

Automotion produce a wide range of fasteners designed for application where it is important that fasteners are not separated from equipment (e.g. cover panels etc). This is now important to ensure that equipment complies with Machinery Directive 200642/EC - requiring that fasteners remain attached to fixed guards or equipment when guards are removed.

Our captive panel screws are manufactured mainly from stainless steel (A2, AISI 303 grade), but they can also be produced in stainless steel (A4, AISI 316), aluminium, brass or zinc-plated steel.

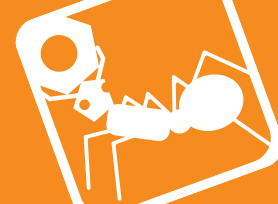
Many finishes can be applied - black-oxide finish, anodizing etc.

The main options are as follows:

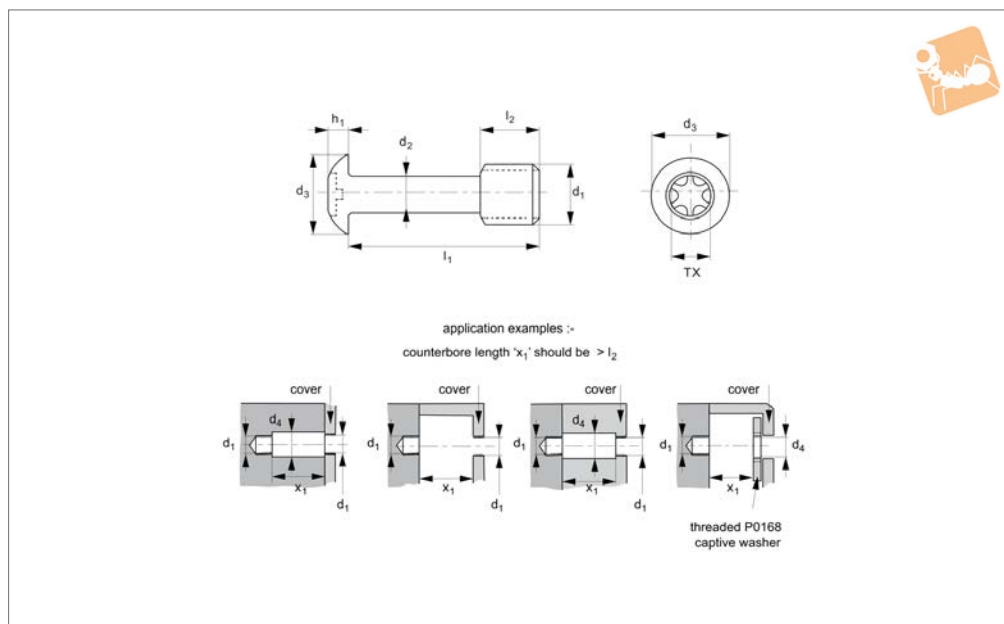
Finish	Notes
Black Chrome (MIL-C-1458B)	Black chrome is a hard, non-reflective coating which is resistant to abrasion, heat and corrosion. The black chrome surface is a dull, dark grey and may be waxed or oiled to darken surface.
Black Oxide Coating (MIL-C-13924B)	Black oxide is a uniform black coating for ferrous metals. Generally it is considered a decorative coating and provides only very limited corrosion protection under mild corrosion conditions.
Cadmium	Cadmium is a bright, silvery white plating. Supplementary treatments for Type II can be golden, iridescent, amber, black or olive drab.
Passivate (QQ-P-35/MIL S-500SC)	Passivation is a process designed to remove foreign metals from the surface of stainless and corrosion resistant steels.
Phosphate Coating Light (TT-C-00490B)	Phosphate coating is a light coating for use as a base paint.
Gold (MIL-G-45204B)	Yellow to orange colour depending on proprietary process used. Will range from matt to bright finish depending on base metal. Good corrosion resistance and high tarnish resistance.
Nickel (QQ-N-290A)	Nickel is a corrosion protective plating for steel, zinc and zinc alloys as well as copper and copper alloys.
Zinc (QQ-Z-325C)	The primary use of chromate finishes on zinc is to retard or prevent formation of white corrosion products on zinc surfaces.

The available head sockets include:

Schematic	Drive Types	Uses
	Hexagonal Recess	Ideal for precision assembly. Most recommended where less surface area is available.
	Crosshead (Phillips®)	Provides good control in driving. Always use a driver bit of the proper size which is in good condition.
	Star Head (Torx®)	Positive-engaging, fast-locating method which transmits drive torque with less required downward pressure. Good fastening appearance.
	Slotted	Accepts standard blade screwdriver. Requires less downward pressure to drive parts than those with recessed openings. Use a proper fitting blade to minimize slippage.
	Security	These screws are impossible to remove without the special matching screw driver.



P0149.A2



Material

Stainless steel (AISI 303, 1.4305). Tensile strength 550 N/mm². Proof stress min. 190 N/mm², austenitic stainless steel. Also available with blackened finish (P0149.B2), in marine grade stainless steel (AISI 316 series; P0149.A4), in titanium (P0149.Ti), or in other materials such as steel, brass, aluminium etc. on request.

Technical Notes

Used to comply with the Machinery Directive 2006/42/EC. Generally to ISO 7380-1. Often used with our captive washers (P0168) or retaining flanges (P0169 - for sheet metal applications). The use of our captive washers should be considered when fitted in panels with unthreaded holes.

Important Notes

This product was formerly known as P0151. TX. Please note that these screws have a reduced diameter shank and should not be tightened to the recommended torque for an equivalent machine screw of size d₁.

Order No.	d ₁	l ₁ 0,25	d ₂ 0,12	d ₃ max.	d ₄ min.	h ₁ max.	l ₂ -0,2	TX size
P0149.025-008-A2	M 2,5	8	1.7	4.5	2.8	1.50	3.7	TX- 8
P0149.025-010-A2	M 2,5	10	1.7	4.5	2.8	1.50	3.7	TX- 8
P0149.025-012-A2	M 2,5	12	1.7	4.5	2.8	1.50	3.7	TX- 8
P0149.025-016-A2	M 2,5	16	1.7	4.5	2.8	1.50	3.7	TX- 8
P0149.025-020-A2	M 2,5	20	1.7	4.5	2.8	1.50	3.7	TX- 8
P0149.030-010-A2	M 3	10	2.0	5.7	3.5	1.65	4.5	TX-10
P0149.030-016-A2	M 3	16	2.0	5.7	3.5	1.65	4.5	TX-10
P0149.030-020-A2	M 3	20	2.0	5.7	3.5	1.65	4.5	TX-10
P0149.030-025-A2	M 3	25	2.0	5.7	3.5	1.65	4.5	TX-10
P0149.030-030-A2	M 3	30	2.0	5.7	3.5	1.65	4.5	TX-10
P0149.030-040-A2	M 3	40	2.0	5.7	3.5	1.65	5.0	TX-10
P0149.040-012-A2	M 4	12	2.8	7.6	4.5	3.10	6.0	TX-20
P0149.040-016-A2	M 4	16	2.8	7.6	4.5	3.10	6.0	TX-20
P0149.040-020-A2	M 4	20	2.8	7.6	4.5	3.10	6.0	TX-20
P0149.040-025-A2	M 4	25	2.8	7.6	4.5	3.10	6.0	TX-20
P0149.040-030-A2	M 4	30	2.8	7.6	4.5	3.10	6.0	TX-20
P0149.040-040-A2	M 4	40	2.8	7.6	4.5	3.10	6.0	TX-20
P0149.040-050-A2	M 4	50	2.8	7.6	4.5	3.10	6.0	TX-20
P0149.040-060-A2	M 4	60	2.8	7.6	4.5	3.10	6.0	TX-20
P0149.050-012-A2	M 5	12	3.7	9.5	5.5	3.70	7.5	TX-25
P0149.050-016-A2	M 5	16	3.7	9.5	5.5	3.70	7.5	TX-25
P0149.050-020-A2	M 5	20	3.7	9.5	5.5	3.70	7.5	TX-25
P0149.050-025-A2	M 5	25	3.7	9.5	5.5	3.70	7.5	TX-25
P0149.050-030-A2	M 5	30	3.7	9.5	5.5	3.70	7.5	TX-25
P0149.050-040-A2	M 5	40	3.7	9.5	5.5	3.70	7.5	TX-25
P0149.050-050-A2	M 5	50	3.7	9.5	5.5	3.70	7.5	TX-25
P0149.050-060-A2	M 5	60	3.7	9.5	5.5	3.70	7.5	TX-25



Captive Screws - Button Head

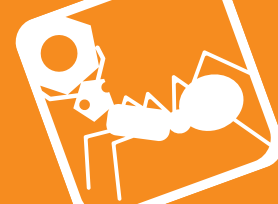
TX drive - 303 stainless



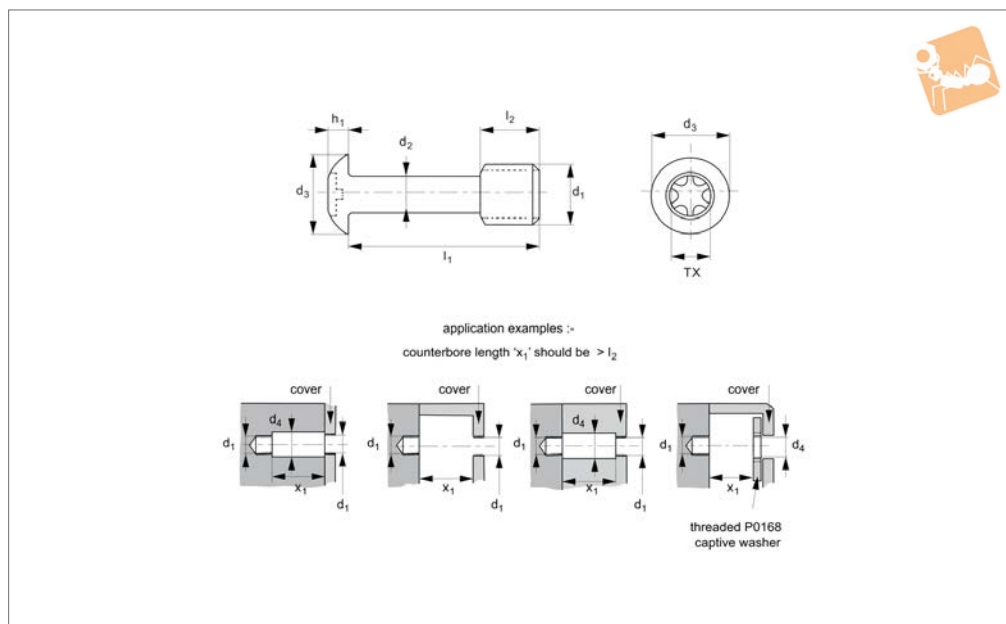
Captive Screws

Order No.	d ₁	l ₁ 0,25	d ₂ 0,12	d ₃ max.	d ₄ min.	h ₁ max.	l ₂ -0,2	TX size
P0149.060-016-A2	M 6	16	4.2	10.5	6.5	4.70	7.5	TX-30
P0149.060-020-A2	M 6	20	4.2	10.5	6.5	4.70	7.5	TX-30
P0149.060-025-A2	M 6	25	4.2	10.5	6.5	4.70	7.5	TX-30
P0149.060-030-A2	M 6	30	4.2	10.5	6.5	4.70	7.5	TX-30
P0149.060-040-A2	M 6	40	4.2	10.5	6.5	4.70	7.5	TX-30
P0149.060-050-A2	M 6	50	4.2	10.5	6.5	4.70	7.5	TX-30
P0149.060-060-A2	M 6	60	4.2	10.5	6.5	4.70	7.5	TX-30
P0149.060-080-A2	M 6	80	4.2	10.5	6.5	4.70	7.5	TX-30

CAPTIVE SCREWS



P0149.A4



Material

Stainless steel (AISI 316, 1.4401). Tensile strength 480 N/mm². Proof stress min. 200 N/mm², austenitic stainless steel. Also available in titanium (P0149.Ti), the less expensive AISI 303 series stainless steel (P0149.A2), or in steel (anodised, black oxide or zinc plated), brass, aluminium etc.

Technical Notes

Used to comply with the Machinery Directive 2006/42/EC. Generally to ISO 7380. Often used with our captive washers (P0168) or retaining flanges (P0169 - for sheet metal applications). The use of our captive washers should be considered when fitted in panels with unthreaded holes.

Important Notes

Please note that these screws have a reduced diameter shank and should not be tightened to the recommended torque for an equivalent machine screw of size d₁.

Order No.	d ₁	l ₁ 0,25	d ₂ 0,12	d ₃ max.	d ₄ min.	h ₁ max.	l ₂ -0,2	TX size
P0149.025-008-A4	M 2,5	8	1.7	4.5	2.8	1.5	3.7	TX- 8
P0149.025-010-A4	M 2,5	10	1.7	4.5	2.8	1.5	3.7	TX- 8
P0149.025-012-A4	M 2,5	12	1.7	4.5	2.8	1.5	3.7	TX- 8
P0149.025-016-A4	M 2,5	16	1.7	4.5	2.8	1.5	3.7	TX- 8
P0149.025-020-A4	M 2,5	20	1.7	4.5	2.8	1.5	3.7	TX- 8
P0149.030-010-A4	M 3	10	2.0	5.7	3.5	1.65	4.5	TX-10
P0149.030-016-A4	M 3	16	2.0	5.7	3.5	1.65	4.5	TX-10
P0149.030-020-A4	M 3	20	2.0	5.7	3.5	1.65	4.5	TX-10
P0149.030-025-A4	M 3	25	2.0	5.7	3.5	1.65	4.5	TX-10
P0149.030-030-A4	M 3	30	2.0	5.7	3.5	1.65	4.5	TX-10
P0149.030-040-A4	M 3	40	2.0	5.7	3.5	1.65	5.0	TX-10
P0149.040-012-A4	M 4	12	2.8	7.6	4.5	3.1	6.0	TX-20
P0149.040-016-A4	M 4	16	2.8	7.6	4.5	3.1	6.0	TX-20
P0149.040-020-A4	M 4	20	2.8	7.6	4.5	3.1	6.0	TX-20
P0149.040-025-A4	M 4	25	2.8	7.6	4.5	3.1	6.0	TX-20
P0149.040-030-A4	M 4	30	2.8	7.6	4.5	3.1	6.0	TX-20
P0149.040-040-A4	M 4	40	2.8	7.6	4.5	3.1	6.0	TX-20
P0149.040-050-A4	M 4	50	2.8	7.6	4.5	3.1	6.0	TX-20
P0149.040-060-A4	M 4	60	2.8	7.6	4.5	3.1	6.0	TX-20
P0149.050-012-A4	M 5	12	3.7	9.5	5.5	3.7	7.5	TX-25
P0149.050-016-A4	M 5	16	3.7	9.5	5.5	3.7	7.5	TX-25
P0149.050-020-A4	M 5	20	3.7	9.5	5.5	3.7	7.5	TX-25
P0149.050-025-A4	M 5	25	3.7	9.5	5.5	3.7	7.5	TX-25
P0149.050-030-A4	M 5	30	3.7	9.5	5.5	3.7	7.5	TX-25
P0149.050-040-A4	M 5	40	3.7	9.5	5.5	3.7	7.5	TX-25
P0149.050-050-A4	M 5	50	3.7	9.5	5.5	3.7	7.5	TX-25
P0149.050-060-A4	M 5	60	3.7	9.5	5.5	3.7	7.5	TX-25
P0149.060-016-A4	M 6	16	4.2	10.5	6.5	4.7	7.5	TX-30



Captive Screws - Button Head

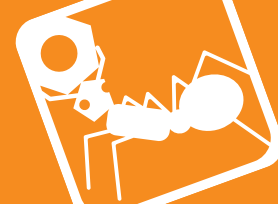
TX drive - 316 stainless



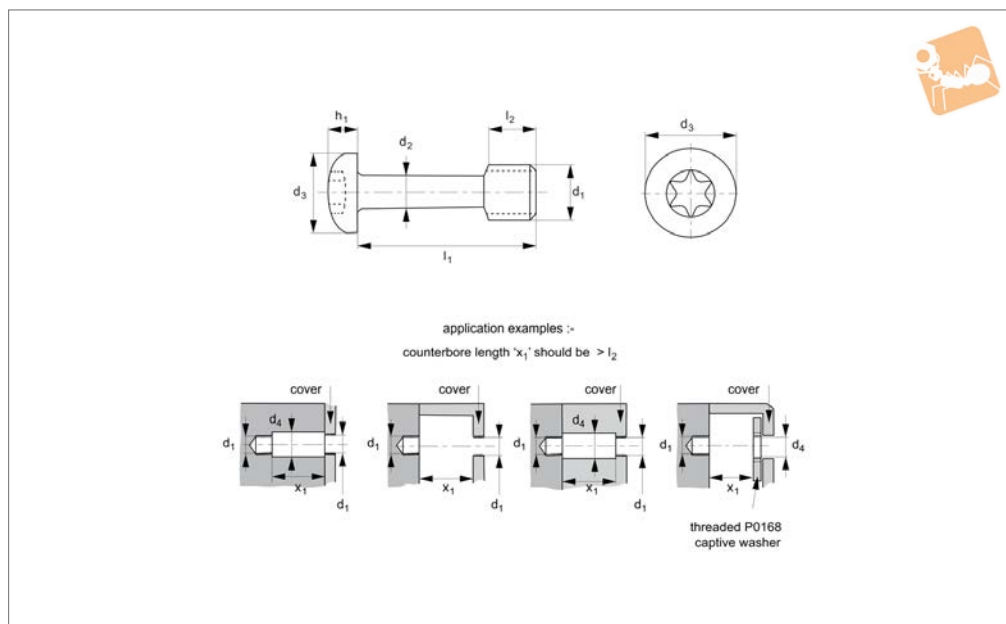
Captive Screws

Order No.	d ₁	l ₁ 0,25	d ₂ 0,12	d ₃ max.	d ₄ min.	h ₁ max.	l ₂ -0,2	TX size
P0149.060-020-A4	M 6	20	4.2	10.5	6.5	4.7	7.5	TX-30
P0149.060-025-A4	M 6	25	4.2	10.5	6.5	4.7	7.5	TX-30
P0149.060-030-A4	M 6	30	4.2	10.5	6.5	4.7	7.5	TX-30
P0149.060-040-A4	M 6	40	4.2	10.5	6.5	4.7	7.5	TX-30
P0149.060-050-A4	M 6	50	4.2	10.5	6.5	4.7	7.5	TX-30
P0149.060-060-A4	M 6	60	4.2	10.5	6.5	4.7	7.5	TX-30
P0149.060-080-A4	M 6	80	4.2	10.5	6.5	4.7	7.5	TX-30

CAPTIVE SCREWS



P0150.A2



Material

Stainless steel (AISI 303, 1.4305). Tensile strength 550 N/mm². Proof stress min. 190 N/mm², austenitic stainless steel. Also available on request in steel (anodised, black oxide or zinc plated), stainless steel (AISI 316, 1.440), brass, aluminium etc.

Technical Notes

Used to comply with the Machinery Direc-

tive 2006/42/EC. Generally to ISO 14583. Often used with our captive washers (P0168) or retaining flanges (P0169 - for sheet metal applications). The use of our captive washers should be considered when fitted in panels with unthreaded holes.

* M 8 sizes have a reduced TX size.

reduced diameter shank and should not be tightened to the recommended torque for an equivalent machine screw of size d₁.

Important Notes

Please note that these screws have a

Order No.	d ₁	l ₁ ±0.25	d ₂ ±0.12	d ₃ max.	d ₄ min.	h ₁ max.	l ₂ ±0.25	TX size
P0150.030-008-A2	M 3	8	2.0	6	3.5	2.5	4.5	TX-10
P0150.030-010-A2	M 3	10	2.0	6	3.5	2.5	4.5	TX-10
P0150.030-016-A2	M 3	16	2.0	6	3.5	2.5	4.5	TX-10
P0150.030-020-A2	M 3	20	2.0	6	3.5	2.5	4.5	TX-10
P0150.030-025-A2	M 3	25	2.0	6	3.5	2.5	4.5	TX-10
P0150.030-030-A2	M 3	30	2.0	6	3.5	2.5	4.5	TX-10
P0150.040-008-A2	M 4	8	2.8	8	4.5	3.2	6.0	TX-20
P0150.040-010-A2	M 4	10	2.8	8	4.5	3.2	6.0	TX-20
P0150.040-012-A2	M 4	12	2.8	8	4.5	3.2	6.0	TX-20
P0150.040-016-A2	M 4	16	2.8	8	4.5	3.2	6.0	TX-20
P0150.040-020-A2	M 4	20	2.8	8	4.5	3.2	6.0	TX-20
P0150.040-025-A2	M 4	25	2.8	8	4.5	3.2	6.0	TX-20
P0150.040-030-A2	M 4	30	2.8	8	4.5	3.2	6.0	TX-20
P0150.040-040-A2	M 4	40	2.8	8	4.5	3.2	6.0	TX-20
P0150.040-050-A2	M 4	50	2.8	8	4.5	3.2	6.0	TX-20
P0150.050-010-A2	M 5	10	3.7	10	5.5	3.9	7.5	TX-25
P0150.050-012-A2	M 5	12	3.7	10	5.5	3.9	7.5	TX-25
P0150.050-016-A2	M 5	16	3.7	10	5.5	3.9	7.5	TX-25
P0150.050-020-A2	M 5	20	3.7	10	5.5	3.9	7.5	TX-25
P0150.050-025-A2	M 5	25	3.7	10	5.5	3.9	7.5	TX-25
P0150.050-030-A2	M 5	30	3.7	10	5.5	3.9	7.5	TX-25
P0150.050-040-A2	M 5	40	3.7	10	5.5	3.9	7.5	TX-25
P0150.050-050-A2	M 5	50	3.7	10	5.5	3.9	7.5	TX-25
P0150.060-010-A2	M 6	10	4.2	12	6.5	4.7	7.5	TX-30
P0150.060-012-A2	M 6	12	4.2	12	6.5	4.7	7.5	TX-30
P0150.060-016-A2	M 6	16	4.2	12	6.5	4.7	7.5	TX-30



Captive Screws - Pan Head

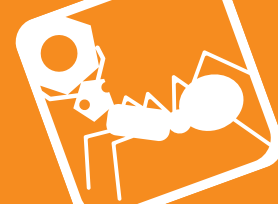
TX drive - 303 stainless



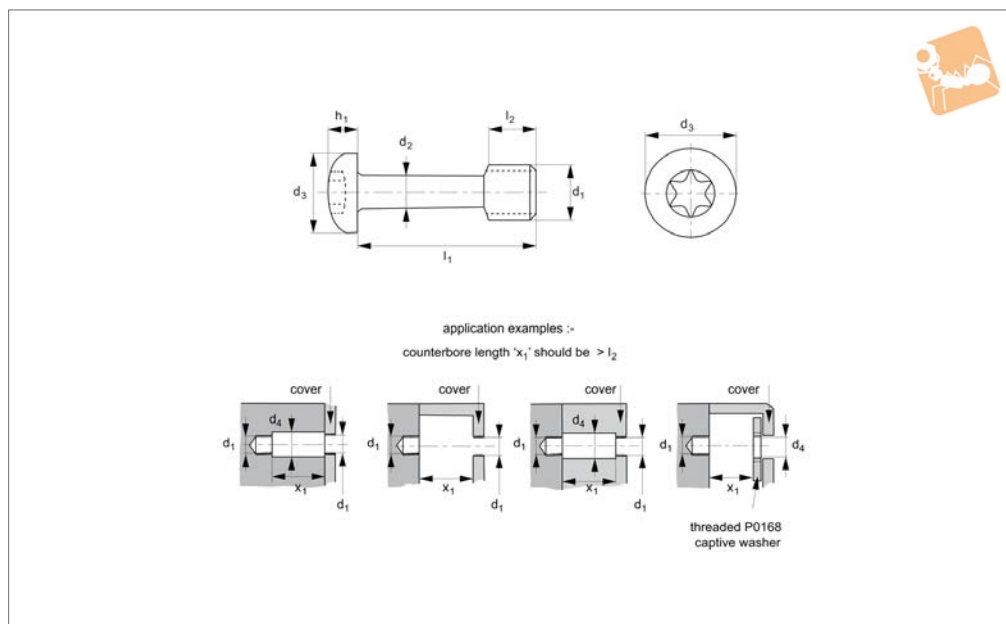
Captive Screws

Order No.	d ₁	l ₁ ±0.25	d ₂ ±0.12	d ₃ max.	d ₄ min.	h ₁ max.	l ₂ ±0.25	TX size
P0150.060-020-A2	M 6	20	4.2	12	6.5	4.7	7.5	TX-30
P0150.060-025-A2	M 6	25	4.2	12	6.5	4.7	7.5	TX-30
P0150.060-030-A2	M 6	30	4.2	12	6.5	4.7	7.5	TX-30
P0150.060-040-A2	M 6	40	4.2	12	6.5	4.7	7.5	TX-30
P0150.060-050-A2	M 6	50	4.2	12	6.5	4.7	7.5	TX-30
P0150.060-060-A2	M 6	60	4.2	12	6.5	4.7	7.5	TX-30
P0150.060-080-A2	M 6	80	4.2	12	6.5	4.7	7.5	TX-30
P0150.080-012-A2	M 8	12	6.0	16	8.5	6.1	10.0	TX-30*
P0150.080-016-A2	M 8	16	6.0	16	8.5	6.1	10.0	TX-30*
P0150.080-020-A2	M 8	20	6.0	16	8.5	6.1	10.0	TX-30*
P0150.080-025-A2	M 8	25	6.0	16	8.5	6.1	10.0	TX-30*
P0150.080-030-A2	M 8	30	6.0	16	8.5	6.1	10.0	TX-30*
P0150.080-035-A2	M 8	35	6.0	16	8.5	6.1	10.0	TX-30*
P0150.080-040-A2	M 8	40	6.0	16	8.5	6.1	10.0	TX-30*
P0150.080-045-A2	M 8	45	6.0	16	8.5	6.1	10.0	TX-30*
P0150.080-050-A2	M 8	50	6.0	16	8.5	6.1	10.0	TX-30*
P0150.080-060-A2	M 8	60	6.0	16	8.5	6.1	10.0	TX-30*
P0150.080-080-A2	M 8	80	6.0	16	8.5	6.1	10.0	TX-30*

CAPTIVE SCREWS



P0150.A4



Material

Stainless steel (AISI 316, 1.440). Tensile strength 480 N/mm². Proof stress min. 200 N/mm², austenitic stainless steel. Also available on request in steel (anodised, black oxide or zinc plated), stainless steel (AISI 303, 1.4305), brass, aluminium etc.

Technical Notes

Used to comply with the Machinery Direc-

tive 2006/42/EC. Generally to ISO 14583. Often used with our captive washers (P0168) or retaining flanges (P0169 - for sheet metal applications). The use of our captive washers should be considered when fitted in panels with unthreaded holes.

* M 8 sizes have a reduced TX size.

reduced diameter shank and should not be tightened to the recommended torque for an equivalent machine screw of size d₁.

Important Notes

Please note that these screws have a

Order No.	d ₁	l ₁ ±0.25	d ₂ ±0.12	d ₃ max.	d ₄ min.	h ₁ max.	l ₂ ±0.25	TX size
P0150.030-008-A4	M 3	8	2.0	6	3.5	2.5	4.5	TX-10
P0150.030-010-A4	M 3	10	2.0	6	3.5	2.5	4.5	TX-10
P0150.030-016-A4	M 3	16	2.0	6	3.5	2.5	4.5	TX-10
P0150.030-020-A4	M 3	20	2.0	6	3.5	2.5	4.5	TX-10
P0150.030-025-A4	M 3	25	2.0	6	3.5	2.5	4.5	TX-10
P0150.030-030-A4	M 3	30	2.0	6	3.5	2.5	4.5	TX-10
P0150.040-008-A4	M 4	8	2.8	8	4.5	3.2	6.0	TX-20
P0150.040-010-A4	M 4	10	2.8	8	4.5	3.2	6.0	TX-20
P0150.040-012-A4	M 4	12	2.8	8	4.5	3.2	6.0	TX-20
P0150.040-016-A4	M 4	16	2.8	8	4.5	3.2	6.0	TX-20
P0150.040-020-A4	M 4	20	2.8	8	4.5	3.2	6.0	TX-20
P0150.040-025-A4	M 4	25	2.8	8	4.5	3.2	6.0	TX-20
P0150.040-030-A4	M 4	30	2.8	8	4.5	3.2	6.0	TX-20
P0150.040-040-A4	M 4	40	2.8	8	4.5	3.2	6.0	TX-20
P0150.040-050-A4	M 4	50	2.8	8	4.5	3.2	6.0	TX-20
P0150.050-010-A4	M 5	10	3.7	10	5.5	3.9	7.5	TX-25
P0150.050-012-A4	M 5	12	3.7	10	5.5	3.9	7.5	TX-25
P0150.050-016-A4	M 5	16	3.7	10	5.5	3.9	7.5	TX-25
P0150.050-020-A4	M 5	20	3.7	10	5.5	3.9	7.5	TX-25
P0150.050-025-A4	M 5	25	3.7	10	5.5	3.9	7.5	TX-25
P0150.050-030-A4	M 5	30	3.7	10	5.5	3.9	7.5	TX-25
P0150.050-040-A4	M 5	40	3.7	10	5.5	3.9	7.5	TX-25
P0150.050-050-A4	M 5	50	3.7	10	5.5	3.9	7.5	TX-25
P0150.060-010-A4	M 6	10	4.2	12	6.5	4.7	7.5	TX-30
P0150.060-012-A4	M 6	12	4.2	12	6.5	4.7	7.5	TX-30
P0150.060-016-A4	M 6	16	4.2	12	6.5	4.7	7.5	TX-30



Captive Screws - Pan Head

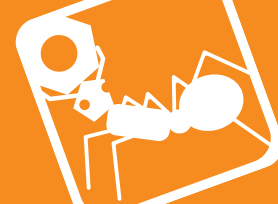
TX drive - 316 stainless



Captive Screws

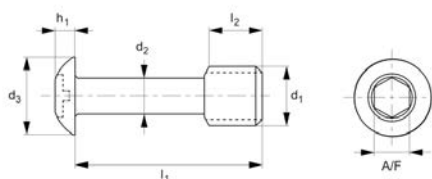
Order No.	d ₁	l ₁ ±0.25	d ₂ ±0.12	d ₃ max.	d ₄ min.	h ₁ max.	l ₂ ±0.25	TX size
P0150.060-020-A4	M 6	20	4.2	12	6.5	4.7	7.5	TX-30
P0150.060-025-A4	M 6	25	4.2	12	6.5	4.7	7.5	TX-30
P0150.060-030-A4	M 6	30	4.2	12	6.5	4.7	7.5	TX-30
P0150.060-040-A4	M 6	40	4.2	12	6.5	4.7	7.5	TX-30
P0150.060-050-A4	M 6	50	4.2	12	6.5	4.7	7.5	TX-30
P0150.060-060-A4	M 6	60	4.2	12	6.5	4.7	7.5	TX-30
P0150.060-080-A4	M 6	80	4.2	12	6.5	4.7	7.5	TX-30
P0150.080-012-A4	M 8	12	6.0	16	8.5	6.1	10.0	TX-30*
P0150.080-016-A4	M 8	16	6.0	16	8.5	6.1	10.0	TX-30*
P0150.080-020-A4	M 8	20	6.0	16	8.5	6.1	10.0	TX-30*
P0150.080-025-A4	M 8	25	6.0	16	8.5	6.1	10.0	TX-30*
P0150.080-030-A4	M 8	30	6.0	16	8.5	6.1	10.0	TX-30*
P0150.080-035-A4	M 8	35	6.0	16	8.5	6.1	10.0	TX-30*
P0150.080-040-A4	M 8	40	6.0	16	8.5	6.1	10.0	TX-30*
P0150.080-045-A4	M 8	45	6.0	16	8.5	6.1	10.0	TX-30*
P0150.080-050-A4	M 8	50	6.0	16	8.5	6.1	10.0	TX-30*
P0150.080-060-A4	M 8	60	6.0	16	8.5	6.1	10.0	TX-30*
P0150.080-080-A4	M 8	80	6.0	16	8.5	6.1	10.0	TX-30*

CAPTIVE SCREWS

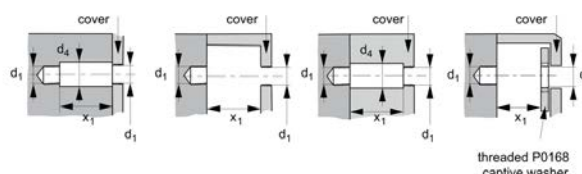


P0151.A2

MADE IN
BRITAIN



application examples :-
counterbore length 'x₁' should be > l₂



threaded P0168
captive washer

Material

Stainless steel (AISI 303, 1.4305). Tensile strength 550 N/mm². Proof stress min. 190 N/mm², austenitic stainless steel. Also available on request in steel (anodised, black oxide or zinc plated), stainless steel (AISI 316, 1.440), brass, aluminium etc.

Technical Notes

Used to comply with the Machinery Directive 2006/42/EC. Generally to ISO 7380-1. Often used with our captive washers (P0168) or retaining flanges (P0169 - for sheet metal applications). The use of our captive washers should be considered when fitted in panels with unthreaded

holes.

Important Notes

Please note that these screws have a reduced diameter shank and should not be tightened to the recommended torque for an equivalent machine screw of size d₁.

Order No.	d ₁	l ₁ ±0.25	d ₂ ±0.12	d ₃ max.	d ₄ min.	h ₁ max.	l ₂ ±0.25	A/F
P0151.025-008-A2	M 2,5	8	1.7	4.5	2.8	1.50	3.7	1.5
P0151.025-010-A2	M 2,5	10	1.7	4.5	2.8	1.50	3.7	1.5
P0151.025-012-A2	M 2,5	12	1.7	4.5	2.8	1.50	3.7	1.5
P0151.025-016-A2	M 2,5	16	1.7	4.5	2.8	1.50	3.7	1.5
P0151.025-020-A2	M 2,5	20	1.7	4.5	2.8	1.50	3.7	1.5
P0151.030-008-A2	M 3	8	2.0	5.7	3.5	1.53	4.5	2
P0151.030-010-A2	M 3	10	2.0	5.7	3.5	1.53	4.5	2
P0151.030-016-A2	M 3	16	2.0	5.7	3.5	1.53	4.5	2
P0151.030-020-A2	M 3	20	2.0	5.7	3.5	1.53	4.5	2
P0151.030-025-A2	M 3	25	2.0	5.7	3.5	1.53	4.5	2
P0151.030-030-A2	M 3	30	2.0	5.7	3.5	1.53	4.5	2
P0151.030-040-A2	M 3	40	2.0	5.7	3.5	1.53	4.5	2
P0151.040-010-A2	M 4	10	2.8	7.6	4.5	2.10	6.0	2.5
P0151.040-012-A2	M 4	12	2.8	7.6	4.5	2.10	6.0	2.5
P0151.040-016-A2	M 4	16	2.8	7.6	4.5	2.10	6.0	2.5
P0151.040-020-A2	M 4	20	2.8	7.6	4.5	2.10	6.0	2.5
P0151.040-025-A2	M 4	25	2.8	7.6	4.5	2.10	6.0	2.5
P0151.040-030-A2	M 4	30	2.8	7.6	4.5	2.10	6.0	2.5
P0151.040-035-A2	M 4	35	2.8	7.6	4.5	2.10	6.0	2.5
P0151.040-040-A2	M 4	40	2.8	7.6	4.5	2.10	6.0	2.5
P0151.040-050-A2	M 4	50	2.8	7.6	4.5	2.10	6.0	2.5
P0151.040-060-A2	M 4	60	2.8	7.6	4.5	2.10	6.0	2.5
P0151.050-012-A2	M 5	12	3.7	9.5	5.5	2.63	7.5	3
P0151.050-016-A2	M 5	16	3.7	9.5	5.5	2.63	7.5	3
P0151.050-020-A2	M 5	20	3.7	9.5	5.5	2.63	7.5	3
P0151.050-025-A2	M 5	25	3.7	9.5	5.5	2.63	7.5	3
P0151.050-030-A2	M 5	30	3.7	9.5	5.5	2.63	7.5	3
P0151.050-040-A2	M 5	40	3.7	9.5	5.5	2.63	7.5	3
P0151.050-050-A2	M 5	50	3.7	9.5	5.5	2.63	7.5	3



Captive Screws - Button Head

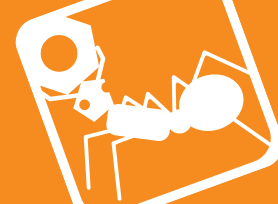
hex drive - 303 stainless



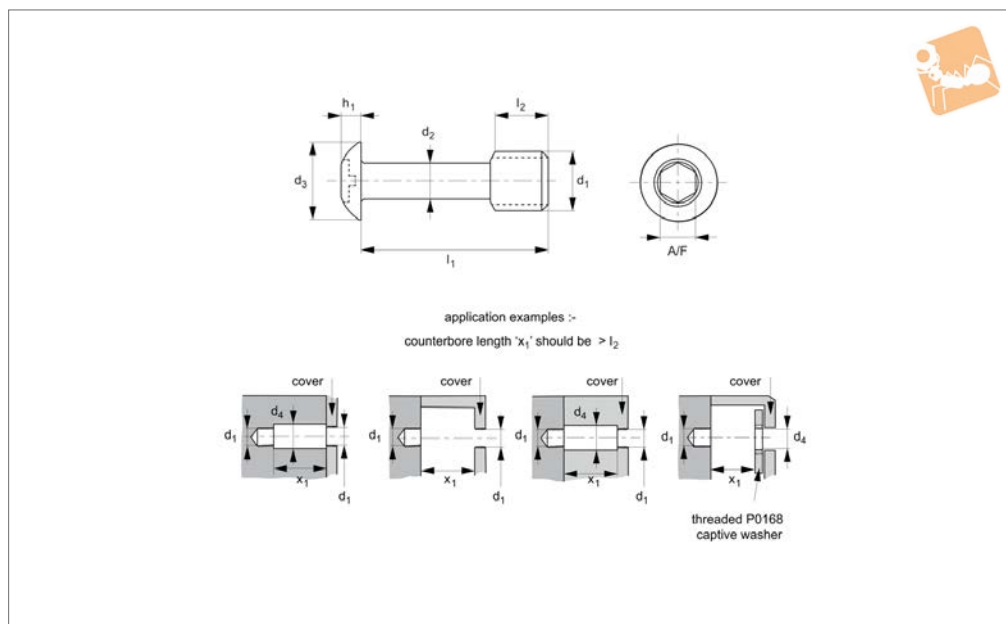
Captive Screws

Order No.	d ₁	l ₁ ±0.25	d ₂ ±0.12	d ₃ max.	d ₄ min.	h ₁ max.	l ₂ ±0.25	A/F
P0151.050-060-A2	M 5	60	3.7	9.5	5.5	2.63	7.5	3
P0151.060-012-A2	M 6	12	4.2	10.5	6.5	3.10	7.5	4
P0151.060-016-A2	M 6	16	4.2	10.5	6.5	3.10	7.5	4
P0151.060-020-A2	M 6	20	4.2	10.5	6.5	3.10	7.5	4
P0151.060-025-A2	M 6	25	4.2	10.5	6.5	3.10	7.5	4
P0151.060-030-A2	M 6	30	4.2	10.5	6.5	3.10	7.5	4
P0151.060-035-A2	M 6	35	4.2	10.5	6.5	3.10	7.5	4
P0151.060-040-A2	M 6	40	4.2	10.5	6.5	3.10	7.5	4
P0151.060-050-A2	M 6	50	4.2	10.5	6.5	3.10	7.5	4
P0151.060-060-A2	M 6	60	4.2	10.5	6.5	3.10	7.5	4
P0151.060-080-A2	M 6	80	4.2	10.5	6.5	3.10	7.5	4
P0151.080-016-A2	M 8	16	6.0	14.0	8.5	4.46	10.0	5
P0151.080-020-A2	M 8	20	6.0	14.0	8.5	4.46	10.0	5
P0151.080-025-A2	M 8	25	6.0	14.0	8.5	4.46	10.0	5
P0151.080-030-A2	M 8	30	6.0	14.0	8.5	4.46	10.0	5
P0151.080-035-A2	M 8	35	6.0	14.0	8.5	4.46	10.0	5
P0151.080-040-A2	M 8	40	6.0	14.0	8.5	4.46	10.0	5
P0151.080-045-A2	M 8	45	6.0	14.0	8.5	4.46	10.0	5
P0151.080-050-A2	M 8	50	6.0	14.0	8.5	4.46	10.0	5
P0151.080-060-A2	M 8	60	6.0	14.0	8.5	4.46	10.0	5
P0151.080-080-A2	M 8	80	6.0	14.0	8.5	4.46	10.0	5
P0151.100-020-A2	M 10	20	7.5	17.5	10.6	5.5	12.5	6
P0151.100-025-A2	M 10	25	7.5	17.5	10.6	5.5	12.5	6
P0151.100-030-A2	M 10	30	7.5	17.5	10.6	5.5	12.5	6
P0151.100-035-A2	M 10	35	7.5	17.5	10.6	5.5	12.5	6
P0151.100-040-A2	M 10	40	7.5	17.5	10.6	5.5	12.5	6
P0151.100-045-A2	M 10	45	7.5	17.5	10.6	5.5	12.5	6
P0151.100-050-A2	M 10	50	7.5	17.5	10.6	5.5	12.5	6
P0151.100-060-A2	M 10	60	7.5	17.5	10.6	5.5	12.5	6
P0151.100-080-A2	M 10	80	7.5	17.5	10.6	5.5	12.5	6

CAPTIVE SCREWS



P0151.A4



Material

Stainless steel (AISI 316, 1.440). Tensile strength 480 N/mm². Proof stress min. 200 N/mm², austenitic stainless steel. Also available on request in steel (anodised, black oxide or zinc plated), stainless steel (AISI 303, 1.4305), brass, aluminium etc.

Technical Notes

Used to comply with the Machinery Directive 2006/42/EC. Generally to ISO 7380-1. Often used with our captive washers (P0168) or retaining flanges (P0169 - for sheet metal applications). The use of our captive washers should be considered when fitted in panels with unthreaded

holes.

Important Notes

Please note that these screws have a reduced diameter shank and should not be tightened to the recommended torque for an equivalent machine screw of size d₁.

Order No.	d ₁	l ₁ ±0.25	d ₂ ±0.12	d ₃ max.	d ₄ min.	h ₁ max.	l ₂ ±0.25	A/F
P0151.025-008-A4	M 2,5	8	1.7	4.5	2.8	1.50	3.7	1.5
P0151.025-010-A4	M 2,5	10	1.7	4.5	2.8	1.50	3.7	1.5
P0151.025-012-A4	M 2,5	12	1.7	4.5	2.8	1.50	3.7	1.5
P0151.025-016-A4	M 2,5	16	1.7	4.5	2.8	1.50	3.7	1.5
P0151.025-020-A4	M 2,5	20	1.7	4.5	2.8	1.50	3.7	1.5
P0151.030-008-A4	M 3	8	2.0	5.7	3.5	1.53	4.5	2
P0151.030-010-A4	M 3	10	2.0	5.7	3.5	1.53	4.5	2
P0151.030-016-A4	M 3	16	2.0	5.7	3.5	1.53	4.5	2
P0151.030-020-A4	M 3	20	2.0	5.7	3.5	1.53	4.5	2
P0151.030-025-A4	M 3	25	2.0	5.7	3.5	1.53	4.5	2
P0151.030-030-A4	M 3	30	2.0	5.7	3.5	1.53	4.5	2
P0151.030-040-A4	M 3	40	2.0	5.7	3.5	1.53	4.5	2
P0151.040-010-A4	M 4	10	2.8	7.6	4.5	2.10	6.0	2.5
P0151.040-012-A4	M 4	12	2.8	7.6	4.5	2.10	6.0	2.5
P0151.040-016-A4	M 4	16	2.8	7.6	4.5	2.10	6.0	2.5
P0151.040-020-A4	M 4	20	2.8	7.6	4.5	2.10	6.0	2.5
P0151.040-025-A4	M 4	25	2.8	7.6	4.5	2.10	6.0	2.5
P0151.040-030-A4	M 4	30	2.8	7.6	4.5	2.10	6.0	2.5
P0151.040-035-A4	M 4	35	2.8	7.6	4.5	2.10	6.0	2.5
P0151.040-040-A4	M 4	40	2.8	7.6	4.5	2.10	6.0	2.5
P0151.040-050-A4	M 4	50	2.8	7.6	4.5	2.10	6.0	2.5
P0151.040-060-A4	M 4	60	2.8	7.6	4.5	2.10	6.0	2.5
P0151.050-012-A4	M 5	12	3.7	9.5	5.5	2.63	7.5	3
P0151.050-016-A4	M 5	16	3.7	9.5	5.5	2.63	7.5	3
P0151.050-020-A4	M 5	20	3.7	9.5	5.5	2.63	7.5	3
P0151.050-025-A4	M 5	25	3.7	9.5	5.5	2.63	7.5	3
P0151.050-030-A4	M 5	30	3.7	9.5	5.5	2.63	7.5	3
P0151.050-040-A4	M 5	40	3.7	9.5	5.5	2.63	7.5	3
P0151.050-050-A4	M 5	50	3.7	9.5	5.5	2.63	7.5	3



Captive Screws - Button Head

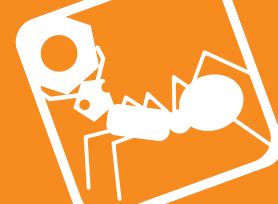
hex drive - 316 stainless



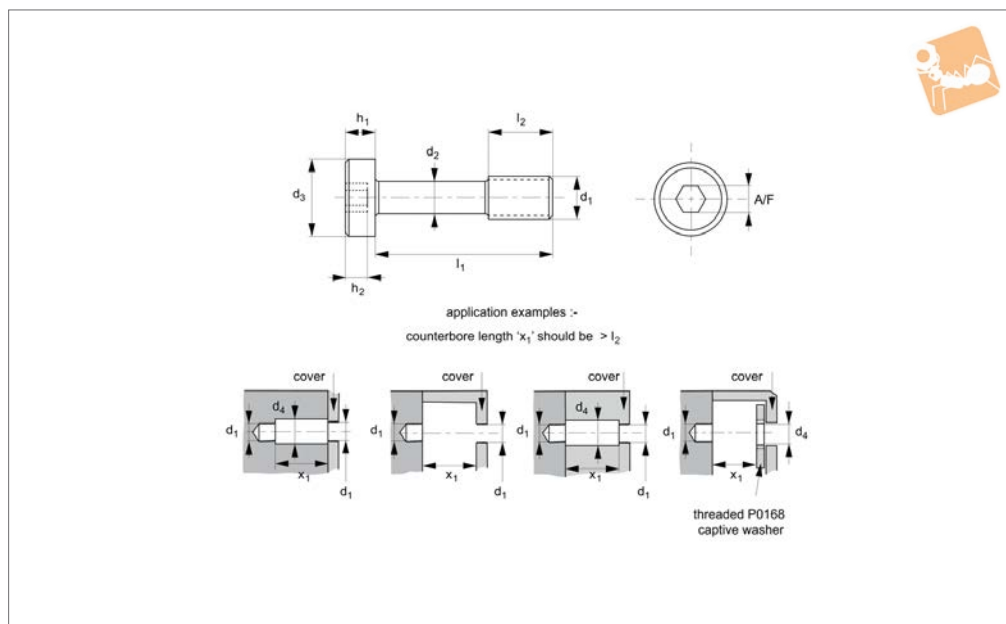
Captive Screws

Order No.	d ₁	l ₁ ±0.25	d ₂ ±0.12	d ₃ max.	d ₄ min.	h ₁ max.	l ₂ ±0.25	A/F
P0151.050-060-A4	M 5	60	3.7	9.5	5.5	2.63	7.5	3
P0151.060-012-A4	M 6	12	4.2	10.5	6.5	3.10	7.5	4
P0151.060-016-A4	M 6	16	4.2	10.5	6.5	3.10	7.5	4
P0151.060-020-A4	M 6	20	4.2	10.5	6.5	3.10	7.5	4
P0151.060-025-A4	M 6	25	4.2	10.5	6.5	3.10	7.5	4
P0151.060-030-A4	M 6	30	4.2	10.5	6.5	3.10	7.5	4
P0151.060-035-A4	M 6	35	4.2	10.5	6.5	3.10	7.5	4
P0151.060-040-A4	M 6	40	4.2	10.5	6.5	3.10	7.5	4
P0151.060-050-A4	M 6	50	4.2	10.5	6.5	3.10	7.5	4
P0151.060-060-A4	M 6	60	4.2	10.5	6.5	3.10	7.5	4
P0151.060-080-A4	M 6	80	4.2	10.5	6.5	3.10	7.5	4
P0151.080-016-A4	M 8	16	6.0	14.0	8.5	4.46	10.0	5
P0151.080-020-A4	M 8	20	6.0	14.0	8.5	4.46	10.0	5
P0151.080-025-A4	M 8	25	6.0	14.0	8.5	4.46	10.0	5
P0151.080-030-A4	M 8	30	6.0	14.0	8.5	4.46	10.0	5
P0151.080-035-A4	M 8	35	6.0	14.0	8.5	4.46	10.0	5
P0151.080-040-A4	M 8	40	6.0	14.0	8.5	4.46	10.0	5
P0151.080-045-A4	M 8	45	6.0	14.0	8.5	4.46	10.0	5
P0151.080-050-A4	M 8	50	6.0	14.0	8.5	4.46	10.0	5
P0151.080-060-A4	M 8	60	6.0	14.0	8.5	4.46	10.0	5
P0151.080-080-A4	M 8	80	6.0	14.0	8.5	4.46	10.0	5
P0151.100-020-A4	M 10	20	7.5	17.5	10.6	5.5	12.5	6
P0151.100-025-A4	M 10	25	7.5	17.5	10.6	5.5	12.5	6
P0151.100-030-A4	M 10	30	7.5	17.5	10.6	5.5	12.5	6
P0151.100-035-A4	M 10	35	7.5	17.5	10.6	5.5	12.5	6
P0151.100-040-A4	M 10	40	7.5	17.5	10.6	5.5	12.5	6
P0151.100-045-A4	M 10	45	7.5	17.5	10.6	5.5	12.5	6
P0151.100-050-A4	M 10	50	7.5	17.5	10.6	5.5	12.5	6
P0151.100-060-A4	M 10	60	7.5	17.5	10.6	5.5	12.5	6
P0151.100-080-A4	M 10	80	7.5	17.5	10.6	5.5	12.5	6

CAPTIVE SCREWS



P0152.A2



Material

Stainless steel (AISI 303, 1.4305). Tensile strength 550 N/mm². Proof stress min. 190 N/mm², austenitic stainless steel. Also available on request in steel (anodised, black oxide or zinc plated), stainless steel (AISI 316, 1.4400), brass, aluminium etc.

