Saddles



Steel company uses the Simplex RC1003 to change worn spindles on large rolling mills. This Hard-Kor™ 100 ton capacity cylinder is mounted horizontally and uses a threaded pull rod to remove the spindle from its roller. The Hard-Kor™ design is right at home in harsh steel mill environments.

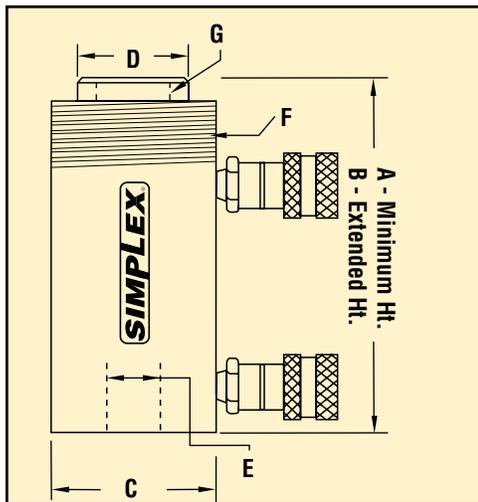


These construction crews use Simplex Hard-Kor™ hollow cylinders to pre-tension steel rods in cast concrete forms. "The Hard-Kor™ cylinders, with their leak-proof base and extra power, made a tough job easy."

Simplex Center Hole Cylinders Raise 6,000 Ton Bridge Span 170 Ft.



Engineers from around the world watched as Simplex center hole cylinders raised a 6,000 ton bridge section more than 170 ft. over the Willamette River in Portland, OR. The span was constructed up river and barged into position. Using pull rods and couplings, Simplex RCD200 Series cylinders completed the lift in 40 hours.



- 11 standard models.
- HARD-KOR™ Design for longer life.
- Relief valves protect against over pressurizing.
- High flow quality couplers.
- Large diameter center holes.
- Rhino-Rod™ pistons resist scoring & corrosion.
- Stop ring for piston blow-out protection.
- Available in custom strokes.
- Rod wiper protects inner cylinder from dirt.

Base Mounting Holes

Capacity	Thread		Bolt Circle Dia. (in)
	Size (in)	Dpth. (in)	
30 Ton	3/8-16	3/8	3 5/8
60 Ton	1/2-13	7/16	5 1/8
100 Ton	5/8-11	3/4	7

Double-Acting Center Hole Cylinders 30 Through 500 Ton Capacities

Model Number	Push Cap. (tons)	Pull Cap. (tons)	Stroke (in)	A Min. Ht. (in)	B Ext. Ht. (in)	Effect Area (sq in)	Pres. @ Cap. (psi)	Oil Cap. Req'd (cu in)	C Body O.D. (in)	D Piston O.D. (in)	E Center Hole Dia. (in)	F		G		Wgt. (lbs)
												Collar Thrds. (in)	Collar Thrd. Lgth. (in)	Piston Thrds. (in)	Piston Thrd. Lgth. (in)	
RCD302	30	30	2	7	9	8.6	6,950	8.6	5	2 1/2	1 5/16	4 1/2 - 12	1 3/4	1 13/16 - 16	7/8	48
RCD307			7	12 1/4	19 1/4			24.75								50
RCD6010	60	45	10	15 1/2	25 1/2	14.5	8,230	55	6 3/4	4	2 1/8	----	----	----	----	95
RCD1001	100	68	1	7	9	20.6	9,700	9.0	8 1/4	5	3 1/8	----	----	----	----	85
RCD1003			3	9	12			21.1				100				
RCD1006			6	12	18			42.3				115				
RCD10010			10	16	26			70.5				150				
RCD1505C	150	----	5	13 1/8	18 1/8	31.60	9,491	78	10	6	3 1/8	----	----	----	----	240
RCD2006C	246	----	6	16 1/4	22 1/4	49.30	10,000	172	12	8	4 1/8	----	----	----	----	385
RCD3006C	434	----		18 3/4	24 3/4	91.50		296	15	9 1/2	4 1/4	----	----	----	----	720
RCD5006C	646	----		21 1/2	27 1/2	129.30		463	17 3/4	12	5 1/4	----	----	----	----	1230

