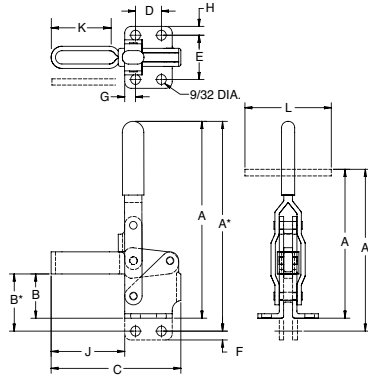


# WORK HOLDING SOLUTIONS

## TOGGLE CLAMPS

### HOLD DOWN VERTICAL



This popular style of clamp includes solid bar and U-Bar construction. Each clamp accepts all 5/16-18 diameter spindles. Each clamp is supplied with a 70947 neoprene tipped spindle assembly. The vertical handle type is supplied with a blue vinyl handle.

- Holding capacity: 500 lbs. max.
- Weight: 11 oz.
- Handle moves 60°, bar 100°
- Solid Bar: 5/8" height, 1/4" wide
- U-Bar: 5/8" height, 21/64" inside width
- Horizontal spindle adjustment: 1 1/2"
- Spindle Thread: 5/16-18

PART NUMBER	A	B	C	D	E	F	G	H	J	Handle Type	Bar Type	Base Type
70350	5 5/8	1 1/4	4	3/4	1.25	—	5/16	1/4	2.25	Vertical	Solid	Flange
70355	5 15/16	1 9/16	4	3/4	—	1/4	5/16	—	2.25	Vertical	Solid	Straight
70360	4 1/16	1 1/4	4	3/4	1.25	—	5/16	1/4	2.25	Tee	Solid	Flange
70365	5 5/8	1 1/4	5 1/4	3/4	1.25	—	5/16	1/4	3.4375	Vertical	Solid	Flange
71020	4 1/16	1 9/16	3 3/4	3/4	—	1/4	5/16	1/4	2 1/4	Tee	Solid	Straight
71021	5 5/8	1 9/16	4 1/8	3/4	—	1/4	5/16	1/4	3 7/16	Vertical	Solid	Straight
71022	4 1/16	1 9/16	4 1/8	3/4	—	1/4	5/16	1/4	3 7/16	Tee	Solid	Straight
71023	4 1/16	1 1/4	4 1/8	3/4	1.25	1/4	5/16	1/4	3 7/16	Tee	Solid	Flange
70380	5 5/8	1 1/4	4	3/4	1.25	—	5/16	1/4	2.25	Vertical	U-Bar	Flange
70385	6 5/16	1 9/16	4	3/4	—	1/4	5/16	—	2.25	Vertical	U-Bar	Straight
70390	4 1/16	1 1/4	4	3/4	1.25	—	5/16	1/4	2.25	Tee	U-Bar	Flange
70395	5 5/8	1 1/4	5 1/2	3/4	1.25	—	5/16	1/4	3.75	Vertical	U-Bar	Flange
71024	4 5/8	1 9/16	3 3/4	3/4	—	1/8	5/16	1/4	2 1/4	Tee	U-Bar	Straight
71025	6 5/16	1 9/16	4 7/16	3/4	—	1/8	5/16	1/4	3 3/4	Vertical	U-Bar	Straight
71026	4 5/8	1 9/16	4 7/16	3/4	—	1/8	5/16	1/4	3 3/4	Tee	U-Bar	Straight
71027	4 1/16	1 1/4	4 7/16	3/4	1.25	—	5/16	1/4	3 3/4	Tee	U-Bar	Flange

\*Straight base type dimension. Note: Width of tee handle is 3 5/8".

- Solid arm models include a bolt retainer
- U-Bar models include 2 flange washers

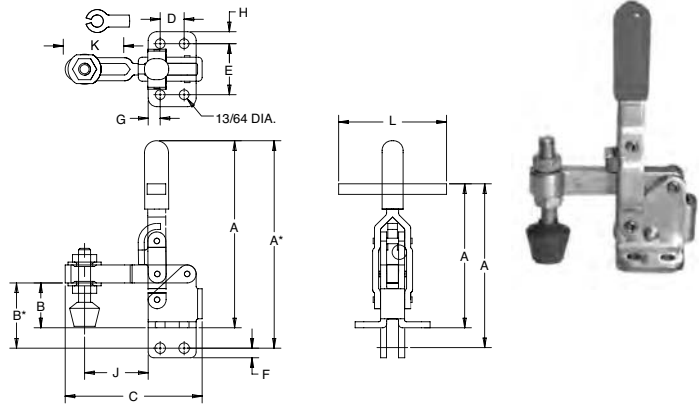
Clancey can provide  
crossover information for  
Carr Lane and De-Sta-Co.

# WORK HOLDING SOLUTIONS TOGGLE CLAMPS

## HOLD DOWN VERTICAL

This clamp has a narrow bar with a stationary spindle that accepts all 1/4-20 diameter spindles. Each clamp is supplied with a 70926 neoprene tipped spindle assembly. The vertical handle type is supplied with a blue vinyl handle.

- Holding capacity: 200 lbs. max.
- Weight: 6 oz.
- Handle moves 60°, bar 117°
- Solid Bar: 3/8" height, 7/32" wide
- Spindle Thread: 1/4-20



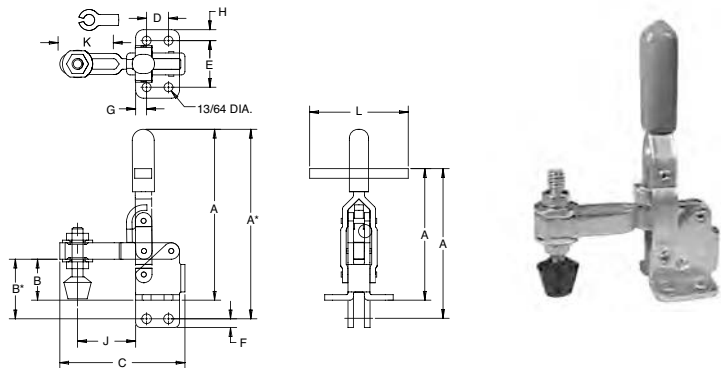
PART NUMBER	A	B	C	D	E	F	G	H	J	Handle Type	Bar Type	Base Type
70330	3 3/4	15/16	2 9/16	1/2	1 1/16	—	1/4	1/4	1 1/16	Vertical	Solid	Flange
70335	3 15/16	1 1/8	2 9/16	1/2	—	1/4	1/4	1/4	1 1/16	Vertical	Solid	Straight
70340	2 13/16	15/16	2 9/16	1/2	1 1/16	—	1/4	1/4	1 1/16	Tee	Solid	Flange
71016	2 13/16	1 1/8	2 9/16	1/2	—	1/4	1/4	1/4	1 1/16	Tee	Solid	Straight

\*Straight base type dimension  
• Solid arm models include a bolt retainer

Note: Width of tee handle is 2 9/16"  
• U-Bar models include 2 flange washers

This vertical clamp is equipped with a 1/4-20 spindle which has a tip, washers, and locknut for easy clamping. A blue vinyl handle is included. Each clamp is supplied with a 70926 vinyl coated spindle assembly with washer.