Technical Notes

Used to comply with the Machinery Direc-

tive 2006/42/EC. Generally to ISO 1207. Often used with our captive washers (P0168) or retaining flanges (P0169.A2 - for sheet metal applications). The use of our captive washers should be considered when fitted in panels with unthreaded holes.

Important Notes

Please note that these screws have a

reduced diameter shank and should not be tightened to the recommended torque for an equivalent machine screw of size d₁.

Order No.	d ₁	l ₁ ±0.25	d ₂ ±0.12	d ₃	d ₄ min.	h ₁	h ₂	l ₂ ±0.25	A/F
P0152.020-010-A2	M 2	10	1.2	3.8	2.5	1.3	0.85	3.0	1.3
P0152.020-012-A2	M 2	12	1.2	3.8	2.5	1.3	0.85	3.0	1.3
P0152.020-016-A2	M 2	16	1.2	3.8	2.5	1.3	0.85	3.0	1.3
P0152.020-020-A2	M 2	20	1.2	3.8	2.5	1.3	0.85	3.0	1.3
P0152.025-008-A2	M 2,5	8	1.7	4.5	2.8	1.6	1.00	3.7	1.5
P0152.025-010-A2	M 2,5	10	1.7	4.5	2.8	1.6	1.00	3.7	1.5
P0152.025-016-A2	M 2,5	16	1.7	4.5	2.8	1.6	1.00	3.7	1.5
P0152.025-020-A2	M 2,5	20	1.7	4.5	2.8	1.6	1.00	3.7	1.5
P0152.025-025-A2	M 2,5	25	1.7	4.5	2.8	1.6	1.00	3.7	1.5
P0152.025-030-A2	M 2,5	30	1.7	4.5	2.8	1.6	1.00	3.7	1.5
P0152.030-010-A2	M 3	10	2.0	5.5	3.5	2.0	1.30	4.5	2
P0152.030-011-A2	M 3	11	2.0	5.5	3.5	2.0	1.30	4.5	2
P0152.030-013-A2	M 3	13	2.0	5.5	3.5	2.0	1.30	4.5	2
P0152.030-016-A2	M 3	16	2.0	5.5	3.5	2.0	1.30	4.5	2
P0152.030-018-A2	M 3	18	2.0	5.5	3.5	2.0	1.30	4.5	2
P0152.030-020-A2	M 3	20	2.0	5.5	3.5	2.0	1.30	4.5	2
P0152.030-025-A2	M 3	25	2.0	5.5	3.5	2.0	1.30	4.5	2
P0152.030-030-A2	M 3	30	2.0	5.5	3.5	2.0	1.30	4.5	2
P0152.030-040-A2	M 3	40	2.0	5.5	3.5	2.0	1.30	4.5	2
P0152.035-010-A2	M 3,5	10	2.3	6.0	3.8	2.4	1.4	5.2	2.5
P0152.035-016-A2	M 3,5	16	2.3	6.0	3.8	2.4	1.4	5.2	2.5
P0152.035-020-A2	M 3,5	20	2.3	6.0	3.8	2.4	1.4	5.2	2.5
P0152.035-025-A2	M 3,5	25	2.3	6.0	3.8	2.4	1.4	5.2	2.5
P0152.035-030-A2	M 3,5	30	2.3	6.0	3.8	2.4	1.4	5.2	2.5
P0152.035-040-A2	M 3,5	40	2.3	6.0	3.8	2.4	1.4	5.2	2.5
P0152.040-010-A2	M 4	10	2.8	7.0	4.5	2.6	1.6	6.0	2.5
P0152.040-012-A2	M 4	12	2.8	7.0	4.5	2.6	1.6	6.0	2.5
P0152.040-016-A2	M 4	16	2.8	7.0	4.5	2.6	1.6	6.0	2.5



Captive Screws - Cheese Head

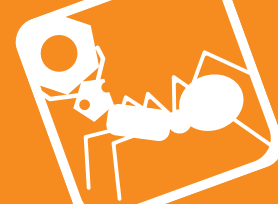
hex drive - 303 stainless



Captive Screws

Order No.	d ₁	l ₁ ±0.25	d ₂ ±0.12	d ₃	d ₄ min.	h ₁	h ₂	l ₂ ±0.25	A/F
P0152.040-018-A2	M 4	18	2.8	7.0	4.5	2.6	1.6	6.0	2.5
P0152.040-019-A2	M 4	19	2.8	7.0	4.5	2.6	1.6	6.0	2.5
P0152.040-020-A2	M 4	20	2.8	7.0	4.5	2.6	1.6	6.0	2.5
P0152.040-025-A2	M 4	25	2.8	7.0	4.5	2.6	1.6	6.0	2.5
P0152.040-030-A2	M 4	30	2.8	7.0	4.5	2.6	1.6	6.0	2.5
P0152.040-040-A2	M 4	40	2.8	7.0	4.5	2.6	1.6	6.0	2.5
P0152.040-050-A2	M 4	50	2.8	7.0	4.5	2.6	1.6	6.0	2.5
P0152.040-060-A2	M 4	60	2.8	7.0	4.5	2.6	1.6	6.0	2.5
P0152.050-010-A2	M 5	10	3.7	8.5	5.5	3.3	2.0	7.5	3
P0152.050-012-A2	M 5	12	3.7	8.5	5.5	3.3	2.0	7.5	3
P0152.050-016-A2	M 5	16	3.7	8.5	5.5	3.3	2.0	7.5	3
P0152.050-018-A2	M 5	18	3.7	8.5	5.5	3.3	2.0	7.5	3
P0152.050-020-A2	M 5	20	3.7	8.5	5.5	3.3	2.0	7.5	3
P0152.050-022-A2	M 5	22	3.7	8.5	5.5	3.3	2.0	7.5	3
P0152.050-025-A2	M 5	25	3.7	8.5	5.5	3.3	2.0	7.5	3
P0152.050-030-A2	M 5	30	3.7	8.5	5.5	3.3	2.0	7.5	3
P0152.050-040-A2	M 5	40	3.7	8.5	5.5	3.3	2.0	7.5	3
P0152.050-050-A2	M 5	50	3.7	8.5	5.5	3.3	2.0	7.5	3
P0152.050-060-A2	M 5	60	3.7	8.5	5.5	3.3	2.0	7.5	3
P0152.050-080-A2	M 5	80	3.7	8.5	5.5	3.3	2.0	7.5	3
P0152.060-016-A2	M 6	16	4.2	10.0	6.5	3.9	2.3	7.5	4
P0152.060-020-A2	M 6	20	4.2	10.0	6.5	3.9	2.3	7.5	4
P0152.060-025-A2	M 6	25	4.2	10.0	6.5	3.9	2.3	7.5	4
P0152.060-030-A2	M 6	30	4.2	10.0	6.5	3.9	2.3	7.5	4
P0152.060-040-A2	M 6	40	4.2	10.0	6.5	3.9	2.3	7.5	4
P0152.060-050-A2	M 6	50	4.2	10.0	6.5	3.9	2.3	7.5	4
P0152.060-060-A2	M 6	60	4.2	10.0	6.5	3.9	2.3	7.5	4
P0152.060-080-A2	M 6	80	4.2	10.0	6.5	3.9	2.3	7.5	4

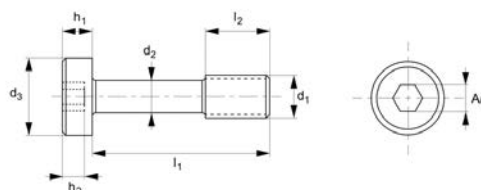
CAPTIVE SCREWS



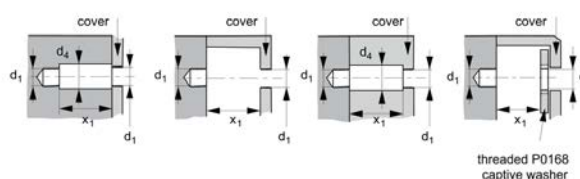
MADE IN
BRITAIN

P0152.A4

CAPTIVE SCREWS



application examples ->
counterbore length 'x₁' should be > l₂



threaded P0168
captive washer

Material

Stainless steel (AISI 316, 1.4401). This grade of stainless steel is highly resistant to corrosion and is suitable for outdoor, medical and marine applications. Tensile strength 550 N/mm². Also available on request in titanium, steel (anodised, black oxide coated or zinc plated), brass, aluminium etc.

Technical Notes

Used to comply with the Machinery Directive 2006/42/EC. Generally to ISO 1207. Often used with our captive washers (P0168) or retaining flanges (P0169 - for sheet metal applications). The use of our captive washers should be considered when fitted in panels with unthreaded holes.

Important Notes

Please note that these screws have a reduced diameter shank and should not be tightened to the recommended torque for an equivalent machine screw of size d₁.

Order No.	d ₁	l ₁ ±0.25	d ₂ ±0.12	d ₃	d ₄ min.	h ₁	h ₂	l ₂ ±0.25	A/F
P0152.020-010-A4	M 2	10	1.2	3.8	2.5	1.3	0.85	3.0	1.3
P0152.020-012-A4	M 2	12	1.2	3.8	2.5	1.3	0.85	3.0	1.3
P0152.020-016-A4	M 2	16	1.2	3.8	2.5	1.3	0.85	3.0	1.3
P0152.020-020-A4	M 2	20	1.2	3.8	2.5	1.3	0.85	3.0	1.3
P0152.025-008-A4	M 2,5	8	1.7	4.5	2.8	1.6	1.00	3.7	1.5
P0152.025-010-A4	M 2,5	10	1.7	4.5	2.8	1.6	1.00	3.7	1.5
P0152.025-016-A4	M 2,5	16	1.7	4.5	2.8	1.6	1.00	3.7	1.5
P0152.025-020-A4	M 2,5	20	1.7	4.5	2.8	1.6	1.00	3.7	1.5
P0152.025-025-A4	M 2,5	25	1.7	4.5	2.8	1.6	1.00	3.7	1.5
P0152.025-030-A4	M 2,5	30	1.7	4.5	2.8	1.6	1.00	3.7	1.5
P0152.030-010-A4	M 3	10	2.0	5.5	3.5	2.0	1.30	4.5	2
P0152.030-011-A4	M 3	11	2.0	5.5	3.5	2.0	1.30	4.5	2
P0152.030-013-A4	M 3	13	2.0	5.5	3.5	2.0	1.30	4.5	2
P0152.030-016-A4	M 3	16	2.0	5.5	3.5	2.0	1.30	4.5	2
P0152.030-018-A4	M 3	18	2.0	5.5	3.5	2.0	1.30	4.5	2
P0152.030-020-A4	M 3	20	2.0	5.5	3.5	2.0	1.30	4.5	2
P0152.030-025-A4	M 3	25	2.0	5.5	3.5	2.0	1.30	4.5	2
P0152.030-030-A4	M 3	30	2.0	5.5	3.5	2.0	1.30	4.5	2
P0152.030-040-A4	M 3	40	2.0	5.5	3.5	2.0	1.30	4.5	2
P0152.035-010-A4	M 3,5	10	2.3	6.0	3.8	2.4	1.4	5.2	2.5
P0152.035-016-A4	M 3,5	16	2.3	6.0	3.8	2.4	1.4	5.2	2.5
P0152.035-020-A4	M 3,5	20	2.3	6.0	3.8	2.4	1.4	5.2	2.5
P0152.035-025-A4	M 3,5	25	2.3	6.0	3.8	2.4	1.4	5.2	2.5
P0152.035-030-A4	M 3,5	30	2.3	6.0	3.8	2.4	1.4	5.2	2.5
P0152.035-040-A4	M 3,5	40	2.3	6.0	3.8	2.4	1.4	5.2	2.5
P0152.040-010-A4	M 4	10	2.8	7.0	4.5	2.6	1.6	6.0	2.5
P0152.040-012-A4	M 4	12	2.8	7.0	4.5	2.6	1.6	6.0	2.5
P0152.040-016-A4	M 4	16	2.8	7.0	4.5	2.6	1.6	6.0	2.5



Captive Screws - Cheese Head

hex drive - 316 stainless



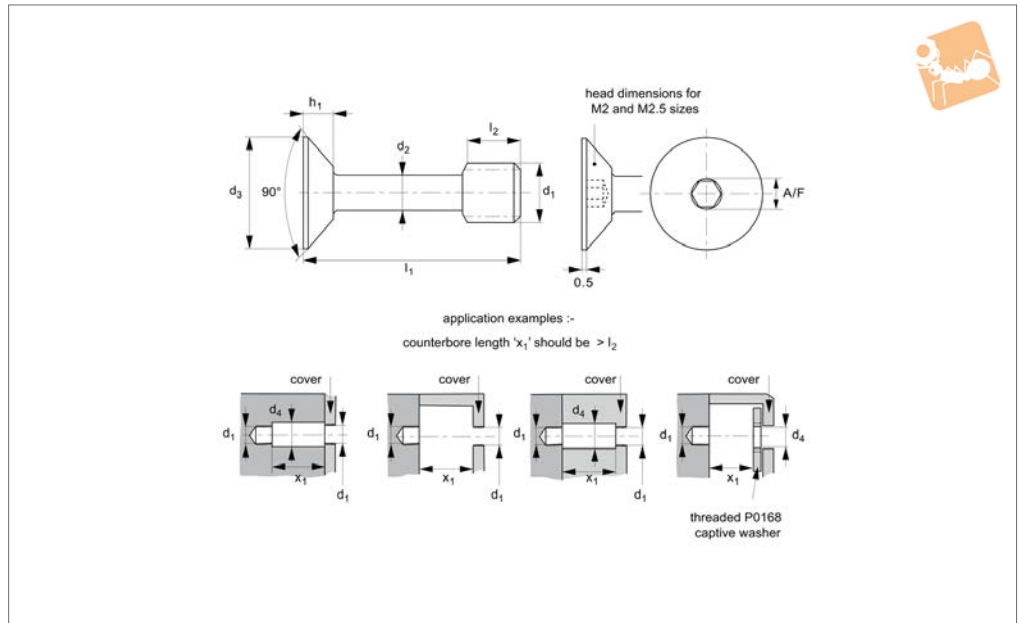
Captive Screws

Order No.	d ₁	l ₁ ±0.25	d ₂ ±0.12	d ₃	d ₄ min.	h ₁	h ₂	l ₂ ±0.25	A/F
P0152.040-018-A4	M 4	18	2.8	7.0	4.5	2.6	1.6	6.0	2.5
P0152.040-019-A4	M 4	19	2.8	7.0	4.5	2.6	1.6	6.0	2.5
P0152.040-020-A4	M 4	20	2.8	7.0	4.5	2.6	1.6	6.0	2.5
P0152.040-025-A4	M 4	25	2.8	7.0	4.5	2.6	1.6	6.0	2.5
P0152.040-030-A4	M 4	30	2.8	7.0	4.5	2.6	1.6	6.0	2.5
P0152.040-040-A4	M 4	40	2.8	7.0	4.5	2.6	1.6	6.0	2.5
P0152.040-050-A4	M 4	50	2.8	7.0	4.5	2.6	1.6	6.0	2.5
P0152.040-060-A4	M 4	60	2.8	7.0	4.5	2.6	1.6	6.0	2.5
P0152.050-010-A4	M 5	10	3.7	8.5	5.5	3.3	2.0	7.5	3
P0152.050-012-A4	M 5	12	3.7	8.5	5.5	3.3	2.0	7.5	3
P0152.050-016-A4	M 5	16	3.7	8.5	5.5	3.3	2.0	7.5	3
P0152.050-018-A4	M 5	18	3.7	8.5	5.5	3.3	2.0	7.5	3
P0152.050-020-A4	M 5	20	3.7	8.5	5.5	3.3	2.0	7.5	3
P0152.050-022-A4	M 5	22	3.7	8.5	5.5	3.3	2.0	7.5	3
P0152.050-025-A4	M 5	25	3.7	8.5	5.5	3.3	2.0	7.5	3
P0152.050-030-A4	M 5	30	3.7	8.5	5.5	3.3	2.0	7.5	3
P0152.050-040-A4	M 5	40	3.7	8.5	5.5	3.3	2.0	7.5	3
P0152.050-050-A4	M 5	50	3.7	8.5	5.5	3.3	2.0	7.5	3
P0152.050-060-A4	M 5	60	3.7	8.5	5.5	3.3	2.0	7.5	3
P0152.050-080-A4	M 5	80	3.7	8.5	5.5	3.3	2.0	7.5	3
P0152.060-016-A4	M 6	16	4.2	10.0	6.5	3.9	2.3	7.5	4
P0152.060-020-A4	M 6	20	4.2	10.0	6.5	3.9	2.3	7.5	4
P0152.060-025-A4	M 6	25	4.2	10.0	6.5	3.9	2.3	7.5	4
P0152.060-030-A4	M 6	30	4.2	10.0	6.5	3.9	2.3	7.5	4
P0152.060-040-A4	M 6	40	4.2	10.0	6.5	3.9	2.3	7.5	4
P0152.060-050-A4	M 6	50	4.2	10.0	6.5	3.9	2.3	7.5	4
P0152.060-060-A4	M 6	60	4.2	10.0	6.5	3.9	2.3	7.5	4
P0152.060-080-A4	M 6	80	4.2	10.0	6.5	3.9	2.3	7.5	4

CAPTIVE SCREWS



P0153.A2



Material

Stainless steel (AISI 303, 1.4305). Tensile strength 550 N/mm². Proof stress min. 190 N/mm², austenitic stainless steel. Also available on request in steel (anodised, black oxide or zinc plated), brass, aluminium etc.

Technical Notes

Used to comply with the Machinery Direc-

tive 2006/42/EC. Often used with our captive washers (P0168) or retaining flanges (P0169 - for sheet metal applications). The use of our captive washers should be considered when fitted in panels with unthreaded holes.

Important Notes

Please note that these screws have a reduced diameter shank and should not be

tightened to the recommended torque for an equivalent machine screw of size d₁. To accommodate the slight undercut at the top of the shank, the hex socket is smaller than on a similar threaded machine screw.

Order No.	d ₁	l ₁ ±0.25	d ₂ ±0.12	d ₃ max.	d ₄ min.	h ₁ max.	l ₂ ±0.25	A/F
P0153.020-010-A2	M 2	10	1.2	3.8	2.5	1.20	3.5	1.0
P0153.020-012-A2	M 2	12	1.2	3.8	2.5	1.20	3.5	1.0
P0153.020-016-A2	M 2	16	1.2	3.8	2.5	1.20	3.5	1.0
P0153.020-020-A2	M 2	20	1.2	3.8	2.5	1.20	3.5	1.0
P0153.025-010-A2	M 2,5	10	1.7	4.7	2.8	1.80	3.7	1.3
P0153.025-012-A2	M 2,5	12	1.7	4.7	2.8	1.80	3.7	1.3
P0153.025-016-A2	M 2,5	16	1.7	4.7	2.8	1.80	3.7	1.3
P0153.025-020-A2	M 2,5	20	1.7	4.7	2.8	1.80	3.7	1.3
P0153.030-008-A2	M 3	8	2.0	5.6	3.5	1.65	4.5	1.5
P0153.030-010-A2	M 3	10	2.0	5.6	3.5	1.65	4.5	1.5
P0153.030-012-A2	M 3	12	2.0	5.6	3.5	1.65	4.5	1.5
P0153.030-016-A2	M 3	16	2.0	5.6	3.5	1.65	4.5	1.5
P0153.030-020-A2	M 3	20	2.0	5.6	3.5	1.65	4.5	1.5
P0153.030-025-A2	M 3	25	2.0	5.6	3.5	1.65	4.5	1.5
P0153.030-030-A2	M 3	30	2.0	5.6	3.5	1.65	4.5	1.5
P0153.030-035-A2	M 3	35	2.0	5.6	3.5	1.65	4.5	1.5
P0153.030-040-A2	M 3	40	2.0	5.6	3.5	1.65	4.5	1.5
P0153.040-010-A2	M 4	10	2.8	7.5	4.5	2.20	6.0	2.0
P0153.040-012-A2	M 4	12	2.8	7.5	4.5	2.20	6.0	2.0
P0153.040-014-A2	M 4	14	2.8	7.5	4.5	2.20	6.0	2.0
P0153.040-016-A2	M 4	16	2.8	7.5	4.5	2.20	6.0	2.0
P0153.040-020-A2	M 4	20	2.8	7.5	4.5	2.20	6.0	2.0
P0153.040-025-A2	M 4	25	2.8	7.5	4.5	2.20	6.0	2.0
P0153.040-030-A2	M 4	30	2.8	7.5	4.5	2.20	6.0	2.0
P0153.040-035-A2	M 4	35	2.8	7.5	4.5	2.20	6.0	2.0
P0153.040-040-A2	M 4	40	2.8	7.5	4.5	2.20	6.0	2.0
P0153.040-050-A2	M 4	50	2.8	7.5	4.5	2.20	6.0	2.0
P0153.040-060-A2	M 4	60	2.8	7.5	4.5	2.20	6.0	2.0



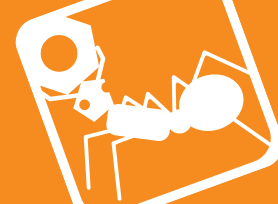
Captive Screws - Countersunk

hex drive - 303 stainless

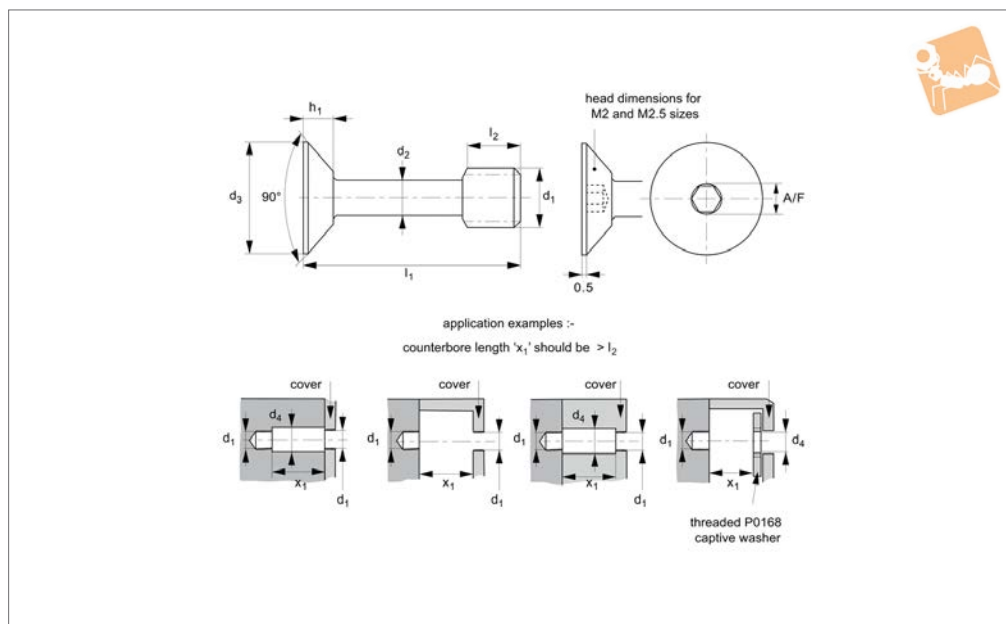


Order No.	d ₁	l ₁ ±0.25	d ₂ ±0.12	d ₃ max.	d ₄ min.	h ₁ max.	l ₂ ±0.25	A/F
P0153.050-012-A2	M 5	12	3.7	9.2	5.5	2.50	7.5	2.5
P0153.050-014-A2	M 5	14	3.7	9.2	5.5	2.50	7.5	2.5
P0153.050-016-A2	M 5	16	3.7	9.2	5.5	2.50	7.5	2.5
P0153.050-020-A2	M 5	20	3.7	9.2	5.5	2.50	7.5	2.5
P0153.050-025-A2	M 5	25	3.7	9.2	5.5	2.50	7.5	2.5
P0153.050-030-A2	M 5	30	3.7	9.2	5.5	2.50	7.5	2.5
P0153.050-035-A2	M 5	35	3.7	9.2	5.5	2.50	7.5	2.5
P0153.050-040-A2	M 5	40	3.7	9.2	5.5	2.50	7.5	2.5
P0153.050-050-A2	M 5	50	3.7	9.2	5.5	2.50	7.5	2.5
P0153.050-060-A2	M 5	60	3.7	9.2	5.5	2.50	7.5	2.5
P0153.060-016-A2	M 6	16	4.2	11.0	6.5	3.00	8.0	3.0
P0153.060-020-A2	M 6	20	4.2	11.0	6.5	3.00	8.0	3.0
P0153.060-025-A2	M 6	25	4.2	11.0	6.5	3.00	8.0	3.0
P0153.060-030-A2	M 6	30	4.2	11.0	6.5	3.00	8.0	3.0
P0153.060-035-A2	M 6	35	4.2	11.0	6.5	3.00	8.0	3.0
P0153.060-040-A2	M 6	40	4.2	11.0	6.5	3.00	8.0	3.0
P0153.060-050-A2	M 6	50	4.2	11.0	6.5	3.00	8.0	3.0
P0153.060-060-A2	M 6	60	4.2	11.0	6.5	3.00	8.0	3.0
P0153.080-020-A2	M 8	20	6.0	15.0	8.5	4.10	10.0	4.0
P0153.080-025-A2	M 8	25	6.0	15.0	8.5	4.10	10.0	4.0
P0153.080-030-A2	M 8	30	6.0	15.0	8.5	4.10	10.0	4.0
P0153.080-040-A2	M 8	40	6.0	15.0	8.5	4.10	10.0	4.0
P0153.080-050-A2	M 8	50	6.0	15.0	8.5	4.10	10.0	4.0
P0153.080-060-A2	M 8	60	6.0	15.0	8.5	4.10	10.0	4.0

CAPTIVE SCREWS



P0153.A4



Material

Stainless steel (AISI 316, 1.440).
Tensile strength 480 N/mm². Proof stress min. 200 N/mm², austenitic stainless steel.
Also available on request in steel (anodised, black oxide or zinc plated), brass, aluminium etc.

Technical Notes

Used to comply with the Machinery Direc-

tive 2006/42/EC. Often used with our captive washers (P0168) or retaining flanges (P0169 - for sheet metal applications). The use of our captive screws should be considered when fitted in panels with unthreaded holes.

Important Notes

Please note that these screws have a reduced diameter shank and should not be

tightened to the recommended torque for an equivalent machine screw of size d₁. To accommodate the slight undercut at the top of the shank, the hex socket is smaller than on a similar threaded machine screw.

Order No.	d ₁	l ₁ ±0.25	d ₂ ±0.12	d ₃ max.	d ₄ min.	h ₁ max.	l ₂ ±0.25	A/F
P0153.020-010-A4	M 2	10	1.2	3.8	2.5	1.20	3.5	1.0
P0153.020-012-A4	M 2	12	1.2	3.8	2.5	1.20	3.5	1.0
P0153.020-016-A4	M 2	16	1.2	3.8	2.5	1.20	3.5	1.0
P0153.020-020-A4	M 2	20	1.2	3.8	2.5	1.20	3.5	1.0
P0153.025-010-A4	M 2,5	10	1.7	4.7	2.8	1.80	3.7	1.3
P0153.025-012-A4	M 2,5	12	1.7	4.7	2.8	1.80	3.7	1.3
P0153.025-016-A4	M 2,5	16	1.7	4.7	2.8	1.80	3.7	1.3
P0153.025-020-A4	M 2,5	20	1.7	4.7	2.8	1.80	3.7	1.3
P0153.030-008-A4	M 3	8	2.0	5.6	3.5	1.65	4.5	1.5
P0153.030-010-A4	M 3	10	2.0	5.6	3.5	1.65	4.5	1.5
P0153.030-012-A4	M 3	12	2.0	5.6	3.5	1.65	4.5	1.5
P0153.030-016-A4	M 3	16	2.0	5.6	3.5	1.65	4.5	1.5
P0153.030-020-A4	M 3	20	2.0	5.6	3.5	1.65	4.5	1.5
P0153.030-025-A4	M 3	25	2.0	5.6	3.5	1.65	4.5	1.5
P0153.030-030-A4	M 3	30	2.0	5.6	3.5	1.65	4.5	1.5
P0153.030-035-A4	M 3	35	2.0	5.6	3.5	1.65	4.5	1.5
P0153.030-040-A4	M 3	40	2.0	5.6	3.5	1.65	4.5	1.5
P0153.040-010-A4	M 4	10	2.8	7.5	4.5	2.20	6.0	2.0
P0153.040-012-A4	M 4	12	2.8	7.5	4.5	2.20	6.0	2.0
P0153.040-014-A4	M 4	14	2.8	7.5	4.5	2.20	6.0	2.0
P0153.040-016-A4	M 4	16	2.8	7.5	4.5	2.20	6.0	2.0
P0153.040-020-A4	M 4	20	2.8	7.5	4.5	2.20	6.0	2.0
P0153.040-025-A4	M 4	25	2.8	7.5	4.5	2.20	6.0	2.0
P0153.040-030-A4	M 4	30	2.8	7.5	4.5	2.20	6.0	2.0
P0153.040-035-A4	M 4	35	2.8	7.5	4.5	2.20	6.0	2.0
P0153.040-040-A4	M 4	40	2.8	7.5	4.5	2.20	6.0	2.0
P0153.040-050-A4	M 4	50	2.8	7.5	4.5	2.20	6.0	2.0
P0153.040-060-A4	M 4	60	2.8	7.5	4.5	2.20	6.0	2.0



Captive Screws - Countersunk

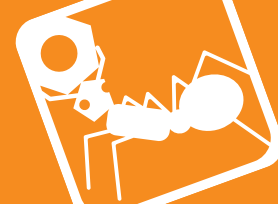
hex drive - 316 stainless



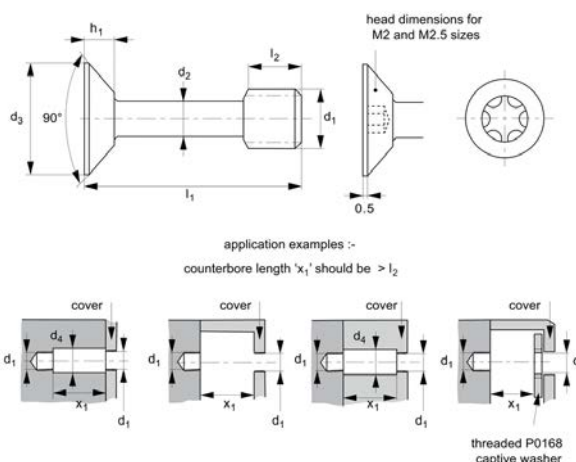
Captive Screws

Order No.	d ₁	l ₁ ±0.25	d ₂ ±0.12	d ₃ max.	d ₄ min.	h ₁ max.	l ₂ ±0.25	A/F
P0153.050-012-A4	M 5	12	3.7	9.2	5.5	2.50	7.5	2.5
P0153.050-014-A4	M 5	12	3.7	9.2	5.5	2.50	7.5	2.5
P0153.050-016-A4	M 5	16	3.7	9.2	5.5	2.50	7.5	2.5
P0153.050-020-A4	M 5	20	3.7	9.2	5.5	2.50	7.5	2.5
P0153.050-025-A4	M 5	25	3.7	9.2	5.5	2.50	7.5	2.5
P0153.050-030-A4	M 5	30	3.7	9.2	5.5	2.50	7.5	2.5
P0153.050-035-A4	M 5	35	3.7	9.2	5.5	2.50	7.5	2.5
P0153.050-040-A4	M 5	40	3.7	9.2	5.5	2.50	7.5	2.5
P0153.050-050-A4	M 5	50	3.7	9.2	5.5	2.50	7.5	2.5
P0153.050-060-A4	M 5	60	3.7	9.2	5.5	2.50	7.5	2.5
P0153.060-016-A4	M 6	16	4.2	11.0	6.5	3.00	8.0	3.0
P0153.060-020-A4	M 6	20	4.2	11.0	6.5	3.00	8.0	3.0
P0153.060-025-A4	M 6	25	4.2	11.0	6.5	3.00	8.0	3.0
P0153.060-030-A4	M 6	30	4.2	11.0	6.5	3.00	8.0	3.0
P0153.060-035-A4	M 6	35	4.2	11.0	6.5	3.00	8.0	3.0
P0153.060-040-A4	M 6	40	4.2	11.0	6.5	3.00	8.0	3.0
P0153.060-050-A4	M 6	50	4.2	11.0	6.5	3.00	8.0	3.0
P0153.060-060-A4	M 6	60	4.2	11.0	6.5	3.00	8.0	3.0
P0153.080-020-A4	M 8	20	6.0	15.0	8.5	4.10	10.0	4.0
P0153.080-025-A4	M 8	25	6.0	15.0	8.5	4.10	10.0	4.0
P0153.080-030-A4	M 8	30	6.0	15.0	8.5	4.10	10.0	4.0
P0153.080-040-A4	M 8	40	6.0	15.0	8.5	4.10	10.0	4.0
P0153.080-050-A4	M 8	50	6.0	15.0	8.5	4.10	10.0	4.0
P0153.080-060-A4	M 8	60	6.0	15.0	8.5	4.10	10.0	4.0

CAPTIVE SCREWS



P0153.TX



Material

Stainless steel (AISI 303, 1.4305).
Tensile strength 550 N/mm².
Proof stress min. 190 N/mm², austenitic stainless steel.

Technical Notes

Used to comply with the Machinery Directive 2006/42/EC. Generally to ISO 10642.

Often used with our captive washers (P0168) or retaining flanges (P0169 - for sheet metal applications). The use of our captive washers should be considered when fitted in panels with unthreaded holes.

Important Notes

Please note that these screws have a

reduced diameter shank and should not be tightened to the recommended torque for an equivalent machine screw of size d₁. To accommodate the slight undercut at the top of the shank, the torx drive is smaller than on a similar threaded machine screw.

Order No.	d ₁	l ₁ ±0.25	d ₂ ±0.12	d ₃ max.	d ₄ min.	h ₁ max.	l ₂ ±0.25	TX size
P0153.020-010-TX	M 2	10	1.2	3.8	2.5	1.20	3.5	TX-5
P0153.020-012-TX	M 2	12	1.2	3.8	2.5	1.20	3.5	TX-5
P0153.020-016-TX	M 2	16	1.2	3.8	2.5	1.20	3.5	TX-5
P0153.020-020-TX	M 2	20	1.2	3.8	2.5	1.20	3.5	TX-5
P0153.025-010-TX	M 2,5	10	1.7	4.7	2.8	1.80	3.7	TX-6
P0153.025-012-TX	M 2,5	12	1.7	4.7	2.8	1.80	3.7	TX-6
P0153.025-016-TX	M 2,5	16	1.7	4.7	2.8	1.80	3.7	TX-6
P0153.025-020-TX	M 2,5	20	1.7	4.7	2.8	1.80	3.7	TX-6
P0153.030-008-TX	M 3	8	2.0	5.6	3.5	1.65	4.5	TX-8
P0153.030-010-TX	M 3	10	2.0	5.6	3.5	1.65	4.5	TX-8
P0153.030-012-TX	M 3	12	2.0	5.6	3.5	1.65	4.5	TX-8
P0153.030-016-TX	M 3	16	2.0	5.6	3.5	1.65	4.5	TX-8
P0153.030-020-TX	M 3	20	2.0	5.6	3.5	1.65	4.5	TX-8
P0153.030-025-TX	M 3	25	2.0	5.6	3.5	1.65	4.5	TX-8
P0153.030-030-TX	M 3	30	2.0	5.6	3.5	1.65	4.5	TX-8
P0153.030-035-TX	M 3	35	2.0	5.6	3.5	1.65	4.5	TX-8
P0153.030-040-TX	M 3	40	2.0	5.6	3.5	1.65	4.5	TX-8
P0153.040-010-TX	M 4	10	2.8	7.5	4.5	2.20	6.0	TX-10
P0153.040-012-TX	M 4	12	2.8	7.5	4.5	2.20	6.0	TX-10
P0153.040-014-TX	M 4	14	2.8	7.5	4.5	2.20	6.0	TX-10
P0153.040-016-TX	M 4	16	2.8	7.5	4.5	2.20	6.0	TX-10
P0153.040-020-TX	M 4	20	2.8	7.5	4.5	2.20	6.0	TX-10
P0153.040-025-TX	M 4	25	2.8	7.5	4.5	2.20	6.0	TX-10
P0153.040-030-TX	M 4	30	2.8	7.5	4.5	2.20	6.0	TX-10
P0153.040-035-TX	M 4	35	2.8	7.5	4.5	2.20	6.0	TX-10
P0153.040-040-TX	M 4	40	2.8	7.5	4.5	2.20	6.0	TX-10
P0153.040-050-TX	M 4	50	2.8	7.5	4.5	2.20	6.0	TX-10
P0153.040-060-TX	M 4	60	2.8	7.5	4.5	2.20	6.0	TX-10
P0153.050-012-TX	M 5	12	3.7	9.2	5.5	2.50	7.5	TX-20



Captive Screws - Countersunk

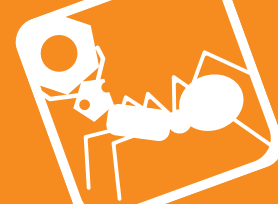
TX drive- 303 stainless



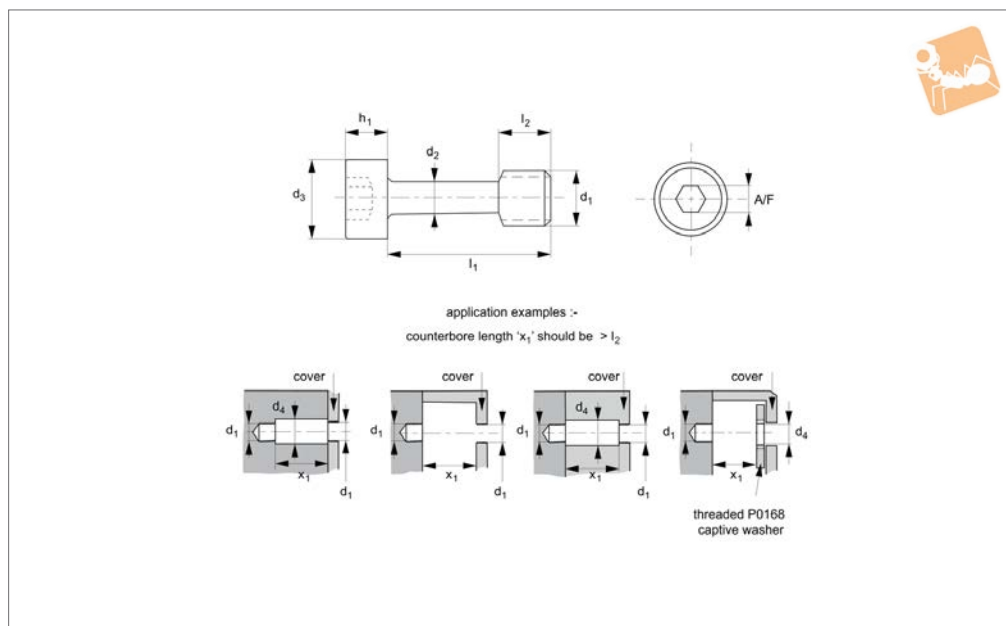
Captive Screws

Order No.	d ₁	l ₁ ±0.25	d ₂ ±0.12	d ₃ max.	d ₄ min.	h ₁ max.	l ₂ ±0.25	TX size
P0153.050-014-TX	M 5	14	3.7	9.2	5.5	2.50	7.5	TX-20
P0153.050-016-TX	M 5	16	3.7	9.2	5.5	2.50	7.5	TX-20
P0153.050-020-TX	M 5	20	3.7	9.2	5.5	2.50	7.5	TX-20
P0153.050-025-TX	M 5	25	3.7	9.2	5.5	2.50	7.5	TX-20
P0153.050-030-TX	M 5	30	3.7	9.2	5.5	2.50	7.5	TX-20
P0153.050-035-TX	M 5	35	3.7	9.2	5.5	2.50	7.5	TX-20
P0153.050-040-TX	M 5	40	3.7	9.2	5.5	2.50	7.5	TX-20
P0153.050-050-TX	M 5	50	3.7	9.2	5.5	2.50	7.5	TX-20
P0153.050-060-TX	M 5	60	3.7	9.2	5.5	2.50	7.5	TX-20
P0153.060-016-TX	M 6	16	4.2	11.0	6.5	3.00	8.0	TX-25
P0153.060-020-TX	M 6	20	4.2	11.0	6.5	3.00	8.0	TX-25
P0153.060-025-TX	M 6	25	4.2	11.0	6.5	3.00	8.0	TX-25
P0153.060-030-TX	M 6	30	4.2	11.0	6.5	3.00	8.0	TX-25
P0153.060-035-TX	M 6	35	4.2	11.0	6.5	3.00	8.0	TX-25
P0153.060-040-TX	M 6	40	4.2	11.0	6.5	3.00	8.0	TX-25
P0153.060-050-TX	M 6	50	4.2	11.0	6.5	3.00	8.0	TX-25
P0153.060-060-TX	M 6	60	4.2	11.0	6.5	3.00	8.0	TX-25
P0153.080-020-TX	M 8	20	6.0	15.0	8.5	4.10	10.0	TX-30
P0153.080-025-TX	M 8	25	6.0	15.0	8.5	4.10	10.0	TX-30
P0153.080-030-TX	M 8	30	6.0	15.0	8.5	4.10	10.0	TX-30
P0153.080-040-TX	M 8	40	6.0	15.0	8.5	4.10	10.0	TX-30
P0153.080-050-TX	M 8	50	6.0	15.0	8.5	4.10	10.0	TX-30
P0153.080-060-TX	M 8	60	6.0	15.0	8.5	4.10	10.0	TX-30

CAPTIVE SCREWS



P0154.A2



Material

Stainless steel (AISI 303, 1.4305). Tensile strength 550 N/mm². Proof stress min. 190 N/mm², austenitic stainless steel. Also available on request in steel (anodised, black oxide or zinc plated), stainless steel (AISI 316, 1.440), brass, aluminium etc.

Technical Notes

Used to comply with the Machinery Direc-

tive 2006/42/EC. Generally to ISO 4762.

Often used with our captive washers (P0168) or retaining flanges (P0169.A2 - for sheet metal applications). The use of our captive washers should be considered when fitted in panels with unthreaded holes.

Tips

TX drive style also available.

Important Notes

Please note that these screws have a reduced diameter shank and should not be tightened to the recommended torque for an equivalent machine screw of size d₁.

Order No.	d ₁	l ₁ ±0.25	d ₂ ±0.12	d ₃ max.	d ₄ min.	h ₁ max.	l ₂ ±0.25	A/F
P0154.025-005-A2	M 2,5	5	1.8	4.5	2.8	2.5	3.0	2
P0154.025-008-A2	M 2,5	8	1.8	4.5	2.8	2.5	3.0	2
P0154.025-010-A2	M 2,5	10	1.8	4.5	2.8	2.5	3.0	2
P0154.025-012-A2	M 2,5	12	1.8	4.5	2.8	2.5	3.0	2
P0154.030-008-A2	M 3	8	2.0	5.5	3.5	3.0	4.5	2.5
P0154.030-010-A2	M 3	10	2.0	5.5	3.5	3.0	4.5	2.5
P0154.030-012-A2	M 3	12	2.0	5.5	3.5	3.0	4.5	2.5
P0154.030-016-A2	M 3	16	2.0	5.5	3.5	3.0	4.5	2.5
P0154.030-020-A2	M 3	20	2.0	5.5	3.5	3.0	4.5	2.5
P0154.030-025-A2	M 3	25	2.0	5.5	3.5	3.0	4.5	2.5
P0154.030-030-A2	M 3	30	2.0	5.5	3.5	3.0	4.5	2.5
P0154.040-010-A2	M 4	10	2.8	7.0	4.5	4.0	6.0	3
P0154.040-012-A2	M 4	12	2.8	7.0	4.5	4.0	6.0	3
P0154.040-016-A2	M 4	16	2.8	7.0	4.5	4.0	6.0	3
P0154.040-020-A2	M 4	20	2.8	7.0	4.5	4.0	6.0	3
P0154.040-025-A2	M 4	25	2.8	7.0	4.5	4.0	6.0	3
P0154.040-030-A2	M 4	30	2.8	7.0	4.5	4.0	6.0	3
P0154.040-035-A2	M 4	35	2.8	7.0	4.5	4.0	6.0	3
P0154.040-040-A2	M 4	40	2.8	7.0	4.5	4.0	6.0	3
P0154.040-050-A2	M 4	50	2.8	7.0	4.5	4.0	6.0	3
P0154.050-012-A2	M 5	12	3.7	8.5	5.5	5.0	7.5	4
P0154.050-016-A2	M 5	16	3.7	8.5	5.5	5.0	7.5	4
P0154.050-020-A2	M 5	20	3.7	8.5	5.5	5.0	7.5	4
P0154.050-025-A2	M 5	25	3.7	8.5	5.5	5.0	7.5	4
P0154.050-030-A2	M 5	30	3.7	8.5	5.5	5.0	7.5	4
P0154.050-035-A2	M 5	35	3.7	8.5	5.5	5.0	7.5	4



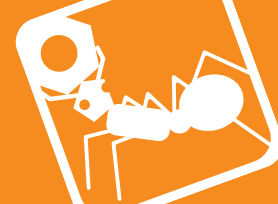
Captive Screws - Cap Head

hex drive - 303 stainless

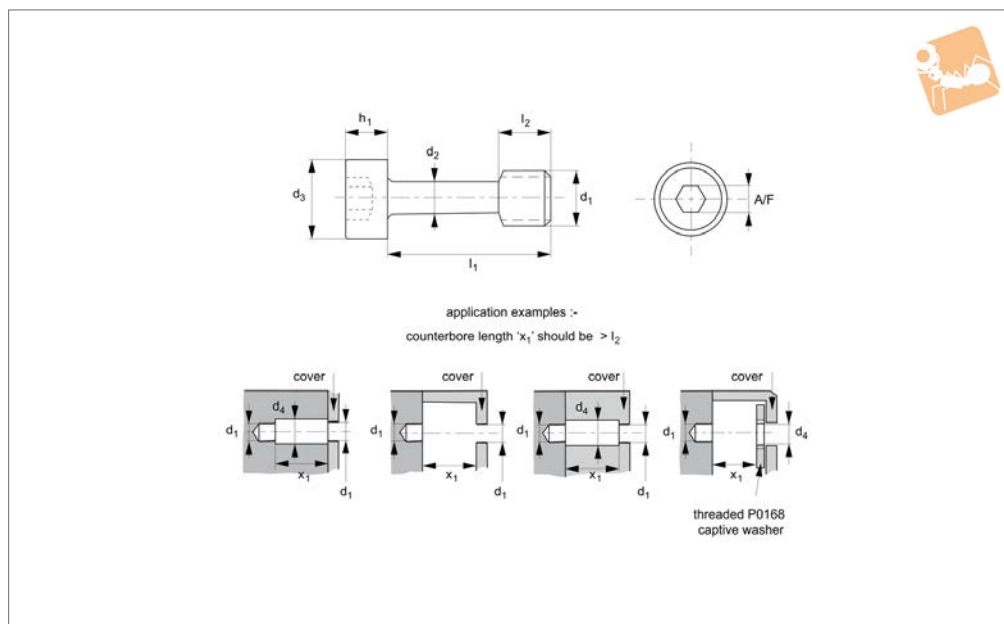


Order No.	d ₁	l ₁ ±0.25	d ₂ ±0.12	d ₃ max.	d ₄ min.	h ₁ max.	l ₂ ±0.25	A/F
P0154.050-040-A2	M 5	40	3.7	8.5	5.5	5.0	7.5	4
P0154.050-050-A2	M 5	50	3.7	8.5	5.5	5.0	7.5	4
P0154.060-012-A2	M 6	12	4.2	10.0	6.5	6.0	7.5	5
P0154.060-016-A2	M 6	16	4.2	10.0	6.5	6.0	7.5	5
P0154.060-020-A2	M 6	20	4.2	10.0	6.5	6.0	7.5	5
P0154.060-025-A2	M 6	25	4.2	10.0	6.5	6.0	7.5	5
P0154.060-030-A2	M 6	30	4.2	10.0	6.5	6.0	7.5	5
P0154.060-035-A2	M 6	35	4.2	10.0	6.5	6.0	7.5	5
P0154.060-040-A2	M 6	40	4.2	10.0	6.5	6.0	7.5	5
P0154.060-050-A2	M 6	50	4.2	10.0	6.5	6.0	7.5	5
P0154.060-060-A2	M 6	60	4.2	10.0	6.5	6.0	7.5	5
P0154.060-080-A2	M 6	80	4.2	10.0	6.5	6.0	7.5	5
P0154.080-016-A2	M 8	16	6.0	13.0	8.5	8.0	10.0	6
P0154.080-020-A2	M 8	20	6.0	13.0	8.5	8.0	10.0	6
P0154.080-025-A2	M 8	25	6.0	13.0	8.5	8.0	10.0	6
P0154.080-030-A2	M 8	30	6.0	13.0	8.5	8.0	10.0	6
P0154.080-035-A2	M 8	35	6.0	13.0	8.5	8.0	10.0	6
P0154.080-040-A2	M 8	40	6.0	13.0	8.5	8.0	10.0	6
P0154.080-045-A2	M 8	45	6.0	13.0	8.5	8.0	10.0	6
P0154.080-050-A2	M 8	50	6.0	13.0	8.5	8.0	10.0	6
P0154.080-060-A2	M 8	60	6.0	13.0	8.5	8.0	10.0	6
P0154.080-080-A2	M 8	80	6.0	13.0	8.5	8.0	10.0	6
P0154.100-020-A2	M10	20	7.5	16.0	10.6	10.0	12.5	8
P0154.100-025-A2	M10	25	7.5	16.0	10.6	10.0	12.5	8
P0154.100-030-A2	M10	30	7.5	16.0	10.6	10.0	12.5	8
P0154.100-035-A2	M10	35	7.5	16.0	10.6	10.0	12.5	8
P0154.100-040-A2	M10	40	7.5	16.0	10.6	10.0	12.5	8
P0154.100-045-A2	M10	45	7.5	16.0	10.6	10.0	12.5	8
P0154.100-050-A2	M10	50	7.5	16.0	10.6	10.0	12.5	8
P0154.100-060-A2	M10	60	7.5	16.0	10.6	10.0	12.5	8
P0154.100-080-A2	M10	80	7.5	16.0	10.6	10.0	12.5	8
P0154.120-025-A2	M12	25	8.0	18.0	13.2	12.0	15.0	10
P0154.120-030-A2	M12	30	8.0	18.0	13.2	12.0	15.0	10
P0154.120-035-A2	M12	35	8.0	18.0	13.2	12.0	15.0	10
P0154.120-040-A2	M12	40	8.0	18.0	13.2	12.0	15.0	10
P0154.120-045-A2	M12	45	8.0	18.0	13.2	12.0	15.0	10
P0154.120-050-A2	M12	50	8.0	18.0	13.2	12.0	15.0	10
P0154.120-060-A2	M12	60	8.0	18.0	13.2	12.0	15.0	10
P0154.120-080-A2	M12	80	8.0	18.0	13.2	12.0	15.0	10
P0154.160-030-A2	M16	30	12.0	24.0	17.5	16.0	20.0	14
P0154.160-035-A2	M16	35	12.0	24.0	17.5	16.0	20.0	14
P0154.160-040-A2	M16	40	12.0	24.0	17.5	16.0	20.0	14
P0154.160-045-A2	M16	45	12.0	24.0	17.5	16.0	20.0	14
P0154.160-050-A2	M16	50	12.0	24.0	17.5	16.0	20.0	14
P0154.160-060-A2	M16	60	12.0	24.0	17.5	16.0	20.0	14
P0154.160-080-A2	M16	80	12.0	24.0	17.5	16.0	20.0	14
P0154.160-100-A2	M16	100	12.0	24.0	17.5	16.0	20.0	14
P0154.200-040-A2	M20	40	16.0	30.0	22.0	20.0	25.0	19
P0154.200-060-A2	M20	60	16.0	30.0	22.0	20.0	25.0	19
P0154.200-080-A2	M20	80	16.0	30.0	22.0	20.0	25.0	19
P0154.200-100-A2	M20	100	16.0	30.0	22.0	20.0	25.0	19
P0154.200-120-A2	M20	120	16.0	30.0	22.0	20.0	25.0	19

CAPTIVE SCREWS



P0154.A4



Material

Stainless steel (AISI 316, 1.440).
Tensile strength 480 N/mm². Proof stress min. 200 N/mm², austenitic stainless steel.
Also available on request in steel (anodised, black oxide or zinc plated), stainless steel (AISI 303, 1.4305), brass, aluminium etc.