CUSTOM STROKES AND CAPACITIES AVAILABLE
CONTACT FACTORY

THE SIMPLEX HIGH TONNAGE CYLINDER

■ Wide Variety

Simplex offers an extensive selection of high tonnage cylinders with capacities up to 1,000 tons. Single-acting, double-acting, and locking collar design with standard or **custom strokes** and capacities available.

■ Thick, Protective Bronze Inlays on All Internal Bearing Surfaces

All Simplex high tonnage cylinders incorporate thick, protective bronze inlaid bearings that are an integral part of a one piece piston. This design greatly reduces the effect of sideloading and promotes **long life**.

■ Unique Design

Simplex high tonnage cylinders use a one piece piston design that is machined to precise tolerances and is plated to resist corrosion. Cylinder housings are made of high strength alloy steel that is machined and heat treated for additional strength.

■ Positive Stop for Greater Safety

Most high tonnage cylinders rely on overflow ports or visual aids for piston blowout protection. At Simplex all high tonnage cylinders are built with a strong, steel positive stop, which provides complete piston blowout protection.

■ Built for Rugged Industrial and Construction Use

All Simplex high tonnage cylinders exceed **ANSI/ASME B30.1 Safety Standards**. Heavy duty construction provides trouble free operation and long life.

■ Protection from Contamination

Within the stop ring a polyurethane wiper cleans the rod surface during retraction, protecting the inner cylinder assembly from dirt, moisture, and other contaminants. (Not available on lock nut cylinders.)

■ RLR Series 30 to 1,000 Tons Pages 24 - 25



■ RLN Series 30 to 1,000 Tons Pages 26 - 27



■ RDA Series 10 to 1,000 Tons Pages 28 - 29



CYLINDERS

LOAD RETURN - 30-1000 TON

Simplex Cylinders Provided The Power & Reliability To Rearrange Our Shop Floor In One Day.



The problem was to reposition machine centers without disrupting production. "Using Simplex RLR Series cylinders and a PE70 series **Suc-O-Matic** pump, we rearranged our shop floor in one day." The low closed height and longer strokes eliminated extra jacking & blocking procedures, and the Simplex Suc-O-Matic retracted load return cylinders effortlessly.

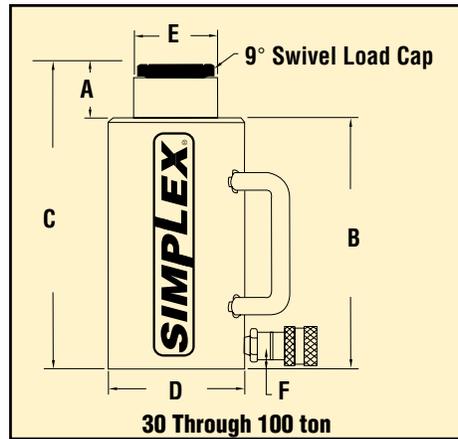
- 31 Models
- Rated for full duty.
- High flow quality couplers.
- Low closed heights.
- Plated pistons to resist scoring & corrosion.
- Stop rings for piston blow-out protection.
- Large bearings resist side load.
- Available in custom strokes & capacities.
- Rod wiper protects inner cylinder from dirt.
- Domed pistons on 150 to 1,000 ton capacities help resist side load.
- 9° Swivel on 30 to 100 ton capacity load caps for side load protection.
- Exceeds ANSI/ASME B30.1 safety standards.
- Optional swivel load caps are available for 150 through 1,000 ton models.
- Removable swivel lifting eyes on 100 through 1,000 ton models.

