

32800

SPRING PLUNGER & DETENT PINS

Material

Body: free cutting steel, blackened.
 Ball: ball bearing steel 1.3505 (100Cr6) hardened, stainless steel, hardened or Thermoplastic white (POM).
 Spring: stainless steel or plastic (PU).

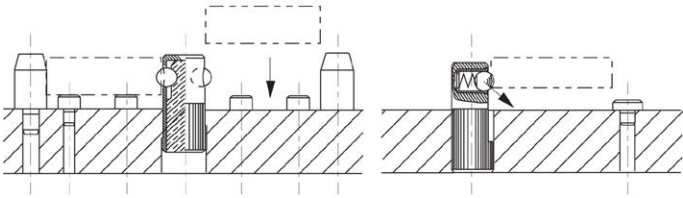
Technical Notes

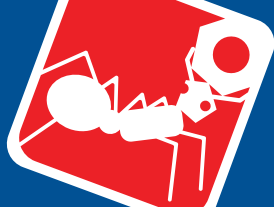
The lateral spring plunger must be inserted into a bore to measure at least l_3 . Positions and applies pressure. Spring loads * = statistical average values.

Tips

When storing the fixtures, no pressure should be applied to the plastic spring.

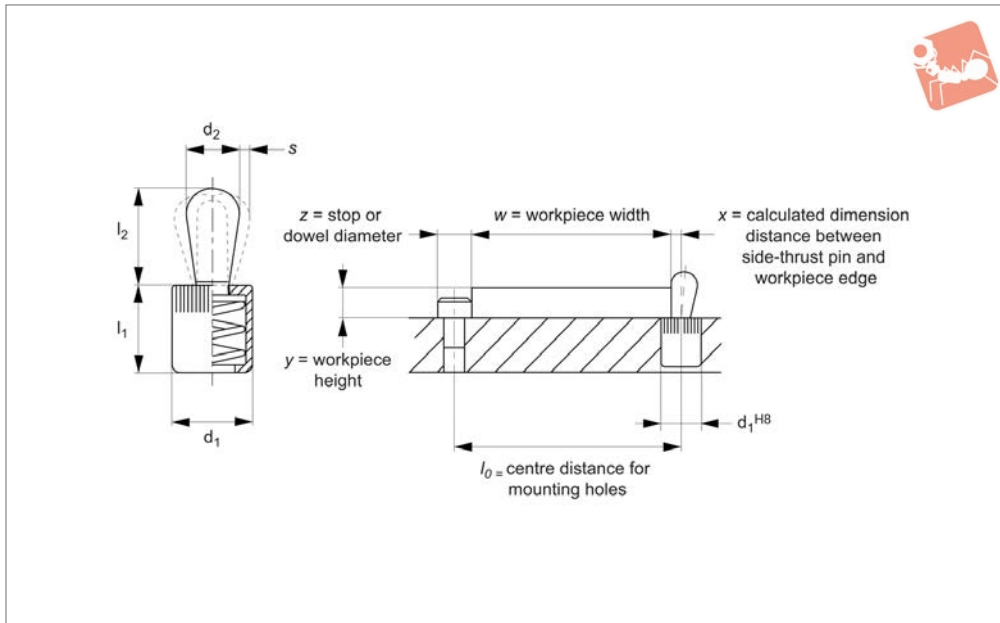
Order No.	Ball type	Spring load	d_1 +0.1	d_2	l_1	l_2	l_3	b	Location hole tol. H8	s	Spring load N \approx	Spring load F_1 N \approx	Spring load F_2 N \approx	Temperature °C max.	Weight g
32800.W0008	Stainless, One	Normal	8	3,0	25	3,6	6	3,2	8	0,8	2,5	6,5	-30/+50	9	
32800.W0010	Stainless, One	Normal	10	4,0	30	4,2	7	4,0	10	1,0	4,5	9,0	-30/+50	17	
32800.W0012	Stainless, One	Normal	12	5,0	35	4,8	9	5,0	12	1,6	6,5	13,0	-30/+50	29	
32800.W0014	Stainless, One	Normal	14	6,5	40	5,8	10	5,4	14	1,9	8,0	18,0	-30/+50	43	
32800.W0108	Thermo, One	Normal	8	3,0	25	3,6	6	3,2	8	0,8	2,5	6,5	-30/+50	9	
32800.W0110	Thermo, One	Normal	10	4,0	30	4,2	7	4,0	10	1,0	4,5	9,0	-30/+50	17	
32800.W0112	Thermo, One	Normal	12	5,0	35	4,8	9	5,0	12	1,6	6,5	13,0	-30/+50	28	
32800.W0114	Thermo, One	Normal	14	6,5	40	5,8	10	5,4	14	1,9	8,0	18,0	-30/+50	42	
32800.W0410	Steel, One	Increased	10	5,5	30	7,0	8	4,5	10	1,0	60,0	170,0	-40/+80	9	
32800.W0412	Steel, One	Increased	12	6,5	35	8,0	9	5,5	12	1,5	80,0	260,0	-40/+80	14	
32800.W0414	Steel, One	Increased	14	8,0	40	9,0	10	6,5	14	2,0	120,0	480,0	-40/+80	20	
32800.W0616	Steel, Double	Increased	16	5,5	35	7,0	11	15,0	16	1,5	110,0	220,0	-40/+80	21	
32800.W0618	Steel, Double	Increased	18	6,5	40	8,0	12	17,0	18	1,8	120,0	330,0	-40/+80	27	
32800.W0622	Steel, Double	Increased	22	8,0	45	9,0	15	21,0	22	2,5	130,0	540,0	-40/+80	45	





Side-Thrust Pins without seal

Spring Plunger & Detent Pins



32810

SPRING PLUNGER & DETENT PINS

Material

Body: aluminium.
Pin: steel, case hardened and galvanized, or thermoplastic (POM) white.
Spring: steel (blackened or blue galvanized), or stainless steel.

Technical Notes

Press fit installation into hole d_1 to tol. H8, using fitting tool (order separately).
Installation calculations;
A) Calculating centre distance for mounting holes (l_0);
 $l_0 = (z/2) + w + x$
B) Calculating pin location (x);

When workpiece height (y) is greater than or equal to $l_2 - (d_2/2)$ then (x) is calculated as; $x = (d_2/2) - s$

When workpiece height (y) is less than

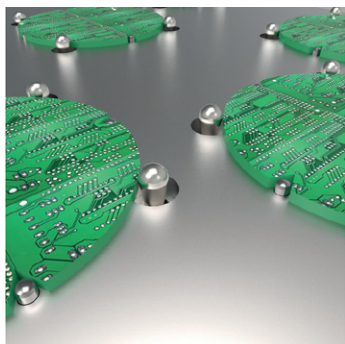
$l_2 - (d_2/2)$ then (x) is calculated as;
 $x = (d_2/2) - s - \{ [l_2 - (d_2/2) - y] * 0.123 \}$
 l_0 = centre distance for mounting holes
 y = workpiece height
 w = workpiece width
 x = distance between side-thrust pin and workpiece edge

s = stroke
 z = stop or dowel stop diameter

Tips

Side-thrust pins are ideal for holding, clamping and positioning parts.
Spring colour gives visual indication of spring pressure (N).
Light spring load = natural stainless spring.
Standard spring load = steel spring, blackened.
Heavy spring load = steel spring, blue galvanized.

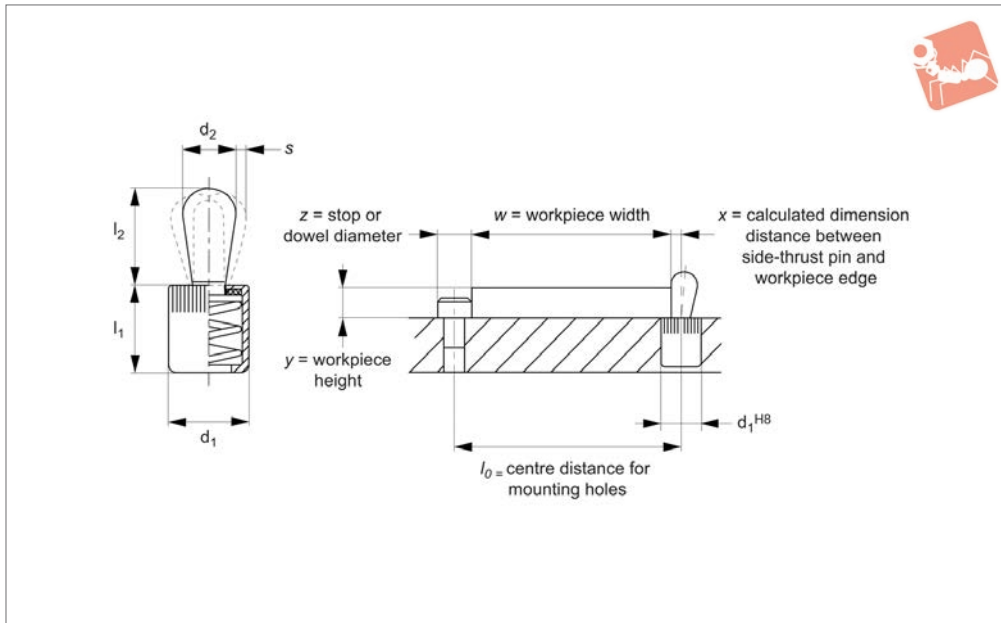
Order No.	Pin material	Spring load	d_1	d_2	l_1	l_2	Location hole d_1 tol. H8	Spring colour	Spring pressure N	Stroke s	Temp. resistance °C max.	Fitting tool 32810	Weight g
32810.W0001	Steel Pin	Light	6	3	7	4,0	6	S/S	10	0,5	250	.W0830	1
32810.W0002	Steel Pin	Standard	6	3	7	4,0	6	Black	20	0,5	250	.W0830	1
32810.W0003	Steel Pin	Heavy	6	3	7	4,0	6	Blue	40	0,5	250	.W0830	1
32810.W0004	Steel Pin	Light	10	5	11	6,7	10	S/S	20	0,8	250	.W0831	3
32810.W0005	Steel Pin	Standard	10	5	11	6,7	10	Black	50	0,8	250	.W0831	3
32810.W0006	Steel Pin	Heavy	10	5	11	6,7	10	Blue	100	0,8	250	.W0831	3
32810.W0007	Steel Pin	Light	10	6	11	10,7	10	S/S	40	1,0	250	.W0831	4
32810.W0008	Steel Pin	Standard	10	6	11	10,7	10	Black	75	1,0	250	.W0831	4
32810.W0009	Steel Pin	Heavy	10	6	11	10,7	10	Blue	150	1,0	250	.W0831	4
32810.W0010	Steel Pin	Light	12	8	13	13,9	12	S/S	50	1,3	250	.W0832	7
32810.W0011	Steel Pin	Standard	12	8	13	13,9	12	Black	100	1,3	250	.W0832	7
32810.W0012	Steel Pin	Heavy	12	8	13	13,9	12	Blue	200	1,3	250	.W0832	7
32810.W0013	Steel Pin	Light	16	10	17	16,7	16	S/S	100	1,6	250	.W0833	15
32810.W0014	Steel Pin	Standard	16	10	17	16,7	16	Black	200	1,6	250	.W0833	15
32810.W0015	Plastic Pin	Heavy	16	10	17	16,7	16	Blue	300	1,6	80	.W0833	15
32810.W0404	Plastic Pin	Heavy	10	5	11	6,7	10	S/S	20	0,8	80	.W0831	1
32810.W0407	Plastic Pin	Standard	10	6	11	10,7	10	S/S	40	1,0	80	.W0831	2
32810.W0410	Plastic Pin	Light	12	8	13	13,9	12	S/S	50	1,3	80	.W0832	3
32810.W0413	Plastic Pin	Heavy	16	10	17	16,7	16	S/S	100	1,6	80	.W0833	7





Side-Thrust Pins with seal

Spring Plunger & Detent Pins



32820

SPRING PLUNGER & DETENT PINS

Material

Body: aluminium.
Pin: steel, case hardened and galvanized, or thermoplastic (POM) white.
Spring: steel (blackened or blue galvanized), or stainless steel.
Seal: rubber (CR), 60 shore.