Technical Notes

Used to comply with the Machinery Direc-

tive 2006/42/EC. Generally to ISO 4762.
Often used with our captive washers (P0168) or retaining flanges (P0169 - for sheet metal applications). The use of our captive washers (P0168) should be considered when fitted in panels with unthreaded holes.

Tips

For TX drive style, see P0156.

Important Notes

Please note that these screws have a reduced diameter shank and should not be tightened to the recommended torque for an equivalent machine screw of size d₁.

Order No.	d ₁	l ₁ ±0.25	d ₂ ±0.12	d ₃ max.	d ₄ min.	h ₁ max.	l ₂ ±0.25	A/F
P0154.025-005-A4	M 2,5	5	1.8	4.5	2.8	2.5	3.0	2
P0154.025-008-A4	M 2,5	8	1.8	4.5	2.8	2.5	3.0	2
P0154.025-010-A4	M 2,5	10	1.8	4.5	2.8	2.5	3.0	2
P0154.025-012-A4	M 2,5	12	1.8	4.5	2.8	2.5	3.0	2
P0154.030-008-A4	M 3	8	2.0	5.5	3.5	3.0	4.5	2.5
P0154.030-010-A4	M 3	10	2.0	5.5	3.5	3.0	4.5	2.5
P0154.030-012-A4	M 3	12	2.0	5.5	3.5	3.0	4.5	2.5
P0154.030-016-A4	M 3	16	2.0	5.5	3.5	3.0	4.5	2.5
P0154.030-020-A4	M 3	20	2.0	5.5	3.5	3.0	4.5	2.5
P0154.030-025-A4	M 3	25	2.0	5.5	3.5	3.0	4.5	2.5
P0154.030-030-A4	M 3	30	2.0	5.5	3.5	3.0	4.5	2.5
P0154.040-010-A4	M 4	10	2.8	7.0	4.5	4.0	6.0	3
P0154.040-012-A4	M 4	12	2.8	7.0	4.5	4.0	6.0	3
P0154.040-016-A4	M 4	16	2.8	7.0	4.5	4.0	6.0	3
P0154.040-020-A4	M 4	20	2.8	7.0	4.5	4.0	6.0	3
P0154.040-025-A4	M 4	25	2.8	7.0	4.5	4.0	6.0	3
P0154.040-030-A4	M 4	30	2.8	7.0	4.5	4.0	6.0	3
P0154.040-035-A4	M 4	35	2.8	7.0	4.5	4.0	6.0	3
P0154.040-040-A4	M 4	40	2.8	7.0	4.5	4.0	6.0	3
P0154.040-050-A4	M 4	50	2.8	7.0	4.5	4.0	6.0	3
P0154.050-012-A4	M 5	12	3.7	8.5	5.5	5.0	7.5	4
P0154.050-016-A4	M 5	16	3.7	8.5	5.5	5.0	7.5	4
P0154.050-020-A4	M 5	20	3.7	8.5	5.5	5.0	7.5	4
P0154.050-025-A4	M 5	25	3.7	8.5	5.5	5.0	7.5	4
P0154.050-030-A4	M 5	30	3.7	8.5	5.5	5.0	7.5	4
P0154.050-035-A4	M 5	35	3.7	8.5	5.5	5.0	7.5	4



Captive Screws - Cap Head

hex drive - 316 stainless

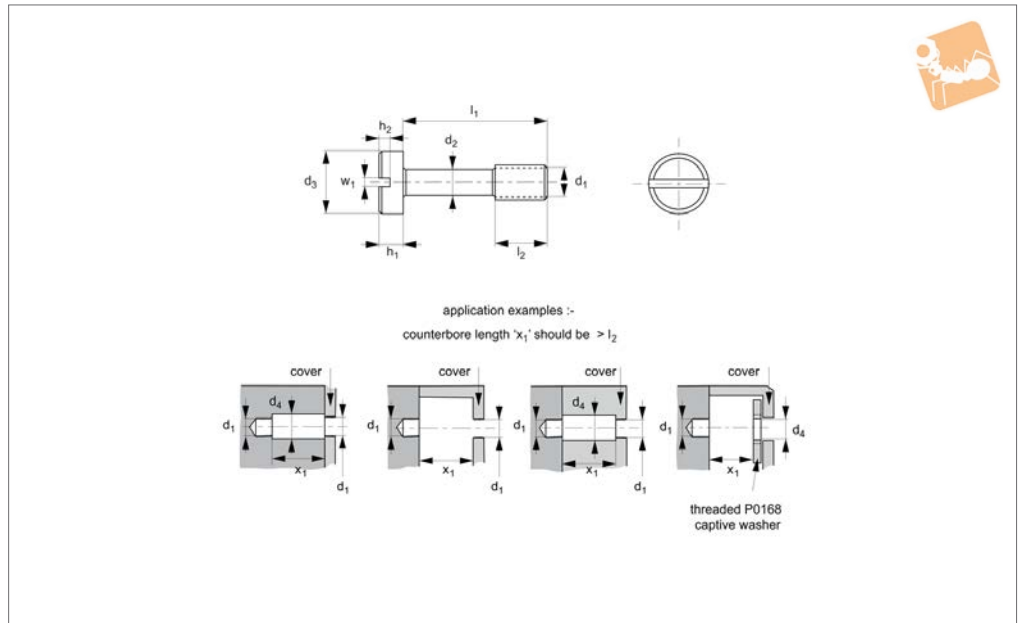


Order No.	d ₁	l ₁ ±0.25	d ₂ ±0.12	d ₃ max.	d ₄ min.	h ₁ max.	l ₂ ±0.25	A/F
P0154.050-040-A4	M 5	40	3.7	8.5	5.5	5.0	7.5	4
P0154.050-050-A4	M 5	50	3.7	8.5	5.5	5.0	7.5	4
P0154.060-012-A4	M 6	12	4.2	10.0	6.5	6.0	7.5	5
P0154.060-016-A4	M 6	16	4.2	10.0	6.5	6.0	7.5	5
P0154.060-020-A4	M 6	20	4.2	10.0	6.5	6.0	7.5	5
P0154.060-025-A4	M 6	25	4.2	10.0	6.5	6.0	7.5	5
P0154.060-030-A4	M 6	30	4.2	10.0	6.5	6.0	7.5	5
P0154.060-035-A4	M 6	35	4.2	10.0	6.5	6.0	7.5	5
P0154.060-040-A4	M 6	40	4.2	10.0	6.5	6.0	7.5	5
P0154.060-050-A4	M 6	50	4.2	10.0	6.5	6.0	7.5	5
P0154.060-060-A4	M 6	60	4.2	10.0	6.5	6.0	7.5	5
P0154.060-080-A4	M 6	80	4.2	10.0	6.5	6.0	7.5	5
P0154.080-016-A4	M 8	16	6.0	13.0	8.5	8.0	10.0	6
P0154.080-020-A4	M 8	20	6.0	13.0	8.5	8.0	10.0	6
P0154.080-025-A4	M 8	25	6.0	13.0	8.5	8.0	10.0	6
P0154.080-030-A4	M 8	30	6.0	13.0	8.5	8.0	10.0	6
P0154.080-035-A4	M 8	35	6.0	13.0	8.5	8.0	10.0	6
P0154.080-040-A4	M 8	40	6.0	13.0	8.5	8.0	10.0	6
P0154.080-045-A4	M 8	45	6.0	13.0	8.5	8.0	10.0	6
P0154.080-050-A4	M 8	50	6.0	13.0	8.5	8.0	10.0	6
P0154.080-060-A4	M 8	60	6.0	13.0	8.5	8.0	10.0	6
P0154.080-080-A4	M 8	80	6.0	13.0	8.5	8.0	10.0	6
P0154.100-020-A4	M10	20	7.5	16.0	10.6	10.0	12.5	8
P0154.100-025-A4	M10	25	7.5	16.0	10.6	10.0	12.5	8
P0154.100-030-A4	M10	30	7.5	16.0	10.6	10.0	12.5	8
P0154.100-035-A4	M10	35	7.5	16.0	10.6	10.0	12.5	8
P0154.100-040-A4	M10	40	7.5	16.0	10.6	10.0	12.5	8
P0154.100-045-A4	M10	45	7.5	16.0	10.6	10.0	12.5	8
P0154.100-050-A4	M10	50	7.5	16.0	10.6	10.0	12.5	8
P0154.100-060-A4	M10	60	7.5	16.0	10.6	10.0	12.5	8
P0154.100-080-A4	M10	80	7.5	16.0	10.6	10.0	12.5	8
P0154.120-025-A4	M12	25	8.0	18.0	13.2	12.0	15.0	10
P0154.120-030-A4	M12	30	8.0	18.0	13.2	12.0	15.0	10
P0154.120-035-A4	M12	35	8.0	18.0	13.2	12.0	15.0	10
P0154.120-040-A4	M12	40	8.0	18.0	13.2	12.0	15.0	10
P0154.120-045-A4	M12	45	8.0	18.0	13.2	12.0	15.0	10
P0154.120-050-A4	M12	50	8.0	18.0	13.2	12.0	15.0	10
P0154.120-060-A4	M12	60	8.0	18.0	13.2	12.0	15.0	10
P0154.120-080-A4	M12	80	8.0	18.0	13.2	12.0	15.0	10
P0154.160-030-A4	M16	30	12.0	24.0	17.5	16.0	20.0	14
P0154.160-035-A4	M16	35	12.0	24.0	17.5	16.0	20.0	14
P0154.160-040-A4	M16	40	12.0	24.0	17.5	16.0	20.0	14
P0154.160-045-A4	M16	45	12.0	24.0	17.5	16.0	20.0	14
P0154.160-050-A4	M16	50	12.0	24.0	17.5	16.0	20.0	14
P0154.160-060-A4	M16	60	12.0	24.0	17.5	16.0	20.0	14
P0154.160-080-A4	M16	80	12.0	24.0	17.5	16.0	20.0	14
P0154.160-100-A4	M16	100	12.0	24.0	17.5	16.0	20.0	14
P0154.200-040-A4	M20	40	16.0	30.0	22.0	20.0	25.0	19
P0154.200-060-A4	M20	60	16.0	30.0	22.0	20.0	25.0	19
P0154.200-080-A4	M20	80	16.0	30.0	22.0	20.0	25.0	19
P0154.200-100-A4	M20	100	16.0	30.0	22.0	20.0	25.0	19
P0154.200-120-A4	M20	120	16.0	30.0	22.0	20.0	25.0	19

CAPTIVE SCREWS



P0155.A2



Material

Stainless steel (AISI 303, 1.4305). Tensile strength 550 N/mm². Proof stress min. 190 N/mm², austenitic stainless steel. Also available on request in steel (anodised, black oxide or zinc plated), stainless steel (AISI 316, 1.440), brass, aluminium etc.

Technical Notes

Used to comply with the Machinery Direc-

tive 2006/42/EC. Generally to ISO 1207. Often used with our captive washers (P0168) or retaining flanges (P0169 - for sheet metal applications). The use of our captive washers should be considered when fitted in panels with unthreaded holes.

Tips

Other head drive styles - add suffix:
-TX for Torx (hexalobular).

-PZ for Pozidrive.

-SE for snake-eye security.

Important Notes

Please note that these screws have a reduced diameter shank and should not be tightened to the recommended torque for an equivalent machine screw of size d₁.

Order No.	d ₁	l ₁ ±0.25	d ₂ ±0.12	d ₃	d ₄ min.	h ₁	h ₂	l ₂ ±0.25	w ₁
P0155.020-010-A2	M 2	10	1.2	3.8	2.5	1.3	0.85	3.0	0.5
P0155.020-012-A2	M 2	12	1.2	3.8	2.5	1.3	0.85	3.0	0.5
P0155.020-016-A2	M 2	16	1.2	3.8	2.5	1.3	0.85	3.0	0.5
P0155.020-020-A2	M 2	20	1.2	3.8	2.5	1.3	0.85	3.0	0.5
P0155.025-010-A2	M 2,5	10	1.7	4.5	2.8	1.6	1.00	3.7	0.6
P0155.025-012-A2	M 2,5	12	1.7	4.5	2.8	1.6	1.00	3.7	0.6
P0155.025-016-A2	M 2,5	16	1.7	4.5	2.8	1.6	1.00	3.7	0.6
P0155.025-020-A2	M 2,5	20	1.7	4.5	2.8	1.6	1.00	3.7	0.6
P0155.025-025-A2	M 2,5	25	1.7	4.5	2.8	1.6	1.00	3.7	0.6
P0155.025-030-A2	M 2,5	30	1.7	4.5	2.8	1.6	1.00	3.7	0.6
P0155.030-006-A2	M 3	6	2.0	5.5	3.5	2.0	1.30	4.5	0.8
P0155.030-008-A2	M 3	8	2.0	5.5	3.5	2.0	1.30	4.5	0.8
P0155.030-010-A2	M 3	10	2.0	5.5	3.5	2.0	1.30	4.5	0.8
P0155.030-011-A2	M 3	11	2.0	5.5	3.5	2.0	1.30	4.5	0.8
P0155.030-013-A2	M 3	13	2.0	5.5	3.5	2.0	1.30	4.5	0.8
P0155.030-016-A2	M 3	16	2.0	5.5	3.5	2.0	1.30	4.5	0.8
P0155.030-018-A2	M 3	18	2.0	5.5	3.5	2.0	1.30	4.5	0.8
P0155.030-020-A2	M 3	20	2.0	5.5	3.5	2.0	1.30	4.5	0.8
P0155.030-025-A2	M 3	25	2.0	5.5	3.5	2.0	1.30	4.5	0.8
P0155.030-030-A2	M 3	30	2.0	5.5	3.5	2.0	1.30	4.5	0.8
P0155.030-040-A2	M 3	40	2.0	5.5	3.5	2.0	1.30	4.5	0.8
P0155.035-010-A2	M3,5	10	2.3	6.0	3.8	2.4	1.4	5.2	1.0
P0155.035-016-A2	M3,5	16	2.3	6.0	3.8	2.4	1.4	5.2	1.0
P0155.035-020-A2	M3,5	20	2.3	6.0	3.8	2.4	1.4	5.2	1.0
P0155.035-025-A2	M3,5	25	2.3	6.0	3.8	2.4	1.4	5.2	1.0
P0155.035-030-A2	M3,5	30	2.3	6.0	3.8	2.4	1.4	5.2	1.0



Captive Screws - Cheese Head

slot drive - 303 stainless



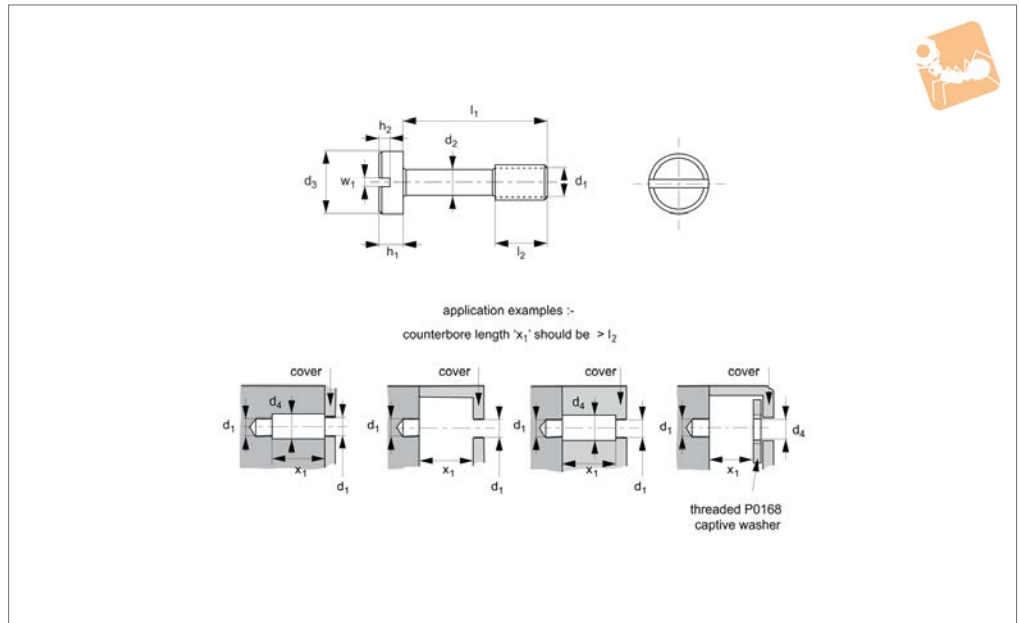
Captive Screws

Order No.	d ₁	l ₁ ±0.25	d ₂ ±0.12	d ₃	d ₄ min.	h ₁	h ₂	l ₂ ±0.25	w ₁
P0155.035-040-A2	M3,5	40	2.3	6.0	3.8	2.4	1.4	5.2	1.0
P0155.040-010-A2	M 4	10	2.8	7.0	4.5	2.6	1.6	6.0	1.2
P0155.040-012-A2	M 4	12	2.8	7.0	4.5	2.6	1.6	6.0	1.2
P0155.040-016-A2	M 4	16	2.8	7.0	4.5	2.6	1.6	6.0	1.2
P0155.040-018-A2	M 4	18	2.8	7.0	4.5	2.6	1.6	6.0	1.2
P0155.040-019-A2	M 4	19	2.8	7.0	4.5	2.6	1.6	6.0	1.2
P0155.040-020-A2	M 4	20	2.8	7.0	4.5	2.6	1.6	6.0	1.2
P0155.040-025-A2	M 4	25	2.8	7.0	4.5	2.6	1.6	6.0	1.2
P0155.040-030-A2	M 4	30	2.8	7.0	4.5	2.6	1.6	6.0	1.2
P0155.040-040-A2	M 4	40	2.8	7.0	4.5	2.6	1.6	6.0	1.2
P0155.040-050-A2	M 4	50	2.8	7.0	4.5	2.6	1.6	6.0	1.2
P0155.040-060-A2	M 4	60	2.8	7.0	4.5	2.6	1.6	6.0	1.2
P0155.050-010-A2	M 5	10	3.7	8.5	5.5	3.3	2.0	7.5	1.2
P0155.050-012-A2	M 5	12	3.7	8.5	5.5	3.3	2.0	7.5	1.2
P0155.050-016-A2	M 5	16	3.7	8.5	5.5	3.3	2.0	7.5	1.2
P0155.050-018-A2	M 5	18	3.7	8.5	5.5	3.3	2.0	7.5	1.2
P0155.050-020-A2	M 5	20	3.7	8.5	5.5	3.3	2.0	7.5	1.2
P0155.050-022-A2	M 5	22	3.7	8.5	5.5	3.3	2.0	7.5	1.2
P0155.050-025-A2	M 5	25	3.7	8.5	5.5	3.3	2.0	7.5	1.2
P0155.050-030-A2	M 5	30	3.7	8.5	5.5	3.3	2.0	7.5	1.2
P0155.050-040-A2	M 5	40	3.7	8.5	5.5	3.3	2.0	7.5	1.2
P0155.050-050-A2	M 5	50	3.7	8.5	5.5	3.3	2.0	7.5	1.2
P0155.050-060-A2	M 5	60	3.7	8.5	5.5	3.3	2.0	7.5	1.2
P0155.050-080-A2	M 5	80	3.7	8.5	5.5	3.3	2.0	7.5	1.2
P0155.060-010-A2	M 6	10	4.2	10.0	6.5	3.9	2.3	7.5	1.6
P0155.060-012-A2	M 6	12	4.2	10.0	6.5	3.9	2.3	7.5	1.6
P0155.060-016-A2	M 6	16	4.2	10.0	6.5	3.9	2.3	7.5	1.6
P0155.060-020-A2	M 6	20	4.2	10.0	6.5	3.9	2.3	7.5	1.6
P0155.060-025-A2	M 6	25	4.2	10.0	6.5	3.9	2.3	7.5	1.6
P0155.060-030-A2	M 6	30	4.2	10.0	6.5	3.9	2.3	7.5	1.6
P0155.060-040-A2	M 6	40	4.2	10.0	6.5	3.9	2.3	7.5	1.6
P0155.060-050-A2	M 6	50	4.2	10.0	6.5	3.9	2.3	7.5	1.6
P0155.060-060-A2	M 6	60	4.2	10.0	6.5	3.9	2.3	7.5	1.6
P0155.060-080-A2	M 6	80	4.2	10.0	6.5	3.9	2.3	7.5	1.6

CAPTIVE SCREWS



P0155.A4



Material

Stainless steel (AISI 316, 1.440).
Tensile strength 480 N/mm². Proof stress min. 200 N/mm², austenitic stainless steel.
Also available on request in steel (anodised, black oxide or zinc plated), stainless steel (AISI 303, 1.4305), brass, aluminium etc.

Technical Notes

Used to comply with the Machinery Direc-

tive 2006/42/EC. Generally to ISO 1207.
Often used with our captive washers (P0168) or retaining flanges (P0169 - for sheet metal applications). The use of our captive washers should be considered when fitted in panels with unthreaded holes.

Tips

Other head drive styles - add suffix:
-TX for Torx (hexalobular).

-PZ for Pozidrive.

-SE for snake-eye security.

Important Notes

Please note that these screws have a reduced diameter shank and should not be tightened to the recommended torque for an equivalent machine screw of size d₁.

Order No.	d ₁	l ₁ ±0.25	d ₂ ±0.12	d ₃	d ₄ min.	h ₁	h ₂	l ₂ ±0.25	w ₁
P0155.020-010-A4	M 2	10	1.2	3.8	2.5	1.3	0.85	3.0	0.5
P0155.020-012-A4	M 2	12	1.2	3.8	2.5	1.3	0.85	3.0	0.5
P0155.020-016-A4	M 2	16	1.2	3.8	2.5	1.3	0.85	3.0	0.5
P0155.020-020-A4	M 2	20	1.2	3.8	2.5	1.3	0.85	3.0	0.5
P0155.025-010-A4	M 2,5	10	1.7	4.5	2.8	1.6	1.00	3.7	0.6
P0155.025-012-A4	M 2,5	12	1.7	4.5	2.8	1.6	1.00	3.7	0.6
P0155.025-016-A4	M 2,5	16	1.7	4.5	2.8	1.6	1.00	3.7	0.6
P0155.025-020-A4	M 2,5	20	1.7	4.5	2.8	1.6	1.00	3.7	0.6
P0155.025-025-A4	M 2,5	25	1.7	4.5	2.8	1.6	1.00	3.7	0.6
P0155.025-030-A4	M 2,5	30	1.7	4.5	2.8	1.6	1.00	3.7	0.6
P0155.030-006-A4	M 3	6	2.0	5.5	3.5	2.0	1.30	4.5	0.8
P0155.030-008-A4	M 3	8	2.0	5.5	3.5	2.0	1.30	4.5	0.8
P0155.030-010-A4	M 3	10	2.0	5.5	3.5	2.0	1.30	4.5	0.8
P0155.030-011-A4	M 3	11	2.0	5.5	3.5	2.0	1.30	4.5	0.8
P0155.030-013-A4	M 3	13	2.0	5.5	3.5	2.0	1.30	4.5	0.8
P0155.030-016-A4	M 3	16	2.0	5.5	3.5	2.0	1.30	4.5	0.8
P0155.030-018-A4	M 3	18	2.0	5.5	3.5	2.0	1.30	4.5	0.8
P0155.030-020-A4	M 3	20	2.0	5.5	3.5	2.0	1.30	4.5	0.8
P0155.030-025-A4	M 3	25	2.0	5.5	3.5	2.0	1.30	4.5	0.8
P0155.030-030-A4	M 3	30	2.0	5.5	3.5	2.0	1.30	4.5	0.8
P0155.030-040-A4	M 3	40	2.0	5.5	3.5	2.0	1.30	4.5	0.8
P0155.035-010-A4	M3,5	10	2.3	6.0	3.8	2.4	1.4	5.2	1.0
P0155.035-016-A4	M3,5	16	2.3	6.0	3.8	2.4	1.4	5.2	1.0
P0155.035-020-A4	M3,5	20	2.3	6.0	3.8	2.4	1.4	5.2	1.0
P0155.035-025-A4	M3,5	25	2.3	6.0	3.8	2.4	1.4	5.2	1.0
P0155.035-030-A4	M3,5	30	2.3	6.0	3.8	2.4	1.4	5.2	1.0



Captive Screws - Cheese Head

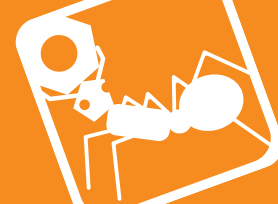
slot drive - 316 stainless



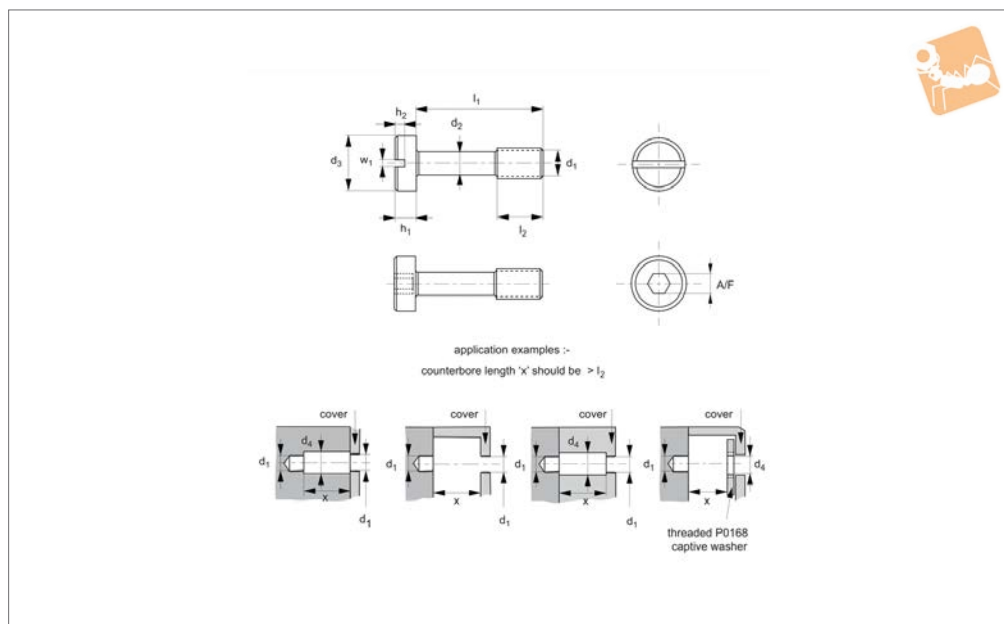
Captive Screws

Order No.	d ₁	l ₁ ±0.25	d ₂ ±0.12	d ₃	d ₄ min.	h ₁	h ₂	l ₂ ±0.25	w ₁
P0155.035-040-A4	M3,5	40	2.3	6.0	3.8	2.4	1.4	5.2	1.0
P0155.040-010-A4	M 4	10	2.8	7.0	4.5	2.6	1.6	6.0	1.2
P0155.040-012-A4	M 4	12	2.8	7.0	4.5	2.6	1.6	6.0	1.2
P0155.040-016-A4	M 4	16	2.8	7.0	4.5	2.6	1.6	6.0	1.2
P0155.040-018-A4	M 4	18	2.8	7.0	4.5	2.6	1.6	6.0	1.2
P0155.040-019-A4	M 4	19	2.8	7.0	4.5	2.6	1.6	6.0	1.2
P0155.040-020-A4	M 4	20	2.8	7.0	4.5	2.6	1.6	6.0	1.2
P0155.040-025-A4	M 4	25	2.8	7.0	4.5	2.6	1.6	6.0	1.2
P0155.040-030-A4	M 4	30	2.8	7.0	4.5	2.6	1.6	6.0	1.2
P0155.040-040-A4	M 4	40	2.8	7.0	4.5	2.6	1.6	6.0	1.2
P0155.040-050-A4	M 4	50	2.8	7.0	4.5	2.6	1.6	6.0	1.2
P0155.040-060-A4	M 4	60	2.8	7.0	4.5	2.6	1.6	6.0	1.2
P0155.050-010-A4	M 5	10	3.7	8.5	5.5	3.3	2.0	7.5	1.2
P0155.050-012-A4	M 5	12	3.7	8.5	5.5	3.3	2.0	7.5	1.2
P0155.050-016-A4	M 5	16	3.7	8.5	5.5	3.3	2.0	7.5	1.2
P0155.050-018-A4	M 5	18	3.7	8.5	5.5	3.3	2.0	7.5	1.2
P0155.050-020-A4	M 5	20	3.7	8.5	5.5	3.3	2.0	7.5	1.2
P0155.050-022-A4	M 5	22	3.7	8.5	5.5	3.3	2.0	7.5	1.2
P0155.050-025-A4	M 5	25	3.7	8.5	5.5	3.3	2.0	7.5	1.2
P0155.050-030-A4	M 5	30	3.7	8.5	5.5	3.3	2.0	7.5	1.2
P0155.050-040-A4	M 5	40	3.7	8.5	5.5	3.3	2.0	7.5	1.2
P0155.050-050-A4	M 5	50	3.7	8.5	5.5	3.3	2.0	7.5	1.2
P0155.050-060-A4	M 5	60	3.7	8.5	5.5	3.3	2.0	7.5	1.2
P0155.050-080-A4	M 5	80	3.7	8.5	5.5	3.3	2.0	7.5	1.2
P0155.060-010-A4	M 6	10	4.2	10.0	6.5	3.9	2.3	7.5	1.6
P0155.060-012-A4	M 6	12	4.2	10.0	6.5	3.9	2.3	7.5	1.6
P0155.060-016-A4	M 6	16	4.2	10.0	6.5	3.9	2.3	7.5	1.6
P0155.060-020-A4	M 6	20	4.2	10.0	6.5	3.9	2.3	7.5	1.6
P0155.060-025-A4	M 6	25	4.2	10.0	6.5	3.9	2.3	7.5	1.6
P0155.060-030-A4	M 6	30	4.2	10.0	6.5	3.9	2.3	7.5	1.6
P0155.060-040-A4	M 6	40	4.2	10.0	6.5	3.9	2.3	7.5	1.6
P0155.060-050-A4	M 6	50	4.2	10.0	6.5	3.9	2.3	7.5	1.6
P0155.060-060-A4	M 6	60	4.2	10.0	6.5	3.9	2.3	7.5	1.6
P0155.060-080-A4	M 6	80	4.2	10.0	6.5	3.9	2.3	7.5	1.6

CAPTIVE SCREWS



P0155.i.A2



Material

Stainless steel (AISI 303, 1.4305). Tensile strength 550 N/mm².

Also available on request in steel (anodised, black oxide or zinc plated), stainless steel (AISI 316, 1.440), brass, aluminium etc.

Technical Notes

Used to comply with the Machinery Direc-

tive 2006/42/EC. Generally to ISO 1207. Often used with our captive washers (P0168) or retaining flanges (P0169 - for sheet metal applications). The use of our captive washers should be considered when fitted in panels with unthreaded holes.

Tips

Other head drive styles - add suffix:

-TX for Torx (hexalobular).

-PZ for Pozidrive.

-SE for snake-eye security.

All dimensions are in inches.

Important Notes

Please note that these screws have a reduced diameter shank and should not be tightened to the recommended torque for an equivalent machine screw of size d₁.

Order No.	Type	d ₁	l ₁	d ₂	d ₃	d ₄ min.	h ₁	l ₂	A/F
P0155.I04-07-SA2	Slotted	#4- 40	0.281	0.072	1/4	2.5	1/8	0.187	-
P0155.I04-08-SA2	Slotted	#4- 40	0.343	0.072	1/4	2.5	1/8	0.187	-
P0155.I06-07-SA2	Slotted	#6- 32	0.312	0.086	9/32	2.5	1/8	0.218	-
P0155.I06-09-SA2	Slotted	#6- 32	0.375	0.086	9/32	2.5	1/8	0.218	-
P0155.I06-11-SA2	Slotted	#6- 32	0.437	0.086	9/32	2.8	1/8	0.218	-
P0155.I08-10-SA2	Slotted	#8- 32	0.406	0.114	5/16	2.8	5/32	0.250	-
P0155.I08-12-SA2	Slotted	#8- 32	0.468	0.114	5/16	2.8	5/32	0.250	-
P0155.I08-13-SA2	Slotted	#8- 32	0.531	0.114	5/16	2.8	5/32	0.250	-
P0155.I10-13-SA2	Slotted	#10-32	0.531	0.136	3/8	2.8	3/16	0.312	-
P0155.I10-14-SA2	Slotted	#10-32	0.593	0.136	3/8	2.8	3/16	0.312	-
P0155.I04-07-HA2	Hex Socket	#4- 40	0.281	0.072	1/4	3.5	1/8	0.187	5/64
P0155.I04-08-HA2	Hex Socket	#4- 40	0.343	0.072	1/4	3.5	1/8	0.187	5/64
P0155.I06-07-HA2	Hex Socket	#6- 32	0.312	0.086	9/32	3.5	1/8	0.218	5/64
P0155.I06-09-HA2	Hex Socket	#6- 32	0.375	0.086	9/32	3.5	1/8	0.218	5/64
P0155.I06-11-HA2	Hex Socket	#6- 32	0.437	0.086	9/32	3.5	1/8	0.218	5/64
P0155.I08-10-HA2	Hex Socket	#8- 32	0.406	0.114	5/16	3.5	5/32	0.250	3/32
P0155.I08-12-HA2	Hex Socket	#8- 32	0.468	0.114	5/16	3.5	5/32	0.250	3/32
P0155.I08-13-HA2	Hex Socket	#8- 32	0.531	0.114	5/16	3.5	5/32	0.250	3/32
P0155.I10-13-HA2	Hex Socket	#10-32	0.531	0.136	3/8	3.5	3/16	0.312	1/8
P0155.I10-14-HA2	Hex Socket	#10-32	0.593	0.136	3/8	3.5	3/16	0.312	1/8

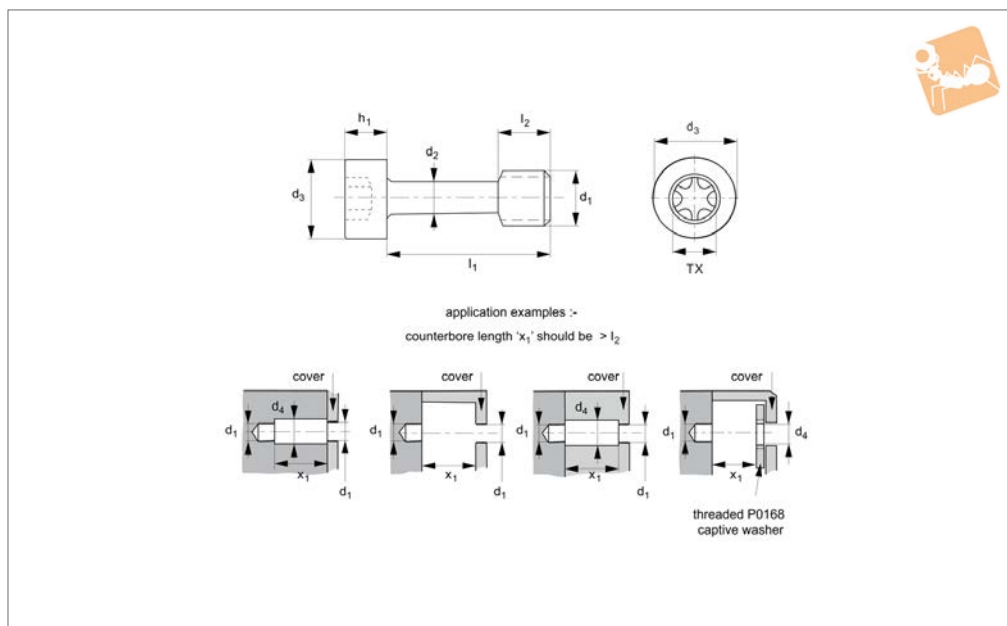


Captive Screws - Cap Head

TX drive - 303 stainless



Captive Screws



P0156.A2

CAPTIVE SCREWS

Material

Stainless steel (AISI 303, 1.4305). Tensile strength 550 N/mm². Proof stress min. 190 N/mm², austenitic stainless steel. Also available on request in steel (anodised, black oxide or zinc plated), stainless steel (AISI 316, 1.440), brass, aluminium etc.

tive 2006/42/EC. Generally to ISO 4762. Often used with our captive washers (P0168) or retaining flanges (P0169 - for sheet metal applications). The use of our captive washers should be considered when fitted in panels with unthreaded holes.

*M 8 sizes have a reduced TX size.

reduced diameter shank and should not be tightened to the recommended torque for an equivalent machine screw of size d_1 .

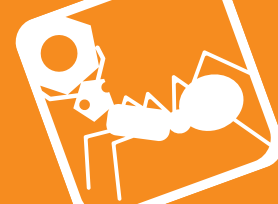
Technical Notes

Used to comply with the Machinery Direc-

Important Notes

Please note that these screws have a

Order No.	d_1	l_1 ± 0.25	d_2 ± 0.12	d_3 max.	d_4 min.	h_1 max.	l_2 ± 0.25	TX size
P0156.030-008-A2	M 3	8	2.0	5.5	3.5	3	4.5	TX-10
P0156.030-010-A2	M 3	10	2.0	5.5	3.5	3	4.5	TX-10
P0156.030-016-A2	M 3	16	2.0	5.5	3.5	3	4.5	TX-10
P0156.030-020-A2	M 3	20	2.0	5.5	3.5	3	4.5	TX-10
P0156.030-025-A2	M 3	25	2.0	5.5	3.5	3	4.5	TX-10
P0156.030-030-A2	M 3	30	2.0	5.5	3.5	3	4.5	TX-10
P0156.040-008-A2	M 4	8	2.8	7.0	4.5	4	6.0	TX-20
P0156.040-010-A2	M 4	10	2.8	7.0	4.5	4	6.0	TX-20
P0156.040-012-A2	M 4	12	2.8	7.0	4.5	4	6.0	TX-20
P0156.040-016-A2	M 4	16	2.8	7.0	4.5	4	6.0	TX-20
P0156.040-020-A2	M 4	20	2.8	7.0	4.5	4	6.0	TX-20
P0156.040-025-A2	M 4	25	2.8	7.0	4.5	4	6.0	TX-20
P0156.040-030-A2	M 4	30	2.8	7.0	4.5	4	6.0	TX-20
P0156.040-040-A2	M 4	40	2.8	7.0	4.5	4	6.0	TX-20
P0156.040-050-A2	M 4	50	2.8	7.0	4.5	4	6.0	TX-20
P0156.050-010-A2	M 5	10	3.7	8.5	5.5	5	7.5	TX-25
P0156.050-012-A2	M 5	12	3.7	8.5	5.5	5	7.5	TX-25
P0156.050-016-A2	M 5	16	3.7	8.5	5.5	5	7.5	TX-25
P0156.050-020-A2	M 5	20	3.7	8.5	5.5	5	7.5	TX-25
P0156.050-025-A2	M 5	25	3.7	8.5	5.5	5	7.5	TX-25
P0156.050-030-A2	M 5	30	3.7	8.5	5.5	5	7.5	TX-25
P0156.050-040-A2	M 5	40	3.7	8.5	5.5	5	7.5	TX-25
P0156.050-050-A2	M 5	50	3.7	8.5	5.5	5	7.5	TX-25
P0156.060-010-A2	M 6	10	4.2	10.0	6.5	6	7.5	TX-30
P0156.060-012-A2	M 6	12	4.2	10.0	6.5	6	7.5	TX-30
P0156.060-016-A2	M 6	16	4.2	10.0	6.5	6	7.5	TX-30



Order No.	d ₁	l ₁ ±0.25	d ₂ ±0.12	d ₃ max.	d ₄ min.	h ₁ max.	l ₂ ±0.25	TX size
P0156.060-020-A2	M 6	20	4.2	10.0	6.5	6	7.5	TX-30
P0156.060-025-A2	M 6	25	4.2	10.0	6.5	6	7.5	TX-30
P0156.060-030-A2	M 6	30	4.2	10.0	6.5	6	7.5	TX-30
P0156.060-040-A2	M 6	40	4.2	10.0	6.5	6	7.5	TX-30
P0156.060-050-A2	M 6	50	4.2	10.0	6.5	6	7.5	TX-30
P0156.060-060-A2	M 6	60	4.2	10.0	6.5	6	7.5	TX-30
P0156.060-080-A2	M 6	80	4.2	10.0	6.5	6	7.5	TX-30
P0156.080-012-A2	M 8	12	6.0	13.0	8.5	8	10.0	TX-30*
P0156.080-016-A2	M 8	16	6.0	13.0	8.5	8	10.0	TX-30*
P0156.080-020-A2	M 8	20	6.0	13.0	8.5	8	10.0	TX-30*
P0156.080-025-A2	M 8	25	6.0	13.0	8.5	8	10.0	TX-30*
P0156.080-030-A2	M 8	30	6.0	13.0	8.5	8	10.0	TX-30*
P0156.080-035-A2	M 8	35	6.0	13.0	8.5	8	10.0	TX-30*
P0156.080-040-A2	M 8	40	6.0	13.0	8.5	8	10.0	TX-30*
P0156.080-045-A2	M 8	45	6.0	13.0	8.5	8	10.0	TX-30*
P0156.080-050-A2	M 8	50	6.0	13.0	8.5	8	10.0	TX-30*
P0156.080-060-A2	M 8	60	6.0	13.0	8.5	8	10.0	TX-30*
P0156.080-080-A2	M 8	80	6.0	13.0	8.5	8	10.0	TX-30*

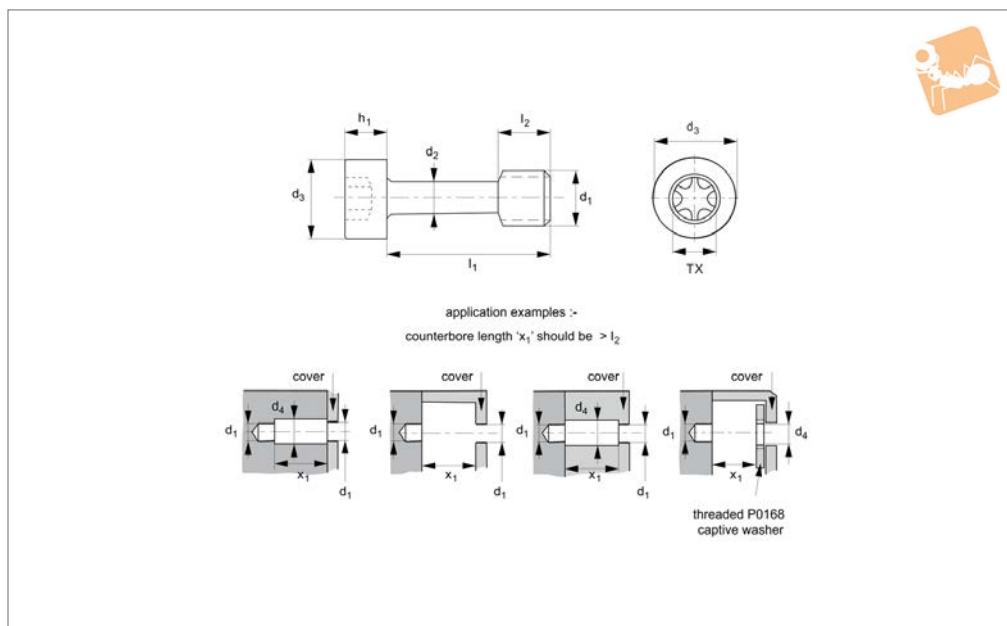


Captive Screws - Cap Head

TX drive - 316 stainless



Captive Screws



P0156.A4

CAPTIVE SCREWS

Material

Stainless steel (AISI 316, 1.440).
Tensile strength 480 N/mm². Proof stress min. 200 N/mm², austenitic stainless steel.
Also available on request in steel (anodised, black oxide or zinc plated), stainless steel (AISI 303, 1.4305), brass, aluminium etc.

tive 2006/42/EC. Generally to ISO 4762.
Often used with our captive washers (P0168) or retaining flanges (P0169 - for sheet metal applications). The use of our captive washers should be considered when fitted in panels with unthreaded holes.

*M 8 sizes have a reduced TX size.

reduced diameter shank and should not be tightened to the recommended torque for an equivalent machine screw of size d₁.

