

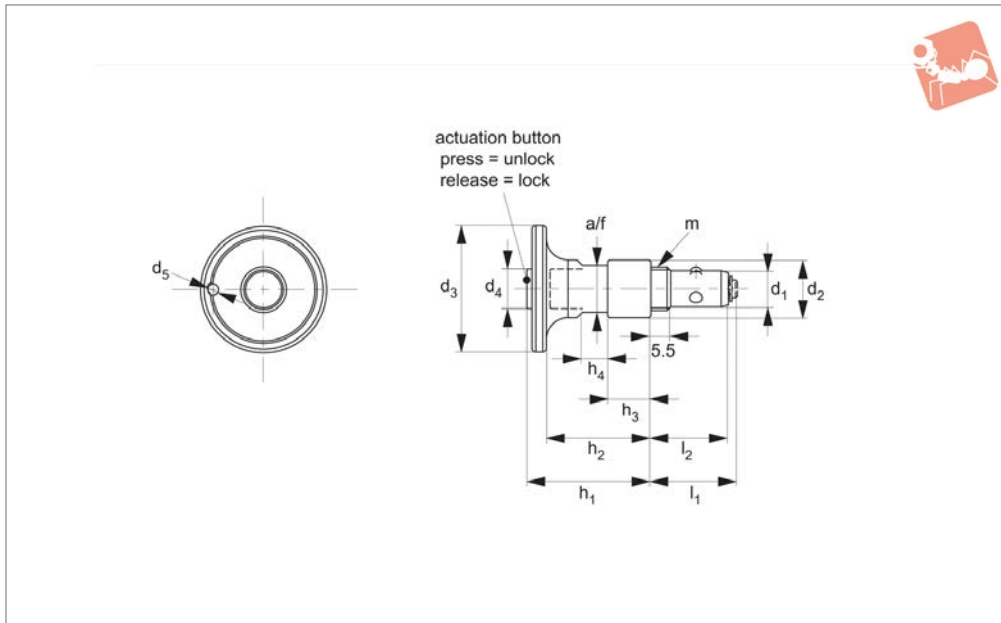


One-Touch Fastener - Ball Locking

push button lock - recessed button - steel



One Touch Fasteners



33910

ONE TOUCH FASTENERS

Material

Body & button: steel, nickel plated.
 Ball: stainless steel.
 Coil ring: stainless steel.
 O-Ring: fluororubber.

Technical Notes

One-touch fasteners are the ideal solution for applications requiring rapid and recurring change over of tooling or set ups. Use in applications as diverse as bottling processes, machine covers, changing of cogs and drive belts. One-touch fasteners

provide a quick, simple and secure change over solution - no time waste in unfastening screws or other permanent fixings, and no opportunity for lost fixings in your machinery.
 Temperature resistant to 180°C.

Tips

Secure one-touch fasteners to your assembly with lanyards and retaining cables, see part no. 33250.

Important Notes

Suitable for panels/enclosures of 6 to 10mm thickness. For locating bushes see part no. 33920.
 Recessed button handle means button is not exposed to accidental activation for added security.

Actuation:
 push button: unlock (to pass pin through panels)
 release button: lock to securely fasten.

Order No.	For single panel thickness	d_1 -0.05 -0.10	d_2	d_3	d_4	d_5	h_1	h_2	Weight g
33910.W1006	6-10	6	12	25	8	-	22.0	18	30
33910.W1610	6-16	10	16	35	11	3	34.5	29	30

Order No.	h_3	h_4	l_1	l_2	m	A/F	Clamping force N	Shear strength N	Tensile strength N
33910.W1006	6	5.5	21.0	19.0	M 8x1,25	10	30	3000	500
33910.W1610	12	7.0	23.5	21.5	M12x1,50	13	50	9000	1500

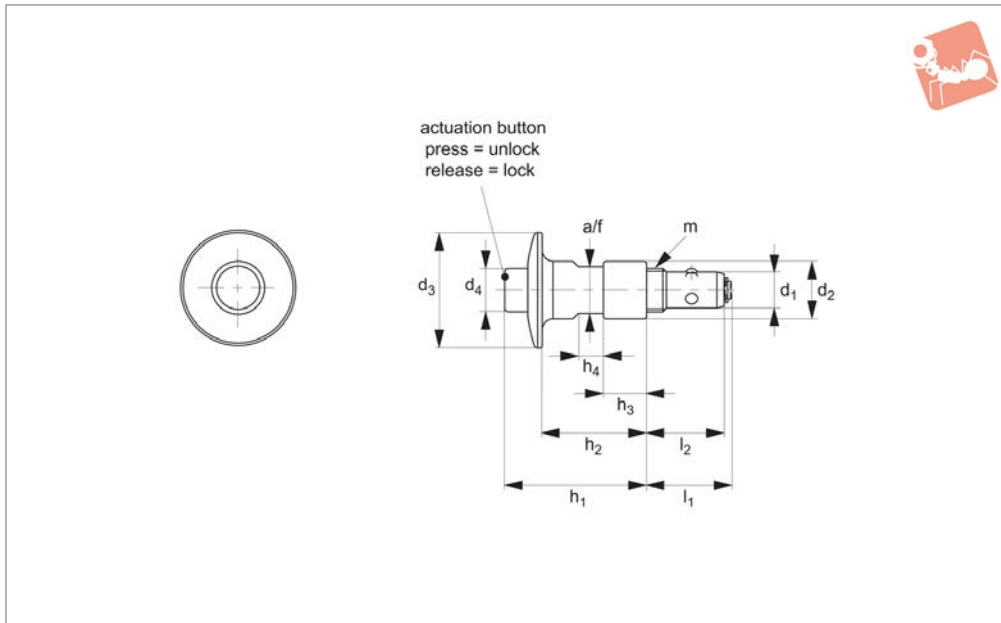


One-Touch Fastener - Ball Locking

push button lock - button handle - stainless steel



One Touch Fasteners



33912

ONE TOUCH FASTENERS

Material

Body: stainless steel.
 Button: stainless steel, nickel plated.
 Ball & coil ring: stainless steel.
 O-Ring: fluororubber.

Technical Notes

One-touch fasteners are the ideal solution for applications requiring rapid and recurring change over of tooling or set ups. Use

in applications as diverse as bottling processes, machine covers, changing of cogs and drive belts. One-touch fasteners provide a quick, simple and secure change over solution - no time waste in unfastening screws or other permanent fixings, and no opportunity for lost fixings in your machinery.
 Temperature resistant to 180°C.

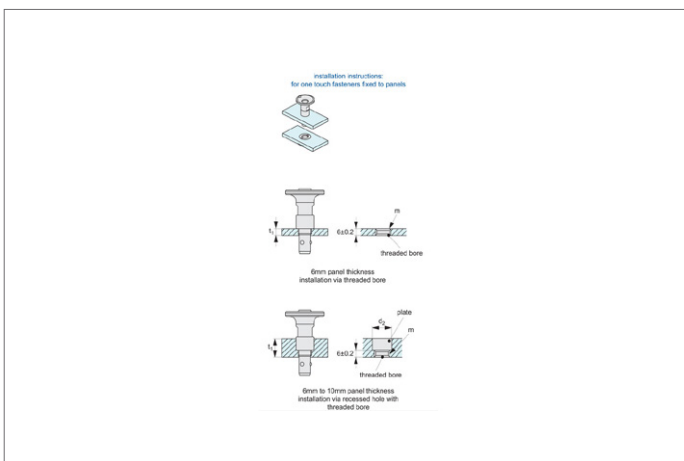
Important Notes

Suitable for panels/enclosures of 6 to 10mm thickness.
 For locating bushes see part no. 33920.

Actuation:
 push button: unlock (to pass pin through panels)
 release button: lock to securely fasten.

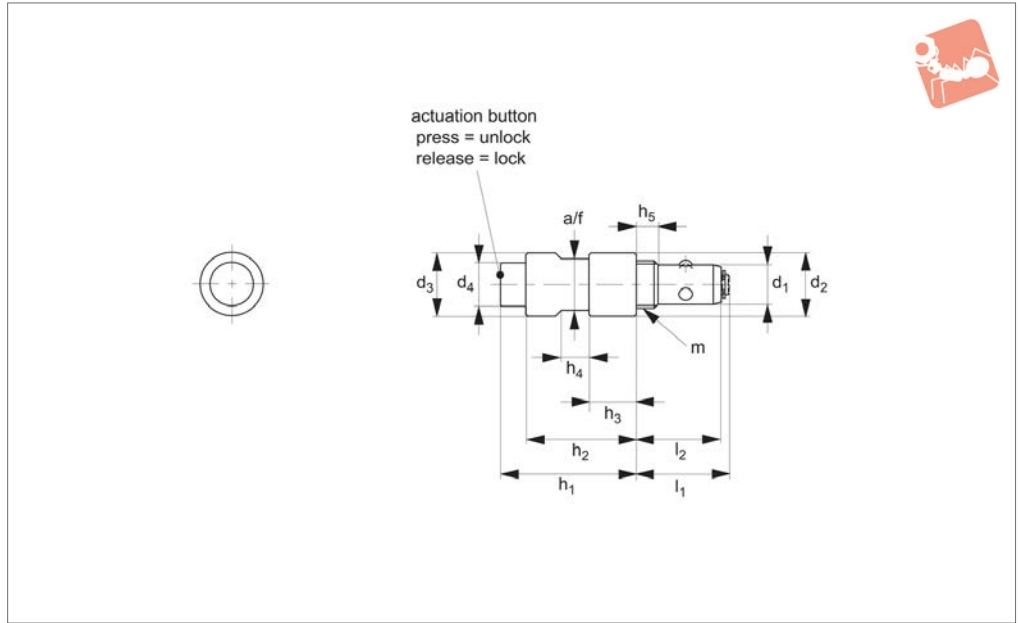
Order No.	For single panel thickness	d_1 -0.05 -0.10	d_2	d_3	d_4	h_1	h_2	Weight g
33912.W1006	6-10	6	12	23	8	26.0	18	30
33912.W1610	6-16	10	16	32	12	39.4	29	75

Order No.	h_3	h_4	l_1	l_2	m	A/F	Clamping force N	Shear strength N	Tensile strength N
33912.W1006	6	5.5	21.0	19.0	M 8x1,25	10	30	3000	500
33912.W1610	12	7.0	23.5	21.5	M12x1,50	13	50	9000	1500





33914



Material

Body & button: steel, nickel plated.
 Ball & coil ring: stainless steel.
 Snap Ring: stainless steel.

Technical Notes

One-touch fasteners are the ideal solution for applications requiring rapid and recurring change over of tooling or set ups. Use in applications as diverse as bottling processes, machine covers, changing of

cogs and drive belts. One-touch fasteners provide a quick, simple and secure change over solution - no time wasted in unfastening screws or other permanent fixings, and no opportunity for lost fixings in your machinery.
 Temperature resistant to 180°C.

Important Notes

Suitable for panels/enclosures of 6 to 16mm thickness.

For locating bushes see part no. 33920.

Actuation:

push button: unlock (to pass pin through panels)
 release button: lock to securely fasten.

Note: One-touch fastener 33914 is not suitable for installation unattached from panel.

Order No.	For single panel thickness		d_1 -0.05 -0.10	d_2	d_3	d_4	h_1	h_2	h_3	Weight g
33914.W1006	6-10		6	12	12	8	22.0	17.5	6	30
33914.W1610	6-16		10	16	16	11	34.4	28.0	12	50

Order No.	h_4	h_5	l_1	l_2	m	A/F	Clamping force N	Shear strength N	Tensile strength N
33914.W1006	5.5	5.5	21.0	19.0	M8x1,25	10	30	3000	500
33914.W1610	7.0	5.5	23.5	21.5	M12x1,5	13	50	9000	1500

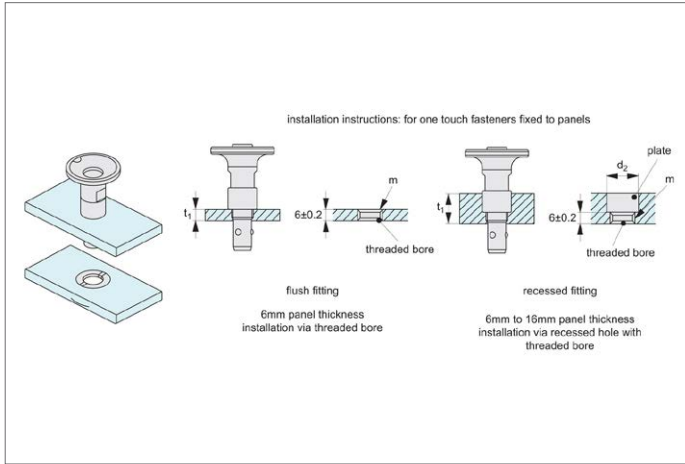


One-Touch Fastener - Ball Locking

push button lock - straight - steel



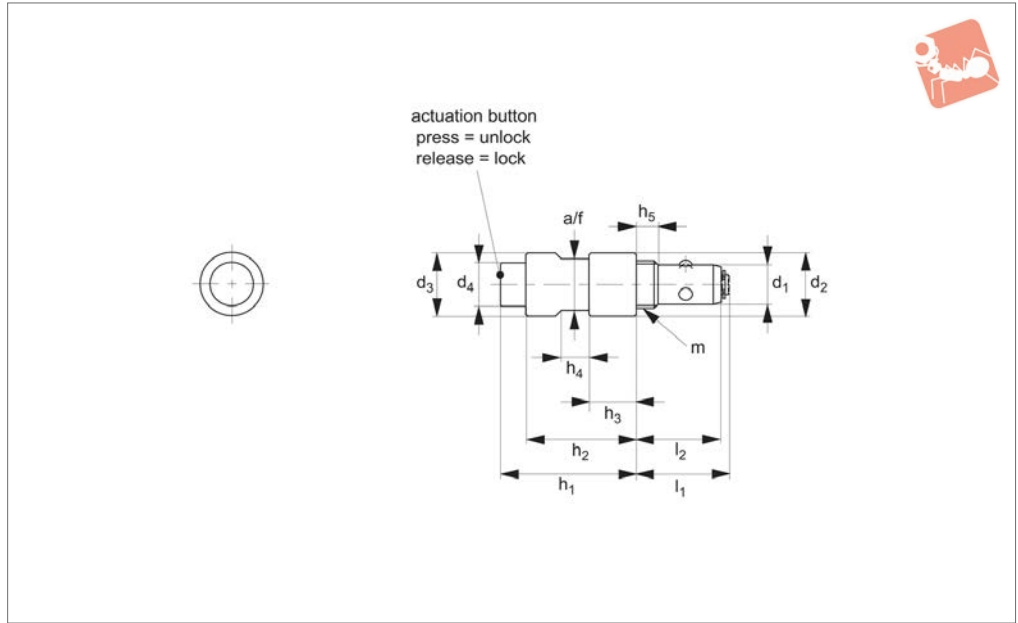
One Touch Fasteners



ONE TOUCH FASTENERS



33915



Material

Body & button: stainless steel
 Ball & coil ring: stainless steel.
 Snap Ring: stainless steel.

Technical Notes

One-touch fasteners are the ideal solution for applications requiring rapid and recurring change over of tooling or set ups. Use in applications as diverse as bottling processes, machine covers, changing of

cogs and drive belts. One-touch fasteners provide a quick, simple and secure change over solution - no time wasted in unfastening screws or other permanent fixings, and no opportunity for lost fixings in your machinery.
 Temperature resistant to 180°C.

Important Notes

Suitable for panels/enclosures of 6 to 16mm thickness.

For locating bushes see part no. 33920.

Actuation:

push button: unlock (to pass pin through panels)
 release button: lock to securely fasten.

Note: One-touch fastener 33915 is not suitable for installation unattached from panel.

Order No.	For single panel thickness	d_1 -0.05 -0.10	d_2	d_3	d_4	h_1	h_2	h_3	Weight g
33915.W1006	6-10	6	12	25	8	22.0	17.5	6	30
33915.W1610	6-16	10	16	35	11	34.4	28.0	12	50

Order No.	h_4	h_5	l_1	l_2	m	A/F	Clamping force N	Shear strength N	Tensile strength N
33915.W1006	5.5	5.5	21.0	19.0	M 8x1,25	10	30	3000	500
33915.W1610	7.0	5.5	23.5	21.5	M12x1,5	13	50	9000	1500

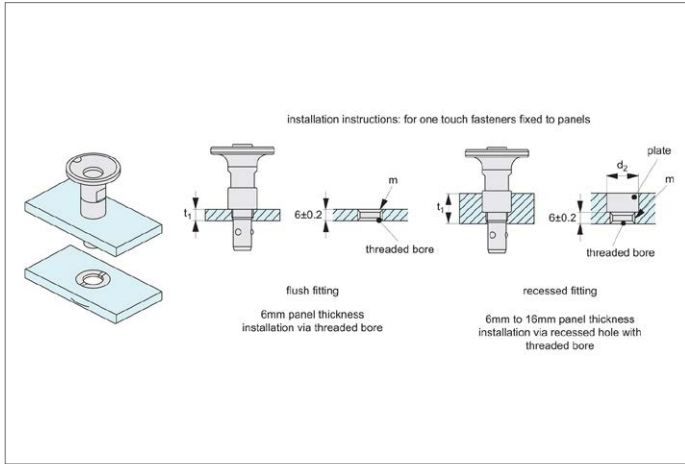


One-Touch Fastener - Ball Locking

push button lock - straight - stainless steel



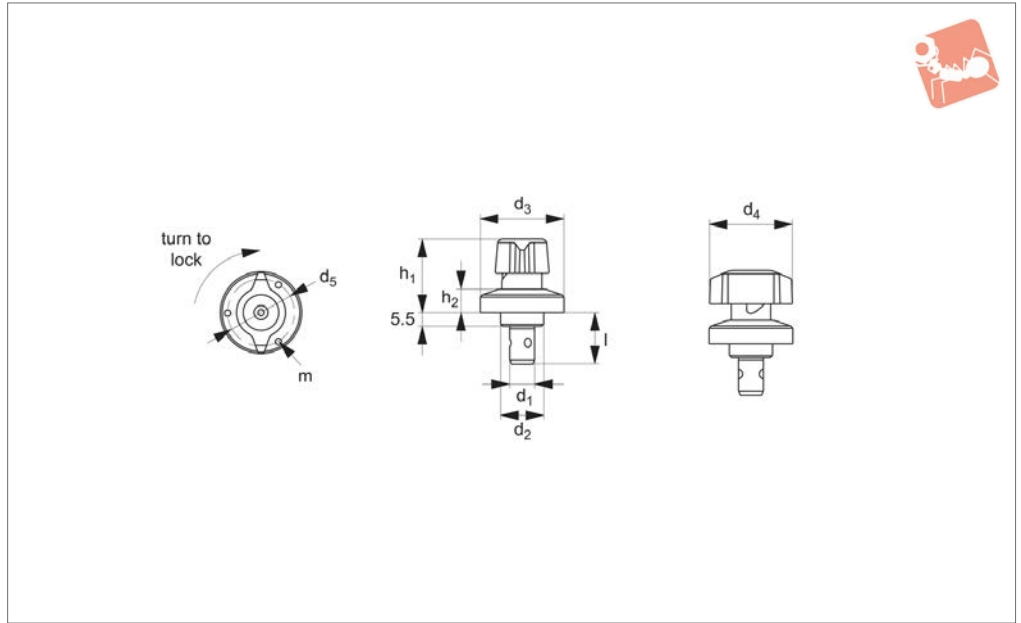
One Touch Fasteners



ONE TOUCH FASTENERS



33916



Material

Body & Shank: steel, nickel plated.
 Knob: plastic, black.
 Ball & Spring: Titanium G5.

Technical Notes

One-touch fasteners are the ideal solution for applications requiring rapid and recurring change over of tooling or set ups. Use in applications as diverse as bottling processes, machine covers, changing of cogs and drive belts. One-touch fasteners

provide a quick, simple and secure change over solution - no time wasted in unfastening screws or other permanent fixings, and no opportunity for lost fixings in your machinery.

Important Notes

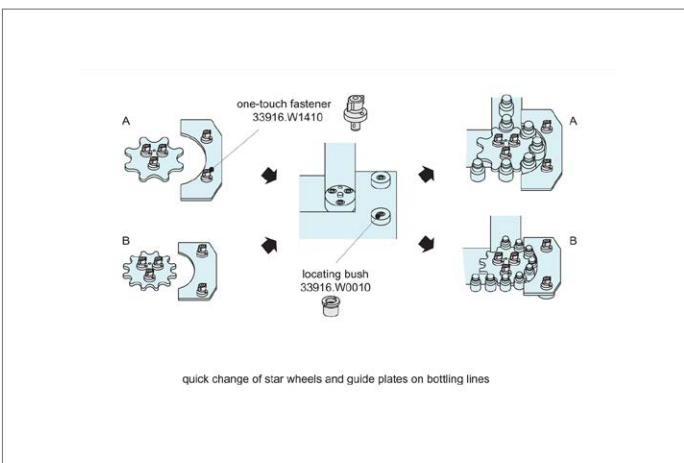
Suitable for panels/enclosures of 6 to 20mm thickness.
 For locating bushes see part no. 33920.
 Quarter turn handle, easy-to-read on/off position of the one-touch fastener for

increased security.
 Temperature resistant to 180°C.

Actuation:

- Turn handle to off position: locking balls retract and are held in retracted position via notched catch.
- Pass fastener through panel.
- Turn handle 45° to on position: locking balls engage with locating bush, panels are securely fastened.

Order No.	For single panel thickness	d_1 -0.05 -0.10	d_2 tol. h9	d_3	d_4	d_5	h_1	h_2	l	m	Clamping force N	Weight g
33916.W1006	6-10	6	14	25	25	21	24.5	6.5	19.5	M 2x0,4	30	40
33916.W1410	6-14	10	18	34	34	28	31.0	10.0	21.5	M 3x0,5	50	95
33916.W2010	12-20	10	18	34	34	28	31.0	10.0	27.5	M 3x0,5	50	100



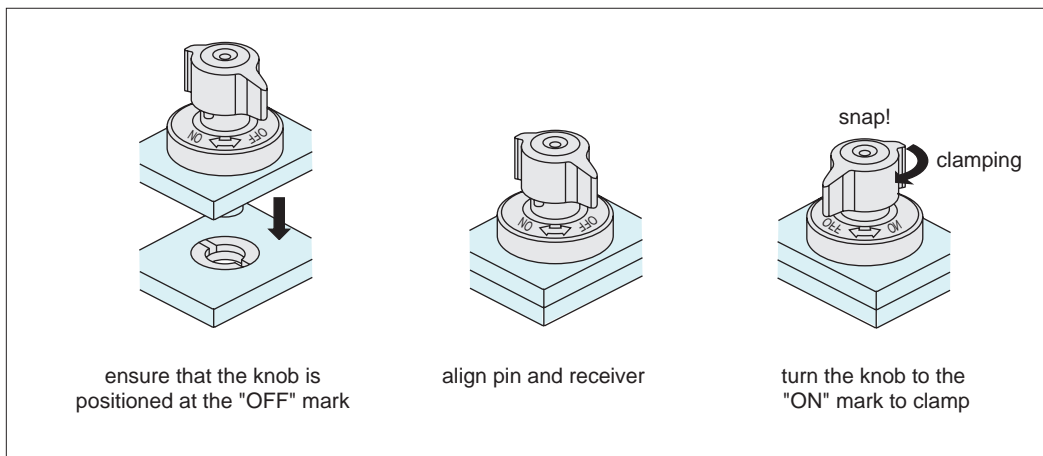


One-Touch Fastener - Ball Locking

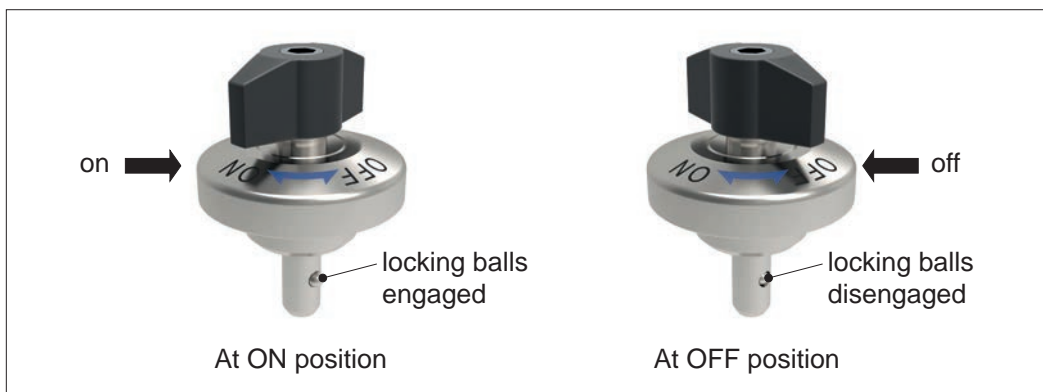
quarter turn - installation instructions

33916 - 33918
Positioning Elements

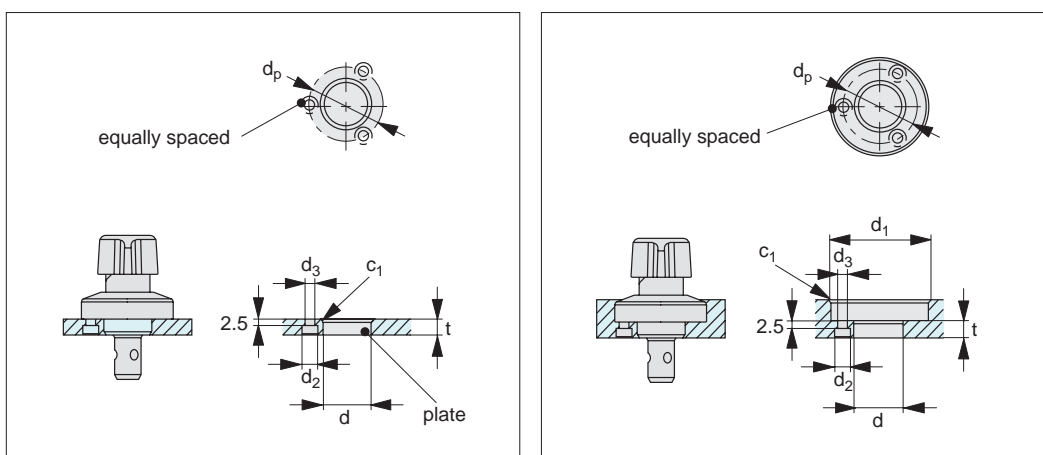
Operating Instructions



Easy Status Identification



Installation Dimensions for 33916-33918



Installation for 6mm panels

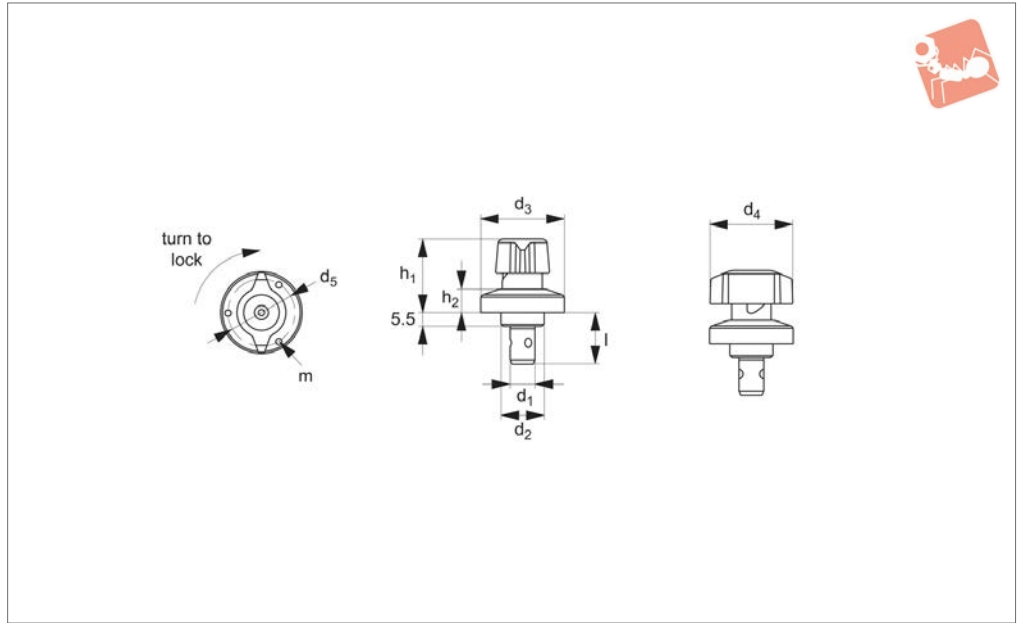
Installation for 6mm to 20mm panels

33916/17/18	Single panel thickness $t \pm 0,2$	$d_6 +0,1$ $+0,0$	d_7	d_8	d_9	d_5
.W1006	6	14	-	4,4	2,4	21
.W1006	6 to 10	14	26	4,4	2,4	21
.W1410	6	18	-	6,5	3,4	28
.W1410	6 to 14	18	35	6,5	3,4	28
.W2010	12	18	-	6,5	3,4	28
.W2010	12 to 20	18	35	6,5	3,4	28

Note: if two fasteners used, allow spacing tolerance of $\pm 0,1$ mm



33917



Material

Body: stainless steel
 Shank: steel, nickel plated.
 Knob: stainless steel.
 Ball & spring: stainless steel.

Technical Notes

One-touch fasteners are the ideal solution for applications requiring rapid and recurring change over of tooling or set ups. Use in applications as diverse as bottling processes, machine covers, changing of cogs and drive belts. One-touch fasteners

provide a quick, simple and secure change over solution - no time wasted in unfastening screws or other permanent fixings, and no opportunity for lost fixings in your machinery.

Important Notes

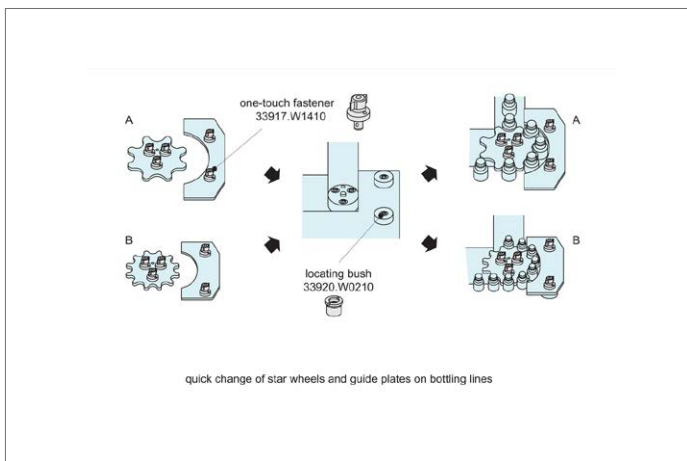
Suitable for panels/enclosures of 6 to 20mm thickness.
 For locating bushes see part no. 33920.
 Quarter turn handle, easy-to-read on/off position of the one-touch fastener for increased security.

Temperature resistant to 180°C.

Actuation:

- Turn handle to off position: locking balls retract and are held in retracted position via notched catch.
- Pass fastener through panel.
- Turn handle 45° to on position: locking balls engage with locating bush, panels are securely fastened.

Order No.	For single panel thickness	d_1 -0.05 -0.10	d_2 tol. h9	d_3	d_4	d_5	h_1	h_2	l	m	Clamping force N	Weight g
33917.W1006	6-10	6	14	25	25	21	24.5	6.5	19.5	M 2x0,4	30	40
33917.W1410	6-14	10	18	34	34	28	31.0	10.0	21.5	M 3x0,5	50	95
33917.W2010	12-20	10	18	34	34	28	31.0	10.0	27.5	M 3x0,5	50	100



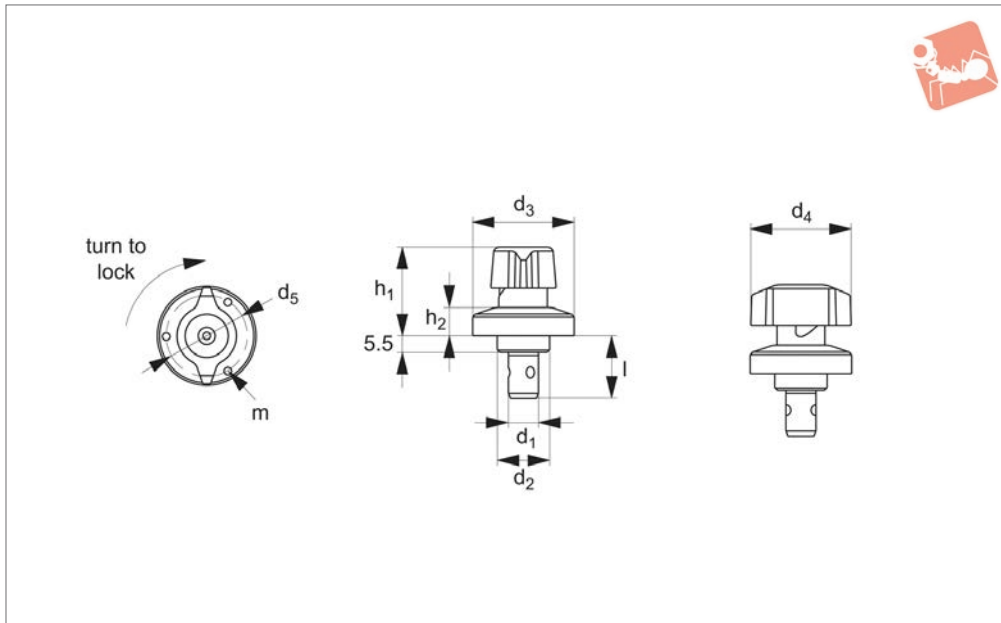


One-Touch Fastener - Ball Locking

quarter turn lock - t-handle grip - stainless steel



One Touch Fasteners



33918

ONE TOUCH FASTENERS

Material

Body & shank: stainless steel.
Knob: stainless steel.
Ball & spring: stainless steel.

Technical Notes

One-touch fasteners are the ideal solution for applications requiring rapid and recurring change over of tooling or set ups. Use in applications as diverse as bottling processes, machine covers, changing of cogs and drive belts. One-touch fasteners

provide a quick, simple and secure change over solution - no time wasted in unfastening screws or other permanent fixings, and no opportunity for lost fixings in your machinery.

Important Notes

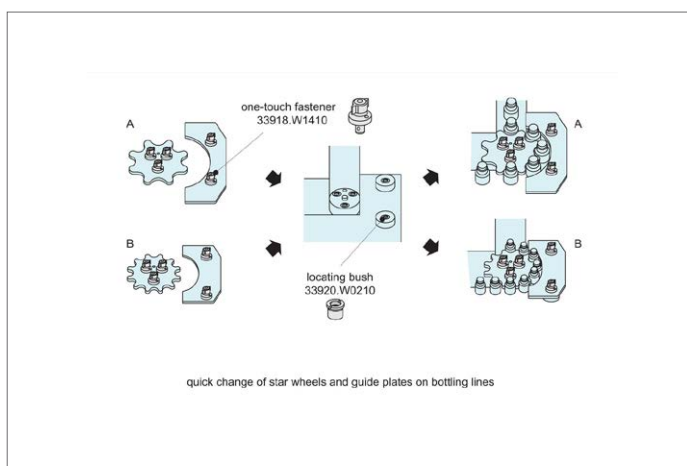
Suitable for panels/enclosures of 6 to 20mm thickness.
For locating bushes see part no. 33920.
Quarter turn handle, easy-to-read on/off position of the one-touch fastener for

increased security.
Temperature resistant to 180°C.