- Holding capacity: 250 lbs.
- Weight: 6 oz.
- Handle moves 64°, bar 104°
- U-Bar: 3/8" height, 1/4" inside width
- Horizontal spindle adjustment: 1 1/8"
- Spindle Thread: 1/4-20
- Spindle Number: 70926



PART NUMBER	A	B	C	D	E	F	G	H	J	Handle Type	Bar Type	Base Type
70342	4	15/16	3	1/2	1/16	—	1/4	1/4	1 3/4	Vertical	U-Bar	Flange
71017	4	1 1/8	3	1/2	—	9/32	1/4	1/4	1 3/4	Vertical	U-Bar	Straight
71018	2 13/16	1 1/8	3	1/2	—	9/32	1/4	1/4	1 3/4	Tee	U-Bar	Straight
71019	2 13/16	15/16	3	1/2	1/16	—	1/4	1/4	1 3/4	Tee	U-Bar	Flange

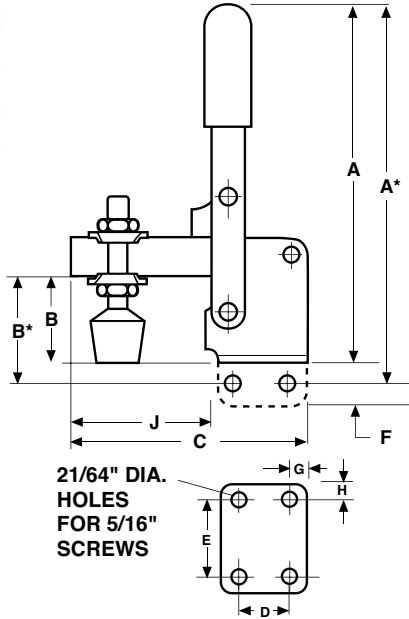
\*Straight base type dimension  
• Solid arm models include a bolt retainer

Note: Width of tee handle is 2 9/16"  
• U-Bar models include 2 flange washers

# WORK HOLDING SOLUTIONS

## TOGGLE CLAMPS

### HOLD DOWN VERTICAL



This large capacity clamp is available in solid bar and U-Bar construction. It accepts all 3/8-16 diameter spindles. The solid bar clamp is supplied with a 70910 bolt retainer and 70915 neoprene tipped spindle assembly. The U-Bar style is supplied with 2 flanged washers and the 70915 spindle assembly. The vertical handle type is supplied with a blue vinyl handle.

- Holding capacity: 750 lbs. max.
- Weight: 1 lb., 5 oz.
- Handle moves 58°, bar 106°
- Solid Bar: 3/4" height, 5/16" wide
- U-Bar: 3/4" height, 7/16" inside width
- Horizontal spindle adjustment: 2 9/16"
- Spindle Thread: 3/8-16

PART NUMBER	A	B	C	D	E	F	G	H	J	Handle Type	Bar Type	Base Type
70420	7 3/4	1 11/16	5 1/2	1 1/4	1 25/32	—	21/64	3/8	3 19/32	Vertical	Solid	Flange
70425	8 1/4	2 3/16	5 1/2	1 1/4	—	3/8	21/64	—	3 19/32	Vertical	Solid	Straight
70430	5 1/4	1 11/16	5 1/2	1 1/4	1 25/32	—	21/64	3/8	3 19/32	Tee	Solid	Flange
71028	6 1/8	2 3/16	5 1/2	1 1/4	—	3/8	21/64	—	3 19/32	Tee	Solid	Straight
70440	7 3/4	1 11/16	5 1/2	1 1/4	1 25/32	—	21/64	3/8	3 17/32	Vertical	U-Bar	Flange
70445	8 1/4	2 3/16	5 1/2	1 1/4	—	3/8	21/64	—	3 17/32	Vertical	U-Bar	Straight
70450	5 1/4	1 11/16	5 1/2	1 1/4	1 25/32	—	21/64	3/8	3 17/32	Tee	U-Bar	Flange
71029	6 1/8	2 3/16	5 1/2	1 1/4	—	3/8	21/64	—	3 17/32	Tee	U-Bar	Straight

\*Straight base type dimension

Note: Width of tee handle is 5"

Clancey can provide crossover information for Carr Lane and De-Sta-Co.

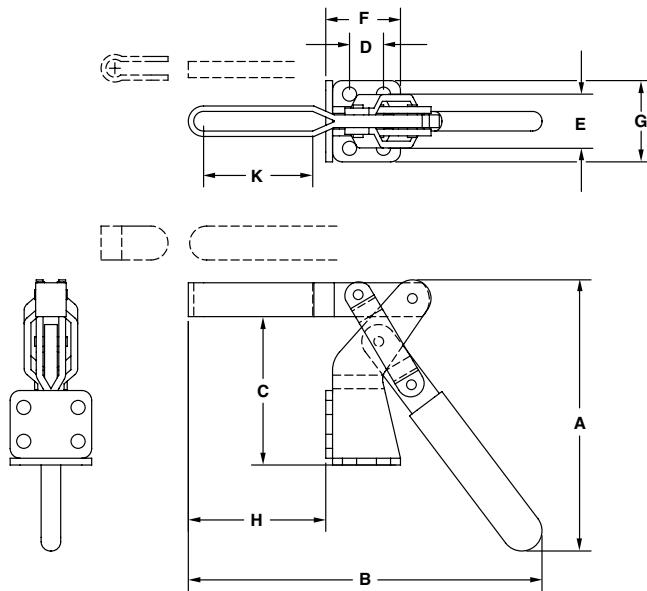
# WORK HOLDING SOLUTIONS

## TOGGLE CLAMPS

This clamp is available with a solid or U-Bar model. It features both a horizontal and vertical mounting surface. A neoprene tipped spindle assembly is included with both models. A bolt retainer is furnished with the solid bar model.

**HOLD DOWN VERTICAL**

- Holding capacity: 220 lbs. max.
- U-Bar: 5/8" height, 11/32" inside width
- Spindle Thread: 5/16-18



Clancey can provide crossover information for Carr Lane and De-Sta-Co.

PART NUMBER	A	B	C	D	E	F	G	H	K	Bar Type	Wt. (oz.)
70285	5 1/2	6 1/16	2 3/4	5/8	1	1 3/8	1 1/2	2 1/2	2	U-Bar	15
71037	5 1/2	6 7/16	2 3/4	5/8	1	1 3/8	1 1/2	2 1/2	—	Solid	16

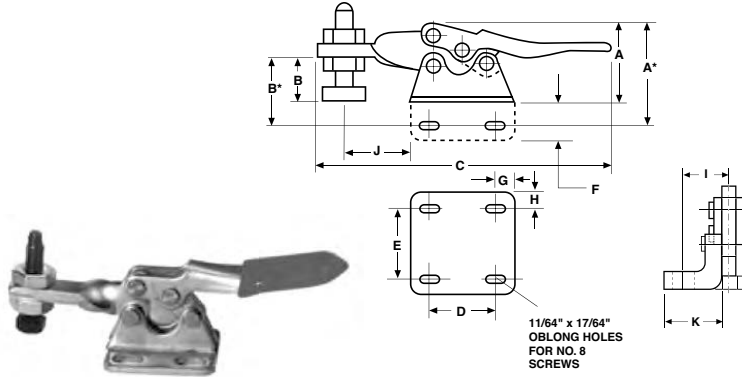
- Solid arm models include a bolt retainer
- U-Bar models include 2 flange washers

WORK HOLDING SOLUTIONS, TOGGLE CLAMPS

# WORK HOLDING SOLUTIONS

## TOGGLE CLAMPS

### HOLD DOWN HORIZONTAL



The small size of this clamp is ideal for jobs requiring minimal hold down force. Available in solid or U-Bar construction. All models are supplied with 70962 nylon spindle assemblies and blue vinyl handles.