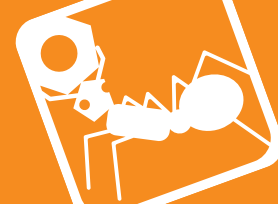
Technical Notes

Used to comply with the Machinery Direc-

Important Notes

Please note that these screws have a

Order No.	d ₁	l ₁ ±0.25	d ₂ ±0.12	d ₃ max.	d ₄ min.	h ₁ max.	l ₂ ±0.25	TX size
P0156.030-008-A4	M 3	8	2.0	5.5	3.5	3	4.5	TX-10
P0156.030-010-A4	M 3	10	2.0	5.5	3.5	3	4.5	TX-10
P0156.030-016-A4	M 3	16	2.0	5.5	3.5	3	4.5	TX-10
P0156.030-020-A4	M 3	20	2.0	5.5	3.5	3	4.5	TX-10
P0156.030-025-A4	M 3	25	2.0	5.5	3.5	3	4.5	TX-10
P0156.030-030-A4	M 3	30	2.0	5.5	3.5	3	4.5	TX-10
P0156.040-008-A4	M 4	8	2.8	7.0	4.5	4	6.0	TX-20
P0156.040-010-A4	M 4	10	2.8	7.0	4.5	4	6.0	TX-20
P0156.040-012-A4	M 4	12	2.8	7.0	4.5	4	6.0	TX-20
P0156.040-016-A4	M 4	16	2.8	7.0	4.5	4	6.0	TX-20
P0156.040-020-A4	M 4	20	2.8	7.0	4.5	4	6.0	TX-20
P0156.040-025-A4	M 4	25	2.8	7.0	4.5	4	6.0	TX-20
P0156.040-030-A4	M 4	30	2.8	7.0	4.5	4	6.0	TX-20
P0156.040-040-A4	M 4	40	2.8	7.0	4.5	4	6.0	TX-20
P0156.040-050-A4	M 4	50	2.8	7.0	4.5	4	6.0	TX-20
P0156.050-010-A4	M 5	10	3.7	8.5	5.5	5	7.5	TX-25
P0156.050-012-A4	M 5	12	3.7	8.5	5.5	5	7.5	TX-25
P0156.050-016-A4	M 5	16	3.7	8.5	5.5	5	7.5	TX-25
P0156.050-020-A4	M 5	20	3.7	8.5	5.5	5	7.5	TX-25
P0156.050-025-A4	M 5	25	3.7	8.5	5.5	5	7.5	TX-25
P0156.050-030-A4	M 5	30	3.7	8.5	5.5	5	7.5	TX-25
P0156.050-040-A4	M 5	40	3.7	8.5	5.5	5	7.5	TX-25
P0156.050-050-A4	M 5	50	3.7	8.5	5.5	5	7.5	TX-25
P0156.060-010-A4	M 6	10	4.2	10.0	6.5	6	7.5	TX-30
P0156.060-012-A4	M 6	12	4.2	10.0	6.5	6	7.5	TX-30
P0156.060-016-A4	M 6	16	4.2	10.0	6.5	6	7.5	TX-30



Order No.	d ₁	l ₁ ±0.25	d ₂ ±0.12	d ₃ max.	d ₄ min.	h ₁ max.	l ₂ ±0.25	TX size
P0156.060-020-A4	M 6	20	4.2	10.0	6.5	6	7.5	TX-30
P0156.060-025-A4	M 6	25	4.2	10.0	6.5	6	7.5	TX-30
P0156.060-030-A4	M 6	30	4.2	10.0	6.5	6	7.5	TX-30
P0156.060-040-A4	M 6	40	4.2	10.0	6.5	6	7.5	TX-30
P0156.060-050-A4	M 6	50	4.2	10.0	6.5	6	7.5	TX-30
P0156.060-060-A4	M 6	60	4.2	10.0	6.5	6	7.5	TX-30
P0156.060-080-A4	M 6	80	4.2	10.0	6.5	6	7.5	TX-30
P0156.080-012-A4	M 8	12	6.0	13.0	8.5	8	10.0	TX-30*
P0156.080-016-A4	M 8	16	6.0	13.0	8.5	8	10.0	TX-30*
P0156.080-020-A4	M 8	20	6.0	13.0	8.5	8	10.0	TX-30*
P0156.080-025-A4	M 8	25	6.0	13.0	8.5	8	10.0	TX-30*
P0156.080-030-A4	M 8	30	6.0	13.0	8.5	8	10.0	TX-30*
P0156.080-035-A4	M 8	35	6.0	13.0	8.5	8	10.0	TX-30*
P0156.080-040-A4	M 8	40	6.0	13.0	8.5	8	10.0	TX-30*
P0156.080-045-A4	M 8	45	6.0	13.0	8.5	8	10.0	TX-30*
P0156.080-050-A4	M 8	50	6.0	13.0	8.5	8	10.0	TX-30*
P0156.080-060-A4	M 8	60	6.0	13.0	8.5	8	10.0	TX-30*
P0156.080-080-A4	M 8	80	6.0	13.0	8.5	8	10.0	TX-30*

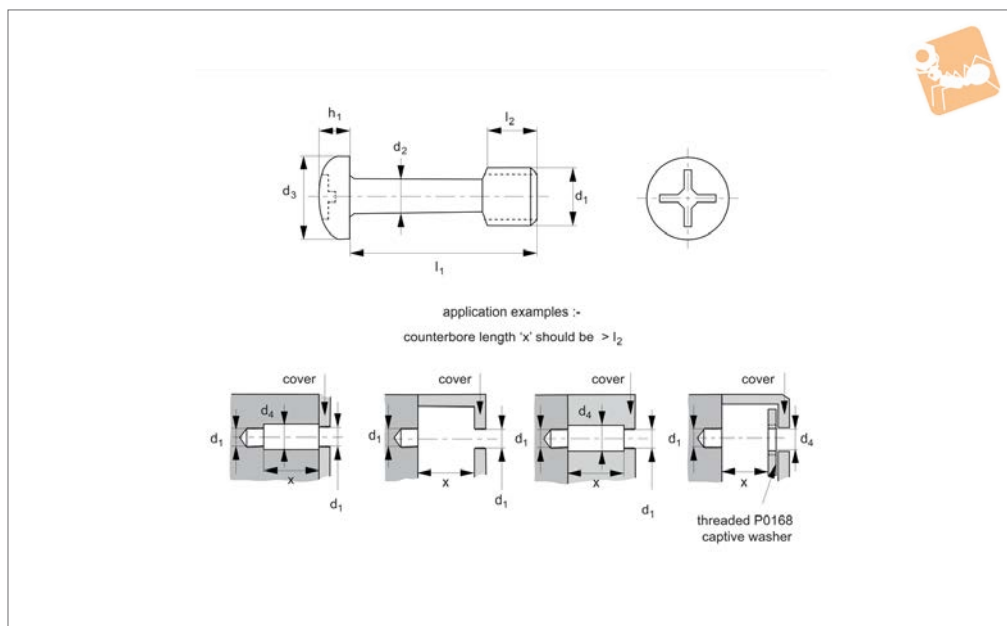


Captive Screws - Pan Head

phillips drive, 303 stainless



Captive Screws



P0157.A2

CAPTIVE SCREWS

Material

Stainless steel (AISI 303, 1.4305). Tensile strength 550 N/mm². Proof stress min. 190 N/mm², austenitic stainless steel. Also available on request in steel (anodised, black oxide or zinc plated), stainless steel (AISI 316, 1.440), brass, aluminium etc.

Technical Notes

Used to comply with the Machinery Direc-

tive 2006/42/EC. Generally to ISO 14583. Often used with our captive washers (P0168) or retaining flanges (P0169 - for sheet metal applications). The use of our captive washers should be considered when fitted in panels with unthreaded holes.

Tips

Other head drive styles - add suffix:
-TX for Torx (hexalobular).

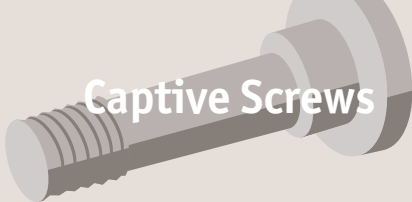
-PZ for Pozidrive.

-SE for snake-eye security.

Important Notes

Please note that these screws have a reduced diameter shank and should not be tightened to the recommended torque for an equivalent machine screw of size d₁.

Order No.	d ₁	l ₁ ±0.25	d ₂ ±0.12	d ₃ max.	d ₄ max.	h ₁ max.	l ₂ ±0.25	Drive #
P0157.025-008-A2	M 2,5	8	1.7	5.0	3.5	2.1	3.7	1
P0157.025-010-A2	M 2,5	10	1.7	5.0	3.5	2.1	3.7	1
P0157.025-012-A2	M 2,5	12	1.7	5.0	3.5	2.1	3.7	1
P0157.025-016-A2	M 2,5	16	1.7	5.0	3.5	2.1	3.7	1
P0157.025-020-A2	M 2,5	20	1.7	5.0	3.5	2.1	3.7	1
P0157.030-010-A2	M 3	10	2.0	5.6	4.5	2.4	4.5	1
P0157.030-016-A2	M 3	16	2.0	5.6	4.5	2.4	4.5	1
P0157.030-020-A2	M 3	20	2.0	5.6	4.5	2.4	4.5	1
P0157.030-025-A2	M 3	25	2.0	5.6	4.5	2.4	4.5	1
P0157.030-030-A2	M 3	30	2.0	5.6	4.5	2.4	4.5	1
P0157.030-040-A2	M 3	40	2.0	5.6	4.5	2.4	4.5	1
P0157.040-010-A2	M 4	10	2.8	8.0	5.5	3.1	6.0	2
P0157.040-012-A2	M 4	12	2.8	8.0	5.5	3.1	6.0	2
P0157.040-016-A2	M 4	16	2.8	8.0	5.5	3.1	6.0	2
P0157.040-020-A2	M 4	20	2.8	8.0	5.5	3.1	6.0	2
P0157.040-025-A2	M 4	25	2.8	8.0	5.5	3.1	6.0	2
P0157.040-030-A2	M 4	30	2.8	8.0	5.5	3.1	6.0	2
P0157.040-040-A2	M 4	40	2.8	8.0	5.5	3.1	6.0	2
P0157.040-050-A2	M 4	50	2.8	8.0	5.5	3.1	6.0	2
P0157.040-060-A2	M 4	60	2.8	8.0	5.5	3.1	6.0	2
P0157.050-010-A2	M 5	10	3.7	9.5	6.5	3.7	7.5	2
P0157.050-012-A2	M 5	12	3.7	9.5	6.5	3.7	7.5	2
P0157.050-016-A2	M 5	16	3.7	9.5	6.5	3.7	7.5	2
P0157.050-020-A2	M 5	20	3.7	9.5	6.5	3.7	7.5	2
P0157.050-025-A2	M 5	25	3.7	9.5	6.5	3.7	7.5	2
P0157.050-030-A2	M 5	30	3.7	9.5	6.5	3.7	7.5	2



Captive Screws

Captive Screws - Pan Head phillips drive, 303 stainless



CAPTIVE SCREWS

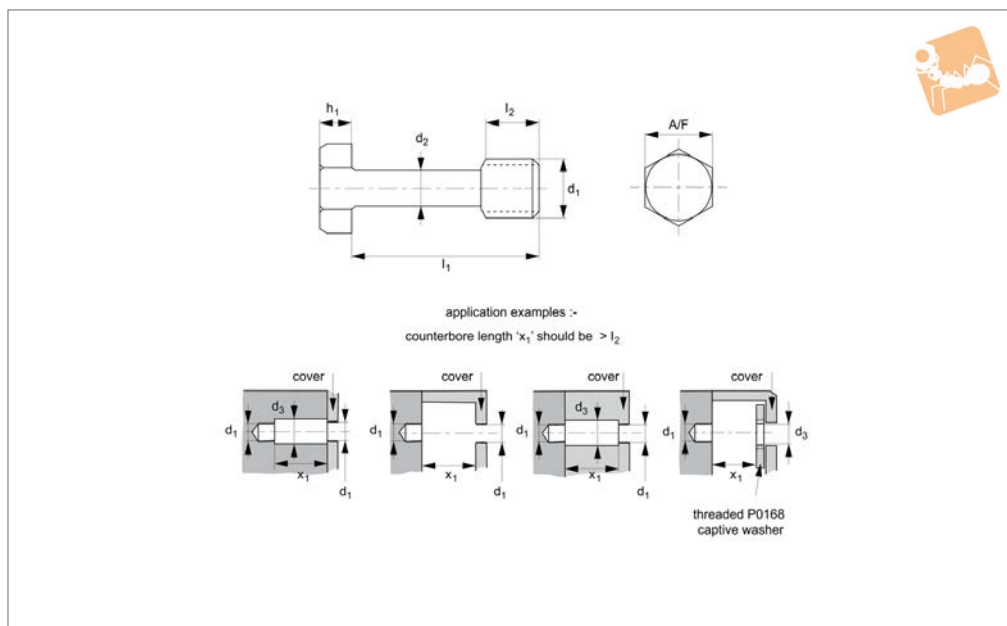
Order No.	d ₁	l ₁ ±0.25	d ₂ ±0.12	d ₃ max.	d ₄ max.	h ₁ max.	l ₂ ±0.25	Drive #
P0157.050-040-A2	M 5	40	3.7	9.5	6.5	3.7	7.5	2
P0157.050-050-A2	M 5	50	3.7	9.5	6.5	3.7	7.5	2
P0157.050-060-A2	M 5	60	3.7	9.5	6.5	3.7	7.5	2
P0157.060-012-A2	M 6	12	4.2	12.0	8.5	4.7	7.5	3
P0157.060-016-A2	M 6	16	4.2	12.0	8.5	4.7	7.5	3
P0157.060-020-A2	M 6	20	4.2	12.0	8.5	4.7	7.5	3
P0157.060-025-A2	M 6	25	4.2	12.0	8.5	4.7	7.5	3
P0157.060-030-A2	M 6	30	4.2	12.0	8.5	4.7	7.5	3
P0157.060-040-A2	M 6	40	4.2	12.0	8.5	4.7	7.5	3
P0157.060-050-A2	M 6	50	4.2	12.0	8.5	4.7	7.5	3
P0157.060-060-A2	M 6	60	4.2	12.0	8.5	4.7	7.5	3
P0157.060-080-A2	M 6	80	4.2	12.0	8.5	4.7	7.5	3



Captive Screws - Hex Bolts

303 stainless

Captive Screws



P0158.A2

CAPTIVE SCREWS

Material

Stainless steel (AISI 303, 1.4305). Tensile strength 550 N/mm². Proof stress min. 190 N/mm², austenitic stainless steel. Also available on request in steel (anodised, black oxide or zinc plated), stainless steel (AISI 316, 1.440), brass, aluminium etc.

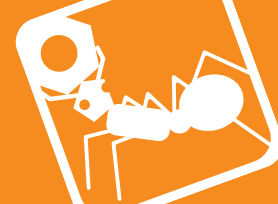
Technical Notes

Used to comply with the Machinery Directive 2006/42/EC. Often used with our captive washers (P0168) or retaining flanges (P0169 - for sheet metal applications). The use of our captive washers should be considered when fitted in panels with unthreaded holes.

Important Notes

Please note that these screws have a reduced diameter shank and should not be tightened to the recommended torque for an equivalent machine screw of size d₁.

Order No.	d ₁	l ₁ ±0.25	d ₂ ±0.12	d ₃ min.	h ₁ max.	l ₂ ±0.25	A/F
P0158.030-010-A2	M 3	10	2.0	3.5	2.2	4.5	6
P0158.030-016-A2	M 3	16	2.0	3.5	2.2	4.5	6
P0158.030-020-A2	M 3	20	2.0	3.5	2.2	4.5	6
P0158.030-025-A2	M 3	25	2.0	3.5	2.2	4.5	6
P0158.030-030-A2	M 3	30	2.0	3.5	2.2	4.5	6
P0158.030-040-A2	M 3	40	2.0	3.5	2.2	4.5	6
P0158.040-012-A2	M 4	12	2.8	4.5	2.9	6.0	7
P0158.040-016-A2	M 4	16	2.8	4.5	2.9	6.0	7
P0158.040-020-A2	M 4	20	2.8	4.5	2.9	6.0	7
P0158.040-025-A2	M 4	25	2.8	4.5	2.9	6.0	7
P0158.040-030-A2	M 4	30	2.8	4.5	2.9	8.0	7
P0158.040-035-A2	M 4	35	2.8	4.5	2.9	8.0	7
P0158.040-040-A2	M 4	40	2.8	4.5	2.9	8.0	7
P0158.040-050-A2	M 4	50	2.8	4.5	2.9	8.0	7
P0158.040-060-A2	M 4	60	2.8	4.5	2.9	8.0	7
P0158.050-012-A2	M 5	12	3.7	5.5	3.6	7.5	8
P0158.050-016-A2	M 5	16	3.7	5.5	3.6	7.5	8
P0158.050-020-A2	M 5	20	3.7	5.5	3.6	7.5	8
P0158.050-025-A2	M 5	25	3.7	5.5	3.6	7.5	8
P0158.050-030-A2	M 5	30	3.7	5.5	3.6	10.0	8
P0158.050-035-A2	M 5	35	3.7	5.5	3.6	10.0	8
P0158.050-040-A2	M 5	40	3.7	5.5	3.6	10.0	8
P0158.050-050-A2	M 5	50	3.7	5.5	3.6	10.0	8
P0158.050-060-A2	M 5	60	3.7	5.5	3.6	10.0	8
P0158.060-012-A2	M 6	12	4.2	6.5	4.1	7.5	10
P0158.060-016-A2	M 6	16	4.2	6.5	4.1	7.5	10
P0158.060-020-A2	M 6	20	4.2	6.5	4.1	7.5	10
P0158.060-025-A2	M 6	25	4.2	6.5	4.1	7.5	10
P0158.060-030-A2	M 6	30	4.2	6.5	4.1	7.5	10



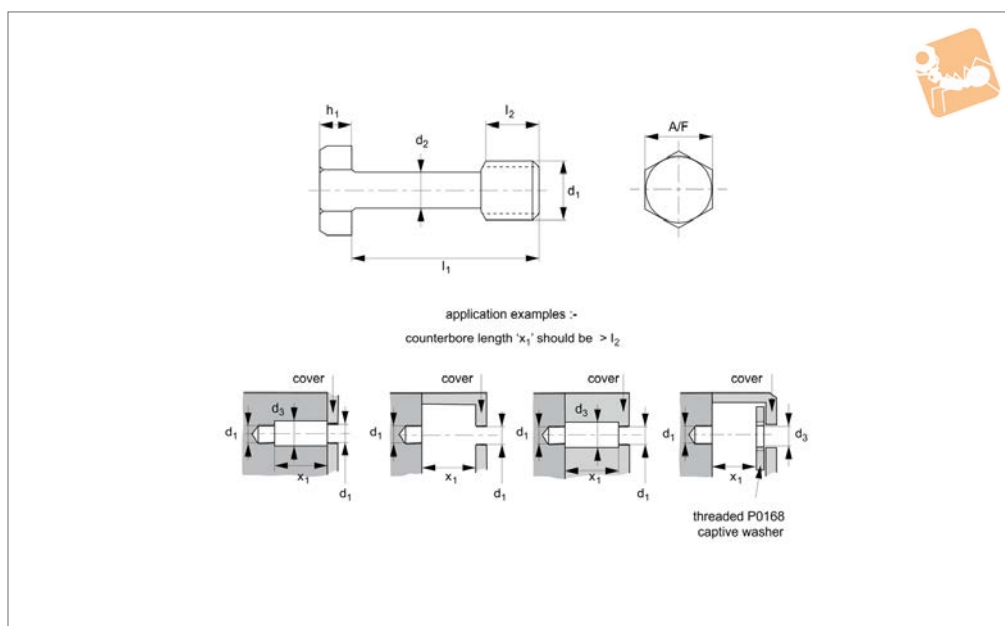
Order No.	d ₁	l ₁ ±0.25	d ₂ ±0.12	d ₃ min.	h ₁ max.	l ₂ ±0.25	A/F
P0158.060-035-A2	M 6	35	4.2	6.5	4.1	7.5	10
P0158.060-040-A2	M 6	40	4.2	6.5	4.1	7.5	10
P0158.060-050-A2	M 6	50	4.2	6.5	4.1	7.5	10
P0158.060-060-A2	M 6	60	4.2	6.5	4.1	7.5	10
P0158.060-080-A2	M 6	80	4.2	6.5	4.1	7.5	10
P0158.080-016-A2	M 8	16	6.0	8.5	5.3	10.0	13
P0158.080-020-A2	M 8	20	6.0	8.5	5.3	10.0	13
P0158.080-025-A2	M 8	25	6.0	8.5	5.3	10.0	13
P0158.080-030-A2	M 8	30	6.0	8.5	5.3	10.0	13
P0158.080-035-A2	M 8	35	6.0	8.5	5.3	10.0	13
P0158.080-040-A2	M 8	40	6.0	8.5	5.3	10.0	13
P0158.080-050-A2	M 8	50	6.0	8.5	5.3	10.0	13
P0158.080-060-A2	M 8	60	6.0	8.5	5.3	10.0	13
P0158.080-080-A2	M 8	80	6.0	8.5	5.3	10.0	13
P0158.100-020-A2	M10	20	7.5	10.6	6.4	12.5	17
P0158.100-025-A2	M10	25	7.5	10.6	6.4	12.5	17
P0158.100-030-A2	M10	30	7.5	10.6	6.4	12.5	17
P0158.100-035-A2	M10	35	7.5	10.6	6.4	12.0	17
P0158.100-040-A2	M10	40	7.5	10.6	6.4	12.5	17
P0158.100-050-A2	M10	50	7.5	10.6	6.4	12.5	17
P0158.100-060-A2	M10	60	7.5	10.6	6.4	12.5	17
P0158.100-080-A2	M10	80	7.5	10.6	6.4	12.5	17
P0158.120-025-A2	M12	25	8.0	13.2	7.5	15.0	19
P0158.120-030-A2	M12	30	8.0	13.2	7.5	15.0	19
P0158.120-035-A2	M12	35	8.0	13.2	7.5	15.0	19
P0158.120-040-A2	M12	40	8.0	13.2	7.5	15.0	19
P0158.120-050-A2	M12	50	8.0	13.2	7.5	15.0	19
P0158.120-060-A2	M12	60	8.0	13.2	7.5	15.0	19
P0158.120-080-A2	M12	80	8.0	13.2	7.5	15.0	19



Captive Screws - Hex Bolts

316 stainless

Captive Screws



P0158.A4

CAPTIVE SCREWS

Material

Stainless steel (AISI 316, 1.440).
Tensile strength 480 N/mm². Proof stress min. 200 N/mm², austenitic stainless steel.
Also available on request in steel (anodised, black oxide or zinc plated), stainless steel (AISI 303, 1.4305), brass, aluminium etc.

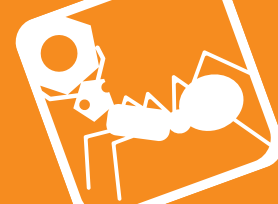
Technical Notes

Used to comply with the Machinery Directive 2006/42/EC. Often used with our captive washers (P0168) or retaining flanges (P0169 - for sheet metal applications). The use of our captive washers should be considered when fitted in panels with unthreaded holes.

Important Notes

Please note that these screws have a reduced diameter shank and should not be tightened to the recommended torque for an equivalent machine screw of size d₁.

Order No.	d ₁	l ₁ ±0.25	d ₂ ±0.12	d ₃ min.	h ₁ max.	l ₂ ±0.25	A/F
P0158.030-010-A4	M 3	10	2.0	3.5	2.2	4.5	6
P0158.030-016-A4	M 3	16	2.0	3.5	2.2	4.5	6
P0158.030-020-A4	M 3	20	2.0	3.5	2.2	4.5	6
P0158.030-025-A4	M 3	25	2.0	3.5	2.2	4.5	6
P0158.030-030-A4	M 3	30	2.0	3.5	2.2	4.5	6
P0158.030-040-A4	M 3	40	2.0	3.5	2.2	4.5	6
P0158.040-012-A4	M 4	12	2.8	4.5	2.9	6.0	7
P0158.040-016-A4	M 4	16	2.8	4.5	2.9	6.0	7
P0158.040-020-A4	M 4	20	2.8	4.5	2.9	6.0	7
P0158.040-030-A4	M 4	30	2.8	4.5	2.9	8.0	7
P0158.040-040-A4	M 4	40	2.8	4.5	2.9	8.0	7
P0158.040-050-A4	M 4	50	2.8	4.5	2.9	8.0	7
P0158.040-060-A4	M 4	60	2.8	4.5	2.9	8.0	7
P0158.050-012-A4	M 5	12	3.7	5.5	3.6	7.5	8
P0158.050-016-A4	M 5	16	3.7	5.5	3.6	7.5	8
P0158.050-020-A4	M 5	20	3.7	5.5	3.6	7.5	8
P0158.050-030-A4	M 5	30	3.7	5.5	3.6	10.0	8
P0158.050-040-A4	M 5	40	3.7	5.5	3.6	10.0	8
P0158.050-050-A4	M 5	50	3.7	5.5	3.6	10.0	8
P0158.050-060-A4	M 5	60	3.7	5.5	3.6	10.0	8
P0158.060-012-A4	M 6	12	4.2	6.5	4.1	7.5	10
P0158.060-016-A4	M 6	16	4.2	6.5	4.1	7.5	10
P0158.060-020-A4	M 6	20	4.2	6.5	4.1	7.5	10
P0158.060-030-A4	M 6	30	4.2	6.5	4.1	7.5	10
P0158.060-040-A4	M 6	40	4.2	6.5	4.1	7.5	10
P0158.060-050-A4	M 6	50	4.2	6.5	4.1	7.5	10
P0158.060-060-A4	M 6	60	4.2	6.5	4.1	7.5	10
P0158.060-080-A4	M 6	80	4.2	6.5	4.1	7.5	10
P0158.080-016-A4	M 8	16	6.0	8.5	5.3	10.0	13



Order No.	d ₁	l ₁ ±0.25	d ₂ ±0.12	d ₃ min.	h ₁ max.	l ₂ ±0.25	A/F
P0158.080-020-A4	M 8	20	6.0	8.5	5.3	10.0	13
P0158.080-025-A4	M 8	25	6.0	8.5	5.3	10.0	13
P0158.080-030-A4	M 8	30	6.0	8.5	5.3	10.0	13
P0158.080-035-A4	M 8	35	6.0	8.5	5.3	10.0	13
P0158.080-040-A4	M 8	40	6.0	8.5	5.3	10.0	13
P0158.080-050-A4	M 8	50	6.0	8.5	5.3	10.0	13
P0158.080-060-A4	M 8	60	6.0	8.5	5.3	10.0	13
P0158.080-080-A4	M 8	80	6.0	8.5	5.3	10.0	13
P0158.100-020-A4	M10	20	7.5	10.6	6.4	12.5	17
P0158.100-025-A4	M10	25	7.5	10.6	6.4	12.5	17
P0158.100-030-A4	M10	30	7.5	10.6	6.4	12.5	17
P0158.100-035-A4	M10	35	7.5	10.6	6.4	12.0	17
P0158.100-040-A4	M10	40	7.5	10.6	6.4	12.5	17
P0158.100-050-A4	M10	50	7.5	10.6	6.4	12.5	17
P0158.100-060-A4	M10	60	7.5	10.6	6.4	12.5	17
P0158.100-080-A4	M10	80	7.5	10.6	6.4	12.5	17
P0158.120-025-A4	M12	25	8.0	13.2	7.5	15.0	19
P0158.120-030-A4	M12	30	8.0	13.2	7.5	15.0	19
P0158.120-035-A4	M12	35	8.0	13.2	7.5	15.0	19
P0158.120-040-A4	M12	40	8.0	13.2	7.5	15.0	19
P0158.120-050-A4	M12	50	8.0	13.2	7.5	15.0	19
P0158.120-060-A4	M12	60	8.0	13.2	7.5	15.0	19
P0158.120-080-A4	M12	80	8.0	13.2	7.5	15.0	19

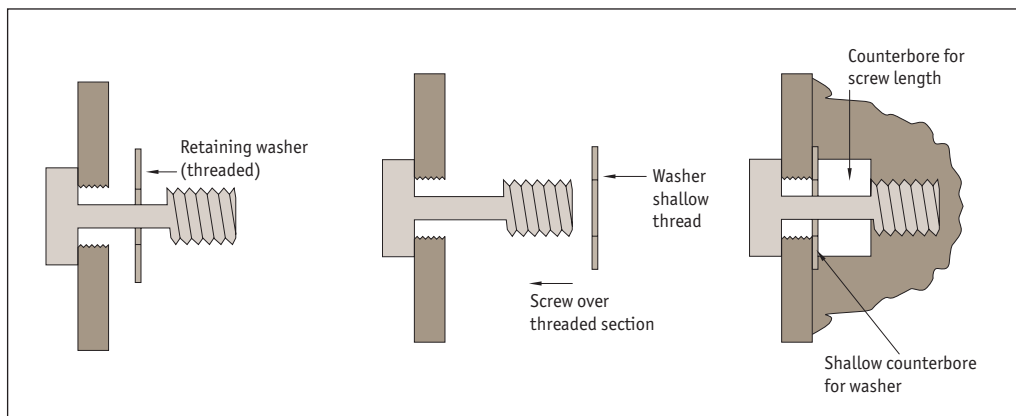
Other options to retain screws to panels are either our retaining washers or our retaining flanges.

Retaining washers

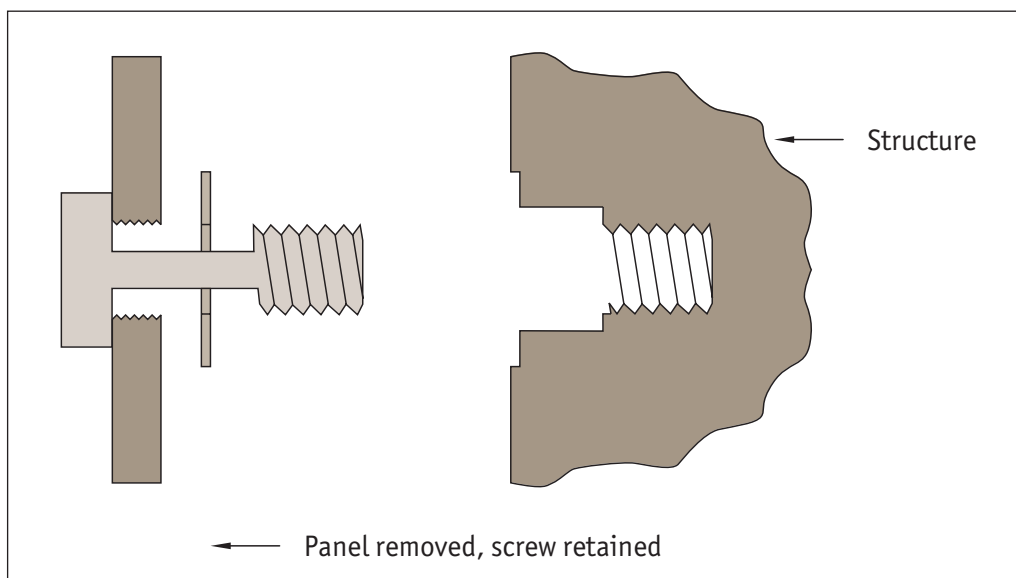
These are simple but effective when used with our captive screws. The captive screws have a normal thread then a reduced diameter for the rest of the screw length.

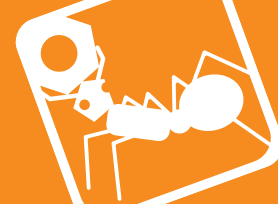
The washer has a small length of thread on the internal diameter and once screwed on to the captive screw is effectively captive.

Example

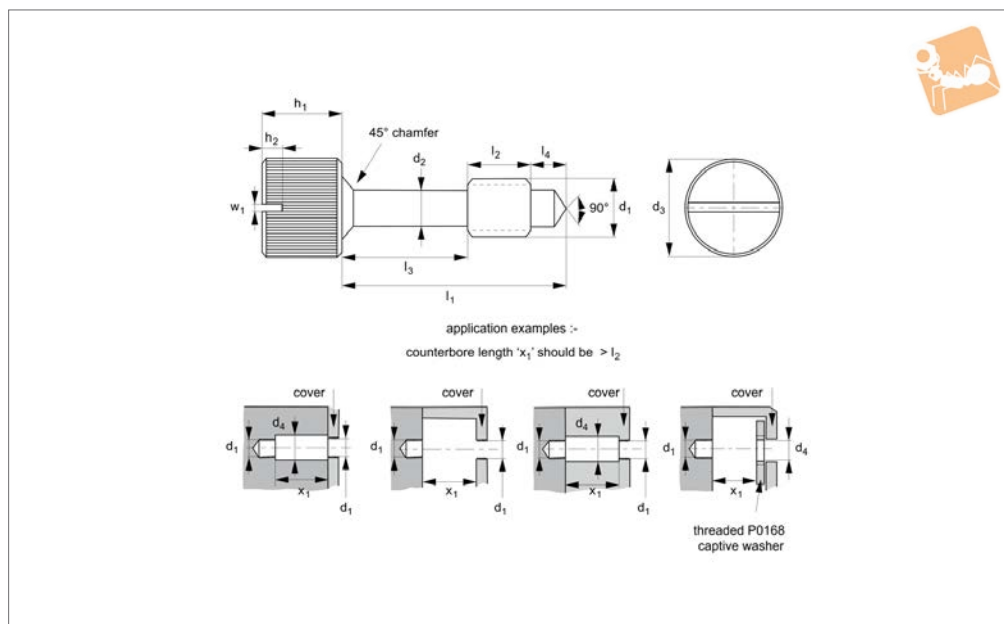


Screw the thin retaining washer onto the captive screw and the screw is therefore retained to the panel.





P0159.A2



Material

Stainless steel (AISI 303, 1.4305). Tensile strength 550 N/mm². Proof stress min. 190 N/mm², austenitic stainless steel. Also available on request in steel (anodised, black oxide or zinc plated),

stainless steel (AISI 316, 1.440), brass, aluminium etc.

Technical Notes

Used to comply with the Machinery Directive 2006/42/EC. Often used with our

captive washers (P0168) or retaining flanges (P0169 - for sheet metal applications). The use of our captive washers should be considered when fitted in panels with unthreaded holes.

Order No.	d ₁	l ₁ ±0.25	d ₂ ±0.12	d ₃	d ₄ min.	h ₁	h ₂	l ₂ ±0.25	l ₃	l ₄	w ₁
P0159.030-010-A2	M 3	10	2	6.5	3.5	6.5	2.0	3.2	4.8	2.0	1.2
P0159.030-014-A2	M 3	14	2	6.5	3.5	6.5	2.0	3.2	8.8	2.0	1.2
P0159.030-016-A2	M 3	16	2	6.5	3.5	6.5	2.0	3.2	10.8	2.0	1.2
P0159.030-020-A2	M 3	20	2	6.5	3.5	6.5	2.0	3.2	14.8	2.0	1.2
P0159.030-022-A2	M 3	22	2	6.5	3.5	6.5	2.0	3.2	16.8	2.0	1.2
P0159.030-024-A2	M 3	24	2	6.5	3.5	6.5	2.0	3.2	18.8	2.0	1.2
P0159.030-026-A2	M 3	26	2	6.5	3.5	6.5	2.0	3.2	20.8	2.0	1.2
P0159.031-010-A2	M 3	10	2	8	3.5	8.0	2.0	3.2	4.8	2.0	1.2
P0159.031-014-A2	M 3	14	2	8	3.5	8.0	2.0	3.2	8.8	2.0	1.2
P0159.031-016-A2	M 3	16	2	8	3.5	8.0	2.0	3.2	10.8	2.0	1.2
P0159.031-020-A2	M 3	20	2	8	3.5	8.0	2.0	3.2	14.8	2.0	1.2
P0159.031-022-A2	M 3	22	2	8	3.5	8.0	2.0	3.2	16.8	2.0	1.2
P0159.031-024-A2	M 3	24	2	8	3.5	8.0	2.0	3.2	18.8	2.0	1.2
P0159.040-010-A2	M 4	10	3	8	4.5	8.0	2.0	5.5	2.0	2.5	1.2
P0159.040-014-A2	M 4	14	3	8	4.5	8.0	2.0	5.5	6.0	2.5	1.2
P0159.040-016-A2	M 4	16	3	8	4.5	8.0	2.0	5.5	8.0	2.5	1.2
P0159.040-020-A2	M 4	20	3	8	4.5	8.0	2.0	5.5	12.0	2.5	1.2
P0159.040-022-A2	M 4	22	3	8	4.5	8.0	2.0	5.5	14.0	2.5	1.2
P0159.040-024-A2	M 4	24	3	8	4.5	8.0	2.0	5.5	16.0	2.5	1.2
P0159.040-027-A2	M 4	27	3	8	4.5	8.0	2.0	5.5	19.0	2.5	1.2
P0159.040-032-A2	M 4	32	3	8	4.5	8.0	2.0	5.5	24.0	2.5	1.2
P0159.050-014-A2	M 5	14	3.5	10	5.5	10.0	2.5	6.5	3.5	4.0	1.5
P0159.050-016-A2	M 5	16	3.5	10	5.5	10.0	2.5	6.5	5.5	4.0	1.5
P0159.050-020-A2	M 5	20	3.5	10	5.5	10.0	2.5	6.5	9.5	4.0	1.5
P0159.050-022-A2	M 5	22	3.5	10	5.5	10.0	2.5	6.5	11.5	4.0	1.5
P0159.050-024-A2	M 5	24	3.5	10	5.5	10.0	2.5	6.5	13.5	4.0	1.5
P0159.050-027-A2	M 5	27	3.5	10	5.5	10.0	2.5	6.5	16.5	4.0	1.5
P0159.050-032-A2	M 5	32	3.5	10	5.5	10.0	2.5	6.5	21.5	4.0	1.5
P0159.050-035-A2	M 5	35	3.5	10	5.5	10.0	2.5	6.5	24.5	4.0	1.5
P0159.050-040-A2	M 5	40	3.5	10	5.5	10.0	2.5	6.5	29.5	4.0	1.5
P0159.060-016-A2	M 6	16	4.5	12	6.5	15.0	2.5	8.0	3.0	5.0	2.0
P0159.060-020-A2	M 6	20	4.5	12	6.5	15.0	2.5	8.0	7.0	5.0	2.0



Captive Panel Thumb Screws

slot drive - 303 stainless



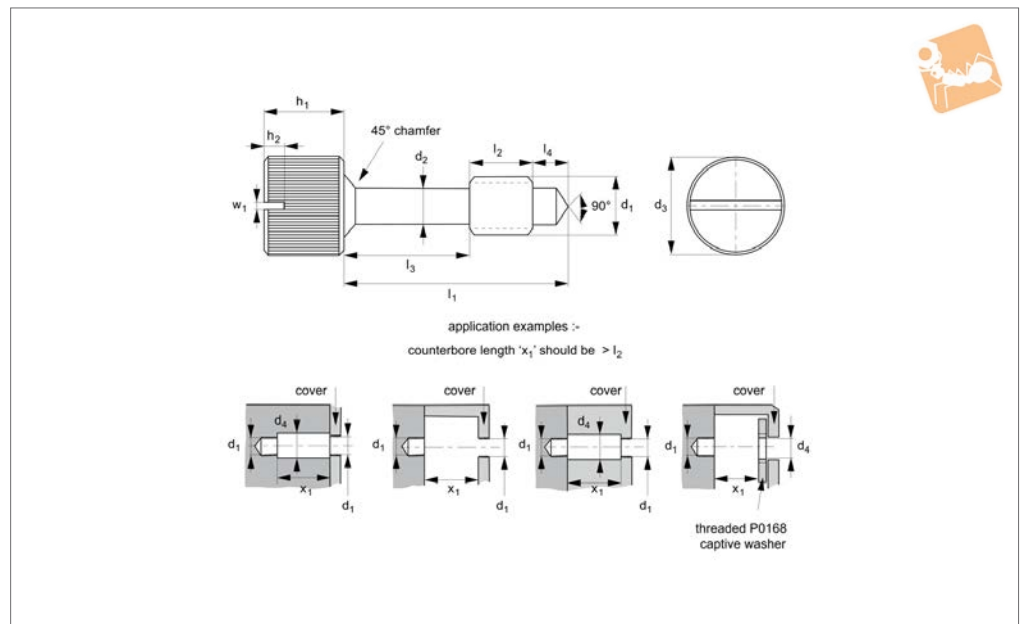
Captive Screws

Order No.	d ₁	l ₁ ±0.25	d ₂ ±0.12	d ₃	d ₄ min.	h ₁	h ₂	l ₂ ±0.25	l ₃	l ₄	w ₁
P0159.060-022-A2	M 6	22	4.5	12	6.5	15.0	2.5	8.0	9.0	5.0	2.0
P0159.060-024-A2	M 6	24	4.5	12	6.5	15.0	2.5	8.0	11.0	5.0	2.0
P0159.060-027-A2	M 6	27	4.5	12	6.5	15.0	2.5	8.0	14.0	5.0	2.0
P0159.060-032-A2	M 6	32	4.5	12	6.5	15.0	2.5	8.0	19.0	5.0	2.0
P0159.060-035-A2	M 6	35	4.5	12	6.5	15.0	2.5	8.0	22.0	5.0	2.0
P0159.060-040-A2	M 6	40	4.5	12	6.5	15.0	2.5	8.0	27.0	8.5	2.0
P0159.060-045-A2	M 6	45	4.5	12	6.5	15.0	2.5	8.0	32.0	8.5	2.0
P0159.060-050-A2	M 6	50	4.5	12	6.5	15.0	2.5	8.0	37.0	8.5	2.0

CAPTIVE SCREWS



P0159.A4



Material

Stainless steel (AISI 316, 1.440).
Tensile strength 480 N/mm². Proof stress min. 200 N/mm², austenitic stainless steel.
Also available on request in steel (anodised, black oxide or zinc plated),

stainless steel (AISI 303, 1.4305), brass, aluminium etc.

Technical Notes

Used to comply with the Machinery Directive 2006/42/EC. Often used with our

captive washers (P0168) or retaining flanges (P0169 - for sheet metal applications). The use of our captive washers should be considered when fitted in panels with unthreaded holes.

Order No.	d ₁	l ₁ ±0.25	d ₂ ±0.12	d ₃	d ₄ min.	h ₁	h ₂	l ₂ ±0.25	l ₃	l ₄	w ₁
P0159.030-010-A4	M 3	10	2	6.5	3.5	6.5	2.0	3.2	4.8	2.0	1.2
P0159.030-014-A4	M 3	14	2	6.5	3.5	6.5	2.0	3.2	8.8	2.0	1.2
P0159.030-016-A4	M 3	16	2	6.5	3.5	6.5	2.0	3.2	10.8	2.0	1.2
P0159.030-020-A4	M 3	20	2	6.5	3.5	6.5	2.0	3.2	14.8	2.0	1.2
P0159.030-022-A4	M 3	22	2	6.5	3.5	6.5	2.0	3.2	16.8	2.0	1.2
P0159.030-024-A4	M 3	24	2	6.5	3.5	6.5	2.0	3.2	18.8	2.0	1.2
P0159.030-026-A4	M 3	26	2	6.5	3.5	6.5	2.0	3.2	20.8	2.0	1.2
P0159.031-010-A4	M 3	10	2	8	3.5	8.0	2.0	3.2	4.8	2.0	1.2
P0159.031-014-A4	M 3	14	2	8	3.5	8.0	2.0	3.2	8.8	2.0	1.2
P0159.031-016-A4	M 3	16	2	8	3.5	8.0	2.0	3.2	10.8	2.0	1.2
P0159.031-020-A4	M 3	20	2	8	3.5	8.0	2.0	3.2	14.8	2.0	1.2
P0159.031-022-A4	M 3	22	2	8	3.5	8.0	2.0	3.2	16.8	2.0	1.2
P0159.031-024-A4	M 3	24	2	8	3.5	8.0	2.0	3.2	18.8	2.0	1.2
P0159.040-010-A4	M 4	10	3	8	4.5	8.0	2.0	5.5	2.0	2.5	1.2
P0159.040-014-A4	M 4	14	3	8	4.5	8.0	2.0	5.5	6.0	2.5	1.2
P0159.040-016-A4	M 4	16	3	8	4.5	8.0	2.0	5.5	8.0	2.5	1.2
P0159.040-020-A4	M 4	20	3	8	4.5	8.0	2.0	5.5	12.0	2.5	1.2
P0159.040-022-A4	M 4	22	3	8	4.5	8.0	2.0	5.5	14.0	2.5	1.2
P0159.040-024-A4	M 4	24	3	8	4.5	8.0	2.0	5.5	16.0	2.5	1.2
P0159.040-027-A4	M 4	27	3	8	4.5	8.0	2.0	5.5	19.0	2.5	1.2
P0159.040-032-A4	M 4	32	3	8	4.5	8.0	2.0	5.5	24.0	2.5	1.2
P0159.050-014-A4	M 5	14	3.5	10	5.5	10.0	2.5	6.5	3.5	4.0	1.5
P0159.050-016-A4	M 5	16	3.5	10	5.5	10.0	2.5	6.5	5.5	4.0	1.5
P0159.050-020-A4	M 5	20	3.5	10	5.5	10.0	2.5	6.5	9.5	4.0	1.5
P0159.050-022-A4	M 5	22	3.5	10	5.5	10.0	2.5	6.5	11.5	4.0	1.5
P0159.050-024-A4	M 5	24	3.5	10	5.5	10.0	2.5	6.5	13.5	4.0	1.5
P0159.050-027-A4	M 5	27	3.5	10	5.5	10.0	2.5	6.5	16.5	4.0	1.5
P0159.050-032-A4	M 5	32	3.5	10	5.5	10.0	2.5	6.5	21.5	4.0	1.5
P0159.050-035-A4	M 5	35	3.5	10	5.5	10.0	2.5	6.5	24.5	4.0	1.5
P0159.050-040-A4	M 5	40	3.5	10	5.5	10.0	2.5	6.5	29.5	4.0	1.5
P0159.060-016-A4	M 6	16	4.5	12	6.5	15.0	2.5	8.0	3.0	5.0	2.0
P0159.060-020-A4	M 6	20	4.5	12	6.5	15.0	2.5	8.0	7.0	5.0	2.0



Captive Panel Thumb Screws

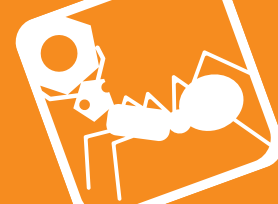
slot drive - 316 stainless



Captive Screws

Order No.	d ₁	l ₁ ±0.25	d ₂ ±0.12	d ₃	d ₄ min.	h ₁	h ₂	l ₂ ±0.25	l ₃	l ₄	w ₁
P0159.060-022-A4	M 6	22	4.5	12	6.5	15.0	2.5	8.0	9.0	5.0	2.0
P0159.060-024-A4	M 6	24	4.5	12	6.5	15.0	2.5	8.0	11.0	5.0	2.0
P0159.060-027-A4	M 6	27	4.5	12	6.5	15.0	2.5	8.0	14.0	5.0	2.0
P0159.060-032-A4	M 6	32	4.5	12	6.5	15.0	2.5	8.0	19.0	5.0	2.0
P0159.060-035-A4	M 6	35	4.5	12	6.5	15.0	2.5	8.0	22.0	5.0	2.0
P0159.060-040-A4	M 6	40	4.5	12	6.5	15.0	2.5	8.0	27.0	8.5	2.0
P0159.060-045-A4	M 6	45	4.5	12	6.5	15.0	2.5	8.0	32.0	8.5	2.0
P0159.060-050-A4	M 6	50	4.5	12	6.5	15.0	2.5	8.0	37.0	8.5	2.0

CAPTIVE SCREWS



Automation provides a wide range of captive screws to aid customers to comply with the Machinery Directive 2006/42/EC.

In general there is a requirement that fixings for fixed guards shall remain attached to the guard or machinery when the guard is removed. This was implemented mainly to ensure that as far as possible fasteners are not lost when the guard is removed and the guard is therefore re-installed with all required fixings.

A wide range of captive screws and thumb screws are provided...



P0151
Button Head - Hex
Security and Torx Options



P0154
Socket Head - Cap Screw
Security and Torx Options



P0158
Hexagon Head Bolt



P0159
Captive Panel Screw



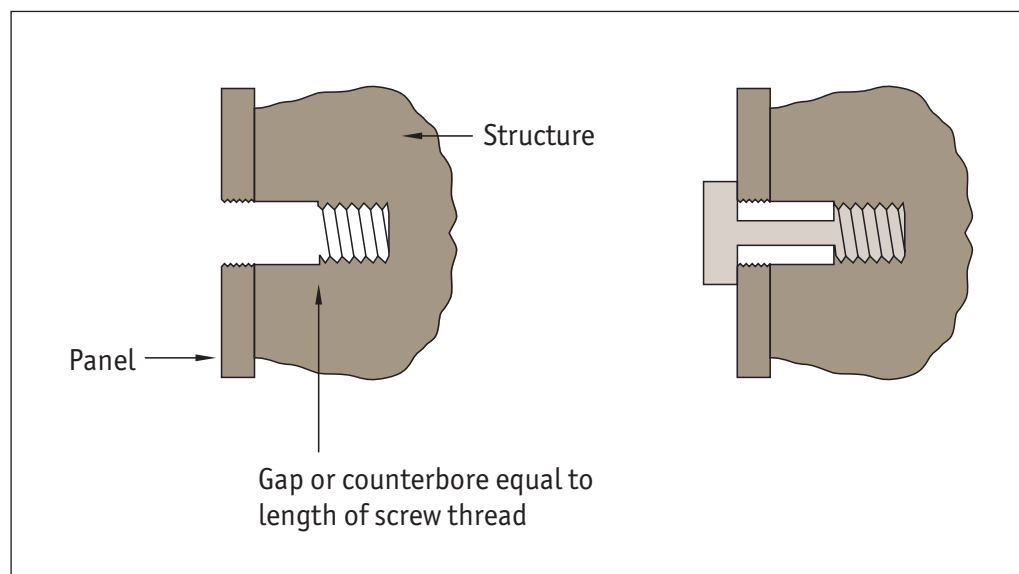
P0160
Thin Head Thumb Screws



P0161
Thumb Screws

Installation

To work effectively the captive screw when installed needs to have a space or counterbore between the thread and cover at least equal to the length of the thread.