		
Power Pumps pgs. 39-62	Hoses pgs. 70-71	Couplers pg. 68 Manifolds & Fittings pg. 69

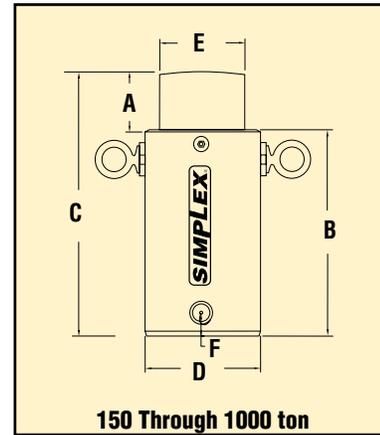


When railcar bulk heads need straightening, a 150 ton Simplex cylinder used with a SUC-O-MATIC™ power pump can save the day. Simplex load return cylinders completely retract in any position when used with the Simplex SUC-O-MATIC™ power pumps.





Note: 100 ton models have removable lifting eye bolts in lieu of carrying handles.



Note: Eye bolts are removable.

Load Return Jacking Cylinders 30 Through 1000 Ton Capacities

Model Number	Cap. (tons)	A Stroke (in)	B Min. Ht. (in)	C Ext. Ht. (in)	Ram Bore Dia. (in)	Effect Area (sq in)	Pres. @ Cap. (psi)	Oil Cap. Req'd (cu in)	D Body O.D. (in)	E Piston O.D. (in)	F Base To Port C/L (in)	Weight (lbs)	Suggested Power Pump
RLR306	30	6	9 3/8	15 3/8	2 7/8	6.49	9,240	38.9	4	2	3/4	32.0	Simplex Suc-O-Matic™ equipped Power Pumps are highly recommended to power load return cylinders. Unlike any other power unit, Simplex Suc-O-Matic™ equipped Pumps will fully retract load return cylinders automatically. For more information on the Suc-O-Matic™ feature see pages 39-60.
RLR502	50	2	5 7/16	7 7/16	3 3/4	11.05	9,054	22.1	5 1/2	3	25/32	30.0	
RLR506		6	9 7/16	15 7/16				66.3				55.0	
RLR5010		10	13 7/16	23 7/16				133.0				92.0	
RLR1002	100	2	6 9/16	8 9/16	5	19.63	10,200	40.0	6 3/8	3 3/8	1 1/4	60.0	
RLR1006		6	10 9/16	16 9/16				118.0				115.0	
RLR10010		10	14 9/16	24 9/16				196.0				184.0	
RLR1502	150	2	7	9	6 1/4	30.68	9,778	66.4	9	5 9/16	1 15/16	117.0	
RLR1506		6	11	17				199.0				189.0	
RLR15012		12	17	29				398.0				297.0	
RLR2002	200	2	8	10	7 1/4	41.28	9,054	88.4	10	6 9/16	2 1/16	184.0	
RLR2006		6	12	18				265.0				282.0	
RLR20012		12	18	30				530.0				429.0	
RLR3002	300	2	11 3/4	13 3/4	8 3/4	60.13	9,978	120.0	12	7 13/16	2 7/16	277.0	
RLR3006		6	13 3/4	19 3/4				361.0				405.0	
RLR30012		12	19 3/4	31 3/4				722.0				597.0	
RLR4002	400	2	11 13/16	11 13/16	10 1/2	86.59	9,238	174.0	14	6 9/16	2 1/16	455.0	
RLR4006		6	15 13/16	21 13/16				520.0				612.0	
RLR40012		12	21 13/16	33 13/16				1040.0				842.0	
RLR5002	500	2	12 5/8	14 5/8	11 1/2	103.87	9,628	208.0	16	10 5/16	3 3/16	627.0	
RLR5006		6	16 5/8	22 5/8				623.0				855.0	
RLR50012		12	22 5/8	34 5/8				1246.0				1197.0	
RLR6002	600	2	13 1/2	15 1/2	12 1/2	122.71	9,778	246.0	17 1/2	6 9/16	2 1/16	655.0	
RLR6006		6	17 1/2	23 1/2				738.0				902.0	
RLR60012		12	23 1/2	35 1/2				1476.0				1273.0	
RLR8002	800	2	14 7/16	16 7/16	14 1/2	165.13	9,690	330.0	18	5 9/16	1 15/16	997.0	
RLR8006		6	18 7/16	24 7/16				991.0				1256.0	
RLR80012		12	24 7/16	36 7/16				1982.0				1644.0	
RLR10002	1000	2	16 1/8	18 1/8	16	201.06	9,950	402.0	21	6 9/16	2 1/16	1523.0	
RLR10006		6	20 1/8	26 1/8				1206.0				1883.0	
RLR100012		12	26 1/8	38 1/8				2412.0				2423.0	