Actuation:

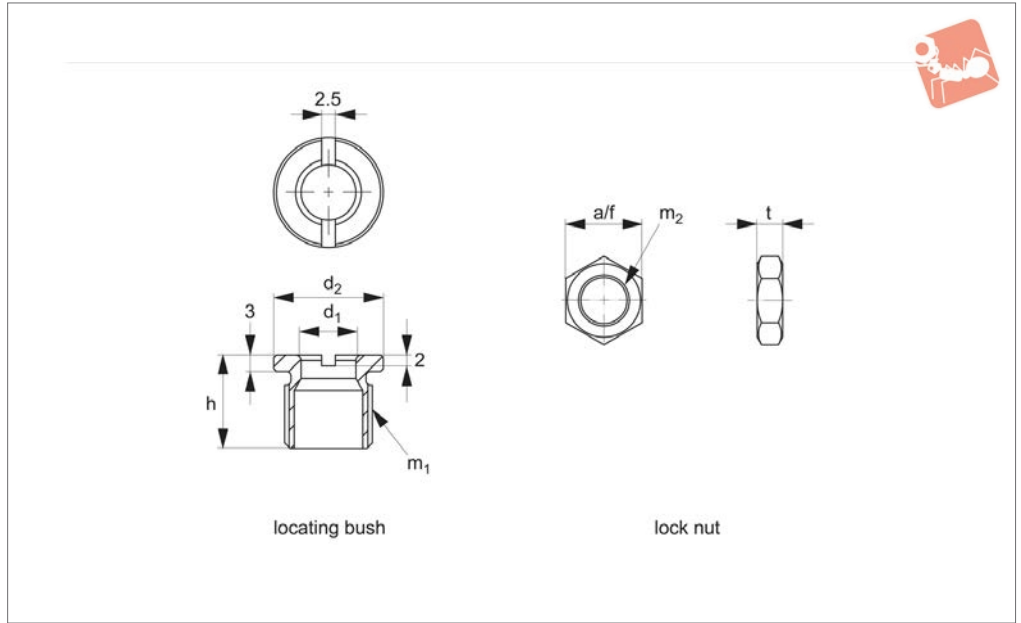
- Turn handle to off position: locking balls retract and are held in retracted position via notched catch.
- Pass fastener through panel.
- Turn handle 45° to on position: locking balls engage with locating bush, panels are securely fastened.

Order No.	For single panel thickness	d_1 -0.05 -0.10	d_2 tol. h9	d_3	d_4	d_5	h_1	h_2	l_1	m	Clamping force N	Weight g
33918.W1006	3-10	6	14	25	25	21	24.5	6.5	19.5	M 2x0,4	30	40
33918.W1410	3-14	10	18	34	34	28	31.0	10.0	21.5	M 3x0,5	50	120
33918.W2010	12-20	10	18	34	34	28	31.0	10.0	27.5	M 3x0,5	50	100





33920



Material

Body: steel or stainless steel SUS303.
Nut: stainless steel SUS303.

Technical Notes

Used in conjunction with one-touch fasteners 33910 to 33918, locating bushes 33920 provide secure fastening of panels and covers. Locating bushes are of particular use in soft metals, such as aluminium where receiving surfaces may wear. One-

touch fasteners are the ideal solution for applications requiring rapid and recurring change over tooling or set ups. Use in applications as diverse as bottling processes, machine covers, changing of cogs and drive belts.

Tips

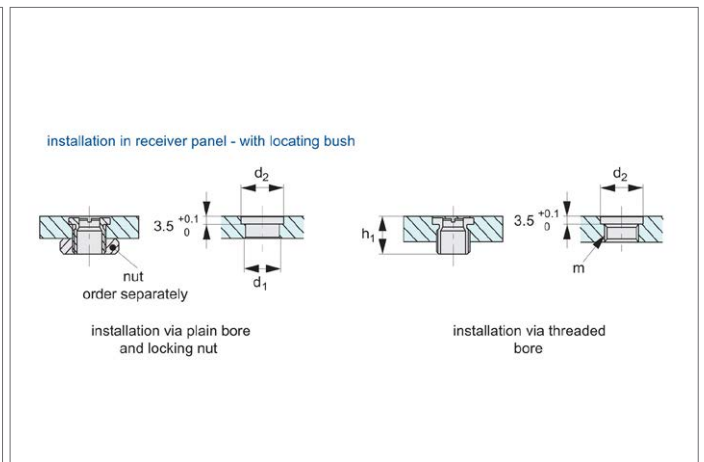
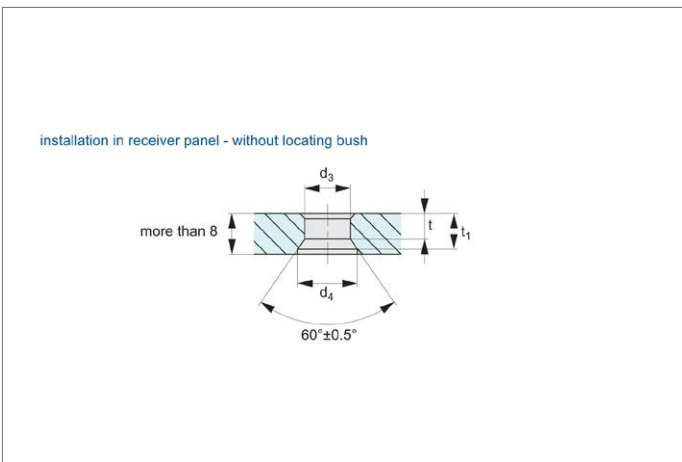
While we recommend the use of locating bushes as receivers for our one-touch fasteners, it is also possible to mount one-

touch fasteners without them, see specifications opposite.

Important Notes

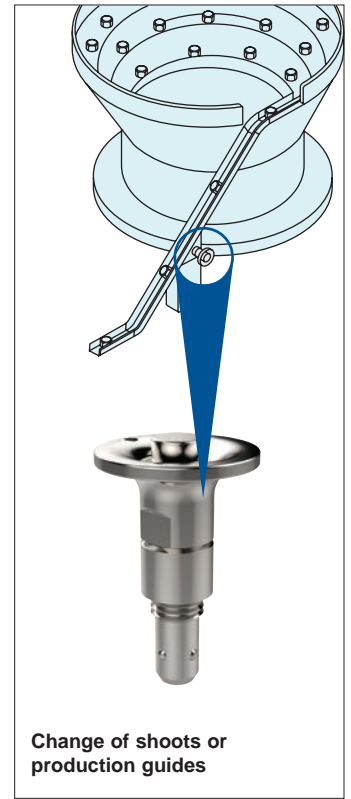
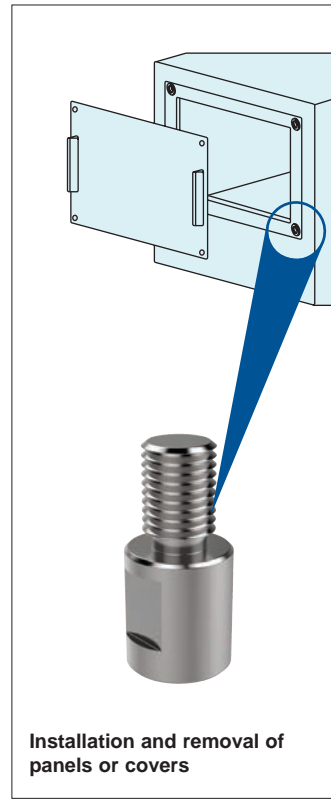
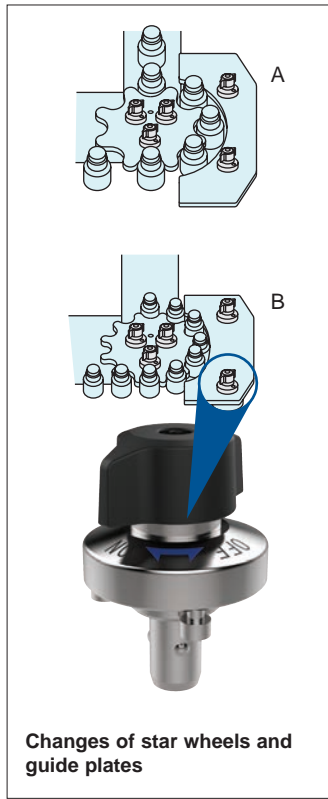
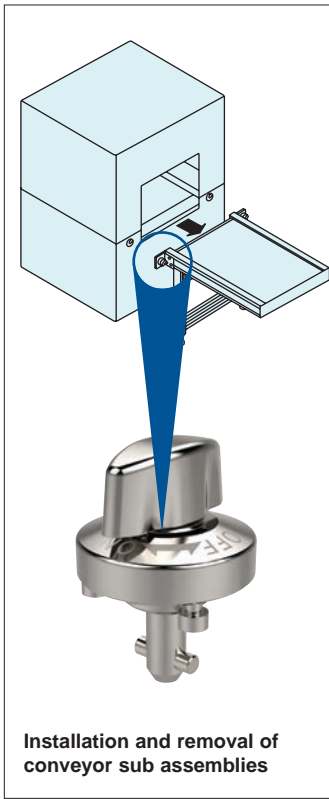
Suitable for panels/enclosures of 6 to 20mm thickness. For one-touch fasteners see part no. 33910 to 33918. For installation instructions see technical page. Temperature resistant to 180°C.

Order No.	Type	Material	$d_1 +0.4 +0.2$	$d_2 \text{ tol. } h9$	h	m_1	For panel thickness	Weight g
33920.W0006	Bush	Steel	6	16	15	M12x1,5	>6	9
33920.W0010	Bush	Steel	10	20	17	M16x1,5	>6	13
33920.W0206	Bush	S/S	6	16	15	M12x1,5	>6	9
33920.W0210	Bush	S/S	10	20	17	M16x1,5	>6	13





One-Touch Fasteners - Alternatives to Screws



ONE TOUCH FASTENERS

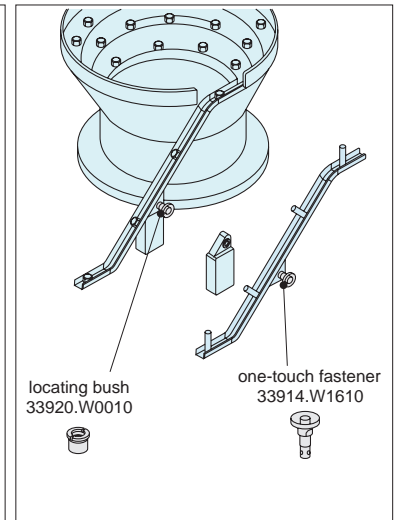
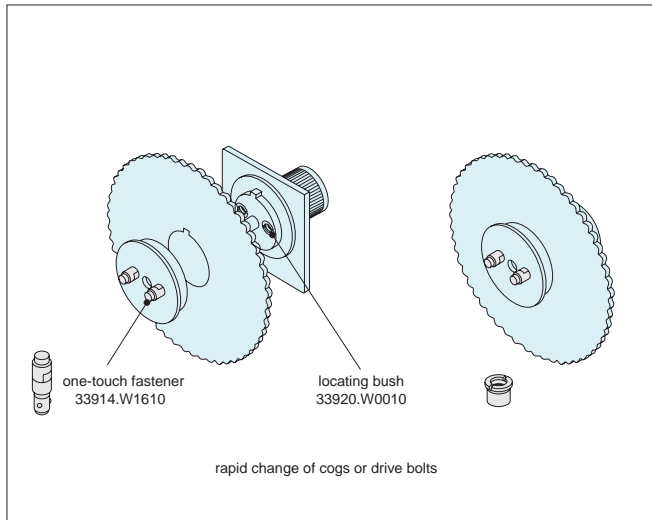
Easy & Secure! For Quick Changeover with No Tools!



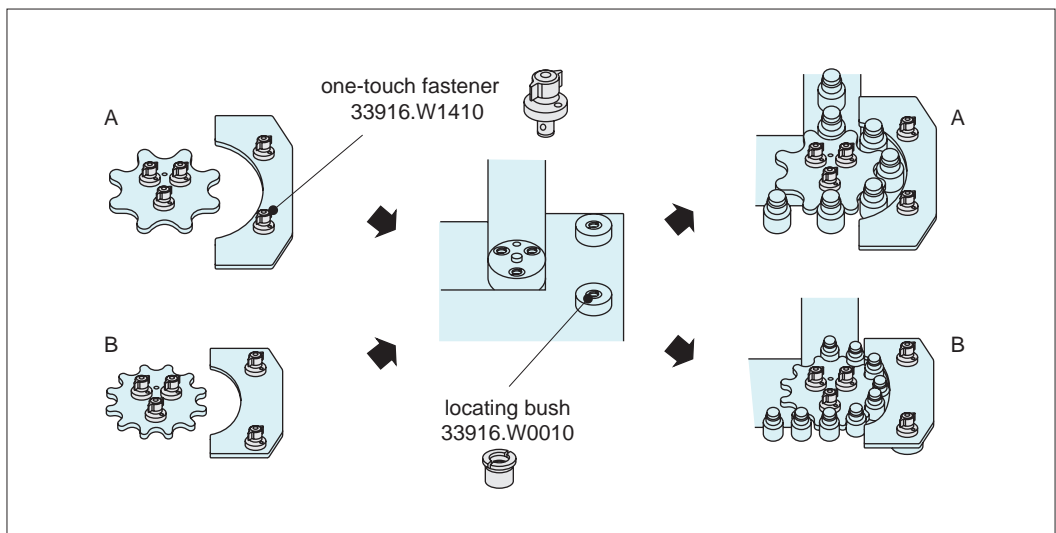


One-Touch Change Over

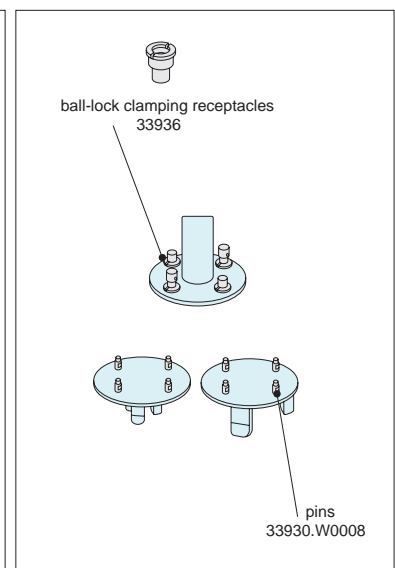
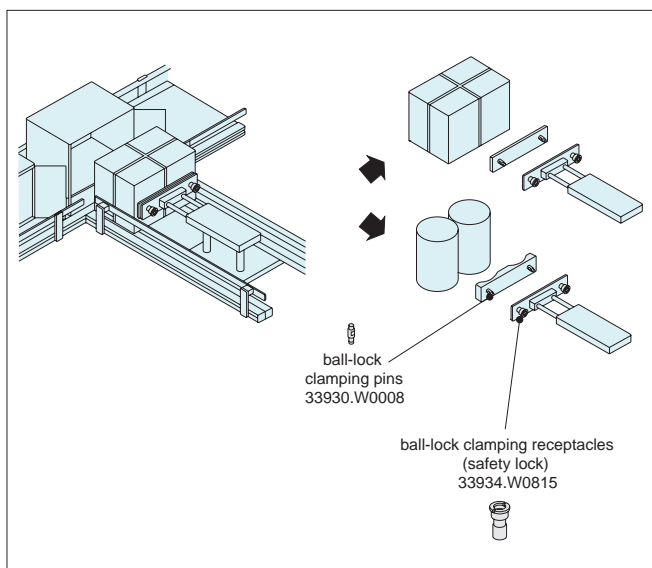
Installation and Removal of Rotary Blades and Changes of Shooters



Changes of Star Wheels and Guide Plates



Changes of Pusher and Changes of Chuck Handling Machines





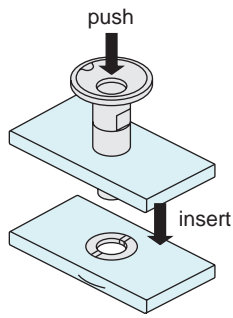
One-Touch Fastener - Ball Locking

technical information

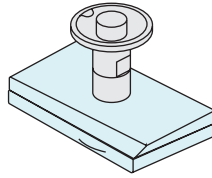
33910 - 33920

Positioning Elements

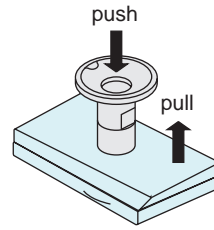
Operating Instructions



depress button, align pin and insert

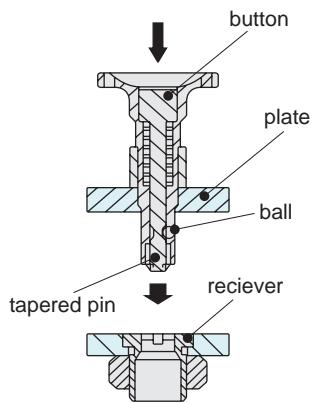


when the button is released, clamping is complete

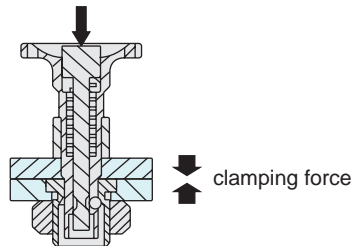


depress button to release, and pull out

Operating Principle



activation button
press = unlock
release = lock



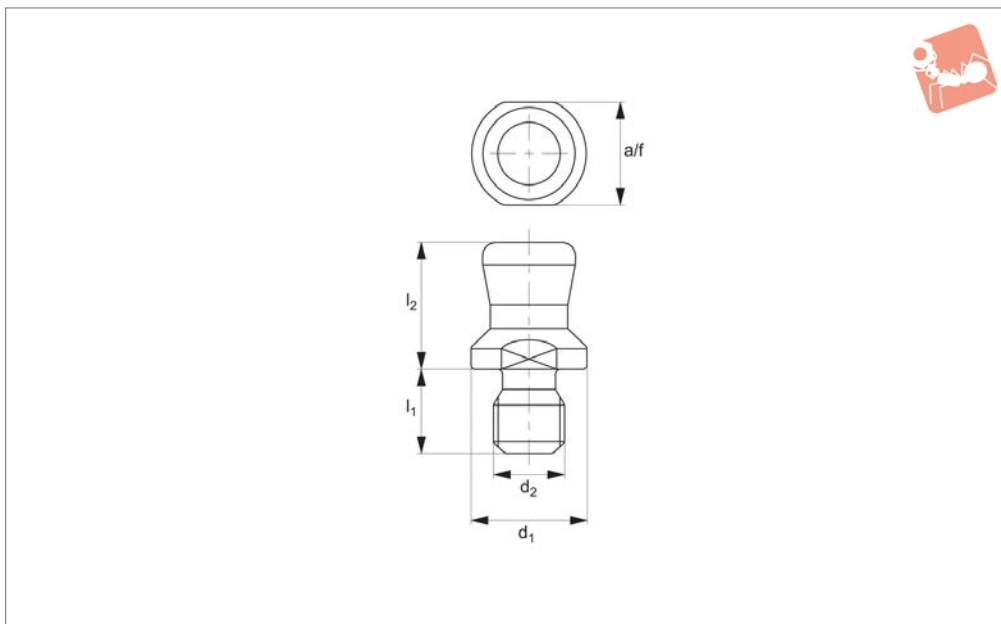
during clamping the tapered pin pushes out the ball bearing, into the recessed holes of the receiver, securely clamping the two surfaces together

ONE TOUCH FASTENERS

ov-W33910-A-T-W33920-A-T-ball-locking-one-touch-fasteners-a-rmh - Updated - 27-10-2022



33923



Material

Body: stainless steel, SUS630

Technical Notes

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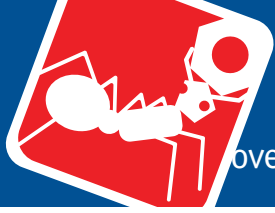
cogs and drive belts. One-touch fasteners provide a quick, simple and secure change over solution - no time wasted in unfastening screws or other permanent fixings, and no opportunity for lost fixings in your machinery.

Important Notes

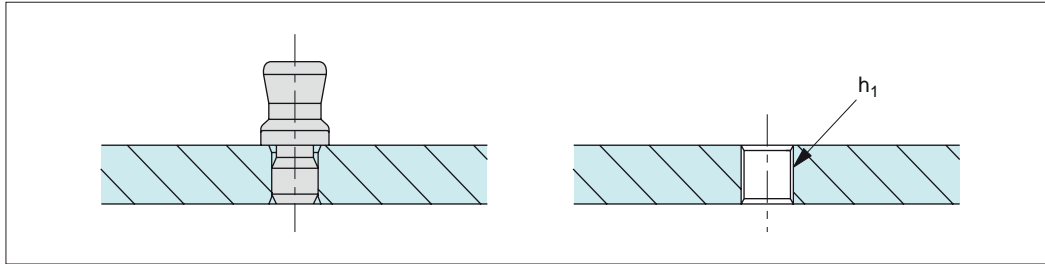
Pin 33923 for use in conjunction with one-

touch fasteners, ball clamping; 33924 through 33929. Pins for installation in material to minimum depth 6,0mm or greater. Recess of 0,5mm +0,1 is recommended to ensure full surface contact and achieve maximum strength of pin.

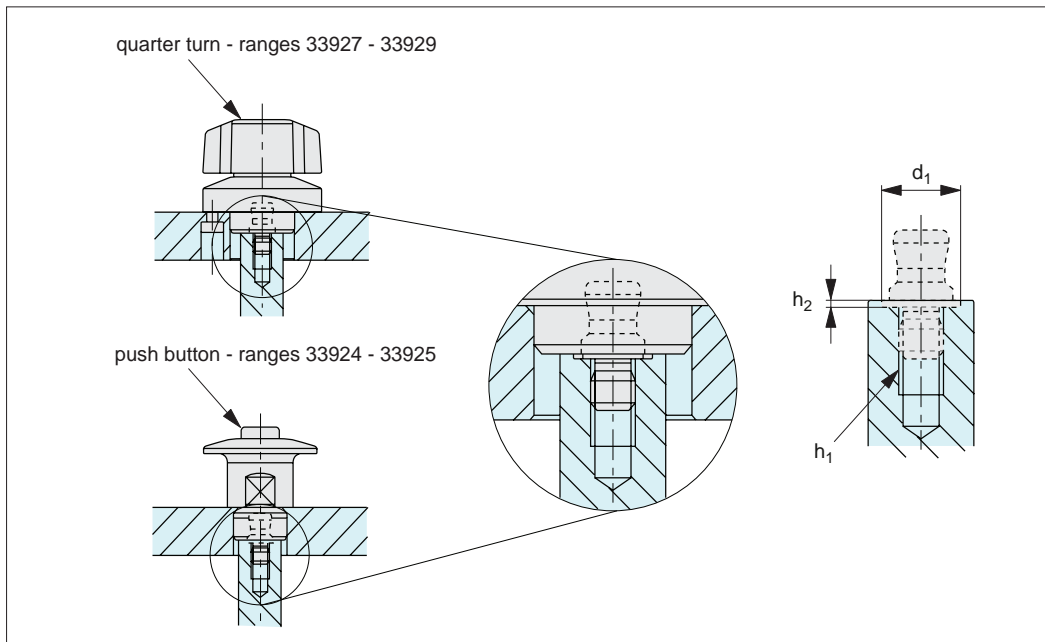
Order No.	d_1 -0.05 -0.10	d_2	l_1	l_2	A/F	Weight g
33923.W0006	6	M 4x0,7	5.8	7.6	5	2
33923.W0008	8	M 5x0,8	5.8	8.7	7	3



Installation Dimensions



Standard Mount



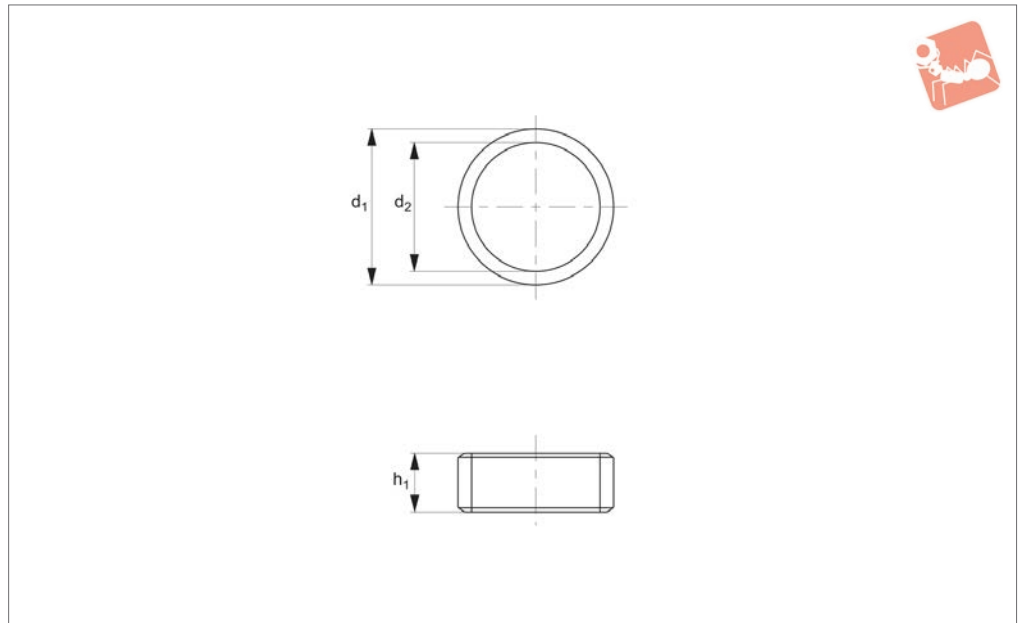
Recessed Mount

Prepare a tapped hole according to the thread of the pin. Ensure a counter bore is machined to depth h_2 to complete pin installation.

	Mounting type	h_1	h_2 +0,1	d_3
33923.W0006	Standard	M4x0,7	-	-
33923.W0006	Recessed	M4x0,7	0,5	7
33923.W0008	Standard	M5x0,8	-	-
33923.W0008	Recessed	M5x0,8	0,5	9



33926



Material

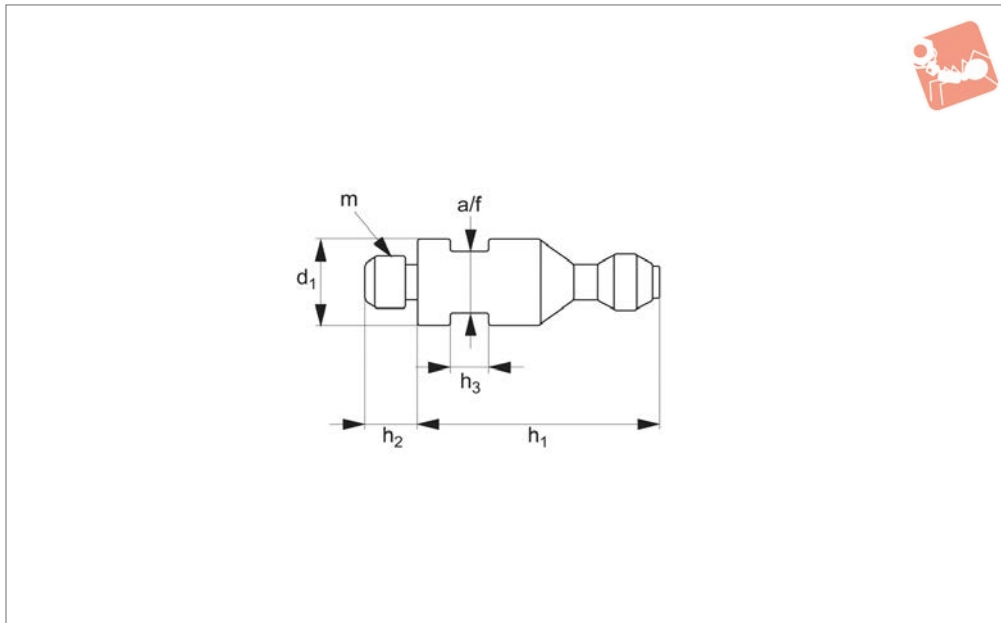
Stainless steel SUS303

Technical Notes

For use with one-touch fasteners 33924

and 33925. Spacer adapts thread length of one-touch fastener to different thread reaches on mounting panels of different thickness.

Order No.	For panel thickness	d_1	d_2 +0.2 +0.01	h_1 +0.05	Weight g
33926.W1604	6	19	16	4	2.5
33926.W1605	5	19	16	5	3.0
33926.W1606	4	19	16	6	3.5
33926.W1607	3	19	16	7	4.0



33930

ONE TOUCH FASTENERS

Material

Body: steel, nickel plated.

Technical Notes

One-touch fasteners are the ideal solution for applications requiring rapid and recurring change over of tooling or set ups. Use in applications as diverse as bottling processes, machine covers, changing of

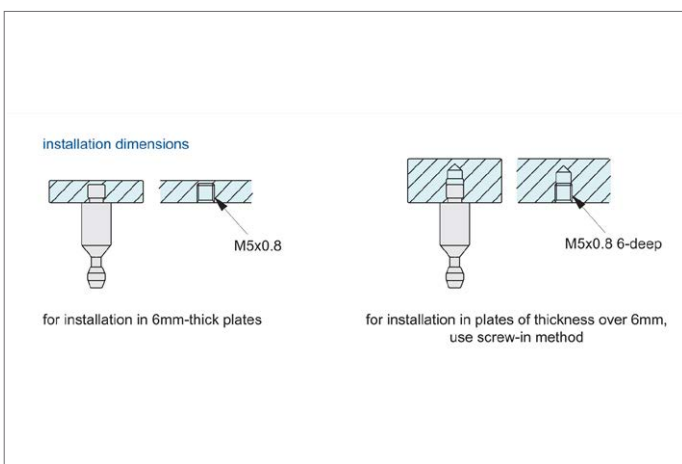
cogs and drive belts. One-touch fasteners provide a quick, simple and secure change over solution - no time waste in unfastening screws or other permanent fixings, and no opportunity for lost fixings in your machinery.

Important Notes

Pin 33930 is for use inconjunction with

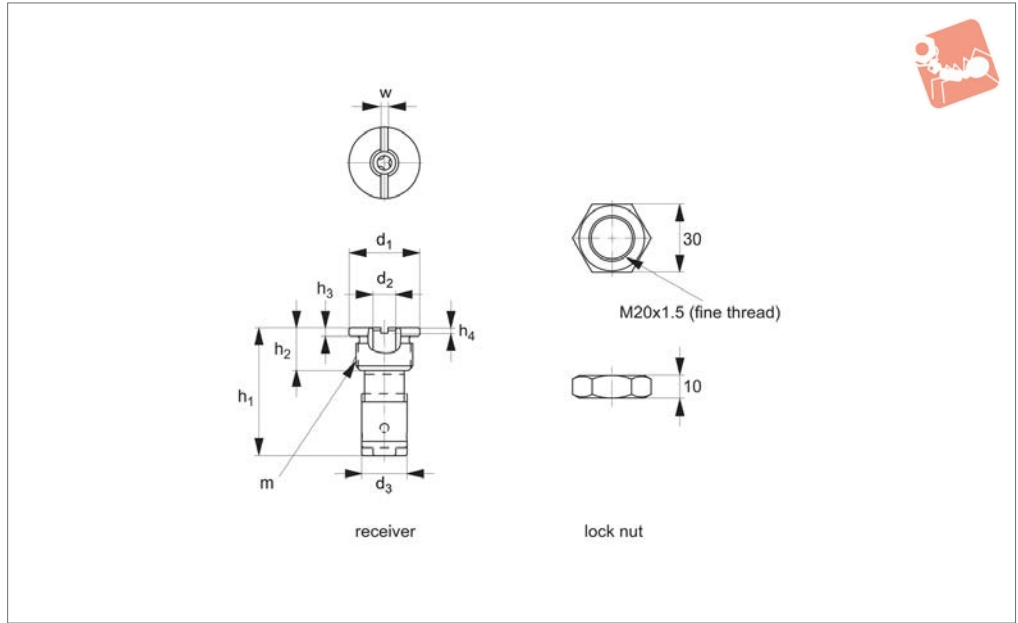
one-touch fasteners, ball clamping; 33934 and 33936. Suitable for panels/enclosures of 6 to 20 mm thickness. Requires an M 6 thread, 6mm deep for installation into blind hole. See technical pages for further information.

Order No.	d_1 -0.2 -0.4	h_1	h_2	h_3	m	A/F	Weight g
33930.W0008	Ø8	23	5	4	M 5x0,8	6	7





33934



Material

Body: steel, nickel plated.
Balls: stainless steel.

Technical Notes

One-touch fasteners are the ideal solution for applications requiring rapid and recurring change over of tooling or set ups. Used in applications as diverse as bottling processes, machine covers, changing of cogs and drive belts. One-touch fasteners provide a quick, simple and secure change

over solution - no time waste in unfastening screws or other permanent fixings, and no opportunity for lost fixings in your machinery.

Temperature resistant to 180°C.

Important Notes

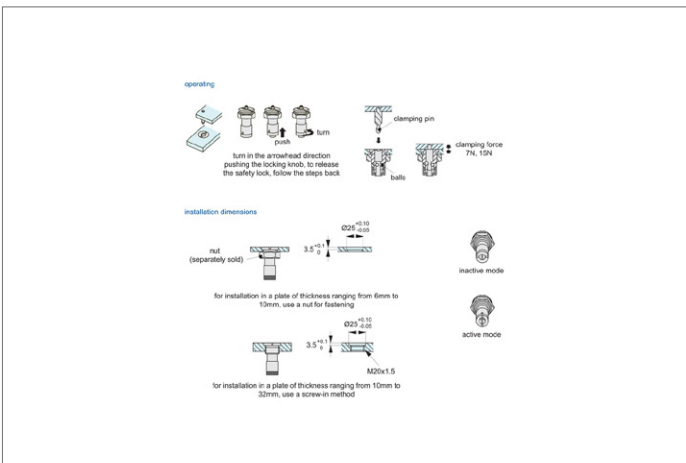
Suitable for panels/enclosures of 6 to 32 mm thickness. Used in conjunction with pin 33930. Offers a safety release feature to prevent accidental release in of pin/assembly.

* Tensile strength stated is for locked position/state of the fastener.

Actuation:

Engage pin into receiver, a positive „click“ is heard, securing balls are engaged. Panels are securely fastened. To release, pull safety release housing on under side of receiver, balls are retracted and panel is released.

Order No.	Type	d_1 tol. h9	d_2 +0.10 +0.50	d_3	h_1	h_2	h_3	h_4	m	w	Clamping force N	Shear strength N	Tensile strength N	Weight g
33934.W0807	Receiver	Ø26	Ø8	Ø16	45	15	3	2	M20x1,5	2,5	7	1800	1800	65
33934.W0815	Receiver	Ø26	Ø8	Ø16	45	15	3	2	M20x1,5	2,5	17	1800	1800	65



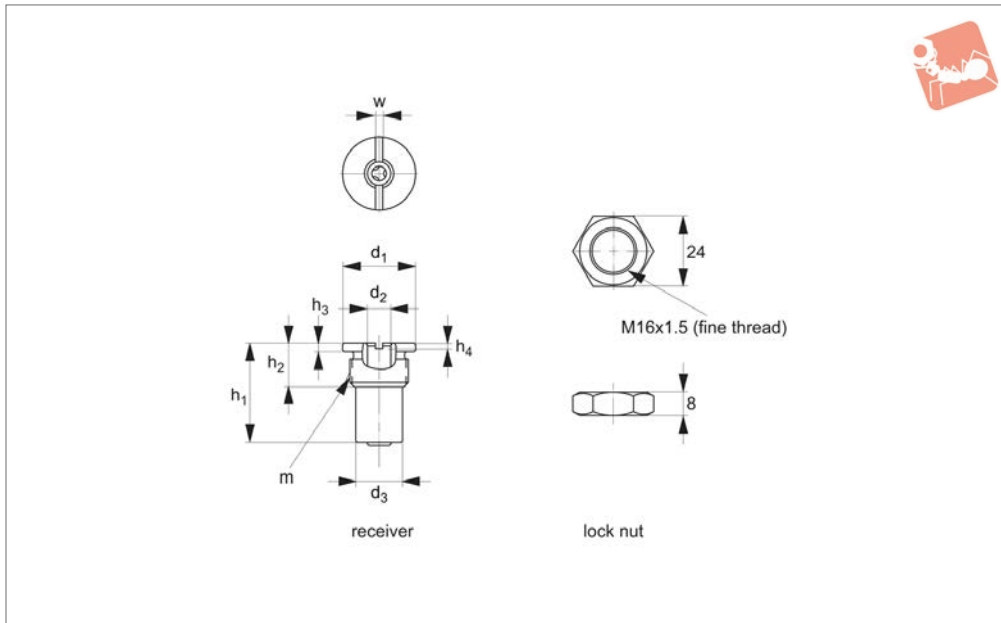


One-Touch Fastener - Ball Clamping

locating bush and receiver - mechanical release



One Touch Fasteners



33936

ONE TOUCH FASTENERS

Material

Body: steel, nickel plated.
Balls & spring: stainless steel.