Technical Notes

Press fit installation into hole d_1 to tol. H8, using fitting tool (order separately).
Installation calculations;
A) Calculating centre distance for mounting holes (l_0):
 $l_0 = (z/2) + w + x$

B) Calculating pin location (x):
When workpiece height (y) is greater than or equal to $l_2 - (d_2/2)$ then (x) is calculated as;
 $x = (d_2/2) - s$

When workpiece height (y) is less than $l_2 - (d_2/2)$ then (x) is calculated as;
 $x = (d_2/2) - s - \{ [l_2 - (d_2/2) - y] * 0.123 \}$

l_0 = centre distance for mounting holes
 y = workpiece height
 w = workpiece width
 x = distance between side-thrust pin and

workpiece edge
 s = stroke
 z = stop or dowel stop diameter

Tips

Side-thrust pins are ideal for holding, clamping and positioning parts.
Spring colour gives visual indication of spring pressure (N).
Light spring load = natural stainless spring.
Standard spring load = steel spring, blackened.
Heavy spring load = steel spring, blue galvanized.

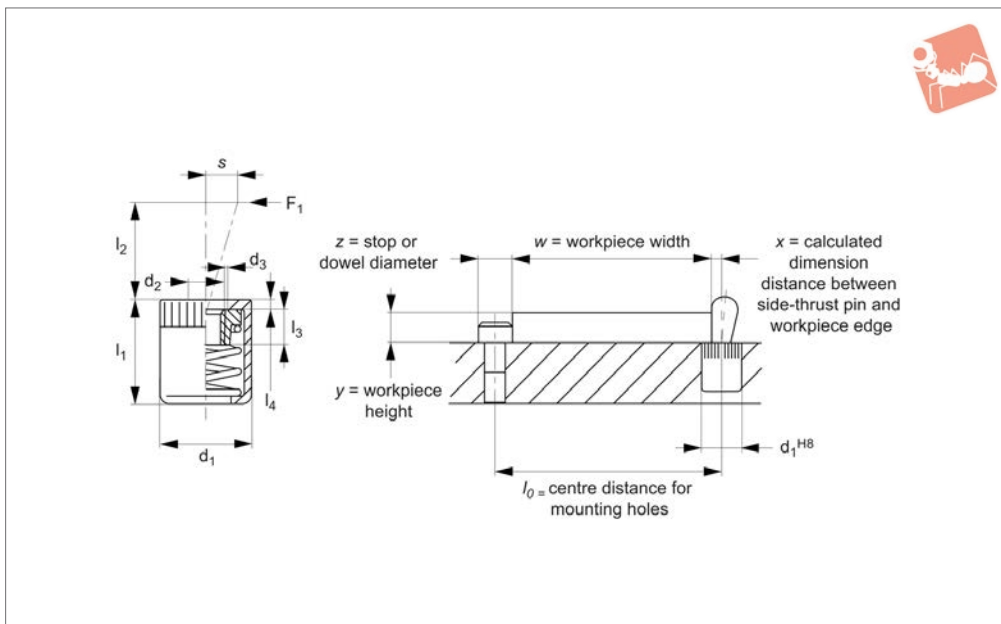
Order No.	Pin material	Spring load	d_1	d_2	l_1	l_2	Location hole d_1 tol. H8	Spring colour	Spring pressure N	Stroke s	Temp. resistance °C max.	Fitting tool 32810	Weight g
32820.W0001	Steel Pin	Light	6	3	7	4	6	S/S	10	0,5	110	.W0830	1
32820.W0002	Steel Pin	Standard	6	3	7	4	6	Black	20	0,5	110	.W0830	1
32820.W0003	Steel Pin	Heavy	6	3	7	4	6	Blue	40	0,5	110	.W0830	1
32820.W0004	Steel Pin	Light	10	5	12	6	10	S/S	20	0,8	110	.W0831	3
32820.W0005	Steel Pin	Standard	10	5	12	6	10	Black	50	0,8	110	.W0831	3
32820.W0006	Steel Pin	Heavy	10	5	12	6	10	Blue	100	0,8	110	.W0831	3
32820.W0007	Steel Pin	Light	10	6	12	10	10	S/S	40	1,0	110	.W0831	4
32820.W0008	Steel Pin	Standard	10	6	12	10	10	Black	75	1,0	110	.W0831	4
32820.W0009	Steel Pin	Heavy	10	6	12	10	10	Blue	150	1,0	110	.W0831	4
32820.W0010	Steel Pin	Light	12	8	14	13	12	S/S	50	1,3	110	.W0832	7
32820.W0011	Steel Pin	Standard	12	8	14	13	12	Black	100	1,3	110	.W0832	7
32820.W0012	Steel Pin	Heavy	12	8	14	13	12	Blue	200	1,3	110	.W0832	8
32820.W0013	Steel Pin	Light	16	10	18	16	16	S/S	100	1,6	110	.W0833	15
32820.W0014	Steel Pin	Standard	16	10	18	16	16	Black	200	1,6	110	.W0833	15
32820.W0015	Steel Pin	Heavy	16	10	18	16	16	Blue	300	1,6	110	.W0833	16
32820.W0401	Plastic Pin	Light	6	3	7	4	6	S/S	10	0,5	80	.W0830	1
32820.W0404	Plastic Pin	Light	10	5	12	6	10	S/S	20	0,8	80	.W0831	1
32820.W0407	Plastic Pin	Light	10	6	12	10	10	S/S	40	1,0	80	.W0831	2
32820.W0410	Plastic Pin	Light	12	8	14	13	12	S/S	50	1,3	80	.W0832	3
32820.W0413	Plastic Pin	Light	16	10	18	16	16	S/S	100	1,6	80	.W0833	7



SPRING PLUNGER & DETENT PINS



32830.1



Material

Body: aluminium.
 Threaded Washer: steel, blackened.
 Spring: steel (blackened or blue galvanized), or stainless steel.

Technical Notes

Press fit installation into hole d_1 to tol. H8, using fitting tool (order separately).

Installation calculations;

A) Calculating centre distance for mounting holes (l_0);

$$l_0 = (z/2) + w + x$$

B) Calculating pin location (x);

When workpiece height (y) is greater than or equal to $l_2 - (d_2/2)$ then (x) is calculated as; $x = (d_2/2) - s$

When workpiece height (y) is less than $l_2 - (d_2/2)$ then (x) is calculated as; $x = (d_2/2) - s - \{[l_2 - (d_2/2) - y] * 0.123\}$

l_0 = centre distance for mounting holes
 y = workpiece height
 w = workpiece width
 x = distance between side-thrust pin and workpiece edge

s = stroke

z = stop or dowel stop diameter

Tips

Side-thrust pins are ideal for holding, clamping and positioning parts.

Spring colour gives visual indication of spring pressure (N).

Light spring load = natural stainless spring.

Standard spring load = steel spring, blackened.

Heavy spring load = steel spring, blue galvanized.

Order No.	Spring load	d_1	d_2	d_3	l_1 -1	l_2	l_3	Weight g
32830.W0001	Light	10	M 4	6.3	11	2.5	4.5	2
32830.W0002	Standard	10	M 4	6.3	11	2.5	4.5	2
32830.W0003	Heavy	10	M 4	6.3	11	2.5	4.5	2
32830.W0004	Light	10	M 4	6.3	11	7.5	4.5	2
32830.W0005	Standard	10	M 4	6.3	11	7.5	4.5	2
32830.W0006	Heavy	10	M 4	6.3	11	7.5	4.5	3
32830.W0007	Light	16	M 6	10.3	18	11.5	7.5	9
32830.W0008	Standard	16	M 6	10.3	18	11.5	7.5	9
32830.W0009	Heavy	16	M 6	10.3	18	11.5	7.5	9

Order No.	l_4	Location hole d_1 tol. H8	Spring colour	Spring pressure N	Stroke s	Temp. resistance °C max.	Fitting tool 32810
32830.W0001	1.2	10	S/S	20	1.6	250	.W0831
32830.W0002	1.2	10	Black	50	1.6	250	.W0831
32830.W0003	1.2	10	Blue	100	1.6	250	.W0831
32830.W0004	1.2	10	S/S	40	2.0	250	.W0831
32830.W0005	1.2	10	Black	75	2.0	250	.W0831
32830.W0006	1.2	10	Blue	100	2.0	250	.W0831
32830.W0007	1.7	16	S/S	100	3.2	250	.W0833
32830.W0008	1.7	16	Black	150	3.2	250	.W0833

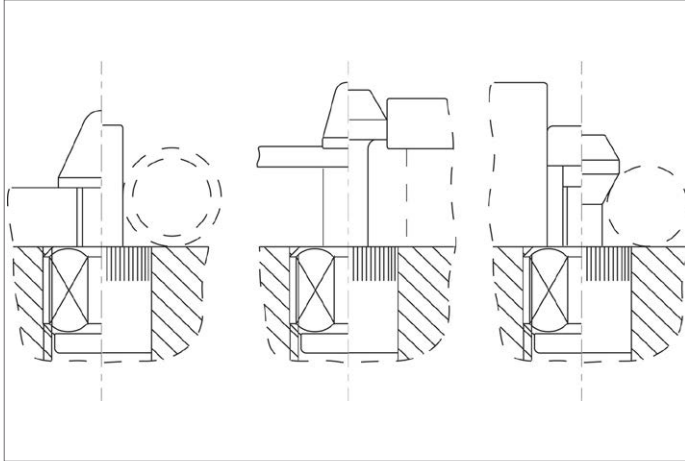


Side-Thrust Pins - Without Seal

for use with pins of your own design

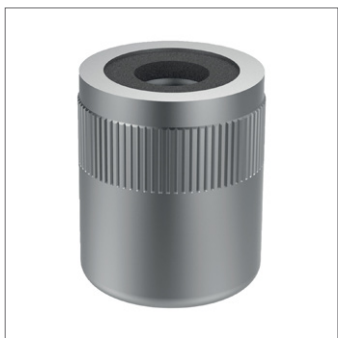


Order No.	l_4	Location hole d_1 tol. H8	Spring colour	Spring pressure N	Stroke s	Temp. resistance °C max.	Fitting tool 32810
32830.W0009	1.7	16	Blue	200	3.2	250	.W0833