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

CYLINDERS

LOCK NUT - 30-1000 TON

Simplex Lock Nut Cylinders Are Used In a Variety of Different Projects.

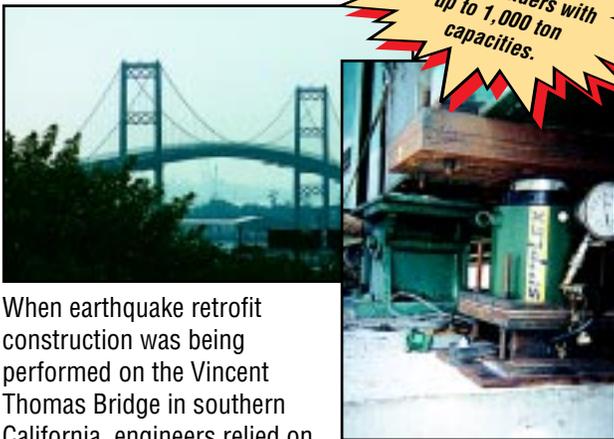


RLN Series lock nut cylinders cut installation time on this power generator by 25%. "The locknut held the load without the extra chore of cribbing." The job was completed even quicker with the use of Simplex SUC-O-MATIC™ power pumps.

- 32 Models
- Stop ring for piston blow-out protection.
- 9° Swivel load caps in 30 through 100 tons to resist side load.
- Optional swivel load caps are available for 150 through 1,000 ton models.
- Domed pistons in 150 through 1,000 tons to resist side load.
- Lock nuts for extended load holding.
- Plated pistons to resist scoring & corrosion.
- Grease fitting for added weather protection.
- High flow quality couplers.
- Available in custom strokes & capacities.
- Exceeds ANSI/ASME B30.1 safety standards.
- Removable swivel lifting eyes on 100 through 1,000 ton models.

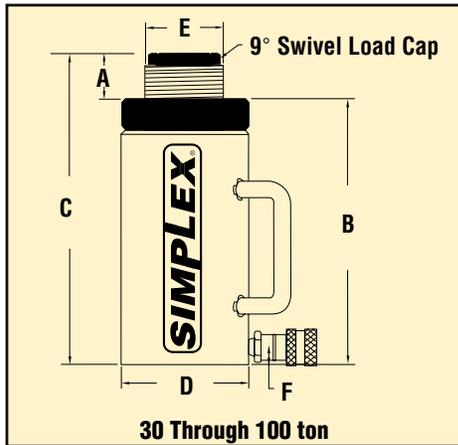
		
Power Pumps pgs. 39-62	Hoses pgs. 70-71	Couplers pg. 68 Manifolds & Fittings pg. 69

Simplex supplies custom cylinders with up to 1,000 ton capacities.