Technical Notes

One-touch fasteners are the ideal solution for applications requiring rapid and recurring change over of tooling or set ups. Use in applications as diverse as bottling processes, machine covers, changing of cogs and drive belts. One-touch fasteners provide a quick, simple and secure change

over solution - no time waste in unfastening screws or other permanent fixings, and no opportunity for lost fixings in your machinery. Temperature resistant to 180°C.

Important Notes

Suitable for panels/enclosures of 6 to 32 mm thickness. Used inconjunction with pin 33930. Mechanical release only (no safety release).

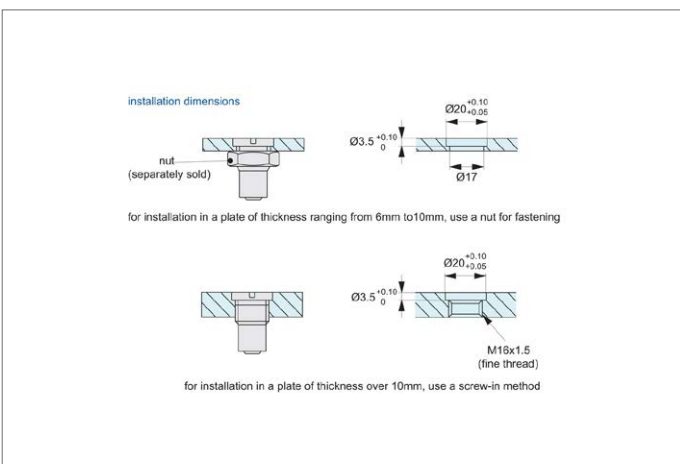
* Tensile strength stated is for locked posi-

tion/state of the fastener.

Actuation:

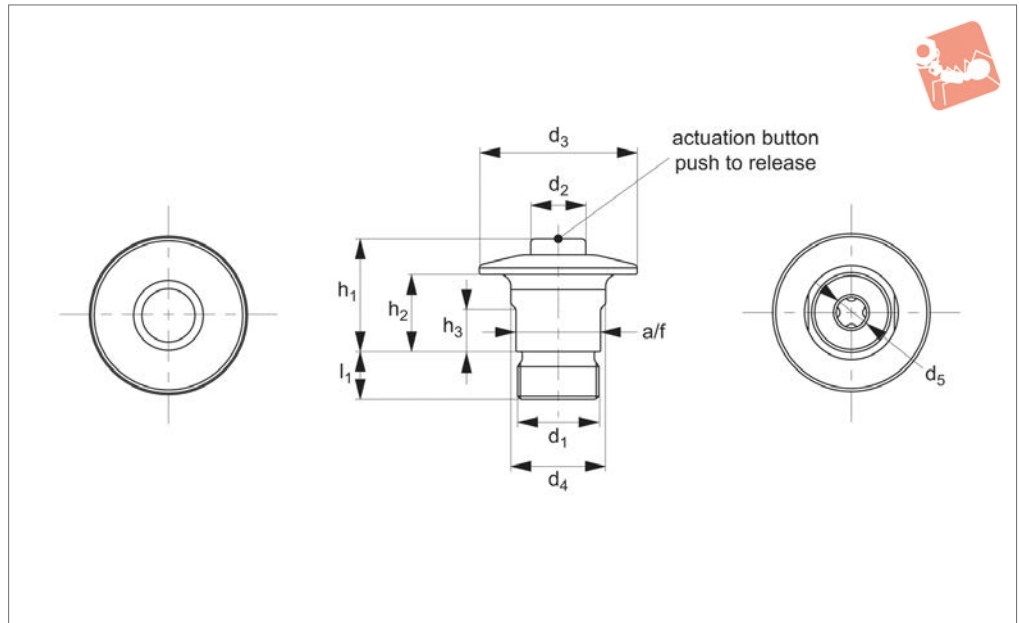
Engage pin into receiver, a positive „click“ is heard, securing balls are engaged. Panels are securely fastened. To release, simply pull panels apart with sufficient force to overcome securing balls, panel is released.

Order No.	Type	d ₁ tol. h9	d ₂ +0.10 +0.05	d ₃	h ₁	h ₂	h ₃	m	w	Clamping force N	Shear strength N	Tensile strength N	Weight g
33936.W0807	Receiver	Ø20	Ø8	Ø14	29	15	3	M16x1,5	2,5	7	1800	1800	30
33936.W0815	Receiver	Ø20	Ø8	Ø14	29	15	3	M16x1,5	2,5	15	1800	1800	30





33924



Material

Body: stainless steel SUS303
 Ball: stainless steel SUS440
 Spring: stainless steel SUS304
 O-Ring: fluororubber

Technical Notes

One-touch fasteners are the ideal solution for applications requiring rapid and recurring change over of tooling or set ups. Use in applications as diverse as bottling processes, machine covers, changing of cogs and drive belts. One-touch fasteners provide a quick, simple and secure change

over solution - no time wasted in unfastening screws or other permanent fixings, and no opportunity for lost fixings in your machinery. Temperature resistant to 180°C.

Tips

Used in conjunction with pin 33923. For highly accurate locating, use locating pins 36340 & 36341

Important Notes

Suitable for panel/enclosures of 3 to 10mm thickness.

Used in conjunction with pin 33923. Tensile strength stated is for locked position/state of fastener.

Actuation:

- Engage clamp over pin, no need to push button, a positive „click“ is heard.
- Securing balls are locked and panel fastened.
- To release; while pushing down on release button, lift panel from pin- panel is released.

Order No.	For single panel thickness	For pin dia.	d ₁	d ₂	d ₃	d ₄	d ₅ +0.4 +0.2	h ₁	h ₂	h ₃	l ₁	A/F	Clamping force N	Shear strength N	Tensile strength N	Weight g
33924.W1006	3-10	6	M16x1,0	11	32	19	6	23	15,5	8,5	9,5	17	6	1100	250	65

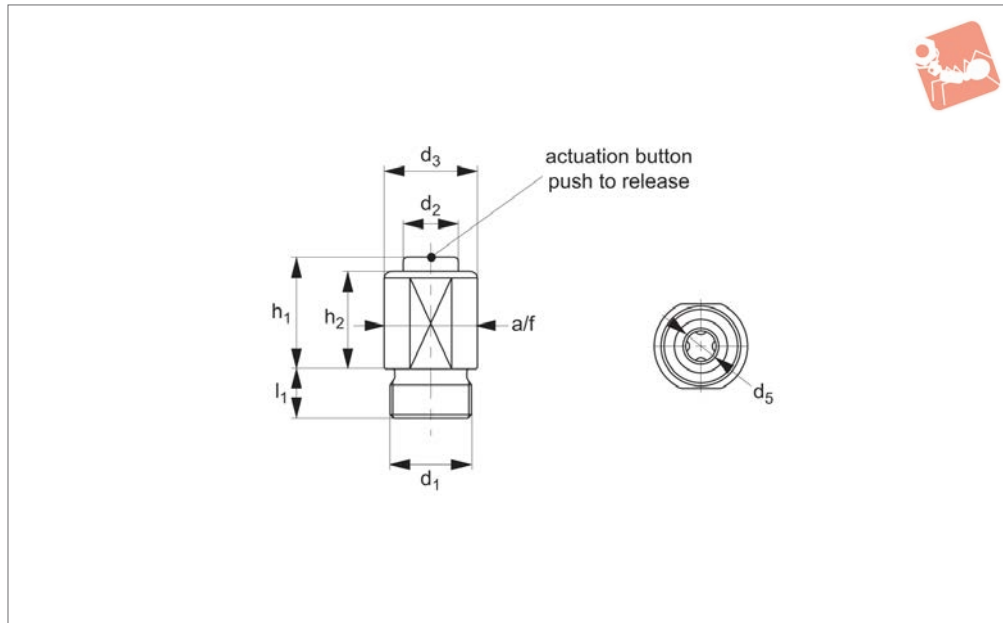


One-Touch Fastener - Ball Clamping

push button lock - straight body - stainless



One Touch Fasteners



33925

ONE TOUCH FASTENERS

Material

Body: stainless steel SUS303
 Ball: stainless steel SUS440
 Spring: stainless steel SUS304
 O-Ring: fluororubber

Technical Notes

One-touch fasteners are the ideal solution for applications requiring rapid and recurring change over of tooling or set ups. Use in applications as diverse as bottling processes, machine covers, changing of cogs and drive belts. One-touch fasteners

provide a quick, simple and secure change over solution - no time wasted in unfastening screws or other permanent fixings, and no opportunity for lost fixings in your machinery. Temperature resistant to 180°C.

Tips

Used in conjunction with pin 33923.

Important Notes

Suitable for pannel/enclosures of 3 to 27mm thickness. Used in conjunction

with pin 33923. Tensile strength stated is for locked position/state of fastener.

Actuation:

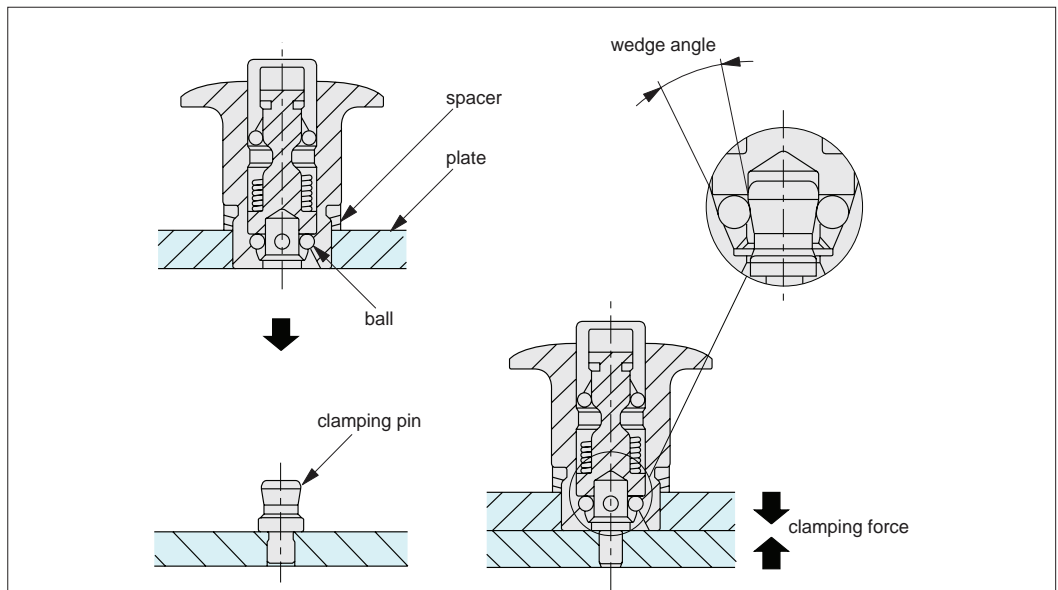
- To lock; engage clamp over pin, no need to push button, a positive „click“ is heard.
- Securing balls are locked and panel fastened.
- To release; while pushing down on release button, lift panel from pin- panel is released.

Order No.	For single panel thickness	For pin dia.	d ₁	d ₂	d ₃	d ₅ +0.4 +0.2	h ₁	h ₂	l ₁	A/F	Clamping force N	Shear strength N	Tensile strength N	Weight g
33925.W2706	3-27	6	M16x1,0	11	19	6	23	19.5	9.5	17	6	1100	250	50



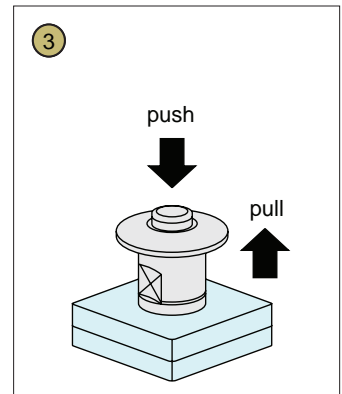
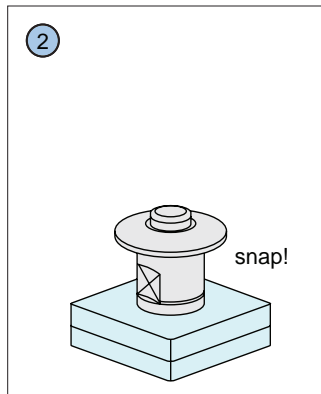
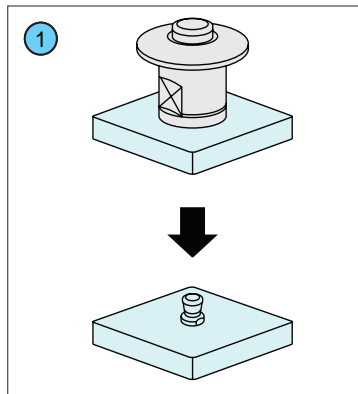
Operating Principle

Four ball bearings clamp onto the clamping pin (33923), the wedge shape of the pin draws the panels together during clamping.



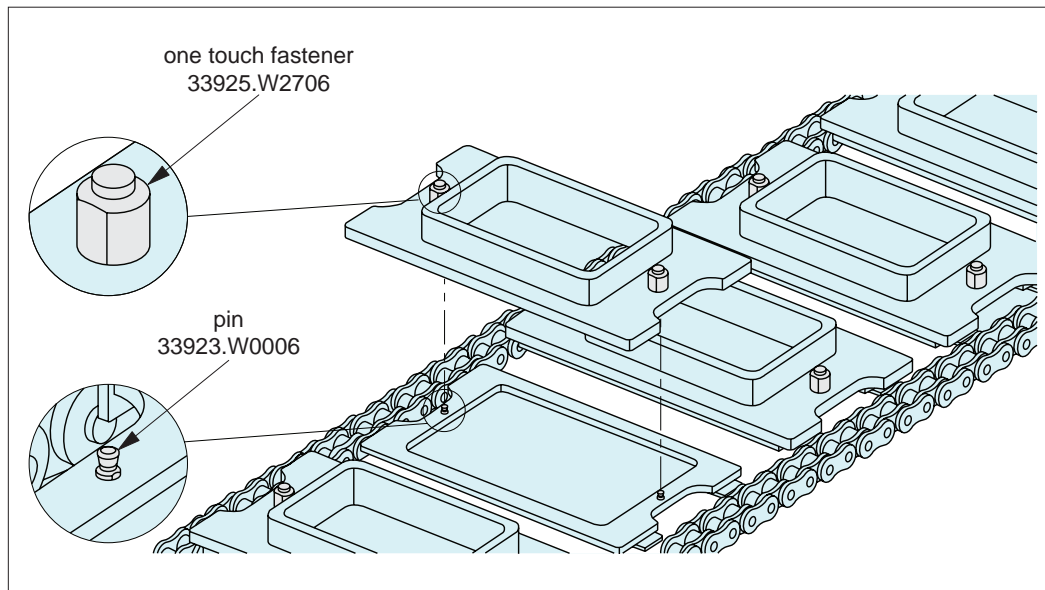
Operating Instructions

- 1 Engage clamp over pin, no need to push button, a positive "click" is heard.
- 2 Securing balls are locked and panel fastened.
- 3 To release; while pushing down on release button, lift panel from pin - panel is released.

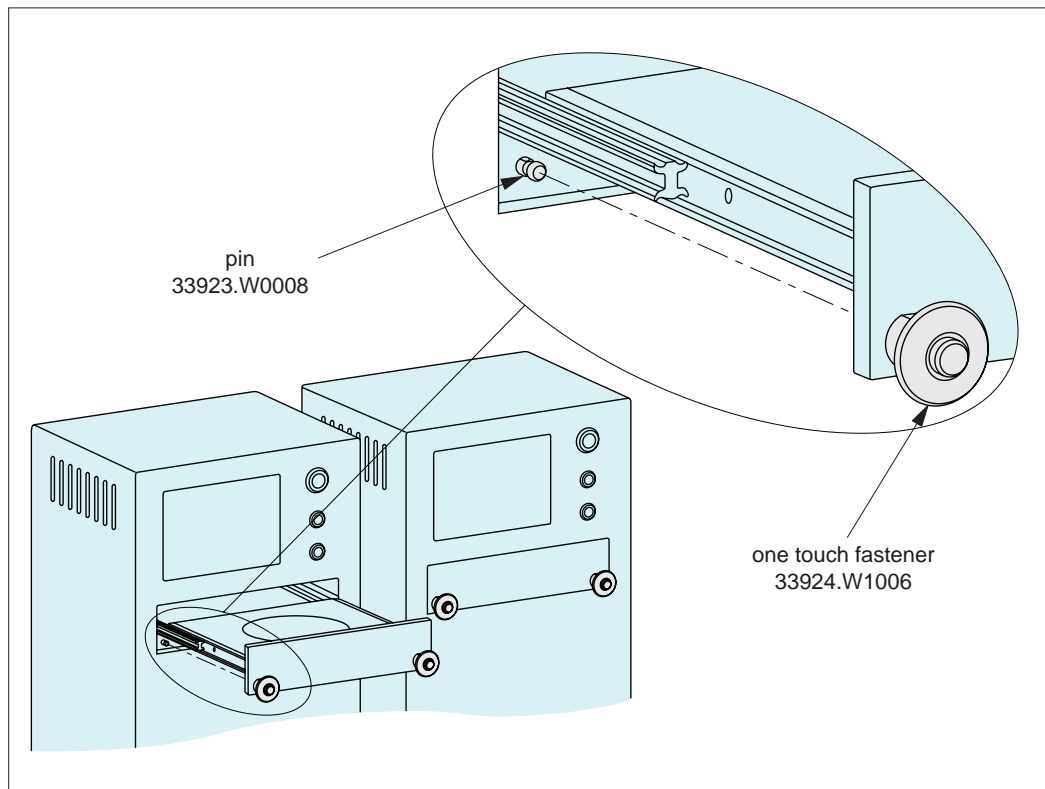




One Touch Fastener Applications



Changes of Trays and Containers on Conveyers



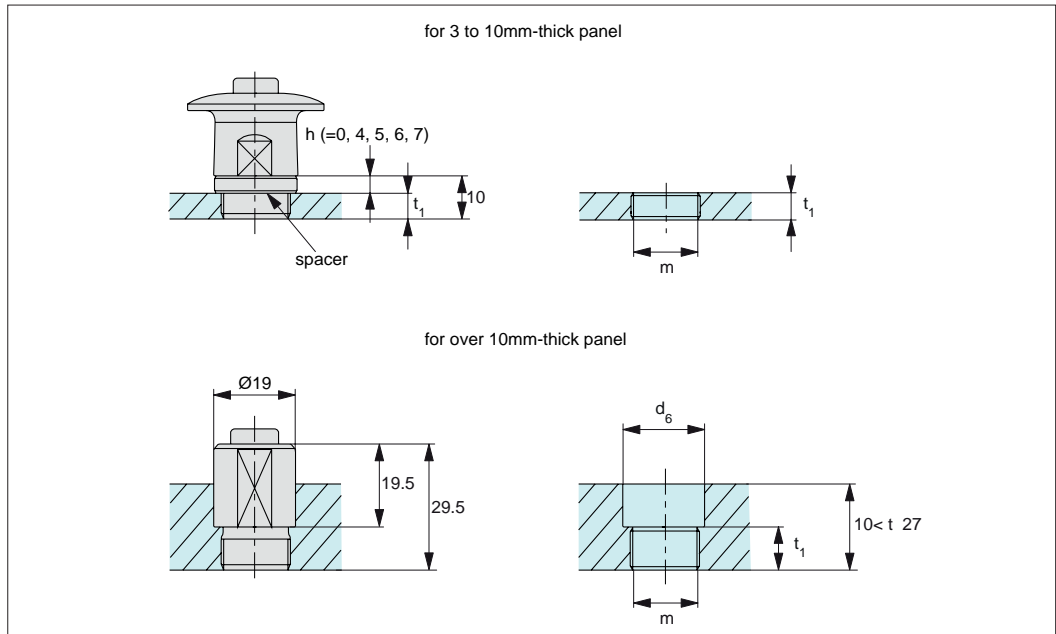
Securing Sliding Elements Such as Drawers

ONE TOUCH FASTENERS

ov-W33925-A-T-ball-clamping-one-touch-fasteners-installation-b-rmh - Updated - 27-10-2022



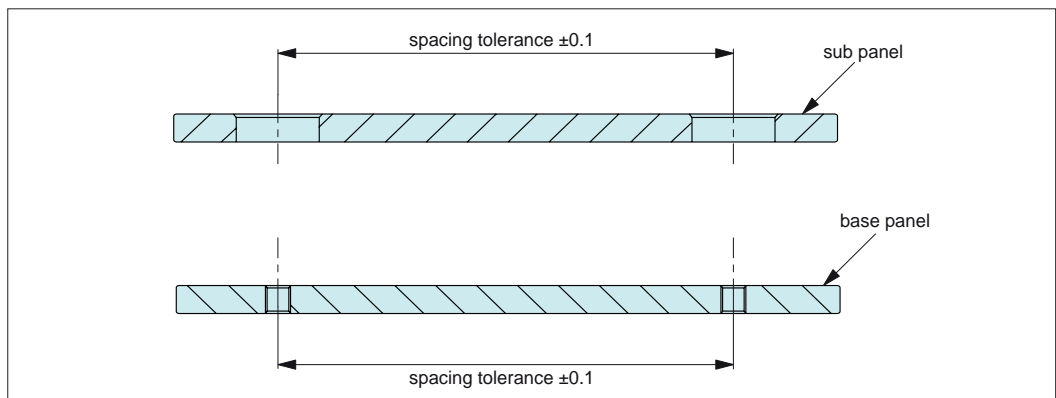
Installation Dimensions



Installation Best Practice

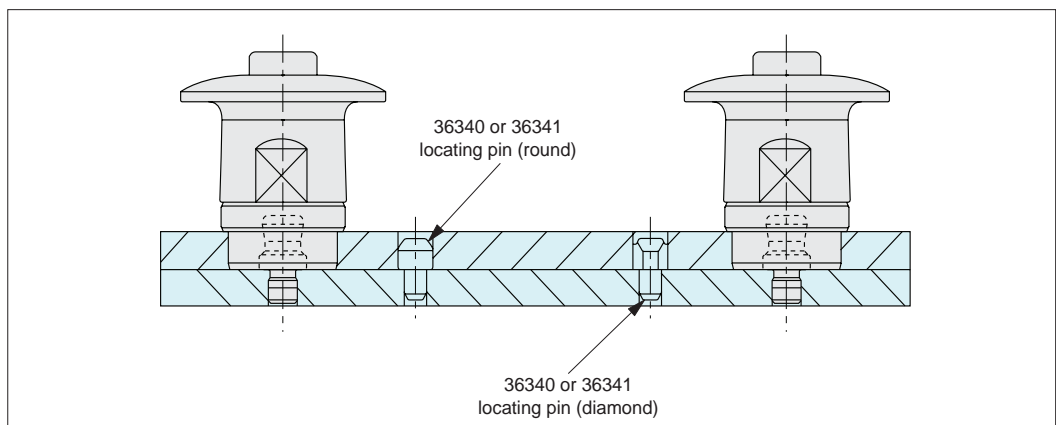
Panel Tolerances

Spacing tolerance on both the sub panel and the base panel should be ± 0.1 .



Repeatability

For highly accurate locating, use locating pins 36340 or 36341. Repeatability of ± 0.25 is achievable.



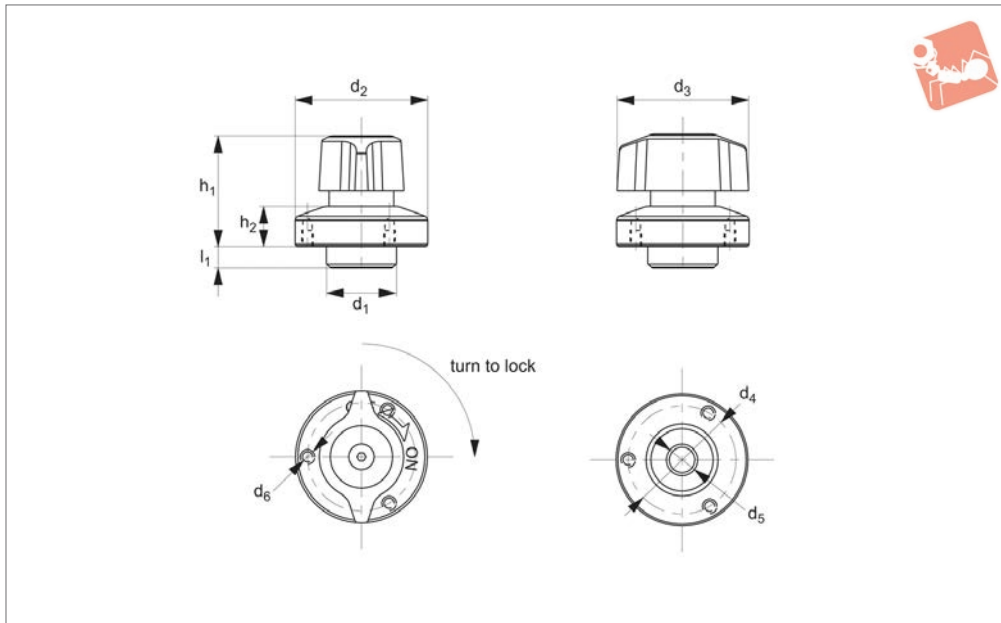


One-Touch Fastener - Ball Clamping

quarter turn lock - t-handle grip - steel



One Touch Fasteners



33927

ONE TOUCH FASTENERS

Material

Body & Shank: steel, nickel plated.
Knob: polyamide, black.
Ball & Spring: Stainless steel.

Technical Notes

One-touch fasteners are the ideal solution for applications requiring rapid and recurring change over of tooling or set ups. Use in applications as diverse as bottling

processes, machine covers, changing of cogs and drive belts. One-touch fasteners provide a quick, simple and secure change over solution - no time wasted in unfastening screws or other permanent fixings, and no opportunity for lost fixings in your machinery.

Tips

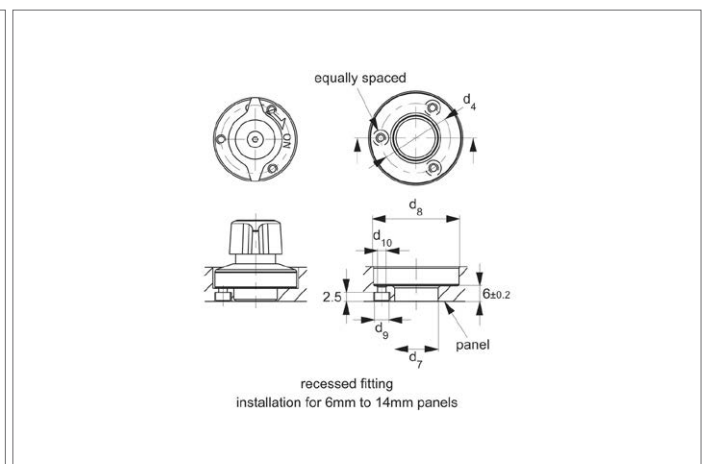
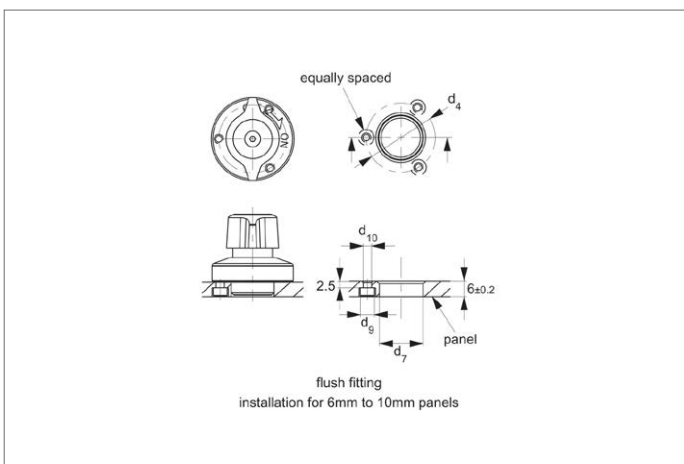
Used in conjunction with pin 33923.

For highly accurate locating, use locating pins 36340 & 36341.

Actuation

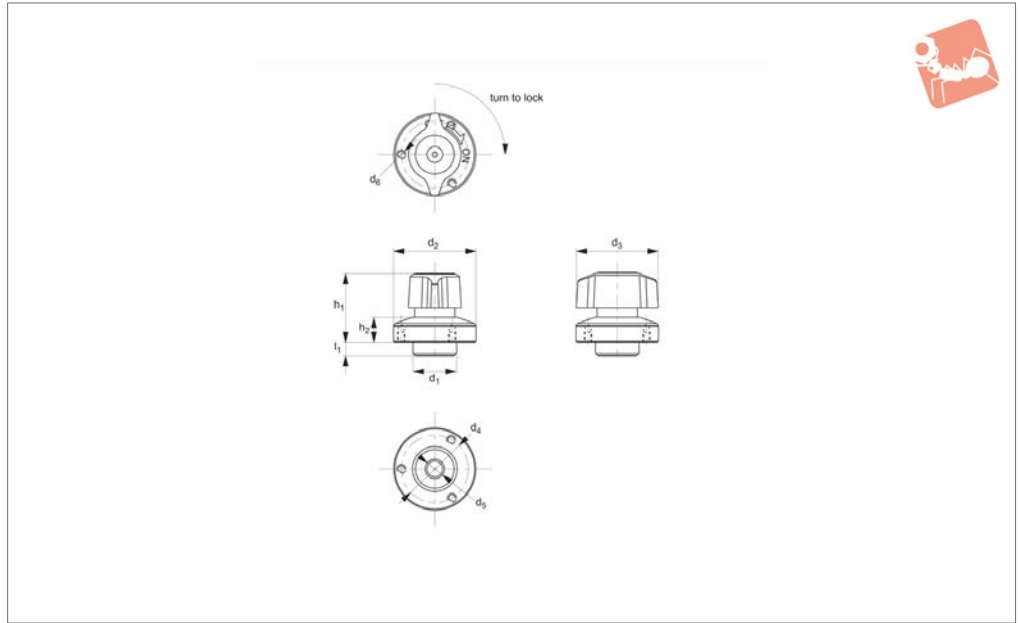
- Turn handle to off position, clamping balls are retracted. Engage panel and clamp over clamping pin. Turn handle on to position to clamp.
- To unclamp, reverse steps above.

Order No.	For single panel thickness	For pin dia.	d ₁ tol. h9	d ₂	d ₃	d ₄	d ₅ +0.4 +0.2	d ₆	h ₁	h ₂	l ₁	Clamping force N	Shear strength N	Tensile strength N	Weight g
33927.W1006	6-10	6	14	25	25	21	6	M2x0,4	23	6,5	5,5	7	1100	250	35
33927.W1408	6-14	8	18	34	34	28	8	M3x0,5	28	10,0	5,5	9	1800	400	85





33928



Material

Body & shank: steel, nickel plated.
 Knob: tainless steel.
 Ball & spring: stainless steel.

Technical Notes

One-touch fasteners are the ideal solution for applications requiring rapid and recurring change over of tooling or set ups. Use in applications as diverse as bottling

processes, machine covers, changing of cogs and drive belts. One-touch fasteners provide a quick, simple and secure change over solution - no time wasted in unfastening screws or other permanent fixings, and no opportunity for lost fixings in your machinery.

Tips

Used in conjunction with pin 33923.

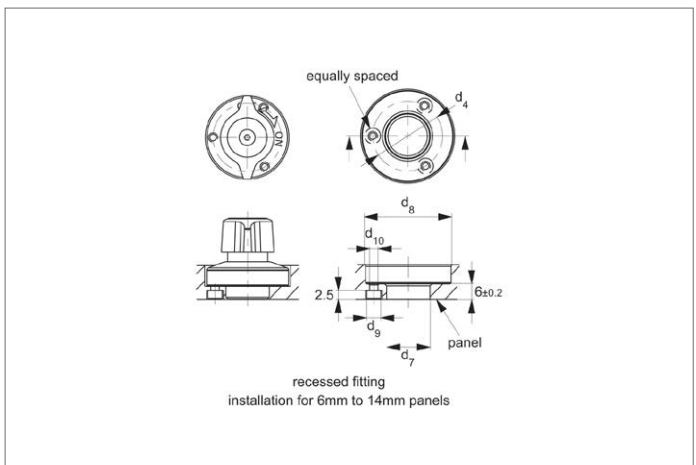
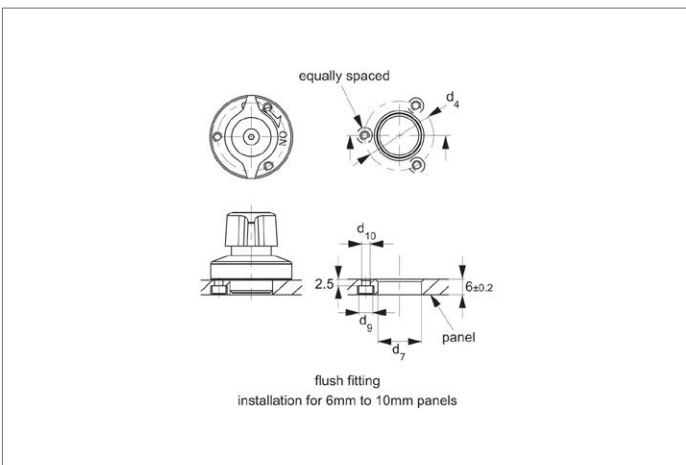
For highly accurate locating, use locating pins 36340 & 36341.

Actuation

-Turn handle to off position, clamping balls are retracted. Engage panel and clamp over clamping pin. Turn handle on to position to clamp.

-To unclamp, reverse steps above.

Order No.	For single panel thickness	For pin dia.	d ₁ tol. h9	d ₂	d ₃	d ₄	d ₅ +0.4 +0.2	d ₆	h ₁	h ₂	l ₁	Clamping force N	Shear strength N	Tensile strength N	Weight g
33928.W1006	6-10	6	14	25	25	21	6	M2x0,4	23	6,5	5,5	7	1100	250	35
33928.W1408	6-14	8	18	34	34	28	8	M3x0,5	28	10,0	5,5	9	1800	400	85



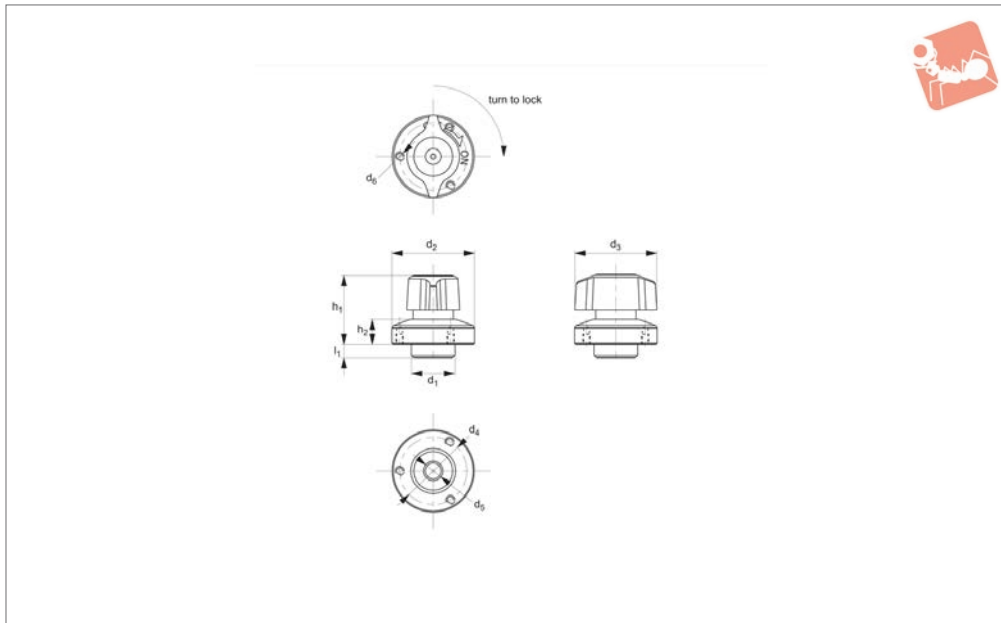


One-Touch Fastener - Ball Clamping

quarter turn lock - t-handle - stainless steel



One Touch Fasteners



33929

ONE TOUCH FASTENERS

Material

Body & shank: stainless steel.
Knob: stainless steel.
Ball & spring: stainless steel.