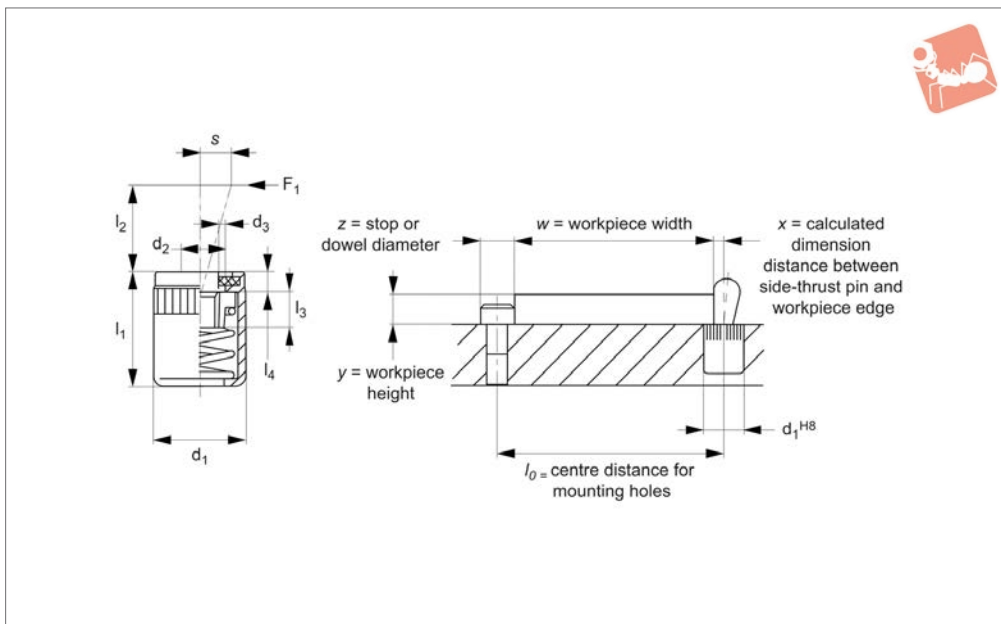




SPRING PLUNGER & DETENT PINS



32830.2



Material

Body: aluminium.
 Threaded Washer: steel, blackened.
 Spring: steel (blackened or blue galvanized), or stainless steel.
 Seal: rubber (CR), 60 shore.

Technical Notes

Press fit installation into hole d_1 to tol. H8, using fitting tool (order separately).
 Installation calculations;
 A) Calculating centre distance for mounting holes (l_0);
 $l_0 = (z/2) + w + x$

B) Calculating pin location (x);

When workpiece height (y) is greater than or equal to $l_2 - (d_2/2)$ then (x) is calculated as;
 $x = (d_2/2) - s$

When workpiece height (y) is less than $l_2 - (d_2/2)$ then (x) is calculated as;
 $x = (d_2/2) - s - \{ [l_2 - (d_2/2) - y] * 0.123 \}$

l_0 = centre distance for mounting holes
 y = workpiece height
 w = workpiece width
 x = distance between side-thrust pin and

workpiece edge
 s = stroke
 z = stop or dowel stop diameter

Tips

Side-thrust pins are ideal for holding, clamping and positioning parts.
Spring colour gives visual indication of spring pressure (N).
 Light spring load = natural stainless spring.
 Standard spring load = steel spring, blackened.
 Heavy spring load = steel spring, blue galvanized.

Order No.	Spring load	d_1	d_2	d_3	l_1 -2	l_2	l_3	Weight g
32830.W0401	Light	10	M 4	6.3	11	2.5	4.5	2
32830.W0402	Standard	10	M 4	6.3	11	2.5	4.5	2
32830.W0403	Heavy	10	M 4	6.3	11	2.5	4.5	2
32830.W0404	Light	10	M 4	6.3	11	7.5	4.5	2
32830.W0405	Standard	10	M 4	6.3	11	7.5	4.5	2
32830.W0406	Heavy	10	M 4	6.3	11	7.5	4.5	3
32830.W0407	Light	16	M 6	10.3	18	11.5	7.5	9
32830.W0408	Standard	16	M 6	10.3	18	11.5	7.5	9
32830.W0409	Heavy	16	M 6	10.3	18	11.5	7.5	9

Order No.	l_4	Location hole d_1 tol. H8	Spring colour	Spring pressure N	Stroke s	Temp. resistance °C max.	Fitting tool 32810
32830.W0401	1.8	10	S/S	20	1.6	110	.W0831
32830.W0402	1.8	10	Black	50	1.6	110	.W0831
32830.W0403	1.8	10	Blue	100	1.6	110	.W0831
32830.W0404	1.8	10	S/S	40	2.0	110	.W0831
32830.W0405	1.8	10	Black	75	2.0	110	.W0831
32830.W0406	1.8	10	Blue	100	2.0	110	.W0831
32830.W0407	2.0	16	S/S	100	3.2	110	.W0833
32830.W0408	2.0	16	Black	150	3.2	110	.W0833

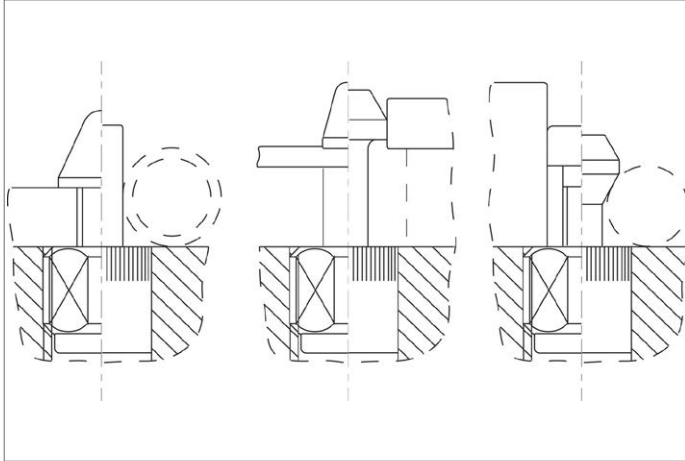


Side-Thrust Pins - With Seal

for use with pins of your own design

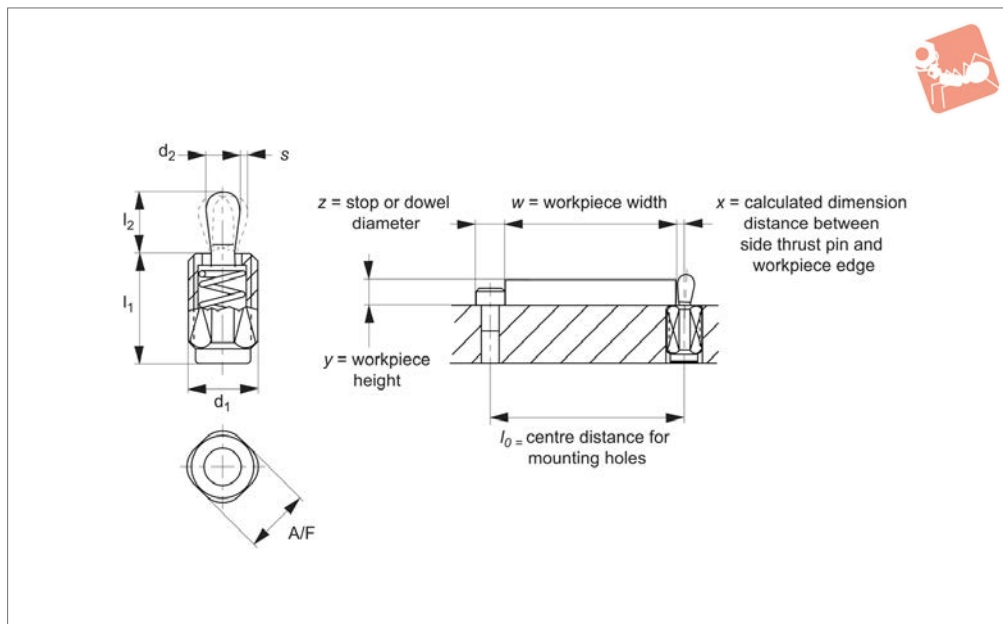


Order No.	l_4	Location hole d_1 tol. H8	Spring colour	Spring pressure N	Stroke s	Temp. resistance °C max.	Fitting tool 32810
32830.W0409	2.0	16	Blue	200	3.2	110	.W0833





32840



Material

Body: aluminium.

Pin: steel, case hardened and galvanized, or thermoplastic (POM) white.

Spring: steel (blackened or blue galvanized), or stainless steel.

Technical Notes

Press fit installation into hole d_1 to tol. H8, using fitting tool (order separately).

Installation calculations;

A) Calculating centre distance for mounting holes (l_0);

$$l_0 = (z/2) + w + x$$

B) Calculating pin location (x);

When workpiece height (y) is greater than or equal to $l_2 - (d_2/2)$ then (x) is calculated as; $x = (d_2/2) - s$

When workpiece height (y) is less than $l_2 - (d_2/2)$ then (x) is calculated as;

$$x = (d_2/2) - s - \{ [l_2 - (d_2/2) - y] * 0.123 \}$$

l_0 = centre distance for mounting holes

y = workpiece height

w = workpiece width

x = distance between side-thrust pin and workpiece edge

s = stroke

z = stop or dowel stop diameter

Tips

Side-thrust pins are ideal for holding, clamping and positioning parts.

Spring colour gives visual indication of spring pressure (N).

Light spring load = natural stainless spring.

Standard spring load = steel spring, blackened.

Heavy spring load = steel spring, blue galvanized.

Order No.	Pin material	Spring load	d_1	d_2	l_{-2}	Weight g
32840.W0001	Steel pin	Light	M12	5	11.5	4
32840.W0002	Steel pin	Light	M12	5	19.0	6
32840.W0003	Steel pin	Light	M12	5	26.5	8
32840.W0004	Steel pin	Standard	M12	5	11.5	4
32840.W0005	Steel pin	Standard	M12	5	19.0	6
32840.W0006	Steel pin	Standard	M12	5	26.5	8
32840.W0007	Steel pin	Heavy	M12	5	11.5	4
32840.W0008	Steel pin	Heavy	M12	5	19.0	7
32840.W0009	Steel pin	Heavy	M12	5	26.5	9
32840.W0010	Steel pin	Light	M12	6	11.5	5
32840.W0011	Steel pin	Light	M12	6	19.0	6
32840.W0012	Steel pin	Light	M12	6	26.5	8
32840.W0013	Steel pin	Standard	M12	6	11.5	5
32840.W0014	Steel pin	Standard	M12	6	19.0	7
32840.W0015	Steel pin	Standard	M12	6	26.5	10
32840.W0016	Steel pin	Heavy	M12	6	11.5	5
32840.W0017	Steel pin	Heavy	M12	6	19.0	8
32840.W0018	Steel pin	Heavy	M12	6	26.5	10
32840.W0019	Steel pin	Light	M18x1,5	10	18.0	19
32840.W0020	Steel pin	Light	M18x1,5	10	31.5	28
32840.W0021	Steel pin	Light	M18x1,5	10	45.0	36
32840.W0022	Steel pin	Standard	M18x1,5	10	18.0	20
32840.W0023	Steel pin	Standard	M18x1,5	10	31.5	29