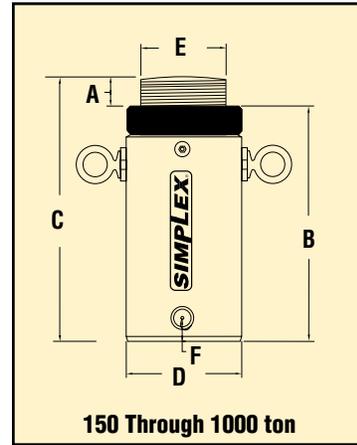


When earthquake retrofit construction was being performed on the Vincent Thomas Bridge in southern California, engineers relied on Simplex lock nut cylinders. "With bronze inlaid bearings, nickel plating and ANSI/ASME B30.1 design, Simplex cylinders were the only choice."





Note: 100 ton models have removable lifting eye bolts in lieu of carrying handles.



Note: Eye bolts are removable.

Load Return Lock Nut Cylinders 30 Through 1000 Ton Capacities

Model Number	Cap. (tons)	A Stroke (in)	B Min. Ht. (in)	C Ext. Ht. (in)	Ram Bore Dia. (in)	Effect Area (sq in)	Pres. @ Cap. (psi)	Oil Cap. Req'd (cu in)	D Body O.D. (in)	E Piston O.D. (in)	F Base To Port C/L (in)	Weight (lbs)	Suggested Power Pump
RLN302	30	2	6 3/8	8 3/8	2 7/8	6.49	9,240	13.0	4	2 7/16	3/4	21.0	Simplex Suc-O-Matic™ equipped Power Pumps are highly recommended to power load return cylinders. Unlike any other power unit, Simplex Suc-O-Matic™ equipped Pumps will fully retract load return cylinders automatically. For more information on the Suc-O-Matic™ feature see pages 39-60.
RLN306		6	10 3/8	16 3/8				38.9				35.0	
RLN502	50	2	6 3/4	8 3/4	3 3/4	11.05	9,054	22.1	5 1/4	3 3/16	25/32	38.0	
RLN506		6	10 3/4	16 3/4				66.2				63.0	
RLN5010		10	14 3/4	24 3/4				133.0				100.0	
RLN1002	100	2	8	10	5	19.63	10,200	40.0	6 3/8	4 5/16	1 1/4	87.0	
RLN1006		6	12	18				118.0				132.0	
RLN10010		10	16	26				196.0				202.0	
RLN1502	150	2	8	10	6 1/4	30.68	9,780	66.4	9	5 9/16	1 15/16	149.0	
RLN1506		6	12	18				199.0				221.0	
RLN15012		12	18	30				398.0				311.0	
RLN2002	200	2	9 1/2	18 1/2	7 1/4	41.28	9,054	88.4	10	6 9/16	2 1/16	233.0	
RLN2006		6	13 1/2	19 1/2				265.0				332.0	
RLN20012		12	19 1/2	31 1/2				530.0				479.0	
RLN3002	300	2	11 1/2	13 1/2	8 3/4	60.13	9,978	120.0	12	7 13/16	2 7/16	357.0	
RLN3006		6	15 1/2	21 1/2				361.0				485.0	
RLN30012		12	21 1/2	33 1/2				722.0				677.0	
RLN4002	400	2	13 13/16	15 13/16	10 1/2	86.59	9,238	174.0	14	9 5/16	3	520.0	
RLN4006		6	17 13/16	23 13/16				520.0				675.0	
RLN40012		12	23 13/16	25 13/16				1040.0				905.0	
RLN5002	500	2	14 3/4	16 3/4	11 1/2	103.87	9,628	208.0	16	10 5/16	3 3/16	927.0	
RLN5006		6	18 3/4	24 3/4				623.0				1041.0	
RLN50012		12	24 3/4	36 3/4				1246.0				1383.0	
RLN6002	600	2	15 5/8	17 5/8	12 1/2	122.79	9,778	246.0	17 1/2	11 5/16	3 1/2	985.0	
RLN6006		6	19 5/8	25 5/8				738.0				1232.0	
RLN60012		12	27 5/8	39 5/8				1476.0				1603.0	
RLN8002	800	2	16 15/16	18 15/16	14 1/2	165.13	9,690	330.0	18	13 5/16	4 1/8	1148.0	
RLN8006		6	21 15/16	27 15/16				991.0				1407.0	
RLN80012		12	27 15/16	39 15/16				1982.0				1795.0	
RLN10002	1000	2	19 5/8	21 5/8	16	201.06	9,950	402.0	21	14 13/16	4 1/4	1818.0	
RLN10006		6	23 5/8	29 5/8				1206.0				2178.0	
RLN100012		12	29 5/8	41 5/8				2412.0				2718.0	