Technical Notes

One-touch fasteners are the ideal solution for applications requiring rapid and recurring change over of tooling or set ups. Use in applications as diverse as bottling

processes, machine covers, changing of cogs and drive belts. One-touch fasteners provide a quick, simple and secure change over solution - no time wasted in unfastening screws or other permanent fixings, and no opportunity for lost fixings in your machinery.

Tips

Used in conjunction with pin 33923.

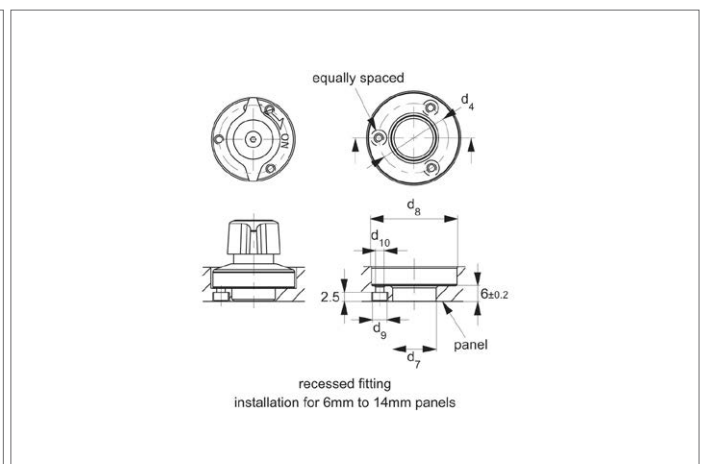
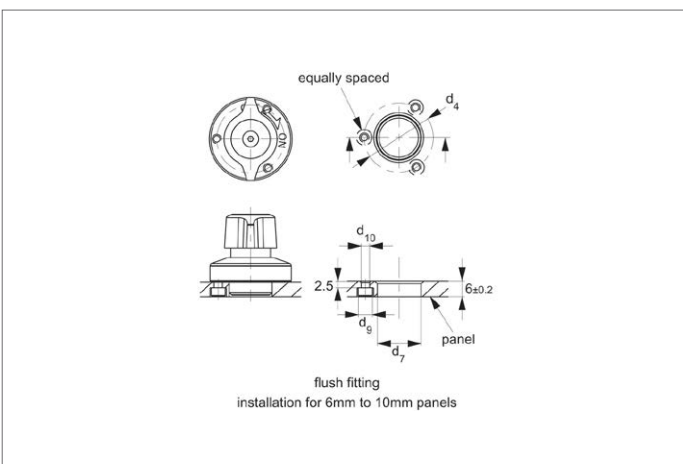
For highly accurate locating, use locating pins 36340 & 36341.

Actuation

-Turn handle to off position, clamping balls are retracted. Engage panel and clamp over clamping pin. Turn handle on to position to clamp.

-To unclamp, reverse steps above.

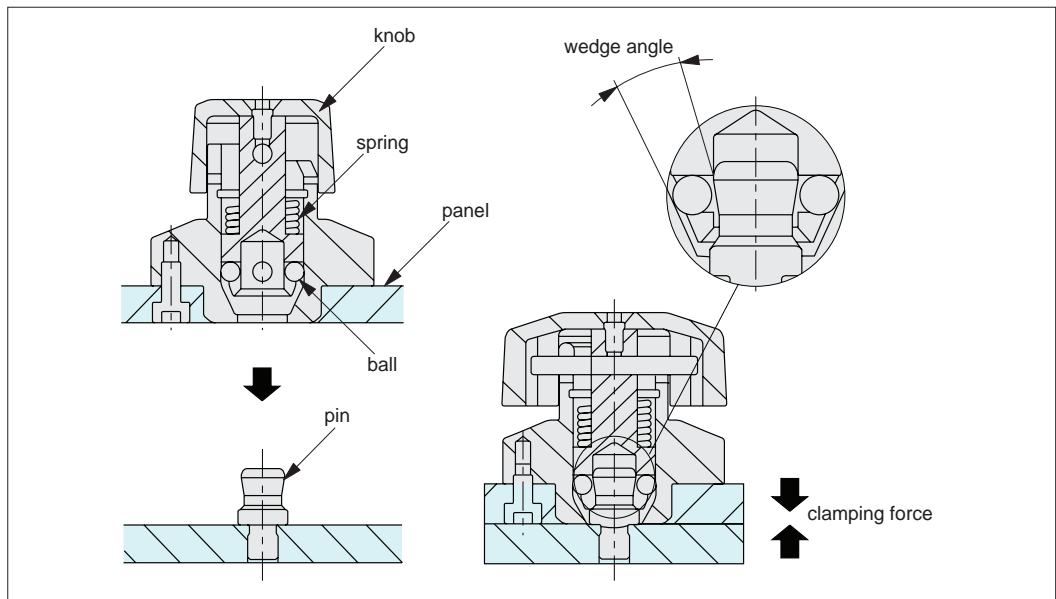
Order No.	For single panel thickness	For pin dia.	d ₁ tol. h9	d ₂	d ₃	d ₄	d ₅ +0.4 +0.2	d ₆	h ₁	h ₂	l ₁	Clamping force N	Shear strength N	Tensile strength N	Weight g
33929.W1006	6-10	6	14	25	25	21	6	M2x0,4	23	6,5	5,5	7	1100	250	35
33929.W1408	6-14	8	18	34	34	28	8	M3x0,5	28	10,0	5,5	9	1800	400	85





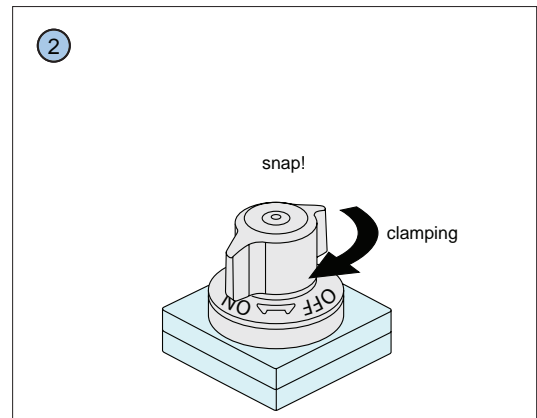
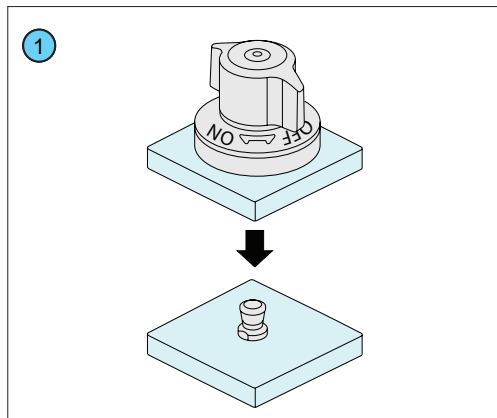
Operating Principle

Four ball bearings clamp onto the clamping pin, the wedge shape of the pin (33929) draws the panels together during clamping.



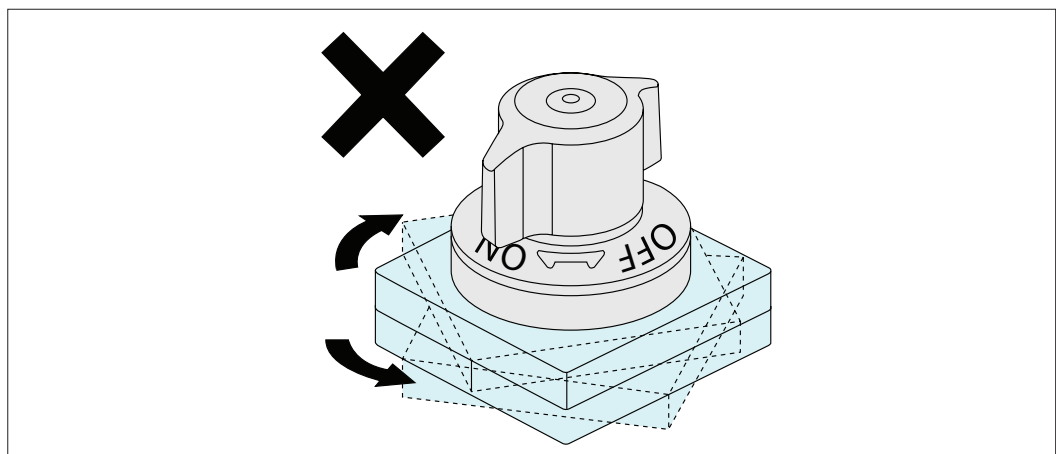
Operating Instructions

- 1 Turn handle to off position to retract the clamping balls. Engage panel and clamp over clamping pin. Turn handle on to position to clamp.
- 2 To unclamp, reverse steps above.



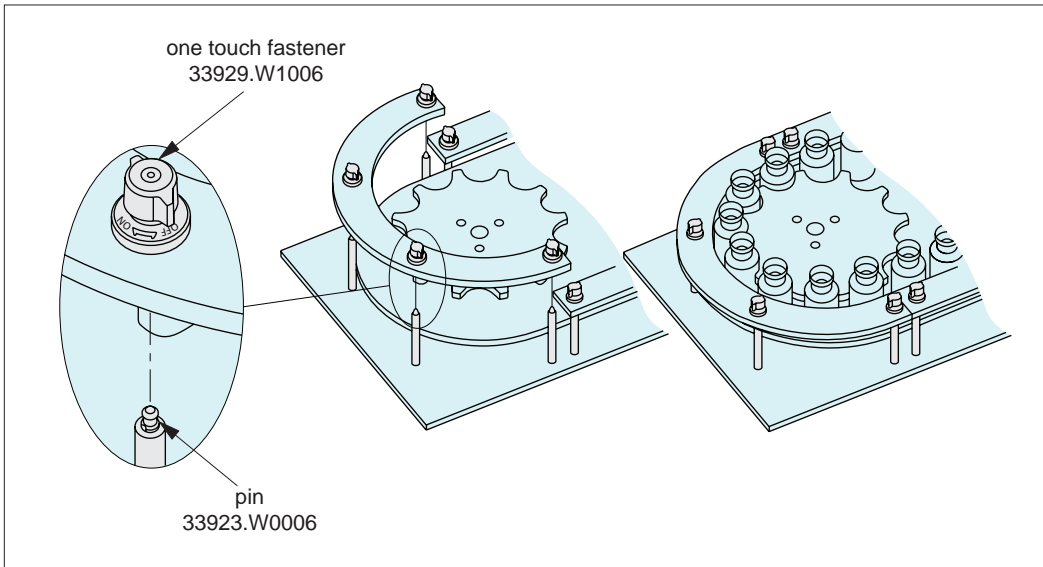
Warning

Rotation of either sub panel or base panel can result in one touch fastener unclamping. When either panel is at risk of rotating ensure a stop is in place.

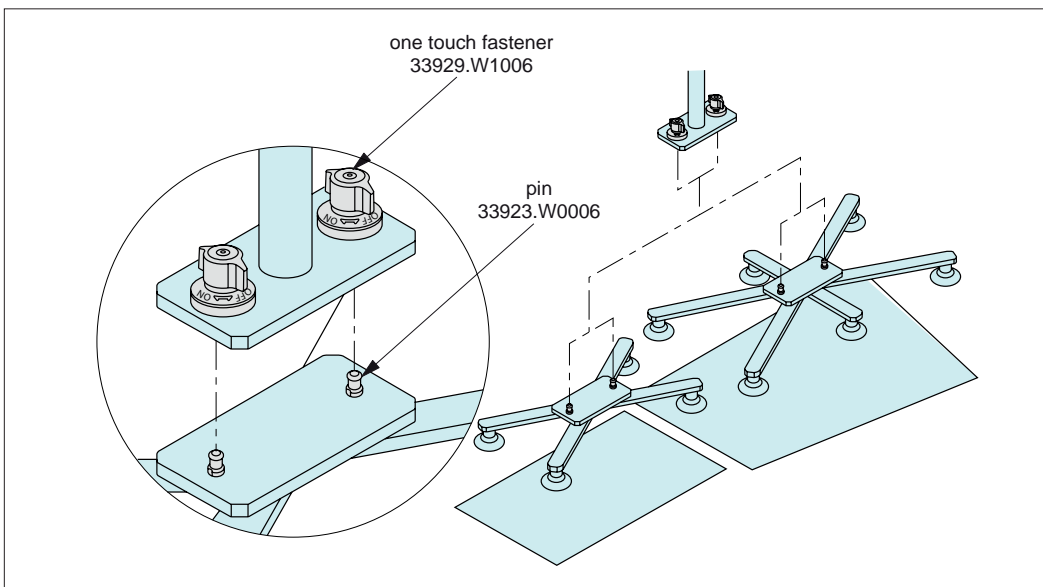




Applications



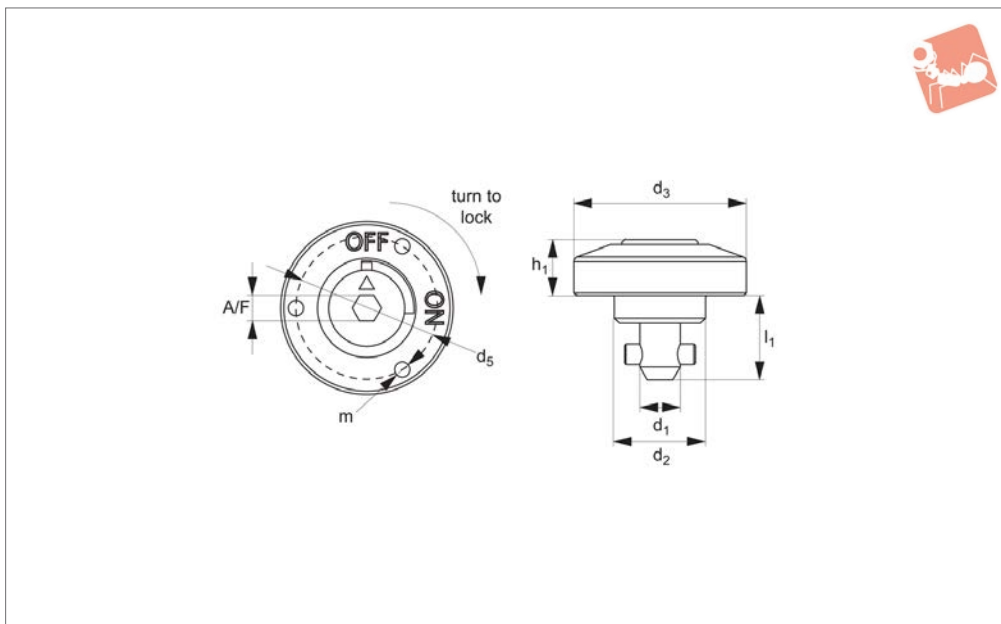
Changes of Guides Around Star Wheels



Changes of Suction Grippers for Wafer Handling



33945



Material

Body: stainless steel SUS303.
Shank: steel, nickel plated.
Pin: stainless SUS 304.

Technical Notes

One-touch fasteners are the ideal solution for applications requiring rapid and recurring change over of tooling or set ups. Use in applications as diverse as bottling processes, machine covers, changing of

cogs and drive belts. One-touch fasteners provide a quick, simple and secure change over solution - no time wasted in unfastening screws or other permanent fixings, and no opportunity for lost fixings in your machinery.
Temperature resistant to 200°C.

Important Notes

Suitable for panels/enclosures of 6 to 20 mm thickness. For locating bushes see part

no. 33948 and 33949.

Actuation:

- Use suitable hex key to turn lock to off position. Present cover panel to frame and align to locking bush.
- With the hex key, now turn the lock back 45° to the on position; locking pin follows, tightening fastener and fastening panel.

Order No.	For single panel thickness	Clamping force N	d ₁ -0.04, - tol. h9 0.08	d ₂	d ₃	l ₁	h ₁	m	Shear strength N	Tensile strength N	A/F	Weight g
33945.W1005	6 - 10	60	5	14	25	15,5	8	M 2x0,4	1800	1200	4	30
33945.W1408	6 - 14	90	8	18	34	17,0	11	M 3x0,5	3200	2600	5	105
33945.W2008	12 - 20	90	8	18	34	23,0	11	M 3x0,5	3200	2600	5	110

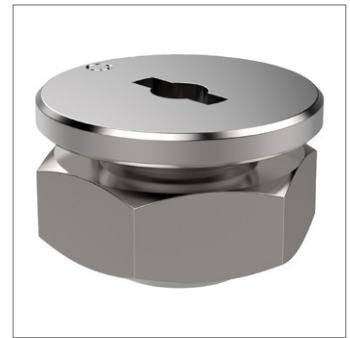
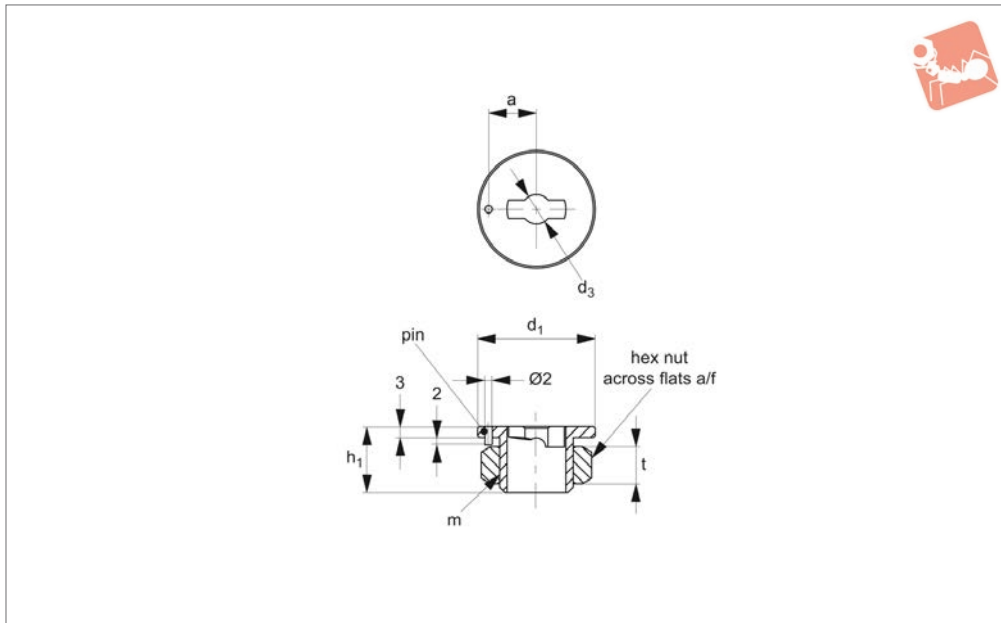


One-Touch Fastener - Cam Locking

thin plate locating bush for quarter turn



One Touch Fasteners



33948

ONE TOUCH FASTENERS

Material

Body: steel, nickel plated or stainless steel.

Nut: stainless steel.

Technical Notes

Used in conjunction with one-touch fasteners 33940 to 33946, locating bushes 33948 provide secure fastening of panels

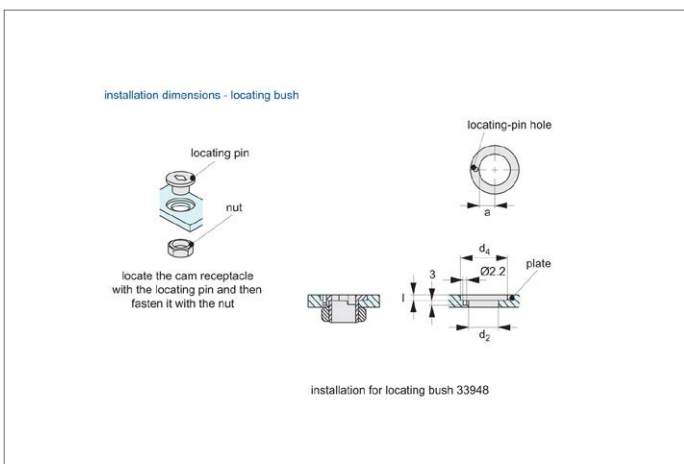
and covers. Locating bushes are of particular use in soft metals, such as aluminium where receiving surfaces may wear. One-touch fasteners are the ideal solution for applications requiring rapid and recurring change over of tooling or set ups. Use in applications as diverse as bottling processes, machine covers, changing of

cogs and drive belts. Temperature resistant to 200°C.

Important Notes

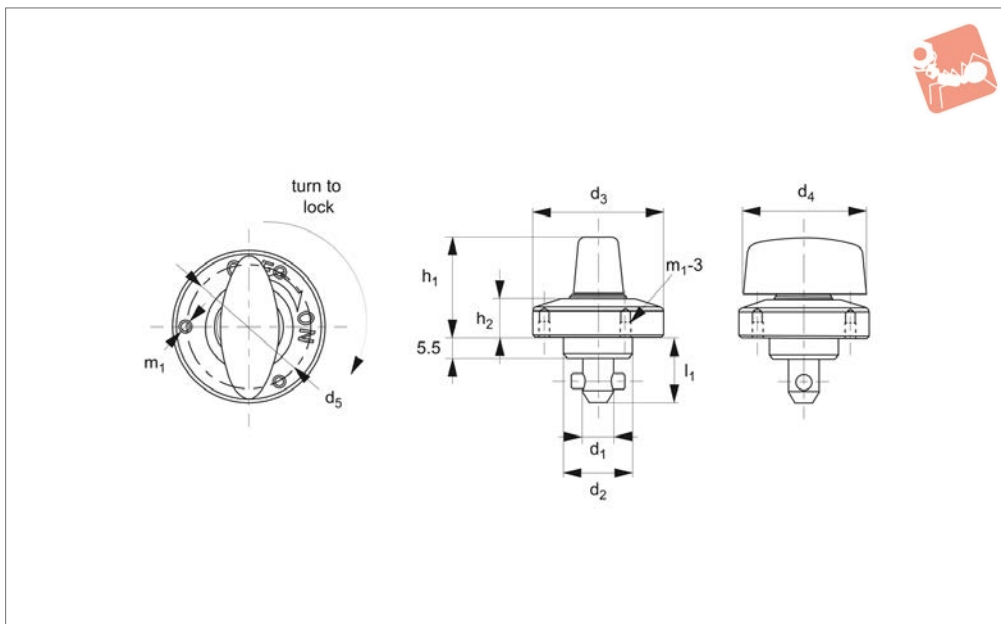
Suitable for panels/enclosures of 6 to 12 mm thickness. For one-touch fasteners see part nos. 33940 to 33946. For installation instructions see technical page.

Order No.	For single panel thickness	Material	d_1 -0.04 -0.08	d_2	d_3 +0.08 +0.04	d_4 +0.10 +0.05	a ±0.1	l_1	h_1	m	t	A/F	Weight g
33948.W0005	6-10	Steel	25	15	5	25	10,5	3,5	16	M14x1,5	8	22	40
33948.W0008	6-12	Steel	32	21	8	32	13,0	3,5	18	M20x1,5	10	30	55
33948.W0105	6-10	Stainless Steel	25	15	5	25	10,5	3,5	16	M14x1,5	8	22	40
33948.W0108	6-12	Stainless Steel	32	21	8	32	13,0	3,5	18	M20x1,5	10	30	55





33940



Material

Body: stainless steel SUS303.
Pin: stainless steel.
Knob: polyamide, black.
Spring: steel.

Technical Notes

One-touch fasteners are the ideal solution for applications requiring rapid and recurring change over of tooling or set ups. Use in applications as diverse as bottling

processes, machine covers, changing of cogs and drive belts. One-touch fasteners provide a quick, simple and secure change over solution - no time wasted in unfastening screws or other permanent fixings, and no opportunity for lost fixings in your machinery.
Temperature resistant to 130°C.

Important Notes

Suitable for panels/enclosures of 6 to 20

mm thickness. For locating bushes see part no. 33948 and 33949.

Actuation:

- Turn handle to off position: present cover panel to frame and align to locating bush.
- Turn handle 45° to on position: locking pin follows cam, tightening fastener and securely fastening panel.

Order No.	For single panel thickness	Clamping force N	d_1 -0.04 -0.08	d_2 tol. h9	d_3	d_4	d_5	d_6 +0.10 +0.05	d_7	Weight g
33940.W1005	06-10	60	5	14	25	20	21	14	26	35
33940.W1408	6-14	90	8	18	34	32	28	18	35	105
33940.W2008	12-20	90	8	18	34	32	28	18	35	110

Order No.	d_8	d_9	l_1	m	Shear strength N	Tensile strength N
33940.W1005	4.4	2.4	15.5	M 2x0,4	1800	1200
33940.W1408	4.4	2.4	17.0	M 3x0,5	3200	2600
33940.W2008	6.5	3.4	23.0	M 3x0,5	3200	2600

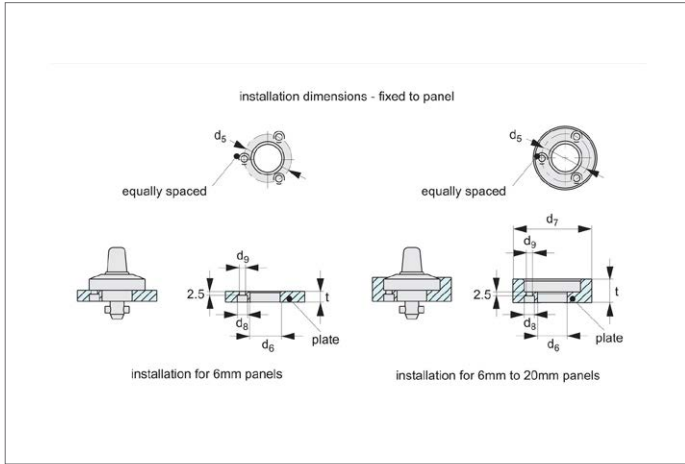


One-Touch Fastener - Cam Locking

quarter turn - t-handle grip -plastic



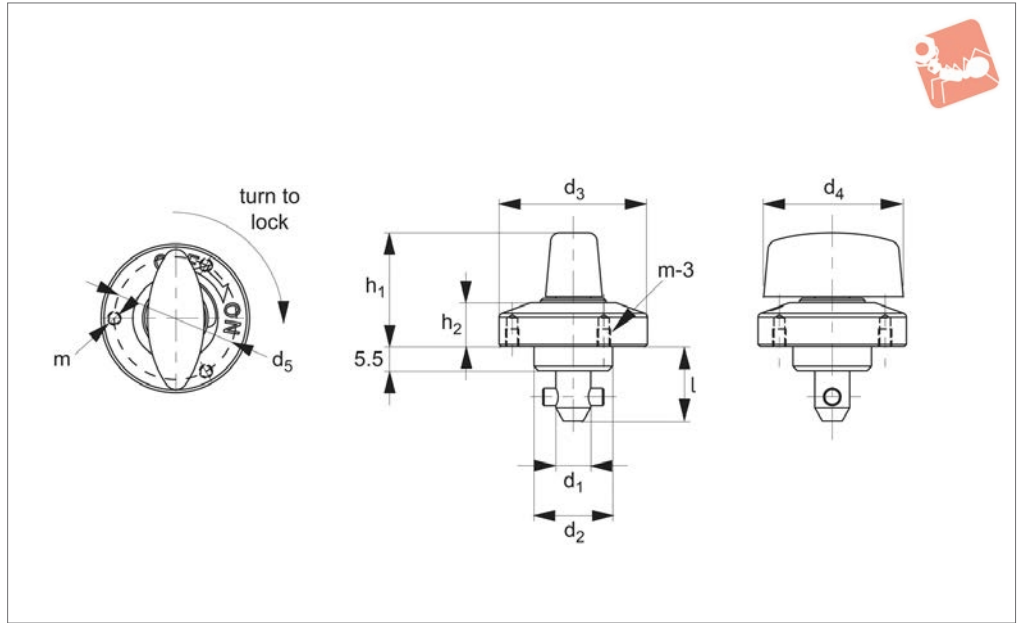
One Touch Fasteners



ONE TOUCH FASTENERS



33942



Material

Body, Pin and Knob: SUS303 stainless steel.

Shank: S45C steel nickel plated.
Spring: SWOSC-V steel.

Technical Notes

One-touch fasteners are the ideal solution for applications requiring rapid and recurring change over of tooling or set ups. Use in applications as diverse as bottling

processes, machine covers, changing of cogs and drive belts. One-touch fasteners provide a quick, simple and secure change over solution - no time wasted in unfastening screws or other permanent fixings, and no opportunity for lost fixings in your machinery.
Temperature resistant to 200°C.

Important Notes

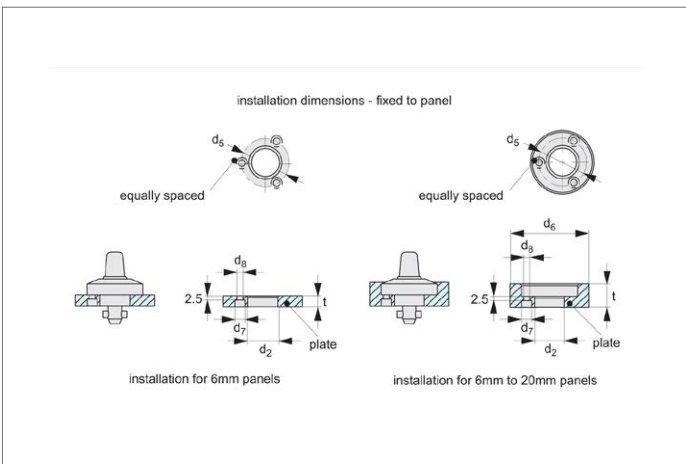
Suitable for panels/enclosures of 6 to 20

mm thickness. For locating bushes see part no. 33948 and 33949.

Actuation:

- Turn handle to off position: present cover panel to frame and align to locating bush.
- Turn handle 45° to on position: locking pin follows cam, tightening fastener and securely fastening panel.

Order No.	For single panel thickness	Clamping force N	d ₁ -0.04 -0.08	d ₂ tol. h9	d ₃	d ₄	d ₅	h ₁	h ₂	l	m	Shear strength N	Tensile strength N	Weight g
33942.W1005	6-10	60	5	14	25	20	21	19,0	6,5	15,5	M 2x0,4	1800	1200	40
33942.W1408	6-14	90	8	18	34	32	28	25,5	10,0	17,0	M 3x0,5	3200	2600	130
33942.W2008	12-20	90	8	18	34	32	28	25,5	10,0	23,0	M 3x0,5	3200	2600	135



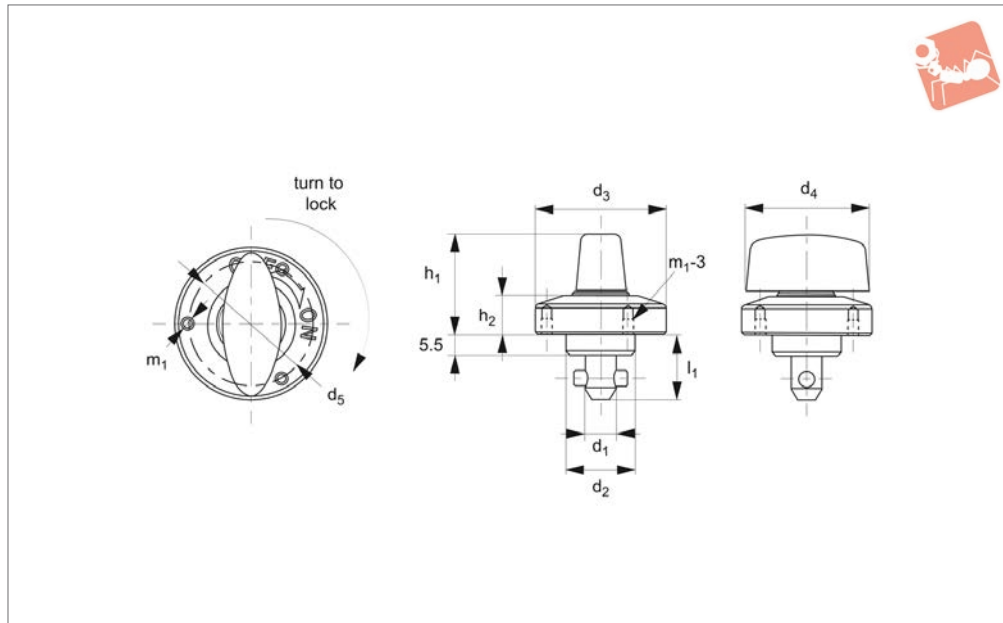


One-Touch Fastener - Cam Locking

quarter turn - t-handle grip - stainless



One Touch Fasteners



33943

ONE TOUCH FASTENERS

Material

Body and Shank: stainless steel SUS303.
Pin, Knob and Spring: stainless steel SUS304.

Technical Notes

One-touch fasteners are the ideal solution for applications requiring rapid and recurring change over of tooling or set ups. Use in applications as diverse as bottling processes, machine covers, changing of

cogs and drive belts. One-touch fasteners provide a quick, simple and secure change over solution - no time wasted in unfastening screws or other permanent fixings, and no opportunity for lost fixings in your machinery.

Temperature resistant to 200°C.

Important Notes

Suitable for panels/enclosures of 6 to 20 mm thickness. For locating bushes see part

no. 33948 and 33949.

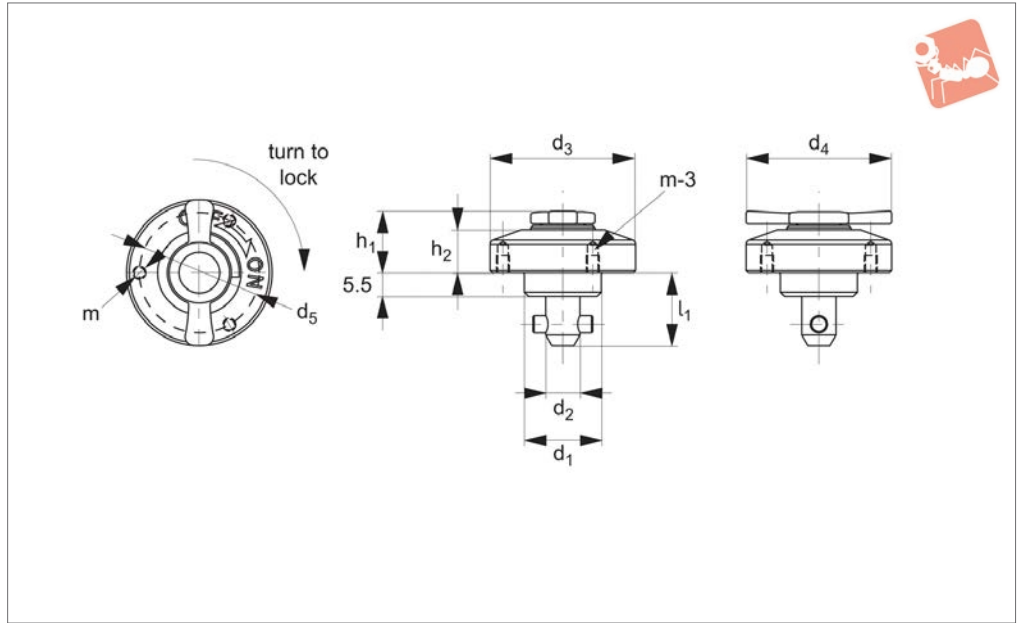
Actuation:

- Turn handle to off position: present cover panel to frame and align to locating bush.
- Turn handle 45° to on position: locking pin follows cam, tightening fastener and securely fastening panel.