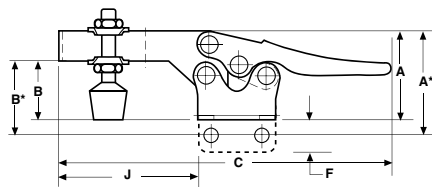
- Holding capacity: 60 lbs.
- Weight: 1 oz.
- Handle moves 80°, bar 90°
- Solid Bar: 3/32" height, 1/4" wide
- U-Bar: 1/4" height, 3/16" inside width
- U-Bar horizontal spindle adjustment: 3/8"
- Spindle Thread: 8-32

PART NUMBER	S.S. Part No.	A	B	C	D	E	F	G	H	J	I	K	Bar Type	Base Type
70210	—	3/4	13/32	2 3/4	5/8	5/8	—	5/32	5/32	11/16	—	—	Solid	Flange
70211	—	3/4	13/32	2 3/4	5/8	—	—	5/32	5/32	21/32	3/8	1/2	Solid	1/2 Flange-Left
71001	—	3/4	13/32	2 3/4	5/8	—	—	5/32	5/32	21/32	3/8	1/2	Solid	1/2 Flange-Right
70215	—	15/16	19/32	2 3/4	5/8	—	11/32	5/32	5/32	11/16	—	—	Solid	Straight
70230	71002	3/4	5/16	2 21/32	5/8	5/8	—	5/32	5/32	11/16	—	—	U-Bar	Flange
70231	—	3/4	5/16	2 3/4	5/8	—	—	5/32	5/32	21/32	3/8	1/2	U-Bar	1/2 Flange-Left
71003	—	3/4	5/16	2 3/4	5/8	—	—	5/32	5/32	21/32	3/8	1/2	U-Bar	1/2 Flange-Right
70235	—	15/16	1/2	2 21/32	5/8	—	11/32	5/32	5/32	11/16	—	—	U-Bar	Straight

\*Straight base type dimension  
 • Solid arm models include a bolt retainer

Note: J dimension goes all the way to end of the U-Bar models  
 • U-Bar models include 2 flange washers

WORK HOLDING SOLUTIONS, TOGGLE CLAMPS



This horizontal clamp is available with U-Bar construction in a flanged or straight base. Supplied with a 70915 neoprene tipped spindle assembly. Both models supplied with a blue vinyl handle.

- Holding capacity: 750 lbs. max.
- Weight: 1 lb., 8 oz.
- Handle moves 55°, bar 90°
- U-Bar: 3/4" height, 7/16" inside width
- Horizontal spindle adjustment: 2 1/4"
- Spindle Thread: 3/8-16

PART NUMBER	A	B	C	D	E	F	G	H	J	Bar Type	Base Type
70270	2 1/2	1 3/4	10 1/4	1 5/8	1 5/8	—	5/16	5/16	4 1/8	U-Bar	Flange
70275	3 1/16	2 3/8	10 1/4	1 5/8	—	7/8	5/16	5/16	4 1/8	U-Bar	Straight

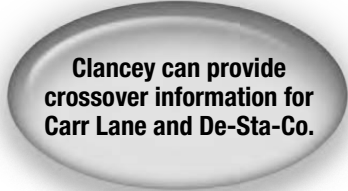
\*Straight base type dimension  
 • U-Bar models include 2 flange washers

# WORK HOLDING SOLUTIONS TOGGLE CLAMPS

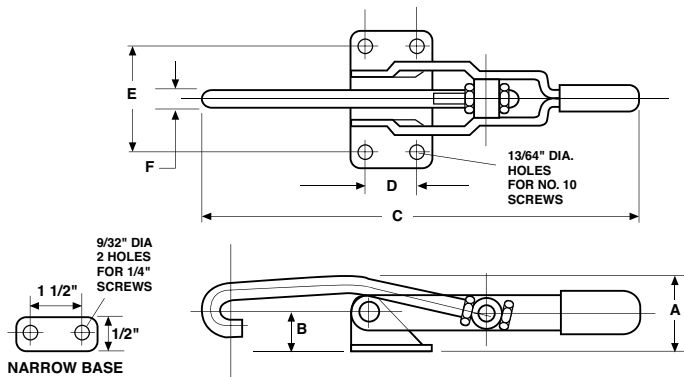
The adjustable hook is ideal for latching, locking or fastening doors, fixtures, pressure vessels, covers, and hatches on storage tanks. The hook bar has a 4" pull and is threaded for convenient adjustment. This clamp is furnished with a blue vinyl handle.



**Note: Longer Hook Lengths Available Upon Request**  
**Note: 70580 is a narrow base 1/2" wide**

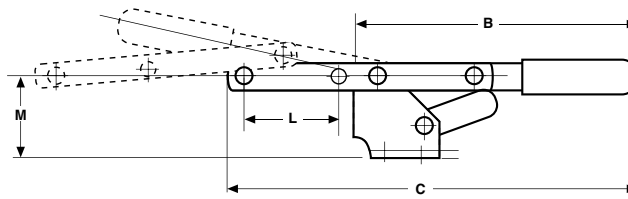
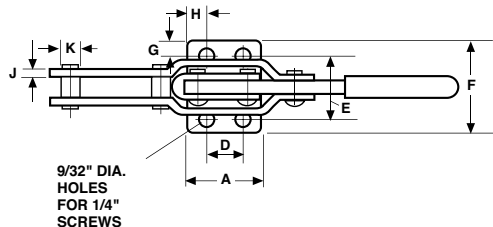


Clancey can provide crossover information for Carr Lane and De-Sta-Co.



PART NUMBER	A	B	C	D	E	F	Drawing Movement	Holding Capacity (lbs)	Wt. (oz.)
70570	1 7/16	3/4	8 5/16	3/4	1 3/8	5/16	4	375	10
70580	1 7/16	3/4	8 5/16	1 1/2	—	5/16	4	375	10
71039	2 5/8	1 13/16	13 1/4	1 1/8	2 3/8	1/2	6 1/8	990	16

Ideal for locking and fastening on fixtures. Adjustable stop permits positioning of handle to limit travel once the clamp is installed. 4" drawing movement valuable for a wide range of applications.



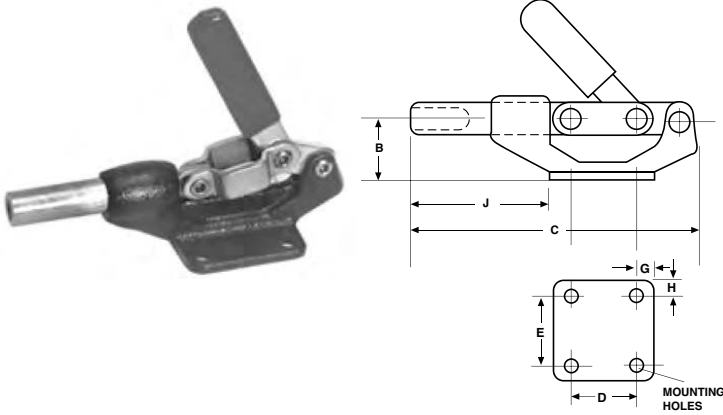
PART NUMBER	A	B	C	D	E	F	G	H	J	K	L	M	Holding Capacity (lbs)	Wt. (oz.)
70550	1 3/8	5 11/16	8 5/16	3/4	1 1/4	1 3/4	1/4	5/16	1/8	3/8	1 7/8	1 5/8	375	12
70555	1 7/8	4 5/8	9 5/8	1 1/4	1 25/32	2 1/2	3/8	11/32	1/8	3/8	1 7/8	2 1/16	1,200	18

WORK HOLDING SOLUTIONS, TOGGLE CLAMPS

# WORK HOLDING SOLUTIONS

## TOGGLE CLAMPS

### STRAIGHT LINE



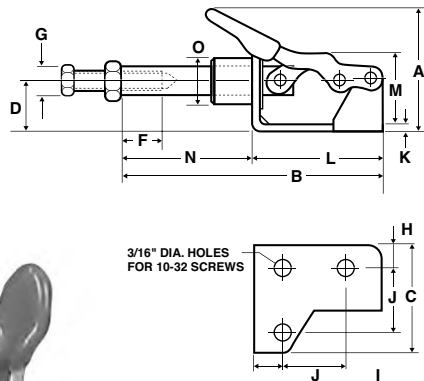
This straight-line extra heavy duty clamp is constructed of malleable iron castings and cold rolled steel. The pivot joints are stainless steel. The mounting base is precision machined for flatness. A blue vinyl handle is included.

- Holding capacity: 500 lbs.
- Weight: 14 oz.
- Plunger travel: 1 3/16"
- Plunger tapped: 5/16-18 X 1 1/8" deep

PART NUMBER	B	C	D	E	G	H	J	Mounting Holes
70810	1	4 3/4	1 3/8	1 5/8	5/16	5/16	2 1/4	9/32
70815	1	4 3/4	1 7/16	1 5/16	5/16	5/16	2 1/4	7/32

Clancey can provide crossover information for Carr Lane and De-Sta-Co.