Side-Thrust Pins - Threaded without seal



Spring Plunger & Detent Pins

Order No.	Pin material	Spring load	d ₁	d ₂	l ₁₋₂	Weight g
32840.W0024	Steel pin	Standard	M18x1,5	10	45.0	39
32840.W0025	Steel pin	Heavy	M18x1,5	10	18.0	21
32840.W0026	Steel pin	Heavy	M18x1,5	10	31.5	30
32840.W0027	Steel pin	Heavy	M18x1,5	10	45.0	40
32840.W0401	Plastic pin	Light	M12	5	11.5	3
32840.W0402	Plastic pin	Light	M12	5	19.0	4
32840.W0403	Plastic pin	Light	M12	5	26.5	6
32840.W0410	Plastic pin	Light	M12	6	11.5	3
32840.W0411	Plastic pin	Light	M12	6	19.0	5
32840.W0412	Plastic pin	Light	M12	6	26.5	7
32840.W0419	Plastic pin	Light	M18x1,5	10	18.0	12
32840.W0420	Plastic pin	Light	M18x1,5	10	31.5	20
32840.W0421	Plastic pin	Light	M18x1,5	10	45.0	30

Order No.	l ₂	A/F	Spring colour	Spring pressure N	Stroke s	Temp. resistance °C max.	Fitting tool 32840
32840.W0001	6.4	10	S/S	20	1.6	250	.W0820
32840.W0002	6.4	10	S/S	20	1.6	250	.W0820
32840.W0003	6.4	10	S/S	20	1.6	250	.W0820
32840.W0004	6.4	10	Black	50	1.6	250	.W0820
32840.W0005	6.4	10	Black	50	1.6	250	.W0820
32840.W0006	6.4	10	Black	50	1.6	250	.W0820
32840.W0007	6.4	10	Blue	100	1.6	250	.W0820
32840.W0008	6.4	10	Blue	100	1.6	250	.W0820
32840.W0009	6.4	10	Blue	100	1.6	250	.W0820
32840.W0010	10.4	10	S/S	40	2.0	250	.W0820
32840.W0011	10.4	10	S/S	40	2.0	250	.W0820
32840.W0012	10.4	10	S/S	40	2.0	250	.W0820
32840.W0013	10.4	10	Black	75	2.0	250	.W0820
32840.W0014	10.4	10	Black	75	2.0	250	.W0820
32840.W0015	10.4	10	Black	75	2.0	250	.W0820
32840.W0016	10.4	10	Blue	100	2.0	250	.W0820
32840.W0017	10.4	10	Blue	100	2.0	250	.W0820
32840.W0018	10.4	10	Blue	100	2.0	250	.W0820
32840.W0019	16.9	16	S/S	100	3.2	250	.W0822
32840.W0020	16.9	16	S/S	100	3.2	250	.W0822
32840.W0021	16.9	16	S/S	100	3.2	250	.W0822
32840.W0022	16.9	16	Black	150	3.2	250	.W0822
32840.W0023	16.9	16	Black	150	3.2	250	.W0822
32840.W0024	16.9	16	Black	150	3.2	250	.W0822
32840.W0025	16.9	16	Blue	200	3.2	250	.W0822
32840.W0026	16.9	16	Blue	200	3.2	250	.W0822
32840.W0027	16.9	16	Blue	200	3.2	250	.W0822
32840.W0401	6.4	10	S/S	20	1.6	80	.W0820
32840.W0402	6.4	10	S/S	20	1.6	80	.W0820
32840.W0403	6.4	10	S/S	20	1.6	80	.W0820
32840.W0410	10.4	10	Black	40	2.0	80	.W0820
32840.W0411	10.4	10	Black	40	2.0	80	.W0820
32840.W0412	10.4	10	Black	40	2.0	80	.W0820
32840.W0419	16.9	16	Blue	100	3.2	80	.W0822
32840.W0420	16.9	16	Blue	100	3.2	80	.W0822
32840.W0421	16.9	16	Blue	100	3.2	80	.W0822

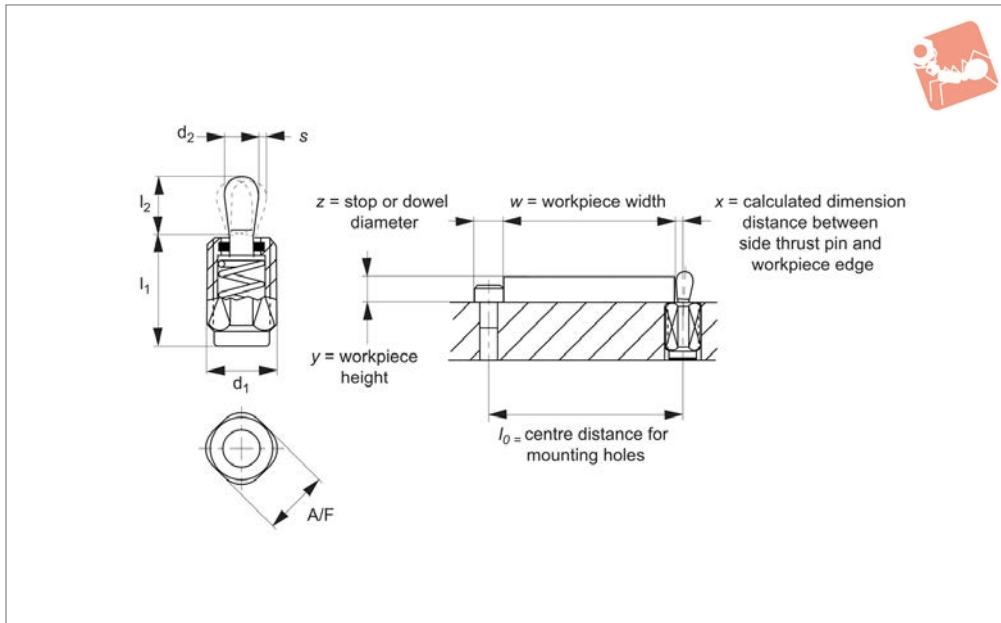
SPRING PLUNGER & DETENT PINS





Side-Thrust Pins - Threaded with seal

Spring Plunger & Detent Pins



32850

SPRING PLUNGER & DETENT PINS

Material

Body: steel, zinc-plated by galvanization.
 Pin: steel, case hardened and galvanized, or thermoplastic (POM) white.
 Spring: steel (blackened or blue galvanized), or stainless steel.
 Seal: rubber (CR), 60 shore.

Technical Notes

Press fit installation into hole d_1 to tol. H8, using fitting tool (order separately).
 Installation calculations;
 A) Calculating centre distance for mounting holes (l_0):
 $l_0 = (z/2) + w + x$

B) Calculating pin location (x);

When workpiece height (y) is greater than or equal to $l_2 - (d_2/2)$ then (x) is calculated as;
 $x = (d_2/2) - s$

When workpiece height (y) is less than $l_2 - (d_2/2)$ then (x) is calculated as;
 $x = (d_2/2) - s - \{ [l_2 - (d_2/2) - y] * 0.123 \}$

l_0 = centre distance for mounting holes
 y = workpiece height
 w = workpiece width
 x = distance between side-thrust pin and workpiece edge

s = stroke
 z = stop or dowel stop diameter

Tips

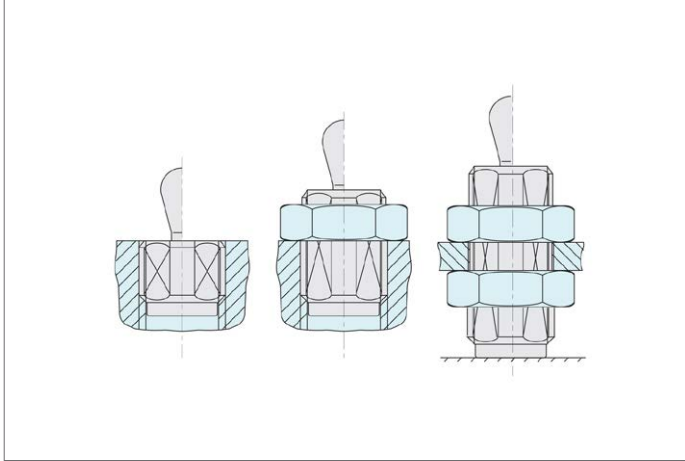
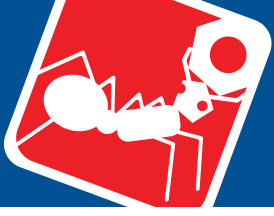
Side-thrust pins are ideal for holding, clamping and positioning parts.
Spring colour gives visual indication of spring pressure (N).
 Light spring load = natural stainless spring.
 Standard spring load = steel spring, blackened.
 Heavy spring load = steel spring, blue galvanized.

Order No.	Pin material	Spring load	d_1	d_2	$l_1 - \frac{d_2}{2}$	Weight g
32850.W0001	Steel pin	Light	M12	5	11.5	4
32850.W0002	Steel pin	Light	M12	5	19.0	6
32850.W0003	Steel pin	Light	M12	5	26.5	8
32850.W0004	Steel pin	Standard	M12	5	11.5	4
32850.W0005	Steel pin	Standard	M12	5	19.0	6
32850.W0006	Steel pin	Standard	M12	5	26.5	8
32850.W0007	Steel pin	Heavy	M12	5	11.5	4
32850.W0008	Steel pin	Heavy	M12	5	19.0	7
32850.W0009	Steel pin	Heavy	M12	5	26.5	9
32850.W0010	Steel pin	Light	M12	6	11.5	5
32850.W0011	Steel pin	Light	M12	6	19.0	6
32850.W0012	Steel pin	Light	M12	6	26.5	8
32850.W0013	Steel pin	Standard	M12	6	11.5	5
32850.W0014	Steel pin	Standard	M12	6	19.0	7
32850.W0015	Steel pin	Standard	M12	6	26.5	10
32850.W0016	Steel pin	Heavy	M12	6	11.5	5
32850.W0017	Steel pin	Heavy	M12	6	19.0	8
32850.W0018	Steel pin	Heavy	M12	6	26.5	10
32850.W0019	Steel pin	Light	M18x1,5	10	18.0	19
32850.W0020	Steel pin	Light	M18x1,5	10	31.5	28



