

# MECHANICAL JACKS

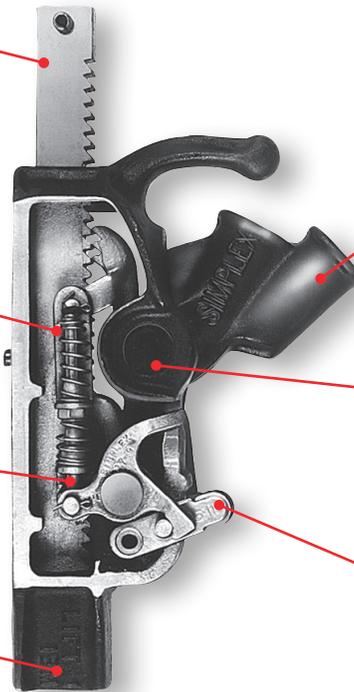


*Multiple-toothed pawls provide greater contact with rack bar*

*Plated Springs Resist Corrosion*

*Adjustable Spring Links*

*Ductile iron housing for maximum strength*



*Double-lever sockets for changing handle angle*

*Double-lever sockets for changing handle angle*

*Reversing Lever*

**Ratchet Model Jack Shown**

## PRODUCT LINE OVERVIEW

### ► The Industry Standard

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

### ► The Widest Selection

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

### ► Unsurpassed Quality

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

### ► Value and Service

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

## Methods Of Mechanical Force



**Ratchet Jacks**

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



**Screw Jacks**

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

## Points To Review When Selecting A Mechanical Jack

### Determine the Proper Jack for your Application

Ratchet jacks are designed for lifting and positioning up to 133.4 kN. For higher tonnage applications, you should consider using our Superjacks for lifting and sustaining up to 444.8 kN. For all sustaining load applications, consider the screw jack as a suitable solution up to 213.5 kN.

### Handle Effort

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

### Lift and Height of Jack

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

### Travel Speed

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

### Portability

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

### Ratchet Jacks

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



### Super Jacks

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



### Screw Jacks

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



### Push-Pull Jacks

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



### Trench Braces & Roof Supports

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



# MECHANICAL JACKS

RJ Series – Ratchet Jacks

**SIMPLEX**



Capacity Range .....▶ 44.5 - 177.9 kN

Stroke Range .....▶ 177.8 - 539.8 mm

Maximum Toe Height Range .....▶ 222.3 - 514.4 mm

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

Models: RJ84A, RJ85A, RJ1017 & RJ86A

Mechanical

### THINK SAFETY

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



### CE COMPLIANT

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



### CARRYING HANDLE

Carrying handles make the positioning and transporting of the 44.5, 89 and 133.4 kN ratchet jacks simple.



RJA1022

RJ22B

RJ24A

RJ2029

RJA1538 Pole Jack

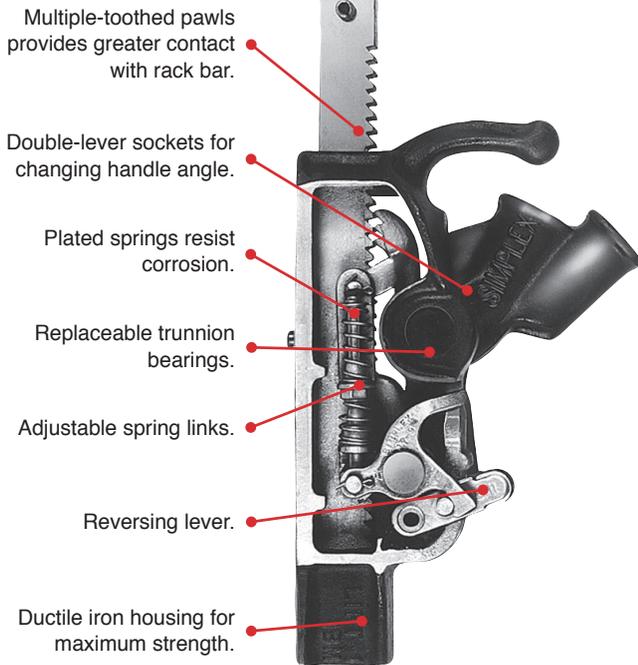
IB1538 I-Beam Base

CHA1538 Alloy Chain

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



Model	Jack Housing Material	Support Capacity (kN)	Lifting Capacity (kN)	Handle Effort per Ton (kg)
RJ84A	Steel	44.5	44.5	14.5
RJ85A				14.5
RJ86A				14.5
RJ1017		89.0	89.0	13.6
RJ22B				13.6
RJ24A		177.9	133.4	14.5
RJ2029				14.5
RJA1022	Aluminum	89.0	89.0	13.6
RJA1538		133.4	71.2	14.5

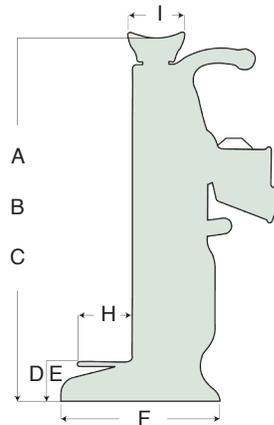


**RECOMMENDED LEVER BARS**

Please refer to page 148 for additional details.

\* Lever Bars Sold Separately

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



Dimensions (mm)										Weight (kg)	Model
A	B	C	D	E	F	G	H	I	J		
Minimum Height	Maximum Height	Stroke	Toe Minimum Height	Toe Maximum Height	Base Length	Base Width	Toe Length	Cap Length	Cap Width		
355.6	533.4	177.8	44.5	222.3	187.5	127.0	63.5	66.5	58.7	12.7	<i>RJ84A</i>
431.8	685.8	254.0	44.5	298.5	187.5	127.0	63.5	66.5	58.7	13.6	<i>RJ85A</i>
508.0	838.2	330.2	44.5	374.7	187.5	127.0	63.5	66.5	58.7	15.9	<i>RJ86A</i>
438.2	679.5	241.3	41.1	282.7	222.3	152.4	61.0	72.9	66.5	18.1	<i>RJ1017</i>
549.1	853.9	304.8	50.8	355.6	260.4	165.1	61.0	76.2	63.5	31.8	<i>RJ22B</i>
590.6	914.4	323.9	57.2	381.0	260.4	203.2	66.5	88.9	72.9	42.2	<i>RJ24A</i>
711.2	1168.4	457.2	57.2	514.4	279.4	203.2	66.5	88.9	72.9	47.2	<i>RJ2029</i>
549.1	853.9	304.8	50.8	355.6	260.4	165.1	61.0	76.2	63.5	19.1	<i>RJA1022</i>
955.5	1501.9	539.8	---	---	206.5	209.6	---	---	---	28.1	<i>RJA1538</i>

# MECHANICAL JACKS

CR Series - Reel Jacks

**SIMPLEX**



CR321B Shown

Capacity Range .....▶ 44.5 - 177.9 kN

Stroke Range.....▶ 241.3 - 355.6 mm

Minimum Height Range .....▶ 527.1 - 876.3 mm

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

Mechanical



### CARRYING HANDLES

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



### LAMINATED BASE

Treated laminated hardwood base provides solid support along with durability.