WORK HOLDING SOLUTIONS, TOGGLE CLAMPS



This light duty clamp is equipped with an 8-32 tapped plunger. A blue vinyl handle is included.

- Holding capacity: 90 lbs.
- Weight: 1.5 oz.
- Plunger travel: 5/8"
- Plunger tapped: 8-32 X 15/32" deep

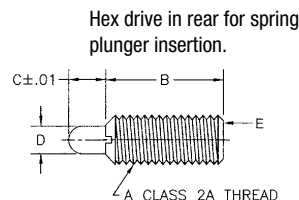
PART NUMBER	A	B	C	D	F	G	H	I	J	K	L	M	N	O
70818	1 7/32	2 21/32	1 1/16	1/2	15/32	1/4	7/32	5/16	5/8	3/32	1 11/32	13/16	1 9/32	7/16

# WORK HOLDING SOLUTIONS

## SPRING LOADED PLUNGERS

### SPRING PLUNGERS INCH

Unlike conventional spring plungers, the body of a Solid Drive Plunger is machined in one piece. The spring is assembled from the top so that there is no need for a set screw. Solid Drive Plungers do not have a set screw which can loosen or separate from the plunger body. The advantage is no lost springs, no need for "easy-out" tools. When adjusting Solid Drive, you can be sure the plunger body is turning and not a set screw.



- Single unit construction
- No set screw to separate from plunger body
- Better reliability
- Steel tips are case hardened steel
- Close tolerance between tip and body

- Material: Body – Low Carbon Steel, Black Oxide or 303-Stainless Steel  
Tip – Steel or Stainless Steel
- Thread: 2A-UNC
- 3D Solid Models are available in multiple formats
- Conforms to TCMA dimensional standards

Plunger tips are color coded to indicate light or heavy force:  
Silver = Steel Tip, Light Force  
Black = Steel Tip, Heavy Force

#### Inch - Steel & Stainless Steel Tip With Locking Element

SS PART NUMBER	STEEL PART NUMBER	Thread Size A	Initial Force (lbs)	Final Force (lbs)	B	C	D	Hex Size E
27336	27321	6-32	0.5	1.5	17/32	1/16	0.046	3/64
26936	26921	6-32	1.5	4.5	17/32	1/16	0.046	3/64
27337	27322	8-32	0.7	2.3	5/8	3/32	0.070	5/64
26937	26922	8-32	2.7	7.3	5/8	3/32	0.070	5/64
27338	27323	10-32	1.3	2.7	3/4	1/8	0.093	3/32
26938	26923	10-32	2.9	11.1	3/4	1/8	0.093	3/32
27339	27324	1/4-20	1.0	4.0	1	3/16	0.119	1/8
26939	26924	1/4-20	3.0	13.0	1	3/16	0.119	1/8
27340	27325	1/4-28	1.0	4.0	1	3/16	0.119	1/8
26940	26925	1/4-28	3.0	13.0	1	3/16	0.119	1/8
27341	27326	5/16-18	1.5	4.5	1	3/16	0.135	5/32
26941	26926	5/16-18	3.0	15.0	1	3/16	0.135	5/32
27342	27327	3/8-16	2.8	7.2	1 1/8	3/16	0.186	3/16
26942	26927	3/8-16	5.5	14.5	1 1/8	3/16	0.186	3/16
27343	27328	1/2-13	2.7	9.3	1 1/4	1/4	0.248	1/4
26943	26928	1/2-13	6.6	17.4	1 1/4	1/4	0.248	1/4
27344	27329	5/8-11	3.5	10.5	1 1/2	5/16	0.310	5/16
26944	26929	5/8-11	10.5	25.5	1 1/2	5/16	0.310	5/16
27345	27330	3/4-10	5.5	14.5	1 3/4	5/16	0.374	3/8
26945	26930	3/4-10	6.7	37.3	1 3/4	5/16	0.374	3/8
—	27311*	1-8	10.0	25.0	2 13/32	1/2	0.499	3/8
—	26911*	1-8	16.0	68.0	2 13/32	1/2	0.499	3/8

#### Without Locking Element

SS PART NUMBER	STEEL PART NUMBER
27031	27221
27011	26821
27032	27222
27012	26822
27033	27223
27013	26823
27034	27224
27014	26824
27035	27225
27015	26825
27036	27226
27016	26826
27037	27227
27017	26827
27038	27228
27018	26828
27039	27229
27019	26829
27040	27230
27020	26830
—	27211*
—	26811*

\* Not available in DRIVE construction.  
NOTE: For easy insertion of Spring Plungers with locking elements, the tapped hole should be countersunk at least .030-.045" (0.76-1.14mm) larger than the major diameter of the plunger.

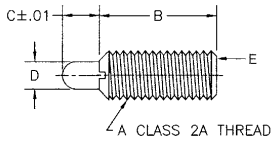


# WORK HOLDING SOLUTIONS

## SPRING LOADED PLUNGERS

### SPRING PLUNGERS INCH - DELRIN TIP

Hex drive in rear for spring plunger insertion.



- Material: Body – Low Carbon Steel, Black Oxide or 303-Stainless Steel  
Tip – SDelrin
- Thread: 2A-UNC
- 3D Solid Models are available in multiple formats
- Conforms to TCMA dimensional standards

Plunger tips are color coded to indicate light or heavy force:

White = Delrin Tip, Light Force

Blue = Delrin Tip, Heavy Force

Unlike conventional spring plungers, the body of a Solid Drive Plunger is machined in one piece. The spring is assembled from the top so that there is no need for a set screw. Solid Drive Plungers do not have a set screw which can loosen or separate from the plunger body. The advantage is no lost springs, no need for “easy-out” tools. When adjusting Solid Drive, you can be sure the plunger body is turning and not a set screw.

- Single unit construction
- No set screw to separate from plunger body
- No need for “easy-out” tools
- Better reliability
- Steel tips are case hardened steel
- Close tolerance between tip and body

### Inch - Derlin Tip With Locking Element

SS PART NUMBER	STEEL PART NUMBER	Thread Size A	Initial Force (lbs)	Final Force (lbs)	B	C	D	Hex Size E
30936	30921	6-32	0.5	1.5	17/32	1/16	0.046	3/64
30536	30521	6-32	1.5	4.5	17/32	1/16	0.046	3/64
30937	30922	8-32	0.7	2.3	5/8	3/32	0.070	5/64
30537	30522	8-32	2.7	7.3	5/8	3/32	0.070	5/64
30938	30923	10-32	1.3	2.7	3/4	1/8	0.093	3/32
30538	30523	10-32	2.9	11.1	3/4	1/8	0.093	3/32
30939	30924	1/4-20	1.0	4.0	1	3/16	0.119	1/8
30539	30524	1/4-20	3.0	13.0	1	3/16	0.119	1/8
30940	30925	1/4-28	1.0	4.0	1	3/16	0.119	1/8
30540	30525	1/4-28	3.0	13.0	1	3/16	0.119	1/8
30941	30926	5/16-18	1.5	4.5	1	3/16	0.135	5/32
30541	30526	5/16-18	3.0	15.0	1	3/16	0.135	5/32
30942	30927	3/8-16	2.8	7.2	1 1/8	3/16	0.186	3/16
30542	30527	3/8-16	5.5	14.5	1 1/8	3/16	0.186	3/16
30943	30928	1/2-13	2.7	9.3	1 1/4	1/4	0.248	1/4
30543	30528	1/2-13	6.6	17.4	1 1/4	1/4	0.248	1/4
30944	30929	5/8-11	3.5	10.5	1 1/2	5/16	0.310	5/16
30544	30529	5/8-11	10.5	25.5	1 1/2	5/16	0.310	5/16
30945	—	3/4-10	5.5	14.5	1 3/4	5/16	0.374	3/8
30545	—	3/4-10	6.7	37.3	1 3/4	5/16	0.374	3/8

NOTE: For easy insertion of Spring Plungers with locking elements, the tapped hole should be countersunk at least .030-.045" (0.76-1.14mm) larger than the major diameter of the plunger.