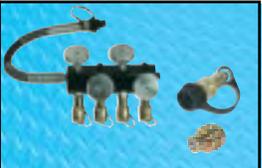
CUSTOM STROKES AND CAPACITIES UP TO 1,500 TONS AVAILABLE, CONTACT FACTORY

Simplex Double-Acting Cylinders Increase Productivity.



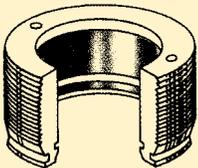
A heavy steel fabricator uses Simplex RDA10012 double acting cylinders to form large sections of I-beam. "The Simplex cylinders and pumps allow us to bend the beams to precise radiuses."

- 31 Models
- Available in custom strokes & sizes.
- Relief valves protect against over pressurizing.
- Standard collar threads on models up to 200 tons.
- Optional custom base & collar threads available on models 300 tons and up.
- Ideal for heavy duty applications.
- Provides force in advance & return cycles.
- High flow quality couplers.
- Plated pistons to resist scoring & corrosion.
- Stop ring for piston blow-out protection.
- Large bearings resist side load.
- Rod wiper protects inner cylinder from dirt.
- Carrying handles included on models RDA556 through RDA15012.

		
Power Pumps pgs. 39-62	Hoses pgs. 70-71	Couplers pg. 68 Manifolds & Fittings pg. 69

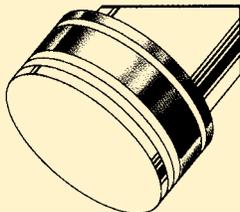
300 THROUGH 1,000 TON MODELS

RETAINING NUT



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

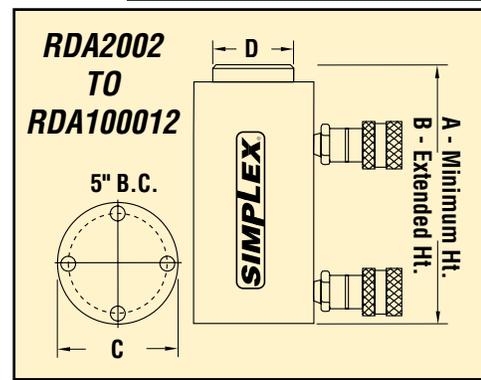
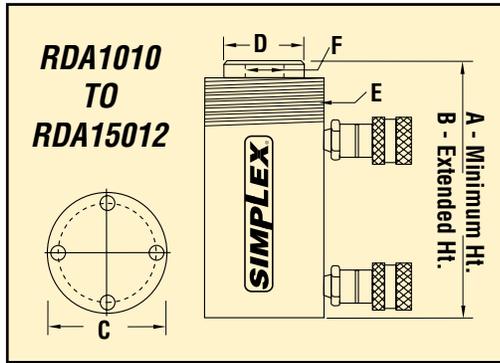


Thick bronze inlay on the piston flange virtually eliminates scoring of cylinder bore while offering the best protection against accidental side loading.