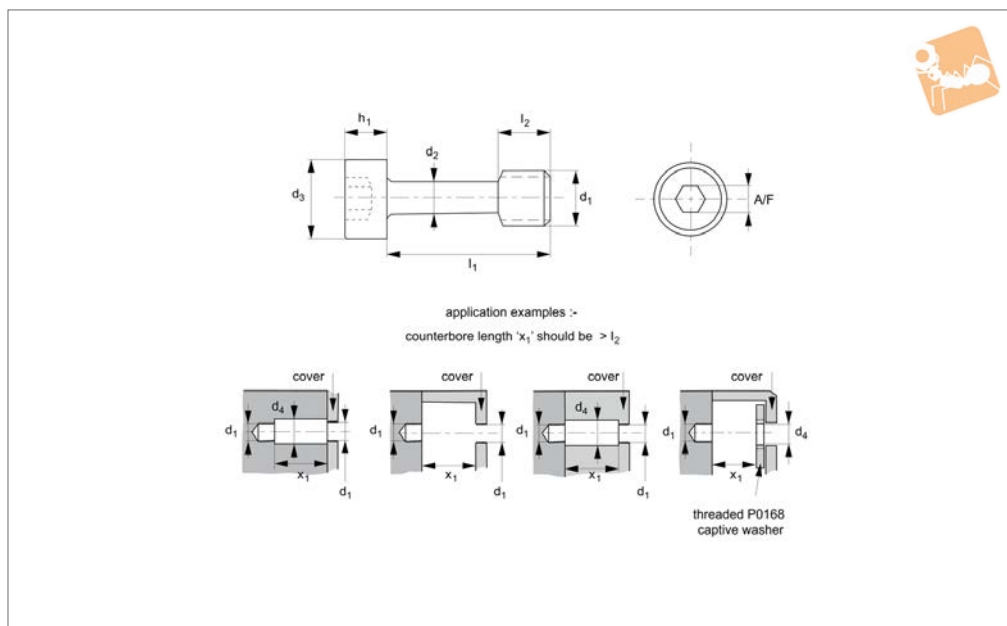


Captive Screws - Cap Head

hex drive - steel, zinc-plated



Captive Screws



P0154.ZP

CAPTIVE SCREWS

Material

Steel, white zinc-plated.
Tensile strength 550 N/mm².
Also available on request in steel (anodised or black oxide), stainless steel (AISI 316, 1.440 or AISI 303, 1.4305), brass, aluminium etc.

tive 2006/42/EC. Generally to ISO 4762. Often used with our captive washers (P0168) or retaining flanges (P0169 - for sheet metal applications). The use of our captive washers should be considered when fitted in panels with unthreaded holes.

Important Notes

Please note that these screws have a reduced diameter shank and should not be tightened to the recommended torque for an equivalent machine screw of size d_1 .

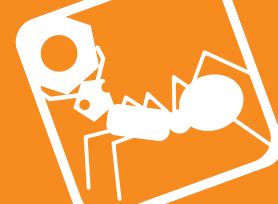
Technical Notes

Used to comply with the Machinery Direc-

Tips

For TX drive style, see P0156.

Order No.	d_1	l_1 ± 0.25	d_2 ± 0.12	l_2 ± 0.25	d_3 max.	d_4 min.	h_1 max.	A/F
P0154.025-005-ZP	M 2,5	5	1.8	3.0	4.5	2.8	2.5	2
P0154.025-008-ZP	M 2,5	8	1.8	3.0	4.5	2.8	2.5	2
P0154.025-010-ZP	M 2,5	10	1.8	3.0	4.5	2.8	2.5	2
P0154.025-012-ZP	M 2,5	12	1.8	3.0	4.5	2.8	2.5	2
P0154.030-008-ZP	M 3	8	2.0	4.5	5.5	3.5	3.0	2.5
P0154.030-010-ZP	M 3	10	2.0	4.5	5.5	3.5	3.0	2.5
P0154.030-012-ZP	M 3	12	2.0	4.5	5.5	3.5	3.0	2.5
P0154.030-016-ZP	M 3	16	2.0	4.5	5.5	3.5	3.0	2.5
P0154.030-020-ZP	M 3	20	2.0	4.5	5.5	3.5	3.0	2.5
P0154.030-025-ZP	M 3	25	2.0	4.5	5.5	3.5	3.0	2.5
P0154.030-030-ZP	M 3	30	2.0	4.5	5.5	3.5	3.0	2.5
P0154.040-010-ZP	M 4	10	2.8	6.0	7.0	4.5	4.0	3
P0154.040-012-ZP	M 4	12	2.8	6.0	7.0	4.5	4.0	3
P0154.040-016-ZP	M 4	16	2.8	6.0	7.0	4.5	4.0	3
P0154.040-020-ZP	M 4	20	2.8	6.0	7.0	4.5	4.0	3
P0154.040-025-ZP	M 4	25	2.8	6.0	7.0	4.5	4.0	3
P0154.040-030-ZP	M 4	30	2.8	6.0	7.0	4.5	4.0	3
P0154.040-035-ZP	M 4	35	2.8	6.0	7.0	4.5	4.0	3
P0154.040-040-ZP	M 4	40	2.8	6.0	7.0	4.5	4.0	3
P0154.040-050-ZP	M 4	50	2.8	6.0	7.0	4.5	4.0	3
P0154.050-012-ZP	M 5	12	3.7	7.5	8.5	5.5	5.0	4
P0154.050-016-ZP	M 5	16	3.7	7.5	8.5	5.5	5.0	4
P0154.050-020-ZP	M 5	20	3.7	7.5	8.5	5.5	5.0	4
P0154.050-025-ZP	M 5	25	3.7	7.5	8.5	5.5	5.0	4
P0154.050-030-ZP	M 5	30	3.7	7.5	8.5	5.5	5.0	4
P0154.050-035-ZP	M 5	35	3.7	7.5	8.5	5.5	5.0	4
P0154.050-040-ZP	M 5	40	3.7	7.5	8.5	5.5	5.0	4
P0154.050-050-ZP	M 5	50	3.7	7.5	8.5	5.5	5.0	4



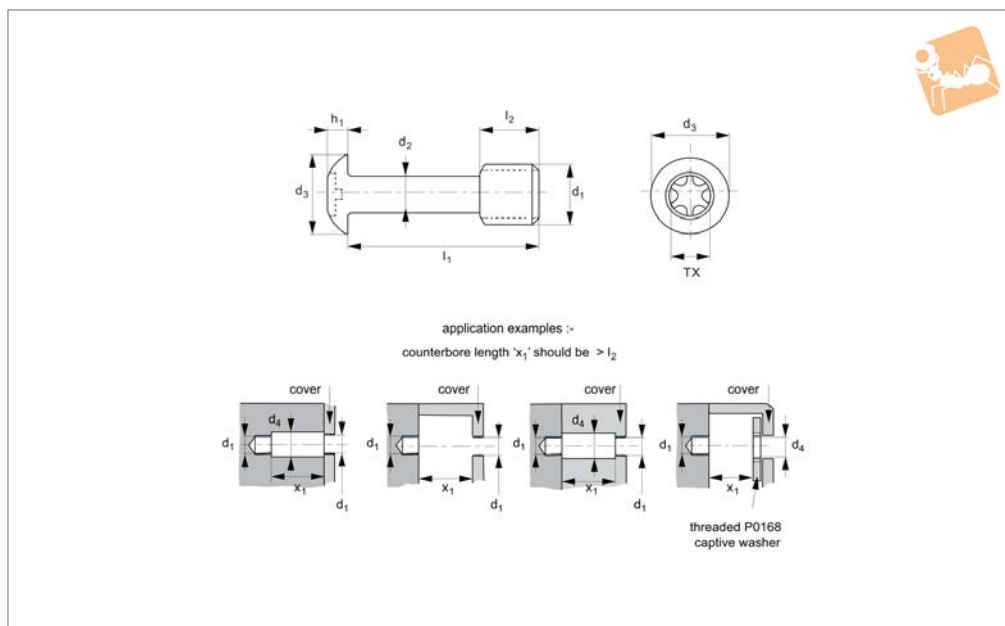
Order No.	d ₁	l ₁ ±0.25	d ₂ ±0.12	l ₂ ±0.25	d ₃ max.	d ₄ min.	h ₁ max.	A/F
P0154.060-012-ZP	M 6	12	4.2	7.5	10.0	6.5	6.0	5
P0154.060-016-ZP	M 6	16	4.2	7.5	10.0	6.5	6.0	5
P0154.060-020-ZP	M 6	20	4.2	7.5	10.0	6.5	6.0	5
P0154.060-025-ZP	M 6	25	4.2	7.5	10.0	6.5	6.0	5
P0154.060-030-ZP	M 6	30	4.2	7.5	10.0	6.5	6.0	5
P0154.060-035-ZP	M 6	35	4.2	7.5	10.0	6.5	6.0	5
P0154.060-040-ZP	M 6	40	4.2	7.5	10.0	6.5	6.0	5
P0154.060-050-ZP	M 6	50	4.2	7.5	10.0	6.5	6.0	5
P0154.060-060-ZP	M 6	60	4.2	7.5	10.0	6.5	6.0	5
P0154.060-080-ZP	M 6	80	4.2	7.5	10.0	6.5	6.0	5
P0154.080-016-ZP	M 8	16	6.0	10.0	13.0	8.5	8.0	6
P0154.080-020-ZP	M 8	20	6.0	10.0	13.0	8.5	8.0	6
P0154.080-025-ZP	M 8	25	6.0	10.0	13.0	8.5	8.0	6
P0154.080-030-ZP	M 8	30	6.0	10.0	13.0	8.5	8.0	6
P0154.080-035-ZP	M 8	35	6.0	10.0	13.0	8.5	8.0	6
P0154.080-040-ZP	M 8	40	6.0	10.0	13.0	8.5	8.0	6
P0154.080-045-ZP	M 8	45	6.0	10.0	13.0	8.5	8.0	6
P0154.080-050-ZP	M 8	50	6.0	10.0	13.0	8.5	8.0	6
P0154.080-060-ZP	M 8	60	6.0	10.0	13.0	8.5	8.0	6
P0154.080-080-ZP	M 8	80	6.0	10.0	13.0	8.5	8.0	6
P0154.100-020-ZP	M10	20	7.5	12.5	16.0	10.6	10.0	8
P0154.100-025-ZP	M10	25	7.5	12.5	16.0	10.6	10.0	8
P0154.100-030-ZP	M10	30	7.5	12.5	16.0	10.6	10.0	8
P0154.100-035-ZP	M10	35	7.5	12.5	16.0	10.6	10.0	8
P0154.100-040-ZP	M10	40	7.5	12.5	16.0	10.6	10.0	8
P0154.100-045-ZP	M10	45	7.5	12.5	16.0	10.6	10.0	8
P0154.100-050-ZP	M10	50	7.5	12.5	16.0	10.6	10.0	8
P0154.100-060-ZP	M10	60	7.5	12.5	16.0	10.6	10.0	8
P0154.100-080-ZP	M10	80	7.5	12.5	16.0	10.6	10.0	8
P0154.120-025-ZP	M12	25	8.0	15.0	18.0	13.2	12.0	10
P0154.120-030-ZP	M12	30	8.0	15.0	18.0	13.2	12.0	10
P0154.120-035-ZP	M12	35	8.0	15.0	18.0	13.2	12.0	10
P0154.120-040-ZP	M12	40	8.0	15.0	18.0	13.2	12.0	10
P0154.120-045-ZP	M12	45	8.0	15.0	18.0	13.2	12.0	10
P0154.120-050-ZP	M12	50	8.0	15.0	18.0	13.2	12.0	10
P0154.120-060-ZP	M12	60	8.0	15.0	18.0	13.2	12.0	10
P0154.120-080-ZP	M12	80	8.0	15.0	18.0	13.2	12.0	10
P0154.160-030-ZP	M16	30	12.0	20.0	24.0	17.5	16.0	14
P0154.160-035-ZP	M16	35	12.0	20.0	24.0	17.5	16.0	14
P0154.160-040-ZP	M16	40	12.0	20.0	24.0	17.5	16.0	14
P0154.160-045-ZP	M16	45	12.0	20.0	24.0	17.5	16.0	14
P0154.160-050-ZP	M16	50	12.0	20.0	24.0	17.5	16.0	14
P0154.160-060-ZP	M16	60	12.0	20.0	24.0	17.5	16.0	14
P0154.160-080-ZP	M16	80	12.0	20.0	24.0	17.5	16.0	14
P0154.160-100-ZP	M16	100	12.0	20.0	24.0	17.5	16.0	14
P0154.200-040-ZP	M20	40	16.0	25.0	30.0	22.0	20.0	19
P0154.200-060-ZP	M20	60	16.0	25.0	30.0	22.0	20.0	19
P0154.200-080-ZP	M20	80	16.0	25.0	30.0	22.0	20.0	19
P0154.200-100-ZP	M20	100	16.0	25.0	30.0	22.0	20.0	19
P0154.200-120-ZP	M20	120	16.0	25.0	30.0	22.0	20.0	19



Captive Screws - Button Head

TX drive - 303 stainless, blackened

Captive Screws



P0149.B2

CAPTIVE SCREWS

Material

Stainless steel (AISI 303, 1.4305), black oxide coating. Tensile strength 550 N/mm². Proof stress min. 190 N/mm², austenitic stainless steel.

Also available in marine grade stainless steel (AISI 316 series; P0149.B4), titanium (P0149.Ti) and on request in steel (anodised, black oxide or zinc plated)

brass, aluminium etc.

Technical Notes

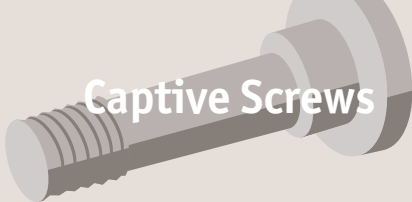
Used to comply with the Machinery Directive 2006/42/EC. Generally to ISO 7380-1. Often used with our captive washers (P0168) or retaining flanges (P0169 - for sheet metal applications). The use of our captive washers should be considered

when fitted in panels with unthreaded holes.

Important Notes

Please note that these screws have a reduced diameter shank and should not be tightened to the recommended torque for an equivalent machine screw of size d₁.

Order No.	d ₁	l ₁ 0,25	d ₂ 0,12	l ₂ -0,2	d ₃ max.	d ₄ min.	h ₁ max.	TX size
P0149.025-008-B2	M 2,5	8	1.7	3.7	4.5	2.8	1.5	TX- 8
P0149.025-010-B2	M 2,5	10	1.7	3.7	4.5	2.8	1.5	TX- 8
P0149.025-012-B2	M 2,5	12	1.7	3.7	4.5	2.8	1.5	TX- 8
P0149.025-016-B2	M 2,5	16	1.7	3.7	4.5	2.8	1.5	TX- 8
P0149.025-020-B2	M 2,5	20	1.7	3.7	4.5	2.8	1.5	TX- 8
P0149.030-010-B2	M 3	10	2.0	4.5	5.7	3.5	1.65	TX-10
P0149.030-016-B2	M 3	16	2.0	4.5	5.7	3.5	1.65	TX-10
P0149.030-020-B2	M 3	20	2.0	4.5	5.7	3.5	1.65	TX-10
P0149.030-025-B2	M 3	25	2.0	4.5	5.7	3.5	1.65	TX-10
P0149.030-030-B2	M 3	30	2.0	4.5	5.7	3.5	1.65	TX-10
P0149.030-040-B2	M 3	40	2.0	5.0	5.7	3.5	1.65	TX-10
P0149.040-012-B2	M 4	12	2.8	6.0	7.6	4.5	3.1	TX-20
P0149.040-016-B2	M 4	16	2.8	6.0	7.6	4.5	3.1	TX-20
P0149.040-020-B2	M 4	20	2.8	6.0	7.6	4.5	3.1	TX-20
P0149.040-025-B2	M 4	25	2.8	6.0	7.6	4.5	3.1	TX-20
P0149.040-030-B2	M 4	30	2.8	6.0	7.6	4.5	3.1	TX-20
P0149.040-040-B2	M 4	40	2.8	6.0	7.6	4.5	3.1	TX-20
P0149.040-050-B2	M 4	50	2.8	6.0	7.6	4.5	3.1	TX-20
P0149.040-060-B2	M 4	60	2.8	6.0	7.6	4.5	3.1	TX-20
P0149.050-012-B2	M 5	12	3.7	7.5	9.5	5.5	3.7	TX-25
P0149.050-016-B2	M 5	16	3.7	7.5	9.5	5.5	3.7	TX-25
P0149.050-020-B2	M 5	20	3.7	7.5	9.5	5.5	3.7	TX-25
P0149.050-025-B2	M 5	25	3.7	7.5	9.5	5.5	3.7	TX-25
P0149.050-030-B2	M 5	30	3.7	7.5	9.5	5.5	3.7	TX-25
P0149.050-040-B2	M 5	40	3.7	7.5	9.5	5.5	3.7	TX-25
P0149.050-050-B2	M 5	50	3.7	7.5	9.5	5.5	3.7	TX-25
P0149.050-060-B2	M 5	60	3.7	7.5	9.5	5.5	3.7	TX-25
P0149.060-016-B2	M 6	16	4.2	7.5	10.5	6.5	4.7	TX-30



Captive Screws

Captive Screws - Button Head

TX drive - 303 stainless, blackened



Order No.	d ₁	l ₁ 0,25	d ₂ 0,12	l ₂ -0,2	d ₃ max.	d ₄ min.	h ₁ max.	TX size
P0149.060-020-B2	M 6	20	4.2	7.5	10.5	6.5	4.7	TX-30
P0149.060-025-B2	M 6	25	4.2	7.5	10.5	6.5	4.7	TX-30
P0149.060-030-B2	M 6	30	4.2	7.5	10.5	6.5	4.7	TX-30
P0149.060-040-B2	M 6	40	4.2	7.5	10.5	6.5	4.7	TX-30
P0149.060-050-B2	M 6	50	4.2	7.5	10.5	6.5	4.7	TX-30
P0149.060-060-B2	M 6	60	4.2	7.5	10.5	6.5	4.7	TX-30
P0149.060-080-B2	M 6	80	4.2	7.5	10.5	6.5	4.7	TX-30

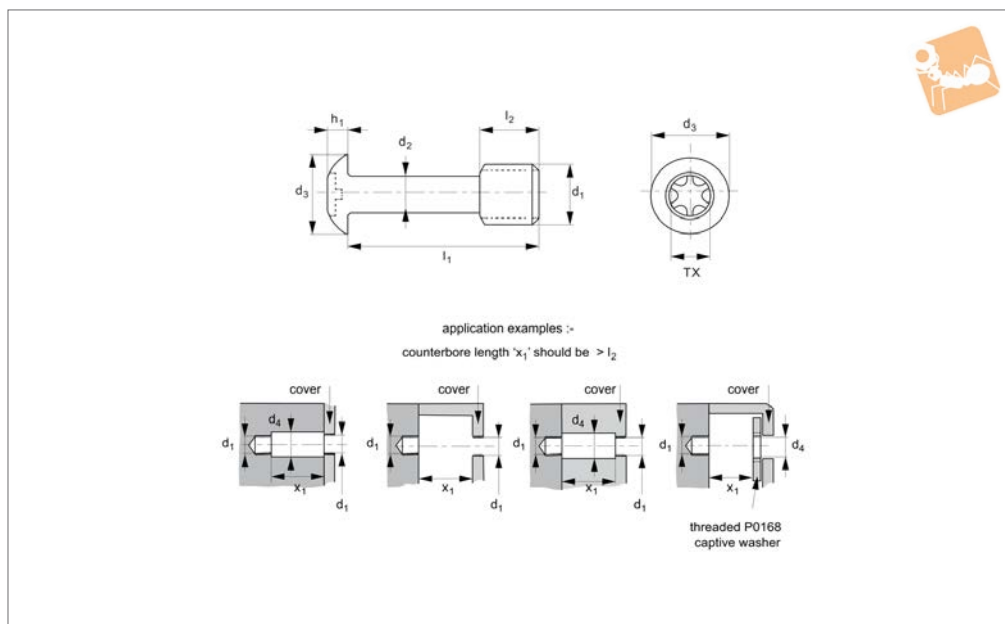
CAPTIVE SCREWS



Captive Screws - Button Head

TX drive - 316 stainless, blackened

Captive Screws



P0149.B4

CAPTIVE SCREWS

Material

Stainless steel (AISI 316, 1.4401), black oxide coating. Tensile strength 550 N/mm².

For version without black oxide coating, see P0149.A4, or for a cheaper version in 303 series stainless steel, see P0149.A2. Also available in titanium (P0149.Ti) and on request in steel, brass, aluminium etc.

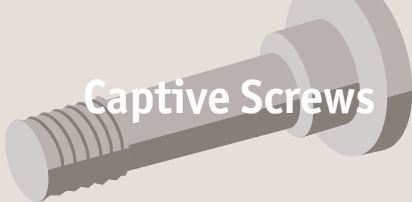
Technical Notes

Used to comply with the Machinery Directive 2006/42/EC. Generally to ISO 7380-1. Often used with our captive washers (P0168) or retaining flanges (P0169 - for sheet metal applications). The use of our captive washers should be considered when fitted in panels with unthreaded holes.

Important Notes

Please note that these screws have a reduced diameter shank and should not be tightened to the recommended torque for an equivalent machine screw of size d₁.

Order No.	d ₁	l ₁ 0,25	d ₂ 0,12	l ₂ -0,2	d ₃ max.	d ₄ min.	h ₁ max.	TX size
P0149.025-008-B4	M 2,5	8	1.7	3.7	4.5	2.8	1.5	TX- 8
P0149.025-010-B4	M 2,5	10	1.7	3.7	4.5	2.8	1.5	TX- 8
P0149.025-012-B4	M 2,5	12	1.7	3.7	4.5	2.8	1.5	TX- 8
P0149.025-016-B4	M 2,5	16	1.7	3.7	4.5	2.8	1.5	TX- 8
P0149.025-020-B4	M 2,5	20	1.7	3.7	4.5	2.8	1.5	TX- 8
P0149.030-010-B4	M 3	10	2.0	4.5	5.7	3.5	1.65	TX-10
P0149.030-016-B4	M 3	16	2.0	4.5	5.7	3.5	1.65	TX-10
P0149.030-020-B4	M 3	20	2.0	4.5	5.7	3.5	1.65	TX-10
P0149.030-025-B4	M 3	25	2.0	4.5	5.7	3.5	1.65	TX-10
P0149.030-030-B4	M 3	30	2.0	4.5	5.7	3.5	1.65	TX-10
P0149.030-040-B4	M 3	40	2.0	5.0	5.7	3.5	1.65	TX-10
P0149.040-012-B4	M 4	12	2.8	6.0	7.6	4.5	3.1	TX-20
P0149.040-016-B4	M 4	16	2.8	6.0	7.6	4.5	3.1	TX-20
P0149.040-020-B4	M 4	20	2.8	6.0	7.6	4.5	3.1	TX-20
P0149.040-025-B4	M 4	25	2.8	6.0	7.6	4.5	3.1	TX-20
P0149.040-030-B4	M 4	30	2.8	6.0	7.6	4.5	3.1	TX-20
P0149.040-040-B4	M 4	40	2.8	6.0	7.6	4.5	3.1	TX-20
P0149.040-050-B4	M 4	50	2.8	6.0	7.6	4.5	3.1	TX-20
P0149.040-060-B4	M 4	60	2.8	6.0	7.6	4.5	3.1	TX-20
P0149.050-012-B4	M 5	12	3.7	7.5	9.5	5.5	3.7	TX-25
P0149.050-016-B4	M 5	16	3.7	7.5	9.5	5.5	3.7	TX-25
P0149.050-020-B4	M 5	20	3.7	7.5	9.5	5.5	3.7	TX-25
P0149.050-025-B4	M 5	25	3.7	7.5	9.5	5.5	3.7	TX-25
P0149.050-030-B4	M 5	30	3.7	7.5	9.5	5.5	3.7	TX-25
P0149.050-040-B4	M 5	40	3.7	7.5	9.5	5.5	3.7	TX-25
P0149.050-050-B4	M 5	50	3.7	7.5	9.5	5.5	3.7	TX-25
P0149.050-060-B4	M 5	60	3.7	7.5	9.5	5.5	3.7	TX-25
P0149.060-016-B4	M 6	16	4.2	7.5	10.5	6.5	4.7	TX-30



Captive Screws

Captive Screws - Button Head

TX drive - 316 stainless, blackened



Order No.	d ₁	l ₁ 0,25	d ₂ 0,12	l ₂ -0,2	d ₃ max.	d ₄ min.	h ₁ max.	TX size
P0149.060-020-B4	M 6	20	4.2	7.5	10.5	6.5	4.7	TX-30
P0149.060-025-B4	M 6	25	4.2	7.5	10.5	6.5	4.7	TX-30
P0149.060-030-B4	M 6	30	4.2	7.5	10.5	6.5	4.7	TX-30
P0149.060-040-B4	M 6	40	4.2	7.5	10.5	6.5	4.7	TX-30
P0149.060-050-B4	M 6	50	4.2	7.5	10.5	6.5	4.7	TX-30
P0149.060-060-B4	M 6	60	4.2	7.5	10.5	6.5	4.7	TX-30
P0149.060-080-B4	M 6	80	4.2	7.5	10.5	6.5	4.7	TX-30

CAPTIVE SCREWS

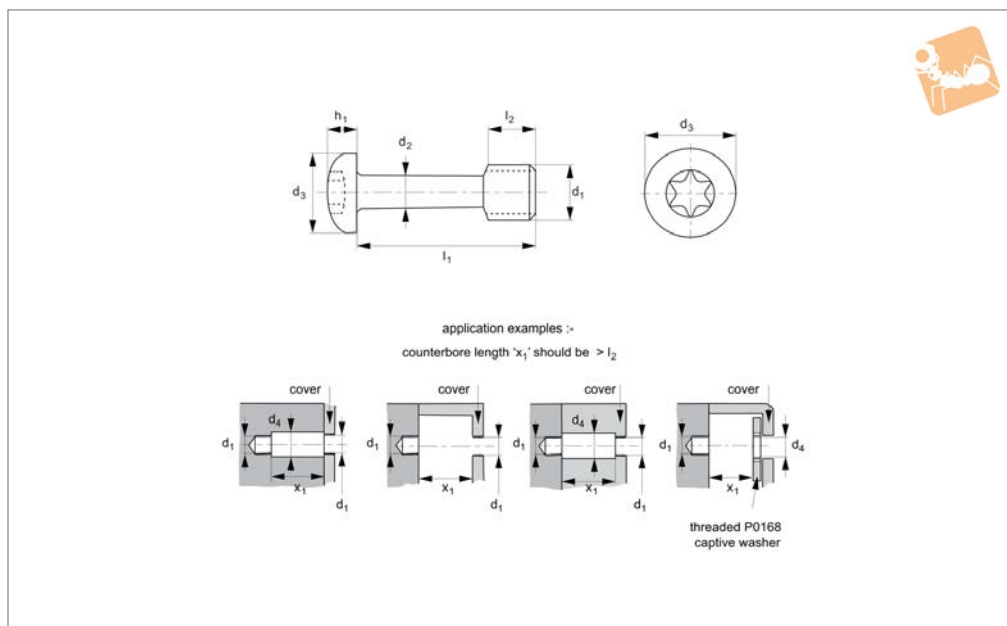


Captive Screws - Pan Head

TX drive - 303 stainless, blackened



Captive Screws



P0150.B2

CAPTIVE SCREWS

Material

Stainless steel (AISI 303, 1.4305), black oxide coating. Tensile strength 550 N/mm². Proof stress min. 190 N/mm², austenitic stainless steel.

Also available on request in steel (anodised, black oxide or zinc plated), stainless steel (AISI 316, 1.440), brass, aluminium etc.

Technical Notes

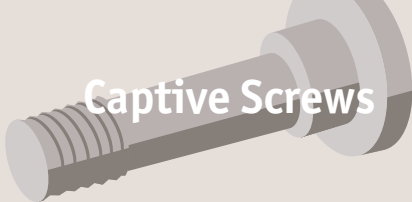
Used to comply with the Machinery Directive 2006/42/EC. Generally to ISO 14583. Often used with our captive washer (P0168) or retaining flanges (P0169 - for sheet metal applications). The use of our captive washer should be considered when fitted in panels with unthreaded holes.

*M 8 sizes have a reduced TX size.

Important Notes

Please note that these screws have a reduced diameter shank and should not be tightened to the recommended torque for an equivalent machine screw of size d₁.

Order No.	d ₁	l ₁ ±0.25	d ₂ ±0.12	l ₂ ±0.25	d ₃ max.	d ₄ min.	h ₁ max.	TX size
P0150.030-008-B2	M 3	8	2.0	4.5	6	3.5	2.5	TX-10
P0150.030-010-B2	M 3	10	2.0	4.5	6	3.5	2.5	TX-10
P0150.030-016-B2	M 3	16	2.0	4.5	6	3.5	2.5	TX-10
P0150.030-020-B2	M 3	20	2.0	4.5	6	3.5	2.5	TX-10
P0150.030-025-B2	M 3	25	2.0	4.5	6	3.5	2.5	TX-10
P0150.030-030-B2	M 3	30	2.0	4.5	6	3.5	2.5	TX-10
P0150.040-008-B2	M 4	8	2.8	6.0	8	4.5	3.2	TX-20
P0150.040-010-B2	M 4	10	2.8	6.0	8	4.5	3.2	TX-20
P0150.040-012-B2	M 4	12	2.8	6.0	8	4.5	3.2	TX-20
P0150.040-016-B2	M 4	16	2.8	6.0	8	4.5	3.2	TX-20
P0150.040-020-B2	M 4	20	2.8	6.0	8	4.5	3.2	TX-20
P0150.040-025-B2	M 4	25	2.8	6.0	8	4.5	3.2	TX-20
P0150.040-030-B2	M 4	30	2.8	6.0	8	4.5	3.2	TX-20
P0150.040-040-B2	M 4	40	2.8	6.0	8	4.5	3.2	TX-20
P0150.040-050-B2	M 4	50	2.8	6.0	8	4.5	3.2	TX-20
P0150.050-010-B2	M 5	10	3.7	7.5	10	5.5	3.9	TX-25
P0150.050-012-B2	M 5	12	3.7	7.5	10	5.5	3.9	TX-25
P0150.050-016-B2	M 5	16	3.7	7.5	10	5.5	3.9	TX-25
P0150.050-020-B2	M 5	20	3.7	7.5	10	5.5	3.9	TX-25
P0150.050-025-B2	M 5	25	3.7	7.5	10	5.5	3.9	TX-25
P0150.050-030-B2	M 5	30	3.7	7.5	10	5.5	3.9	TX-25
P0150.050-040-B2	M 5	40	3.7	7.5	10	5.5	3.9	TX-25
P0150.050-050-B2	M 5	50	3.7	7.5	10	5.5	3.9	TX-25
P0150.060-010-B2	M 6	10	4.2	7.5	12	6.5	4.7	TX-30
P0150.060-012-B2	M 6	12	4.2	7.5	12	6.5	4.7	TX-30
P0150.060-016-B2	M 6	16	4.2	7.5	12	6.5	4.7	TX-30
P0150.060-020-B2	M 6	20	4.2	7.5	12	6.5	4.7	TX-30
P0150.060-025-B2	M 6	25	4.2	7.5	12	6.5	4.7	TX-30



Captive Screws

Captive Screws - Pan Head

TX drive - 303 stainless, blackened



CAPTIVE SCREWS

Order No.	d ₁	l ₁ ±0.25	d ₂ ±0.12	l ₂ ±0.25	d ₃ max.	d ₄ min.	h ₁ max.	TX size
P0150.060-030-B2	M 6	30	4.2	7.5	12	6.5	4.7	TX-30
P0150.060-040-B2	M 6	40	4.2	7.5	12	6.5	4.7	TX-30
P0150.060-050-B2	M 6	50	4.2	7.5	12	6.5	4.7	TX-30
P0150.060-060-B2	M 6	60	4.2	7.5	12	6.5	4.7	TX-30
P0150.060-080-B2	M 6	80	4.2	7.5	12	6.5	4.7	TX-30
P0150.080-012-B2	M 8	12	6.0	10.0	16	8.5	6.1	TX-30*
P0150.080-016-B2	M 8	16	6.0	10.0	16	8.5	6.1	TX-30*
P0150.080-020-B2	M 8	20	6.0	10.0	16	8.5	6.1	TX-30*
P0150.080-025-B2	M 8	25	6.0	10.0	16	8.5	6.1	TX-30*
P0150.080-030-B2	M 8	30	6.0	10.0	16	8.5	6.1	TX-30*
P0150.080-035-B2	M 8	35	6.0	10.0	16	8.5	6.1	TX-30*
P0150.080-040-B2	M 8	40	6.0	10.0	16	8.5	6.1	TX-30*
P0150.080-045-B2	M 8	45	6.0	10.0	16	8.5	6.1	TX-30*
P0150.080-050-B2	M 8	50	6.0	10.0	16	8.5	6.1	TX-30*
P0150.080-060-B2	M 8	60	6.0	10.0	16	8.5	6.1	TX-30*
P0150.080-080-B2	M 8	80	6.0	10.0	16	8.5	6.1	TX-30*

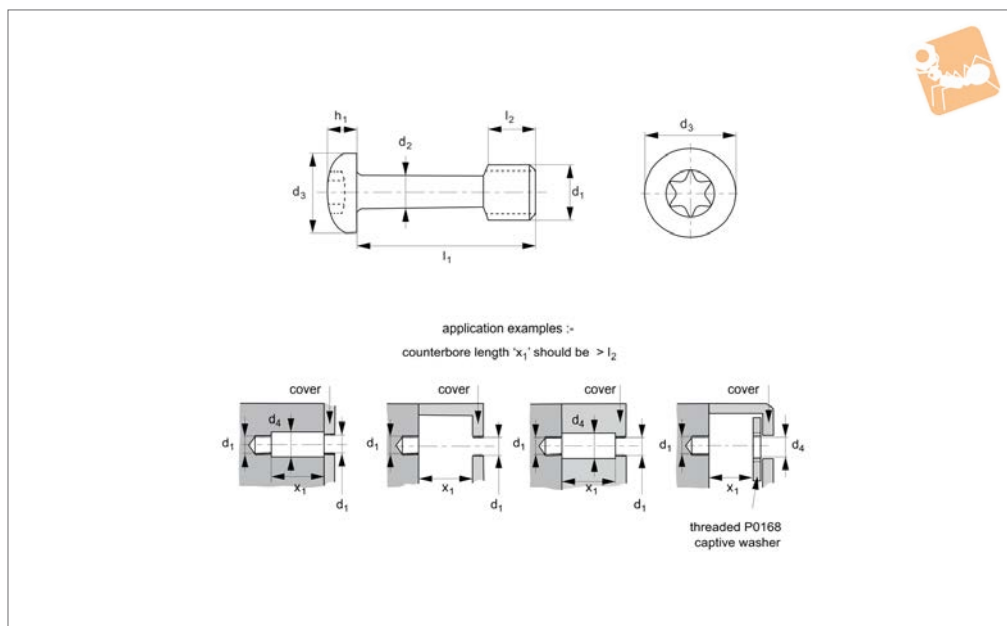


Captive Screws - Pan Head

TX drive - 316 stainless, blackened



Captive Screws



P0150.B4

CAPTIVE SCREWS

Material

Stainless steel (AISI 316, 1.440), black oxide coating. Tensile strength 480 N/mm². Proof stress min. 200 N/mm², austenitic stainless steel.

Also available on request in steel (anodised, black oxide or zinc plated), stainless steel (AISI 303, 1.4305), brass, aluminium etc.

Technical Notes

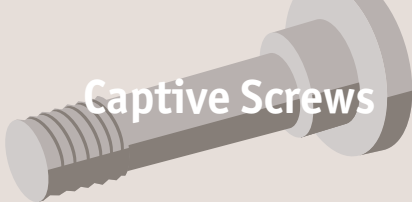
Used to comply with the Machinery Directive 2006/42/EC. Generally to ISO 14583. Often used with our captive washers (P0168) or retaining flanges (P0169 - for sheet metal applications). The use of our captive washers should be considered when fitted in panels with unthreaded holes.

*M 8 sizes have a reduced TX size.

Important Notes

Please note that these screws have a reduced diameter shank and should not be tightened to the recommended torque for an equivalent machine screw of size d₁.

Order No.	d ₁	l ₁ ±0.25	d ₂ ±0.12	l ₂ ±0.25	d ₃ max.	d ₄ min.	h ₁ max.	TX size
P0150.030-008-B4	M 3	8	2.0	4.5	6	3.5	2.5	TX-10
P0150.030-010-B4	M 3	10	2.0	4.5	6	3.5	2.5	TX-10
P0150.030-016-B4	M 3	16	2.0	4.5	6	3.5	2.5	TX-10
P0150.030-020-B4	M 3	20	2.0	4.5	6	3.5	2.5	TX-10
P0150.030-025-B4	M 3	25	2.0	4.5	6	3.5	2.5	TX-10
P0150.030-030-B4	M 3	30	2.0	4.5	6	3.5	2.5	TX-10
P0150.040-008-B4	M 4	8	2.8	6.0	8	4.5	3.2	TX-20
P0150.040-010-B4	M 4	10	2.8	6.0	8	4.5	3.2	TX-20
P0150.040-012-B4	M 4	12	2.8	6.0	8	4.5	3.2	TX-20
P0150.040-016-B4	M 4	16	2.8	6.0	8	4.5	3.2	TX-20
P0150.040-020-B4	M 4	20	2.8	6.0	8	4.5	3.2	TX-20
P0150.040-025-B4	M 4	25	2.8	6.0	8	4.5	3.2	TX-20
P0150.040-030-B4	M 4	30	2.8	6.0	8	4.5	3.2	TX-20
P0150.040-040-B4	M 4	40	2.8	6.0	8	4.5	3.2	TX-20
P0150.040-050-B4	M 4	50	2.8	6.0	8	4.5	3.2	TX-20
P0150.050-010-B4	M 5	10	3.7	7.5	10	5.5	3.9	TX-25
P0150.050-012-B4	M 5	12	3.7	7.5	10	5.5	3.9	TX-25
P0150.050-016-B4	M 5	16	3.7	7.5	10	5.5	3.9	TX-25
P0150.050-020-B4	M 5	20	3.7	7.5	10	5.5	3.9	TX-25
P0150.050-025-B4	M 5	25	3.7	7.5	10	5.5	3.9	TX-25
P0150.050-030-B4	M 5	30	3.7	7.5	10	5.5	3.9	TX-25
P0150.050-040-B4	M 5	40	3.7	7.5	10	5.5	3.9	TX-25
P0150.050-050-B4	M 5	50	3.7	7.5	10	5.5	3.9	TX-25
P0150.060-010-B4	M 6	10	4.2	7.5	12	6.5	4.7	TX-30
P0150.060-012-B4	M 6	12	4.2	7.5	12	6.5	4.7	TX-30
P0150.060-016-B4	M 6	16	4.2	7.5	12	6.5	4.7	TX-30
P0150.060-020-B4	M 6	20	4.2	7.5	12	6.5	4.7	TX-30
P0150.060-025-B4	M 6	25	4.2	7.5	12	6.5	4.7	TX-30



Captive Screws

Captive Screws - Pan Head

TX drive - 316 stainless, blackened



CAPTIVE SCREWS

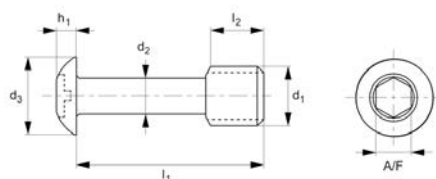
Order No.	d ₁	l ₁ ±0.25	d ₂ ±0.12	l ₂ ±0.25	d ₃ max.	d ₄ min.	h ₁ max.	TX size
P0150.060-030-B4	M 6	30	4.2	7.5	12	6.5	4.7	TX-30
P0150.060-040-B4	M 6	40	4.2	7.5	12	6.5	4.7	TX-30
P0150.060-050-B4	M 6	50	4.2	7.5	12	6.5	4.7	TX-30
P0150.060-060-B4	M 6	60	4.2	7.5	12	6.5	4.7	TX-30
P0150.060-080-B4	M 6	80	4.2	7.5	12	6.5	4.7	TX-30
P0150.080-012-B4	M 8	12	6.0	10.0	16	8.5	6.1	TX-30*
P0150.080-016-B4	M 8	16	6.0	10.0	16	8.5	6.1	TX-30*
P0150.080-020-B4	M 8	20	6.0	10.0	16	8.5	6.1	TX-30*
P0150.080-025-B4	M 8	25	6.0	10.0	16	8.5	6.1	TX-30*
P0150.080-030-B4	M 8	30	6.0	10.0	16	8.5	6.1	TX-30*
P0150.080-035-B4	M 8	35	6.0	10.0	16	8.5	6.1	TX-30*
P0150.080-040-B4	M 8	40	6.0	10.0	16	8.5	6.1	TX-30*
P0150.080-045-B4	M 8	45	6.0	10.0	16	8.5	6.1	TX-30*
P0150.080-050-B4	M 8	50	6.0	10.0	16	8.5	6.1	TX-30*
P0150.080-060-B4	M 8	60	6.0	10.0	16	8.5	6.1	TX-30*
P0150.080-080-B4	M 8	80	6.0	10.0	16	8.5	6.1	TX-30*



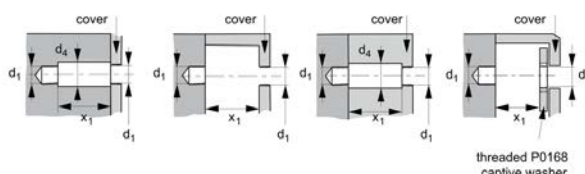
Captive Screws - Button Head

hex drive - 303 stainless, blackened

Captive Screws



application examples :-
counterbore length 'x₁' should be > l₂



P0151.B2

CAPTIVE SCREWS

Material

Stainless steel (AISI 303, 1.4305), black oxide coating. Tensile strength 550 N/mm². Proof stress min. 190 N/mm², austenitic stainless steel.

Also available on request in steel (anodised, black oxide or zinc plated) stainless steel (AISI 316, 1.440), brass, aluminium etc.

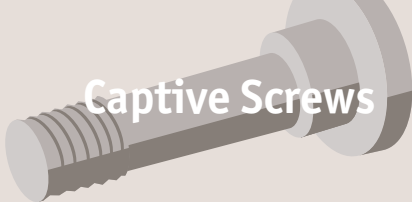
Technical Notes

Used to comply with the Machinery Directive 2006/42/EC. Generally to ISO 7380-1. Often used with our captive washers (P0168) or retaining flanges (P0169 - for sheet metal applications). The use of our captive washers should be considered when fitted in panels with unthreaded holes.

Important Notes

Please note that these screws have a reduced diameter shank and should not be tightened to the recommended torque for an equivalent machine screw of size d₁.

Order No.	d ₁	l ₁ ±0.25	d ₂ ±0.12	l ₂ ±0.25	d ₃ max.	d ₄ min.	h ₁ max.	A/F
P0151.025-008-B2	M 2,5	8	1.7	3.7	4.5	2.8	1.50	1.5
P0151.025-010-B2	M 2,5	10	1.7	3.7	4.5	2.8	1.50	1.5
P0151.025-012-B2	M 2,5	12	1.7	3.7	4.5	2.8	1.50	1.5
P0151.025-016-B2	M 2,5	16	1.7	3.7	4.5	2.8	1.50	1.5
P0151.025-020-B2	M 2,5	20	1.7	3.7	4.5	2.8	1.50	1.5
P0151.030-008-B2	M 3	8	2.0	4.5	5.7	3.5	1.53	2
P0151.030-010-B2	M 3	10	2.0	4.5	5.7	3.5	1.53	2
P0151.030-016-B2	M 3	16	2.0	4.5	5.7	3.5	1.53	2
P0151.030-020-B2	M 3	20	2.0	4.5	5.7	3.5	1.53	2
P0151.030-025-B2	M 3	25	2.0	4.5	5.7	3.5	1.53	2
P0151.030-030-B2	M 3	30	2.0	4.5	5.7	3.5	1.53	2
P0151.030-040-B2	M 3	40	2.0	4.5	5.7	3.5	1.53	2
P0151.040-010-B2	M 4	10	2.8	6.0	7.6	4.5	2.10	2.5
P0151.040-012-B2	M 4	12	2.8	6.0	7.6	4.5	2.10	2.5
P0151.040-016-B2	M 4	16	2.8	6.0	7.6	4.5	2.10	2.5
P0151.040-020-B2	M 4	20	2.8	6.0	7.6	4.5	2.10	2.5
P0151.040-025-B2	M 4	25	2.8	6.0	7.6	4.5	2.10	2.5
P0151.040-030-B2	M 4	30	2.8	6.0	7.6	4.5	2.10	2.5
P0151.040-035-B2	M 4	35	2.8	6.0	7.6	4.5	2.10	2.5
P0151.040-040-B2	M 4	40	2.8	6.0	7.6	4.5	2.10	2.5
P0151.040-050-B2	M 4	50	2.8	6.0	7.6	4.5	2.10	2.5
P0151.040-060-B2	M 4	60	2.8	6.0	7.6	4.5	2.10	2.5
P0151.050-012-B2	M 5	12	3.7	7.5	9.5	5.5	2.63	3
P0151.050-016-B2	M 5	16	3.7	7.5	9.5	5.5	2.63	3
P0151.050-020-B2	M 5	20	3.7	7.5	9.5	5.5	2.63	3
P0151.050-025-B2	M 5	25	3.7	7.5	9.5	5.5	2.63	3
P0151.050-030-B2	M 5	30	3.7	7.5	9.5	5.5	2.63	3
P0151.050-040-B2	M 5	40	3.7	7.5	9.5	5.5	2.63	3



Captive Screws

Captive Screws - Button Head

hex drive - 303 stainless, blackened



CAPTIVE SCREWS

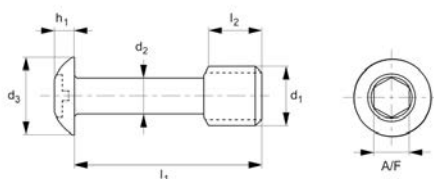
Order No.	d ₁	l ₁ ±0.25	d ₂ ±0.12	l ₂ ±0.25	d ₃ max.	d ₄ min.	h ₁ max.	A/F
P0151.050-050-B2	M 5	50	3.7	7.5	9.5	5.5	2.63	3
P0151.050-060-B2	M 5	60	3.7	7.5	9.5	5.5	2.63	3
P0151.060-012-B2	M 6	12	4.2	7.5	10.5	6.5	3.10	4
P0151.060-016-B2	M 6	16	4.2	7.5	10.5	6.5	3.10	4
P0151.060-020-B2	M 6	20	4.2	7.5	10.5	6.5	3.10	4
P0151.060-025-B2	M 6	25	4.2	7.5	10.5	6.5	3.10	4
P0151.060-030-B2	M 6	30	4.2	7.5	10.5	6.5	3.10	4
P0151.060-035-B2	M 6	35	4.2	7.5	10.5	6.5	3.10	4
P0151.060-040-B2	M 6	40	4.2	7.5	10.5	6.5	3.10	4
P0151.060-050-B2	M 6	50	4.2	7.5	10.5	6.5	3.10	4
P0151.060-060-B2	M 6	60	4.2	7.5	10.5	6.5	3.10	4
P0151.060-080-B2	M 6	80	4.2	7.5	10.5	6.5	3.10	4
P0151.080-016-B2	M 8	16	6.0	10.0	14.0	8.5	4.46	5
P0151.080-020-B2	M 8	20	6.0	10.0	14.0	8.5	4.46	5
P0151.080-025-B2	M 8	25	6.0	10.0	14.0	8.5	4.46	5
P0151.080-030-B2	M 8	30	6.0	10.0	14.0	8.5	4.46	5
P0151.080-035-B2	M 8	35	6.0	10.0	14.0	8.5	4.46	5
P0151.080-040-B2	M 8	40	6.0	10.0	14.0	8.5	4.46	5
P0151.080-045-B2	M 8	45	6.0	10.0	14.0	8.5	4.46	5
P0151.080-050-B2	M 8	50	6.0	10.0	14.0	8.5	4.46	5
P0151.080-060-B2	M 8	60	6.0	10.0	14.0	8.5	4.46	5
P0151.080-080-B2	M 8	80	6.0	10.0	14.0	8.5	4.46	5
P0151.100-020-B2	M 10	20	7.5	12.5	17.5	10.6	5.5	6
P0151.100-025-B2	M 10	25	7.5	12.5	17.5	10.6	5.5	6
P0151.100-030-B2	M 10	30	7.5	12.5	17.5	10.6	5.5	6
P0151.100-035-B2	M 10	35	7.5	12.5	17.5	10.6	5.5	6
P0151.100-040-B2	M 10	40	7.5	12.5	17.5	10.6	5.5	6
P0151.100-045-B2	M 10	45	7.5	12.5	17.5	10.6	5.5	6
P0151.100-050-B2	M 10	50	7.5	12.5	17.5	10.6	5.5	6
P0151.100-060-B2	M 10	60	7.5	12.5	17.5	10.6	5.5	6
P0151.100-080-B2	M 10	80	7.5	12.5	17.5	10.6	5.5	6



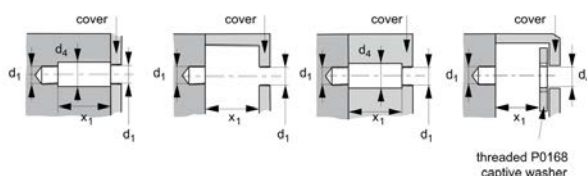
Captive Screws - Button Head

hex drive - 316 stainless, blackened

Captive Screws



application examples :-
counterbore length 'x₁' should be > l₂



MADE IN
BRITAIN

P0151.B4

CAPTIVE SCREWS

Material

Stainless steel (AISI 316, 1.440), black oxide coating. Tensile strength 480 N/mm². Proof stress min. 200 N/mm², austenitic stainless steel.