### CE COMPLIANT

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



CR320B



CRA1029R

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



Model	Capacity / Pair		Handle Effort per Tons (kg/kN)	Stroke (mm)	Dimensions (mm)					
	Side Hooks (kN)	Top Hooks (kN)			A	B	C	C <sup>1</sup>	C <sup>2</sup>	C <sup>3</sup>
					Minimum Height	Maximum Height	Minimum Height			
CR320B	44.5	89.0	3.7	241.3	527.1	768.4	387.4	---	---	---
CR321B	89.0	177.9	2.4	355.6	876.3	1231.9	235.0	397.0	558.8	720.9
CRA1029R				295.4	790.7	1085.9	631.7	---	---	---
CRA1029L			295.4	790.7	1085.9	631.7	---	---	---	

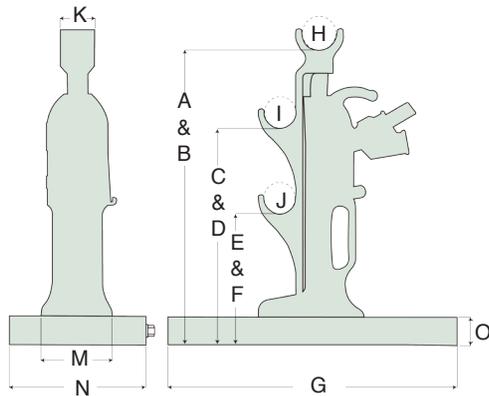
**RECOMMENDED LEVER BARS**

Please refer to page 148 for additional details.

\* Lever Bars Sold Separately

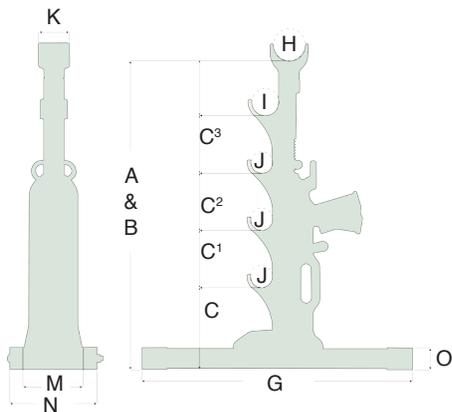
Reel Jack Model	Lever Bar Model
<i>CR320B</i>	SLB36
<i>CR321B</i>	SLB60
<i>CRA1029R</i>	SLB60
<i>CRA1029L</i>	SLB60

CR320B

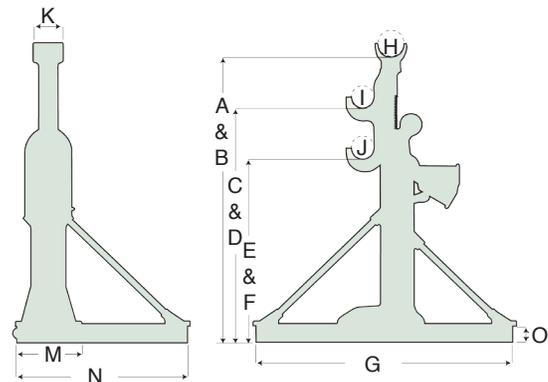


◀ Two CR321B Reel Jacks are used to support this cable spool for line feeding.

CR321B



CRA1029R & CRA1029L



Dimensions (mm)											Weight (kg)	Model
D	E	F	G	H	I	J	K	M	N	O		
Maximum	Minimum	Maximum	Length	Diameter	Diameter	Diameter	Width	Length	Width	Height		
628.7	235.0	476.3	517.7	66.5	57.2	57.2	60.5	127.0	238.3	50.8	23.1	<i>CR320B</i>
---	---	---	771.4	92.2	76.2	60.5	88.9	165.1	247.7	63.5	56.7	<i>CR321B</i>
927.1	479.3	774.7	762.0	79.2	66.5	66.5	88.9	168.1	190.5	57.2	39.0	<i>CRA1029R</i>
927.1	479.3	774.7	762.0	79.2	66.5	66.5	88.9	168.1	190.5	57.2	39.0	<i>CRA1029L</i>

# MECHANICAL JACKS

CJ Series – Rack Jacks

**SIMPLEX**



CJ15 & CJ100 Shown

Capacity Range .....► 14.7 - 99 kN  
 Stroke Range.....► 300 - 350 mm  
 Minimum Height Range .....► 725 - 800 mm

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

Mechanical



### FOLDING HANDLE

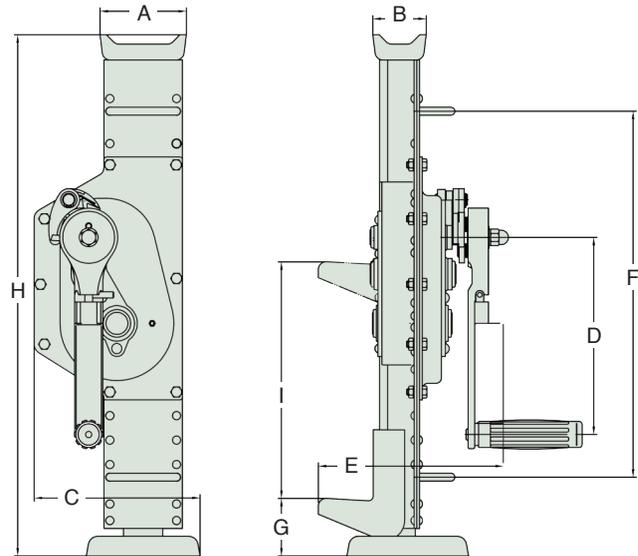
Safety crank with folding handle.