DOUBLE-ACTING - 10-1000 TON

CYLINDERS



Base Mounting Dimensions

Capacity	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

RDA200 Base & Collar Dimensions

Model Number	Collar Thrds. Size (in)	Collar Thrd. Lgth. (in)	Base Mounting Hole Size (in)	Base Mounting Hole Depth (in)	Bolt Circle Diameter (in)
RDA200	9 3/4 - 12	1 7/8	1 - 8	1 1/8	5

Double-Acting Cylinders 10 Through 1000 Ton Capacities

Model Number	Push Cap. (tons)	Pull Cap. (tons)	Stroke (in)	A Min. Ht. (in)	B Ext. Ht. (in)	Pull Effect Area (sq in)	Push Effect Area (sq in)	Pres. @ Cap. (psi)	Oil Cap. Req'd (cu in)	C Body O.D. (in)	D Piston O.D. (in)	Ram Bore Dia. (in)	F		E		Wgt. (lbs)
													Piston I.D. Thrds. (in)	Piston Thrd. Lgth. (in)	Collar Thrds. (in)	Collar Thrd. Lgth. (in)	
RDA1010	10	4	10	16 1/8	26 1/8	0.80	2.23	8,960	22.33	2 7/8	1 3/8	---	1 - 8	1	21/4-14	1 1/16	28
RDA308	30	5	8 1/8	15 3/4	23 3/4	3.00	6.51	9,250	33.83	4	2 1/8	---	1 1/2 - 16	1	35/16-12	1 15/16	40
RDA3014			14 1/2	21 5/8	36 1/8				92.70								64
RDA556	55	17	6 1/8	13 1/8	19 1/4	3.40	11.05	9,955	46	5	3 1/8	---	1 - 12	1 1/2	5 - 12	1 3/4	68
RDA5512			12	19 1/8	31 1/8				92								114
RDA5524			24	31 5/8	55 5/8				184								201
RDA1006	100	45	6 1/16	13 7/8	19 15/16	9.08	21.65	9,239	77	7	4	---	3 1/4 - 12	2 1/2	7 - 12	2 1/2	140
RDA10012			12	19 7/8	31 7/8				151								187
RDA1506	150	67	6 1/16	15 7/16	21 1/2	13.55	33.18	9,041	120	8 1/2	5	---	3 1/2 - 12	2 3/4	8 1/2-12	2 3/16	218
RDA15012			12	21 1/2	33 1/2				236								295
RDA2002	200	72	2	11 7/16	13 7/16	15.91	44.18	9,054	66	10	6	7 1/2	---	---	See Chart Above	See Chart Above	232
RDA2006			6	15 7/16	21 7/16				170								315
RDA20013			13	22 7/16	35 7/16				368								440
RDA3002	335	30	2	13 1/4	15 1/4	20.62	70.9	10,000	101	12	8	9 1/2	---	---	---	---	277
RDA3006			6	17 1/4	23 1/4				302								441
RDA30012			12	23 1/4	35 1/4				605								688
RDA4002	565	74	2	12 3/8	14 3/8	49.48	113	10,000	127	14 1/2	9	12	---	---	---	---	530
RDA4006			6	16 5/8	22 5/8				382								670
RDA40012			12	22 7/8	34 7/8				762								880
RDA5002	664	85	2	16 1/2	18 1/2	54.19	132	10,000	156	16	10	13	---	---	---	---	722
RDA5006			6	20 1/2	26 1/2				471								953
RDA50012			12	26 1/2	38 1/2				942								1300
RDA6002	600	110	2	15	17	44.17	122.71	10,000	158	17	10	12 1/2	---	---	---	---	917
RDA6006			6	19	25				472								1188
RDA60012			12	25	37				944								1595
RDA8002	800	130	2	16	18	52.03	165.13	9,690	226	18 1/2	12	14 1/2	---	---	---	---	1166
RDA8006			6	20	26				680								1440
RDA80012			12	26	38				1,360								1776
RDA10002	1000	75	2	16	18	50.27	227	8,810	354	21	15	17	---	---	---	---	1558
RDA10006			6	20	26				1,071								2058
RDA100012			12	27	39				2,142								2808

CUSTOM STROKES, BASE & COLLAR MOUNTINGS
AND CAPACITIES UP TO 1,500 TONS AVAILABLE
CONTACT FACTORY