Also available on request in steel (anodised, black oxide or zinc plated) stainless steel (AISI 303, 1.4305), brass, aluminium etc.

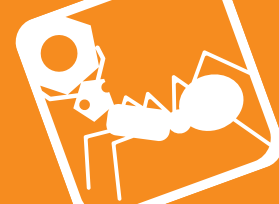
Technical Notes

Used to comply with the Machinery Directive 2006/42/EC. Generally to ISO 7380-1. Often used with our captive washers (P0168) or retaining flanges (P0169 - for sheet metal applications). The use of our captive washers should be considered when fitted in panels with unthreaded holes.

Important Notes

Please note that these screws have a reduced diameter shank and should not be tightened to the recommended torque for an equivalent machine screw of size d₁.

Order No.	d ₁	l ₁ ±0.25	d ₂ ±0.12	l ₂ ±0.25	d ₃ max.	d ₄ min.	h ₁ max.	A/F
P0151.025-008-B4	M 2,5	8	1.7	3.7	4.5	2.8	1.50	1.5
P0151.025-010-B4	M 2,5	10	1.7	3.7	4.5	2.8	1.50	1.5
P0151.025-012-B4	M 2,5	12	1.7	3.7	4.5	2.8	1.50	1.5
P0151.025-016-B4	M 2,5	16	1.7	3.7	4.5	2.8	1.50	1.5
P0151.025-020-B4	M 2,5	20	1.7	3.7	4.5	2.8	1.50	1.5
P0151.030-008-B4	M 3	8	2.0	4.5	5.7	3.5	1.53	2
P0151.030-010-B4	M 3	10	2.0	4.5	5.7	3.5	1.53	2
P0151.030-016-B4	M 3	16	2.0	4.5	5.7	3.5	1.53	2
P0151.030-020-B4	M 3	20	2.0	4.5	5.7	3.5	1.53	2
P0151.030-025-B4	M 3	25	2.0	4.5	5.7	3.5	1.53	2
P0151.030-030-B4	M 3	30	2.0	4.5	5.7	3.5	1.53	2
P0151.030-040-B4	M 3	40	2.0	4.5	5.7	3.5	1.53	2
P0151.040-010-B4	M 4	10	2.8	6.0	7.6	4.5	2.10	2.5
P0151.040-012-B4	M 4	12	2.8	6.0	7.6	4.5	2.10	2.5
P0151.040-016-B4	M 4	16	2.8	6.0	7.6	4.5	2.10	2.5
P0151.040-020-B4	M 4	20	2.8	6.0	7.6	4.5	2.10	2.5
P0151.040-025-B4	M 4	25	2.8	6.0	7.6	4.5	2.10	2.5
P0151.040-030-B4	M 4	30	2.8	6.0	7.6	4.5	2.10	2.5
P0151.040-035-B4	M 4	35	2.8	6.0	7.6	4.5	2.10	2.5
P0151.040-040-B4	M 4	40	2.8	6.0	7.6	4.5	2.10	2.5
P0151.040-050-B4	M 4	50	2.8	6.0	7.6	4.5	2.10	2.5
P0151.040-060-B4	M 4	60	2.8	6.0	7.6	4.5	2.10	2.5
P0151.050-012-B4	M 5	12	3.7	7.5	9.5	5.5	2.63	3
P0151.050-016-B4	M 5	16	3.7	7.5	9.5	5.5	2.63	3
P0151.050-020-B4	M 5	20	3.7	7.5	9.5	5.5	2.63	3
P0151.050-025-B4	M 5	25	3.7	7.5	9.5	5.5	2.63	3
P0151.050-030-B4	M 5	30	3.7	7.5	9.5	5.5	2.63	3
P0151.050-040-B4	M 5	40	3.7	7.5	9.5	5.5	2.63	3



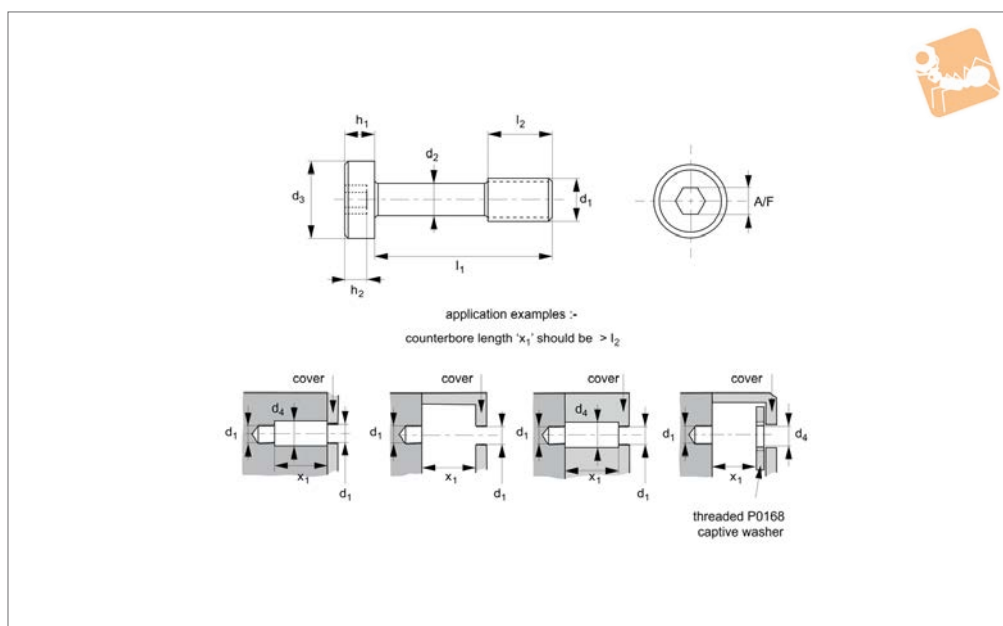
Order No.	d ₁	l ₁ ±0.25	d ₂ ±0.12	l ₂ ±0.25	d ₃ max.	d ₄ min.	h ₁ max.	A/F
P0151.050-050-B4	M 5	50	3.7	7.5	9.5	5.5	2.63	3
P0151.050-060-B4	M 5	60	3.7	7.5	9.5	5.5	2.63	3
P0151.060-012-B4	M 6	12	4.2	7.5	10.5	6.5	3.10	4
P0151.060-016-B4	M 6	16	4.2	7.5	10.5	6.5	3.10	4
P0151.060-020-B4	M 6	20	4.2	7.5	10.5	6.5	3.10	4
P0151.060-025-B4	M 6	25	4.2	7.5	10.5	6.5	3.10	4
P0151.060-030-B4	M 6	30	4.2	7.5	10.5	6.5	3.10	4
P0151.060-035-B4	M 6	35	4.2	7.5	10.5	6.5	3.10	4
P0151.060-040-B4	M 6	40	4.2	7.5	10.5	6.5	3.10	4
P0151.060-050-B4	M 6	50	4.2	7.5	10.5	6.5	3.10	4
P0151.060-060-B4	M 6	60	4.2	7.5	10.5	6.5	3.10	4
P0151.060-080-B4	M 6	80	4.2	7.5	10.5	6.5	3.10	4
P0151.080-016-B4	M 8	16	6.0	10.0	14.0	8.5	4.46	5
P0151.080-020-B4	M 8	20	6.0	10.0	14.0	8.5	4.46	5
P0151.080-025-B4	M 8	25	6.0	10.0	14.0	8.5	4.46	5
P0151.080-030-B4	M 8	30	6.0	10.0	14.0	8.5	4.46	5
P0151.080-035-B4	M 8	35	6.0	10.0	14.0	8.5	4.46	5
P0151.080-040-B4	M 8	40	6.0	10.0	14.0	8.5	4.46	5
P0151.080-045-B4	M 8	45	6.0	10.0	14.0	8.5	4.46	5
P0151.080-050-B4	M 8	50	6.0	10.0	14.0	8.5	4.46	5
P0151.080-060-B4	M 8	60	6.0	10.0	14.0	8.5	4.46	5
P0151.080-080-B4	M 8	80	6.0	10.0	14.0	8.5	4.46	5
P0151.100-020-B4	M 10	20	7.5	12.5	17.5	10.6	5.5	6
P0151.100-025-B4	M 10	25	7.5	12.5	17.5	10.6	5.5	6
P0151.100-030-B4	M 10	30	7.5	12.5	17.5	10.6	5.5	6
P0151.100-035-B4	M 10	35	7.5	12.5	17.5	10.6	5.5	6
P0151.100-040-B4	M 10	40	7.5	12.5	17.5	10.6	5.5	6
P0151.100-045-B4	M 10	45	7.5	12.5	17.5	10.6	5.5	6
P0151.100-050-B4	M 10	50	7.5	12.5	17.5	10.6	5.5	6
P0151.100-060-B4	M 10	60	7.5	12.5	17.5	10.6	5.5	6
P0151.100-080-B4	M 10	80	7.5	12.5	17.5	10.6	5.5	6



Captive Screws - Cheese Head

hex drive - 303 stainless - blackened

Captive Screws



P0152.B2

CAPTIVE SCREWS

Material

Stainless steel (AISI 303, 1.4305), black oxide coated. Tensile strength 550 N/mm².

A marine grade stainless steel (AISI 316, 1.4401) version of this product is also available. Available on request in titanium, steel (anodised, black oxide or zinc plated), brass, aluminium etc.

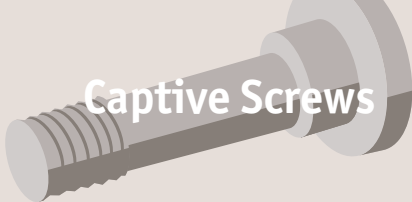
Technical Notes

Used to comply with the Machinery Directive 2006/42/EC. Generally to ISO 1207. Often used with our captive washers (P0168) or retaining flanges (P0169 - for sheet metal applications). The use of our captive washers should be considered when fitted in panels with unthreaded holes.

Important Notes

Please note that these screws have a reduced diameter shank and should not be tightened to the recommended torque for an equivalent machine screw of size d₁.

Order No.	d ₁	l ₁ ±0.25	d ₂ ±0.12	l ₂ ±0.25	d ₃	d ₄ min.	h ₁	h ₂	A/F
P0152.020-010-B2	M 2	10	1.2	3.0	3.8	2.5	1.3	0.85	1.3
P0152.020-012-B2	M 2	12	1.2	3.0	3.8	2.5	1.3	0.85	1.3
P0152.020-016-B2	M 2	16	1.2	3.0	3.8	2.5	1.3	0.85	1.3
P0152.020-020-B2	M 2	20	1.2	3.0	3.8	2.5	1.3	0.85	1.3
P0152.025-008-B2	M 2,5	8	1.7	3.7	4.5	2.8	1.6	1.00	1.5
P0152.025-010-B2	M 2,5	10	1.7	3.7	4.5	2.8	1.6	1.00	1.5
P0152.025-016-B2	M 2,5	16	1.7	3.7	4.5	2.8	1.6	1.00	1.5
P0152.025-020-B2	M 2,5	20	1.7	3.7	4.5	2.8	1.6	1.00	1.5
P0152.025-025-B2	M 2,5	25	1.7	3.7	4.5	2.8	1.6	1.00	1.5
P0152.025-030-B2	M 2,5	30	1.7	3.7	4.5	2.8	1.6	1.00	1.5
P0152.030-010-B2	M 3	10	2.0	4.5	5.5	3.5	2.0	1.30	2
P0152.030-011-B2	M 3	11	2.0	4.5	5.5	3.5	2.0	1.30	2
P0152.030-013-B2	M 3	13	2.0	4.5	5.5	3.5	2.0	1.30	2
P0152.030-016-B2	M 3	16	2.0	4.5	5.5	3.5	2.0	1.30	2
P0152.030-018-B2	M 3	18	2.0	4.5	5.5	3.5	2.0	1.30	2
P0152.030-020-B2	M 3	20	2.0	4.5	5.5	3.5	2.0	1.30	2
P0152.030-025-B2	M 3	25	2.0	4.5	5.5	3.5	2.0	1.30	2
P0152.030-030-B2	M 3	30	2.0	4.5	5.5	3.5	2.0	1.30	2
P0152.030-040-B2	M 3	40	2.0	4.5	5.5	3.5	2.0	1.30	2
P0152.035-010-B2	M 3,5	10	2.3	5.2	6.0	3.8	2.4	1.4	2.5
P0152.035-016-B2	M 3,5	16	2.3	5.2	6.0	3.8	2.4	1.4	2.5
P0152.035-020-B2	M 3,5	20	2.3	5.2	6.0	3.8	2.4	1.4	2.5
P0152.035-025-B2	M 3,5	25	2.3	5.2	6.0	3.8	2.4	1.4	2.5
P0152.035-030-B2	M 3,5	30	2.3	5.2	6.0	3.8	2.4	1.4	2.5
P0152.035-040-B2	M 3,5	40	2.3	5.2	6.0	3.8	2.4	1.4	2.5
P0152.040-010-B2	M 4	10	2.8	6.0	7.0	4.5	2.6	1.6	2.5
P0152.040-012-B2	M 4	12	2.8	6.0	7.0	4.5	2.6	1.6	2.5
P0152.040-016-B2	M 4	16	2.8	6.0	7.0	4.5	2.6	1.6	2.5



Captive Screws

Captive Screws - Cheese Head

hex drive - 303 stainless - blackened



CAPTIVE SCREWS

Order No.	d ₁	l ₁ ±0.25	d ₂ ±0.12	l ₂ ±0.25	d ₃	d ₄ min.	h ₁	h ₂	A/F
P0152.040-018-B2	M 4	18	2.8	6.0	7.0	4.5	2.6	1.6	2.5
P0152.040-019-B2	M 4	19	2.8	6.0	7.0	4.5	2.6	1.6	2.5
P0152.040-020-B2	M 4	20	2.8	6.0	7.0	4.5	2.6	1.6	2.5
P0152.040-025-B2	M 4	25	2.8	6.0	7.0	4.5	2.6	1.6	2.5
P0152.040-030-B2	M 4	30	2.8	6.0	7.0	4.5	2.6	1.6	2.5
P0152.040-040-B2	M 4	40	2.8	6.0	7.0	4.5	2.6	1.6	2.5
P0152.040-050-B2	M 4	50	2.8	6.0	7.0	4.5	2.6	1.6	2.5
P0152.040-060-B2	M 4	60	2.8	6.0	7.0	4.5	2.6	1.6	2.5
P0152.050-010-B2	M 5	10	3.7	7.5	8.5	5.5	3.3	2.0	3
P0152.050-012-B2	M 5	12	3.7	7.5	8.5	5.5	3.3	2.0	3
P0152.050-016-B2	M 5	16	3.7	7.5	8.5	5.5	3.3	2.0	3
P0152.050-018-B2	M 5	18	3.7	7.5	8.5	5.5	3.3	2.0	3
P0152.050-020-B2	M 5	20	3.7	7.5	8.5	5.5	3.3	2.0	3
P0152.050-022-B2	M 5	22	3.7	7.5	8.5	5.5	3.3	2.0	3
P0152.050-025-B2	M 5	25	3.7	7.5	8.5	5.5	3.3	2.0	3
P0152.050-030-B2	M 5	30	3.7	7.5	8.5	5.5	3.3	2.0	3
P0152.050-040-B2	M 5	40	3.7	7.5	8.5	5.5	3.3	2.0	3
P0152.050-050-B2	M 5	50	3.7	7.5	8.5	5.5	3.3	2.0	3
P0152.050-060-B2	M 5	60	3.7	7.5	8.5	5.5	3.3	2.0	3
P0152.050-080-B2	M 5	80	3.7	7.5	8.5	5.5	3.3	2.0	3
P0152.060-016-B2	M 6	16	4.2	7.5	10.0	6.5	3.9	2.3	4
P0152.060-020-B2	M 6	20	4.2	7.5	10.0	6.5	3.9	2.3	4
P0152.060-025-B2	M 6	25	4.2	7.5	10.0	6.5	3.9	2.3	4
P0152.060-030-B2	M 6	30	4.2	7.5	10.0	6.5	3.9	2.3	4
P0152.060-040-B2	M 6	40	4.2	7.5	10.0	6.5	3.9	2.3	4
P0152.060-050-B2	M 6	50	4.2	7.5	10.0	6.5	3.9	2.3	4
P0152.060-060-B2	M 6	60	4.2	7.5	10.0	6.5	3.9	2.3	4
P0152.060-080-B2	M 6	80	4.2	7.5	10.0	6.5	3.9	2.3	4

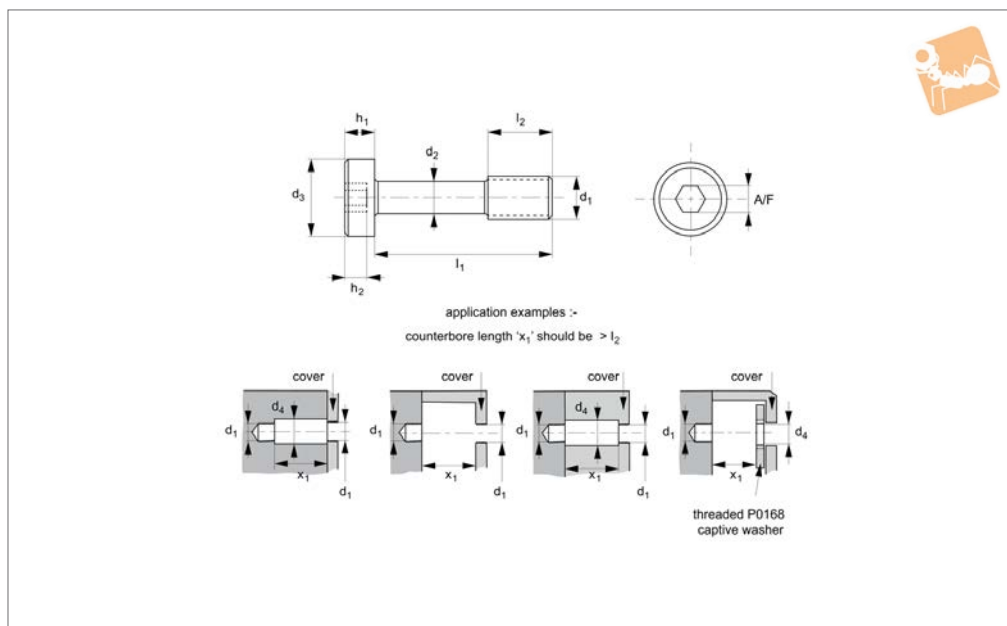


Captive Screws - Cheese Head

hex drive - 316 stainless - blackened



Captive Screws



P0152.B4

CAPTIVE SCREWS

Material

Stainless steel (AISI 316, 1.4401), black oxide coated. This grade of stainless steel is highly resistant to corrosion and is suitable for outdoor, medical and marine applications. Tensile strength 550 N/mm². Also available on request in titanium, steel (anodised, black oxide coated or zinc plated), brass, aluminium etc.

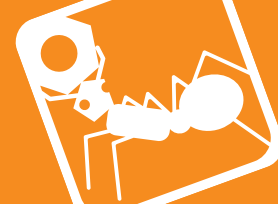
Technical Notes

Used to comply with the Machinery Directive 2006/42/EC. Generally to ISO 1207. Often used with our captive washers (P0168) or retaining flanges (P0169 - for sheet metal applications). The use of our captive washers should be considered when fitted in panels with unthreaded holes.

Important Notes

Please note that these screws have a reduced diameter shank and should not be tightened to the recommended torque for an equivalent machine screw of size d₁.

Order No.	d ₁	l ₁ ±0.25	d ₂ ±0.12	l ₂ ±0.25	d ₃	d ₄ min.	h ₁	h ₂	A/F
P0152.020-010-B4	M 2	10	1.2	3.0	3.8	2.5	1.3	0.85	1.3
P0152.020-012-B4	M 2	12	1.2	3.0	3.8	2.5	1.3	0.85	1.3
P0152.020-016-B4	M 2	16	1.2	3.0	3.8	2.5	1.3	0.85	1.3
P0152.020-020-B4	M 2	20	1.2	3.0	3.8	2.5	1.3	0.85	1.3
P0152.025-008-B4	M 2,5	8	1.7	3.7	4.5	2.8	1.6	1.00	1.5
P0152.025-010-B4	M 2,5	10	1.7	3.7	4.5	2.8	1.6	1.00	1.5
P0152.025-016-B4	M 2,5	16	1.7	3.7	4.5	2.8	1.6	1.00	1.5
P0152.025-020-B4	M 2,5	20	1.7	3.7	4.5	2.8	1.6	1.00	1.5
P0152.025-025-B4	M 2,5	25	1.7	3.7	4.5	2.8	1.6	1.00	1.5
P0152.025-030-B4	M 2,5	30	1.7	3.7	4.5	2.8	1.6	1.00	1.5
P0152.030-010-B4	M 3	10	2.0	4.5	5.5	3.5	2.0	1.30	2
P0152.030-011-B4	M 3	11	2.0	4.5	5.5	3.5	2.0	1.30	2
P0152.030-013-B4	M 3	13	2.0	4.5	5.5	3.5	2.0	1.30	2
P0152.030-016-B4	M 3	16	2.0	4.5	5.5	3.5	2.0	1.30	2
P0152.030-018-B4	M 3	18	2.0	4.5	5.5	3.5	2.0	1.30	2
P0152.030-020-B4	M 3	20	2.0	4.5	5.5	3.5	2.0	1.30	2
P0152.030-025-B4	M 3	25	2.0	4.5	5.5	3.5	2.0	1.30	2
P0152.030-030-B4	M 3	30	2.0	4.5	5.5	3.5	2.0	1.30	2
P0152.030-040-B4	M 3	40	2.0	4.5	5.5	3.5	2.0	1.30	2
P0152.035-010-B4	M 3,5	10	2.3	5.2	6.0	3.8	2.4	1.4	2.5
P0152.035-016-B4	M 3,5	16	2.3	5.2	6.0	3.8	2.4	1.4	2.5
P0152.035-020-B4	M 3,5	20	2.3	5.2	6.0	3.8	2.4	1.4	2.5
P0152.035-025-B4	M 3,5	25	2.3	5.2	6.0	3.8	2.4	1.4	2.5
P0152.035-030-B4	M 3,5	30	2.3	5.2	6.0	3.8	2.4	1.4	2.5
P0152.035-040-B4	M 3,5	40	2.3	5.2	6.0	3.8	2.4	1.4	2.5
P0152.040-010-B4	M 4	10	2.8	6.0	7.0	4.5	2.6	1.6	2.5
P0152.040-012-B4	M 4	12	2.8	6.0	7.0	4.5	2.6	1.6	2.5
P0152.040-016-B4	M 4	16	2.8	6.0	7.0	4.5	2.6	1.6	2.5



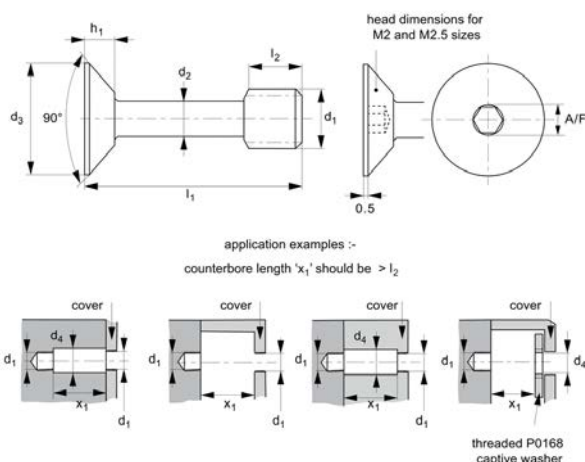
Order No.	d ₁	l ₁ ±0.25	d ₂ ±0.12	l ₂ ±0.25	d ₃	d ₄ min.	h ₁	h ₂	A/F
P0152.040-018-B4	M 4	18	2.8	6.0	7.0	4.5	2.6	1.6	2.5
P0152.040-019-B4	M 4	19	2.8	6.0	7.0	4.5	2.6	1.6	2.5
P0152.040-020-B4	M 4	20	2.8	6.0	7.0	4.5	2.6	1.6	2.5
P0152.040-025-B4	M 4	25	2.8	6.0	7.0	4.5	2.6	1.6	2.5
P0152.040-030-B4	M 4	30	2.8	6.0	7.0	4.5	2.6	1.6	2.5
P0152.040-040-B4	M 4	40	2.8	6.0	7.0	4.5	2.6	1.6	2.5
P0152.040-050-B4	M 4	50	2.8	6.0	7.0	4.5	2.6	1.6	2.5
P0152.040-060-B4	M 4	60	2.8	6.0	7.0	4.5	2.6	1.6	2.5
P0152.050-010-B4	M 5	10	3.7	7.5	8.5	5.5	3.3	2.0	3
P0152.050-012-B4	M 5	12	3.7	7.5	8.5	5.5	3.3	2.0	3
P0152.050-016-B4	M 5	16	3.7	7.5	8.5	5.5	3.3	2.0	3
P0152.050-018-B4	M 5	18	3.7	7.5	8.5	5.5	3.3	2.0	3
P0152.050-020-B4	M 5	20	3.7	7.5	8.5	5.5	3.3	2.0	3
P0152.050-022-B4	M 5	22	3.7	7.5	8.5	5.5	3.3	2.0	3
P0152.050-025-B4	M 5	25	3.7	7.5	8.5	5.5	3.3	2.0	3
P0152.050-030-B4	M 5	30	3.7	7.5	8.5	5.5	3.3	2.0	3
P0152.050-040-B4	M 5	40	3.7	7.5	8.5	5.5	3.3	2.0	3
P0152.050-050-B4	M 5	50	3.7	7.5	8.5	5.5	3.3	2.0	3
P0152.050-060-B4	M 5	60	3.7	7.5	8.5	5.5	3.3	2.0	3
P0152.050-080-B4	M 5	80	3.7	7.5	8.5	5.5	3.3	2.0	3
P0152.060-016-B4	M 6	16	4.2	7.5	10.0	6.5	3.9	2.3	4
P0152.060-020-B4	M 6	20	4.2	7.5	10.0	6.5	3.9	2.3	4
P0152.060-025-B4	M 6	25	4.2	7.5	10.0	6.5	3.9	2.3	4
P0152.060-030-B4	M 6	30	4.2	7.5	10.0	6.5	3.9	2.3	4
P0152.060-040-B4	M 6	40	4.2	7.5	10.0	6.5	3.9	2.3	4
P0152.060-050-B4	M 6	50	4.2	7.5	10.0	6.5	3.9	2.3	4
P0152.060-060-B4	M 6	60	4.2	7.5	10.0	6.5	3.9	2.3	4
P0152.060-080-B4	M 6	80	4.2	7.5	10.0	6.5	3.9	2.3	4



Captive Screws - Countersunk

hex drive - 303 stainless, blackened

Captive Screws



MADE IN BRITAIN

P0153.B2

CAPTIVE SCREWS

Material

Stainless steel (AISI 303, 1.4305), black oxide coating. Tensile strength 550 N/mm². Proof stress min. 190 N/mm², austenitic stainless steel.

Also available on request in steel (anodised, black oxide or zinc plated), brass, aluminium etc.

Technical Notes

Used to comply with the Machinery Direc-

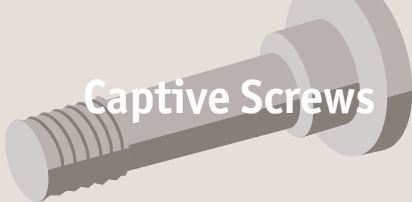
tive 2006/42/EC. Often used with our captive washers (P0168) or retaining flanges (P0169 - for sheet metal applications). The use of our captive washers should be considered when fitted in panels with unthreaded holes.

Important Notes

Please note that these screws have a reduced diameter shank and should not be tightened to the recommended torque for

an equivalent machine screw of size d₁. To accommodate the slight undercut at the top of the shank, the hex socket is smaller than on a similar threaded machine screw.

Order No.	d ₁	l ₁ ±0.25	d ₂ ±0.12	l ₂ ±0.25	d ₃ max.	d ₄ min.	h ₁ max.	A/F
P0153.020-010-B2	M 2	10	1.2	3.5	3.8	2.5	1.20	1.0
P0153.020-012-B2	M 2	12	1.2	3.5	3.8	2.5	1.20	1.0
P0153.020-016-B2	M 2	16	1.2	3.5	3.8	2.5	1.20	1.0
P0153.020-020-B2	M 2	20	1.2	3.5	3.8	2.5	1.20	1.0
P0153.025-010-B2	M 2,5	10	1.7	3.7	4.7	2.8	1.80	1.3
P0153.025-012-B2	M 2,5	12	1.7	3.7	4.7	2.8	1.80	1.3
P0153.025-016-B2	M 2,5	16	1.7	3.7	4.7	2.8	1.80	1.3
P0153.025-020-B2	M 2,5	20	1.7	3.7	4.7	2.8	1.80	1.3
P0153.030-008-B2	M 3	10	2.0	4.5	5.6	3.5	1.65	1.5
P0153.030-010-B2	M 3	10	2.0	4.5	5.6	3.5	1.65	1.5
P0153.030-012-B2	M 3	12	2.0	4.5	5.6	3.5	1.65	1.5
P0153.030-016-B2	M 3	16	2.0	4.5	5.6	3.5	1.65	1.5
P0153.030-020-B2	M 3	20	2.0	4.5	5.6	3.5	1.65	1.5
P0153.030-025-B2	M 3	25	2.0	4.5	5.6	3.5	1.65	1.5
P0153.030-030-B2	M 3	30	2.0	4.5	5.6	3.5	1.65	1.5
P0153.030-035-B2	M 3	35	2.0	4.5	5.6	3.5	1.65	1.5
P0153.030-040-B2	M 3	40	2.0	4.5	5.6	3.5	1.65	1.5
P0153.040-010-B2	M 4	10	2.8	6.0	7.5	4.5	2.20	2.0
P0153.040-012-B2	M 4	12	2.8	6.0	7.5	4.5	2.20	2.0
P0153.040-014-B2	M 4	14	2.8	6.0	7.5	4.5	2.20	2.0
P0153.040-016-B2	M 4	16	2.8	6.0	7.5	4.5	2.20	2.0
P0153.040-020-B2	M 4	20	2.8	6.0	7.5	4.5	2.20	2.0
P0153.040-025-B2	M 4	25	2.8	6.0	7.5	4.5	2.20	2.0
P0153.040-030-B2	M 4	30	2.8	6.0	7.5	4.5	2.20	2.0
P0153.040-035-B2	M 4	35	2.8	6.0	7.5	4.5	2.20	2.0
P0153.040-040-B2	M 4	40	2.8	6.0	7.5	4.5	2.20	2.0



Captive Screws

Captive Screws - Countersunk

hex drive - 303 stainless, blackened



CAPTIVE SCREWS

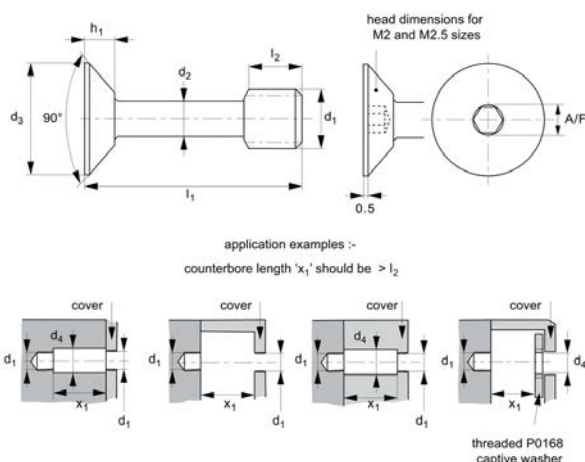
Order No.	d ₁	l ₁ ±0.25	d ₂ ±0.12	l ₂ ±0.25	d ₃ max.	d ₄ min.	h ₁ max.	A/F
P0153.040-050-B2	M 4	50	2.8	6.0	7.5	4.5	2.20	2.0
P0153.040-060-B2	M 4	60	2.8	6.0	7.5	4.5	2.20	2.0
P0153.050-012-B2	M 5	12	3.7	7.5	9.2	5.5	2.50	2.5
P0153.050-014-B2	M 5	14	3.7	7.5	9.2	5.5	2.50	2.5
P0153.050-016-B2	M 5	16	3.7	7.5	9.2	5.5	2.50	2.5
P0153.050-020-B2	M 5	20	3.7	7.5	9.2	5.5	2.50	2.5
P0153.050-025-B2	M 5	25	3.7	7.5	9.2	5.5	2.50	2.5
P0153.050-030-B2	M 5	30	3.7	7.5	9.2	5.5	2.50	2.5
P0153.050-035-B2	M 5	35	3.7	7.5	9.2	5.5	2.50	2.5
P0153.050-040-B2	M 5	40	3.7	7.5	9.2	5.5	2.50	2.5
P0153.050-050-B2	M 5	50	3.7	7.5	9.2	5.5	2.50	2.5
P0153.050-060-B2	M 5	60	3.7	7.5	9.2	5.5	2.50	2.5
P0153.060-016-B2	M 6	16	4.2	8.0	11.0	6.5	3.00	3.0
P0153.060-020-B2	M 6	20	4.2	8.0	11.0	6.5	3.00	3.0
P0153.060-025-B2	M 6	25	4.2	8.0	11.0	6.5	3.00	3.0
P0153.060-030-B2	M 6	30	4.2	8.0	11.0	6.5	3.00	3.0
P0153.060-035-B2	M 6	35	4.2	8.0	11.0	6.5	3.00	3.0
P0153.060-040-B2	M 6	40	4.2	8.0	11.0	6.5	3.00	3.0
P0153.060-050-B2	M 6	50	4.2	8.0	11.0	6.5	3.00	3.0
P0153.060-060-B2	M 6	60	4.2	8.0	11.0	6.5	3.00	3.0
P0153.080-020-B2	M 8	20	6.0	10.0	15.0	8.5	4.10	4.0
P0153.080-025-B2	M 8	25	6.0	10.0	15.0	8.5	4.10	4.0
P0153.080-030-B2	M 8	30	6.0	10.0	15.0	8.5	4.10	4.0
P0153.080-040-B2	M 8	40	6.0	10.0	15.0	8.5	4.10	4.0
P0153.080-050-B2	M 8	50	6.0	10.0	15.0	8.5	4.10	4.0
P0153.080-060-B2	M 8	60	6.0	10.0	15.0	8.5	4.10	4.0



Captive Screws - Countersunk

hex drive - 316 stainless, blackened

Captive Screws



MADE IN
BRITAIN

P0153.B4

CAPTIVE SCREWS

Material

Stainless steel (AISI 316, 1.440), black oxide coating. Tensile strength 480 N/mm². Proof stress min. 200 N/mm², austenitic stainless steel.

Also available on request in steel (anodised, black oxide or zinc plated), brass, aluminium etc.

Technical Notes

Used to comply with the Machinery Direc-

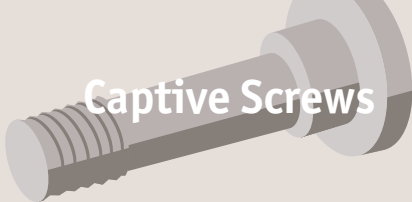
tive 2006/42/EC. Often used with our captive washers (P0168) or retaining flanges (P0169 - for sheet metal applications). The use of our captive washers should be considered when fitted in panels with unthreaded holes.

Important Notes

Please note that these screws have a reduced diameter shank and should not be tightened to the recommended torque for

an equivalent machine screw of size d₁. To accommodate the slight undercut at the top of the shank, the hex socket is smaller than on a similar threaded machine screw.

Order No.	d ₁	l ₁ ±0.25	d ₂ ±0.12	l ₂ ±0.25	d ₃ max.	d ₄ min.	h ₁ max.	A/F
P0153.020-010-B4	M 2	10	1.2	3.5	3.8	2.5	1.20	1.0
P0153.020-012-B4	M 2	12	1.2	3.5	3.8	2.5	1.20	1.0
P0153.020-016-B4	M 2	16	1.2	3.5	3.8	2.5	1.20	1.0
P0153.020-020-B4	M 2	20	1.2	3.5	3.8	2.5	1.20	1.0
P0153.025-010-B4	M 2,5	10	1.7	3.7	4.7	2.8	1.80	1.3
P0153.025-012-B4	M 2,5	12	1.7	3.7	4.7	2.8	1.80	1.3
P0153.025-016-B4	M 2,5	16	1.7	3.7	4.7	2.8	1.80	1.3
P0153.025-020-B4	M 2,5	20	1.7	3.7	4.7	2.8	1.80	1.3
P0153.030-008-B4	M 3	8	2.0	4.5	5.6	3.5	1.65	1.5
P0153.030-010-B4	M 3	10	2.0	4.5	5.6	3.5	1.65	1.5
P0153.030-012-B4	M 3	12	2.0	4.5	5.6	3.5	1.65	1.5
P0153.030-016-B4	M 3	16	2.0	4.5	5.6	3.5	1.65	1.5
P0153.030-020-B4	M 3	20	2.0	4.5	5.6	3.5	1.65	1.5
P0153.030-025-B4	M 3	25	2.0	4.5	5.6	3.5	1.65	1.5
P0153.030-030-B4	M 3	30	2.0	4.5	5.6	3.5	1.65	1.5
P0153.030-035-B4	M 3	35	2.0	4.5	5.6	3.5	1.65	1.5
P0153.030-040-B4	M 3	40	2.0	4.5	5.6	3.5	1.65	1.5
P0153.040-010-B4	M 4	10	2.8	6.0	7.5	4.5	2.20	2.0
P0153.040-012-B4	M 4	12	2.8	6.0	7.5	4.5	2.20	2.0
P0153.040-014-B4	M 4	14	2.8	6.0	7.5	4.5	2.20	2.0
P0153.040-016-B4	M 4	16	2.8	6.0	7.5	4.5	2.20	2.0
P0153.040-020-B4	M 4	20	2.8	6.0	7.5	4.5	2.20	2.0
P0153.040-025-B4	M 4	25	2.8	6.0	7.5	4.5	2.20	2.0
P0153.040-030-B4	M 4	30	2.8	6.0	7.5	4.5	2.20	2.0
P0153.040-035-B4	M 4	35	2.8	6.0	7.5	4.5	2.20	2.0
P0153.040-040-B4	M 4	40	2.8	6.0	7.5	4.5	2.20	2.0



Captive Screws

Captive Screws - Countersunk

hex drive - 316 stainless, blackened



CAPTIVE SCREWS

Order No.	d ₁	l ₁ ±0.25	d ₂ ±0.12	l ₂ ±0.25	d ₃ max.	d ₄ min.	h ₁ max.	A/F
P0153.040-050-B4	M 4	50	2.8	6.0	7.5	4.5	2.20	2.0
P0153.040-060-B4	M 4	60	2.8	6.0	7.5	4.5	2.20	2.0
P0153.050-012-B4	M 5	12	3.7	7.5	9.2	5.5	2.50	2.5
P0153.050-014-B4	M 5	14	3.7	7.5	9.2	5.5	2.50	2.5
P0153.050-016-B4	M 5	16	3.7	7.5	9.2	5.5	2.50	2.5
P0153.050-020-B4	M 5	20	3.7	7.5	9.2	5.5	2.50	2.5
P0153.050-025-B4	M 5	25	3.7	7.5	9.2	5.5	2.50	2.5
P0153.050-030-B4	M 5	30	3.7	7.5	9.2	5.5	2.50	2.5
P0153.050-035-B4	M 5	35	3.7	7.5	9.2	5.5	2.50	2.5
P0153.050-040-B4	M 5	40	3.7	7.5	9.2	5.5	2.50	2.5
P0153.050-050-B4	M 5	50	3.7	7.5	9.2	5.5	2.50	2.5
P0153.050-060-B4	M 5	60	3.7	7.5	9.2	5.5	2.50	2.5
P0153.060-016-B4	M 6	16	4.2	8.0	11.0	6.5	3.00	3.0
P0153.060-020-B4	M 6	20	4.2	8.0	11.0	6.5	3.00	3.0
P0153.060-025-B4	M 6	25	4.2	8.0	11.0	6.5	3.00	3.0
P0153.060-030-B4	M 6	30	4.2	8.0	11.0	6.5	3.00	3.0
P0153.060-035-B4	M 6	35	4.2	8.0	11.0	6.5	3.00	3.0
P0153.060-040-B4	M 6	40	4.2	8.0	11.0	6.5	3.00	3.0
P0153.060-050-B4	M 6	50	4.2	8.0	11.0	6.5	3.00	3.0
P0153.060-060-B4	M 6	60	4.2	8.0	11.0	6.5	3.00	3.0
P0153.080-020-B4	M 8	20	6.0	10.0	15.0	8.5	4.10	4.0
P0153.080-025-B4	M 8	25	6.0	10.0	15.0	8.5	4.10	4.0
P0153.080-030-B4	M 8	30	6.0	10.0	15.0	8.5	4.10	4.0
P0153.080-040-B4	M 8	40	6.0	10.0	15.0	8.5	4.10	4.0
P0153.080-050-B4	M 8	50	6.0	10.0	15.0	8.5	4.10	4.0
P0153.080-060-B4	M 8	60	6.0	10.0	15.0	8.5	4.10	4.0

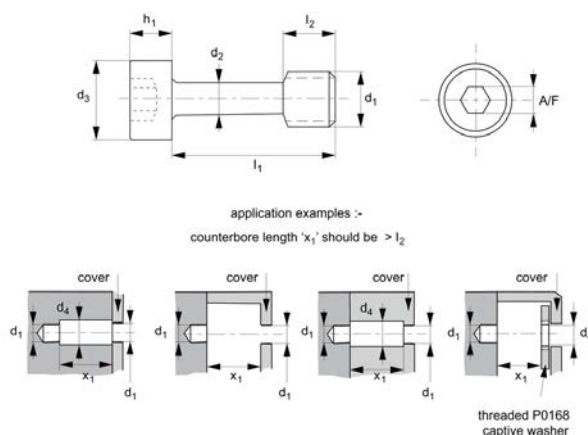


Captive Screws - Cap Head

hex drive - 303 stainless, blackened



Captive Screws



P0154.B2

CAPTIVE SCREWS

Material

Stainless steel (AISI 303, 1.4305), black oxide coating. Tensile strength 550 N/mm². Proof stress min. 190 N/mm², austenitic stainless steel.

Also available on request in steel (anodised, black oxide or zinc plated) stainless steel (AISI 316, 1.440), brass, aluminium etc.

Technical Notes

Used to comply with the Machinery Directive 2006/42/EC. Generally to ISO 4762. Often used with our captive washers (P0168) or retaining flanges (P0169 - for sheet metal applications). The use of our captive washers should be considered when fitted in panels with unthreaded holes.

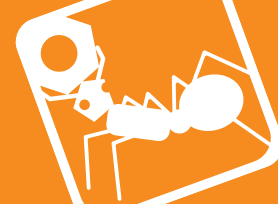
Tips

For TX drive style, see P0156.

Important Notes

Please note that these screws have a reduced diameter shank and should not be tightened to the recommended torque for an equivalent machine screw of size d₁.

Order No.	d ₁	l ₁ ±0.25	d ₂ ±0.12	l ₂ ±0.25	d ₃ max.	d ₄ min.	h ₁ max.	A/F
P0154.025-005-B2	M 2,5	5	1.8	3.0	4.5	2.8	2.5	2
P0154.025-008-B2	M 2,5	8	1.8	3.0	4.5	2.8	2.5	2
P0154.025-010-B2	M 2,5	10	1.8	3.0	4.5	2.8	2.5	2
P0154.025-012-B2	M 2,5	12	1.8	3.0	4.5	2.8	2.5	2
P0154.030-008-B2	M 3	8	2.0	4.5	5.5	3.5	3.0	2.5
P0154.030-010-B2	M 3	10	2.0	4.5	5.5	3.5	3.0	2.5
P0154.030-012-B2	M 3	12	2.0	4.5	5.5	3.5	3.0	2.5
P0154.030-016-B2	M 3	16	2.0	4.5	5.5	3.5	3.0	2.5
P0154.030-020-B2	M 3	20	2.0	4.5	5.5	3.5	3.0	2.5
P0154.030-025-B2	M 3	25	2.0	4.5	5.5	3.5	3.0	2.5
P0154.030-030-B2	M 3	30	2.0	4.5	5.5	3.5	3.0	2.5
P0154.040-010-B2	M 4	10	2.8	6.0	7.0	4.5	4.0	3
P0154.040-012-B2	M 4	12	2.8	6.0	7.0	4.5	4.0	3
P0154.040-016-B2	M 4	16	2.8	6.0	7.0	4.5	4.0	3
P0154.040-020-B2	M 4	20	2.8	6.0	7.0	4.5	4.0	3
P0154.040-025-B2	M 4	25	2.8	6.0	7.0	4.5	4.0	3
P0154.040-030-B2	M 4	30	2.8	6.0	7.0	4.5	4.0	3
P0154.040-035-B2	M 4	35	2.8	6.0	7.0	4.5	4.0	3
P0154.040-040-B2	M 4	40	2.8	6.0	7.0	4.5	4.0	3
P0154.040-050-B2	M 4	50	2.8	6.0	7.0	4.5	4.0	3
P0154.050-012-B2	M 5	12	3.7	7.5	8.5	5.5	5.0	4
P0154.050-016-B2	M 5	16	3.7	7.5	8.5	5.5	5.0	4
P0154.050-020-B2	M 5	20	3.7	7.5	8.5	5.5	5.0	4
P0154.050-025-B2	M 5	25	3.7	7.5	8.5	5.5	5.0	4
P0154.050-030-B2	M 5	30	3.7	7.5	8.5	5.5	5.0	4
P0154.050-035-B2	M 5	35	3.7	7.5	8.5	5.5	5.0	4
P0154.050-040-B2	M 5	40	3.7	7.5	8.5	5.5	5.0	4
P0154.050-050-B2	M 5	50	3.7	7.5	8.5	5.5	5.0	4



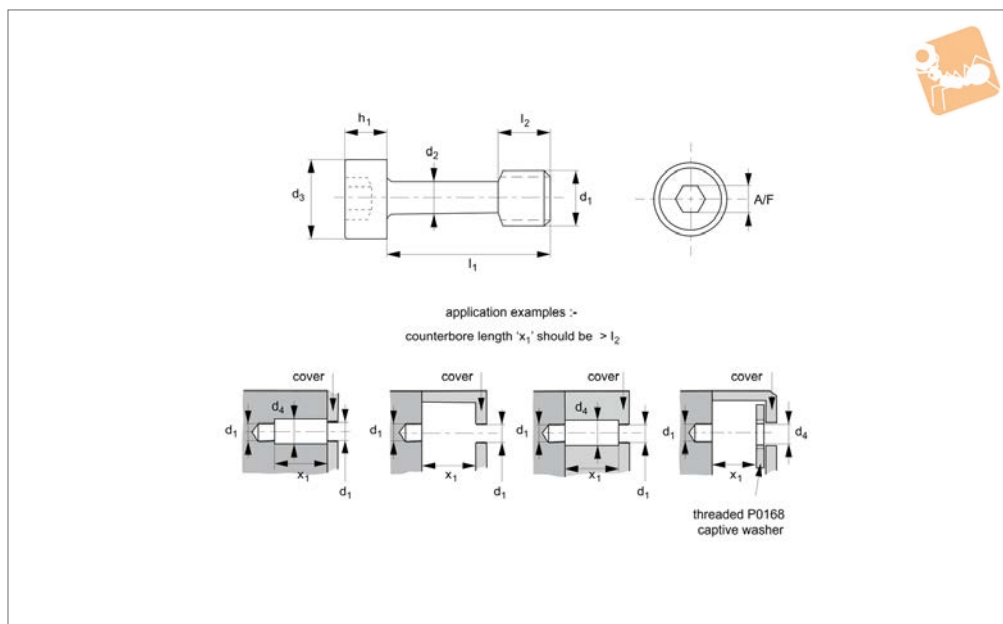
Order No.	d ₁	l ₁ ±0.25	d ₂ ±0.12	l ₂ ±0.25	d ₃ max.	d ₄ min.	h ₁ max.	A/F
P0154.060-012-B2	M 6	12	4.2	7.5	10.0	6.5	6.0	5
P0154.060-016-B2	M 6	16	4.2	7.5	10.0	6.5	6.0	5
P0154.060-020-B2	M 6	20	4.2	7.5	10.0	6.5	6.0	5
P0154.060-025-B2	M 6	25	4.2	7.5	10.0	6.5	6.0	5
P0154.060-030-B2	M 6	30	4.2	7.5	10.0	6.5	6.0	5
P0154.060-035-B2	M 6	35	4.2	7.5	10.0	6.5	6.0	5
P0154.060-040-B2	M 6	40	4.2	7.5	10.0	6.5	6.0	5
P0154.060-050-B2	M 6	50	4.2	7.5	10.0	6.5	6.0	5
P0154.060-060-B2	M 6	60	4.2	7.5	10.0	6.5	6.0	5
P0154.060-080-B2	M 6	80	4.2	7.5	10.0	6.5	6.0	5
P0154.080-016-B2	M 8	16	6.0	10.0	13.0	8.5	8.0	6
P0154.080-020-B2	M 8	20	6.0	10.0	13.0	8.5	8.0	6
P0154.080-025-B2	M 8	25	6.0	10.0	13.0	8.5	8.0	6
P0154.080-030-B2	M 8	30	6.0	10.0	13.0	8.5	8.0	6
P0154.080-035-B2	M 8	35	6.0	10.0	13.0	8.5	8.0	6
P0154.080-040-B2	M 8	40	6.0	10.0	13.0	8.5	8.0	6
P0154.080-045-B2	M 8	45	6.0	10.0	13.0	8.5	8.0	6
P0154.080-050-B2	M 8	50	6.0	10.0	13.0	8.5	8.0	6
P0154.080-060-B2	M 8	60	6.0	10.0	13.0	8.5	8.0	6
P0154.080-080-B2	M 8	80	6.0	10.0	13.0	8.5	8.0	6
P0154.100-020-B2	M10	20	7.5	12.5	16.0	10.6	10.0	8
P0154.100-025-B2	M10	25	7.5	12.5	16.0	10.6	10.0	8
P0154.100-030-B2	M10	30	7.5	12.5	16.0	10.6	10.0	8
P0154.100-035-B2	M10	35	7.5	12.5	16.0	10.6	10.0	8
P0154.100-040-B2	M10	40	7.5	12.5	16.0	10.6	10.0	8
P0154.100-045-B2	M10	45	7.5	12.5	16.0	10.6	10.0	8
P0154.100-050-B2	M10	50	7.5	12.5	16.0	10.6	10.0	8
P0154.100-060-B2	M10	60	7.5	12.5	16.0	10.6	10.0	8
P0154.100-080-B2	M10	80	7.5	12.5	16.0	10.6	10.0	8
P0154.120-025-B2	M12	25	8.0	15.0	18.0	13.2	12.0	10
P0154.120-030-B2	M12	30	8.0	15.0	18.0	13.2	12.0	10
P0154.120-035-B2	M12	35	8.0	15.0	18.0	13.2	12.0	10
P0154.120-040-B2	M12	40	8.0	15.0	18.0	13.2	12.0	10
P0154.120-045-B2	M12	45	8.0	15.0	18.0	13.2	12.0	10
P0154.120-050-B2	M12	50	8.0	15.0	18.0	13.2	12.0	10
P0154.120-060-B2	M12	60	8.0	15.0	18.0	13.2	12.0	10
P0154.120-080-B2	M12	80	8.0	15.0	18.0	13.2	12.0	10
P0154.160-030-B2	M16	30	12.0	20.0	24.0	17.5	16.0	14
P0154.160-035-B2	M16	35	12.0	20.0	24.0	17.5	16.0	14
P0154.160-040-B2	M16	40	12.0	20.0	24.0	17.5	16.0	14
P0154.160-045-B2	M16	45	12.0	20.0	24.0	17.5	16.0	14
P0154.160-050-B2	M16	50	12.0	20.0	24.0	17.5	16.0	14
P0154.160-060-B2	M16	60	12.0	20.0	24.0	17.5	16.0	14
P0154.160-080-B2	M16	80	12.0	20.0	24.0	17.5	16.0	14
P0154.160-100-B2	M16	100	12.0	20.0	24.0	17.5	16.0	14
P0154.200-040-B2	M20	40	16.0	25.0	30.0	22.0	20.0	19
P0154.200-060-B2	M20	60	16.0	25.0	30.0	22.0	20.0	19
P0154.200-080-B2	M20	80	16.0	25.0	30.0	22.0	20.0	19
P0154.200-100-B2	M20	100	16.0	25.0	30.0	22.0	20.0	19
P0154.200-120-B2	M20	120	16.0	25.0	30.0	22.0	20.0	19



Captive Screws - Cap Head

hex drive - 316 stainless, blackened

Captive Screws



P0154.B4

CAPTIVE SCREWS

Material

Stainless steel (AISI 316, 1.440), black oxide coating. Tensile strength 480 N/mm². Proof stress min. 200 N/mm², austenitic stainless steel.