Order No.	For single panel thickness	Clamping force N	d ₁ -0.04 - tol. h9 0.08	d ₂	d ₃	d ₄	d ₅	l ₁	h ₁	h ₂	m ₁	Shear strength N	Tensile strength N	Weight g
33943.W1005	6-10	60	5	14	25	20	21	15,5	19	6,5	M 2x0,4	1800	1200	35
33943.W1408	6-14	90	8	18	34	32	28	17,0	26	10,0	M 3x0,5	3200	2600	105
33943.W2008	12-20	90	8	18	34	32	28	23,0	26	10,0	M 3x0,5	3200	2600	110



33944



Material

Body and Shank: stainless steel SUS303
Pin, Knob, Spring: stainless steel SUS304.

Technical Notes

One-touch fasteners are the ideal solution for applications requiring rapid and recurring change over of tooling or set ups. Use in applications as diverse as bottling processes, machine covers, changing of

cogs and drive belts. One-touch fasteners provide a quick, simple and secure change over solution - no time wasted in unfastening screws or other permanent fixings, and no opportunity for lost fixings in your machinery. Temperature resistant to 200°C.

Important Notes

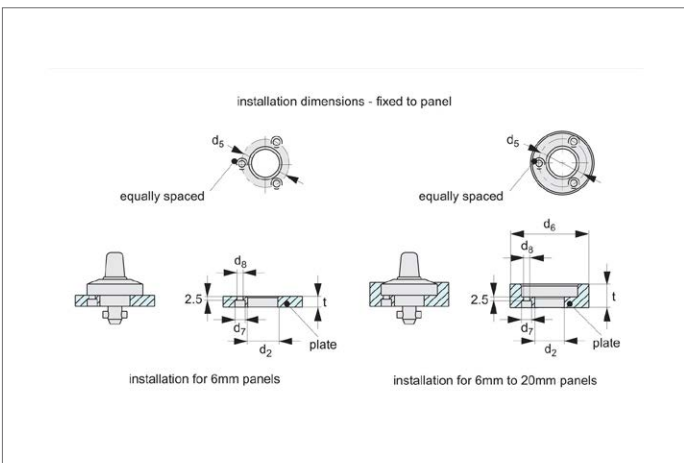
Suitable for panels/enclosures of 6 to 20

mm thickness. For locating bushes see part no. 33948 and 33949.

Actuation:

- Turn handle to off position: present cover panel to frame and align to locating bush.
- Turn handle 45° to on position: locking pin follows cam, tightening fastener and securely fastening panel.

Order No.	For single panel thickness	Clamping force N	d_1 -0.04 - tol. h9 0.08	d_2	d_3	d_4	d_5	l_1	h_1	h_2	m	Shear strength N	Tensile strength N	Weight g
33944.W1005	6-10	60	5	14	25	25	21	15,5	11,5	6,5	M 2x0,4	1800	1200	35
33944.W1408	6-14	90	8	18	34	34	28	17,0	14,0	10,0	M 3x0,5	3200	2600	80
33944.W2008	12-20	90	8	18	34	34	28	23,0	14,0	10,0	M 3x0,5	3200	2600	85



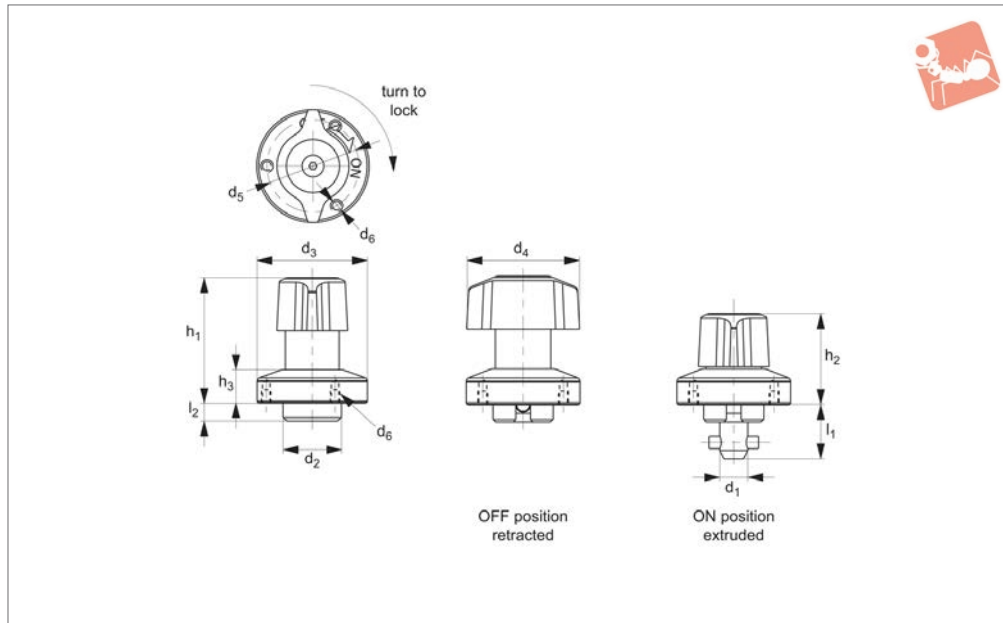


One-Touch Fastener- Cam Locking

retract - quarter turn - t-handle grip - plastic



One Touch Fasteners



33946

ONE TOUCH FASTENERS

Material

Body: steel, nickel plated.
Shank: steel, nickel plated.
Pin: stainless steel, SUS304.
Knob: polyamide, black.
Spring: stainless steel.

Technical Notes

One-touch fasteners are the ideal solution for applications requiring rapid and recurring change over of tooling or set ups. Use in applications as diverse as bottling processes, machine covers, changing of cogs and drive belts. One-touch fasteners

provide a quick, simple and secure change over solution - no time waste in unfastening screws or other permanent fixings, and no opportunity for lost fixings in your machinery.
Temperature resistant to 130°C.

Important Notes

One-touch fastener offers full retraction of clamping shank when part is unlocked, this offer's the benefit of enabling panels to be slid into position - especially useful with larger or oversized panels, and enables its use on sliding or linear rail applications to provide positive location

and clamping of parts.

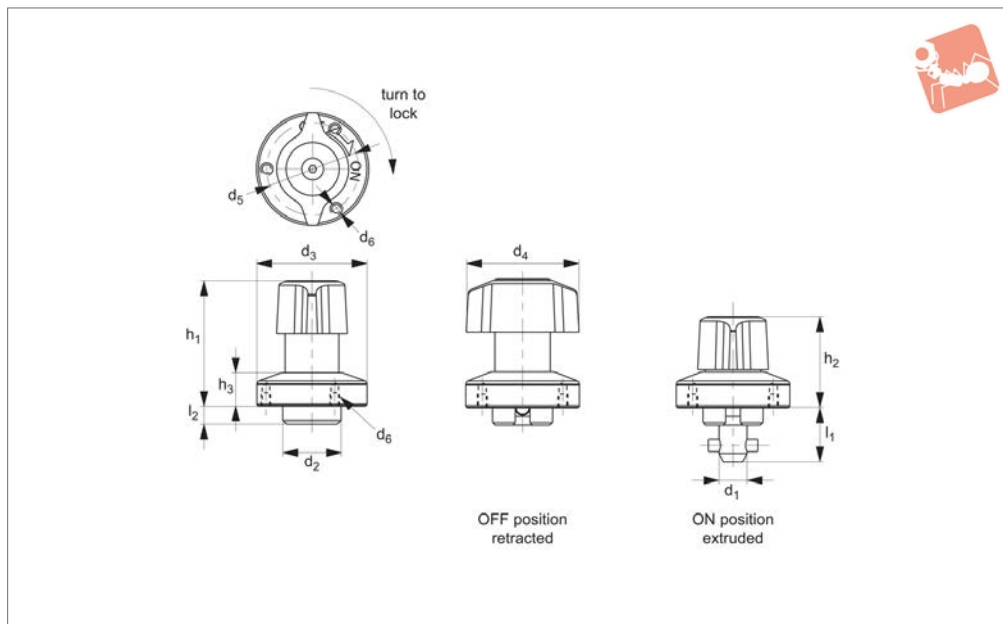
Actuation:

- Turn handle to off position, and ensure the shank is fully retracted.
- Place or slide the over in place and position over the locating bush.
- Turn handle to on position for clamping, an audible click is heard when fully clamped.
- To release, turn handle back to off position, the shank is fully retracted into clamp body assisted by the return spring.

Order No.	Single panel thickness	Clamping force N	d ₁	d ₂	d ₃	d ₄	d ₅	d ₆	l ₁	l ₂	h ₁	h ₂	h ₃	Shear strength N	Tensile strength N	Weight g
33946.W1005	6-10	60	5	14	25	25	21	M 2x0,4	15,5	5,5	30	20,0	6,5	1800	1200	40
33946.W1408	6-14	90	8	18	34	34	28	M 3x0,5	17,0	5,5	38	36,5	10,0	3200	400	100



33947



Material

Body: steel, nickel plated.
 Shank: steel, nickel plated.
 Pin: stainless steel, SUS304.
 Knob: stainless steel, SUS304.
 Spring: stainless steel.

Technical Notes

One-touch fasteners are the ideal solution for applications requiring rapid and recurring change over of tooling or set ups. Use in applications as diverse as bottling processes, machine covers, changing of cogs and drive belts. One-touch fasteners

provide a quick, simple and secure change over solution - no time waste in unfastening screws or other permanent fixings, and no opportunity for lost fixings in your machinery.
 Temperature resistant to 200°C.

Important Notes

One-touch fastener offers full retraction of clamping shank when part is unlocked, this offer's the benefit of enabling panels to be slid into position - especially useful with larger or oversized panels, and enables its use on sliding or linear rail applications to provide positive location

and clamping of parts.

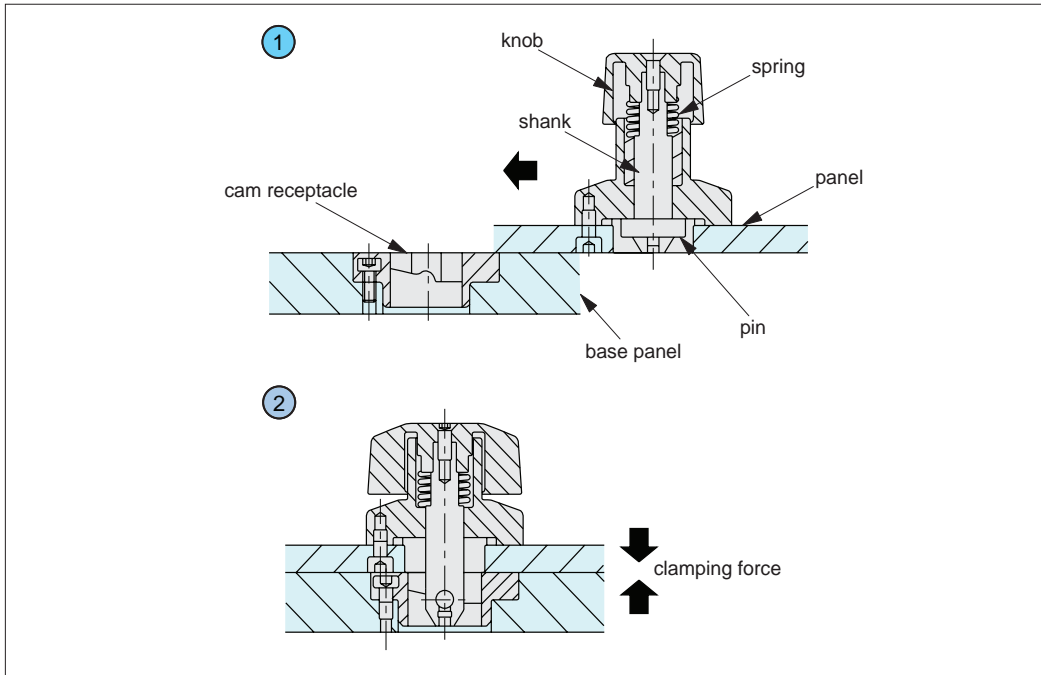
Actuation:

- Turn handle to off position, and ensure the shank is fully retracted.
- Place or slide the over in place and position over the locating bush.
- Turn handle to on position for clamping, an audible click is heard when fully clamped.
- To release, turn handle back to off position, the shank is fully retracted into clamp body assisted by the return spring.

Order No.	Single panel thickness	Clamping force N	d ₁	d ₂	d ₃	d ₄	d ₅	d ₆	l ₁	l ₂	h ₁	h ₂	h ₃	Shear strength N	Tensile strength N	Weight g
33947.W1005	6-10	60	5	14	25	25	21	M2x0,4	15,5	5,5	30	20,0	6,5	1800	1200	40
33947.W1408	6-14	90	8	18	34	34	28	M3x0,5	17,0	5,5	38	26,5	10,0	3200	400	100



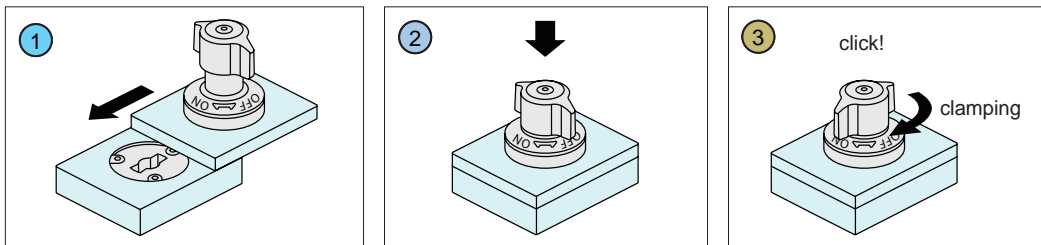
Operating Principle



- 1 The shank retracts at the unclamping position to enable operations without interference with the base panel.
- 2 When the pin contacts along the cam surface in the cam receptacle, the spring gets compressed to press down the panel.

ONE TOUCH FASTENERS

Operating Instructions



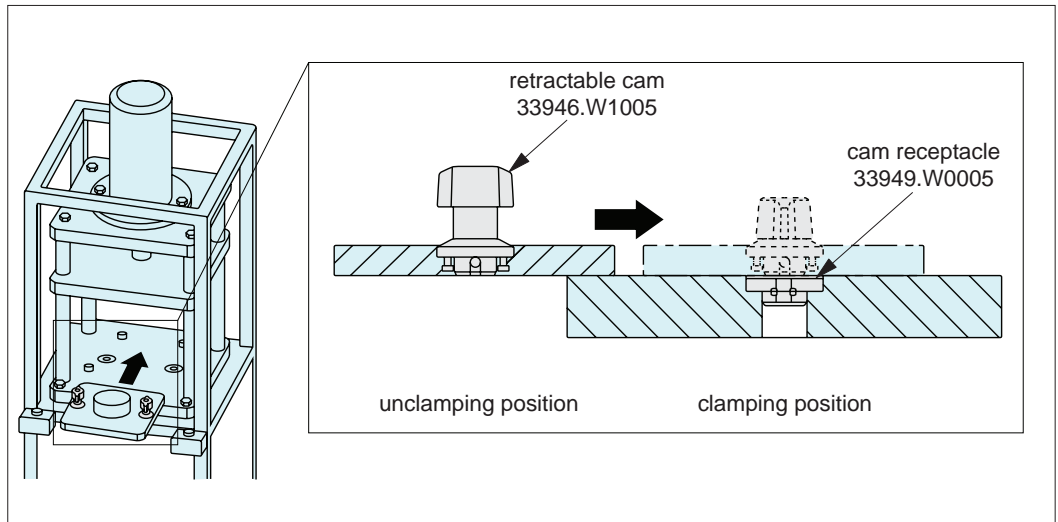
- 1 Ensure that the knob is positioned at the "OFF" mark and the pin is retracted.
- 2 Locate the cam receptacle directly under the fastener. Insert retracted pin by pressing the knob down.
- 3 Turn the knob to the "ON" mark for clamping. The knob clicks when clamped. Turning the knob to the "OFF" position, the pin returns automatically to the unclamping position.

ov-W33946-A-T-W33947-A-T-cam-locking-retract-overview-a-rmh - Updated - 28-10-2022

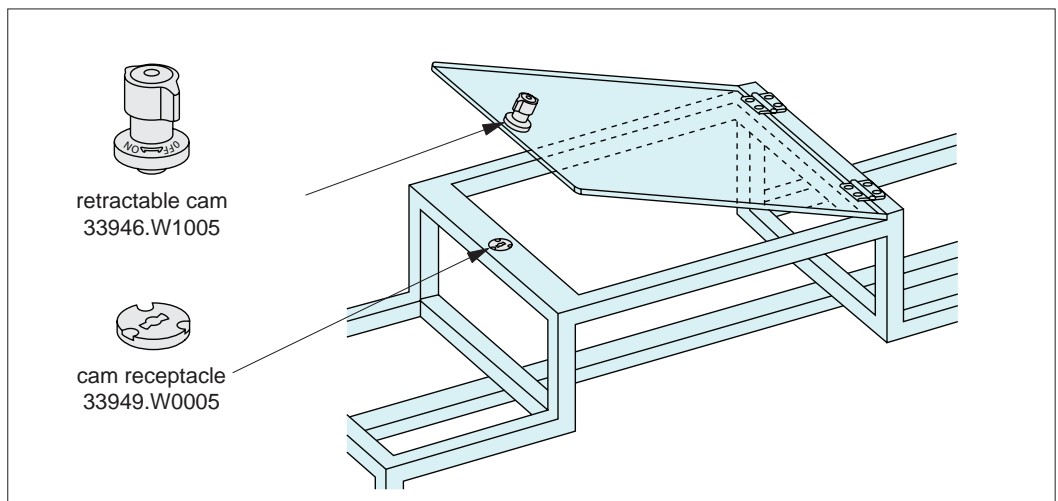


Applications

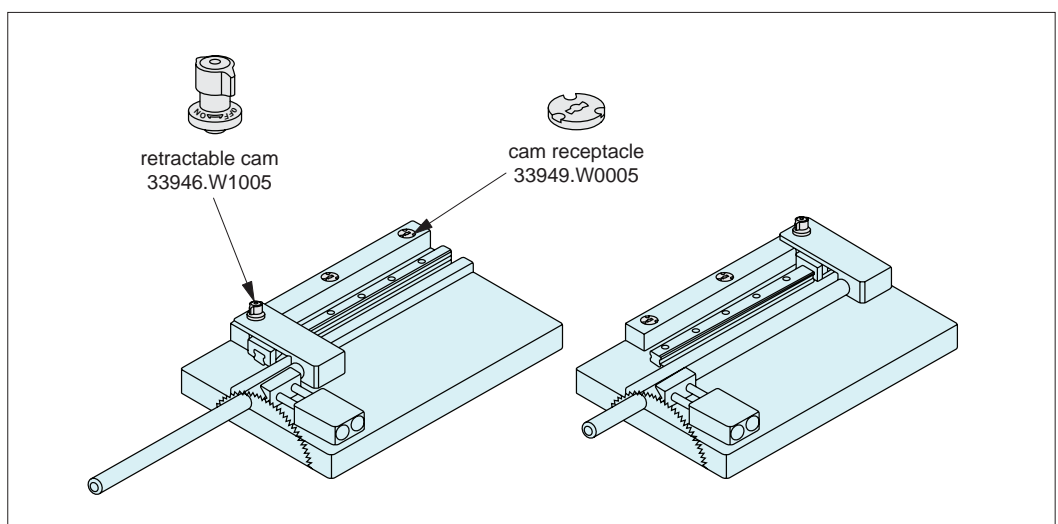
Changes of
Fixture Plates



Lock for Doors

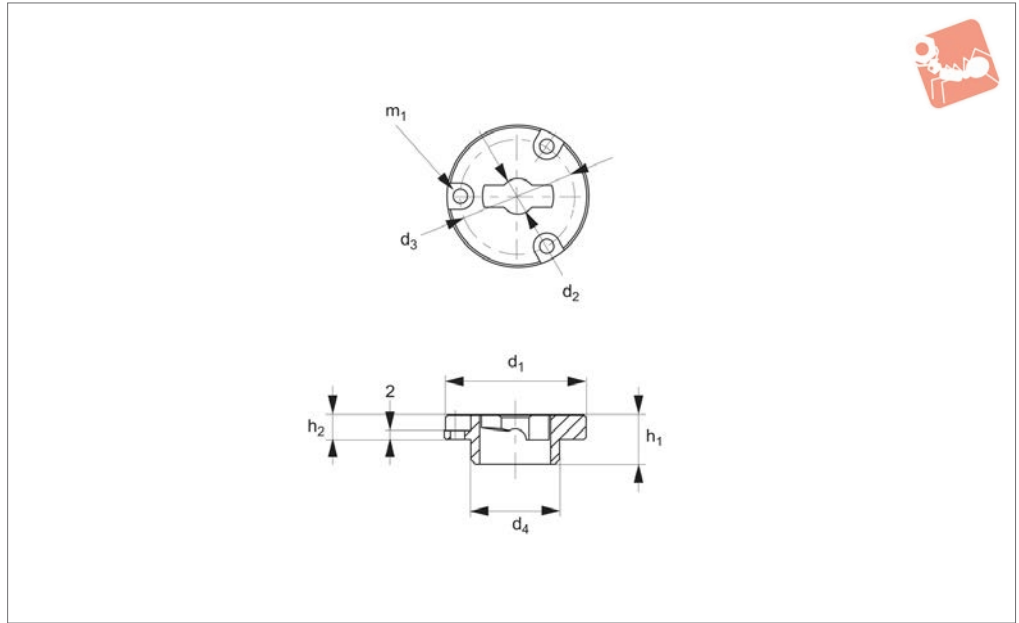


Adjustment of
Workpiece Guides





33949



Material

Body: steel, nickel plated or stainless steel.

Technical Notes

Used in conjunction with one-touch fasteners 33940 to 33946, locating bushes 3394820 provide secure fastening of panels and covers. Locating bushes are of

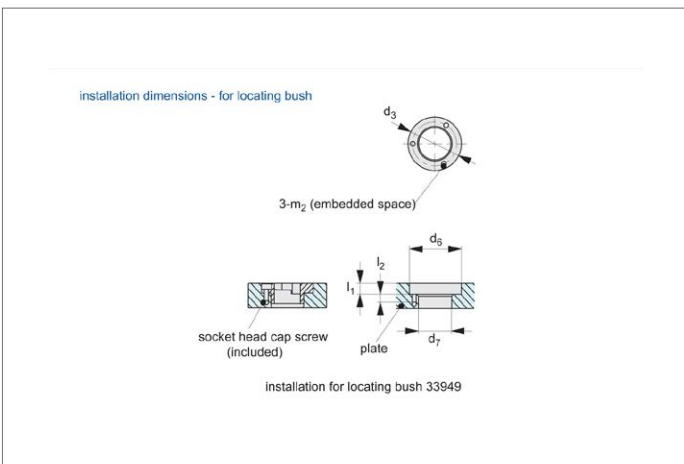
particular use in soft metals, such as aluminium where receiving surfaces may wear. One-touch fasteners are the ideal solution for applications requiring rapid and recurring change over of tooling or set ups. Use in applications as diverse as bottling processes, machine covers, changing of cogs and drive belts.

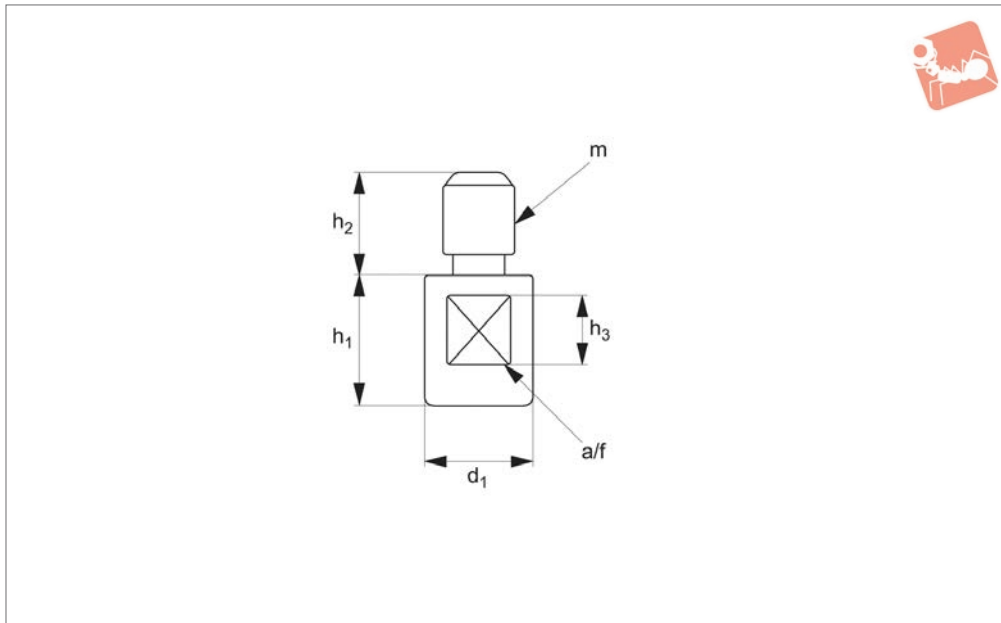
Temperature resistant to 200°C.

Important Notes

Suitable for panels/enclosures of 6 to 12 mm thickness. For one-touch fasteners see part nos. 33940 to 33946. For installation instructions see technical page.

Order No.	For single panel thickness	Material	d ₁	d ₂	d ₃	d ₄ -0.04 -0.08	d ₆	d ₇	l ₁	l ₂	h ₂	m ₁	m ₂	Weight g
33949.W0005	>10	Steel	25	5	21	14	26	14	5	4	4,5	M 2	M 2x0,4	20
33949.W0008	>12	Steel	32	8	26	20	33	20	6	5	5,5	M 3	M 3x0,5	35
33949.W0105	>10	Stainless Steel	25	5	21	14	26	14	5	4	4,5	M 2	M 2x0,4	20
33949.W0108	>12	Stainless Steel	32	8	26	20	33	20	6	5	5,5	M 3	M 3x0,5	35





33950

ONE TOUCH FASTENERS

Material

Body: steel, nickel plated.

Technical Notes

Used in conjunction with magnetic one-touch fasteners 33956, provides secure fastening of panels and covers. One-touch fasteners are the ideal solution for applica-

tions requiring rapid and recurring change over of tooling or set ups. Use in applications as diverse as bottling processes, machine covers, changing of cogs and drive belts.

Note: pin itself is not magnetic, it is for use with locating bush part no. 33956,

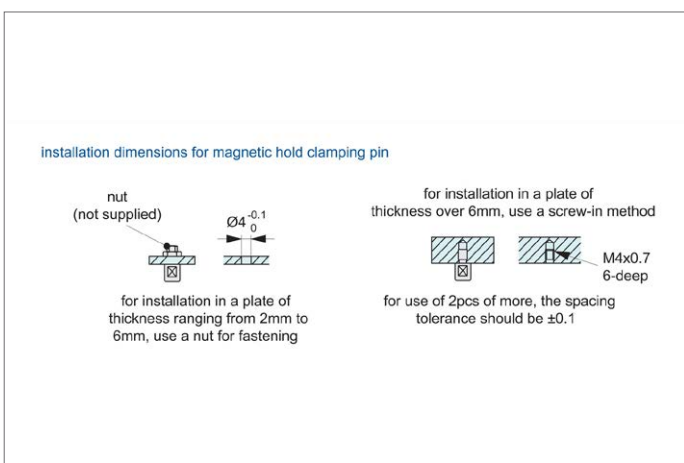
which contains magnet.

Important Notes

Suitable for panels/enclosures of 2 to 6 20 mm thickness.

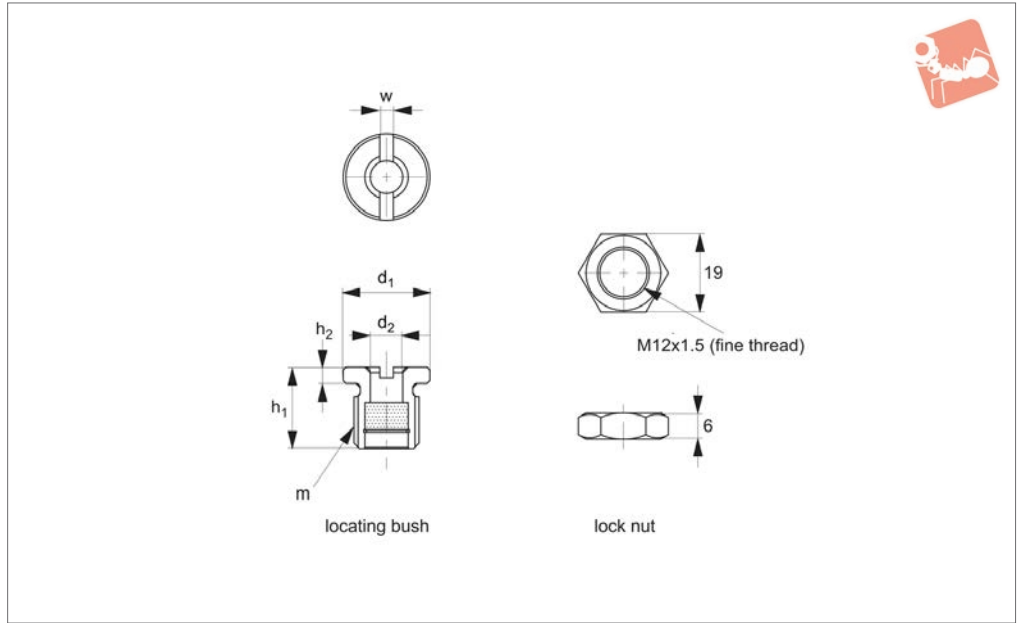
For installation instructions see technical page.

Order No.	For single panel thickness	d_1	h_1	h_2	h_3	m	A/F	Shear strength N	Weight g
33950.W0006	2 to 6	$-0.02 -0.04$ Ø6	7	5.8	4	M 4x0,7	5	900	2





33956



Material

Body: stainless steel.
Magnet: neodymium.

Technical Notes

One-touch fasteners are the ideal solution for applications requiring rapid and recurring change over of tooling or set ups. Use in applications as diverse as bottling processes, machine covers, changing of cogs and drive belts. One-touch fasteners

provide a quick, simple and secure change over solution - no time waste in unfastening screws or other permanent fixings, and no opportunity for lost fixings in your machinery.

Important Notes

Suitable for panels/enclosures of 2 to 6 mm thickness. For pin see part no. 33950. Part contains Neodymium magnets which in conjunction with one-touch pin no.

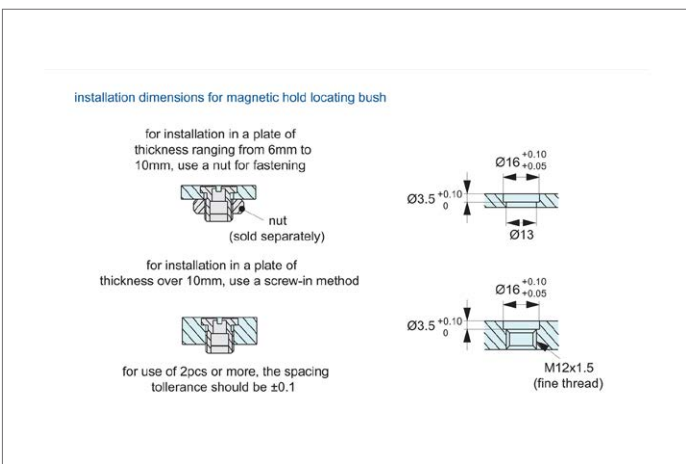
33950 creates a magnetic clamping force of 7 N.

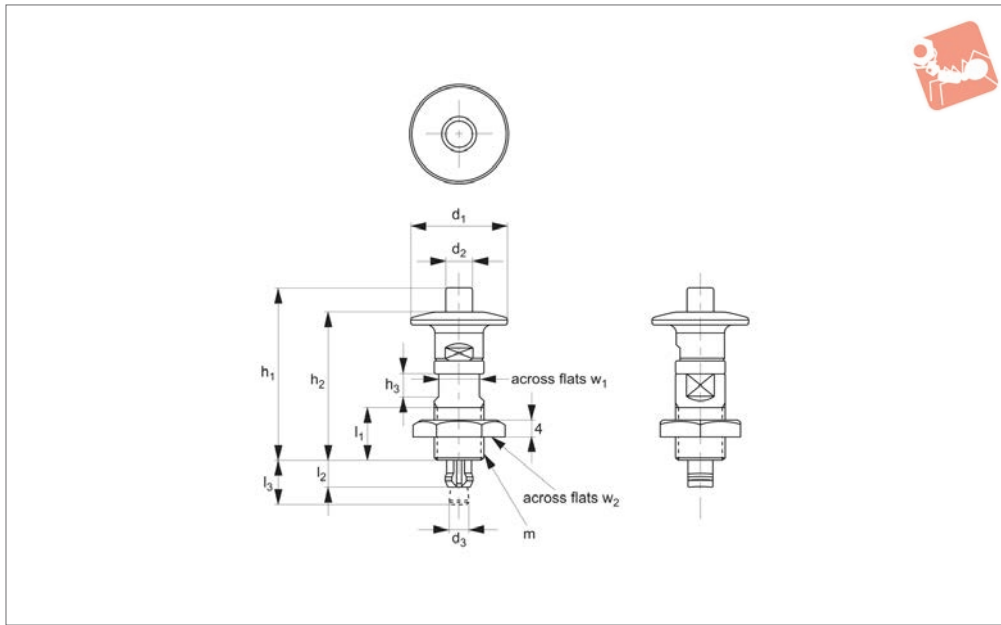
Actuation:

Engage pin into receiver, magnetic effect will take hold. Panels are securely fastened.

To release, simply pull panels apart with sufficient force to overcome magnetic holding force, panel is released.

Order No.	For single panel thickness	Type	d ₁ tol. h9	d ₂ +0.10 +0.05	h ₁	h ₂	m	w	Clamping force N	Weight g
33956.W0076	2 to 6mm	Bush	Ø16	Ø6	15	3	M12x1,5	2.5	7	12





33960

ONE TOUCH FASTENERS

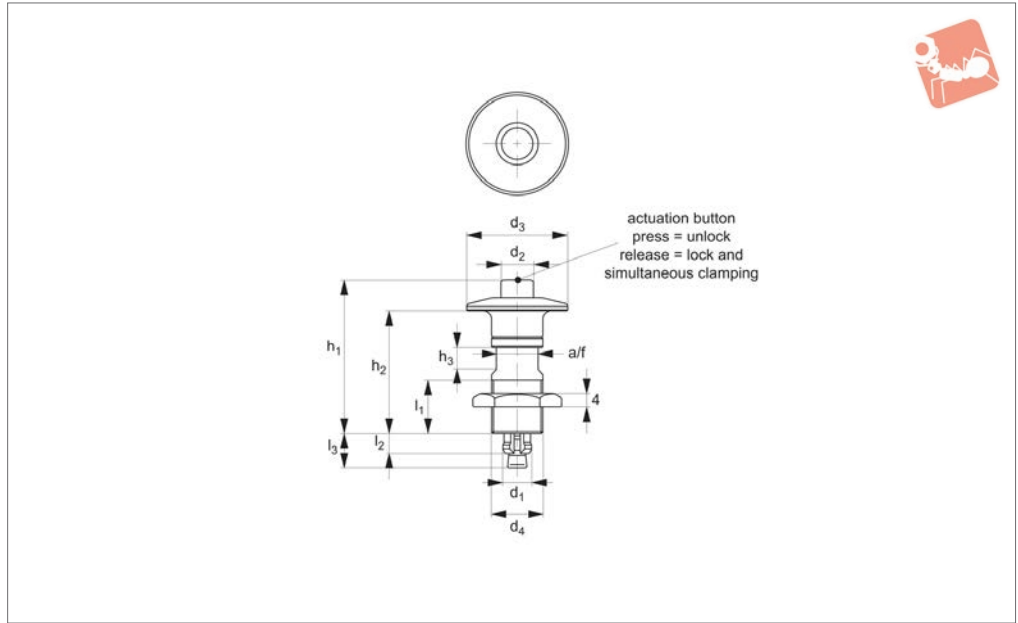
Material

Stainless steel.