### CE COMPLIANT

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

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



Model	Toe/Toe Capacity (kN)	Dimensions (mm)									Weight (kg)
		A	B	C	D	E	F	G	H	I	
		Width	Depth	Width	Length	Depth	Length	Height	Minimum Height	Stroke	
CJ15	14.7	90	50	151	250	202	525	65	725	350	13,5
CJ30	29.4	100	50	204	250	213	525	70	725	350	22
CJ50	49	110	68	211	250	236	525	70	725	300	28
CJ100	99	140	70	257	300	297	590	80	800	300	46



LPC30 & LPC100 Shown

Capacity Range ..... ▶ 14.7 - 99 kN  
 Stroke Range ..... ▶ 300 - 350 mm  
 Minimum Height ..... ▶ 724 - 802 mm

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



**CE COMPLIANT**

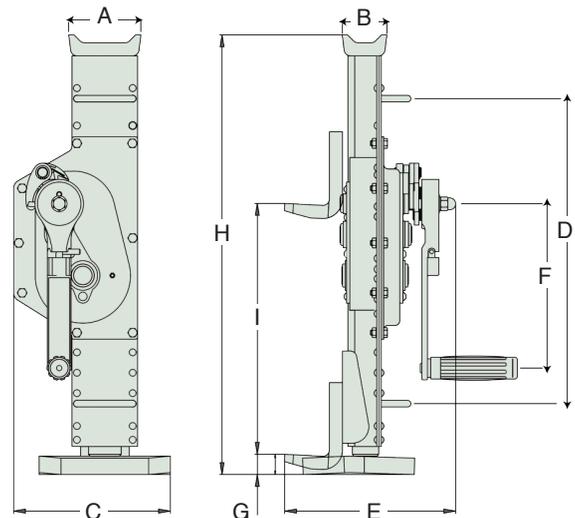
Our Jack design specifications meet or exceed ANSI /ASME B30.1 Safety Standards.



**THINK SAFETY**

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

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



Model	Toe/Head Capacity (kN)	Dimensions (mm)									Weight (kg)
		A	B	C	D	E	F	G	H	I	
		Width	Depth	Width	Length	Depth	Length	Height	Minimum Height	Stroke	
LPC15	14.7	90	50	166	525	218	250	30	724	350	16
LPC30	29.4	100	50	217	525	234	250	30	733	350	25
LPC50	49	110	68	239	525	260	250	30	730	300	32
LPC100	99	140	70	294	590	319	300	35	802	300	55

# MECHANICAL JACKS

PP Series - Push / Pull Jacks



Model: PP610



Model: PP61015

- Centered Capacity .....▶ 89 kN
- Weight .....▶ 2.26 - 5.9 kg
- Screw Diameter .....▶ 31.8 mm

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

### THINK SAFETY

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



### CE COMPLIANT

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



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

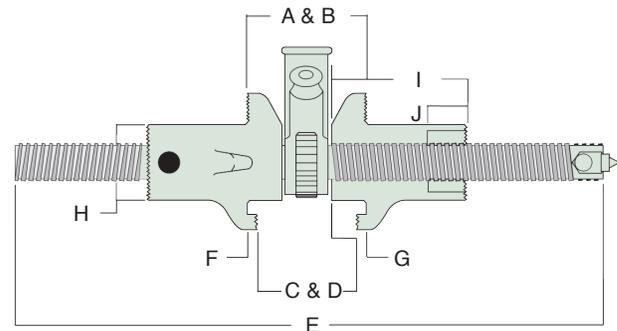


### RECOMMENDED LEVER BARS

Please refer to page 148 for additional details.

\* Lever Bars Sold Separately

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



Model	Dimensions (mm)									
	A	B	C	D	E	F	G	H	I	J
	Minimum	Maximum	Minimum	Maximum	Length	Length	Length	Length	Length	Length
PP610	85.9	206.5	72.9	193.5	254.0	7.9	7.9	60.5	81.0	31.8
PP61015	----	----	----	----	254.0	----	----	----	----	----

Model	Centered Capacity (kN)	Hook/Toe Offset Load Capacity (kN)	Travel (mm)	Handle Effort per ton (kg)	Screw Diameter (mm)	Weight (kg)
PP610	89.0	17.8	114.3	6.8	31.8	5.9
PP61015	89.0	17.8	----	6.8	31.8	2.26

Mechanical



Capacity Range ..... ▶ 133.4 - 444.8 kN  
 Stroke Range ..... ▶ 101.6 - 228.6 mm  
 Minimum Height ..... ▶ 260.4 - 377.7 mm

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

Models: JJA2515C, JJ2510C



**CE COMPLIANT**

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



**REVERSAL RATCHET**

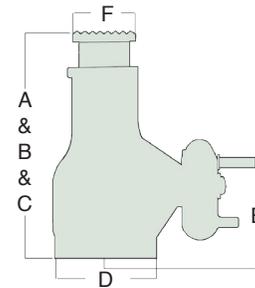
Raise or lower the load precisely with the reversal ratchet socket with quick spin handle.

**RECOMMENDED LEVER BARS**

Please refer to page 148 for additional details.