### Without Locking Element

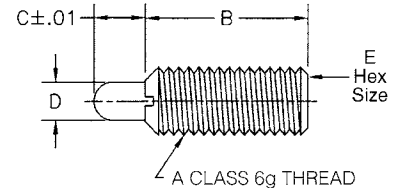
SS PART NUMBER	STEEL PART NUMBER
30510	30821
30500	30421
30511	30822
30501	30422
30512	30823
30502	30423
30513	30824
30503	30424
30514	30825
30504	30425
30515	30826
30505	30426
30516	30827
30506	30427
30517	30828
30507	30428
30518	30829
30508	30429
30519	—
30509	—

# WORK HOLDING SOLUTIONS

## SPRING LOADED PLUNGERS

Unlike conventional spring plungers, the body of a Solid Drive Plunger is machined in one piece. The spring is assembled from the top so that there is no need for a set screw. Solid Drive Plungers do not have a set screw which can loosen or separate from the plunger body. The advantage is no lost springs, no need for "easy-out" tools. When adjusting Solid Drive, you can be sure the plunger body is turning and not a set screw.

### SPRING PLUNGERS METRIC



The hex drive in the rear of the spring plunger is for plunger insertion.

- Material: Body – Low Carbon Steel, Black Oxide or 303-Stainless Steel  
Tip – Steel or Stainless Steel
- Thread: 2A-UNC
- 3D Solid Models are available in multiple formats
- Conforms to TCMA dimensional standards

#### Metric - Steel & Stainless Steel Tip With Locking Element

SS PART NUMBER	STEEL PART NUMBER	Thread Size A	Initial Force (kg)	Final Force (kg)	B	C	D	Hex Size E
30890	27250	M4 x 0.7	0.32	1.04	16	2.5	1.78	2.0
30490	26850	M4 x 0.7	1.22	3.29	16	2.5	1.78	2.0
30891	27251	M5 x 0.8	0.59	1.22	19	3.0	2.36	2.5
30491	26851	M5 x 0.8	1.31	5.00	19	3.0	2.36	2.5
30892	27252	M6 x 1.0	0.45	1.80	25	5.0	3.02	3.0
30492	26852	M6 x 1.0	1.35	5.85	25	5.0	3.02	3.0
30893	27253	M8 x 1.25	0.68	2.03	25	5.0	3.43	4.0
30493	26853	M8 x 1.25	1.35	6.75	25	5.0	3.43	4.0
30894	27254	M10 x 1.5	1.26	3.26	29	5.0	4.72	5.0
30494	26854	M10 x 1.5	2.48	6.53	29	5.0	4.72	5.0
30895	27255	M12 x 1.75	1.22	4.21	32	6.0	6.30	6.0
30495	26855	M12 x 1.75	2.97	7.83	32	6.0	6.30	6.0
30897	27257	M16 x 2.0	1.58	4.76	38	8.0	7.87	8.0
30497	26857	M16 x 2.0	4.73	11.48	38	8.0	7.87	8.0
30898	27258	M20 x 2.5	2.50	6.58	44	8.0	9.50	10.0
30498	26858	M20 x 2.5	3.05	16.95	44	8.0	9.50	10.0

#### Without Locking Element

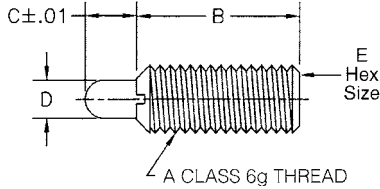
SS PART NUMBER	STEEL PART NUMBER
30880	27270
30480	26870
30881	27271
30481	26871
30882	27272
30482	26872
30883	27273
30483	26873
30884	27274
30484	26874
30885	27275
30485	26875
30887	27277
30487	26877
30888	27278
30488	26878

NOTE: For easy insertion of Spring Plungers with locking elements, the tapped hole should be countersunk at least .030-.045" (0.76-1.14mm) larger than the major diameter of the plunger.

# WORK HOLDING SOLUTIONS

## SPRING LOADED PLUNGERS

### SPRING PLUNGERS METRIC - DELRIN TIP



The hex drive in the rear of the spring plunger is for plunger insertion.

- Material: Body – Low Carbon Steel, Black Oxide or 303-Stainless Steel  
Tip – Delrin
- Thread: 2A-UNC
- 3D Solid Models are available in multiple formats
- Conforms to TCMA dimensional standards

Unlike conventional spring plungers, the body of a Solid Drive Plunger is machined in one piece. The spring is assembled from the top so that there is no need for a set screw. Solid Drive Plungers do not have a set screw which can loosen or separate from the plunger body. The advantage is no lost springs, no need for “easy-out” tools. When adjusting Solid Drive, you can be sure the plunger body is turning and not a set screw.

### Metric - Delrin Tip With Locking Element

SS PART NUMBER	Thread Size A	Initial Force (kg)	Final Force (kg)	B	C	D	Hex Size E
30850	M4 x 0.7	0.32	1.04	16	2.5	1.78	2.0
30450	M4 x 0.7	1.22	3.29	16	2.5	1.78	2.0
30851	M5 x 0.8	0.59	1.22	19	3.0	2.36	2.5
30451	M5 x 0.8	1.31	5.00	19	3.0	2.36	2.5
30852	M6 x 1.0	0.45	1.80	25	5.0	3.02	3.0
30452	M6 x 1.0	1.35	5.85	25	5.0	3.02	3.0
30853	M8 x 1.25	0.68	2.03	25	5.0	3.43	4.0
30453	M8 x 1.25	1.35	6.75	25	5.0	3.43	4.0
30854	M10 x 1.5	1.26	3.26	29	5.0	4.72	5.0
30454	M10 x 1.5	2.48	6.53	29	5.0	4.72	5.0
30855	M12 x 1.75	1.22	4.21	32	6.0	6.30	6.0
30455	M12 x 1.75	2.97	7.83	32	6.0	6.30	6.0
30857	M16 x 2.0	1.58	4.76	38	8.0	7.87	8.0
30457	M16 x 2.0	4.73	11.48	38	8.0	7.87	8.0
30858	M20 x 2.5	2.50	6.58	44	8.0	9.50	10.0
30458	M20 x 2.5	3.05	16.95	44	8.0	9.50	10.0

NOTE: For easy insertion of Spring Plungers with locking elements, the tapped hole should be countersunk at least .030-.045" (0.76-1.14mm) larger than the major diameter of the plunger.

### Without Locking Element

STEEL PART NUMBER
30870
30470
30871
30471
30872
30472
30873
30473
30874
30474
30875
30475
30877
30477
30878
30478

# WORK HOLDING SOLUTIONS

## SPRING LOADED PLUNGERS

Shortie Spring Plungers are made to the same quality standards as the Solid Drive. Made with full standard spring plunger stroke in a short body. A screwdriver slot is substituted for the hex drive due to the smaller size.