Order No.	d	d ₁	d ₂	h	h ₁	h ₂	l	l ₁	l ₂	m	w	w ₁	Clamping force N	Shear strength	Tensile strength	Proper base plate thickness	Proper plate thickness	Weight g
33960.W6123	6,5	23	6,5	40	32	5,5	12,5	6,5	10,5	M12x1 (Fine thread)	10	19	3	200	150	3	3~8	41
33960.W6126	6,5	23	6,5	37	29	5,5	12,5	6,5	13,5	M12x1 (Fine thread)	10	19	3	200	150	6	3~8	40
33960.W8123	8,5	32	10	51	41,5	7	16,5	6,5	11	M16x1 (Fine thread)	14	24	6	400	300	3	3~12	88
33960.W8126	8,5	32	10	48	38,5	7	16,5	9,5	14	M16x1 (Fine thread)	14	24	6	400	300	6	3~12	88



33964



Material

Body: stainless steel SUS 303.
 Spacer: stainless steel SUS 303.
 Spring: stainless steel SUS 303.

Technical Notes

One-touch fasteners are the ideal solution for applications requiring rapid and recurring change over of tooling or set ups. Use in applications as diverse as bottling processes, machine covers, changing of cogs and drive belts. One-touch fasteners provide a quick, simple and secure change over solution - no time waste in unfaste-

ning screws or other permanent fixings, and no opportunity for lost fixings in your machinery.

Tips

For highly accurate locating, use locating pins 36340 and 36341.

Important Notes

Suitable for panels/enclosures of 3 to 12 mm.
 Unique locking and simultaneous clamping.

Actuation:

- While depressing the actuation button, align pin to receiving hole in frame.
- Once pin is aligned seated in the receiving hole, release button.
- Pin will retract, forcing clamping wedges to spread and pull the two panels together to securely fasten.
- To release, reverse steps described above.

Order No.	Single panel thickness mm	Receiver panel thickness	d ₁	d ₂	d ₃	d ₄	A/F	h ₁	Weight g
33964.W0803	3-8	3	6.5	6.5	23	M12x1	10	40	41
33964.W0806	3-8	6	6.5	6.5	23	M12x1	10	37	40
33964.W1203	3-12	3	8.5	10.0	32	M16x1	14	51	88
33964.W1206	3-12	6	8.5	10.0	32	M16x1	14	48	86

Order No.	h ₂	h ₃	l ₁	l ₂	l ₃	Clamping force N	Shear strength N	Tensile strength N
33964.W0803	32.0	5.5	12.5	6.5	10.5	3	200	150
33964.W0806	29.0	5.5	12.5	9.5	13.5	3	200	150
33964.W1203	41.5	7.0	16.5	6.5	11.0	6	400	300
33964.W1206	38.5	7.0	16.5	9.5	14.0	6	400	300

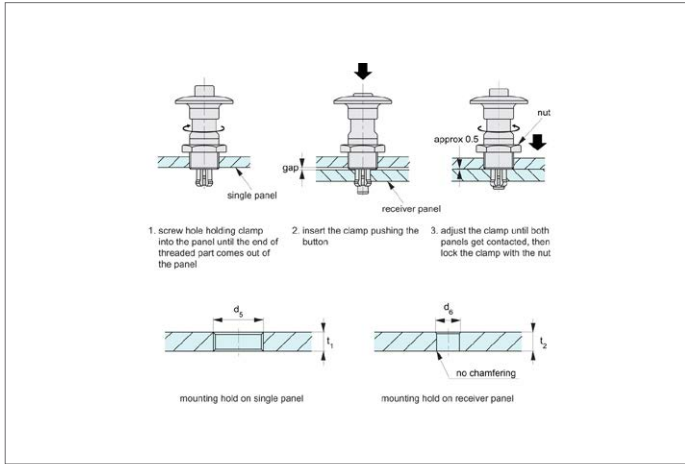


One-Touch Fastener - Pull Clamping

push button lock - button handle - stainless steel



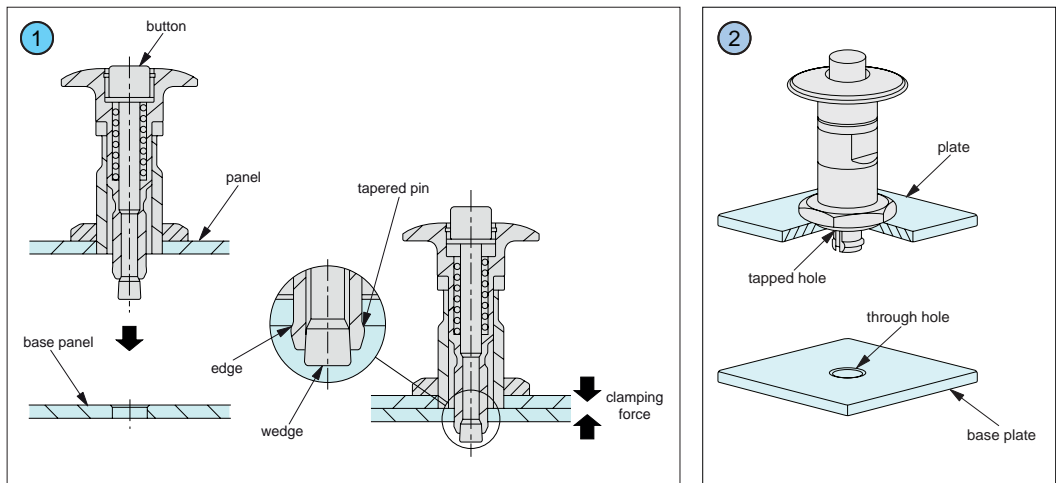
One Touch Fasteners





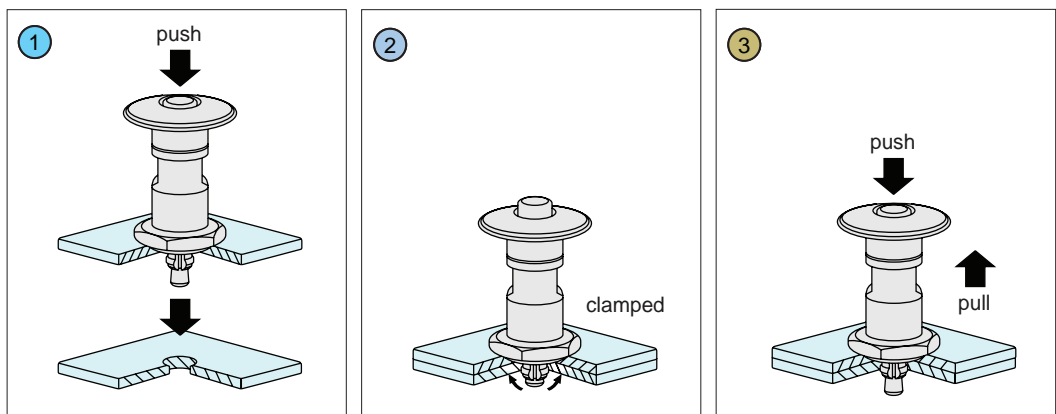
Operating Principle

- 1 The tapered pin expanded by the wedge pushes out against the edge of the hole on the base panel, and the two panels are clamped.
- 2 Just a tapped hole and a through hole are required.



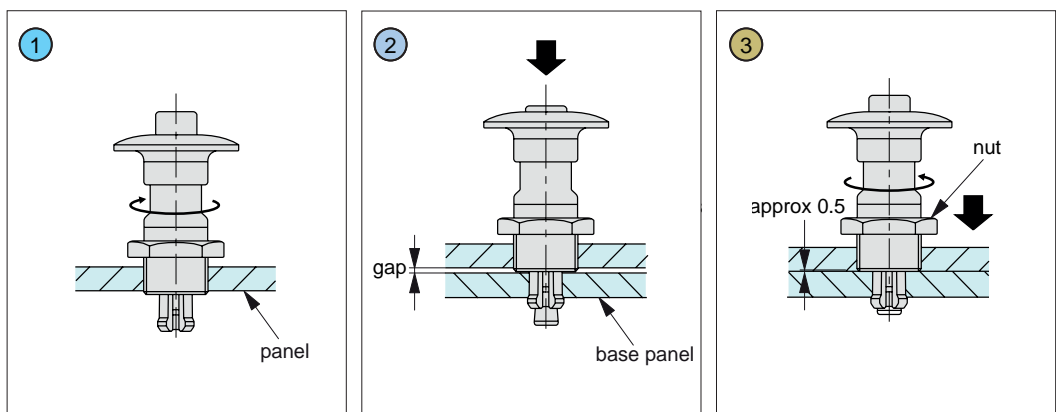
Operating Instructions

- 1 While depressing the actuation button, align the pin to receiving hole.
- 2 Once pin is aligned and seated in the receiving hole, release button. Pin will retract, forcing clamping wedges to spread and pull the two panels together to securely fasten.
- 3 To release, reverse steps described above.



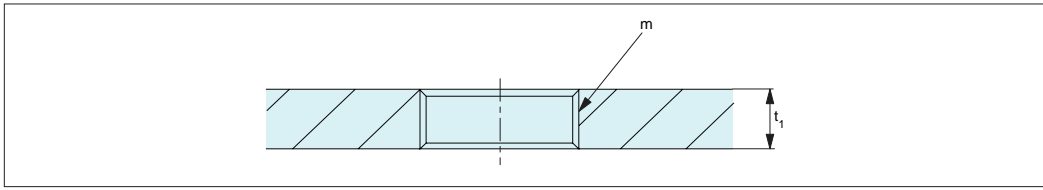
Installation Dimensions

- 1 Screw hole holding clamp into the panel until the end of threaded part comes out of the panel.
- 2 Insert the clamp pushing the button.
- 3 Adjust the clamp until the both panels get contracted and then lock the clamp with the nut.

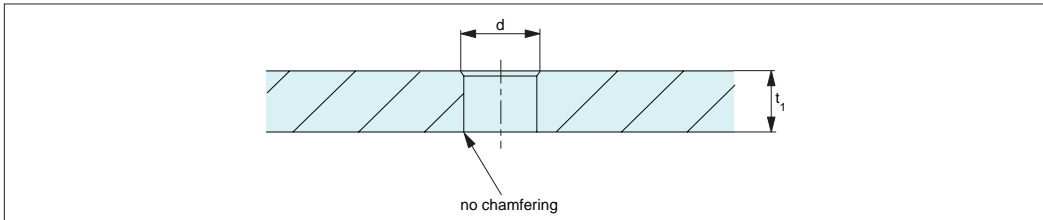




Mounting Hole on Panel

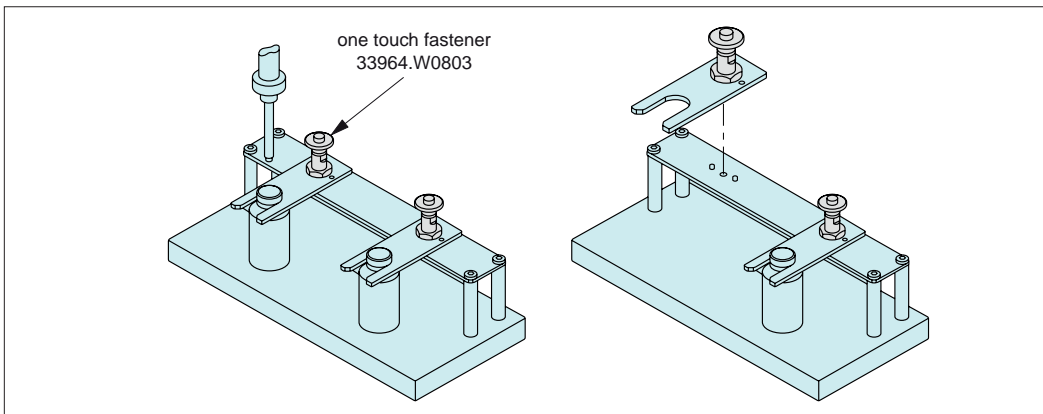


Mounting Hole on Base Panel



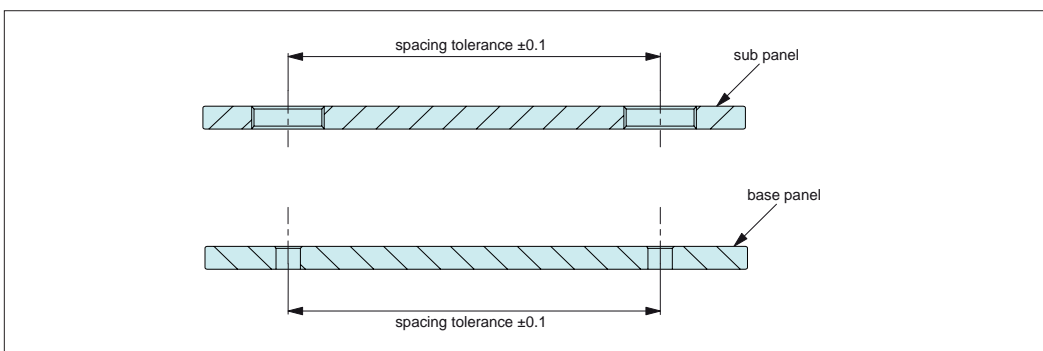
Use hard metals such as stainless steels for the base panel.

Applications



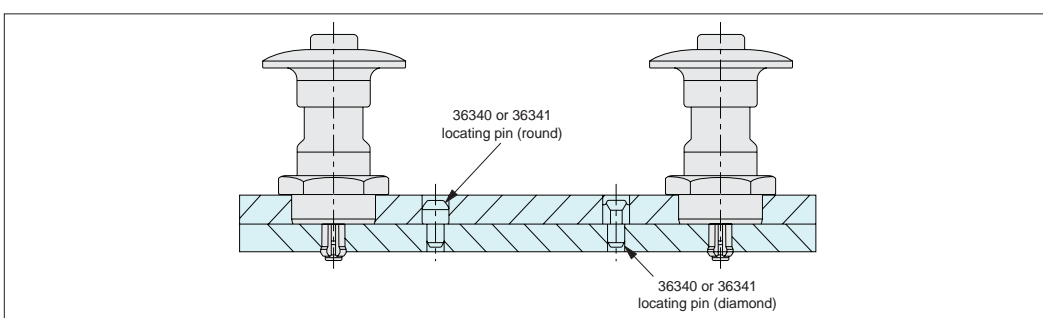
Changes of Holder Panel

Installation Best Practice



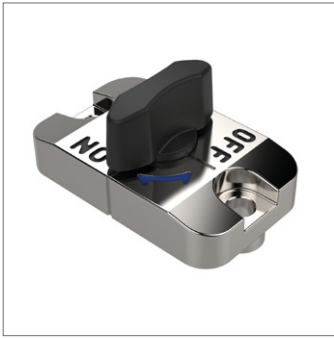
Machining Accuracy

Spacing tolerance on both the sub panel and the base panel should be ± 0.1 .

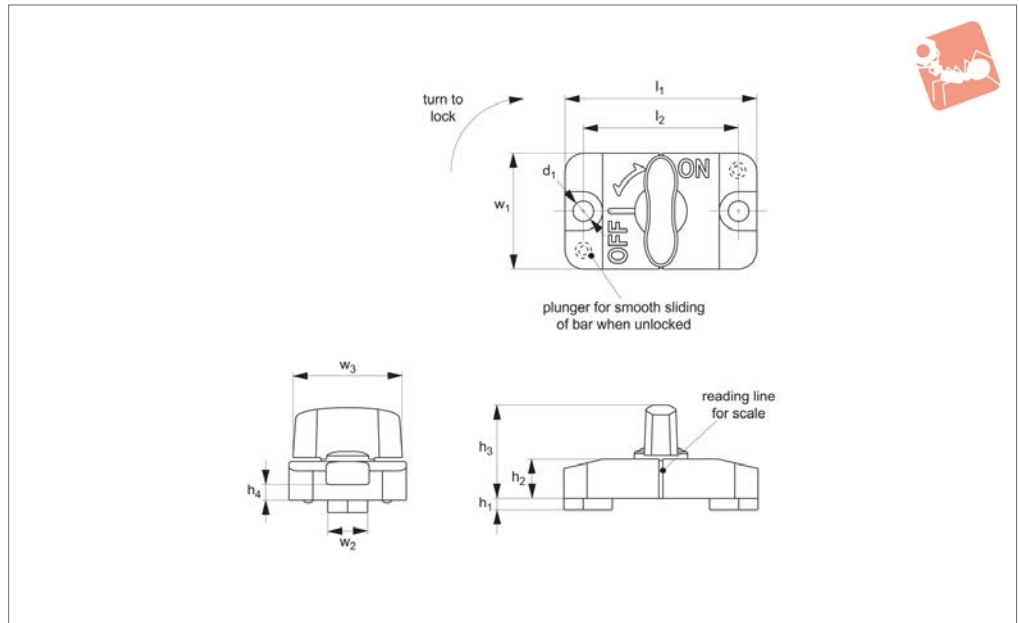


Repeatability

For highly accurate locating, use locating pins 36340 or 36341. Repeatability of ± 0.25 is achievable.



33970



Material

Body: die-cast zinc, chrome plated.
 Grip: polyamide plastic (black or orange), or stainless steel SUS304.
 Clamping shaft/wedge: stainless steel.
 Ball plunger: polyacetal.

Technical Notes

Sliding clamps are ideal for the quick positioning, locking, releasing and re-positioning of sliding bars in many applications. When additionally used with a scale plate (see part no. 33975, 33976 and 33977), the reading line on the sliding clamp enables quick, easy and accurate alignment.

The sliding clamp is mounted, for greater stability, in a fixed position in an assembly. With the clamp set to its off position the

sliding bar (not supplied) can be moved left or right, with two spring loaded ball plungers provide for free movement of bar. Once in its desired position the sliding bar can be locked in place, through a 90 degree turn of the sliding clamp's handle which engages the clamp's clamping shaft/wedge.

Please see technical diagram below for recommended machining details for your sliding bar (not supplied). Riser plates can be used to provide clearance between sliding bar and mounting surface to improve free running of sliding bar, see part no. 33971.

Temperature resistance up to 90°C.
 Max. static load up to 500N - please refer to performance graph below.

Important Notes

Sliding clamps are suited only to straight linear movement of sliding bar (not supplied), and do not tolerate any other applied loads.

Displacement of sliding bar, through repetitive use, will increase if excessive shock or vibration is present. Do not use sliding clamp in vertical applications where vibration is present.

Displacement will also increase with adhesion or immersion of oil or other foreign substances.

Ensure sliding bar is not bent nor warped as this may cause the sliding bar to slip even when sliding clamp is in its on position.

Order No.	For slot width	Handle	Slot depth min.	d ₁	h ₁	h ₂	h ₃	h ₄	Weight g
33970.W0103	10	Plastic, Orange	3	5.5	3	10	24	4.5	80
33970.W0106	10	Plastic, Orange	6	5.5	6	10	24	4.5	80
33970.W1103	10	Plastic, Black	3	5.5	3	10	24	4.5	80
33970.W1106	10	Plastic, Black	6	5.5	6	10	24	4.5	80
33970.W2103	10	Stainless	3	5.5	3	10	24	4.5	95
33970.W2106	10	Stainless	6	5.5	6	10	24	4.5	95

Order No.	l ₁	l ₂	w ₁	w ₂ 0 -0.05	w ₃	Static load N max.
33970.W0103	50	40	30	10	28	500
33970.W0106	50	40	30	10	28	500
33970.W1103	50	40	30	10	28	500
33970.W1106	50	40	30	10	28	500



Sliding Clamps - for Slotted Hole

quarter turn lock - t-handle grip - zinc



One Touch Fasteners

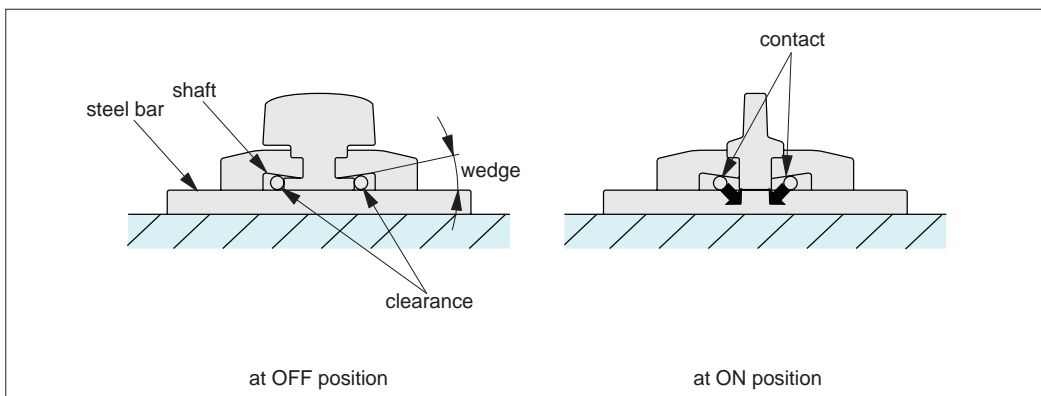
Order No.	l_1	l_2	w_1	w_2 0 -0.05	w_3	Static load N max.
33970.W2103	50	40	30	10	28	500
33970.W2106	50	40	30	10	28	500



Operating Principle

You can slide the steel bar when the knob is at the "OFF" position since there is clearance between the steel bar and the shafts.

The steel bar is locked when the knob is at the "ON" position since the shafts are pushed by the wedge.

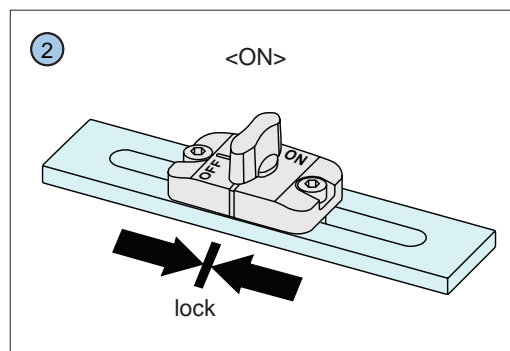
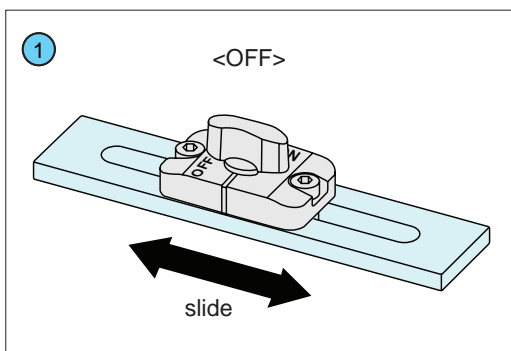


Operating Instructions

1 The steel bar can slide to the right and left at the "OFF" position.

2 The steel bar is locked at the "ON" position.

Note: The knob clicks at the "ON" and "OFF" positions, and this gives the operator confirmation it has locked/unlocked securely.



How to Use

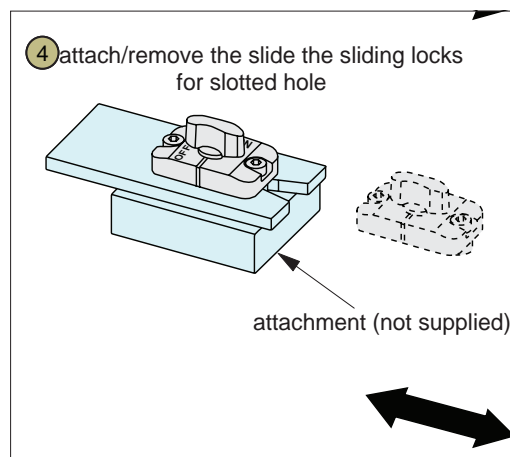
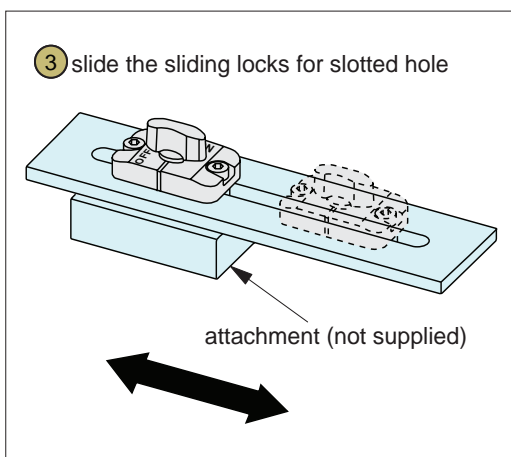
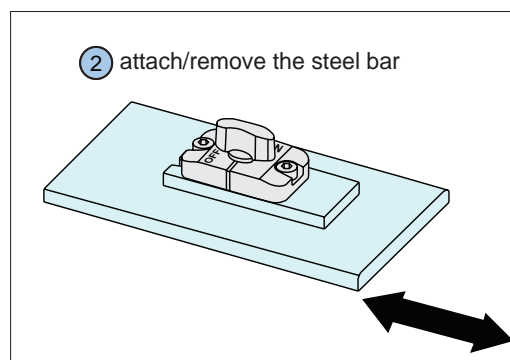
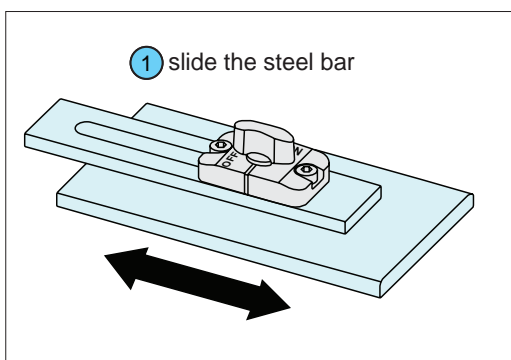
Please refer to notes for safe use (last page of guide).

1 Slide the steel bar.

2 Attach/remove the steel bar.

3 Slide the sliding locks for slotted hole.

4 Attach/remove the sliding locks for slotted hole.



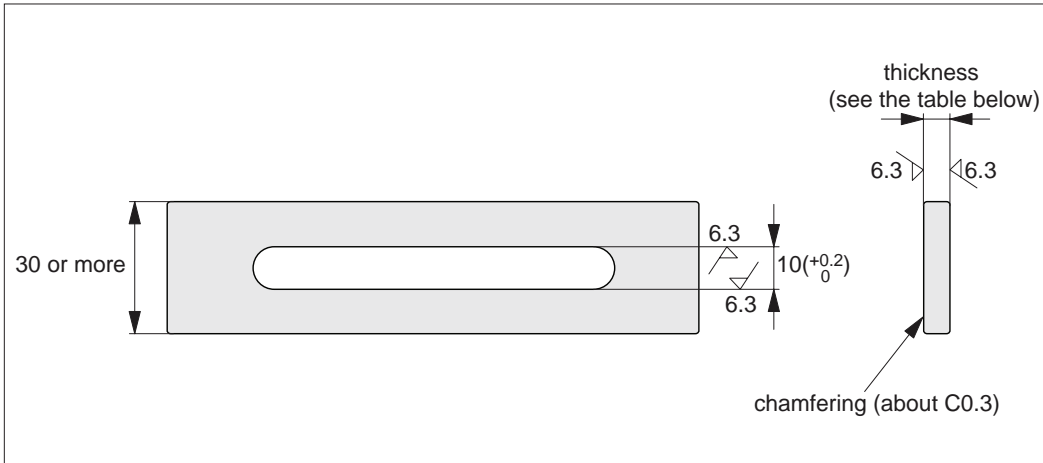


One-Touch Fastener - Sliding clamps

slotted hole - overview

33970

Positioning Elements

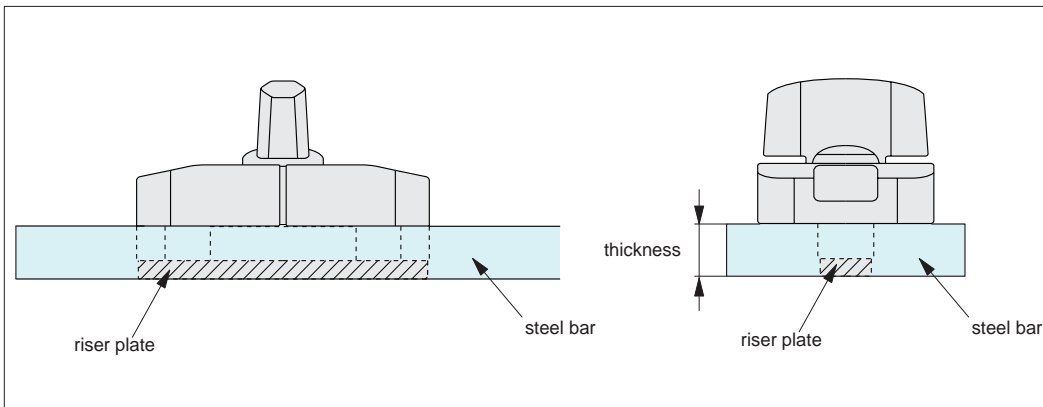


How to Use Steel Bar Materials

Usable Materials: Flat bar (JIS h14 grade) made of SS400, S45C or SUS304 etc.

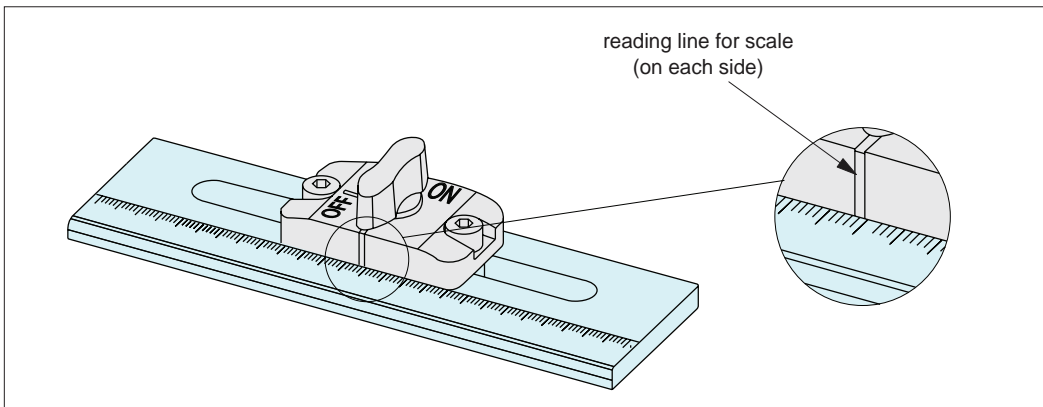
Machining of slotted hole: Recommended tolerance of the slotted hole to prevent chattering is shown left.

For more accurate sliding, machine the slotted hole to fit the dimension of 10mm (-0.05 to 0) on the bottom of sliding locks. Remove the burr around the slotted hole to ensure locking.



How to Use Riser Plate

Can be used for various steel thicknesses by attaching the riser plates (ordered separately, see 33971).



How to Use Scale Plate

You can read the scale with the line on the body of the sliding lock.

Scale plate is separately available.

See ranges 33975, 33976 and 33977.

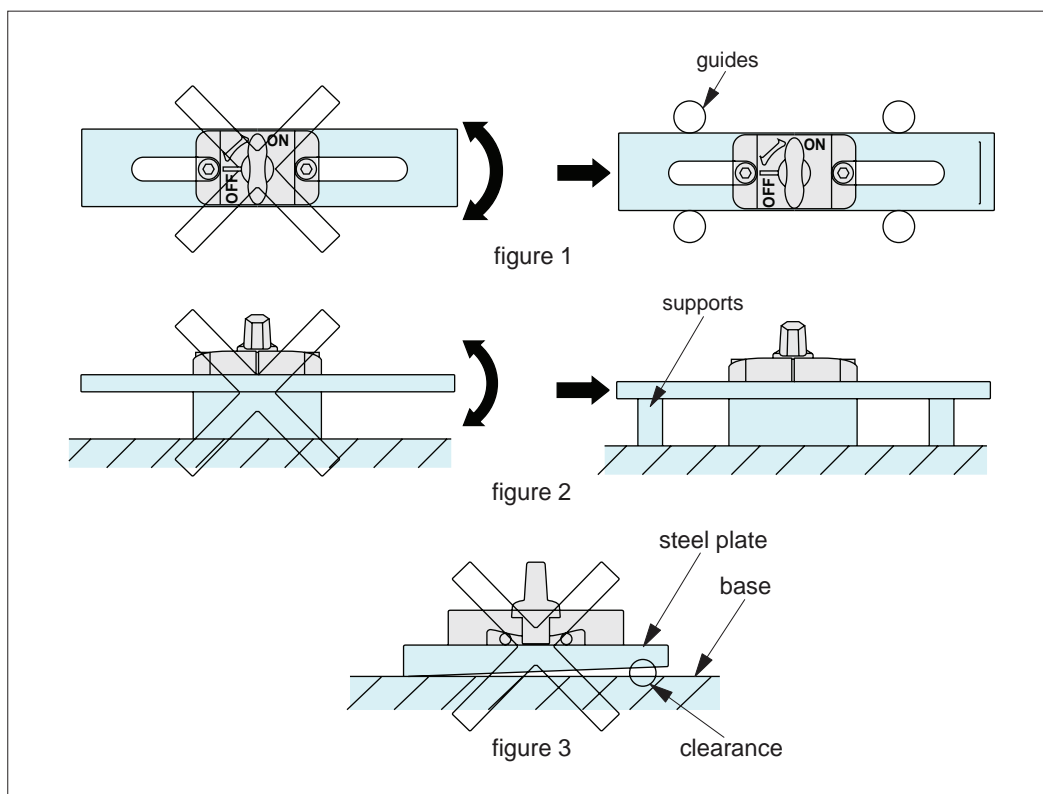
ONE TOUCH FASTENERS

ov-W33970-A-T-sliding-clamps-overview-b-rmh - Updated - 28-10-2022



Notes

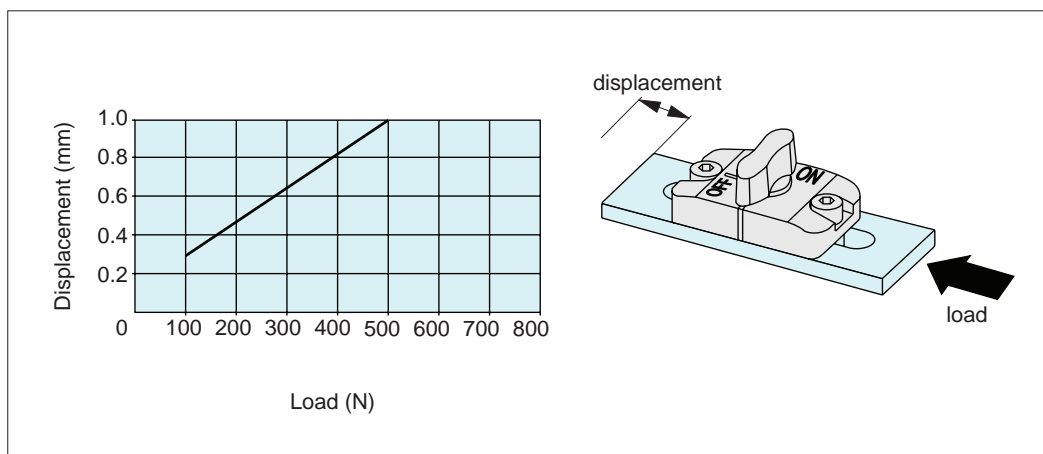
- Ensure that the knob is at the "OFF" position when mounting. Mounting of sliding locks the at "ON" position may cause damage.
- The displacement will increase with excess shock or vibration. Do not use this product vertically in environments where excess vibration is present.
- The displacement can increase with adhesion or contamination by oil or foreign substances.
- If the steel plate slips or chatters by the load applied to the steel plate, prepare guides or supports as needed. (See figure 1 and 2 below)
- Excess displacement or misalignment may be caused if there is a clearance between the steel bar and the base when the sliding locks at the "ON" position. (See figure 3 below) Ensure that the steel plate and the base are not bent or warped.