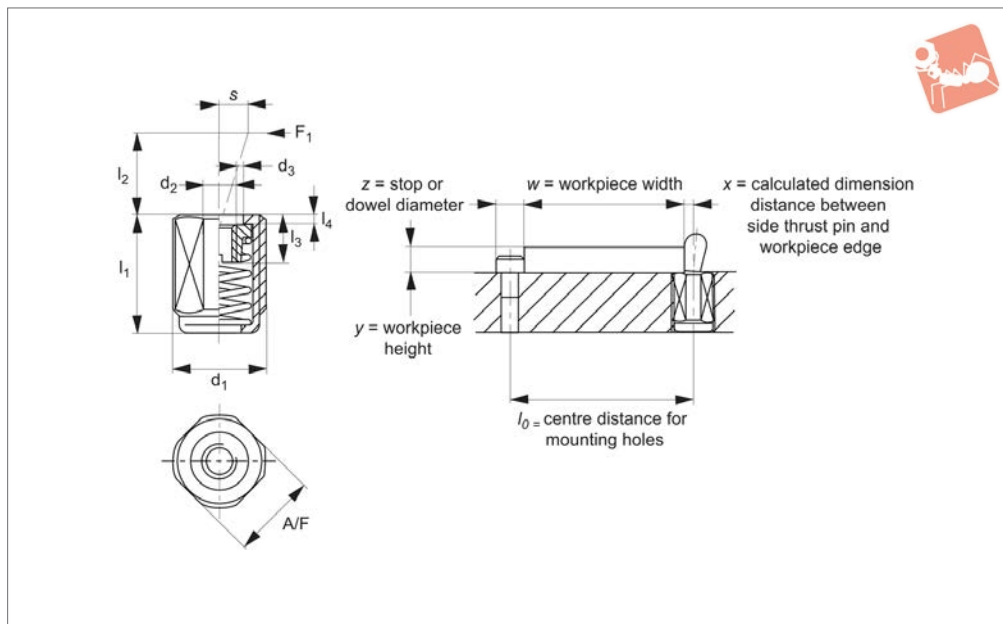
Order No.	Pin material	Spring load	d ₁	d ₂	l ₁ -2	Weight g
32850.W0021	Steel pin	Light	M18x1,5	10	45.0	36
32850.W0022	Steel pin	Standard	M18x1,5	10	18.0	20
32850.W0023	Steel pin	Standard	M18x1,5	10	31.5	29
32850.W0024	Steel pin	Standard	M18x1,5	10	45.0	39
32850.W0025	Steel pin	Heavy	M18x1,5	10	18.0	21
32850.W0026	Steel pin	Heavy	M18x1,5	10	31.5	30
32850.W0027	Steel pin	Heavy	M18x1,5	10	45.0	40
32850.W0401	Plastic pin	Light	M12	5	11.5	3
32850.W0402	Plastic pin	Light	M12	5	19.0	4
32850.W0403	Plastic pin	Light	M12	5	26.5	6
32850.W0410	Plastic pin	Light	M12	6	11.5	3
32850.W0411	Plastic pin	Light	M12	6	19.0	5
32850.W0412	Plastic pin	Light	M12	6	26.5	7
32850.W0419	Plastic pin	Light	M18x1,5	10	18.0	12
32850.W0420	Plastic pin	Light	M18x1,5	10	31.5	20
32850.W0421	Plastic pin	Light	M18x1,5	10	45.0	30

Order No.	l ₂	A/F	Spring colour	Spring pressure N	Stroke s	Temp. resistance °C max.	Fitting tool 32840
32850.W0001	6	10	S/S	20	0.8	250	.W0820
32850.W0002	6	10	S/S	20	0.8	250	.W0820
32850.W0003	6	10	S/S	20	0.8	250	.W0820
32850.W0004	6	10	Black	50	0.8	250	.W0820
32850.W0005	6	10	Black	50	0.8	250	.W0820
32850.W0006	6	10	Black	50	0.8	250	.W0820
32850.W0007	6	10	Blue	100	0.8	250	.W0820
32850.W0008	6	10	Blue	100	0.8	250	.W0820
32850.W0009	6	10	Blue	100	0.8	250	.W0820
32850.W0010	10	10	S/S	40	1.0	250	.W0820
32850.W0011	10	10	S/S	40	1.0	250	.W0820
32850.W0012	10	10	S/S	40	1.0	250	.W0820
32850.W0013	10	10	Black	75	1.0	250	.W0820
32850.W0014	10	10	Black	75	1.0	250	.W0820
32850.W0015	10	10	Black	75	1.0	250	.W0820
32850.W0016	10	10	Blue	100	1.0	250	.W0820
32850.W0017	10	10	Blue	100	1.0	250	.W0820
32850.W0018	10	10	Blue	100	1.0	250	.W0820
32850.W0019	16	16	S/S	100	1.6	250	.W0822
32850.W0020	16	16	S/S	100	1.6	250	.W0822
32850.W0021	16	16	S/S	100	1.6	250	.W0822
32850.W0022	16	16	Black	150	1.6	250	.W0822
32850.W0023	16	16	Black	150	1.6	250	.W0822
32850.W0024	16	16	Black	150	1.6	250	.W0822
32850.W0025	16	16	Blue	200	1.6	250	.W0822
32850.W0026	16	16	Blue	200	1.6	250	.W0822
32850.W0027	16	16	Blue	200	1.6	250	.W0822
32850.W0401	6	10	S/S	20	0.8	80	.W0820
32850.W0402	6	10	S/S	20	0.8	80	.W0820
32850.W0403	6	10	S/S	20	0.8	80	.W0820
32850.W0410	10	10	Black	40	1.0	80	.W0820
32850.W0411	10	10	Black	40	1.0	80	.W0820
32850.W0412	10	10	Black	40	1.0	80	.W0820
32850.W0419	16	16	Blue	100	1.6	80	.W0822
32850.W0420	16	16	Blue	100	1.6	80	.W0822
32850.W0421	16	16	Blue	100	1.6	80	.W0822





32860.1



Material

Body: aluminium.
 Threaded washer: steel, blackened.
 Spring: steel (blackened or blue galvanized), or stainless steel.

Technical Notes

Press fit installation into hole d_1 to tol. H8, using fitting tool (order separately).

Installation calculations;

A) Calculating centre distance for mounting holes (l_0);

$$l_0 = (z/2) + w + x$$

B) Calculating pin location (x);

When workpiece height (y) is greater than or equal to $l_2 - (d_2/2)$ then (x) is calculated as; $x = (d_2/2) - s$

When workpiece height (y) is less than $l_2 - (d_2/2)$ then (x) is calculated as; $x = (d_2/2) - s - \{ [l_2 - (d_2/2) - y] * 0.123 \}$

l_0 = centre distance for mounting holes

y = workpiece height

w = workpiece width

x = distance between side-thrust pin and workpiece edge

s = stroke

z = stop or dowel stop diameter

Tips

Side-thrust pins are ideal for holding, clamping and positioning parts.

Spring colour gives visual indication of spring pressure (N).

Light spring load = natural stainless spring.

Standard spring load = steel spring, blackened.

Heavy spring load = steel spring, blue galvanized.

Order No.	Spring load	d_1	d_2	d_3	l_{-2}	l_2	Weight g
32860.W0001	Light	M12	M4	6.1	11.5	4.0	3
32860.W0002	Light	M12	M4	6.1	19.0	4.0	5
32860.W0003	Light	M12	M4	6.1	26.5	4.0	7
32860.W0004	Standard	M12	M4	6.1	11.5	4.0	3
32860.W0005	Standard	M12	M4	6.1	19.0	4.0	6
32860.W0006	Standard	M12	M4	6.1	26.5	4.0	8
32860.W0007	Heavy	M12	M4	6.1	11.5	4.0	4
32860.W0008	Heavy	M12	M4	6.1	19.0	4.0	6
32860.W0009	Heavy	M12	M4	6.1	26.5	4.0	8
32860.W0010	Light	M12	M4	6.1	11.5	7.5	3
32860.W0011	Light	M12	M4	6.1	19.0	7.5	5
32860.W0012	Light	M12	M4	6.1	26.5	7.5	7
32860.W0013	Standard	M12	M4	6.1	11.5	7.5	3
32860.W0014	Standard	M12	M4	6.1	19.0	7.5	6
32860.W0015	Standard	M12	M4	6.1	26.5	7.5	8
32860.W0016	Heavy	M12	M4	6.1	11.5	7.5	4
32860.W0017	Heavy	M12	M4	6.1	19.0	7.5	6
32860.W0018	Heavy	M12	M4	6.1	26.5	7.5	9
32860.W0019	Light	M18x1,5	M6	10.1	18.0	11.5	15
32860.W0020	Light	M18x1,5	M6	10.1	31.5	11.5	23
32860.W0021	Light	M18x1,5	M6	10.1	45.0	11.5	32
32860.W0022	Standard	M18x1,5	M6	10.1	18.0	11.5	14



Side-Thrust Pins - Threaded

without seal - for use with pins of your own design



Order No.	Spring load	d ₁	d ₂	d ₃	l ₁ -2	l ₂	Weight g
32860.W0023	Standard	M18x1,5	M6	10.1	31.5	11.5	23
32860.W0024	Standard	M18x1,5	M6	10.1	45.0	11.5	32
32860.W0025	Heavy	M18x1,5	M6	10.1	18.0	11.5	14
32860.W0026	Heavy	M18x1,5	M6	10.1	31.5	11.5	23
32860.W0027	Heavy	M18x1,5	M6	10.1	45.0	11.5	32

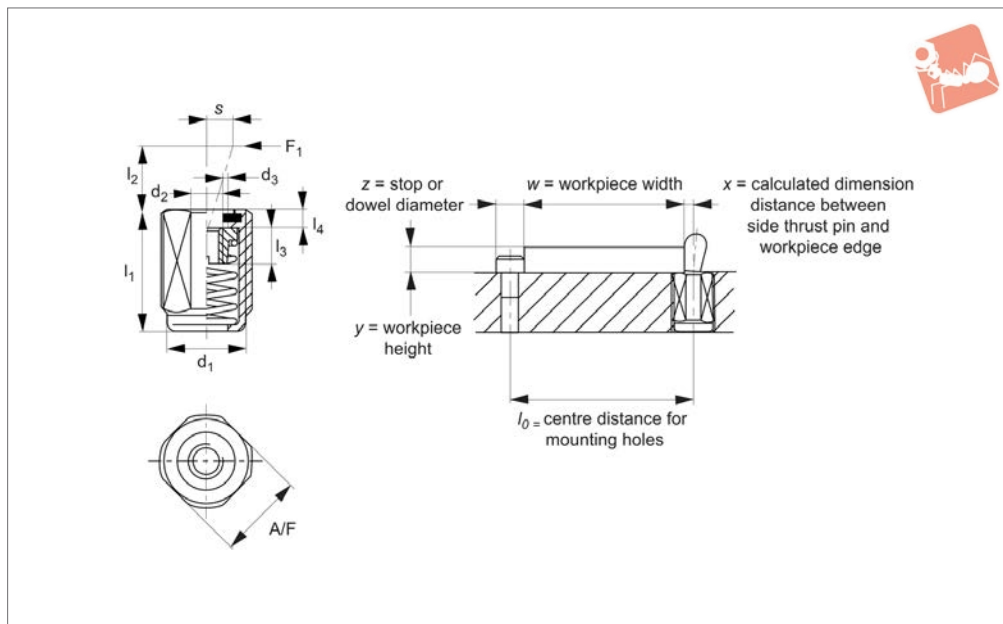
Order No.	l ₃	l ₄	A/F	Spring colour	Spring pressure N	Stroke s	Temp. resistance °C max.	Fitting tool 32840
32860.W0001	4.5	1.5	10	S/S	20	1.6	250	.W0820
32860.W0002	4.5	1.5	10	S/S	20	1.6	250	.W0820
32860.W0003	4.5	1.5	10	S/S	20	1.6	250	.W0820
32860.W0004	4.5	1.5	10	Black	50	1.6	250	.W0820
32860.W0005	4.5	1.5	10	Black	50	1.6	250	.W0820
32860.W0006	4.5	1.5	10	Black	50	1.6	250	.W0820
32860.W0007	4.5	1.5	10	Blue	100	1.6	250	.W0820
32860.W0008	4.5	1.5	10	Blue	100	1.6	250	.W0820
32860.W0009	4.5	1.5	10	Blue	100	1.6	250	.W0820
32860.W0010	4.5	1.5	10	S/S	40	2.0	250	.W0820
32860.W0011	4.5	1.5	10	S/S	40	2.0	250	.W0820
32860.W0012	4.5	1.5	10	S/S	40	2.0	250	.W0820
32860.W0013	4.5	1.5	10	Black	75	2.0	250	.W0820
32860.W0014	4.5	1.5	10	Black	75	2.0	250	.W0820
32860.W0015	4.5	1.5	10	Black	75	2.0	250	.W0820
32860.W0016	4.5	1.5	10	Blue	100	2.0	250	.W0820
32860.W0017	4.5	1.5	10	Blue	100	2.0	250	.W0820
32860.W0018	4.5	1.5	10	Blue	100	2.0	250	.W0820
32860.W0019	7.5	1.5	16	S/S	100	3.2	250	.W0822
32860.W0020	7.5	1.5	16	S/S	100	3.2	250	.W0822
32860.W0021	7.5	1.5	16	S/S	100	3.2	250	.W0822
32860.W0022	7.5	1.5	16	Black	150	3.2	250	.W0822
32860.W0023	7.5	1.5	16	Black	150	3.2	250	.W0822
32860.W0024	7.5	1.5	16	Black	150	3.2	250	.W0822
32860.W0025	7.5	1.5	16	Blue	200	3.2	250	.W0822
32860.W0026	7.5	1.5	16	Blue	200	3.2	250	.W0822
32860.W0027	7.5	1.5	16	Blue	200	3.2	250	.W0822



SPRING PLUNGER & DETENT PINS



32860.2



Material

Body: aluminium.