### SHORTIE SPRING PLUNGERS INCH

#### Inch - Shortie Spring Plunger With Locking Element

STEEL TIP	DERLIN TIP	Thread Size A	Initial Force (lbs)	Final Force (lbs)	B	C	D
27101	30701	6-32	0.5	1.5	3/8	1/16	0.046
26701	30301	6-32	0.5	3.5	3/8	1/16	0.046
27102	30702	8-32	0.5	2.0	1/2	3/32	0.070
26702	30302	8-32	0.5	4.0	1/2	3/32	0.070
27103*	30703*	10-32	0.3	3.0	9/16	1/8	0.093
26703*	30303*	10-32	0.5	5.0	9/16	1/8	0.093
27104	30704	1/4-20	0.3	3.5	5/8	3/16	0.119
26704	30304	1/4-20	0.5	6.0	5/8	3/16	0.119
27105	30705	5/16-18	0.5	4.5	5/8	3/16	0.135
26705	30305	5/16-18	0.5	10.0	5/8	3/16	0.135
27106	30706	3/8-16	1.5	7.5	11/16	3/16	0.186
26706	30306	3/8-16	1.0	12.0	11/16	3/16	0.186
27107	30707	1/2-13	1.7	8.5	13/16	1/4	0.248
26707	30307	1/2-13	2.5	15.0	13/16	1/4	0.248
27108	30708	5/8-11	2.0	10.5	1 1/8	5/16	0.310
26708	30308	5/8-11	3.5	26.0	1 1/8	5/16	0.310

Without Locking Element

STEEL TIP	DERLIN TIP
27001	30601
26601	30201
27002	30602
26602	30202
27003*	30603*
26603*	30203*
27004	30604
26604	30204
27005	30605
26605	30205
27006	30606
26606	30206
27007	30607
26607	30207
27008	30608
26608	30208



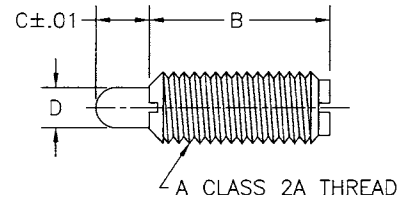
- Material: Body – Low Carbon Steel, Black Oxide  
Tip – Delrin or Steel
- Thread: 2A-UNC
- 3D Solid Models are available in multiple formats
- Conforms to TCMA dimensional standards
- Thread: 2A-UNC
- Available in metric sizes.

\*Thread: UNF

#### Inch - Stainless Steel With Locking Element

PART NUMBER	STEEL TIP	DERLIN TIP	Thread Size A	Force (lbs)		B	C	D
				Initial	Final			
27601	27621		8-32	.5	1.5	7/16	.052	.070
27602	27622		8-32	1.5	4.75	7/16	.052	.070
27603*	27623*		8-36	.5	1.5	7/16	.052	.070
27604*	27624*		8-36	1.5	4.75	7/16	.052	.070
27605	27625		10-32	.75	2.5	15/32	.065	.093
27606	27626		10-32	1.75	6.25	15/32	.065	.093
27607	27627		1/4-20	1.0	3.5	17/32	.078	.119
27608	27628		1/4-20	3.0	10.5	17/32	.078	.119
27609	27629		5/16-18	1.0	4.0	9/16	.084	.135
27610	27630		5/16-18	3.75	15.5	9/16	.084	.135
27611	27631		3/8-16	1.5	5.0	5/8	.110	.186
27612	27632		3/8-16	4.5	18.5	5/8	.110	.186
27613	27633		1/2-13	1.75	5.5	3/4	.151	.248
27614	27634		1/2-13	5.0	28.0	3/4	.151	.248

### SHORTIE SPRING PLUNGERS STAINLESS STEEL (SHORT TRAVEL)



The slot in the rear of the Shortie Spring Plunger is for insertion.

- Material: Body, 303 Stainless  
Spring, 303 Stainless  
Nose, Stainless or Delrin
- Thread: 2A-UNC

\*Thread: UNF

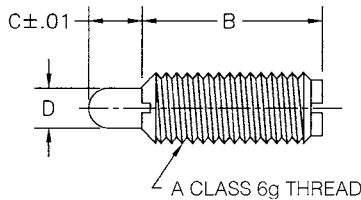
# WORK HOLDING SOLUTIONS

## SPRING LOADED PLUNGERS

### SHORTIE SPRING PLUNGERS METRIC



- Material: Body – Low Carbon Steel, Black Oxide  
Tip – Delrin or Steel
- Thread: Class 6g
- 3D Solid Models are available in multiple formats from
- Plunger Tips are color coded to indicate light or heavy force.  
White = Light Force  
Blue = Heavy Force



Shortie Spring Plungers are made to the same quality standards as the Solid Drive. Made with full standard spring plunger stroke in a short body.

A screwdriver slot is substituted for the hex drive due to the smaller size.

### Metric - Shortie Spring Plunger With Locking Element

STEEL TIP	DERLIN TIP	Thread Size A	Initial Force (kg)	Final Force (kg)	B	C	D
27170	30770	M4 x 0.7	0.23	0.91	13.0	2.5	1.78
26770	30370	M4 x 0.7	0.23	1.81	13.0	2.5	1.78
27171	30771	M5 x 0.8	0.14	1.36	14.5	3.0	2.36
26771	30371	M5 x 0.8	0.23	2.27	14.5	3.0	2.36
27172	30772	M6 x 1.0	0.14	1.59	16.0	4.7	3.02
26772	30372	M6 x 1.0	0.23	2.72	16.0	4.0	3.02
27173	30773	M8 x 1.25	0.23	2.04	16.0	5.0	3.43
26773	30373	M8 x 1.25	0.23	4.54	16.0	5.0	3.43
27174	30774	M10 x 1.5	0.68	3.4	17.5	4.7	4.72
26774	30374	M10 x 1.5	0.46	5.44	17.5	5.0	4.72
27175	30775	M12 x 1.75	0.77	3.86	20.5	6.5	6.30
26775	30375	M12 x 1.75	1.13	6.80	20.5	6.5	6.30
27177	30777	M16 x 2.0	0.91	4.76	28.5	8.0	7.87
26777	30377	M16 x 2.0	1.59	11.79	28.5	8.0	7.87

### PLUNGER WRENCHES



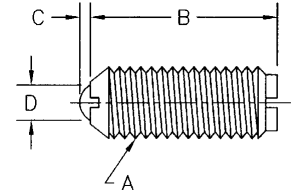
PART NUMBER	Thread Size of Plungers	
	Inch	Metric
27501	6-32	—
27502	8-32	M4
27503	10-32	M5
27504	1/4-20	M6
27505	5/16-18	M8
27506	3/8-16	M10
27507	1/2-13	M12
27508	5/8-11	M16
27509	3/4-10	M20
27510	1-8	M25

**IMPORTANT:** It is not recommended that a screwdriver be used to insert ball or spring plungers from the ball or plunger end. The tip of the screwdriver will force the ball or tip of the plunger below the surface of the end of the plunger. This may compress the spring to a solid, causing possible damage to the spring plunger. It is recommended that a Plunger Wrench be used or that a slot be ground in the end of a screwdriver to clear the height of the ball or tip for each size ball or plunger used.

# WORK HOLDING SOLUTIONS

## SPRING LOADED PLUNGERS

### BALL PLUNGERS INCH



#### Inch – Coarse Thread (UNC) With Locking Element

SS PART NUMBER	STEEL PART NUMBER	Thread Size A	Initial Force (lbs)	Final Force (lbs)	B	C	D
11102	10927	5-40	0.25	0.75	1/4	0.020	0.062
11201	10701	10-24	0.50	1.50	33/64	0.025	0.093
11211	10711	10-24	1.50	3.00	33/64	0.025	0.093
11202	10702	10-24	2.00	5.00	33/64	0.025	0.093
11108	10904	1/4-20	2.00	4.00	17/32	0.035	0.125
11109	10905	1/4-20	3.00	7.00	17/32	0.035	0.125
11110	10906	1/4-20	4.00	12.00	17/32	0.035	0.125
11111	10907	5/16-18	2.00	4.50	37/64	0.040	0.156
11112	10908	5/16-18	4.00	9.00	37/64	0.040	0.156
11113	10909	5/16-18	6.00	17.00	37/64	0.040	0.156
11114	10910	3/8-16	2.50	5.00	5/8	0.048	0.187
11115	10911	3/8-16	5.00	10.00	5/8	0.048	0.187
11116	10912	3/8-16	6.00	21.00	5/8	0.048	0.187
11117	10913	1/2-13	3.00	6.00	3/4	0.072	0.281
11118	10914	1/2-13	6.00	12.00	3/4	0.072	0.281
11119	10915	1/2-13	6.00	30.00	3/4	0.072	0.281
11120	10916	5/8-11	4.50	9.00	1	0.096	0.375
11121	10917	5/8-11	9.00	18.00	1	0.096	0.375
11122	10918	5/8-11	7.00	50.00	1	0.096	0.375

#### Without Locking Element

SS PART NUMBER	STEEL PART NUMBER
11002	10827
11221	10721
11231	10731
11222	10722
11008	10804
11009	10805
11010	10806
11011	10807
11012	10808
11013	10809
11014	10810
11015	10811
11016	10812
11017	10813
11018	10814
11019	10815
11020	10816
11021	10817
11022	10818

- Body Material: Low Carbon Steel, or 303 Stainless Steel
- Ball Material: Stainless, 440
- Spring Material: Stainless, 17-7 PH
- Finish: Black Oxide on Body
- Thread: 2A
- Dimensionally conforms to TCMA standards
- 3D Solid Models are available in multiple formats

NOTE: For easy insertion of Ball Plungers with locking elements, the tapped hole should be countersunk at least .030-.045 (0.76-1.14mm) larger than the major diameter of the plunger.