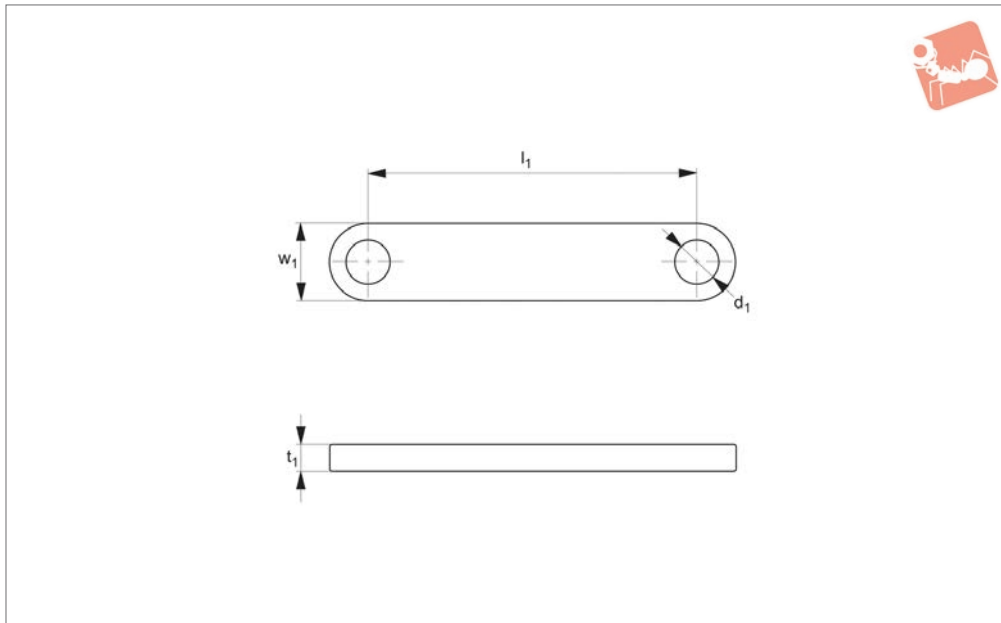


Performance Curve

The Displacement of Steel Bar by Axial Load (static load from single direction)

Note: The data is for a flat bar made of SUS304 stainless steel, SS400 steel and S45C steel. Using an aluminium flat bar the surface will be scratched or dent by applied load.





33971

ONE TOUCH FASTENERS

Material

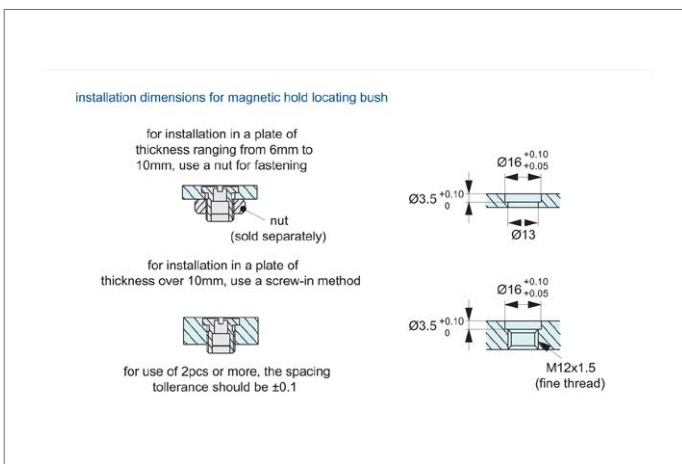
Body: 304 stainless steel.

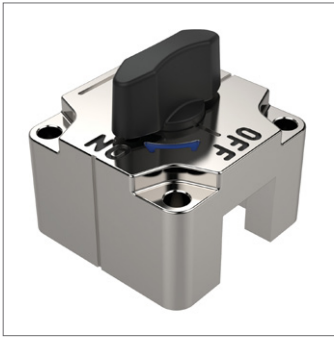
of riser plate to clamp enables clamps use for sliding bars of varying thickness.

Technical Notes

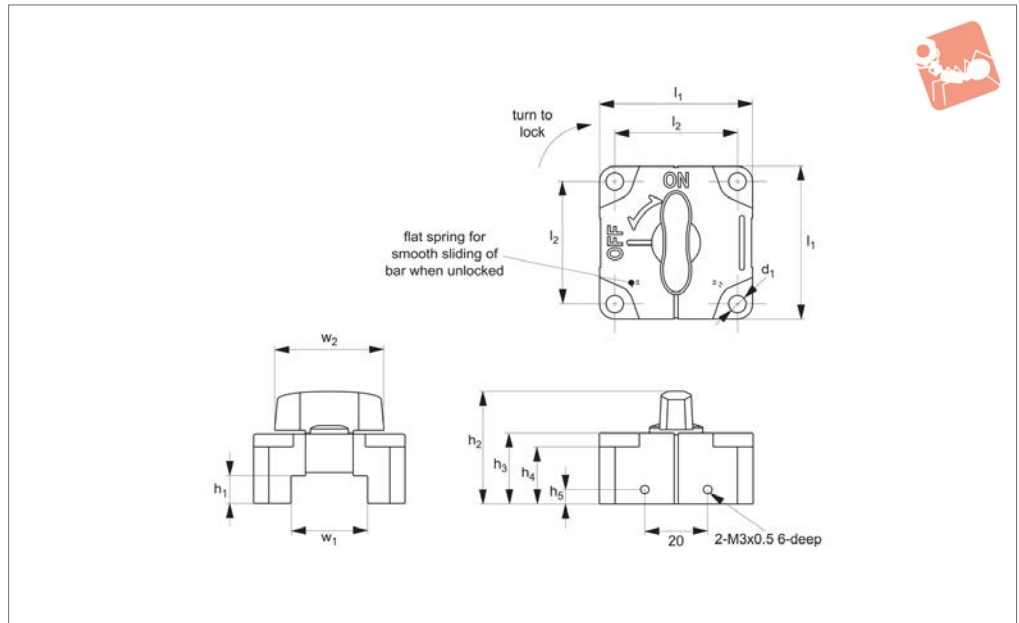
For use with sliding clamp 33970, addition

Order No.	d ₁	l ₁	w ₁	t ₁	Weight g
33971.W0002	5.5	40	9.5	2	6
33971.W0003	5.5	40	9.5	3	10





33972



Material

Body: die-cast zinc, chrome plated.
 Grip: polyamide plastic (black or orange), or stainless steel SUS304.
 Clamping shaft/wedge: stainless steel.
 Flat spring: phosphor bronze.

Technical Notes

Sliding clamps are ideal for the quick positioning, locking, releasing and re-positioning of sliding bars in many applications. When additionally used with a scale plate (see part no. 33975, 33976 and 33977), the reading line on the sliding clamp enables quick, easy and accurate alignment.

The sliding clamp is mounted, for greater stability, in a fixed position in an assembly. With the clamp set to its off position the sliding bar (not supplied) can be moved

left or right, with two spring loaded ball plungers provide for free movement of bar. Once in its desired position the sliding bar can be locked in place, through a 90 degree turn of the sliding clamp's handle which engages the clamp's clamping shaft/wedge.

Please see technical diagram below for recommended machining details for your sliding bar (not supplied). Riser plates can be used to provide clearance between sliding bar and mounting surface to improve free running of sliding bar, see part no. 33974.

Temperature resistance up to 90°C.
 Max. static load up to 800N - please refer to performance graph below.

Important Notes

Sliding clamps are suited only to straight linear movement of sliding bar (not supplied), and do not tolerate any other applied loads.

Displacement of sliding bar, through repetitive use, will increase if excessive shock or vibration is present. Do not use sliding clamp in vertical applications where vibration is present.

Displacement will also increase with adhesion or immersion of oil or other foreign substances.

Ensure sliding bar is not bent nor warped as this may cause the sliding bar to slip even when sliding clamp is in its on position.

Order No.	For bar width x height	Handle	d ₁	h ₁ +0.02	h ₂	h ₃	h ₄	h ₅	l ₁	l ₂	w ₁ +0.05 -0.0	w ₂	Weight g
33972.W0122	12x12	Plastic, orange	4.5	12	36	22	18.5	6.0	40	32	12	28	130
33972.W0166	16x16	Plastic, orange	4.5	16	40	26	22.5	8.0	40	32	16	28	150
33972.W0250	25x 9	Plastic, orange	5.5	9	37	23	18.5	4.5	50	40	25	35	220
33972.W0252	25x12	Plastic, orange	5.5	12	40	26	21.5	6.0	50	40	25	35	240
33972.W0322	32x12	Plastic, orange	5.5	12	40	26	21.5	6.0	50	40	32	35	220
33972.W0326	32x16	Plastic, orange	5.5	16	44	30	25.5	8.0	50	40	32	35	240
33972.W1122	12x12	Plastic, black	4.5	12	36	22	18.5	6.0	40	32	12	28	130
33972.W1166	16x16	Plastic, black	4.5	16	40	26	22.5	8.0	40	32	16	28	150
33972.W1250	25x 9	Plastic, black	5.5	9	37	23	18.5	4.5	50	40	25	35	220
33972.W1252	25x12	Plastic, black	5.5	12	40	26	21.5	6.0	50	40	25	35	240
33972.W1322	32x12	Plastic, black	5.5	12	40	26	21.5	6.0	50	40	32	35	220
33972.W1326	32x16	Plastic, black	5.5	16	44	30	25.5	8.0	50	40	32	35	240
33972.W2122	12x12	Stainless	4.5	12	36	22	18.5	6.0	40	32	12	28	145
33972.W2166	16x16	Stainless	4.5	16	40	26	22.5	8.0	40	32	16	28	165
33972.W2250	25x 9	Stainless	5.5	9	37	23	18.5	4.5	50	40	25	35	245



Sliding Clamps - for Solid Sliding Bar

quarter turn lock - t-handle grip - zinc

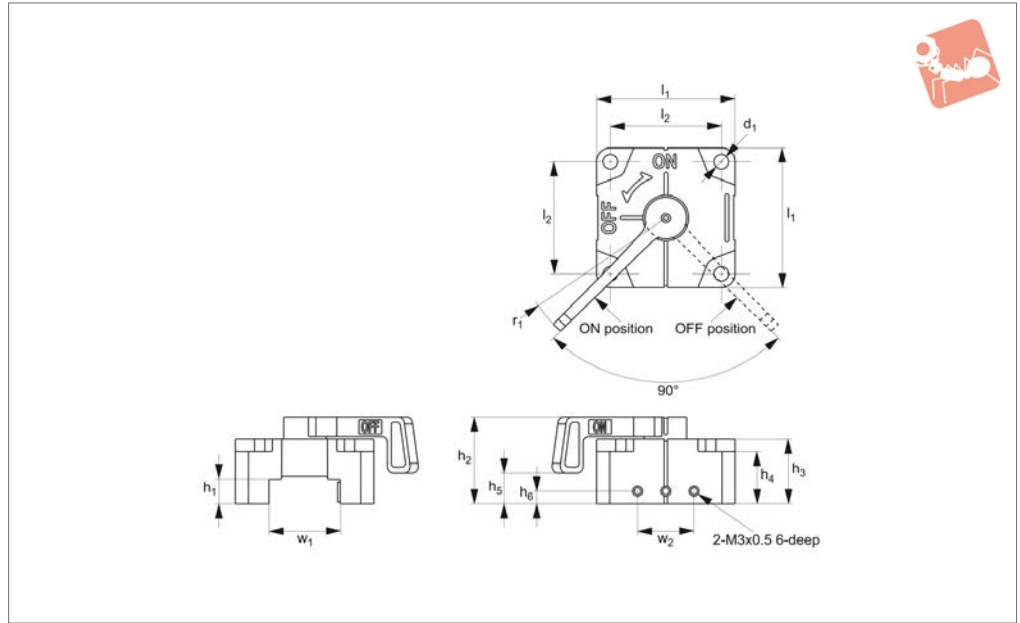


One Touch Fasteners

Order No.	For bar width x height	Handle	d ₁	h ₁ +0.02	h ₂	h ₃	h ₄	h ₅	l ₁	l ₂	w ₁ +0.05 -0.0	w ₂	Weight g
33972.W2252	25x12	Stainless	5.5	12	40	26	21.5	6.0	50	40	25	35	265
33972.W2322	32x12	Stainless	5.5	12	40	26	21.5	6.0	50	40	32	35	245
33972.W2326	32x16	Stainless	5.5	16	44	30	25.5	8.0	50	40	32	35	265



33973



Material

Body: die-cast zinc, chrome plated.
 Handle: stainless steel SUS304.
 Clamping shaft/wedge: stainless steel.
 Flat spring: phosphor bronze.

Technical Notes

Sliding clamps are ideal for the quick positioning, locking, releasing and re-positioning of sliding bars in many applications. When additionally used with a scale plate (see part no. 33975, 33976 and 33977), the reading line on the sliding clamp enables quick, easy and accurate alignment.

The sliding clamp is mounted, for greater stability, in a fixed position in an assembly. With the clamp set to its off position the sliding bar (not supplied) can be moved

left or right, with two spring loaded ball plungers provide for free movement of bar. Once in its desired position the sliding bar can be locked in place, through a 90 degree turn of the sliding clamp's handle which engages the clamp's clamping shaft/wedge.

Please see technical diagram below for recommended machining details for your sliding bar (not supplied). Riser plates can be used to provide clearance between sliding bar and mounting surface to improve free running of sliding bar, see part no. 33974.

Temperature resistance upto 90°C.
 Max. static load upto 800N - please refer to performance graph below.

Important Notes

Sliding clamps are suited only to straight linear movement of sliding bar (not supplied), and do not tolerate any other applied loads.

Displacement of sliding bar, through repetitive use, will increase if excessive shock or vibration is present. Do not use sliding clamp in vertical applications where vibration is present.

Displacement will also increase with adhesion or immersion of oil or other foreign substances.

Ensure sliding bar is not bent nor warped as this may cause the sliding bar to slip even when sliding clamp is in its on position.

Order No.	For bar width x height	Handle	d ₁	h ₁ +0.02	h ₂	h ₃	h ₄	h ₅	h ₆	l ₁	l ₂	w ₁ +0.05 -0.0	w ₂	r ₁	Static load N max.	Weight g
33973.W2122	12x12	Stainless	4,5	12	29	22	18,5	11	6,0	40	32	12	20	46,0	500	150
33973.W2166	16x16	Stainless	4,5	16	33	26	22,5	15	8,0	40	32	16	20	46,0	500	160
33973.W2250	25x 9	Stainless	5,5	9	31	23	18,5	11	4,5	50	40	25	20	55,5	800	250
33973.W2252	25x12	Stainless	5,5	12	34	26	21,5	14	6,0	50	40	25	20	55,5	800	250
33973.W2322	32x12	Stainless	5,5	12	34	26	21,5	14	6,0	50	40	32	20	55,5	800	320
33973.W2326	32x16	Stainless	5,5	16	38	30	25,5	18	8,0	50	40	32	20	55,5	800	270



Sliding Clamps - for Solid Sliding Bar

quarter turn lock - lever handle grip - zinc



One Touch Fasteners

installation dimensions for magnetic hold locating bush

for installation in a plate of thickness ranging from 6mm to 10mm, use a nut for fastening

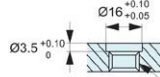
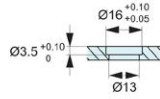


nut
(sold separately)

for installation in a plate of thickness over 10mm, use a screw-in method



for use of 2pcs or more, the spacing tolerance should be ± 0.1



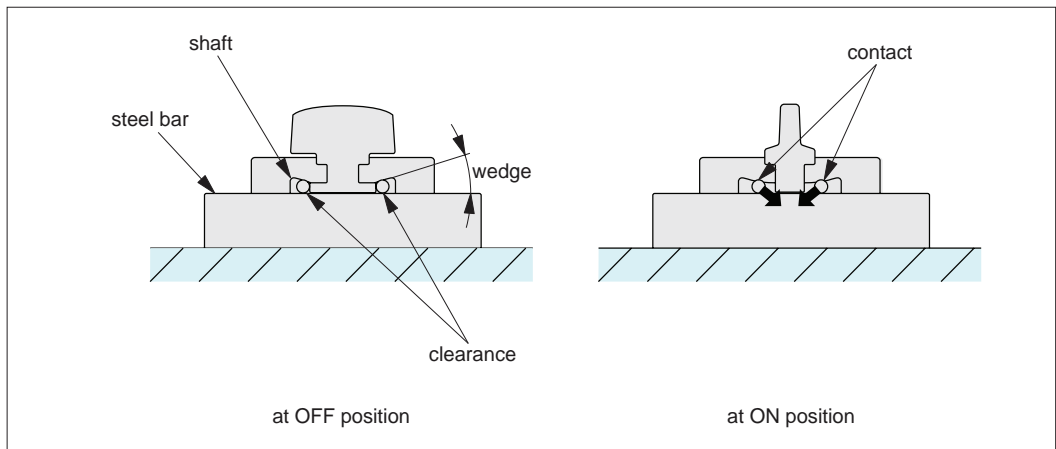
M12x1.5
(fine thread)



Operating Principle

You can slide the steel bar when the knob is at the "OFF" position since there is clearance between the steel bar and the shafts.

The steel bar is locked when the knob is at the "ON" position since the shafts are pushed by the wedge.

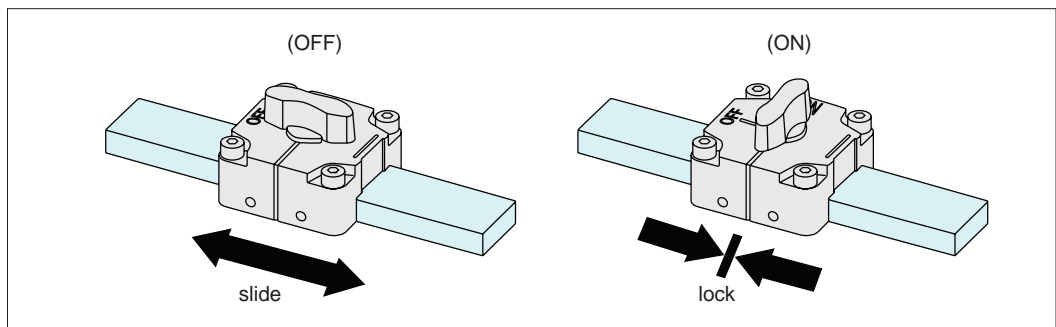


Operating Instructions

The steel bar can slide to right and left at the "OFF" position.

The steel bar is locked at the "ON" position.

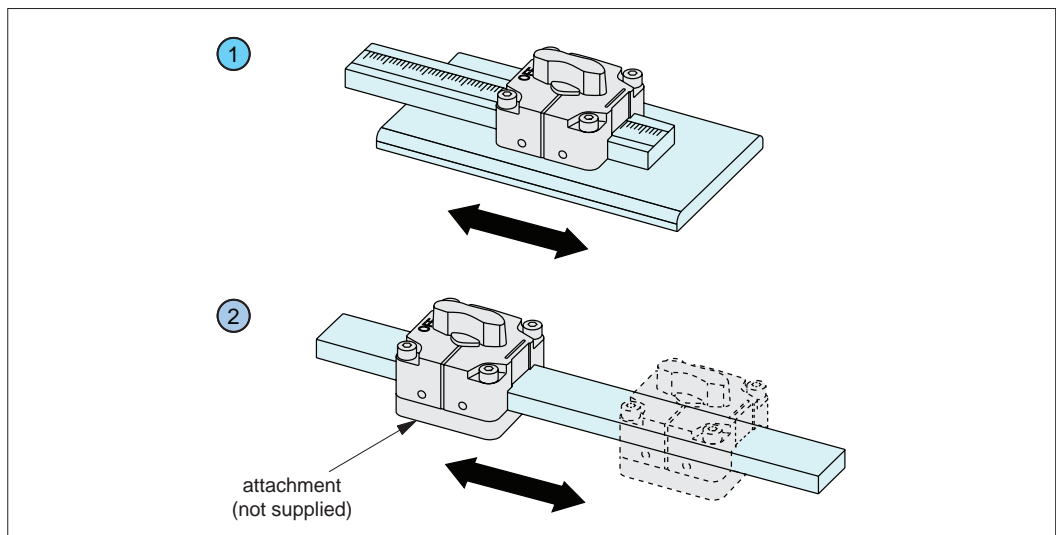
Note: The knob clicks at the "ON" and "OFF" positions, and this enables the operators to lock/unlock securely.



How to use

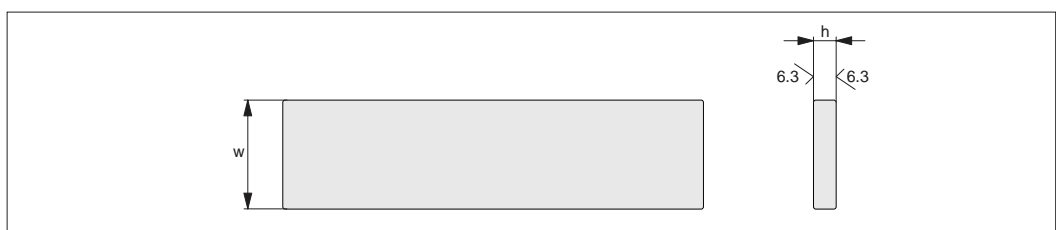
Please refer to notes for safe use (see last page of guide).

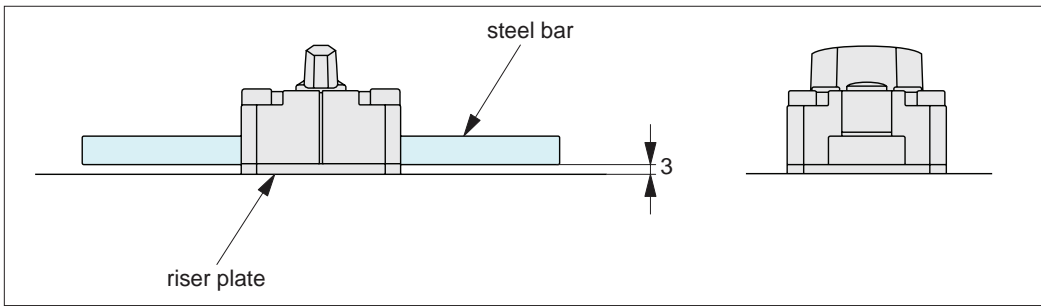
- ① Slide the steel bar.
- ② Slide the sliding locks for square bar.



How to use steel bar materials

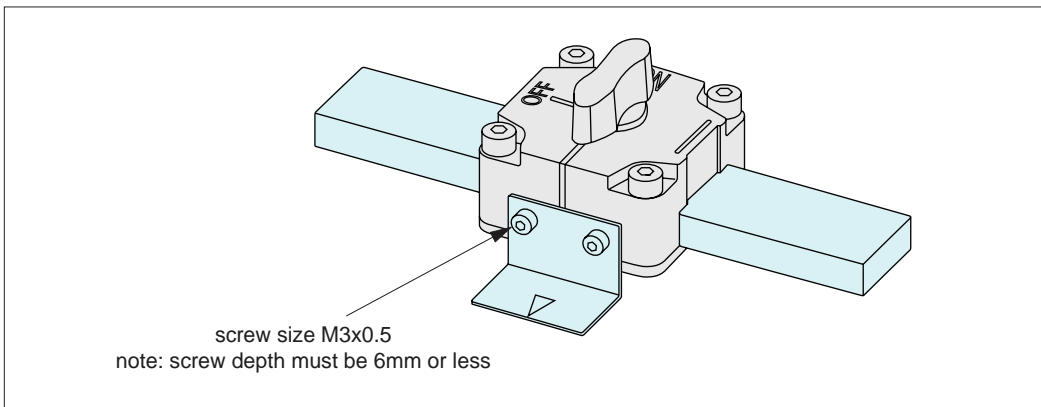
Usable Materials: Flat bar (JIS h14 grade) made of SS400, S45C or SUS304 etc.





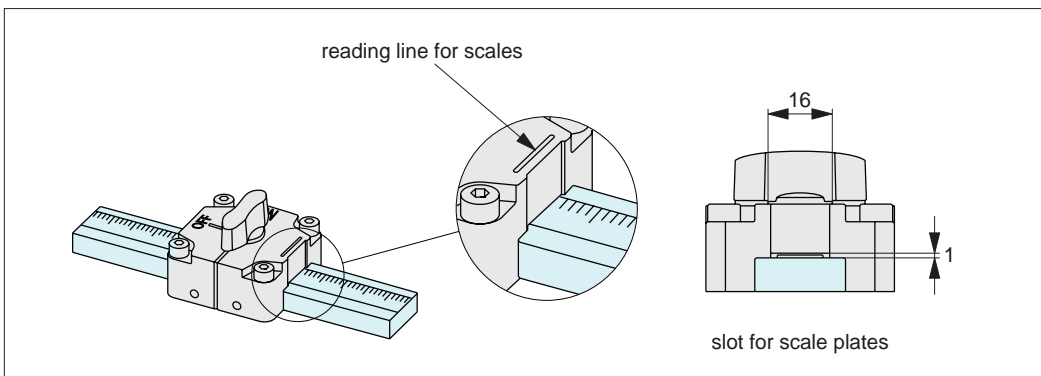
How to Use Riser Plate

Riser plates (to be ordered separately) can lift the steel bar to create a clearance between the steel bar and the base.



How to Use Tapped Holes on Side Surface

Can be used with attachments such as pointer plates and brackets.



How to Use Scale Plate

Scale plate can be put on the steel bar.

Note: Fit scale plate inside the slot in the figure below. Putting scale plate outside the slot cause interference between scale plate and sliding lock.

Scale plate is separately available.

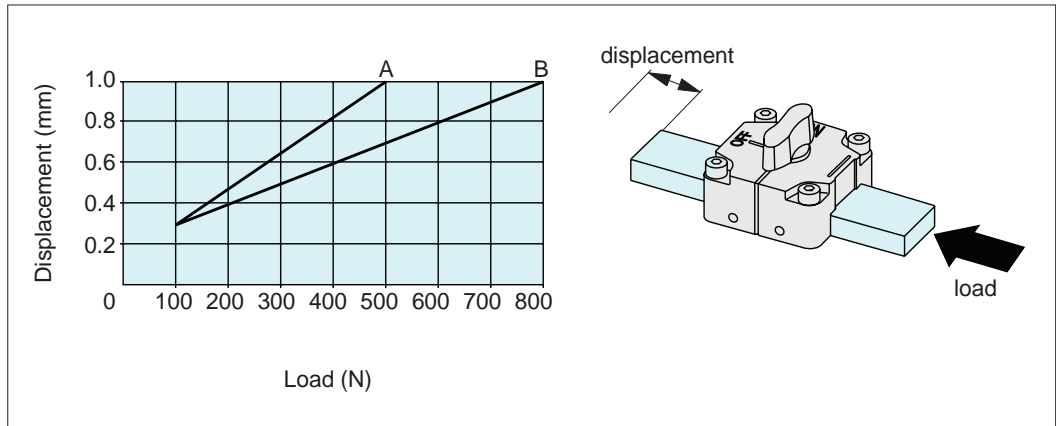
See ranges 33975, 33976 and 33977.



Performance Curve

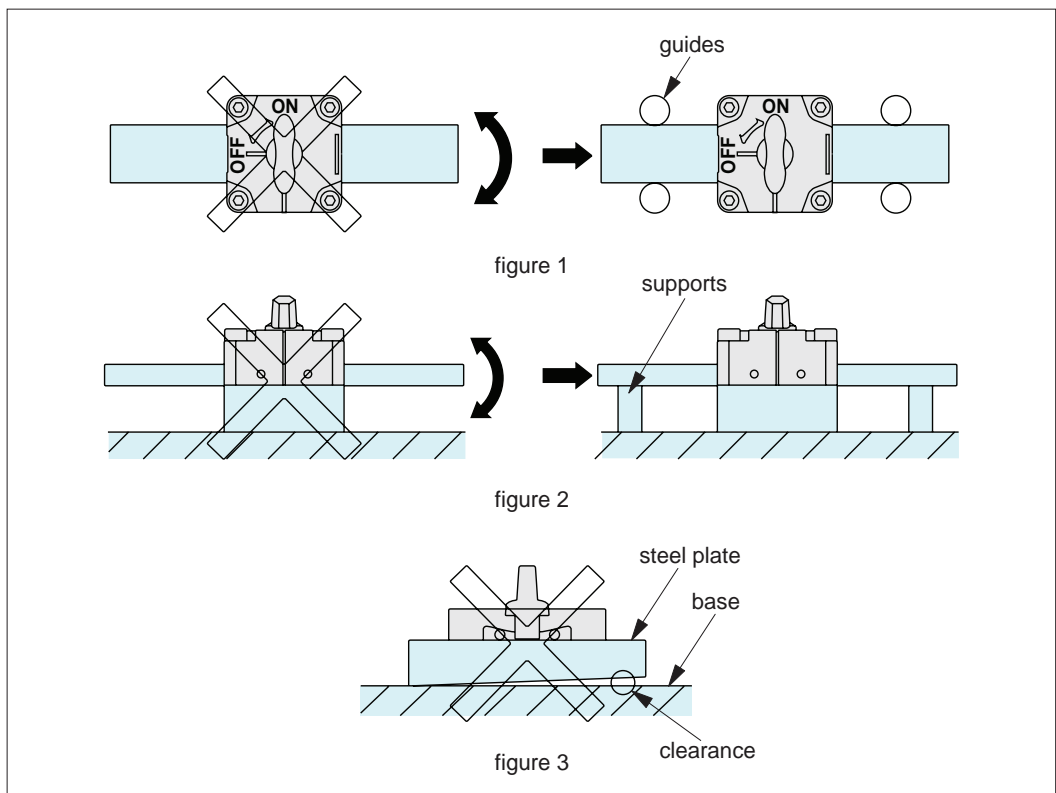
Displacement of Steel Bar by Axial Load (static load from single direction)

A: For bar width x heights; 12x12mm and 16x16mm.
 B: For bar width x heights; 25x9, 25x12, 32x12, 32x16.
 Note: This data is for a flat bar made of SUS304 stainless steel, SS400 steel and S45C steel. Using an aluminium flat bar, the surface will be scratched or dented by applied load.



Notes

- Ensure that the knob is at the "OFF" position when mounting. Mounting of sliding locks at the "ON" position may cause damage.
- The displacement will increase with excess shock or vibration. Do not use this product vertically in environments where excess vibration is present.
- The displacement can increase with adhesion or contamination by oil or foreign substances.
- If the steel plate slips or chatters by the load applied to the steel plate, prepare guides or supports as needed. (See figure 1 and 2 below)
- Excess displacement or misalignment may be caused if there is a clearance between the steel bar and the base when the sliding locks at "ON" position. (See figure 3 below) Ensure that the steel plate and the base are not bent or warped.

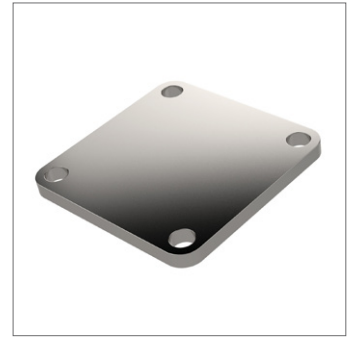
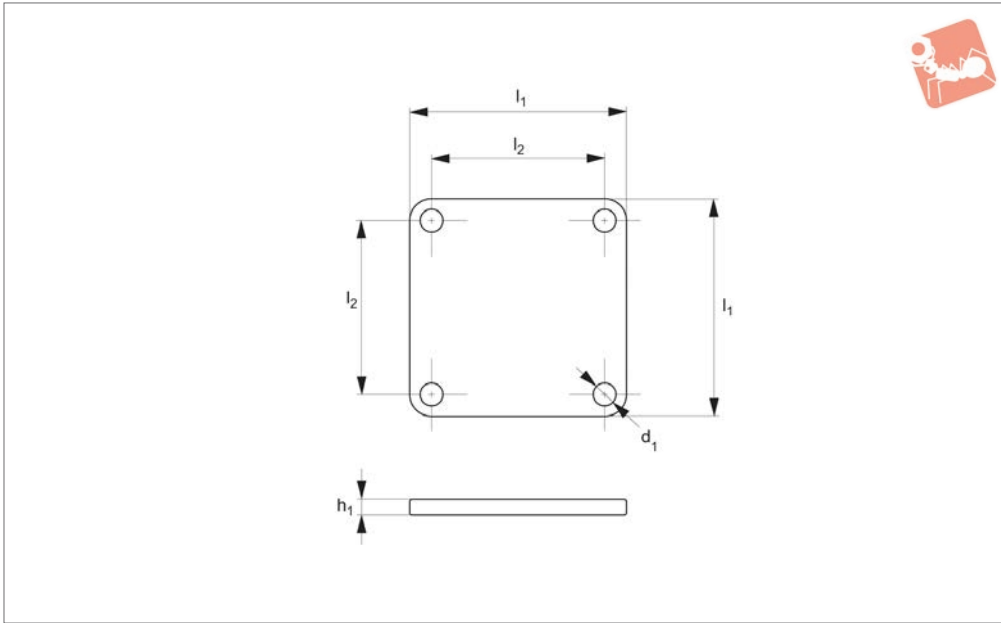




Riser Plates for Sliding Clamps for 33972 and 33973



One Touch Fasteners



33974

ONE TOUCH FASTENERS

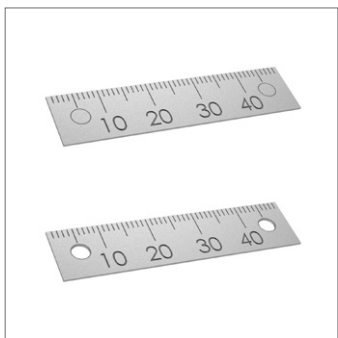
Material

Body: stainless steel, SUS 304

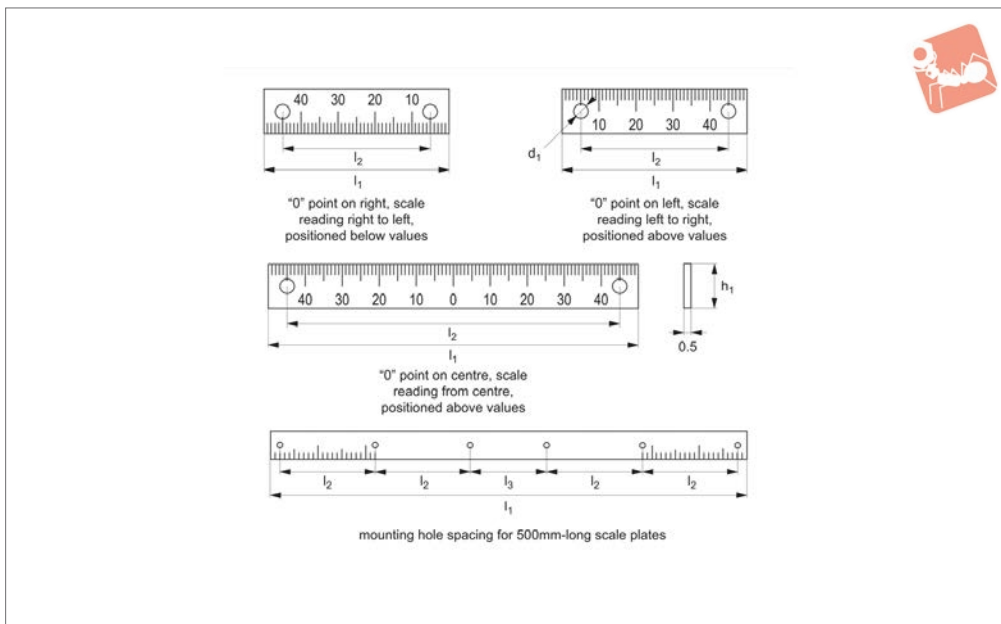
Technical Notes

To be used with sliding clamps part no.
33972 and 33973

Order No.	d_1	h_1	l_1	l_2	Weight g
33974.W4032	4.5	3	40	32	35
33974.W5040	5.5	3	50	40	55



33975



Material

Aluminium, with etched graduation/ markings.