Threaded washer: steel, blackened

Spring: steel (blackened or blue galvanized), or stainless steel.

Seal: rubber (CR), 60 shore.

Technical Notes

Press fit installation into hole d_1 to tol. H8, using fitting tool (order separately).

Installation calculations;

A) Calculating centre distance for mounting holes (l_0);

$$l_0 = (z/2) + w + x$$

B) Calculating pin location (x);

When workpiece height (y) is greater than or equal to $l_2 - (d_2/2)$ then (x) is calculated as; $x = (d_2/2) - s$

When workpiece height (y) is less than $l_2 - (d_2/2)$ then (x) is calculated as; $x = (d_2/2) - s - \{ [l_2 - (d_2/2) - y] * 0.123 \}$

l_0 = centre distance for mounting holes

y = workpiece height

w = workpiece width

x = distance between side-thrust pin and

workpiece edge

s = stroke

z = stop or dowel stop diameter

Tips

Side-thrust pins are ideal for holding, clamping and positioning parts.

Spring colour gives visual indication of spring pressure (N).

Light spring load = natural stainless spring.

Standard spring load = steel spring, blackened.

Heavy spring load = steel spring, blue galvanized.

Order No.	Spring load	d_1	d_2	d_3	l_{-2}	l_2	Weight g
32860.W0401	Light	M12	M4	6.1	11.5	4.0	3
32860.W0402	Light	M12	M4	6.1	19.0	4.0	5
32860.W0403	Light	M12	M4	6.1	26.5	4.0	7
32860.W0404	Standard	M12	M4	6.1	11.5	4.0	3
32860.W0405	Standard	M12	M4	6.1	19.0	4.0	6
32860.W0406	Standard	M12	M4	6.1	26.5	4.0	8
32860.W0407	Heavy	M12	M4	6.1	11.5	4.0	4
32860.W0408	Heavy	M12	M4	6.1	19.0	4.0	6
32860.W0409	Heavy	M12	M4	6.1	26.5	4.0	8
32860.W0410	Light	M12	M4	6.1	11.5	7.5	3
32860.W0411	Light	M12	M4	6.1	19.0	7.5	5
32860.W0412	Light	M12	M4	6.1	26.5	7.5	7
32860.W0413	Standard	M12	M4	6.1	11.5	7.5	3
32860.W0414	Standard	M12	M4	6.1	19.0	7.5	6
32860.W0415	Standard	M12	M4	6.1	26.5	7.5	8
32860.W0416	Heavy	M12	M4	6.1	11.5	7.5	4
32860.W0417	Heavy	M12	M4	6.1	19.0	7.5	6
32860.W0418	Heavy	M12	M4	6.1	26.5	7.5	9
32860.W0419	Light	M18x1,5	M6	10.1	18.0	11.5	15
32860.W0420	Light	M18x1,5	M6	10.1	31.5	11.5	23
32860.W0421	Light	M18x1,5	M6	10.1	45.0	11.5	32
32860.W0422	Standard	M18x1,5	M6	10.1	18.0	11.5	14



Side-Thrust Pins - Threaded

with seal - for use with pins of your own design



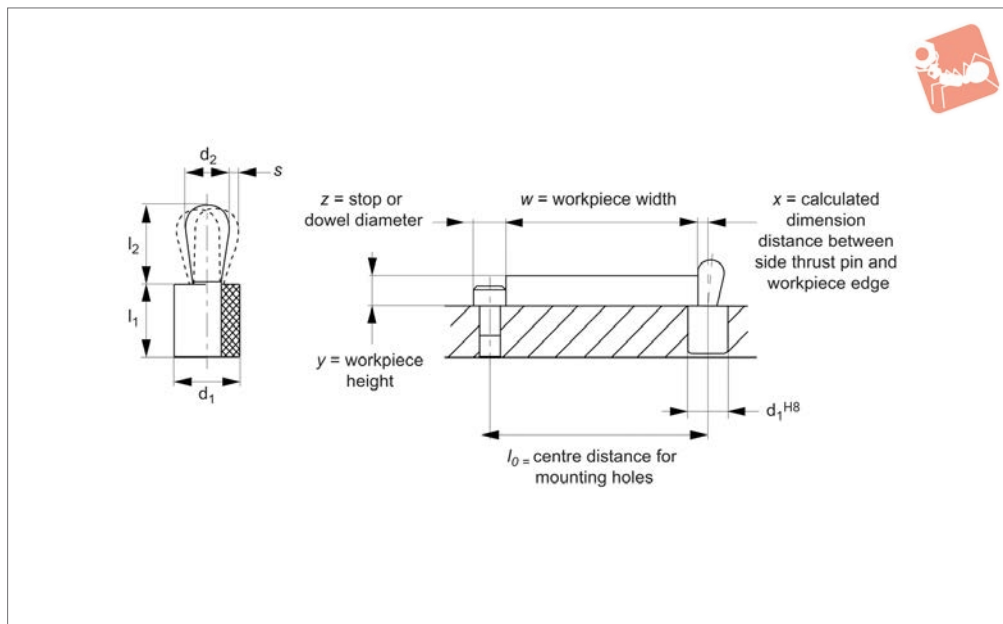
Order No.	Spring load	d ₁	d ₂	d ₃	l ₁ -2	l ₂	Weight g
32860.W0423	Standard	M18x1,5	M6	10.1	31.5	11.5	23
32860.W0424	Standard	M18x1,5	M6	10.1	45.0	11.5	32
32860.W0425	Heavy	M18x1,5	M6	10.1	18.0	11.5	14
32860.W0426	Heavy	M18x1,5	M6	10.1	31.5	11.5	23
32860.W0427	Heavy	M18x1,5	M6	10.1	45.0	11.5	32

Order No.	l ₃	l ₄	A/F	Spring colour	Spring pressure N	Stroke s	Temp. resistance °C max.	Fitting tool 32840
32860.W0401	4.5	2.0	10	S/S	20	1.6	110	.W0820
32860.W0402	4.5	2.0	10	S/S	20	1.6	110	.W0820
32860.W0403	4.5	2.0	10	S/S	20	1.6	110	.W0820
32860.W0404	4.5	2.0	10	Black	50	1.6	110	.W0820
32860.W0405	4.5	2.0	10	Black	50	1.6	110	.W0820
32860.W0406	4.5	2.0	10	Black	50	1.6	110	.W0820
32860.W0407	4.5	2.0	10	Blue	100	1.6	110	.W0820
32860.W0408	4.5	2.0	10	Blue	100	1.6	110	.W0820
32860.W0409	4.5	2.0	10	Blue	100	1.6	110	.W0820
32860.W0410	4.5	2.0	10	S/S	40	2.0	110	.W0820
32860.W0411	4.5	2.0	10	S/S	40	2.0	110	.W0820
32860.W0412	4.5	2.0	10	S/S	40	2.0	110	.W0820
32860.W0413	4.5	2.0	10	Black	75	2.0	110	.W0820
32860.W0414	4.5	2.0	10	Black	75	2.0	110	.W0820
32860.W0415	4.5	2.0	10	Black	75	2.0	110	.W0820
32860.W0416	4.5	2.0	10	Blue	100	2.0	110	.W0820
32860.W0417	4.5	2.0	10	Blue	100	2.0	110	.W0820
32860.W0418	4.5	2.0	10	Blue	100	2.0	110	.W0820
32860.W0419	7.5	2.3	16	S/S	100	3.2	110	.W0822
32860.W0420	7.5	2.3	16	S/S	100	3.2	110	.W0822
32860.W0421	7.5	2.3	16	S/S	100	3.2	110	.W0822
32860.W0422	7.5	2.3	16	Black	150	3.2	110	.W0822
32860.W0423	7.5	2.3	16	Black	150	3.2	110	.W0822
32860.W0424	7.5	2.3	16	Black	150	3.2	110	.W0822
32860.W0425	7.5	2.3	16	Blue	200	3.2	110	.W0822
32860.W0426	7.5	2.3	16	Blue	200	3.2	110	.W0822
32860.W0427	7.5	2.3	16	Blue	200	3.2	110	.W0822

SPRING PLUNGER & DETENT PINS



32870



Material

Spring Body: plastic.

Pin: steel, case hardened and galvanized, stainless steel or thermoplastic (POM) white.

Technical Notes

Press fit installation into hole d₁ to tol. H8, using fitting tool (order separately).

Installation calculations;

A) Calculating centre distance for mounting holes (l₀);

$$l_0 = (z/2) + w + x$$

B) Calculating pin location (x);

When workpiece height (y) is greater than or equal to l₂ - (d₂/2) then (x) is calculated as; $x = (d_2/2) - s$

When workpiece height (y) is less than l₂ - (d₂/2) then (x) is calculated as; $x = (d_2/2) - s - \{ [l_2 - (d_2/2) - y] * 0.123 \}$

l₀ = centre distance for mounting holes

y = workpiece height

w = workpiece width

x = distance between side-thrust pin and workpiece edge

s = stroke

z = stop or dowel stop diameter

Tips

Side-thrust pins are ideal for holding, clamping and positioning parts.

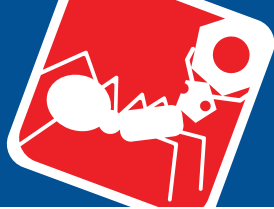
Spring colour gives visual indication of spring pressure (N).

Light spring load = blue plastic.

Standard spring load = red plastic.

Heavy spring load = green plastic.