\* Lever Bars Sold Separately

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



Model	Jack Housing Material	Capacity (kN)	Dimensions (mm)						Handle Effort Per Ton (kg)	Weight kg
			A	B	C	D	E	F		
			Minimum Height	Maximum Height	Stroke	Base Diameter	Socket	Cap Diameter		
JJ2510C	Steel	222.4	260.4	387.4	127.0	139.7	190.5	79.5	2.7	19.5
JJ3510D		311.4	260.4	387.4	127.0	139.7	190.5	79.5	2.7	20.0
JJ5010B		444.8	261.9	363.5	101.6	184.2	223.8	99.8	1.8	36.3
JJA1510C	Aluminum	133.4	260.4	387.4	127.0	139.7	190.5	60.5	2.7	17.2
JJA2510C		222.4	260.4	387.4	127.0	139.7	190.5	79.5	2.7	15.4
JJA2515C		222.4	377.7	606.3	228.6	139.7	190.5	79.5	2.7	19.5
JJA3510D		311.4	260.4	387.4	127.0	139.7	190.5	79.5	2.3	15.4
JJA5010B		444.8	261.9	363.5	101.6	184.2	223.8	99.8	1.8	27.7

# MECHANICAL JACKS

SJ Series - Screw Jacks

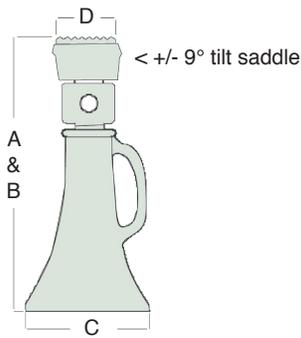


Capacity Range .....▶ 106.8 - 213.5 kN  
 Stroke Range .....▶ 95.3 - 362 mm  
 Minimum Height .....▶ 244.6 - 584.2 mm

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

Mechanical Screw Jack Family Shown

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



### RECOMMENDED LEVER BARS

Please refer to page 148 for additional details.

\* Lever Bars Sold Separately

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

Mechanical

Model	Sustaining Capacity (kN)	Dimensions (mm)				Handle Effort Per Ton (kg)	Weight (kg)
		A	B	C	D		
		Closed Height	Stroke	Base Diameter	Cap Diameter		
<i>SJ156</i>	106.8	244.6	95.3	120.7	73.2	6.8	4.5
<i>SJ158</i>		295.4	146.1	139.7	73.2	6.8	5.4
<i>SJ1512</i>		400.1	247.7	158.8	73.2	6.8	7.3
<i>SJ208</i>	177.9	301.8	127.0	152.4	79.5	6.8	7.7
<i>SJ2010</i>		349.3	177.8	165.1	79.5	6.8	9.1
<i>SJ2012</i>		400.1	228.6	171.5	79.5	6.8	10.9
<i>SJ258</i>	213.5	330.2	108.0	165.1	82.6	6.8	12.7
<i>SJ2512</i>		431.8	209.6	184.2	82.6	6.8	16.8
<i>SJ2518</i>		584.2	362.0	215.9	82.6	6.8	23.6



SCN15 & SC156 Shown

Sustaining Capacity .....▶ 106.8 - 213.5 kN

Thread Pitch Range.....▶ 38.1 - 76.2 mm

Weight Range.....▶ 2.5 - 13.3 kg

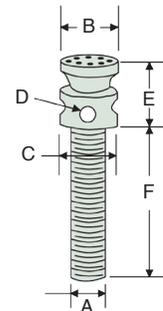
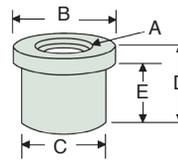
- ▶ Holds the load indefinitely without creep down.
- ▶ The shoulder nut is placed into piping or other fixed form, and the screw & cap assembly is threaded through it.

**RECOMMENDED LEVER BARS**

Please refer to page 148 for additional details.

\* Lever Bars Sold Separately

Screw Jack Model	Lever Bar Model
SC156	SLB24
SC158	SLB24
SC1512	SLB24
SC208	SLB35
SC2010	SLB35
SC2012	SLB35
SC258	SLB42
SC2512	SLB42
SC2518	SLB42



Model	Sustaining Capacity (kN)	Dimensions (mm)						Weight (kg)
		A	B	C	D	E	F	
		Modified Acme Thread Diameter - Pitch A (Thread)	Width	Diameter	Height			
SC156	12	1.5 - 3	72.9	57.2	22.1	95.3	144.3	2.5
SC158		1.5 - 3	72.9	57.2	22.1	95.3	195.1	2.8
SC1512		1.5 - 3	72.9	57.2	22.1	95.3	296.7	3.5
SC208	20	2 - 2.5	79.5	72.9	23.6	101.6	192.0	4.8
SC2010		2 - 2.5	79.5	72.9	23.6	101.6	242.8	5.4
SC2012		2 - 2.5	79.5	72.9	23.6	101.6	293.6	6.1
SC258	24	2.5 - 2.5	82.6	82.6	30.0	127.0	198.4	7.6
SC2512		2.5 - 2.5	82.6	82.6	30.0	127.0	301.2	9.9
SC2518		2.5 - 2.5	82.6	82.6	30.0	127.0	452.4	13.3
<b>Shoulder Nuts</b>								
SCN15	---	1.5 - 3	76.2	61.2	76.2	57.2	---	1.5
SCN20	---	2 - 2.5	101.6	76.2	82.6	57.2	---	2.3
SCN25	---	2.5 - 2.5	127.0	99.8	101.6	76.2	---	5.0

# MECHANICAL JACKS

## 44 Series - Tank Jacks



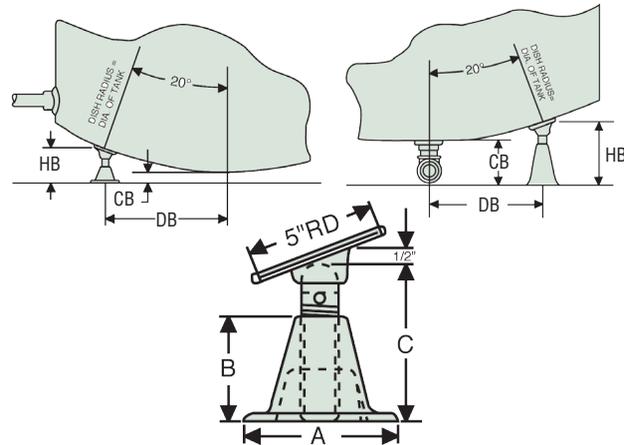
Tank Jack Family Shown

Capacity .....► 66.7 kN  
 Stroke .....► 50.8 mm  
 Minimum Height .....► 152.4 - 457.2 mm

- Supports and levels verticle, bottom, or side opening filter and storage tanks.
- Rated capacity for all models is 6803.9 kg.
- Screw operation provides infinite adjustment for exact tank leveling and gravity flow.