Also available on request in steel (anodised, black oxide or zinc plated) stainless steel (AISI 303, 1.4305), brass, aluminium etc.

Technical Notes

Used to comply with the Machinery Directive 2006/42/EC. Generally to ISO 4762. Often used with our captive washers (P0168) or retaining flanges (P0169 - for sheet metal applications). The use of our captive washers should be considered when fitted in panels with unthreaded holes.

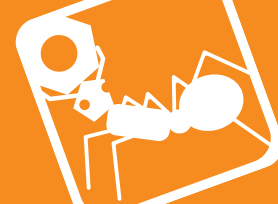
Tips

For TX drive style, see P0156.

Important Notes

Please note that these screws have a reduced diameter shank and should not be tightened to the recommended torque for an equivalent machine screw of size d₁.

Order No.	d ₁	l ₁ ±0.25	d ₂ ±0.12	l ₂ ±0.25	d ₃ max.	d ₄ min.	h ₁ max.	A/F
P0154.025-005-B4	M 2,5	5	1.8	3.0	4.5	2.8	2.5	2
P0154.025-008-B4	M 2,5	8	1.8	3.0	4.5	2.8	2.5	2
P0154.025-010-B4	M 2,5	10	1.8	3.0	4.5	2.8	2.5	2
P0154.025-012-B4	M 2,5	12	1.8	3.0	4.5	2.8	2.5	2
P0154.030-008-B4	M 3	8	2.0	4.5	5.5	3.5	3.0	2.5
P0154.030-010-B4	M 3	10	2.0	4.5	5.5	3.5	3.0	2.5
P0154.030-012-B4	M 3	12	2.0	4.5	5.5	3.5	3.0	2.5
P0154.030-016-B4	M 3	16	2.0	4.5	5.5	3.5	3.0	2.5
P0154.030-020-B4	M 3	20	2.0	4.5	5.5	3.5	3.0	2.5
P0154.030-025-B4	M 3	25	2.0	4.5	5.5	3.5	3.0	2.5
P0154.030-030-B4	M 3	30	2.0	4.5	5.5	3.5	3.0	2.5
P0154.040-010-B4	M 4	10	2.8	6.0	7.0	4.5	4.0	3
P0154.040-016-B4	M 4	16	2.8	6.0	7.0	4.5	4.0	3
P0154.040-020-B4	M 4	20	2.8	6.0	7.0	4.5	4.0	3
P0154.040-025-B4	M 4	25	2.8	6.0	7.0	4.5	4.0	3
P0154.040-030-B4	M 4	30	2.8	6.0	7.0	4.5	4.0	3
P0154.040-035-B4	M 4	35	2.8	6.0	7.0	4.5	4.0	3
P0154.040-040-B4	M 4	40	2.8	6.0	7.0	4.5	4.0	3
P0154.040-050-B4	M 4	50	2.8	6.0	7.0	4.5	4.0	3
P0154.050-012-B4	M 5	12	3.7	7.5	8.5	5.5	5.0	4
P0154.050-016-B4	M 5	16	3.7	7.5	8.5	5.5	5.0	4
P0154.050-020-B4	M 5	20	3.7	7.5	8.5	5.5	5.0	4
P0154.050-025-B4	M 5	25	3.7	7.5	8.5	5.5	5.0	4
P0154.050-030-B4	M 5	30	3.7	7.5	8.5	5.5	5.0	4
P0154.050-035-B4	M 5	35	3.7	7.5	8.5	5.5	5.0	4
P0154.050-040-B4	M 5	40	3.7	7.5	8.5	5.5	5.0	4
P0154.050-050-B4	M 5	50	3.7	7.5	8.5	5.5	5.0	4
P0154.060-012-B4	M 6	12	4.2	7.5	10.0	6.5	6.0	5



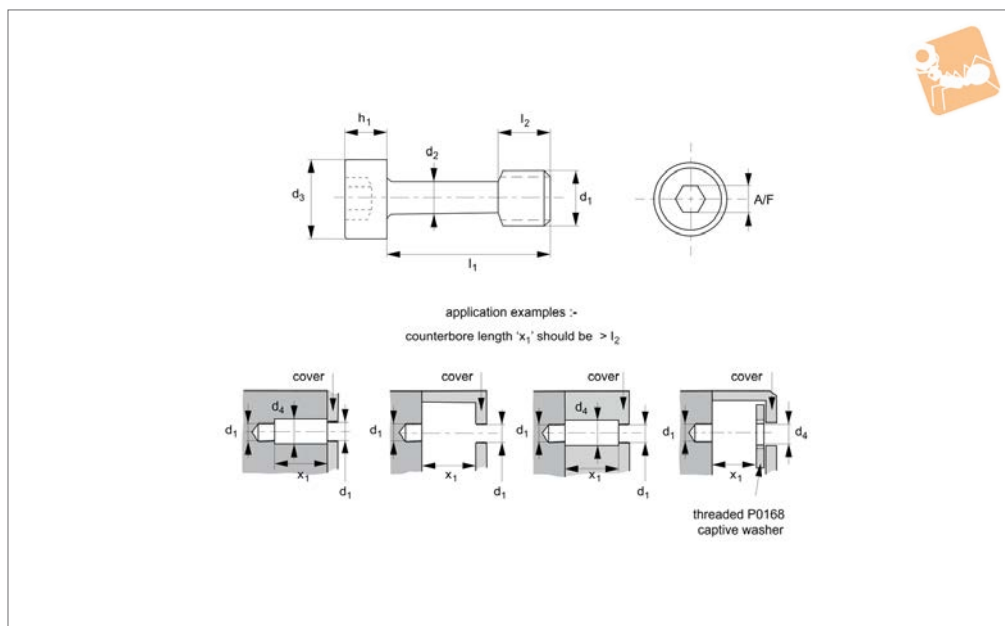
Order No.	d ₁	l ₁ ±0.25	d ₂ ±0.12	l ₂ ±0.25	d ₃ max.	d ₄ min.	h ₁ max.	A/F
P0154.060-016-B4	M 6	16	4.2	7.5	10.0	6.5	6.0	5
P0154.060-020-B4	M 6	20	4.2	7.5	10.0	6.5	6.0	5
P0154.060-025-B4	M 6	25	4.2	7.5	10.0	6.5	6.0	5
P0154.060-030-B4	M 6	30	4.2	7.5	10.0	6.5	6.0	5
P0154.060-035-B4	M 6	35	4.2	7.5	10.0	6.5	6.0	5
P0154.060-040-B4	M 6	40	4.2	7.5	10.0	6.5	6.0	5
P0154.060-050-B4	M 6	50	4.2	7.5	10.0	6.5	6.0	5
P0154.060-060-B4	M 6	60	4.2	7.5	10.0	6.5	6.0	5
P0154.060-080-B4	M 6	80	4.2	7.5	10.0	6.5	6.0	5
P0154.080-016-B4	M 8	16	6.0	10.0	13.0	8.5	8.0	6
P0154.080-020-B4	M 8	20	6.0	10.0	13.0	8.5	8.0	6
P0154.080-025-B4	M 8	25	6.0	10.0	13.0	8.5	8.0	6
P0154.080-030-B4	M 8	30	6.0	10.0	13.0	8.5	8.0	6
P0154.080-035-B4	M 8	35	6.0	10.0	13.0	8.5	8.0	6
P0154.080-040-B4	M 8	40	6.0	10.0	13.0	8.5	8.0	6
P0154.080-045-B4	M 8	45	6.0	10.0	13.0	8.5	8.0	6
P0154.080-050-B4	M 8	50	6.0	10.0	13.0	8.5	8.0	6
P0154.080-060-B4	M 8	60	6.0	10.0	13.0	8.5	8.0	6
P0154.080-080-B4	M 8	80	6.0	10.0	13.0	8.5	8.0	6
P0154.100-020-B4	M10	20	7.5	12.5	16.0	10.6	10.0	8
P0154.100-025-B4	M10	25	7.5	12.5	16.0	10.6	10.0	8
P0154.100-030-B4	M10	30	7.5	12.5	16.0	10.6	10.0	8
P0154.100-035-B4	M10	35	7.5	12.5	16.0	10.6	10.0	8
P0154.100-040-B4	M10	40	7.5	12.5	16.0	10.6	10.0	8
P0154.100-045-B4	M10	45	7.5	12.5	16.0	10.6	10.0	8
P0154.100-050-B4	M10	50	7.5	12.5	16.0	10.6	10.0	8
P0154.100-060-B4	M10	60	7.5	12.5	16.0	10.6	10.0	8
P0154.100-080-B4	M10	80	7.5	12.5	16.0	10.6	10.0	8
P0154.120-025-B4	M12	25	8.0	15.0	18.0	13.2	12.0	10
P0154.120-030-B4	M12	30	8.0	15.0	18.0	13.2	12.0	10
P0154.120-035-B4	M12	35	8.0	15.0	18.0	13.2	12.0	10
P0154.120-040-B4	M12	40	8.0	15.0	18.0	13.2	12.0	10
P0154.120-045-B4	M12	45	8.0	15.0	18.0	13.2	12.0	10
P0154.120-050-B4	M12	50	8.0	15.0	18.0	13.2	12.0	10
P0154.120-060-B4	M12	60	8.0	15.0	18.0	13.2	12.0	10
P0154.120-080-B4	M12	80	8.0	15.0	18.0	13.2	12.0	10
P0154.160-030-B4	M16	30	12.0	20.0	24.0	17.5	16.0	14
P0154.160-035-B4	M16	35	12.0	20.0	24.0	17.5	16.0	14
P0154.160-040-B4	M16	40	12.0	20.0	24.0	17.5	16.0	14
P0154.160-045-B4	M16	45	12.0	20.0	24.0	17.5	16.0	14
P0154.160-050-B4	M16	50	12.0	20.0	24.0	17.5	16.0	14
P0154.160-060-B4	M16	60	12.0	20.0	24.0	17.5	16.0	14
P0154.160-080-B4	M16	80	12.0	20.0	24.0	17.5	16.0	14
P0154.160-100-B4	M16	100	12.0	20.0	24.0	17.5	16.0	14
P0154.200-040-B4	M20	40	16.0	25.0	30.0	22.0	20.0	19
P0154.200-060-B4	M20	60	16.0	25.0	30.0	22.0	20.0	19
P0154.200-080-B4	M20	80	16.0	25.0	30.0	22.0	20.0	19
P0154.200-100-B4	M20	100	16.0	25.0	30.0	22.0	20.0	19
P0154.200-120-B4	M20	120	16.0	25.0	30.0	22.0	20.0	19



Captive Screws - Cap Head

hex drive - steel, blackened

Captive Screws



P0154.BL

CAPTIVE SCREWS

Material

Steel blackened.
Tensile strength 550 N/mm².
Also available on request in steel
(anodised or zinc plated), stainless steel
(AISI 316, 1.440 or AISI 303, 1.4305),
brass, aluminium etc.

tive 2006/42/EC. Generally to ISO 4762.
Often used with our captive washers
(P0168) or retaining flanges (P0169 - for
sheet metal applications). The use of our
captive washers should be considered
when fitted in panels with unthreaded
holes.

Tips

For TX drive style, see P0156.

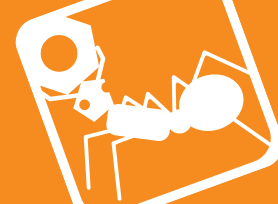
Important Notes

Please note that these screws have a
reduced diameter shank and should not be
tightened to the recommended torque for
an equivalent machine screw of size d₁.

Technical Notes

Used to comply with the Machinery Direc-

Order No.	d ₁	l ₁ ±0.25	d ₂ ±0.12	l ₂ ±0.25	d ₃ max.	d ₄ min.	h ₁ max.	A/F
P0154.025-005-BL	M 2,5	5	1.8	3.0	4.5	2.8	2.5	2
P0154.025-008-BL	M 2,5	8	1.8	3.0	4.5	2.8	2.5	2
P0154.025-010-BL	M 2,5	10	1.8	3.0	4.5	2.8	2.5	2
P0154.025-012-BL	M 2,5	12	1.8	3.0	4.5	2.8	2.5	2
P0154.030-008-BL	M 3	8	2.0	4.5	5.5	3.5	3.0	2.5
P0154.030-010-BL	M 3	10	2.0	4.5	5.5	3.5	3.0	2.5
P0154.030-012-BL	M 3	12	2.0	4.5	5.5	3.5	3.0	2.5
P0154.030-016-BL	M 3	16	2.0	4.5	5.5	3.5	3.0	2.5
P0154.030-020-BL	M 3	20	2.0	4.5	5.5	3.5	3.0	2.5
P0154.030-025-BL	M 3	25	2.0	4.5	5.5	3.5	3.0	2.5
P0154.030-030-BL	M 3	30	2.0	4.5	5.5	3.5	3.0	2.5
P0154.040-010-BL	M 4	10	2.8	6.0	7.0	4.5	4.0	3
P0154.040-012-BL	M 4	12	2.8	6.0	7.0	4.5	4.0	3
P0154.040-016-BL	M 4	16	2.8	6.0	7.0	4.5	4.0	3
P0154.040-020-BL	M 4	20	2.8	6.0	7.0	4.5	4.0	3
P0154.040-025-BL	M 4	25	2.8	6.0	7.0	4.5	4.0	3
P0154.040-030-BL	M 4	30	2.8	6.0	7.0	4.5	4.0	3
P0154.040-035-BL	M 4	35	2.8	6.0	7.0	4.5	4.0	3
P0154.040-040-BL	M 4	40	2.8	6.0	7.0	4.5	4.0	3
P0154.040-050-BL	M 4	50	2.8	6.0	7.0	4.5	4.0	3
P0154.050-012-BL	M 5	12	3.7	7.5	8.5	5.5	5.0	4
P0154.050-016-BL	M 5	16	3.7	7.5	8.5	5.5	5.0	4
P0154.050-020-BL	M 5	20	3.7	7.5	8.5	5.5	5.0	4
P0154.050-025-BL	M 5	25	3.7	7.5	8.5	5.5	5.0	4
P0154.050-030-BL	M 5	30	3.7	7.5	8.5	5.5	5.0	4
P0154.050-035-BL	M 5	35	3.7	7.5	8.5	5.5	5.0	4
P0154.050-040-BL	M 5	40	3.7	7.5	8.5	5.5	5.0	4
P0154.050-050-BL	M 5	50	3.7	7.5	8.5	5.5	5.0	4



Order No.	d ₁	l ₁ ±0.25	d ₂ ±0.12	l ₂ ±0.25	d ₃ max.	d ₄ min.	h ₁ max.	A/F
P0154.060-012-BL	M 6	12	4.2	7.5	10.0	6.5	6.0	5
P0154.060-016-BL	M 6	16	4.2	7.5	10.0	6.5	6.0	5
P0154.060-020-BL	M 6	20	4.2	7.5	10.0	6.5	6.0	5
P0154.060-025-BL	M 6	25	4.2	7.5	10.0	6.5	6.0	5
P0154.060-030-BL	M 6	30	4.2	7.5	10.0	6.5	6.0	5
P0154.060-035-BL	M 6	35	4.2	7.5	10.0	6.5	6.0	5
P0154.060-040-BL	M 6	40	4.2	7.5	10.0	6.5	6.0	5
P0154.060-050-BL	M 6	50	4.2	7.5	10.0	6.5	6.0	5
P0154.060-060-BL	M 6	60	4.2	7.5	10.0	6.5	6.0	5
P0154.060-080-BL	M 6	80	4.2	7.5	10.0	6.5	6.0	5
P0154.080-016-BL	M 8	16	6.0	10.0	13.0	8.5	8.0	6
P0154.080-020-BL	M 8	20	6.0	10.0	13.0	8.5	8.0	6
P0154.080-025-BL	M 8	25	6.0	10.0	13.0	8.5	8.0	6
P0154.080-030-BL	M 8	30	6.0	10.0	13.0	8.5	8.0	6
P0154.080-035-BL	M 8	35	6.0	10.0	13.0	8.5	8.0	6
P0154.080-040-BL	M 8	40	6.0	10.0	13.0	8.5	8.0	6
P0154.080-045-BL	M 8	45	6.0	10.0	13.0	8.5	8.0	6
P0154.080-050-BL	M 8	50	6.0	10.0	13.0	8.5	8.0	6
P0154.080-060-BL	M 8	60	6.0	10.0	13.0	8.5	8.0	6
P0154.080-080-BL	M 8	80	6.0	10.0	13.0	8.5	8.0	6
P0154.100-020-BL	M10	20	7.5	12.5	16.0	10.6	10.0	8
P0154.100-025-BL	M10	25	7.5	12.5	16.0	10.6	10.0	8
P0154.100-030-BL	M10	30	7.5	12.5	16.0	10.6	10.0	8
P0154.100-035-BL	M10	35	7.5	12.5	16.0	10.6	10.0	8
P0154.100-040-BL	M10	40	7.5	12.5	16.0	10.6	10.0	8
P0154.100-045-BL	M10	45	7.5	12.5	16.0	10.6	10.0	8
P0154.100-050-BL	M10	50	7.5	12.5	16.0	10.6	10.0	8
P0154.100-060-BL	M10	60	7.5	12.5	16.0	10.6	10.0	8
P0154.100-080-BL	M10	80	7.5	12.5	16.0	10.6	10.0	8
P0154.120-025-BL	M12	25	8.0	15.0	18.0	13.2	12.0	10
P0154.120-030-BL	M12	30	8.0	15.0	18.0	13.2	12.0	10
P0154.120-035-BL	M12	35	8.0	15.0	18.0	13.2	12.0	10
P0154.120-040-BL	M12	40	8.0	15.0	18.0	13.2	12.0	10
P0154.120-045-BL	M12	45	8.0	15.0	18.0	13.2	12.0	10
P0154.120-050-BL	M12	50	8.0	15.0	18.0	13.2	12.0	10
P0154.120-060-BL	M12	60	8.0	15.0	18.0	13.2	12.0	10
P0154.120-080-BL	M12	80	8.0	15.0	18.0	13.2	12.0	10
P0154.160-030-BL	M16	30	12.0	20.0	24.0	17.5	16.0	14
P0154.160-035-BL	M16	35	12.0	20.0	24.0	17.5	16.0	14
P0154.160-040-BL	M16	40	12.0	20.0	24.0	17.5	16.0	14
P0154.160-045-BL	M16	45	12.0	20.0	24.0	17.5	16.0	14
P0154.160-050-BL	M16	50	12.0	20.0	24.0	17.5	16.0	14
P0154.160-060-BL	M16	60	12.0	20.0	24.0	17.5	16.0	14
P0154.160-080-BL	M16	80	12.0	20.0	24.0	17.5	16.0	14
P0154.160-100-BL	M16	100	12.0	20.0	24.0	17.5	16.0	14
P0154.200-040-BL	M20	40	16.0	25.0	30.0	22.0	20.0	19
P0154.200-060-BL	M20	60	16.0	25.0	30.0	22.0	20.0	19
P0154.200-080-BL	M20	80	16.0	25.0	30.0	22.0	20.0	19
P0154.200-100-BL	M20	100	16.0	25.0	30.0	22.0	20.0	19
P0154.200-120-BL	M20	120	16.0	25.0	30.0	22.0	20.0	19

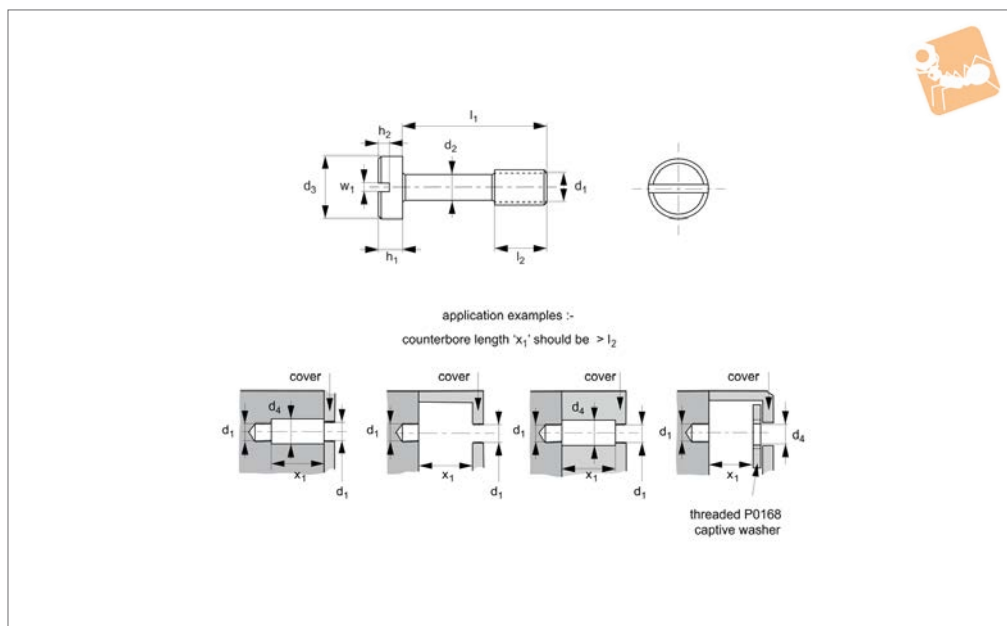


Captive Screws - Cheese Head

slot drive - 303 stainless, blackened



Captive Screws



P0155.B2

CAPTIVE SCREWS

Material

Stainless steel (AISI 303, 1.4305), black oxide coating. Tensile strength 550 N/mm². Proof stress min. 190 N/mm², austenitic stainless steel.

Also available on request in steel (anodised, black oxide or zinc plated) stainless steel (AISI 316, 1.440), brass, aluminium etc.

Technical Notes

Used to comply with the Machinery Direc-

tive 2006/42/EC. Generally to ISO 1207. Often used with our captive washers (P0168) or retaining flanges (P0169 - for sheet metal applications). The use of our captive washers should be considered when fitted in panels with unthreaded holes.

Tips

Other head drive styles - add suffix:

-TX for Torx (hexalobular).

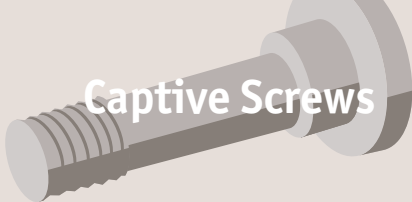
-PZ for Pozidrive.

-SE for snake-eye security.

Important Notes

Please note that these screws have a reduced diameter shank and should not be tightened to the recommended torque for an equivalent machine screw of size d₁.

Order No.	d ₁	l ₁ ±0.25	d ₂ ±0.12	l ₂ ±0.25	d ₃	d ₄ min.	h ₁	h ₂	w ₁
P0155.020-010-B2	M 2	10	1.2	3.0	3.8	2.5	1.3	0.85	0.5
P0155.020-012-B2	M 2	12	1.2	3.0	3.8	2.5	1.3	0.85	0.5
P0155.020-016-B2	M 2	16	1.2	3.0	3.8	2.5	1.3	0.85	0.5
P0155.020-020-B2	M 2	20	1.2	3.0	3.8	2.5	1.3	0.85	0.5
P0155.025-010-B2	M 2,5	10	1.7	3.7	4.5	2.8	1.6	1.00	0.6
P0155.025-012-B2	M 2,5	12	1.7	3.7	4.5	2.8	1.6	1.00	0.6
P0155.025-016-B2	M 2,5	16	1.7	3.7	4.5	2.8	1.6	1.00	0.6
P0155.025-020-B2	M 2,5	20	1.7	3.7	4.5	2.8	1.6	1.00	0.6
P0155.025-025-B2	M 2,5	25	1.7	3.7	4.5	2.8	1.6	1.00	0.6
P0155.025-030-B2	M 2,5	30	1.7	3.7	4.5	2.8	1.6	1.00	0.6
P0155.030-006-B2	M 3	6	2.0	4.5	5.5	3.5	2.0	1.30	0.8
P0155.030-008-B2	M 3	8	2.0	4.5	5.5	3.5	2.0	1.30	0.8
P0155.030-010-B2	M 3	10	2.0	4.5	5.5	3.5	2.0	1.30	0.8
P0155.030-011-B2	M 3	11	2.0	4.5	5.5	3.5	2.0	1.30	0.8
P0155.030-013-B2	M 3	13	2.0	4.5	5.5	3.5	2.0	1.30	0.8
P0155.030-016-B2	M 3	16	2.0	4.5	5.5	3.5	2.0	1.30	0.8
P0155.030-018-B2	M 3	18	2.0	4.5	5.5	3.5	2.0	1.30	0.8
P0155.030-020-B2	M 3	20	2.0	4.5	5.5	3.5	2.0	1.30	0.8
P0155.030-025-B2	M 3	25	2.0	4.5	5.5	3.5	2.0	1.30	0.8
P0155.030-030-B2	M 3	30	2.0	4.5	5.5	3.5	2.0	1.30	0.8
P0155.030-040-B2	M 3	40	2.0	4.5	5.5	3.5	2.0	1.30	0.8
P0155.035-010-B2	M3,5	10	2.3	5.2	6.0	3.8	2.4	1.4	1.0
P0155.035-016-B2	M3,5	16	2.3	5.2	6.0	3.8	2.4	1.4	1.0
P0155.035-020-B2	M3,5	20	2.3	5.2	6.0	3.8	2.4	1.4	1.0
P0155.035-025-B2	M3,5	25	2.3	5.2	6.0	3.8	2.4	1.4	1.0



Captive Screws

Captive Screws - Cheese Head slot drive - 303 stainless, blackened



CAPTIVE SCREWS

Order No.	d ₁	l ₁ ±0.25	d ₂ ±0.12	l ₂ ±0.25	d ₃	d ₄ min.	h ₁	h ₂	w ₁
P0155.035-030-B2	M3,5	30	2.3	5.2	6.0	3.8	2.4	1.4	1.0
P0155.035-040-B2	M3,5	40	2.3	5.2	6.0	3.8	2.4	1.4	1.0
P0155.040-010-B2	M 4	10	2.8	6.0	7.0	4.5	2.6	1.6	1.2
P0155.040-012-B2	M 4	12	2.8	6.0	7.0	4.5	2.6	1.6	1.2
P0155.040-016-B2	M 4	16	2.8	6.0	7.0	4.5	2.6	1.6	1.2
P0155.040-018-B2	M 4	18	2.8	6.0	7.0	4.5	2.6	1.6	1.2
P0155.040-019-B2	M 4	19	2.8	6.0	7.0	4.5	2.6	1.6	1.2
P0155.040-020-B2	M 4	20	2.8	6.0	7.0	4.5	2.6	1.6	1.2
P0155.040-025-B2	M 4	25	2.8	6.0	7.0	4.5	2.6	1.6	1.2
P0155.040-030-B2	M 4	30	2.8	6.0	7.0	4.5	2.6	1.6	1.2
P0155.040-040-B2	M 4	40	2.8	6.0	7.0	4.5	2.6	1.6	1.2
P0155.040-050-B2	M 4	50	2.8	6.0	7.0	4.5	2.6	1.6	1.2
P0155.040-060-B2	M 4	60	2.8	6.0	7.0	4.5	2.6	1.6	1.2
P0155.050-010-B2	M 5	10	3.7	7.5	8.5	5.5	3.3	2.0	1.2
P0155.050-012-B2	M 5	12	3.7	7.5	8.5	5.5	3.3	2.0	1.2
P0155.050-016-B2	M 5	16	3.7	7.5	8.5	5.5	3.3	2.0	1.2
P0155.050-018-B2	M 5	18	3.7	7.5	8.5	5.5	3.3	2.0	1.2
P0155.050-020-B2	M 5	20	3.7	7.5	8.5	5.5	3.3	2.0	1.2
P0155.050-022-B2	M 5	22	3.7	7.5	8.5	5.5	3.3	2.0	1.2
P0155.050-025-B2	M 5	25	3.7	7.5	8.5	5.5	3.3	2.0	1.2
P0155.050-030-B2	M 5	30	3.7	7.5	8.5	5.5	3.3	2.0	1.2
P0155.050-040-B2	M 5	40	3.7	7.5	8.5	5.5	3.3	2.0	1.2
P0155.050-050-B2	M 5	50	3.7	7.5	8.5	5.5	3.3	2.0	1.2
P0155.050-060-B2	M 5	60	3.7	7.5	8.5	5.5	3.3	2.0	1.2
P0155.050-080-B2	M 5	80	3.7	7.5	8.5	5.5	3.3	2.0	1.2
P0155.060-010-B2	M 6	10	4.2	7.5	10.0	6.5	3.9	2.3	1.6
P0155.060-012-B2	M 6	12	4.2	7.5	10.0	6.5	3.9	2.3	1.6
P0155.060-016-B2	M 6	16	4.2	7.5	10.0	6.5	3.9	2.3	1.6
P0155.060-020-B2	M 6	20	4.2	7.5	10.0	6.5	3.9	2.3	1.6
P0155.060-025-B2	M 6	25	4.2	7.5	10.0	6.5	3.9	2.3	1.6
P0155.060-030-B2	M 6	30	4.2	7.5	10.0	6.5	3.9	2.3	1.6
P0155.060-040-B2	M 6	40	4.2	7.5	10.0	6.5	3.9	2.3	1.6
P0155.060-050-B2	M 6	50	4.2	7.5	10.0	6.5	3.9	2.3	1.6
P0155.060-060-B2	M 6	60	4.2	7.5	10.0	6.5	3.9	2.3	1.6
P0155.060-080-B2	M 6	80	4.2	7.5	10.0	6.5	3.9	2.3	1.6

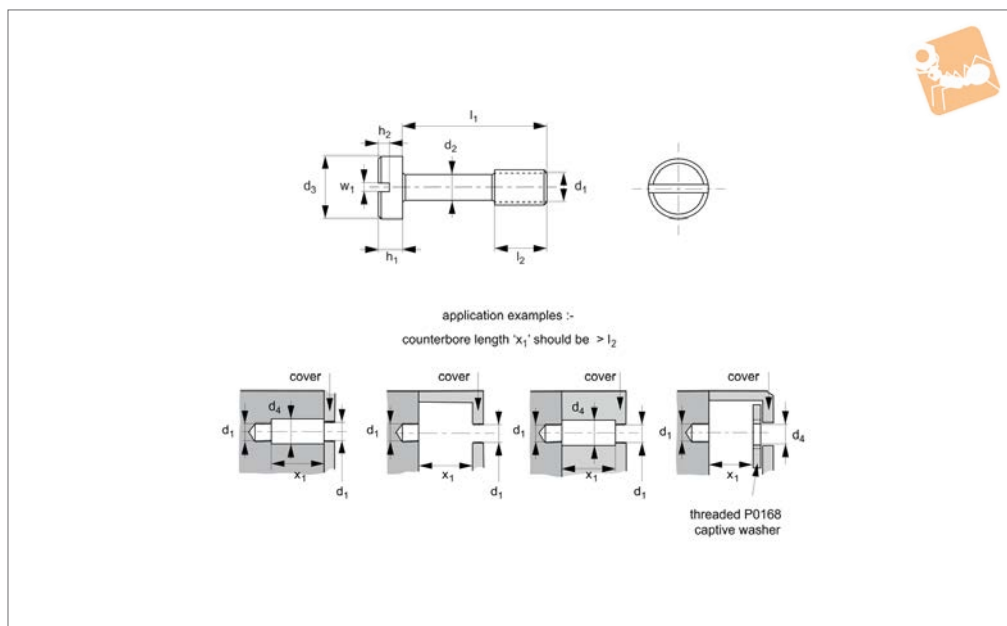


Captive Screws - Cheese Head

slot drive - 316 stainless, blackened



Captive Screws



P0155.B4

CAPTIVE SCREWS

Material

Stainless steel (AISI 316, 1.440), black oxide coating. Tensile strength 480 N/mm². Proof stress min. 200 N/mm², austenitic stainless steel.

Also available on request in steel (anodised, black oxide or zinc plated) stainless steel (AISI 303, 1.4305), brass, aluminium etc.

Technical Notes

Used to comply with the Machinery Direc-

tive 2006/42/EC. Generally to ISO 1207. Often used with our captive washers (P0168) or retaining flanges (P0169 - for sheet metal applications). The use of our captive washers should be considered when fitted in panels with unthreaded holes.

Tips

Other head drive styles - add suffix:

-TX for Torx (hexalobular).

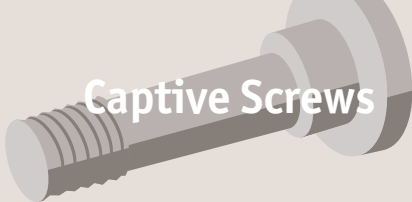
-PZ for Pozidrive.

-SE for snake-eye security.

Important Notes

Please note that these screws have a reduced diameter shank and should not be tightened to the recommended torque for an equivalent machine screw of size d₁.

Order No.	d ₁	l ₁ ±0.25	d ₂ ±0.12	l ₂ ±0.25	d ₃	d ₄ min.	h ₁	h ₂	w ₁
P0155.020-010-B4	M 2	10	1.2	3.0	3.8	2.5	1.3	0.85	0.5
P0155.020-012-B4	M 2	12	1.2	3.0	3.8	2.5	1.3	0.85	0.5
P0155.020-016-B4	M 2	16	1.2	3.0	3.8	2.5	1.3	0.85	0.5
P0155.020-020-B4	M 2	20	1.2	3.0	3.8	2.5	1.3	0.85	0.5
P0155.025-010-B4	M 2,5	10	1.7	3.7	4.5	2.8	1.6	1.00	0.6
P0155.025-012-B4	M 2,5	12	1.7	3.7	4.5	2.8	1.6	1.00	0.6
P0155.025-016-B4	M 2,5	16	1.7	3.7	4.5	2.8	1.6	1.00	0.6
P0155.025-020-B4	M 2,5	20	1.7	3.7	4.5	2.8	1.6	1.00	0.6
P0155.025-025-B4	M 2,5	25	1.7	3.7	4.5	2.8	1.6	1.00	0.6
P0155.025-030-B4	M 2,5	30	1.7	3.7	4.5	2.8	1.6	1.00	0.6
P0155.030-006-B4	M 3	6	2.0	4.5	5.5	3.5	2.0	1.30	0.8
P0155.030-008-B4	M 3	8	2.0	4.5	5.5	3.5	2.0	1.30	0.8
P0155.030-010-B4	M 3	10	2.0	4.5	5.5	3.5	2.0	1.30	0.8
P0155.030-011-B4	M 3	11	2.0	4.5	5.5	3.5	2.0	1.30	0.8
P0155.030-013-B4	M 3	13	2.0	4.5	5.5	3.5	2.0	1.30	0.8
P0155.030-016-B4	M 3	16	2.0	4.5	5.5	3.5	2.0	1.30	0.8
P0155.030-018-B4	M 3	18	2.0	4.5	5.5	3.5	2.0	1.30	0.8
P0155.030-020-B4	M 3	20	2.0	4.5	5.5	3.5	2.0	1.30	0.8
P0155.030-025-B4	M 3	25	2.0	4.5	5.5	3.5	2.0	1.30	0.8
P0155.030-030-B4	M 3	30	2.0	4.5	5.5	3.5	2.0	1.30	0.8
P0155.030-040-B4	M 3	40	2.0	4.5	5.5	3.5	2.0	1.30	0.8
P0155.035-010-B4	M3,5	10	2.3	5.2	6.0	3.8	2.4	1.4	1.0
P0155.035-016-B4	M3,5	16	2.3	5.2	6.0	3.8	2.4	1.4	1.0
P0155.035-020-B4	M3,5	20	2.3	5.2	6.0	3.8	2.4	1.4	1.0
P0155.035-025-B4	M3,5	25	2.3	5.2	6.0	3.8	2.4	1.4	1.0



Captive Screws

Captive Screws - Cheese Head slot drive - 316 stainless, blackened



CAPTIVE SCREWS

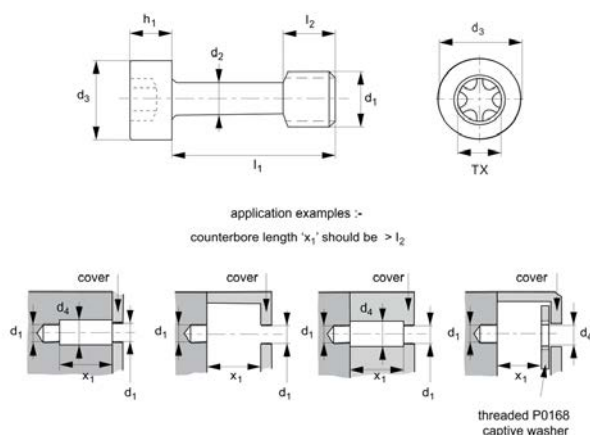
Order No.	d ₁	l ₁ ±0.25	d ₂ ±0.12	l ₂ ±0.25	d ₃	d ₄ min.	h ₁	h ₂	w ₁
P0155.035-030-B4	M3,5	30	2.3	5.2	6.0	3.8	2.4	1.4	1.0
P0155.035-040-B4	M3,5	40	2.3	5.2	6.0	3.8	2.4	1.4	1.0
P0155.040-010-B4	M 4	10	2.8	6.0	7.0	4.5	2.6	1.6	1.2
P0155.040-012-B4	M 4	12	2.8	6.0	7.0	4.5	2.6	1.6	1.2
P0155.040-016-B4	M 4	16	2.8	6.0	7.0	4.5	2.6	1.6	1.2
P0155.040-018-B4	M 4	18	2.8	6.0	7.0	4.5	2.6	1.6	1.2
P0155.040-019-B4	M 4	19	2.8	6.0	7.0	4.5	2.6	1.6	1.2
P0155.040-020-B4	M 4	20	2.8	6.0	7.0	4.5	2.6	1.6	1.2
P0155.040-025-B4	M 4	25	2.8	6.0	7.0	4.5	2.6	1.6	1.2
P0155.040-030-B4	M 4	30	2.8	6.0	7.0	4.5	2.6	1.6	1.2
P0155.040-040-B4	M 4	40	2.8	6.0	7.0	4.5	2.6	1.6	1.2
P0155.040-050-B4	M 4	50	2.8	6.0	7.0	4.5	2.6	1.6	1.2
P0155.040-060-B4	M 4	60	2.8	6.0	7.0	4.5	2.6	1.6	1.2
P0155.050-010-B4	M 5	10	3.7	7.5	8.5	5.5	3.3	2.0	1.2
P0155.050-012-B4	M 5	12	3.7	7.5	8.5	5.5	3.3	2.0	1.2
P0155.050-016-B4	M 5	16	3.7	7.5	8.5	5.5	3.3	2.0	1.2
P0155.050-018-B4	M 5	18	3.7	7.5	8.5	5.5	3.3	2.0	1.2
P0155.050-020-B4	M 5	20	3.7	7.5	8.5	5.5	3.3	2.0	1.2
P0155.050-022-B4	M 5	22	3.7	7.5	8.5	5.5	3.3	2.0	1.2
P0155.050-025-B4	M 5	25	3.7	7.5	8.5	5.5	3.3	2.0	1.2
P0155.050-030-B4	M 5	30	3.7	7.5	8.5	5.5	3.3	2.0	1.2
P0155.050-040-B4	M 5	40	3.7	7.5	8.5	5.5	3.3	2.0	1.2
P0155.050-050-B4	M 5	50	3.7	7.5	8.5	5.5	3.3	2.0	1.2
P0155.050-060-B4	M 5	60	3.7	7.5	8.5	5.5	3.3	2.0	1.2
P0155.050-080-B4	M 5	80	3.7	7.5	8.5	5.5	3.3	2.0	1.2
P0155.060-010-B4	M 6	10	4.2	7.5	10.0	6.5	3.9	2.3	1.6
P0155.060-012-B4	M 6	12	4.2	7.5	10.0	6.5	3.9	2.3	1.6
P0155.060-016-B4	M 6	16	4.2	7.5	10.0	6.5	3.9	2.3	1.6
P0155.060-020-B4	M 6	20	4.2	7.5	10.0	6.5	3.9	2.3	1.6
P0155.060-025-B4	M 6	25	4.2	7.5	10.0	6.5	3.9	2.3	1.6
P0155.060-030-B4	M 6	30	4.2	7.5	10.0	6.5	3.9	2.3	1.6
P0155.060-040-B4	M 6	40	4.2	7.5	10.0	6.5	3.9	2.3	1.6
P0155.060-050-B4	M 6	50	4.2	7.5	10.0	6.5	3.9	2.3	1.6
P0155.060-060-B4	M 6	60	4.2	7.5	10.0	6.5	3.9	2.3	1.6
P0155.060-080-B4	M 6	80	4.2	7.5	10.0	6.5	3.9	2.3	1.6



Captive Screws - Cap Head

TX drive - 303 stainless, blackened

Captive Screws



P0156.B2

CAPTIVE SCREWS

Material

Stainless steel (AISI 303, 1.4305), black oxide coating. Tensile strength 550 N/mm². Proof stress min. 190 N/mm², austenitic stainless steel.

Also available on request in steel (anodised, black oxide or zinc plated) stainless steel (AISI 316, 1.440), brass, aluminium etc.

Technical Notes

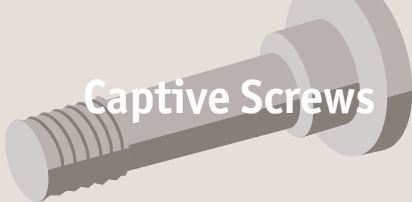
Used to comply with the Machinery Directive 2006/42/EC. Generally to ISO 4762. Often used with our captive washers (P0168) or retaining flanges (P0169 - for sheet metal applications). The use of our captive washers should be considered when fitted in panels with unthreaded holes.

*M 8 sizes have a reduced TX size.

Important Notes

Please note that these screws have a reduced diameter shank and should not be tightened to the recommended torque for an equivalent machine screw of size d₁.

Order No.	d ₁	l ₁ ±0.25	d ₂ ±0.12	l ₂ ±0.25	d ₃ max.	d ₄ min.	h ₁ max.	TX size
P0156.030-008-B2	M 3	8	2.0	4.5	5.5	3.5	3	TX-10
P0156.030-010-B2	M 3	10	2.0	4.5	5.5	3.5	3	TX-10
P0156.030-016-B2	M 3	16	2.0	4.5	5.5	3.5	3	TX-10
P0156.030-020-B2	M 3	20	2.0	4.5	5.5	3.5	3	TX-10
P0156.030-025-B2	M 3	25	2.0	4.5	5.5	3.5	3	TX-10
P0156.030-030-B2	M 3	30	2.0	4.5	5.5	3.5	3	TX-10
P0156.040-008-B2	M 4	8	2.8	6.0	7.0	4.5	4	TX-20
P0156.040-010-B2	M 4	10	2.8	6.0	7.0	4.5	4	TX-20
P0156.040-012-B2	M 4	12	2.8	6.0	7.0	4.5	4	TX-20
P0156.040-016-B2	M 4	16	2.8	6.0	7.0	4.5	4	TX-20
P0156.040-020-B2	M 4	20	2.8	6.0	7.0	4.5	4	TX-20
P0156.040-025-B2	M 4	25	2.8	6.0	7.0	4.5	4	TX-20
P0156.040-030-B2	M 4	30	2.8	6.0	7.0	4.5	4	TX-20
P0156.040-040-B2	M 4	40	2.8	6.0	7.0	4.5	4	TX-20
P0156.040-050-B2	M 4	50	2.8	6.0	7.0	4.5	4	TX-20
P0156.050-010-B2	M 5	10	3.7	7.5	8.5	5.5	5	TX-25
P0156.050-012-B2	M 5	12	3.7	7.5	8.5	5.5	5	TX-25
P0156.050-016-B2	M 5	16	3.7	7.5	8.5	5.5	5	TX-25
P0156.050-020-B2	M 5	20	3.7	7.5	8.5	5.5	5	TX-25
P0156.050-025-B2	M 5	25	3.7	7.5	8.5	5.5	5	TX-25
P0156.050-030-B2	M 5	30	3.7	7.5	8.5	5.5	5	TX-25
P0156.050-040-B2	M 5	40	3.7	7.5	8.5	5.5	5	TX-25
P0156.050-050-B2	M 5	50	3.7	7.5	8.5	5.5	5	TX-25
P0156.060-010-B2	M 6	10	4.2	7.5	10.0	6.5	6	TX-30
P0156.060-012-B2	M 6	12	4.2	7.5	10.0	6.5	6	TX-30
P0156.060-016-B2	M 6	16	4.2	7.5	10.0	6.5	6	TX-30
P0156.060-020-B2	M 6	20	4.2	7.5	10.0	6.5	6	TX-30
P0156.060-025-B2	M 6	25	4.2	7.5	10.0	6.5	6	TX-30



Captive Screws

Captive Screws - Cap Head

TX drive - 303 stainless, blackened



CAPTIVE SCREWS

Order No.	d ₁	l ₁ ±0.25	d ₂ ±0.12	l ₂ ±0.25	d ₃ max.	d ₄ min.	h ₁ max.	TX size
P0156.060-030-B2	M 6	30	4.2	7.5	10.0	6.5	6	TX-30
P0156.060-040-B2	M 6	40	4.2	7.5	10.0	6.5	6	TX-30
P0156.060-050-B2	M 6	50	4.2	7.5	10.0	6.5	6	TX-30
P0156.060-060-B2	M 6	60	4.2	7.5	10.0	6.5	6	TX-30
P0156.060-080-B2	M 6	80	4.2	7.5	10.0	6.5	6	TX-30
P0156.080-012-B2	M 8	12	6.0	10.0	13.0	8.5	8	TX-30*
P0156.080-016-B2	M 8	16	6.0	10.0	13.0	8.5	8	TX-30*
P0156.080-020-B2	M 8	20	6.0	10.0	13.0	8.5	8	TX-30*
P0156.080-025-B2	M 8	25	6.0	10.0	13.0	8.5	8	TX-30*
P0156.080-030-B2	M 8	30	6.0	10.0	13.0	8.5	8	TX-30*
P0156.080-035-B2	M 8	35	6.0	10.0	13.0	8.5	8	TX-30*
P0156.080-040-B2	M 8	40	6.0	10.0	13.0	8.5	8	TX-30*
P0156.080-045-B2	M 8	45	6.0	10.0	13.0	8.5	8	TX-30*
P0156.080-050-B2	M 8	50	6.0	10.0	13.0	8.5	8	TX-30*
P0156.080-060-B2	M 8	60	6.0	10.0	13.0	8.5	8	TX-30*
P0156.080-080-B2	M 8	80	6.0	10.0	13.0	8.5	8	TX-30*

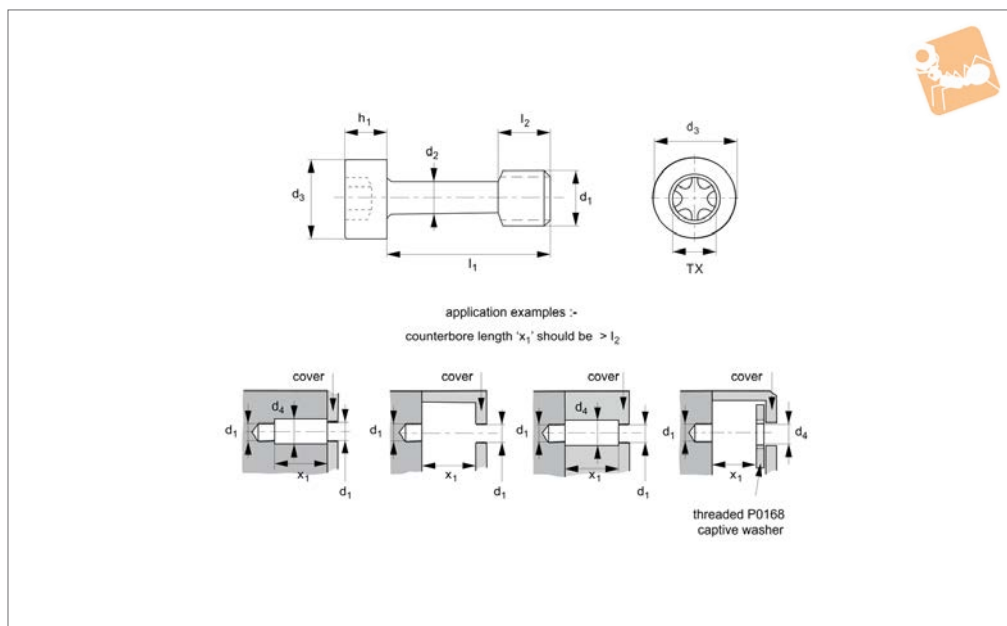


Captive Screws - Cap Head

TX drive - 316 stainless, blackened



Captive Screws



P0156.B4

CAPTIVE SCREWS

Material

Stainless steel (AISI 316, 1.440), black oxide coating. Tensile strength 480 N/mm². Proof stress min. 200 N/mm², austenitic stainless steel.