#### Inch – Fine Thread (UNF) With Locking Element

SS PART NUMBER	STEEL PART NUMBER	Thread Size A	Initial Force (lbs)	Final Force (lbs)	B	C	D
11101	10926	4-48	0.12	0.50	3/16	0.020	0.062
11103	10928	6-40	0.50	1.00	5/16	0.023	0.078
11104	10929	8-36	0.50	1.25	11/32	0.025	0.093
11105	10901	10-32	0.50	1.50	33/64	0.025	0.093
11106	10902	10-32	1.50	3.00	33/64	0.025	0.093
11107	10903	10-32	2.00	5.00	33/64	0.025	0.093
11203	10703	1/4-28	2.0	4.0	17/32	0.035	0.125
11212	10712	1/4-28	3.0	7.0	17/32	0.035	0.125
11204	10704	1/4-28	4.0	12.0	17/32	0.035	0.125
11205	10705	5/16-24	2.0	4.5	37/64	0.040	0.156
11213	10713	5/16-24	4.0	9.0	37/64	0.040	0.156
11206	10706	5/16-24	6.0	17.0	37/64	0.040	0.156
11207	10707	3/8-24	2.5	5.0	5/8	0.048	0.187
11214	10714	3/8-24	5.0	10.0	5/8	0.048	0.187
11208	10708	3/8-24	6.0	21.0	5/8	0.048	0.187
11209	10709	1/2-20	3.0	6.0	3/4	0.072	0.281
11215	10715	1/2-20	6.0	12.0	3/4	0.072	0.281
11210	10710	1/2-20	6.0	30.0	3/4	0.072	0.281

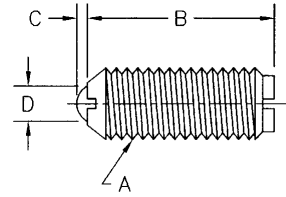
#### Without Locking Element

SS PART NUMBER	STEEL PART NUMBER
11001	10826
11003	10828
11004	10829
11005	10801
11006	10802
11007	10803
11223	10723
11232	10732
11224	10724
11225	10725
11233	10733
11226	10726
11227	10727
11234	10734
11228	10728
11229	10729
11235	10735
11230	10730

# WORK HOLDING SOLUTIONS

## SPRING LOADED PLUNGERS

### BALL PLUNGERS METRIC



#### Metric – Steel and Stainless Steel With Locking Element

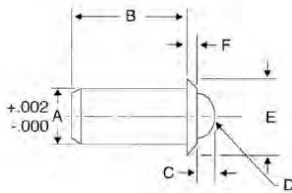
#### Without Locking Element

SS PART NUMBER	STEEL PART NUMBER	Thread Size A	Initial Force (kg)	Final Force (kg)	B	C	D	SS PART NUMBER	STEEL PART NUMBER
11051	10971	M4 x 0.7	0.23	0.56	9.00	0.60	2.38	10951	10871
11052	10972	M5 x 0.8	0.23	0.68	13.00	0.60	2.38	10952	10872
11053	10973	M5 x 0.8	0.68	1.35	13.00	0.60	2.38	10953	10873
11054	10974	M5 x 0.8	0.90	2.25	13.00	0.60	2.38	10954	10874
11055	10975	M6 x 1.0	0.90	1.80	13.50	0.90	3.18	10955	10875
11056	10976	M6 x 1.0	1.35	3.15	13.50	0.90	3.18	10956	10876
11057	10977	M6 x 1.0	1.80	5.40	13.50	0.90	3.18	10957	10877
11058	10978	M8 x 1.25	0.90	2.03	15.00	1.00	3.97	10958	10878
11059	10979	M8 x 1.25	1.80	4.05	15.00	1.00	3.97	10959	10879
11060	10980	M8 x 1.25	2.70	7.65	15.00	1.00	3.97	10960	10880
11061	10981	M10 x 1.5	1.13	2.25	16.00	1.20	4.76	10961	10881
11062	10982	M10 x 1.5	2.25	4.50	16.00	1.20	4.76	10962	10882
11063	10983	M10 x 1.5	2.70	9.45	16.00	1.20	4.76	10963	10883
11064	10984	M12 x 1.75	1.35	2.70	19.00	2.00	7.14	10964	10884
11065	10985	M12 x 1.75	2.70	5.40	19.00	2.00	7.14	10965	10885
11066	10986	M12 x 1.75	2.70	13.50	19.00	2.00	7.14	10966	10886
11067	10987	M16 x 2.0	2.00	4.00	25.40	2.40	9.50	10967	10887
11068	10988	M16 x 2.0	4.00	8.10	25.40	2.40	9.50	10968	10888
11069	10989	M16 x 2.0	3.10	22.70	25.40	2.40	9.50	10969	10889

- Body Materials: Low Carbon Steel, Black Oxide or 303 Stainless Steel
- Ball: Stainless, 440
- Spring: Stainless, 17-7 PH
- Thread: Class 6g
- 3D Solid Models are available in multiple formats

NOTE: For easy insertion of Ball Plungers with locking elements, the tapped hole should be countersunk at least .030-.045 (0.76-1.14mm) larger than the major diameter of the plunger.

### PRESS FIT PLUNGERS



- Body Material: Low Carbon Steel
- Ball Material: Stainless, 400
- Spring Material: 17-7 PH
- Finish: Black Oxide on Body

#### Heavy Force

PART NUMBER	STAINLESS STEEL PART NUMBER	Force (lbs)		A	B	C	Ball Dia. D	E	F
		Initial	Final						
10832	11032	2	5	.188	.405	.058	.156	.250	.035
10834	11034	3	7	.250	.481	.070	.187	.312	.044
10836	11036	5	14	.375	.785	.110	.312	.500	.078
10838	11038	8	18	.500	1.130	.161	.437	.688	.088

#### Light Force

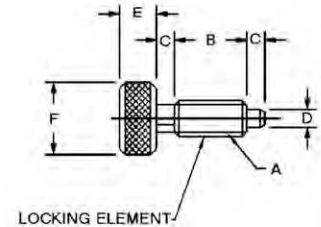
PART NUMBER	STAINLESS STEEL PART NUMBER	Force (lbs)		A	B	C	Ball Dia. D	E	F
		Initial	Final						
10831	11031	1	2.5	.188	.405	.058	.156	.250	.035
10833	11033	1.5	3.5	.250	.481	.070	.187	.312	.044
10835	11035	2.5	7	.375	.785	.110	.312	.500	.078
10837	11037	4	9	.500	1.130	.161	.437	.688	.088

# WORK HOLDING SOLUTIONS

## SPRING LOADED PLUNGERS

- Improved design allows plunger pin to be locked in fully retracted position
- Used in machining applications as positioners, loading pins or indexing devices
- Plunger pin has slight taper on end to assure easy alignment
- Zinc Plated Carbon Steel, 303 Stainless Steel
- Phenolic Nose Prevents Marring of Soft Material
- Supplied with locking element