Mechanical

Model	Order Number	Base Dia. "A" (mm)	Base Height "B" (mm)	Min. Height "C" (mm)	Max. Height "C" (mm)	Weight (kg)
4406	03820	146.1	101.6	152.4	203.2	4.5
4410	03840	152.4	203.2	254.0	304.8	5.4
4414	03860	165.1	304.8	355.6	406.4	7.7
4418	03880	203.2	406.4	457.2	508.0	11.8
<b>Saddle</b>						
4846	03993	-----	-----	-----	-----	2.5



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

Model	Tank Dia. (m)	Pipe Dia. (mm)	"DB" (mm)	"HB" (mm)	"CB" (mm)	Quantity Required	
						Under 3.7 m	Over 3.7 m
<b>For Side Pipe Connections</b>							
4406	1.1	---	355.6	165.1	101.6	4	4
4406	1.2	---	406.4	162.1	88.9	4	4
4406	1.4	---	457.2	171.5	88.9	4	4
4406	1.5	---	508.0	181.1	88.9	4	4
4406	1.7	---	558.8	190.5	88.9	4	4
4406	1.8	---	609.6	152.4	38.1	4	4
4406	2.0	---	660.4	155.7	38.1	4	4
4406	2.1	---	711.2	165.1	38.1	4	6
4406	2.3	---	762.0	174.5	38.1	4	6
4406	2.4	---	812.8	184.2	38.1	6	8
4406	2.6	---	863.6	193.5	38.1	6	8
4406	2.7	---	914.4	203.2	38.1	6	8
4410	2.9	---	965.2	263.7	88.9	8	8
4410	3.0	---	1066.8	273.1	88.9	8	8

Model	Tank Dia. (m)	Pipe Dia. (mm)	"DB" (mm)	"HB" (mm)	"CB" (mm)	Quantity Required	
						Under 3.7 m	Over 3.7 m
<b>For Bottom Pipe Connections</b>							
4410	1.1	50.8	355.6	266.7	203.2	4	4
4410	1.2	63.5	406.4	301.5	228.6	4	4
4410	1.4	63.5	457.2	311.2	228.6	4	4
4414	1.5	63.5	508.0	371.3	279.4	4	4
4414	1.7	63.5	558.8	381.0	279.4	4	4
4414	1.8	76.2	609.6	416.1	304.8	4	4
4414	2.0	76.2	660.4	371.3	254.0	4	4
4418	2.1	101.6	711.2	463.6	336.6	4	6
4418	2.3	101.6	762.0	472.9	336.6	4	6
4418	2.4	101.6	812.8	482.6	336.6	6	8
4418	2.6	127.0	889.0	508.0	355.6	6	8
4418	2.7	127.0	939.8	495.3	330.2	6	8
4418	2.9	127.0	990.6	508.0	330.2	8	8
4418	3.0	152.4	1041.4	533.4	355.6	8	8



- Capacity ..... ▶ 177.9 kN
- Travel Range..... ▶ 355.6 - 965.2 mm
- Barrel Range ..... ▶ 457.2 - 1066.8 mm
- Weight ..... ▶ 25.9 - 41.7 kg
- ▶ 177.9 kN capacity models are used for connecting river barges, pulling forms and steel plates.
- ▶ Ideal for bridge construction and steel engineering projects.
- ▶ Equipped with spring activated pawl and 660.4 mm integrated handle.
- ▶ Can be used in “push” or “pull” applications.

SER20 & SER30 Shown



**CE COMPLIANT**

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

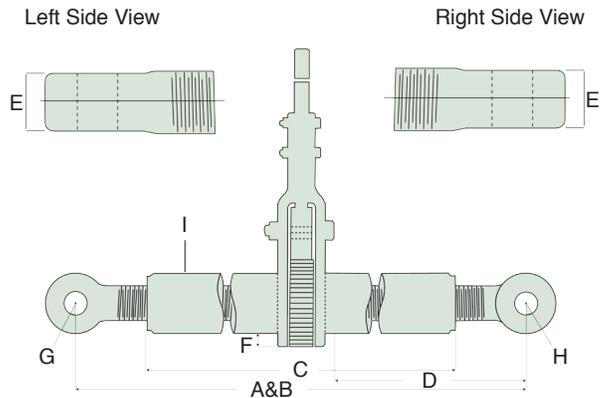


**THINK SAFETY**

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

Mechanical

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



Model	Travel Length (mm)	Screw Diameter (mm)	Dimensions (mm)									Weight (kg)
			Eye to Eye		Barrel Length	Left / Right Screw Length	Left / Right Screw Eye Thickness	Ratchet Socket Length	Inner Diameter Left / Right Screw Eye	Radius	Pipe Barrel Outside Diameter	
			Minimum	Maximum								
SER10	355.6	50.8	584.2	939.8	457.2	279.4	47.5	19.1	33.3	44.5	88.9	25.9
SER20	508.0	50.8	736.6	1244.6	609.6	355.6	47.5	19.1	33.3	44.5	88.9	29.9
SER30	660.4	50.8	889.0	1549.4	762.0	431.8	47.5	19.1	33.3	44.5	88.9	33.6
SER40	965.2	50.8	1193.8	2159.0	1066.8	584.2	47.5	19.1	33.3	44.5	88.9	41.7

# MECHANICAL JACKS

PJ Series - Planer Jacks

**SIMPLEX**



PJ1P, PJ2P, PJ3P & PJ4P Shown

Sustaining Capacity .....► 17.8 - 71.2 kN

Weight .....► 0.7 - 5.4 kg

Operable Rise .....► 25.4 - 101.6 mm

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

Mechanical



**THINK SAFETY**

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



**CE COMPLIANT**

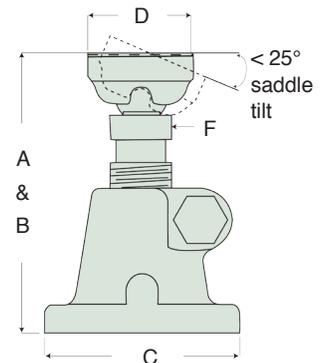
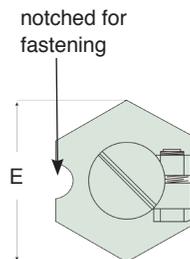
Our Jack design specifications meet or exceed ANSI /ASME B30.1 Safety Standards.