Order No.	Pin material	Spring load	d ₁	d ₂	l ₁ -1	Weight g
32870.W0001	Steel Pin	Light	6	3	7	1
32870.W0002	Steel Pin	Standard	6	3	7	1
32870.W0003	Steel Pin	Light	8	4	9	1
32870.W0004	Steel Pin	Standard	8	4	9	1
32870.W0005	Steel Pin	Light	10	5	9	2
32870.W0006	Steel Pin	Standard	10	5	9	2
32870.W0007	Steel Pin	Heavy	10	5	9	2
32870.W0008	Steel Pin	Light	10	6	9	3
32870.W0009	Steel Pin	Standard	10	6	9	3
32870.W0010	Steel Pin	Heavy	10	6	9	3
32870.W0012	Steel Pin	Standard	12	8	13	7
32870.W0013	Steel Pin	Heavy	12	8	13	7
32870.W0014	Steel Pin	Standard	16	10	16	15
32870.W0015	Steel Pin	Heavy	16	10	16	15
32870.W0401	Plastic Pin	Light	6	3	7	1
32870.W0402	Plastic Pin	Standard	6	3	7	1
32870.W0403	Plastic Pin	Light	8	4	9	1
32870.W0404	Plastic Pin	Standard	8	4	9	1
32870.W0405	Plastic Pin	Light	10	5	9	2
32870.W0406	Plastic Pin	Standard	10	5	9	2
32870.W0407	Plastic Pin	Heavy	10	5	9	2
32870.W0408	Plastic Pin	Light	10	6	9	3
32870.W0409	Plastic Pin	Standard	10	6	9	3



Side-Thrust Pins with plastic spring



Spring Plunger & Detent Pins

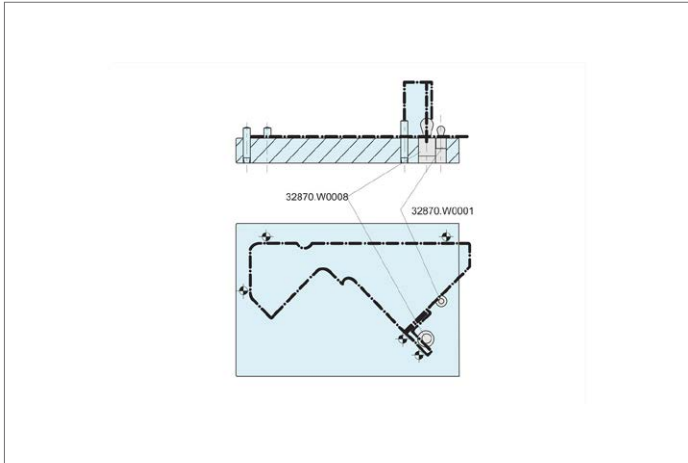
Order No.	Pin material	Spring load	d ₁	d ₂	l ₁ -1	Weight g
32870.W0410	Plastic Pin	Heavy	10	6	9	3
32870.W0412	Plastic Pin	Standard	12	8	13	7
32870.W0413	Plastic Pin	Heavy	12	8	13	7
32870.W0414	Plastic Pin	Standard	16	10	16	15
32870.W0415	Plastic Pin	Heavy	16	10	16	15
32870.W0601	Stainless Pin	Light	6	3	7	1
32870.W0602	Stainless Pin	Standard	6	3	7	1
32870.W0603	Stainless Pin	Light	8	4	9	1
32870.W0604	Stainless Pin	Standard	8	4	9	1
32870.W0605	Stainless Pin	Light	10	5	9	2
32870.W0606	Stainless Pin	Standard	10	5	9	2
32870.W0607	Stainless Pin	Heavy	10	5	9	2
32870.W0608	Stainless Pin	Light	10	6	9	3
32870.W0609	Stainless Pin	Standard	10	6	9	3
32870.W0610	Stainless Pin	Heavy	10	6	9	3
32870.W0612	Stainless Pin	Standard	12	8	13	7
32870.W0613	Stainless Pin	Heavy	12	8	13	7
32870.W0614	Stainless Pin	Standard	16	10	16	15
32870.W0615	Stainless Pin	Heavy	16	10	16	15
32870.W0840	Fitting Tool	-	-	-	-	23
32870.W0841	Fitting Tool	-	-	-	-	47
32870.W0842	Fitting Tool	-	-	-	-	46
32870.W0843	Fitting Tool	-	-	-	-	98
32870.W0844	Fitting Tool	-	-	-	-	145

Order No.	l ₂ ±0.5	Location hole d ₁ tol. H8	Spring colour	Spring pressure N	Stroke s	Temp. resistance °C max.	Fitting tool 32870
32870.W0001	3.7	5.9	Blue	10	0.4	100	.W0840
32870.W0002	3.7	5.9	Red	20	0.4	100	.W0840
32870.W0003	5.2	7.9	Blue	15	0.6	100	.W0841
32870.W0004	5.2	7.9	Red	30	0.6	100	.W0841
32870.W0005	7.3	9.9	Blue	30	0.8	100	.W0842
32870.W0006	7.3	9.9	Red	60	0.8	100	.W0842
32870.W0007	7.3	9.9	Green	90	0.8	100	.W0842
32870.W0008	10.3	9.9	Blue	20	1.0	100	.W0842
32870.W0009	10.3	9.9	Red	30	1.0	100	.W0842
32870.W0010	10.3	9.9	Green	60	1.0	100	.W0842
32870.W0012	13.3	11.6	Red	50	1.2	100	.W0843
32870.W0013	13.3	11.9	Green	100	1.2	100	.W0843
32870.W0014	16.9	15.9	Red	60	1.6	100	.W0844
32870.W0015	16.9	15.9	Green	160	1.6	100	.W0844
32870.W0401	3.7	5.9	Blue	10	0.4	100	.W0840
32870.W0402	3.7	5.9	Red	20	0.4	100	.W0840
32870.W0403	5.2	7.9	Blue	15	0.6	100	.W0841
32870.W0404	5.2	7.9	Red	30	0.6	100	.W0841
32870.W0405	7.3	9.9	Blue	30	0.8	100	.W0842
32870.W0406	7.3	9.9	Red	60	0.8	100	.W0842
32870.W0407	7.3	9.9	Green	90	0.8	100	.W0842
32870.W0408	10.3	9.9	Blue	20	1.0	100	.W0842
32870.W0409	10.3	9.9	Red	30	1.0	100	.W0842
32870.W0410	10.3	9.9	Green	60	1.0	100	.W0842
32870.W0412	13.3	11.6	Red	50	1.2	100	.W0843
32870.W0413	13.3	11.9	Green	100	1.2	100	.W0843
32870.W0414	16.9	15.9	Red	60	1.6	100	.W0844
32870.W0415	16.9	15.9	Green	160	1.6	100	.W0844
32870.W0601	3.7	5.9	Blue	10	0.4	100	.W0840
32870.W0602	3.7	5.9	Red	20	0.4	100	.W0840
32870.W0603	5.2	7.9	Blue	15	0.6	100	.W0841
32870.W0604	5.2	7.9	Red	30	0.6	100	.W0841
32870.W0605	7.3	9.9	Blue	30	0.8	100	.W0842
32870.W0606	7.3	9.9	Red	60	0.8	100	.W0842
32870.W0607	7.3	9.9	Green	90	0.8	100	.W0842
32870.W0608	10.3	9.9	Blue	20	1.0	100	.W0842
32870.W0609	10.3	9.9	Red	30	1.0	100	.W0842
32870.W0610	10.3	9.9	Green	60	1.0	100	.W0842
32870.W0612	13.3	11.6	Red	50	1.2	100	.W0843
32870.W0613	13.3	11.9	Green	100	1.2	100	.W0843



Order No.	l_2 ± 0.5	Location hole d_1 tol. H8	Spring colour	Spring pressure N	Stroke s	Temp. resistance $^{\circ}\text{C}$ max.	Fitting tool 32870
32870.W0614	16.9	15.9	Red	60	1.6	100	.W0844
32870.W0615	16.9	15.9	Green	160	1.6	100	.W0844
32870.W0840	-	-	-	-	-	-	-
32870.W0841	-	-	-	-	-	-	-
32870.W0842	-	-	-	-	-	-	-
32870.W0843	-	-	-	-	-	-	-
32870.W0844	-	-	-	-	-	-	-

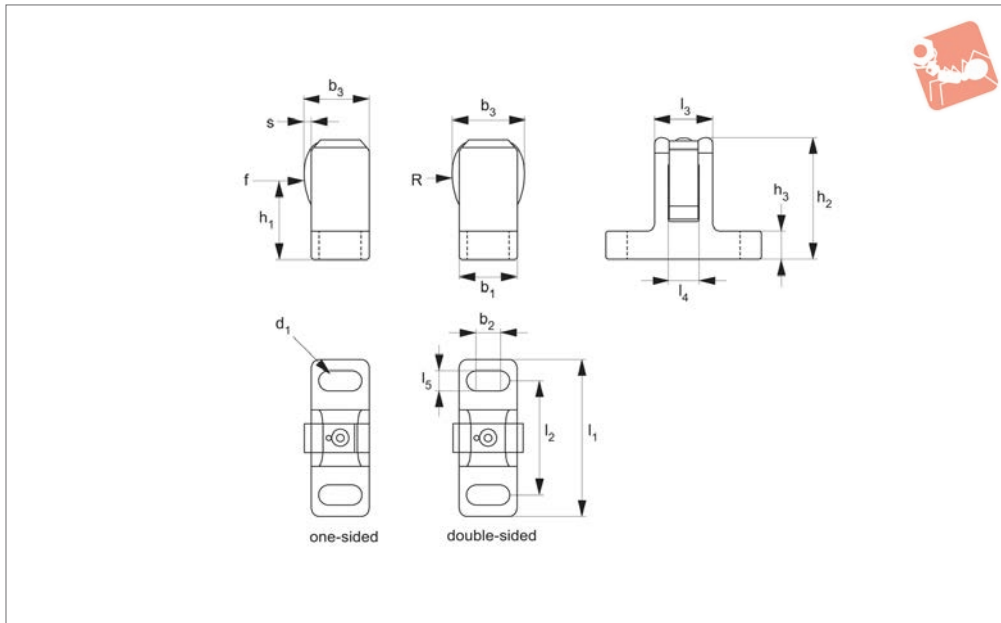
SPRING PLUNGER & DETENT PINS





Lateral Spring Plungers with sheet steel spring

Spring Plunger & Detent Pins



32802

SPRING PLUNGER & DETENT PINS

Material

Body: steel, blackened.
Spring element: stainless steel.

Technical Notes

Simple and secure positioning of work

pieces or components. If component is mounted below height h_1 , a down hold clamping effect is present. Double sided version, ideal for multi-component clamping.

Max. temperature resistance 250°C

Order No.	Finish	d_1 for screw	h_1	h_2 ± 1	h_3	l_1 ± 1	l_2	l_3	l_4	Weight g
32802.W0006	One-Sided	M 6	28.5	43.0	10	55	40	20	10	130
32802.W0012	One-Sided	M12	40.5	61.5	15	72	50	23	12	255
32802.W0206	Double-Sided	M 6	28.5	42.5	10	55	40	20	10	135
32802.W0212	Double-Sided	M12	40.5	61.5	15	72	50	23	12	260

Order No.	l_5	b_1 ± 0.5	b_2	b_3	s	Spring load F N \approx	R
32802.W0006	6.6	20	8	22.5	1.5	55	22.5
32802.W0012	13.5	25	6	29.0	1.5	170	32.8
32802.W0206	6.6	20	8	25.0	1.5	55	22.5
32802.W0212	13.5	25	6	33.5	1.5	170	32.8



A Wide Selection of Solutions

Applications

- Locating and positioning.
- Indexing.
- Securing.
- Positive locking.
- Rapid adjustment of all kinds of tables, platforms and fixtures.
- Machine and fixture design.
- OEM products.
- Sports equipment.
- Medical aides (wheelchairs etc.).
- Aerospace.
- Machine cabinets.