### RETRACTABLE PLUNGERS HAND RETRACTABLE LOCKING STYLE



#### Inch – Hand Retractable Locking Style Plungers

STEEL PART NUMBER	STEEL PHENOLIC NOSE PART NUMBER	STAINLESS STEEL PART NUMBER	STAINLESS STEEL PHENOLIC NOSE PART NUMBER	A	End Force (lbs)		B	C	+.001 -.002 D	E	F	Net Wt. (lbs) 10 pcs.
					Start	Full						
27426	27523	27826	27527	1/4-20	0.5	2.5	1/2	1/8	.124	1/4	1/2	.3
27421	27515	27821	27519	1/4-20	1.0	5.0	1/2	1/8	.124	1/4	1/2	.3
27427	27524	27827	27528	5/16-18	0.75	3.0	5/8	3/16	.155	9/32	5/8	.5
27422	27516	27822	27520	5/16-18	1.5	6.0	5/8	3/16	.155	9/32	5/8	.5
27428	27525	27828	27529	3/8-16	0.75	4.0	3/4	7/32	.186	5/16	3/4	.7
27423	27517	27823	27521	3/8-16	1.5	8.0	3/4	7/32	.186	5/16	3/4	.7
27429	27526	27829	27530	1/2-13	1.25	5.0	7/8	1/4	.249	3/8	1"	1.3
27424	27518	27824	27522	1/2-13	2.5	10.0	7/8	1/4	.249	3/8	1"	1.3

#### Metric – Hand Retractable Locking Style Plungers

STEEL PART NUMBER	Class 6g ISO A	End Force (kg)		B	C	+.025 -.050 D	E	F	Net Wt. (kg) 10 pcs.
		Start	Full						
27555	M6x1.0	0.225	1.135	12.50	3.17	3	6.3	12.7	.16
27551	M6x1.0	0.4	2.27	12.50	3.17	3	6.3	12.7	.16
27556	M8x1.25	0.34	1.36	16.00	4.75	4	7.0	15.8	.27
27552	M8x1.25	0.68	2.72	16.00	4.75	4	7.0	15.8	.27
27557	M10x1.5	0.34	1.815	19.00	5.50	5	7.9	19.0	.38
27553	M10x1.5	0.68	3.63	19.00	5.50	5	7.9	19.0	.38
27558	M12x1.75	0.565	2.27	22.00	6.35	6	9.4	25.4	.7
27554	M12x1.75	1.13	4.54	22.00	6.35	6	9.4	25.4	.7

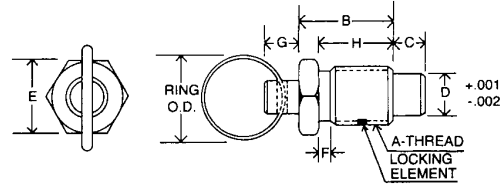


# WORK HOLDING SOLUTIONS

## SPRING LOADED PLUNGERS

### RETRACTABLE PLUNGERS PULL RING STYLE

- For use in application with limited space
- Slight taper on end of plunger for easy alignment



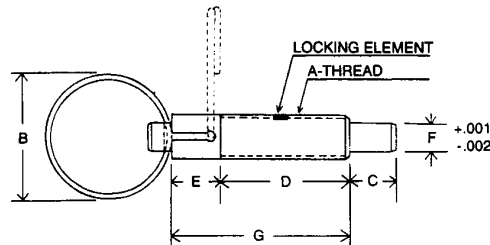
#### Pull Ring – Short Locking Plungers

STEEL PART NUMBER	STEEL PHENOLIC NOSE PART NUMBER	STAINLESS STEEL PART NUMBER	STAINLESS STEEL PHENOLIC NOSE PART NUMBER	A	End Force (lbs)		B	C	+.001 -.002 D	E	F	G	H	O.D.	Net Wt. (lbs) 10 pcs.
					Start	Full									
27441	27804	27800	27808	1/4-20	0.50	2.0	7/16	3/16	.156	1/4	1/32	5/32	9/32	3/4	.1
27442	27805	27801	27809	3/8-16	0.75	3.0	5/8	9/32	.250	3/8	1/8	3/16	7/16	3/4	.2
27443	27806	27802	27810	1/2-13	1.00	4.0	13/16	3/8	.312	1/2	5/32	1/4	9/16	1	.43
27444	27807	27803	27811	5/8-11	1.25	5.0	1	7/16	.375	5/8	5/32	5/16	11/16	1	.8

WORK HOLDING SOLUTIONS, SPRING LOADED PLUNGERS



- For use in application with limited space
- Slight taper on end of plunger for easy alignment
- Turn ring to lock and extend plunger



#### Pull Ring – Short Locking Plungers

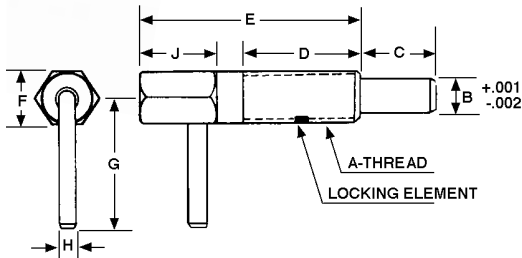
STEEL PART NUMBER	STEEL PHENOLIC NOSE PART NUMBER	STAINLESS STEEL PART NUMBER	STAINLESS STEEL PHENOLIC NOSE PART NUMBER	A	End Force (lbs)		B	C	+.001 -.002 D	E	F	G	Net Wt. (lbs) 10 pcs.
					Start	Full							
27446	27815	27812	27818	1/4-20	1.0	2.5	5/8	1/4	13/16	5/16	.156	1-1/8	.15
27447	27816	27813	27819	3/8-16	2.0	4.0	1	3/8	1-1/4	7/16	.233	1-11/16	.43
27448	27817	27814	27820	1/2-13	2.5	5.0	1-1/4	1/2	1-7/16	9/16	.312	2	.9

# WORK HOLDING SOLUTIONS

## SPRING LOADED PLUNGERS

- Hand retractable for easy removal or insertion
- Turn handle to unlock and extend plunger
- Slight taper on end of plunger for easy alignment
- Locking element standard on all sizes

### RETRACTABLE PLUNGERS L HANDLE HAND RETRACTABLE LOCKING STYLE



#### Locking Plungers – Long Reach – Standard Length

STEEL PART NUMBER	STEEL PHENOLIC NOSE PART NUMBER	STAINLESS STEEL PART NUMBER	STAINLESS STEEL PHENOLIC NOSE PART NUMBER	A	End Force (lbs)		+.001 -.002 B	C	D	E	F	G	H	J	Net Wt. (lbs) 10 pcs.
					Start	Full									
27436	27851	27836	27855	1/4-20	.50	2.5	.156	3/8	5/8	1-1/4	1/4	5/8	3/32	1/2	.15
27437	27852	27837	27856	3/8-16	.75	3.75	.250	9/16	1-1/16	2	3/8	15/16	9/64	11/16	.53
27438	27853	27838	27857	1/2-13	1.0	5.0	.312	3/4	1-1/8	2-1/8	1/2	1-1/4	3/16	3/4	1.03
27439	27854	27839	27858	5/8-11	1.0	5.0	.375	1	1-3/4	3	5/8	1-5/16	3/16	1-1/16	2.23

#### Locking Plungers – Long Reach – Short Length

STEEL PART NUMBER	STEEL PHENOLIC NOSE PART NUMBER	STAINLESS STEEL PART NUMBER	STAINLESS STEEL PHENOLIC NOSE PART NUMBER	A	End Force (lbs)		+.001 -.002 B	C	D	E	F	G	H	J	Net Wt. (lbs) 10 pcs.
					Start	Full									
27416	27859	27867	27863	1/4-20	.125	.50	.156	3/16	7/16	3/4	1/4	9/16	3/32	1/4	.1
27417	27860	27868	27864	3/8-16	.25	1.25	.250	5/16	5/8	1-1/8	3/8	3/4	9/64	3/8	.3
27418	27861	27869	27865	1/2-13	.50	2.0	.312	13/32	7/8	1-1/2	1/2	1	3/16	1/2	.7
27419	27862	27870	27866	5/8-11	.75	2.5	.375	1/2	1-1/8	1-7/8	5/8	1-3/16	3/16	5/8	1.35