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



**LOAD CAP**

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



Model	Sustaining Capacity (kN)	Operable Rise (mm)	Dimensions (mm)						Weight (kg)
			A	B	C	D	E	F	
			Minimum Height	Maximum Height	Across Flats	Cap Diameter	Across Points	Hex Across Flats	
PJ1P	17.8	25.4	69.9	95.3	60.5	31.8	69.9	19.1	0.7
PJ2P	35.6	38.1	95.3	133.4	79.5	42.7	91.9	25.4	1.4
PJ3P	53.4	57.2	133.4	190.5	101.6	52.3	117.3	31.8	2.7
PJ4P	71.2	101.6	190.5	292.1	136.7	63.5	157.2	38.1	5.4



S3A Shown

Sustaining Capacity.....▶ 26.7 kN

Operable Rise .....▶ 25.4 mm

Weight .....▶ 1.5 kg

- ▶ Perfect for close quarters and tight spaces.
- ▶ Supports 26.7 kN and has a 25.4 mm stroke for adjustments.
- ▶ Closed height of 76.2 mm.
- ▶ Serrated cap rotates and prevents load slippage.



**CE COMPLIANT**

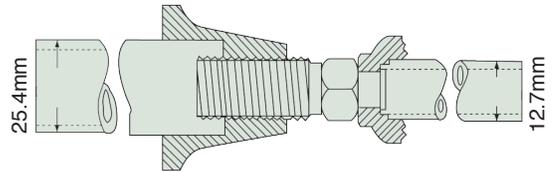
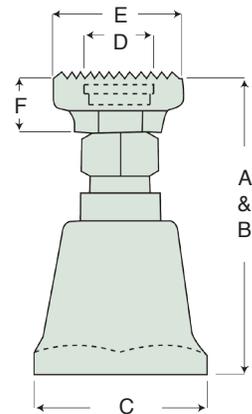
Our Jack design specifications meet or exceed ANSI /ASME B30.1 Safety Standards.



**LOAD CAP**

Steel serrated load cap prevents the load from possible slippage with inline applications.

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



▲ The spreader jack can easily be extended by fitting a 12.7 mm diameter pipe in the cap well and a 25.4 mm diameter pipe in the housing well.

Model	Sustaining Capacity (kN)	Operable Rise (mm)	Dimensions (mm)						Weight (kg)
			A	B	C	D	E	F	
			Minimum Height	Maximum Height	Base	Well Diameter	Cap Width	Cap Height	
S3A	26.7	25.4	76.2	101.6	50.8	21.3	38.1	17.3	1.5



09618, RS139AS78114 Shown

Stroke .....▶ 508 - 965.2 mm  
Minimum Height .....▶ 990.6 - 2235.2 mm  
Maximum Height .....▶ 1498.6 - 3200.4 mm

- ▶ The 9225A family is a ratcheting style roof support rated at 35.6 kN sustaining capacity.
- ▶ The 139A family is a screw extension type roof support rated at 44.5 kN sustaining capacity.
- ▶ Aluminum alloy housing and base makes this unit light-weight and portable (A9225 Family).
- ▶ Holds the load indefinitely without creep down.

### THINK SAFETY



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

### CE COMPLIANT



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

### CARRYING HANDLE



Integrated welded handle for ease of transport and positioning.

## HEAD STYLES



### E Type Head

For all standard work.  
Dimension between flanges: 206.5 mm



### F Type Head

For use with electrical wiring. Dimension between flanges: 260.3 mm

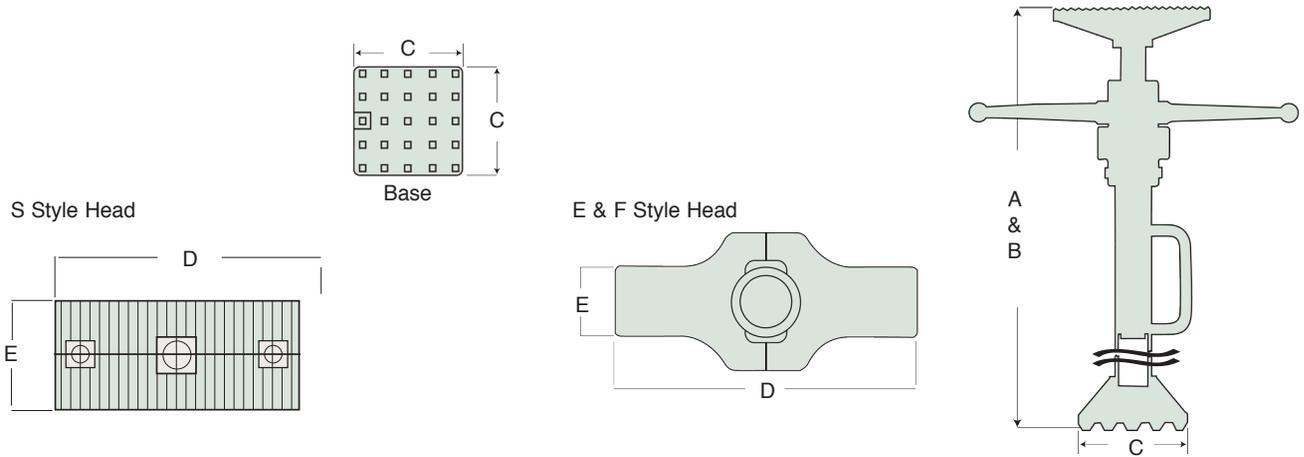


### S Type Head

232.25 cm<sup>2</sup> in support area.