Materials



Steel with plastic grip



Stainless with plastic grip



Stainless body and grip

Locking or Non Locking



Locking (park)



Non locking (spring back)



Push pull

Handling and Actuation Methods



Standard grip



Lever grip



T-handle



Pull ring



Threaded for bespoke handle

Mounting Options



Fine threaded (standard)



Coarse thread



Flange mount



Thin wall mount



Weldable

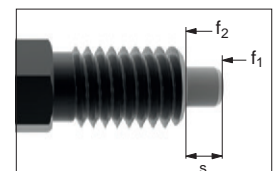
Additional Technical Notes

- Unless otherwise stated, grips on index plungers are not removable.
- Many of the pins on index plungers are toleranced to either the pin or the hole. Please refer to the specific product table.
- Index plungers are not recommended for shear load applications.

	Pin Tol.	Hole Tol.
①	h_9	+0,03 +0,08
②	-0,02 -0,04	H_7

Spring Loads

- s** Stroke, or movement of plunger's pin.
- f₁** The force required in Newtons (N) to overcome the static strength of the spring and achieve initial movement of the plunger's pin.
- f₂** The force required in Newtons (N) to fully compress the spring until the pin is fully depressed against the plunger's body.





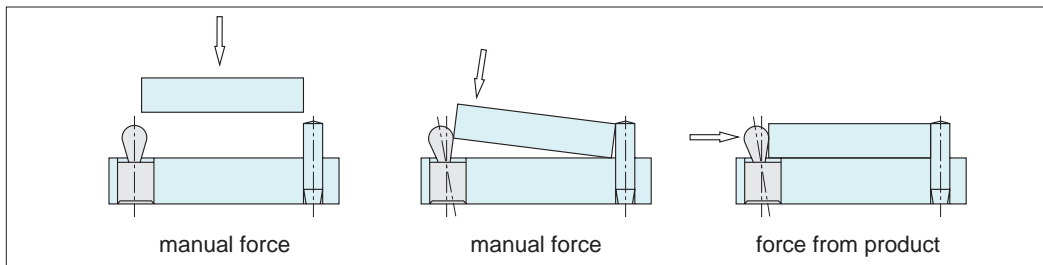
Wixroyd Side-Thrust Pins

for clamping, positioning and holding components

32810 - 32870

Positioning Elements

Wixroyd side-thrust pins are an economical way to clamp, hold and position components – from low height PCB's to relatively large castings.

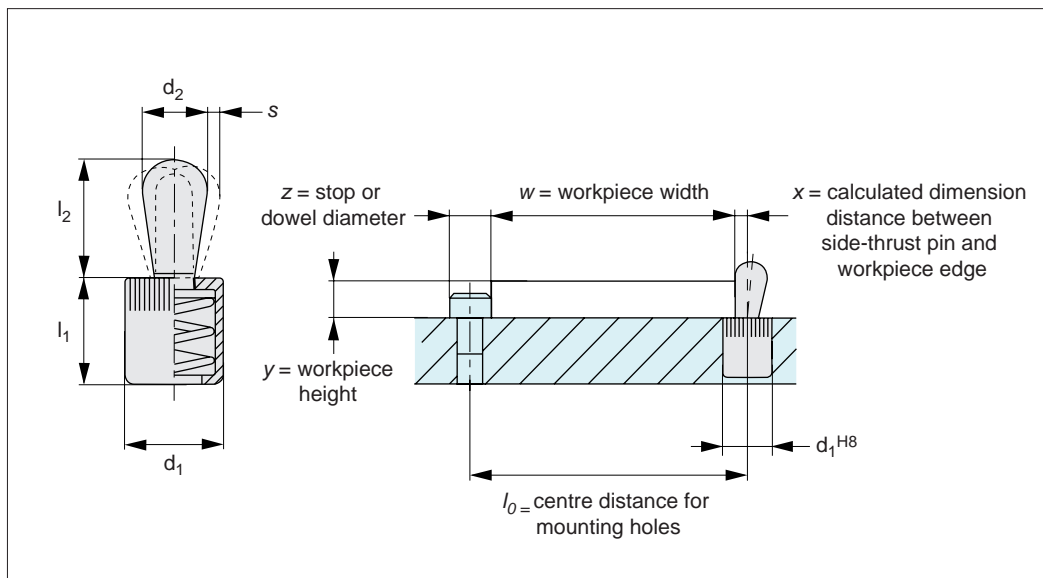


Easy to Use

Simple to mount, easy to use and space saving.

- Easy handling.
- Minimum mounting space.
- Simple and rapid changeover.
- Ideal for flat pieces.
- Reduced clamping times.
- Constant clamping pressure.

Installation Calculations of Side Thrust Pins



A) Calculating centre distance for mounting holes (l_0);

$$l_0 = (z/2) + w + x$$

B) Calculating pin location (x);

When workpiece height (y) is greater than or equal to $l_2 - (d_2/2)$ then (x) is calculated as;

$$x = (d_2/2) - s$$

When workpiece height (y) is less than $l_2 - (d_2/2)$ then (x) is calculated as;

$$x = (d_2/2) - s - \{ [l_2 - (d_2/2) - y] * 0.123 \}$$

l_0 = centre distance for mounting holes

y = workpiece height

w = workpiece width

x = distance between side-thrust pin and workpiece edge

s = stroke

z = stop or dowel stop diameter



The best selection of side thrust pins is made with consideration to the following four factors:

- a) Pin size Ø
- b) Pin material
- c) Sealed or non-sealed pin
- d) Required pin force

Pin Size Ø

Pin size Ø	Application
3 mm	Circuit boards, thin metals
4 mm	Electronics, measuring equipment, small precise parts
5 mm	Drilling jigs, sheet metal, measuring devices, welding fixtures
6 mm	Fixtures for light machine parts and castings
8 mm	Fixtures for medium machine parts and castings
10 mm	Fixtures for heavy machine parts and castings

Pin Material

Plastic pins for sensitive parts. Steel pins for other parts. Stainless steel pins in corrosive environments.

Sealed or Non-sealed Pin

With/without seal	Application	Operation
Use side-thrust pins with seal e.g. 32820, 32850 etc	Milling, drilling, reaming, broaching, honing, engraving	Machining
	Washing, polishing, painting, sand blasting	After machining
Use side-thrust pins without seal e.g. 32810, 32840 etc	Gluing, welding, hard soldering	Prior to machining
	Gripping, inserting, fitting	Final mounting
	Measuring, controlling, loading	Quality assurance
	Soft soldering, checking	Processing circuit boards

Pinforce - Guide Only

Positioning applications 30 - 60 N. Clamping applications 90 - 150 N.

Compression Spring Type

Available in an aluminium body, and in various spring pressures from 10 to 300N. Each pin size is usually available in 3 spring pressures.

Pressure	Low	Medium	High
Spring Colour	Stainless	Black	Blue

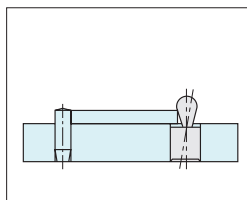
Elastomer Spring Type

Available in elastomer body and in various spring pressures from 10 to 160N.

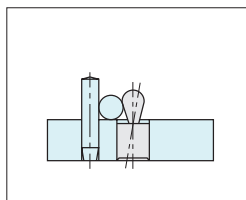
Typical Applications

Side-thrust pins find applications in the following industries and more:

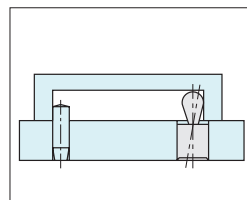
- Automotive.
- Aviation.
- Electronics.
- Computing.
- Plastics.
- Medical.
- Precision engineering.
- Tool manufacturing.



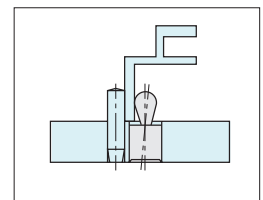
Positioning and clamping even extremely flat parts (e.g. metal sheets and printed circuit boards).



Positioning and clamping round metal using the deep drawing effect.



Space saving positioning and clamping from the inside to the outside.



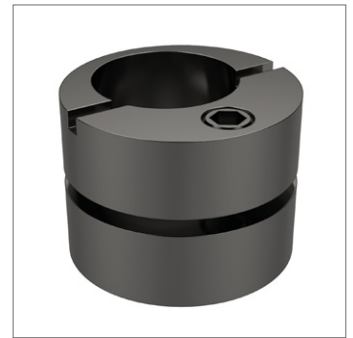
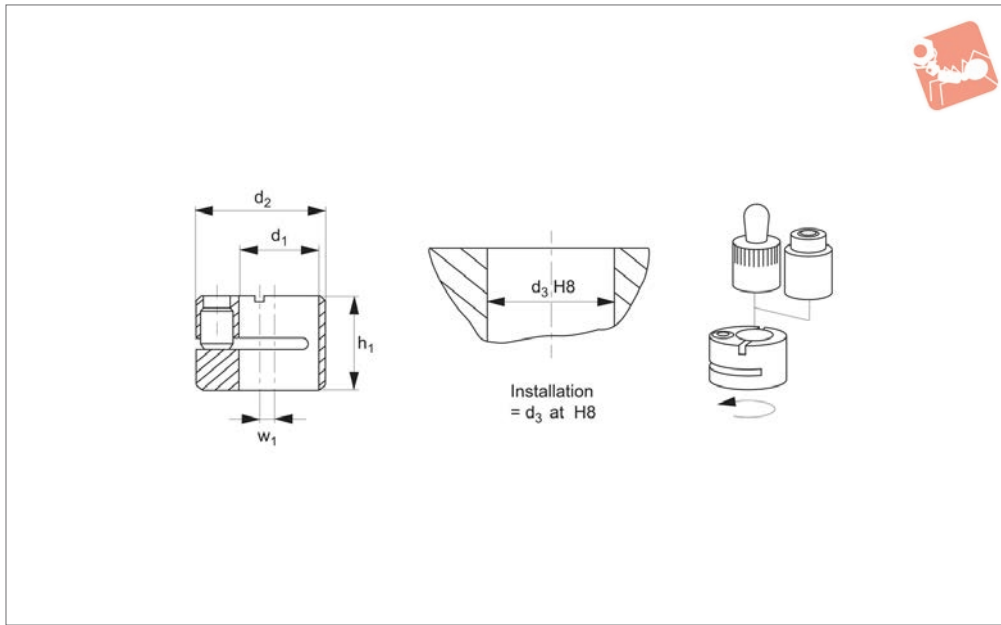
Positioning and clamping different profiles when welding. Material expansions compensated for by flexibility of the side-thrust pin.



Eccentric Bushings Mounting

smooth - for lateral plungers

Spring Plunger & Detent Pins



32900

SPRING PLUNGER & DETENT PINS

Material

Steel, blackend.

side-thrust pins nos. 32810, 32820 and side-thrust roller bearing no. 32880 when workpieces have large tolerances.

Technical Notes

The eccentric bushings are used to position

Order No.	d ₁ tol. H8	d ₂ tol. h9	d ₃ tol. H8	w ₁	h ₁	Weight g
32900.W0001	6	12	12	2	9.9	6
32900.W0003	10	16	16	2	11.9	10
32900.W0004	12	18	18	2	13.9	13
32900.W0005	16	25	25	3	17.9	35