Technical Notes

For use with sliding clamps 33970, 33972 and 33973. Markings are for indicative purposes, and are not intended for precise

measurement.

Adhesive mounting type: ensure receiving surface is clean and dirt free (features outline of screw hole location, not drilled).

Screw mounting type: holes drilled to

3,5mm dia.

When selecting scale plate consider;

- direction scale reads (left to right, right to left or from centre).
- position of scale relative to number valves (above, below or both).

Order No.	Mounting type	Number of mounting holes	Direction of measurement	Scale position	d_1 (marked) drilled	h_1	l_1	l_2	l_3	Weight g
33975.W1005	Adhesive	2	Left	Top	(3,5)	12	50	40		0,8
33975.W1010	Adhesive	2	Left	Top	(3,5)	12	100	90		1,6
33975.W1015	Adhesive	3	Left	Top	(3,5)	12	150	70		2,4
33975.W1020	Adhesive	3	Left	Top	(3,5)	12	200	95		3,2
33975.W1030	Adhesive	2	Right	Top	(3,5)	12	50	40		0,8
33975.W1035	Adhesive	2	Right	Top	(3,5)	12	100	90		1,6
33975.W1040	Adhesive	3	Right	Top	(3,5)	12	150	70		2,4
33975.W1045	Adhesive	3	Right	Top	(3,5)	12	200	95		3,2
33975.W1055	Adhesive	2	Centre	Top	(3,5)	12	100	90		1,6
33975.W1060	Adhesive	3	Centre	Top	(3,5)	12	200	95		3,2
33975.W2005	Adhesive	2	Left	Bottom	(3,5)	12	50	40		0,8
33975.W2010	Adhesive	2	Left	Bottom	(3,5)	12	100	90		1,6
33975.W2015	Adhesive	3	Left	Bottom	(3,5)	12	150	70		2,4
33975.W2020	Adhesive	3	Left	Bottom	(3,5)	12	200	95		3,2
33975.W2030	Adhesive	2	Right	Bottom	(3,5)	12	50	40		0,8
33975.W2035	Adhesive	2	Right	Bottom	(3,5)	12	100	90		1,6
33975.W2040	Adhesive	3	Right	Bottom	(3,5)	12	150	70		2,4
33975.W2045	Adhesive	3	Right	Bottom	(3,5)	12	200	95		3,2
33975.W2055	Adhesive	2	Centre	Bottom	(3,5)	12	100	90		1,6
33975.W2060	Adhesive	3	Centre	Bottom	(3,5)	12	200	95		3,2
33975.W5005	Screw Mount	2	Left	Top	3,5	12	50	40		0,8
33975.W5010	Screw Mount	2	Left	Top	3,5	12	100	90		1,6
33975.W5015	Screw Mount	3	Left	Top	3,5	12	150	70		2,4
33975.W5020	Screw Mount	3	Left	Top	3,5	12	200	95		3,2
33975.W5025	Screw Mount	6	Left	Top	3,5	12	500	100	90	8,0
33975.W5030	Screw Mount	2	Right	Top	3,5	12	50	40		0,8
33975.W5035	Screw Mount	2	Right	Top	3,5	12	100	90		1,6
33975.W5040	Screw Mount	3	Right	Top	3,5	12	150	70		2,4
33975.W5045	Screw Mount	3	Right	Top	3,5	12	200	95		3,2
33975.W5050	Screw Mount	6	Right	Top	3,5	12	500	100	90	8,0



Scale Plates - Single Scale

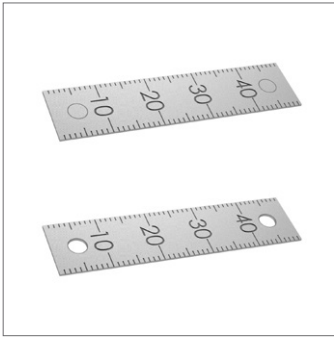
for sliding clamps 33970, 33972, 33973



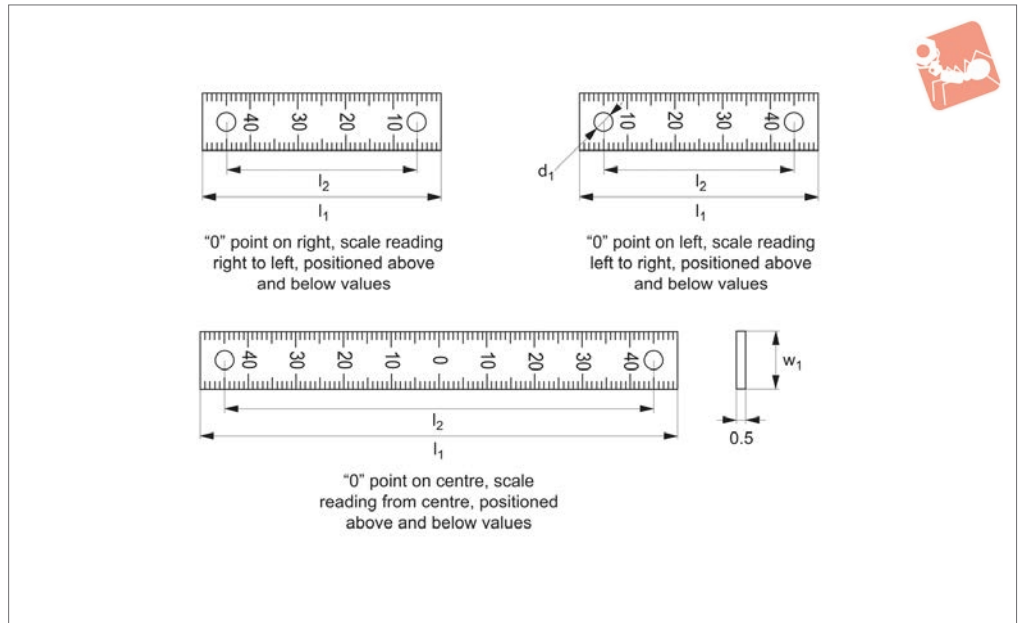
One Touch Fasteners

Order No.	Mounting type	Number of mounting holes	Direction of measurement	Scale position	d_1 (marked) drilled	h_1	l_1	l_2	l_3	Weight g
33975.W5055	Screw Mount	2	Centre	Top	3,5	12	100	90		1,6
33975.W5060	Screw Mount	3	Centre	Top	3,5	12	200	95		3,2
33975.W5065	Screw Mount	6	Centre	Top	3,5	12	500	100	90	8,0
33975.W6005	Screw Mount	2	Left	Bottom	3,5	12	50	40		0,8
33975.W6010	Screw Mount	2	Left	Bottom	3,5	12	100	90		1,6
33975.W6015	Screw Mount	3	Left	Bottom	3,5	12	150	70		2,4
33975.W6020	Screw Mount	3	Left	Bottom	3,5	12	200	95		3,2
33975.W6025	Screw Mount	6	Left	Bottom	3,5	12	500	100	90	8,0
33975.W6030	Screw Mount	2	Right	Bottom	3,5	12	50	40		0,8
33975.W6035	Screw Mount	2	Right	Bottom	3,5	12	100	90		1,6
33975.W6040	Screw Mount	3	Right	Bottom	3,5	12	150	70		2,4
33975.W6045	Screw Mount	3	Right	Bottom	3,5	12	200	95		3,2
33975.W6050	Screw Mount	6	Right	Bottom	3,5	12	500	100	90	8,0
33975.W6055	Screw Mount	2	Centre	Bottom	3,5	12	100	90		1,6
33975.W6060	Screw Mount	3	Centre	Bottom	3,5	12	200	95		3,2
33975.W6065	Screw Mount	6	Centre	Bottom	3,5	12	500	100	90	8,0

ONE TOUCH FASTENERS



33976



Material

Aluminium, with etched graduation/ markings.

Technical Notes

For use with sliding clamps 33970, 33972 and 33973. Markings are for indicative purposes, and are not intended for precise

measurement.

Adhesive mounting type: ensure receiving surface is clean and dirt free (features outline of screw hole location, not drilled).

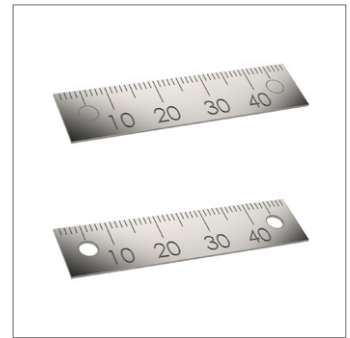
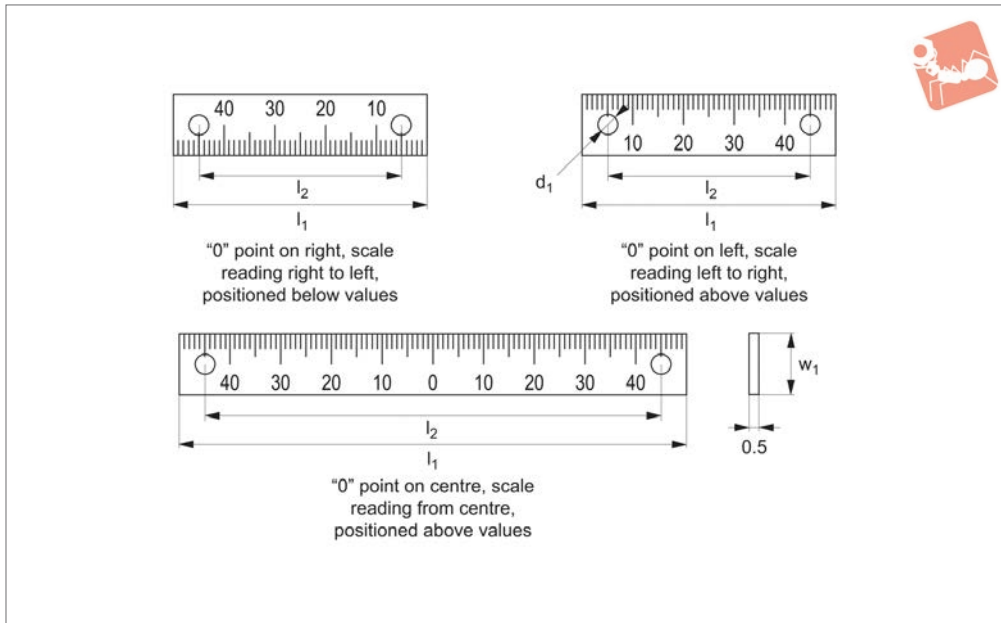
Screw mounting type: holes drilled to

3,5mm dia.

When selecting scale plate consider;

- direction scale reads (left to right, right to left or from centre).
- position of scale relative to number valves (above, below or both).

Order No.	Mounting type	Number of mounting holes	Location of „0“ point	d_1	l_1	l_2	w_1	Weight g
33976.W1005	Adhesive	2	Left	-	50	40	15	1
33976.W1010	Adhesive	2	Left	-	100	90	15	2
33976.W1015	Adhesive	2	Right	-	50	40	15	1
33976.W1020	Adhesive	2	Right	-	100	90	15	2
33976.W1025	Adhesive	2	Centre	-	100	90	15	2
33976.W5005	Screw Mount	2	Left	3.5	50	40	15	1
33976.W5010	Screw Mount	2	Left	3.5	100	90	15	2
33976.W5015	Screw Mount	2	Right	3.5	50	40	15	1
33976.W5020	Screw Mount	2	Right	3.5	100	90	15	2
33976.W5025	Screw Mount	2	Centre	3.5	100	90	15	2



33977

ONE TOUCH FASTENERS

Material

Stainless steel, with etched graduation/markings.

Technical Notes

For use with sliding clamps 33970, 33972 and 33973. Markings are for indicative purposes, and are not intended for precise

measurement.

Adhesive mounting type: ensure receiving surface is clean and dirt free (features outline of screw hole location, not drilled).

Screw mounting type: holes drilled to

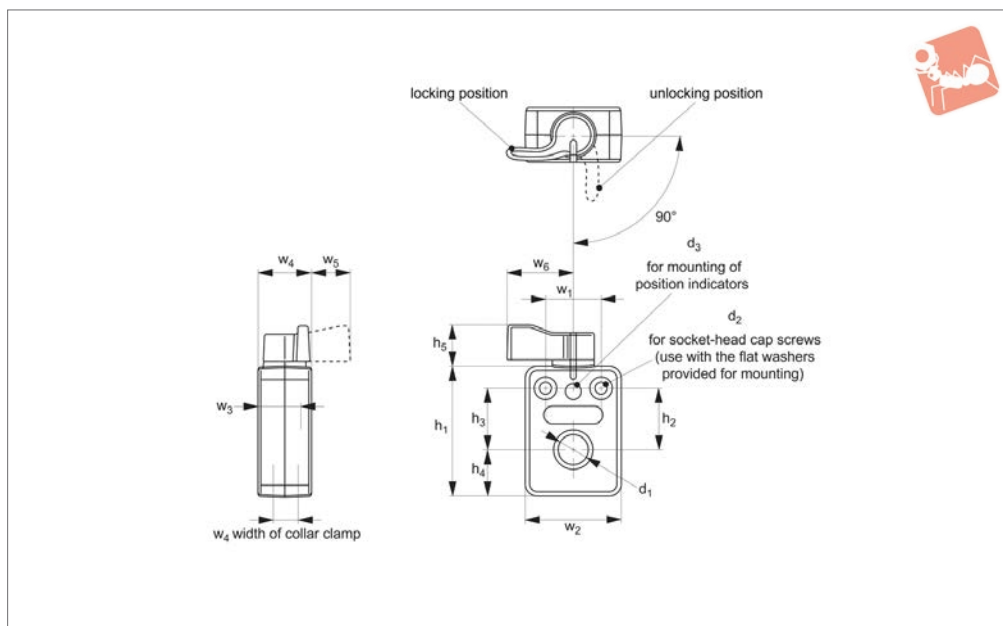
3,5mm dia.

When selecting scale plate consider;
 - direction scale reads (left to right, right to left or from centre).
 - position of scale relative to number valves (above, below or both).

Order No.	Mounting type	Number of mounting holes	Location of „0“ point	d ₁	l ₁	l ₂	w ₁	Weight g
33977.W1005	Adhesive	2	Top	-	50	40	12	2.4
33977.W1010	Adhesive	2	Top	-	100	90	12	4.7
33977.W1015	Adhesive	2	Top	-	50	40	12	2.4
33977.W1020	Adhesive	2	Top	-	100	90	12	4.7
33977.W1025	Adhesive	2	Top	-	100	90	12	4.7
33977.W5005	Screw-Mount	2	Top	3.5	50	40	12	2.4
33977.W5010	Screw-Mount	2	Top	3.5	100	90	12	4.7
33977.W5015	Screw-Mount	2	Top	3.5	50	40	12	2.4
33977.W5020	Screw-Mount	2	Top	3.5	100	90	12	4.7
33977.W5025	Screw-Mount	2	Top	3.5	100	90	12	4.7



33980



Material

Housing: Polyamide (glass-fibre reinforced)

Boss: Polyamide (glass-fibre reinforced)

Base: Polyamide (glass-fibre reinforced)

Insert: Stainless steel

Technical Notes

It has teeth inside and it engages at every 7.2° (=360°/ 50).

33981 pulls the spindle by the inner spring with 70N force to prevent chattering of the spindle. Note: The spindle should be fully inserted into the knob for 25mm.

Order No.	Handle	d ₁ for shaft dia. tol. h7	d ₂	d ₃	h ₁	h ₂	h ₃	h ₄	Weight g
33980.W1308	Orange	8	M 4	6	48.5	23.5	22	17	50
33980.W1310	Orange	10	M 4	6	48.5	23.5	22	17	50
33980.W1312	Orange	12	M 4	6	48.5	23.5	22	17	50
33980.W1314	Orange	14	M 4	6	48.5	23.5	22	17	50
33980.W1512	Orange	12	M 5	6	69.0	17.0	30	26	100
33980.W1515	Orange	15	M 5	6	69.0	17.0	30	26	100
33980.W1516	Orange	16	M 5	6	69.0	17.0	30	26	100
33980.W1520	Orange	20	M 5	6	69.0	17.0	30	26	100
33980.W2308	Black	8	M 4	6	48.5	23.5	22	17	50
33980.W2310	Black	10	M 4	6	48.5	23.5	22	17	50
33980.W2312	Black	12	M 4	6	48.5	23.5	22	17	21
33980.W2314	Black	14	M 4	6	48.5	23.5	22	17	21
33980.W2512	Black	12	M 5	6	69.0	17.0	30	26	100
33980.W2515	Black	15	M 5	6	69.0	17.0	30	26	100
33980.W2516	Black	16	M 5	6	69.0	17.0	30	26	100
33980.W2520	Black	20	M 5	6	69.0	17.0	30	26	34

Order No.	h ₅	w ₁	w ₂	w ₃	w ₄	w ₅	w ₆	Allowable holding torque	Allowable sliding torque
								Nm max.	Nm max.
33980.W1308	15.5	21	36	14.0	20	15	25	3	400
33980.W1310	15.5	21	36	14.0	20	15	25	3	400
33980.W1312	15.5	21	36	14.0	20	15	25	4	400
33980.W1314	15.5	21	36	14.0	20	15	25	4	400
33980.W1512	15.5	34	51	12.5	20	15	25	5	500
33980.W1515	15.5	34	51	12.5	20	15	25	5	500
33980.W1516	15.5	34	51	12.5	20	15	25	6	500
33980.W1520	15.5	34	51	12.5	20	15	25	6	500
33980.W2308	15.5	21	36	14.0	20	15	25	3	400
33980.W2310	15.5	21	36	14.0	20	15	25	3	400
33980.W2312	15.5	21	36	14.0	20	15	25	4	400
33980.W2314	15.5	21	36	14.0	20	15	25	4	400
33980.W2512	15.5	34	51	12.5	20	15	25	5	500



Sliding Clamps - for Solid Round Bar

quarter turn lock- l-handle grip - polyamide



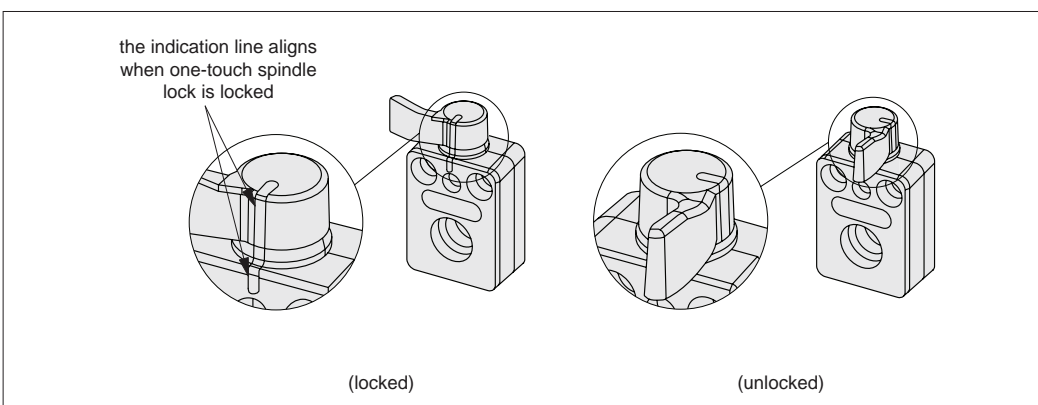
One Touch Fasteners

Order No.	h_5	w_1	w_2	w_3	w_4	w_5	w_6	Allowable holding torque Nm max.	Allowable sliding torque Nm max.
33980.W2515	15.5	34	51	12.5	20	15	25	5	500
33980.W2516	15.5	34	51	12.5	20	15	25	6	500
33980.W2520	15.5	34	51	12.5	20	15	25	6	500



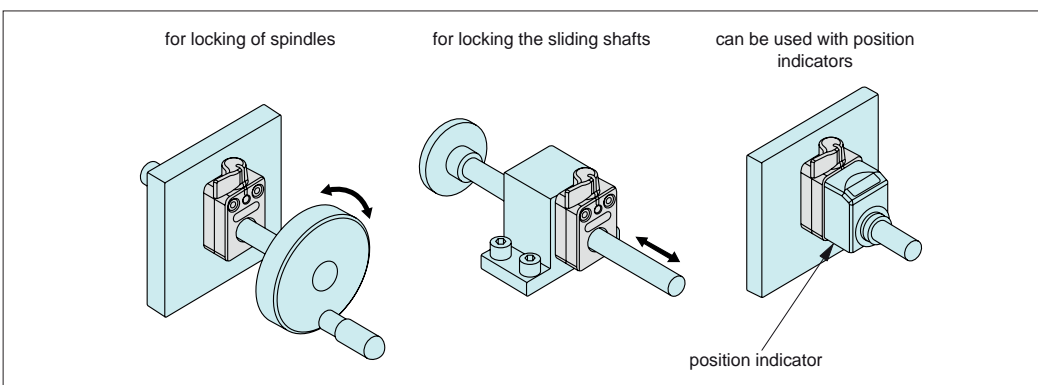
Operating Principle

- One-touch spindle locks enable quick and secure locking of shafts with one click of the knob.
- When one-touch spindle lock is operated, the knob clicks and the shaft is locked with a steady force. This provides reliable locking of shafts.
- The knob position and the indication line clearly indicate lock/unlock position.



Operating Instructions

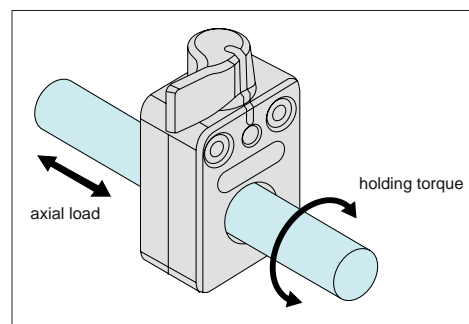
Note: To mount position indicators to one-touch spindle locks, use the rubber cushion supplied with position indicators.



Load Ratings

One-touch spindle locks can fix both revolving and sliding shafts.

For shaft $\varnothing h_7$	d_2	Max. holding torque Nm	Max. axial load N
8	M4	3	400
10	M4	3	400
12	M4	4	400
14	M4	4	400
12	M5	5	500
15	M5	5	500
16	M5	6	500
20	M5	6	500

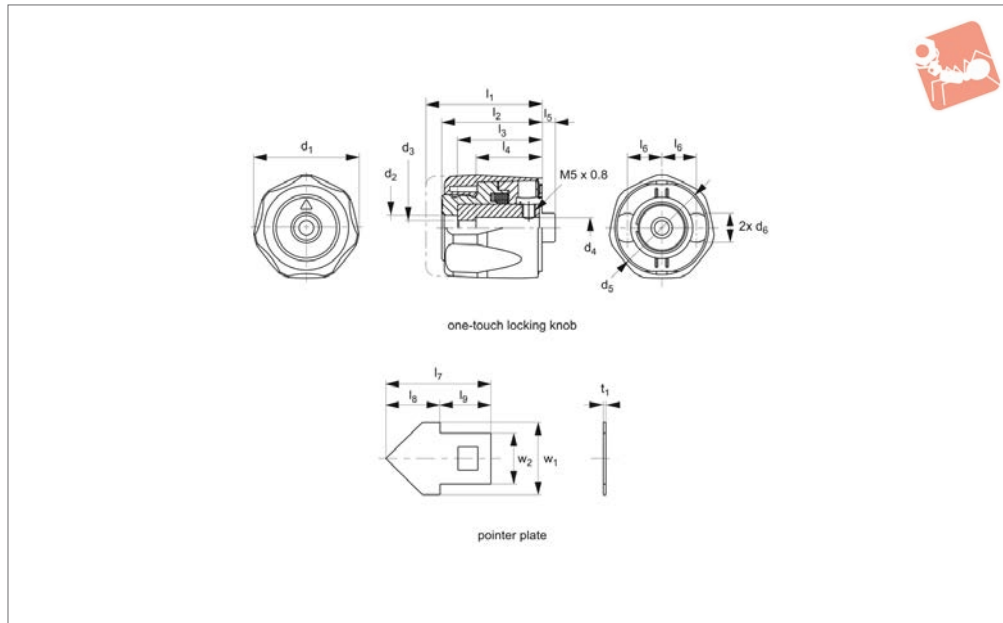


Notes

- This product cannot be used as bearings or guides for shafts.
- Shafts may slip in environments where shocks or vibrations are present.
- The allowable holding torque and the allowable sliding load may decrease with adhesion of particles or immersion in oil.



One-Touch Locking Knobs with safety indicator



33981

ONE TOUCH FASTENERS

Material

Grip: reinforced polyamide, black or orange.
 Central boss: reinforced polyamide, blue.
 Base indicator: reinforced polyamide, red.
 Pointer plate: stainless steel A2.
 Supplied with screws.

Technical Notes

One-touch locking knob enables one-touch locking and unlocking of spindle. One-Touch locking knob has an audible click to indicate locking and unlocking. Additionally the high visibility red colour of the base indicator is exposed to signify

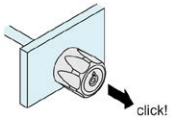
when knob is unlocked (when locked the red indicator is concealed).

Important Notes

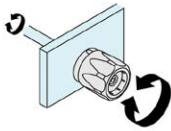
* Safety factor of 5.
 Pointer plate sold separately.

Order No.	d ₁	d ₂	d ₃	d ₄	d ₅	d ₆ -0.2	l ₁	l ₂	l ₃	l ₄	l ₅	Weight g
33981.W4008	40	9.5	5.5	8	34	11	44	38	32	25	5	95
33981.W4010	40	9.5	5.5	10	34	11	44	38	32	25	5	90
33981.W4108	40	9.5	5.5	8	34	11	44	38	32	25	5	95
33981.W4110	40	9.5	5.5	10	34	11	44	38	32	25	5	90
33981.W0040	40	9.5	5.5	-	34	11	44	38	32	25	5	21

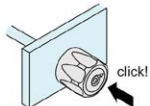
Order No.	l ₆	l ₇	l ₈	l ₉	w ₁	w ₂	t ₁	Type	Locking teeth	Spindle depth	Holding force kgf	Moment Mz in lock position Nm max.
33981.W4008	13	14.5	7.5	7	10	7	0.3	Black Knob	50 (7,2°)	25	70	28
33981.W4010	13	14.5	7.5	7	10	7	0.3	Black Knob	50 (7,2°)	25	70	28
33981.W4108	13	14.5	7.5	7	10	7	0.3	Orange Knob	50 (7,2°)	25	70	28
33981.W4110	13	14.5	7.5	7	10	7	0.3	Orange Knob	50 (7,2°)	25	70	28
33981.W0040	13	14.5	7.5	7	10	7	0.3	Pointer Plate	50 (7,2°)	25	70	28



by pulling the housing until it clicks, the teeth of the knob disengage from the base.



turn 33981 to rotate the spindle

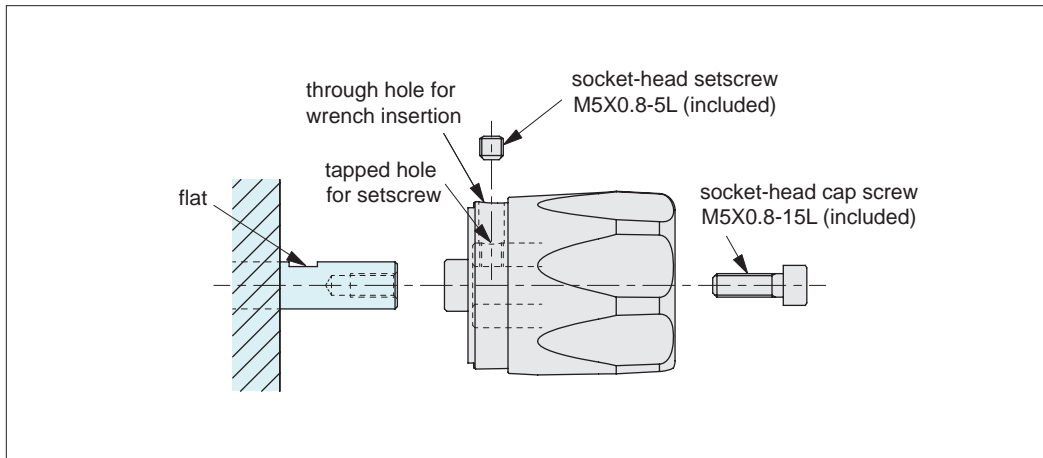


by pushing the housing until it clicks, the teeth engage again and lock the rotation of the spindle.

how to operate

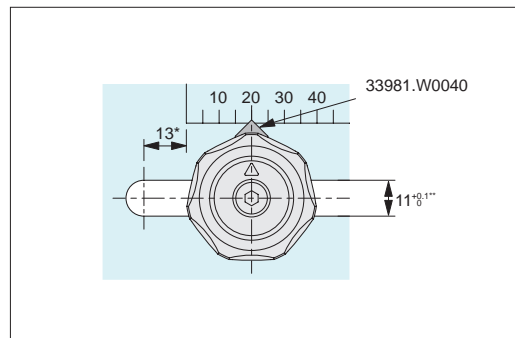
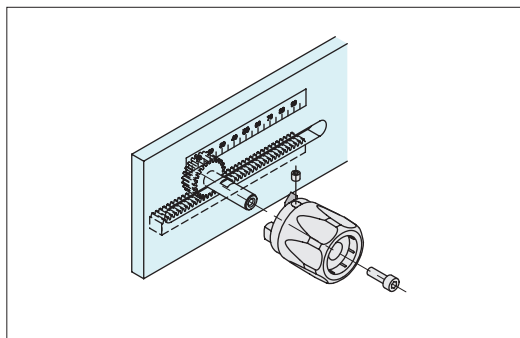


How to Install



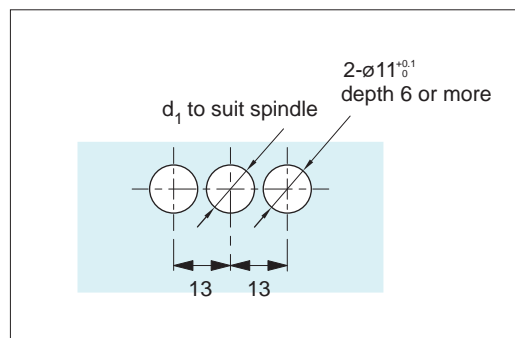
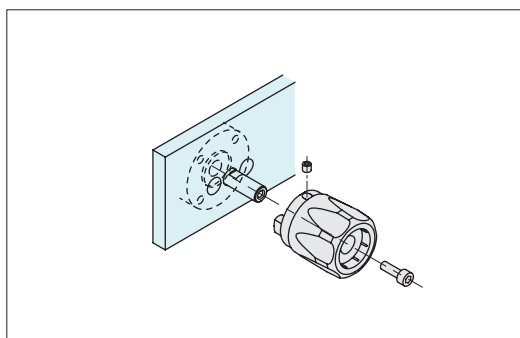
1. Pull the housing and align the through hole on the base and the tapped hole on the insert.
2. Align the flat and tapped hole on the insert and then mount the spindle.
3. Fix 33981 temporarily using M5X0.8-15L socket-head cap screw included.
4. Fix 33981 to the spindle temporarily using setscrew included.
5. Tighten M5X0.8-15L socket-head cap screw fully.
6. Tighten the setscrew fully.

Mounting Hole Dimensions



Rack and Pinion Application

*Prepare clearance of 13mm or more from the end of the required spindle stroke.
 **Recommended surface roughness is 1.6 for the inner surface of the slotted hole.

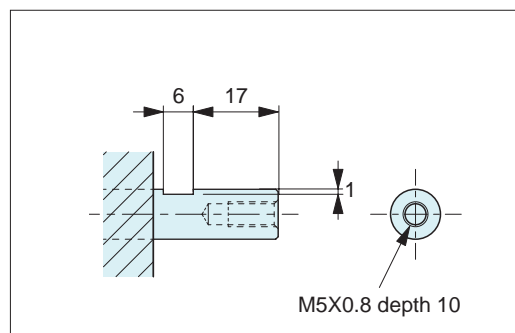
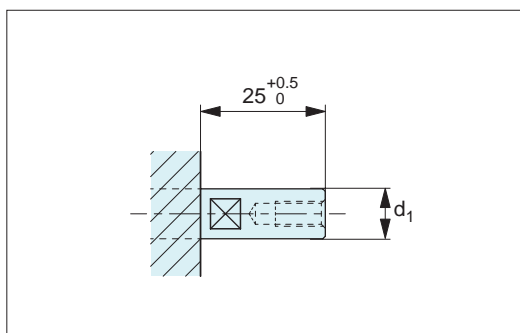


Lead Screw Application

d₁ to suit spindle

Size	d ₁
33981.W4008 / W4108	9
33981.W4010 / W4110	11

Mounting Spindle Dimension

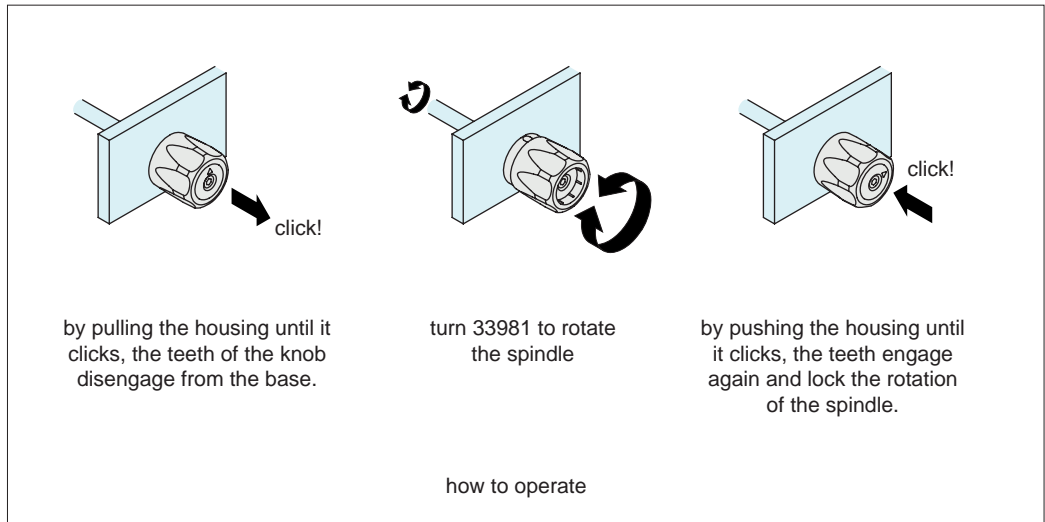


Spindle size

Size	d ₁ (g6)
33981.W4008 / W4108	8
33981.W4010 / W4110	10



Operation

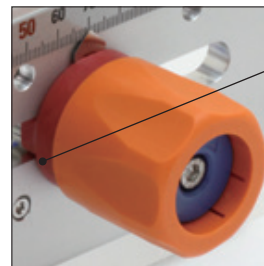


Clear Safety Indicator of Locked / Unlocked Position



Locked

Blue indicates safety to operate machine.



Unlocked

Red indicates caution to operate machine.

Holding Forces

One-Touch Locking Knob has 50 teeth and engages at every 7.2°. It pulls the spindle via the inner spring with 70N force to prevent chattering of spindle, with a max allowable moment at locking position of 28N·m (with 5 fold safety).