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





Dimensions (mm)								
Model	Order Number	Stroke (mm)	A	B	C	D	E	Weight (kg)
			Minimum Height	Maximum Height	Base	Head Length	Head Width	
<b>Complete Unit Ratchet Lever Series - A9225 Family</b>								
<i>E</i>	09602	508.0	990.6	1498.6	187.5	206.5	50.8	13.2
<i>F</i>	09603	508.0	990.6	1498.6	187.5	260.4	50.8	13.2
<i>S</i>	09620	508.0	990.6	1498.6	187.5	228.6	101.6	13.2
<i>E</i>	09606	660.4	1143.0	1803.4	187.5	206.5	50.8	15.0
<i>F</i>	09607	660.4	1143.0	1803.4	187.5	260.4	50.8	15.0
<i>S</i>	09621	660.4	1143.0	1803.4	187.5	228.6	101.6	15.0
<i>E</i>	09610	965.2	1447.8	2413.0	187.5	206.5	50.8	16.3
<i>F</i>	09611	965.2	1447.8	2413.0	187.5	260.4	50.8	16.3
<i>S</i>	09622	965.2	1447.8	2413.0	187.5	228.6	101.6	16.3
<i>E</i>	09614	965.2	1752.6	2717.8	187.5	206.5	50.8	17.7
<i>F</i>	09615	965.2	1752.6	2717.8	187.5	260.4	50.8	17.7
<i>S</i>	09623	965.2	1752.6	2717.8	187.5	228.6	101.6	17.7
<i>E</i>	09616	965.2	1905.0	2870.2	187.5	206.5	50.8	19.1
<i>F</i>	09617	965.2	1905.0	2870.2	187.5	260.4	50.8	19.1
<i>S</i>	09624	965.2	1905.0	2870.2	187.5	228.6	101.6	19.1
<i>E</i>	09618	965.2	2235.2	3200.4	187.5	206.5	50.8	21.8
<i>F</i>	09619	965.2	2235.2	3200.4	187.5	260.4	50.8	21.8
<i>S</i>	09625	965.2	2235.2	3200.4	187.5	228.6	101.6	21.8
<b>Complete Unit Screw Extension Series - 139A Family</b>								
<i>E</i>	09802	609.6	1066.8	1676.4	152.4	206.5	50.8	22.7
<i>F</i>	09803	609.6	1066.8	1676.4	152.4	260.4	50.8	22.7
<i>S</i>	09820	609.6	1066.8	1676.4	152.4	228.6	101.6	22.7
<i>E</i>	09806	762.0	1219.2	1981.2	152.4	206.5	50.8	23.6
<i>F</i>	09807	762.0	1219.2	1981.2	152.4	260.4	50.8	23.6
<i>S</i>	09821	762.0	1219.2	1981.2	152.4	228.6	101.6	23.6
<i>E</i>	09814	914.4	1676.4	2590.8	152.4	206.5	50.8	26.3
<i>F</i>	09815	914.4	1676.4	2590.8	152.4	260.4	50.8	26.3
<i>S</i>	RS139AS66102	914.4	1676.4	2590.8	152.4	228.6	101.6	26.3
<i>E</i>	09818	914.4	1981.2	2895.6	152.4	206.5	50.8	29.0
<i>F</i>	09819	914.4	1981.2	2895.6	152.4	260.4	50.8	29.0
<i>S</i>	RS139AS78114	914.4	1981.2	2895.6	152.4	228.6	101.6	29.0

# MECHANICAL JACKS

RS Series - Roof Support Base & Head Assembly

**SIMPLEX**



Head Assembly  
Model 09267



Base Assembly  
Model 09220

- Stroke .....▶ 381 mm  
Sustaining Capacity .....▶ 71.2 - 142.3 kN  
Maximum Extended Height .....▶ 1727.2 - 2362.2 mm

Maximum pipe length recommendations are based upon the following conditions:

- ▶ Fully extended assemblies loaded to maximum rated capacity.
- ▶ All models incorporate a lever nut handle.
- ▶ The 71.2 kN models are available with either FS or S style heads.
- ▶ The 142.3 kN model is available with FS style head only.
- ▶ Head and base securely fixed to prevent lateral movement.
- ▶ A round base (ordered separately) is available to fit the 2" pipe.

## THINK SAFETY

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



## CE COMPLIANT

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



## HEAD STYLES



**S Type Head**  
232.25 cm<sup>2</sup> in support area.

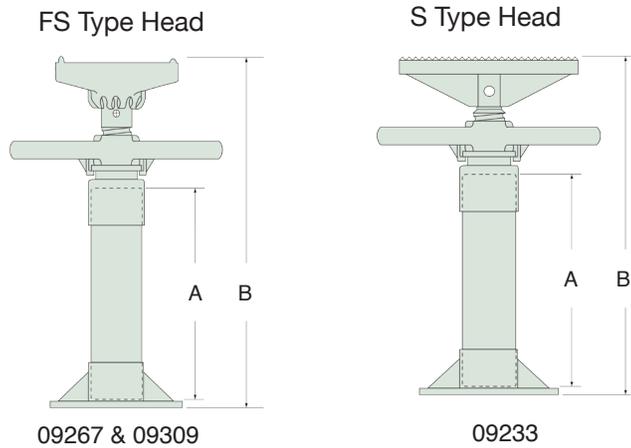


**FS Type Head**  
For support with wooden or rubber cap pieces.

### Optional Pipe Specifications

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

- ▶ The 71.2 kN MS9 models use 2" schedule 40 pipe with a minimum yield strength of 2413.7 bar.
- ▶ The 142.3 kN MS17 model requires 2" schedule 80 pipe with a minimum yield strength of 3310.3 bar / 142.3 kN model.



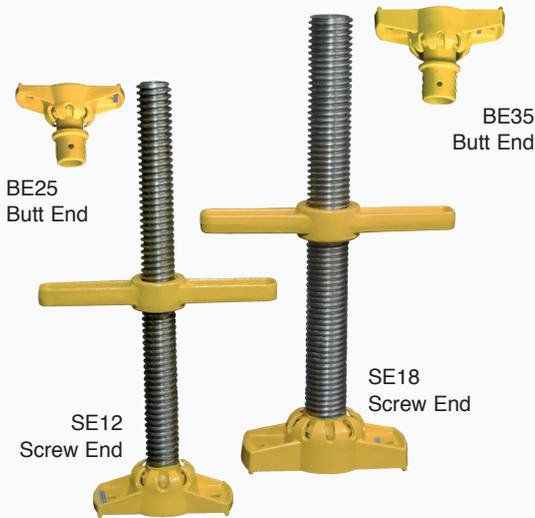
Dimensions (mm)		
Model	"A" Minimum Pipe Length	"B" Minimum Closed Height
MS9L-FS	520.7	685.8
MS9L-S	523.7	647.7
MS17L-FS	552.5	730.3

Model	Order Number	Head Style	Sustaining Capacity (kN)	Stroke (mm)	*Maximum Pipe Length (mm)	Maximum Extended Height (mm)	Dimension Between Flanges (mm)	Weight (kg)
MS9L-FS	09267	FS	71.2	381.0	1314.5	1854.2	146.1	8.6
MS9L-S	09233	S	71.2	381.0	1860.6	2362.2	---	8.6
MS17L-FS	09309	FS	142.3	381.0	1174.8	1727.2	146.1	15.4
Base MB-17	09220	----	----	----	----	----	----	2.7

# MECHANICAL JACKS

SE & BE Series - Trench Braces

**SIMPLEX**



Screw & Butt Ends Sold Separately

Adjustable Range.....▶ 177.8 - 254 mm  
 Pipe Size .....▶ 38.1 - 50.8 mm  
 Lever Length .....▶ 241.3 - 279.4 mm

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

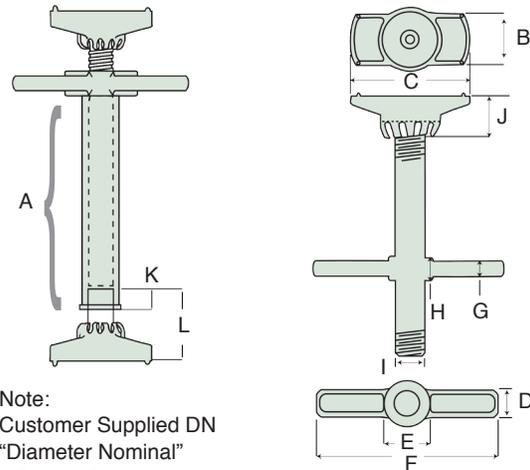


Please refer to pages 4&5 for a complete list of safety tips and recommendations.



**CE COMPLIANT**

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



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

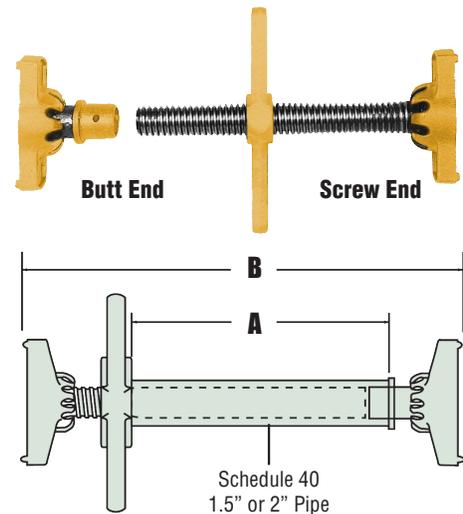
Dimensions assume the use of both screw & butt ends together as an assembly.

Model (Screw End)	Adjust Range (mm)	Pipe Size (mm)	Dimensions (mm)											
			A	B	C	D	E	F	G	H	I	J	K	L
			Minimum Pipe Length	Width	Length	Lever Width	Lever Diameter O.D.	Lever Length	Lever Height	Lever Nut Height	Screw Diameter O.D.	Height	I.D. Butt End Height	Collar Height
SE12	177.8	38.1	304.8	62.0	146.1	31.8	54.1	241.3	17.3	28.7	35.1	62.0	----	----
SE16	254.0	38.1	406.4	62.0	146.1	31.8	54.1	241.3	17.3	28.7	35.1	62.0	----	----
SE18	254.0	50.8	457.2	69.9	190.5	38.1	68.1	279.4	20.6	35.1	47.5	76.2	----	----
Model (Butt End)	Screw Ends to be used with Butt End													
BE25	SE12 / SE16		----	62.0	----	----	----	----	----	----	----	----	38.1	98.3
BE35	SE18		----	69.9	----	----	----	----	----	----	----	----	49.0	123.7

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

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

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



(Fig. 1) All Trench Brace Models

**Quick Reference Timber / Trench Brace Equivalency Tables\***

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

Trench Depth (m)	Horizontal Spacing (m)	Cross Brace			Vertical Spacing (m)	Wales		Uprights (in)			
		Width of Trench (m)				Size (in)	Vertical Spacing (m)	Max. Allowable Horizontal Spacing (m)			
		up to 1.4	up to 1.8	up to 2.4				1.2	1.5	1.8	2.4
Soil Type - A $P^a = 25 \times H + 72$ psf (2ft. Surcharge)											
1.5 to 3.0	up to 1.8	SE12 SE16	SE12 SE16	SE18	1.2	---	---	---	---	2"x 6"	---
	up to 2.4	SE12 SE16	SE12 SE16	SE18	1.2			---	---	---	---
	up to 3.0	SE18	SE18	SE18	1.2	8 x 8	4	---	2"x 6"	---	---
	up to 3.7	SE18	SE18	---	1.2	8 x 8	4	---	---	2"x 6"	---
3.0 to 4.6	up to 1.8	SE12 SE16	SE12 SE16	SE18	1.2	---		---	---	3"x 8"	---
	up to 2.4	SE18	SE18	---	1.2	8 x 8	4	2"x 6"	---	---	---
Soil Type - B $P^a = 45 \times H + 72$ psf (2ft. Surcharge)											
Trench Depth (m)	Horizontal Spacing (ft)	Cross Brace		Vertical Spacing (m)	Wales		Uprights (in)				
		Width of Trench (m)			Size (in)	Vertical Spacing (m)	Max. Allowable Horizontal Spacing (m)				
		up to 1.2 m	up to 1.8 m				0.9 m				
1.5 to 3.0	up to 1.8	SE18	SE18	1.5	6 x 8	1.5	2"x 6"				

### STEEL LEVER BARS & ACCESSORIES

<i>Model</i>	<b>Description</b>	<b>Length (mm)</b>	<b>Diameter (mm)</b>	<b>Weight (kg)</b>
<b>SLB24</b>	Round Lever Bar	609.6	19.1	1.8
<b>SLB35</b>	Round Lever Bar	914.4	20.6	2.7
<b>SLB36</b>	Round Lever Bar	914.4	25.4	3.6
<b>SLB42</b>	Round Lever Bar	1066.8	28.7	5.4
<b>SLB56</b>	Round (Tapered) Lever Bar	1422.4	29.0	7.3
<b>SLB60*</b>	Chisel Point Lever Bar	1524.0	31.8	7.7
<b>SLB70</b>	Chisel Point Lever Bar	1828.8	31.8	9.1
<b>IB1538</b>	I - Beam Base	508.0	---	20.0
<b>CHA1538</b>	Heavy Duty Chain	2133.6	15.7	13.2

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