Also available on request in steel (anodised, black oxide or zinc plated) stainless steel (AISI 303, 1.4305), brass, aluminium etc.

Technical Notes

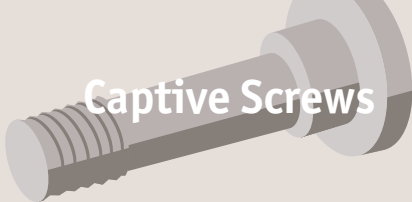
Used to comply with the Machinery Directive 2006/42/EC. Generally to ISO 4762. Often used with our captive washers (P0168) or retaining flanges (P0169 - for sheet metal applications). The use of our captive washers should be considered when fitted in panels with unthreaded holes.

*M 8 sizes have a reduced TX size.

Important Notes

Please note that these screws have a reduced diameter shank and should not be tightened to the recommended torque for an equivalent machine screw of size d_1 .

Order No.	d_1	l_1 ± 0.25	d_2 ± 0.12	l_2 ± 0.25	d_3 max.	d_4 min.	h_1 max.	TX size
P0156.030-008-B4	M 3	8	2.0	4.5	5.5	3.5	3	TX-10
P0156.030-010-B4	M 3	10	2.0	4.5	5.5	3.5	3	TX-10
P0156.030-016-B4	M 3	16	2.0	4.5	5.5	3.5	3	TX-10
P0156.030-020-B4	M 3	20	2.0	4.5	5.5	3.5	3	TX-10
P0156.030-025-B4	M 3	25	2.0	4.5	5.5	3.5	3	TX-10
P0156.030-030-B4	M 3	30	2.0	4.5	5.5	3.5	3	TX-10
P0156.040-008-B4	M 4	8	2.8	6.0	7.0	4.5	4	TX-20
P0156.040-010-B4	M 4	10	2.8	6.0	7.0	4.5	4	TX-20
P0156.040-012-B4	M 4	12	2.8	6.0	7.0	4.5	4	TX-20
P0156.040-016-B4	M 4	16	2.8	6.0	7.0	4.5	4	TX-20
P0156.040-020-B4	M 4	20	2.8	6.0	7.0	4.5	4	TX-20
P0156.040-025-B4	M 4	25	2.8	6.0	7.0	4.5	4	TX-20
P0156.040-030-B4	M 4	30	2.8	6.0	7.0	4.5	4	TX-20
P0156.040-040-B4	M 4	40	2.8	6.0	7.0	4.5	4	TX-20
P0156.040-050-B4	M 4	50	2.8	6.0	7.0	4.5	4	TX-20
P0156.050-010-B4	M 5	10	3.7	7.5	8.5	5.5	5	TX-25
P0156.050-012-B4	M 5	12	3.7	7.5	8.5	5.5	5	TX-25
P0156.050-016-B4	M 5	16	3.7	7.5	8.5	5.5	5	TX-25
P0156.050-020-B4	M 5	20	3.7	7.5	8.5	5.5	5	TX-25
P0156.050-025-B4	M 5	25	3.7	7.5	8.5	5.5	5	TX-25
P0156.050-030-B4	M 5	30	3.7	7.5	8.5	5.5	5	TX-25
P0156.050-040-B4	M 5	40	3.7	7.5	8.5	5.5	5	TX-25
P0156.050-050-B4	M 5	50	3.7	7.5	8.5	5.5	5	TX-25
P0156.060-010-B4	M 6	10	4.2	7.5	10.0	6.5	6	TX-30
P0156.060-012-B4	M 6	12	4.2	7.5	10.0	6.5	6	TX-30
P0156.060-016-B4	M 6	16	4.2	7.5	10.0	6.5	6	TX-30
P0156.060-020-B4	M 6	20	4.2	7.5	10.0	6.5	6	TX-30
P0156.060-025-B4	M 6	25	4.2	7.5	10.0	6.5	6	TX-30



Captive Screws

Captive Screws - Cap Head

TX drive - 316 stainless, blackened



CAPTIVE SCREWS

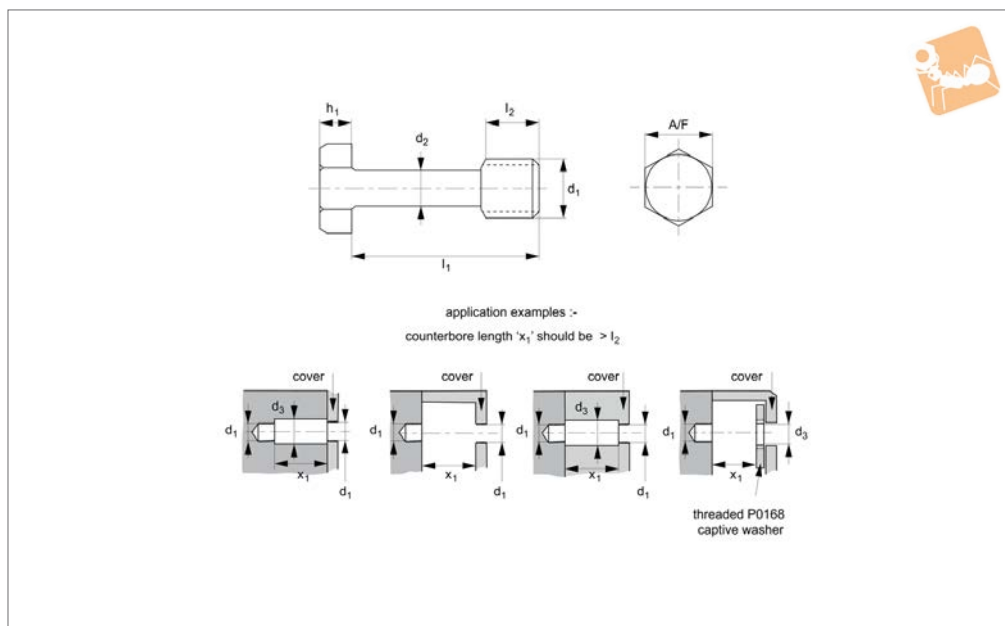
Order No.	d ₁	l ₁ ±0.25	d ₂ ±0.12	l ₂ ±0.25	d ₃ max.	d ₄ min.	h ₁ max.	TX size
P0156.060-030-B4	M 6	30	4.2	7.5	10.0	6.5	6	TX-30
P0156.060-040-B4	M 6	40	4.2	7.5	10.0	6.5	6	TX-30
P0156.060-050-B4	M 6	50	4.2	7.5	10.0	6.5	6	TX-30
P0156.060-060-B4	M 6	60	4.2	7.5	10.0	6.5	6	TX-30
P0156.060-080-B4	M 6	80	4.2	7.5	10.0	6.5	6	TX-30
P0156.080-012-B4	M 8	12	6.0	10.0	13.0	8.5	8	TX-30*
P0156.080-016-B4	M 8	16	6.0	10.0	13.0	8.5	8	TX-30*
P0156.080-020-B4	M 8	20	6.0	10.0	13.0	8.5	8	TX-30*
P0156.080-025-B4	M 8	25	6.0	10.0	13.0	8.5	8	TX-30*
P0156.080-030-B4	M 8	30	6.0	10.0	13.0	8.5	8	TX-30*
P0156.080-035-B4	M 8	35	6.0	10.0	13.0	8.5	8	TX-30*
P0156.080-040-B4	M 8	40	6.0	10.0	13.0	8.5	8	TX-30*
P0156.080-045-B4	M 8	45	6.0	10.0	13.0	8.5	8	TX-30*
P0156.080-050-B4	M 8	50	6.0	10.0	13.0	8.5	8	TX-30*
P0156.080-060-B4	M 8	60	6.0	10.0	13.0	8.5	8	TX-30*
P0156.080-080-B4	M 8	80	6.0	10.0	13.0	8.5	8	TX-30*



Captive Screws - Hex Bolts

303 stainless, blackened

Captive Screws



P0158.B2

CAPTIVE SCREWS

Material

Stainless steel (AISI 303, 1.4305), black oxide coating. Tensile strength 550 N/mm². Proof stress min. 190 N/mm², austenitic stainless steel.

Also available on request in steel (anodised, black oxide or zinc plated) stainless steel (AISI 316, 1.440), brass,

aluminium etc.

Technical Notes

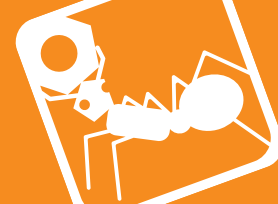
Used to comply with the Machinery Directive 2006/42/EC. Often used with our captive washers (P0168) or retaining flanges (P0169 - for sheet metal applications). The use of our captive washers

should be considered when fitted in panels with unthreaded holes.

Important Notes

Please note that these screws have a reduced diameter shank and should not be tightened to the recommended torque for an equivalent machine screw of size d₁.

Order No.	d ₁	l ₁ ±0.25	d ₂ ±0.12	l ₂ ±0.25	d ₃ min.	h ₁ max.	A/F
P0158.030-010-B2	M 3	10	2.0	4.5	3.5	2.2	6
P0158.030-016-B2	M 3	16	2.0	4.5	3.5	2.2	6
P0158.030-020-B2	M 3	20	2.0	4.5	3.5	2.2	6
P0158.030-025-B2	M 3	25	2.0	4.5	3.5	2.2	6
P0158.030-030-B2	M 3	30	2.0	4.5	3.5	2.2	6
P0158.030-040-B2	M 3	40	2.0	4.5	3.5	2.2	6
P0158.040-012-B2	M 4	12	2.8	6.0	4.5	2.9	7
P0158.040-016-B2	M 4	16	2.8	6.0	4.5	2.9	7
P0158.040-020-B2	M 4	20	2.8	6.0	4.5	2.9	7
P0158.040-025-B2	M 4	25	2.8	6.0	4.5	2.9	7
P0158.040-030-B2	M 4	30	2.8	8.0	4.5	2.9	7
P0158.040-035-B2	M 4	35	2.8	8.0	4.5	2.9	7
P0158.040-040-B2	M 4	40	2.8	8.0	4.5	2.9	7
P0158.040-050-B2	M 4	50	2.8	8.0	4.5	2.9	7
P0158.040-060-B2	M 4	60	2.8	8.0	4.5	2.9	7
P0158.050-012-B2	M 5	12	3.7	7.5	5.5	3.6	8
P0158.050-016-B2	M 5	16	3.7	7.5	5.5	3.6	8
P0158.050-020-B2	M 5	20	3.7	7.5	5.5	3.6	8
P0158.050-025-B2	M 5	25	3.7	7.5	5.5	3.6	8
P0158.050-030-B2	M 5	30	3.7	10.0	5.5	3.6	8
P0158.050-035-B2	M 5	35	3.7	10.0	5.5	3.6	8
P0158.050-040-B2	M 5	40	3.7	10.0	5.5	3.6	8
P0158.050-050-B2	M 5	50	3.7	10.0	5.5	3.6	8
P0158.050-060-B2	M 5	60	3.7	10.0	5.5	3.6	8
P0158.060-012-B2	M 6	12	4.2	7.5	6.5	4.1	10
P0158.060-016-B2	M 6	16	4.2	7.5	6.5	4.1	10
P0158.060-020-B2	M 6	20	4.2	7.5	6.5	4.1	10
P0158.060-025-B2	M 6	25	4.2	7.5	6.5	4.1	10
P0158.060-030-B2	M 6	30	4.2	7.5	6.5	4.1	10



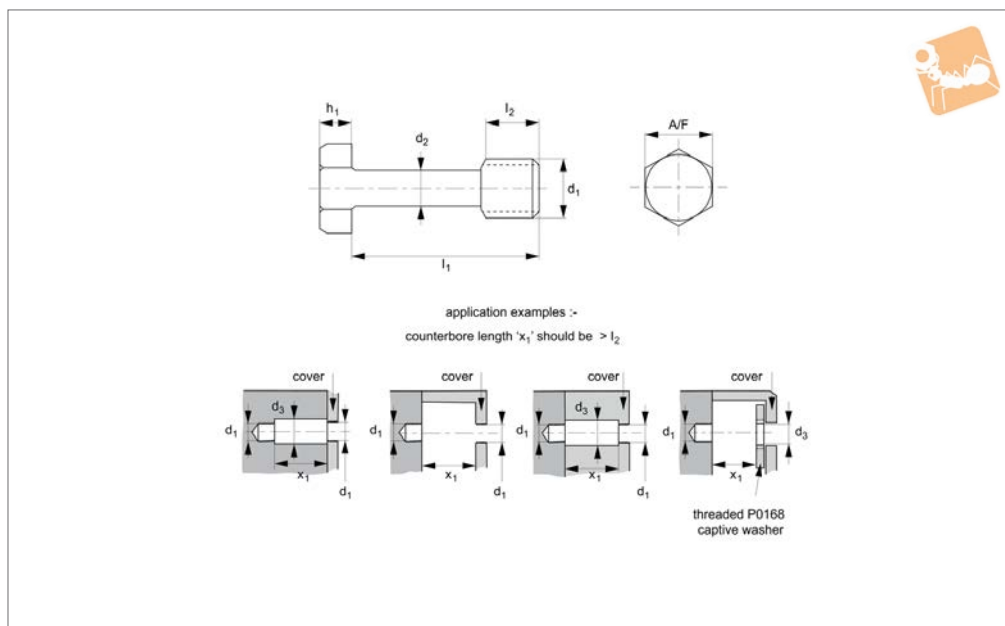
Order No.	d ₁	l ₁ ±0.25	d ₂ ±0.12	l ₂ ±0.25	d ₃ min.	h ₁ max.	A/F
P0158.060-035-B2	M 6	35	4.2	7.5	6.5	4.1	10
P0158.060-040-B2	M 6	40	4.2	7.5	6.5	4.1	10
P0158.060-050-B2	M 6	50	4.2	7.5	6.5	4.1	10
P0158.060-060-B2	M 6	60	4.2	7.5	6.5	4.1	10
P0158.060-080-B2	M 6	80	4.2	7.5	6.5	4.1	10
P0158.080-016-B2	M 8	16	6.0	10.0	8.5	5.3	13
P0158.080-020-B2	M 8	20	6.0	10.0	8.5	5.3	13
P0158.080-025-B2	M 8	25	6.0	10.0	8.5	5.3	13
P0158.080-030-B2	M 8	30	6.0	10.0	8.5	5.3	13
P0158.080-035-B2	M 8	35	6.0	10.0	8.5	5.3	13
P0158.080-040-B2	M 8	40	6.0	10.0	8.5	5.3	13
P0158.080-050-B2	M 8	50	6.0	10.0	8.5	5.3	13
P0158.080-060-B2	M 8	60	6.0	10.0	8.5	5.3	13
P0158.080-080-B2	M 8	80	6.0	10.0	8.5	5.3	13
P0158.100-020-B2	M10	20	7.5	12.5	10.6	6.4	17
P0158.100-025-B2	M10	25	7.5	12.5	10.6	6.4	17
P0158.100-030-B2	M10	30	7.5	12.5	10.6	6.4	17
P0158.100-035-B2	M10	35	7.5	12.0	10.6	6.4	17
P0158.100-040-B2	M10	40	7.5	12.5	10.6	6.4	17
P0158.100-050-B2	M10	50	7.5	12.5	10.6	6.4	17
P0158.100-060-B2	M10	60	7.5	12.5	10.6	6.4	17
P0158.100-080-B2	M10	80	7.5	12.5	10.6	6.4	17
P0158.120-025-B2	M12	25	8.0	15.0	13.2	7.5	19
P0158.120-030-B2	M12	30	8.0	15.0	13.2	7.5	19
P0158.120-035-B2	M12	35	8.0	15.0	13.2	7.5	19
P0158.120-040-B2	M12	40	8.0	15.0	13.2	7.5	19
P0158.120-050-B2	M12	50	8.0	15.0	13.2	7.5	19
P0158.120-060-B2	M12	60	8.0	15.0	13.2	7.5	19
P0158.120-080-B2	M12	80	8.0	15.0	13.2	7.5	19



Captive Screws - Hex Bolts

316 stainless, blackened

Captive Screws



P0158.B4

CAPTIVE SCREWS

Material

Stainless steel (AISI 316, 1.440), black oxide coating. Tensile strength 480 N/mm². Proof stress min. 200 N/mm², austenitic stainless steel.

Also available on request in steel (anodised, black oxide or zinc plated) stainless steel (AISI 303, 1.4305), brass,

aluminium etc.

Technical Notes

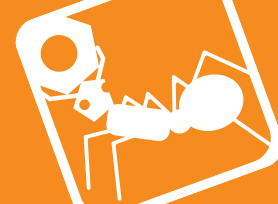
Used to comply with the Machinery Directive 2006/42/EC. Often used with our captive washers (P0168) or retaining flanges (P0169 - for sheet metal applications). The use of our captive washers

should be considered when fitted in panels with unthreaded holes.

Important Notes

Please note that these screws have a reduced diameter shank and should not be tightened to the recommended torque for an equivalent machine screw of size d₁.

Order No.	d ₁	l ₁ ±0.25	d ₂ ±0.12	l ₂ ±0.25	d ₃ min.	h ₁ max.	A/F
P0158.030-010-B4	M 3	10	2.0	4.5	3.5	2.2	6
P0158.030-016-B4	M 3	16	2.0	4.5	3.5	2.2	6
P0158.030-020-B4	M 3	20	2.0	4.5	3.5	2.2	6
P0158.030-025-B4	M 3	25	2.0	4.5	3.5	2.2	6
P0158.030-030-B4	M 3	30	2.0	4.5	3.5	2.2	6
P0158.030-040-B4	M 3	40	2.0	4.5	3.5	2.2	6
P0158.040-012-B4	M 4	12	2.8	6.0	4.5	2.9	7
P0158.040-016-B4	M 4	16	2.8	6.0	4.5	2.9	7
P0158.040-020-B4	M 4	20	2.8	6.0	4.5	2.9	7
P0158.040-025-B4	M 4	25	2.8	6.0	4.5	2.9	7
P0158.040-030-B4	M 4	30	2.8	8.0	4.5	2.9	7
P0158.040-035-B4	M 4	35	2.8	8.0	4.5	2.9	7
P0158.040-040-B4	M 4	40	2.8	8.0	4.5	2.9	7
P0158.040-050-B4	M 4	50	2.8	8.0	4.5	2.9	7
P0158.040-060-B4	M 4	60	2.8	8.0	4.5	2.9	7
P0158.050-012-B4	M 5	12	3.7	7.5	5.5	3.6	8
P0158.050-016-B4	M 5	16	3.7	7.5	5.5	3.6	8
P0158.050-020-B4	M 5	20	3.7	7.5	5.5	3.6	8
P0158.050-025-B4	M 5	25	3.7	7.5	5.5	3.6	8
P0158.050-030-B4	M 5	30	3.7	10.0	5.5	3.6	8
P0158.050-035-B4	M 5	35	3.7	10.0	5.5	3.6	8
P0158.050-040-B4	M 5	40	3.7	10.0	5.5	3.6	8
P0158.050-050-B4	M 5	50	3.7	10.0	5.5	3.6	8
P0158.050-060-B4	M 5	60	3.7	10.0	5.5	3.6	8
P0158.060-012-B4	M 6	12	4.2	7.5	6.5	4.1	10
P0158.060-016-B4	M 6	16	4.2	7.5	6.5	4.1	10
P0158.060-020-B4	M 6	20	4.2	7.5	6.5	4.1	10
P0158.060-025-B4	M 6	25	4.2	7.5	6.5	4.1	10
P0158.060-030-B4	M 6	30	4.2	7.5	6.5	4.1	10



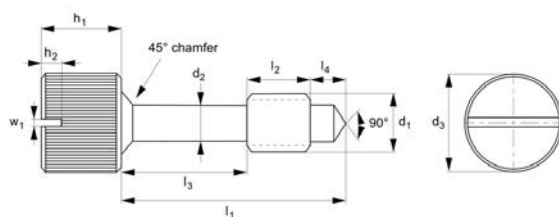
Order No.	d ₁	l ₁ ±0.25	d ₂ ±0.12	l ₂ ±0.25	d ₃ min.	h ₁ max.	A/F
P0158.060-035-B4	M 6	35	4.2	7.5	6.5	4.1	10
P0158.060-040-B4	M 6	40	4.2	7.5	6.5	4.1	10
P0158.060-050-B4	M 6	50	4.2	7.5	6.5	4.1	10
P0158.060-060-B4	M 6	60	4.2	7.5	6.5	4.1	10
P0158.060-080-B4	M 6	80	4.2	7.5	6.5	4.1	10
P0158.080-016-B4	M 8	16	6.0	10.0	8.5	5.3	13
P0158.080-020-B4	M 8	20	6.0	10.0	8.5	5.3	13
P0158.080-025-B4	M 8	25	6.0	10.0	8.5	5.3	13
P0158.080-030-B4	M 8	30	6.0	10.0	8.5	5.3	13
P0158.080-035-B4	M 8	35	6.0	10.0	8.5	5.3	13
P0158.080-040-B4	M 8	40	6.0	10.0	8.5	5.3	13
P0158.080-050-B4	M 8	50	6.0	10.0	8.5	5.3	13
P0158.080-060-B4	M 8	60	6.0	10.0	8.5	5.3	13
P0158.080-080-B4	M 8	80	6.0	10.0	8.5	5.3	13
P0158.100-020-B4	M10	20	7.5	12.5	10.6	6.4	17
P0158.100-025-B4	M10	25	7.5	12.5	10.6	6.4	17
P0158.100-030-B4	M10	30	7.5	12.5	10.6	6.4	17
P0158.100-035-B4	M10	35	7.5	12.0	10.6	6.4	17
P0158.100-040-B4	M10	40	7.5	12.5	10.6	6.4	17
P0158.100-050-B4	M10	50	7.5	12.5	10.6	6.4	17
P0158.100-060-B4	M10	60	7.5	12.5	10.6	6.4	17
P0158.100-080-B4	M10	80	7.5	12.5	10.6	6.4	17
P0158.120-025-B4	M12	25	8.0	15.0	13.2	7.5	19
P0158.120-030-B4	M12	30	8.0	15.0	13.2	7.5	19
P0158.120-035-B4	M12	35	8.0	15.0	13.2	7.5	19
P0158.120-040-B4	M12	40	8.0	15.0	13.2	7.5	19
P0158.120-050-B4	M12	50	8.0	15.0	13.2	7.5	19
P0158.120-060-B4	M12	60	8.0	15.0	13.2	7.5	19
P0158.120-080-B4	M12	80	8.0	15.0	13.2	7.5	19



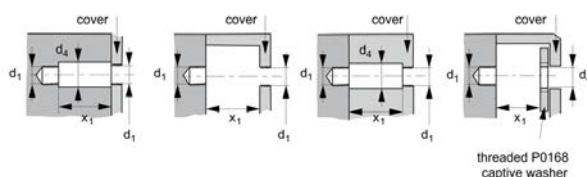
Captive Panel Thumb Screws

slot drive - 303 stainless, blackened

Captive Screws



application examples :-
counterbore length 'x₁' should be > l₂



threaded P0168
captive washer



MADE IN BRITAIN

P0159.B2

CAPTIVE SCREWS

Material

Stainless steel (AISI 303, 1.4305), black oxide coating. Tensile strength 550 N/mm². Proof stress min. 190 N/mm², austenitic stainless steel.

Also available on request in steel

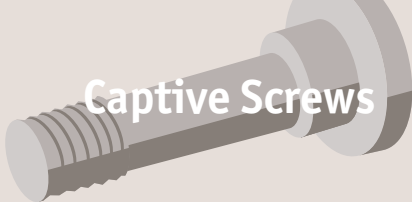
(anodised, black oxide or zinc plated)
stainless steel (AISI 316, 1.440), brass, aluminium etc.

Technical Notes

Used to comply with the Machinery Direc-

tive 2006/42/EC. Often used with our captive washers (P0168) or retaining flanges (P0169 - for sheet metal applications). The use of our captive washers should be considered when fitted in panels with unthreaded holes.

Order No.	d ₁	l ₁ ±0.25	d ₂ ±0.12	l ₂ ±0.25	d ₃	d ₄ min.	h ₁	h ₂	l ₃	l ₄	w ₁
P0159.030-010-B2	M 3	10	2	3.2	6.5	3.5	6.5	2.0	4.8	2.0	1.2
P0159.030-014-B2	M 3	14	2	3.2	6.5	3.5	6.5	2.0	8.8	2.0	1.2
P0159.030-016-B2	M 3	16	2	3.2	6.5	3.5	6.5	2.0	10.8	2.0	1.2
P0159.030-020-B2	M 3	20	2	3.2	6.5	3.5	6.5	2.0	14.8	2.0	1.2
P0159.030-022-B2	M 3	22	2	3.2	6.5	3.5	6.5	2.0	16.8	2.0	1.2
P0159.030-024-B2	M 3	24	2	3.2	6.5	3.5	6.5	2.0	18.8	2.0	1.2
P0159.030-026-B2	M 3	26	2	3.2	6.5	3.5	6.5	2.0	20.8	2.0	1.2
P0159.031-010-B2	M 3	10	2	3.2	8	3.5	8.0	2.0	4.8	2.0	1.2
P0159.031-014-B2	M 3	14	2	3.2	8	3.5	8.0	2.0	8.8	2.0	1.2
P0159.031-016-B2	M 3	16	2	3.2	8	3.5	8.0	2.0	10.8	2.0	1.2
P0159.031-020-B2	M 3	20	2	3.2	8	3.5	8.0	2.0	14.8	2.0	1.2
P0159.031-022-B2	M 3	22	2	3.2	8	3.5	8.0	2.0	16.8	2.0	1.2
P0159.031-024-B2	M 3	24	2	3.2	8	3.5	8.0	2.0	18.8	2.0	1.2
P0159.040-014-B2	M 4	10	3	5.5	8	4.5	8.0	2.0	2.0	2.5	1.2
P0159.040-016-B2	M 4	14	3	5.5	8	4.5	8.0	2.0	6.0	2.5	1.2
P0159.040-016-B2	M 4	16	3	5.5	8	4.5	8.0	2.0	8.0	2.5	1.2
P0159.040-020-B2	M 4	20	3	5.5	8	4.5	8.0	2.0	12.0	2.5	1.2
P0159.040-022-B2	M 4	22	3	5.5	8	4.5	8.0	2.0	14.0	2.5	1.2
P0159.040-024-B2	M 4	24	3	5.5	8	4.5	8.0	2.0	16.0	2.5	1.2
P0159.040-027-B2	M 4	27	3	5.5	8	4.5	8.0	2.0	19.0	2.5	1.2
P0159.040-032-B2	M 4	32	3	5.5	8	4.5	8.0	2.0	24.0	2.5	1.2
P0159.050-014-B2	M 5	14	3.5	6.5	10	5.5	10.0	2.5	3.5	4.0	1.5
P0159.050-016-B2	M 5	16	3.5	6.5	10	5.5	10.0	2.5	5.5	4.0	1.5
P0159.050-020-B2	M 5	20	3.5	6.5	10	5.5	10.0	2.5	9.5	4.0	1.5
P0159.050-022-B2	M 5	22	3.5	6.5	10	5.5	10.0	2.5	11.5	4.0	1.5
P0159.050-024-B2	M 5	24	3.5	6.5	10	5.5	10.0	2.5	13.5	4.0	1.5
P0159.050-027-B2	M 5	27	3.5	6.5	10	5.5	10.0	2.5	16.5	4.0	1.5
P0159.050-032-B2	M 5	32	3.5	6.5	10	5.5	10.0	2.5	21.5	4.0	1.5
P0159.050-035-B2	M 5	35	3.5	6.5	10	5.5	10.0	2.5	24.5	4.0	1.5
P0159.050-040-B2	M 5	40	3.5	6.5	10	5.5	10.0	2.5	29.5	4.0	1.5
P0159.060-016-B2	M 6	16	4.5	8.0	12	6.5	15.0	2.5	3.0	5.0	2.0
P0159.060-020-B2	M 6	20	4.5	8.0	12	6.5	15.0	2.5	7.0	5.0	2.0



Captive Screws

Captive Panel Thumb Screws

slot drive - 303 stainless, blackened



Order No.	d ₁	l ₁ ±0.25	d ₂ ±0.12	l ₂ ±0.25	d ₃	d ₄ min.	h ₁	h ₂	l ₃	l ₄	w ₁
P0159.060-022-B2	M 6	22	4.5	8.0	12	6.5	15.0	2.5	9.0	5.0	2.0
P0159.060-024-B2	M 6	24	4.5	8.0	12	6.5	15.0	2.5	11.0	5.0	2.0
P0159.060-027-B2	M 6	27	4.5	8.0	12	6.5	15.0	2.5	14.0	5.0	2.0
P0159.060-032-B2	M 6	32	4.5	8.0	12	6.5	15.0	2.5	19.0	5.0	2.0
P0159.060-035-B2	M 6	35	4.5	8.0	12	6.5	15.0	2.5	22.0	5.0	2.0
P0159.060-040-B2	M 6	40	4.5	8.0	12	6.5	15.0	2.5	27.0	8.5	2.0
P0159.060-045-B2	M 6	45	4.5	8.0	12	6.5	15.0	2.5	32.0	8.5	2.0
P0159.060-050-B2	M 6	50	4.5	8.0	12	6.5	15.0	2.5	37.0	8.5	2.0

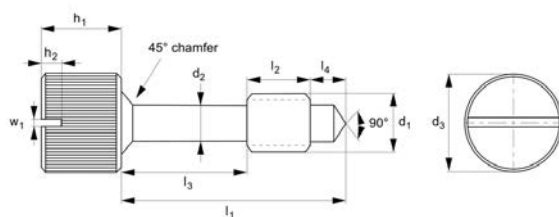
CAPTIVE SCREWS



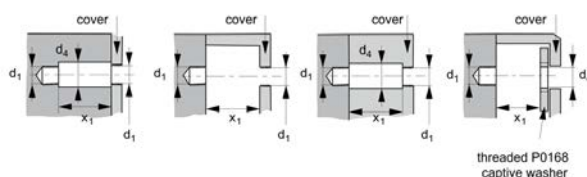
Captive Panel Thumb Screws

slot drive- 316 stainless, blackened

Captive Screws



application examples :-
counterbore length 'x₁' should be > l₂



MADE IN BRITAIN

P0159.B4

CAPTIVE SCREWS

Material

Stainless steel (AISI 316, 1.440), black oxide coating. Tensile strength 480 N/mm². Proof stress min. 200 N/mm², austenitic stainless steel.

Also available on request in steel

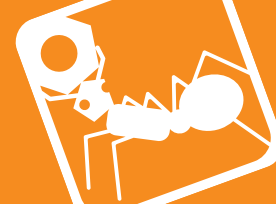
(anodised, black oxide or zinc plated)
stainless steel (AISI 303, 1.4305), brass, aluminium etc.

Technical Notes

Used to comply with the Machinery Direc-

tive 2006/42/EC. Often used with our captive washers (P0168) or retaining flanges (P0169 - for sheet metal applications). The use of our captive washers should be considered when fitted in panels with unthreaded holes.

Order No.	d ₁	l ₁ ±0.25	d ₂ ±0.12	l ₂ ±0.25	d ₃	d ₄ min.	h ₁	h ₂	l ₃	l ₄	w ₁
P0159.030-010-B4	M 3	10	2	3.2	6.5	3.5	6.5	2.0	4.8	2.0	1.2
P0159.030-014-B4	M 3	14	2	3.2	6.5	3.5	6.5	2.0	8.8	2.0	1.2
P0159.030-016-B4	M 3	16	2	3.2	6.5	3.5	6.5	2.0	10.8	2.0	1.2
P0159.030-020-B4	M 3	20	2	3.2	6.5	3.5	6.5	2.0	14.8	2.0	1.2
P0159.030-022-B4	M 3	22	2	3.2	6.5	3.5	6.5	2.0	16.8	2.0	1.2
P0159.030-024-B4	M 3	24	2	3.2	6.5	3.5	6.5	2.0	18.8	2.0	1.2
P0159.030-026-B4	M 3	26	2	3.2	6.5	3.5	6.5	2.0	20.8	2.0	1.2
P0159.031-010-B4	M 3	10	2	3.2	8	3.5	8.0	2.0	4.8	2.0	1.2
P0159.031-014-B4	M 3	14	2	3.2	8	3.5	8.0	2.0	8.8	2.0	1.2
P0159.031-016-B4	M 3	16	2	3.2	8	3.5	8.0	2.0	10.8	2.0	1.2
P0159.031-020-B4	M 3	20	2	3.2	8	3.5	8.0	2.0	14.8	2.0	1.2
P0159.031-022-B4	M 3	22	2	3.2	8	3.5	8.0	2.0	16.8	2.0	1.2
P0159.031-024-B4	M 3	24	2	3.2	8	3.5	8.0	2.0	18.8	2.0	1.2
P0159.040-014-B4	M 4	10	3	5.5	8	4.5	8.0	2.0	2.0	2.5	1.2
P0159.040-016-B4	M 4	14	3	5.5	8	4.5	8.0	2.0	6.0	2.5	1.2
P0159.040-016-B4	M 4	16	3	5.5	8	4.5	8.0	2.0	8.0	2.5	1.2
P0159.040-020-B4	M 4	20	3	5.5	8	4.5	8.0	2.0	12.0	2.5	1.2
P0159.040-022-B4	M 4	22	3	5.5	8	4.5	8.0	2.0	14.0	2.5	1.2
P0159.040-024-B4	M 4	24	3	5.5	8	4.5	8.0	2.0	16.0	2.5	1.2
P0159.040-027-B4	M 4	27	3	5.5	8	4.5	8.0	2.0	19.0	2.5	1.2
P0159.040-032-B4	M 4	32	3	5.5	8	4.5	8.0	2.0	24.0	2.5	1.2
P0159.050-014-B4	M 5	14	3.5	6.5	10	5.5	10.0	2.5	3.5	4.0	1.5
P0159.050-016-B4	M 5	16	3.5	6.5	10	5.5	10.0	2.5	5.5	4.0	1.5
P0159.050-020-B4	M 5	20	3.5	6.5	10	5.5	10.0	2.5	9.5	4.0	1.5
P0159.050-022-B4	M 5	22	3.5	6.5	10	5.5	10.0	2.5	11.5	4.0	1.5
P0159.050-024-B4	M 5	24	3.5	6.5	10	5.5	10.0	2.5	13.5	4.0	1.5
P0159.050-027-B4	M 5	27	3.5	6.5	10	5.5	10.0	2.5	16.5	4.0	1.5
P0159.050-032-B4	M 5	32	3.5	6.5	10	5.5	10.0	2.5	21.5	4.0	1.5
P0159.050-035-B4	M 5	35	3.5	6.5	10	5.5	10.0	2.5	24.5	4.0	1.5
P0159.050-040-B4	M 5	40	3.5	6.5	10	5.5	10.0	2.5	29.5	4.0	1.5
P0159.060-016-B4	M 6	16	4.5	8.0	12	6.5	15.0	2.5	3.0	5.0	2.0
P0159.060-020-B4	M 6	20	4.5	8.0	12	6.5	15.0	2.5	7.0	5.0	2.0



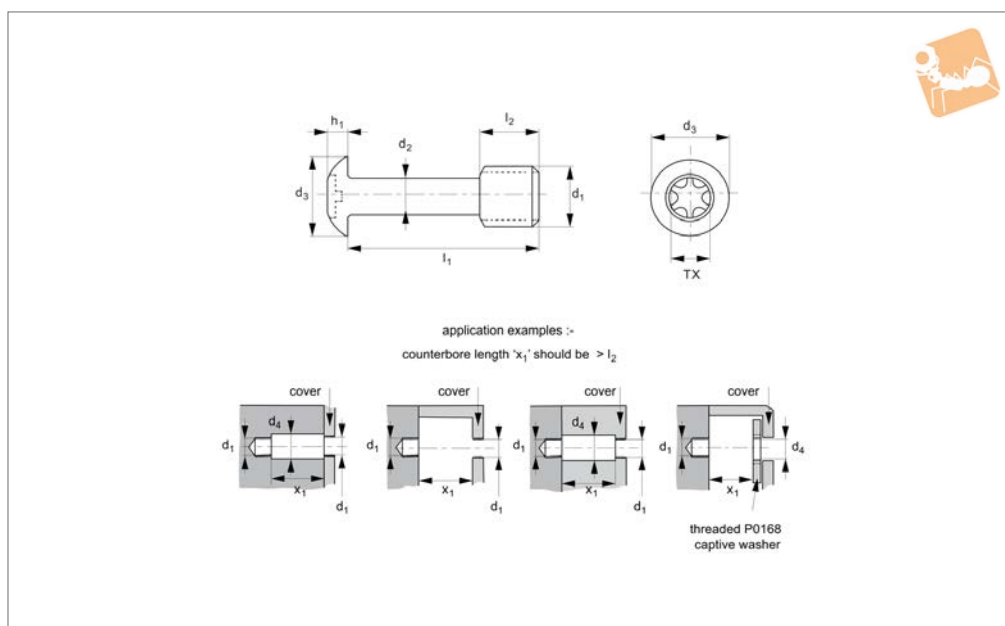
Order No.	d ₁	l ₁ ±0.25	d ₂ ±0.12	l ₂ ±0.25	d ₃	d ₄ min.	h ₁	h ₂	l ₃	l ₄	w ₁
P0159.060-022-B4	M 6	22	4.5	8.0	12	6.5	15.0	2.5	9.0	5.0	2.0
P0159.060-024-B4	M 6	24	4.5	8.0	12	6.5	15.0	2.5	11.0	5.0	2.0
P0159.060-027-B4	M 6	27	4.5	8.0	12	6.5	15.0	2.5	14.0	5.0	2.0
P0159.060-032-B4	M 6	32	4.5	8.0	12	6.5	15.0	2.5	19.0	5.0	2.0
P0159.060-035-B4	M 6	35	4.5	8.0	12	6.5	15.0	2.5	22.0	5.0	2.0
P0159.060-040-B4	M 6	40	4.5	8.0	12	6.5	15.0	2.5	27.0	8.5	2.0
P0159.060-045-B4	M 6	45	4.5	8.0	12	6.5	15.0	2.5	32.0	8.5	2.0
P0159.060-050-B4	M 6	50	4.5	8.0	12	6.5	15.0	2.5	37.0	8.5	2.0



Captive Screws - Button Head

TX drive - titanium

Captive Screws



P0149.Ti

CAPTIVE SCREWS

Material

Titanium grade 2 (tensile strength 345 N/mm²), or grade 5 (alloy; tensile strength 900 N/mm²).

Also available in stainless steel (see the rest of the P0149 range), or on request in steel (anodised, black oxide or zinc plated), brass, aluminium etc.

Technical Notes

Used to comply with the Machinery Direc-

tive 2006/42/EC. Generally to ISO 7380-1. Often used with our captive washers (P0168) or retaining flanges (P0169 - for sheet metal applications). The use of our captive washers should be considered when fitted in panels with unthreaded holes.

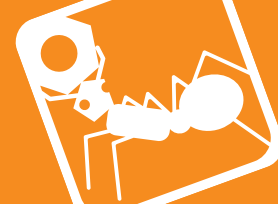
T5 also available on request.

Replace -T2 with -T5 at the end of part number.

Important Notes

Please note that these screws have a reduced diameter shank and should not be tightened to the recommended torque for an equivalent machine screw of size d₁.

Order No.	d ₁	l ₁ 0,25	d ₂ 0,12	l ₂ -0,2	d ₃ max.	d ₄ min.	h ₁ max.	TX size	Material
P0149.025-008-T2	M 2,5	8	1.7	3.7	4.5	2.8	1.50	TX- 8	Grade 2
P0149.025-010-T2	M 2,5	10	1.7	3.7	4.5	2.8	1.50	TX- 8	Grade 2
P0149.025-012-T2	M 2,5	12	1.7	3.7	4.5	2.8	1.50	TX- 8	Grade 2
P0149.025-016-T2	M 2,5	16	1.7	3.7	4.5	2.8	1.50	TX- 8	Grade 2
P0149.025-020-T2	M 2,5	20	1.7	3.7	4.5	2.8	1.50	TX- 8	Grade 2
P0149.030-010-T2	M 3	10	2.0	4.5	5.7	3.5	1.65	TX-10	Grade 2
P0149.030-016-T2	M 3	16	2.0	4.5	5.7	3.5	1.65	TX-10	Grade 2
P0149.030-020-T2	M 3	20	2.0	4.5	5.7	3.5	1.65	TX-10	Grade 2
P0149.030-025-T2	M 3	25	2.0	4.5	5.7	3.5	1.65	TX-10	Grade 2
P0149.030-030-T2	M 3	30	2.0	4.5	5.7	3.5	1.65	TX-10	Grade 2
P0149.030-040-T2	M 3	40	2.0	5.0	5.7	3.5	1.65	TX-10	Grade 2
P0149.040-012-T2	M 4	12	2.8	6.0	7.6	4.5	3.10	TX-20	Grade 2
P0149.040-016-T2	M 4	16	2.8	6.0	7.6	4.5	3.10	TX-20	Grade 2
P0149.040-020-T2	M 4	20	2.8	6.0	7.6	4.5	3.10	TX-20	Grade 2
P0149.040-025-T2	M 4	25	2.8	6.0	7.6	4.5	3.10	TX-20	Grade 2
P0149.040-030-T2	M 4	30	2.8	6.0	7.6	4.5	3.10	TX-20	Grade 2
P0149.040-040-T2	M 4	40	2.8	6.0	7.6	4.5	3.10	TX-20	Grade 2
P0149.040-050-T2	M 4	50	2.8	6.0	7.6	4.5	3.10	TX-20	Grade 2
P0149.040-060-T2	M 4	60	2.8	6.0	7.6	4.5	3.10	TX-20	Grade 2
P0149.050-012-T2	M 5	12	3.7	7.5	9.5	5.5	3.70	TX-25	Grade 2
P0149.050-016-T2	M 5	16	3.7	7.5	9.5	5.5	3.70	TX-25	Grade 2
P0149.050-020-T2	M 5	20	3.7	7.5	9.5	5.5	3.70	TX-25	Grade 2
P0149.050-025-T2	M 5	25	3.7	7.5	9.5	5.5	3.70	TX-25	Grade 2
P0149.050-030-T2	M 5	30	3.7	7.5	9.5	5.5	3.70	TX-25	Grade 2
P0149.050-040-T2	M 5	40	3.7	7.5	9.5	5.5	3.70	TX-25	Grade 2
P0149.050-050-T2	M 5	50	3.7	7.5	9.5	5.5	3.70	TX-25	Grade 2



Order No.	d ₁	l ₁ 0,25	d ₂ 0,12	l ₂ -0,2	d ₃ max.	d ₄ min.	h ₁ max.	TX size	Material
P0149.050-060-T2	M 5	60	3.7	7.5	9.5	5.5	3.70	TX-25	Grade 2
P0149.060-016-T2	M 6	16	4.2	7.5	10.5	6.5	4.70	TX-30	Grade 2
P0149.060-020-T2	M 6	20	4.2	7.5	10.5	6.5	4.70	TX-30	Grade 2
P0149.060-025-T2	M 6	25	4.2	7.5	10.5	6.5	4.70	TX-30	Grade 2
P0149.060-030-T2	M 6	30	4.2	7.5	10.5	6.5	4.70	TX-30	Grade 2
P0149.060-040-T2	M 6	40	4.2	7.5	10.5	6.5	4.70	TX-30	Grade 2
P0149.060-050-T2	M 6	50	4.2	7.5	10.5	6.5	4.70	TX-30	Grade 2
P0149.060-060-T2	M 6	60	4.2	7.5	10.5	6.5	4.70	TX-30	Grade 2
P0149.060-080-T2	M 6	80	4.2	7.5	10.5	6.5	4.70	TX-30	Grade 2
P0149.025-008-T5	M 2,5	8	1.7	3.7	4.5	2.8	1.50	TX- 8	Grade 5
P0149.025-010-T5	M 2,5	10	1.7	3.7	4.5	2.8	1.50	TX- 8	Grade 5
P0149.025-012-T5	M 2,5	12	1.7	3.7	4.5	2.8	1.50	TX- 8	Grade 5
P0149.025-016-T5	M 2,5	16	1.7	3.7	4.5	2.8	1.50	TX- 8	Grade 5
P0149.025-020-T5	M 2,5	20	1.7	3.7	4.5	2.8	1.50	TX- 8	Grade 5
P0149.030-010-T5	M 3	10	2.0	4.5	5.7	3.5	1.65	TX-10	Grade 5
P0149.030-016-T5	M 3	16	2.0	4.5	5.7	3.5	1.65	TX-10	Grade 5
P0149.030-020-T5	M 3	20	2.0	4.5	5.7	3.5	1.65	TX-10	Grade 5
P0149.030-025-T5	M 3	25	2.0	4.5	5.7	3.5	1.65	TX-10	Grade 5
P0149.030-030-T5	M 3	30	2.0	4.5	5.7	3.5	1.65	TX-10	Grade 5
P0149.030-040-T5	M 3	40	2.0	5.0	5.7	3.5	1.65	TX-10	Grade 5
P0149.040-012-T5	M 4	12	2.8	6.0	7.6	4.5	3.10	TX-20	Grade 5
P0149.040-016-T5	M 4	16	2.8	6.0	7.6	4.5	3.10	TX-20	Grade 5
P0149.040-020-T5	M 4	20	2.8	6.0	7.6	4.5	3.10	TX-20	Grade 5
P0149.040-025-T5	M 4	25	2.8	6.0	7.6	4.5	3.10	TX-20	Grade 5
P0149.040-030-T5	M 4	30	2.8	6.0	7.6	4.5	3.10	TX-20	Grade 5
P0149.040-040-T5	M 4	40	2.8	6.0	7.6	4.5	3.10	TX-20	Grade 5
P0149.040-050-T5	M 4	50	2.8	6.0	7.6	4.5	3.10	TX-20	Grade 5
P0149.040-060-T5	M 4	60	2.8	6.0	7.6	4.5	3.10	TX-20	Grade 5
P0149.050-012-T5	M 5	12	3.7	7.5	9.5	5.5	3.70	TX-25	Grade 5
P0149.050-016-T5	M 5	16	3.7	7.5	9.5	5.5	3.70	TX-25	Grade 5
P0149.050-020-T5	M 5	20	3.7	7.5	9.5	5.5	3.70	TX-25	Grade 5
P0149.050-025-T5	M 5	25	3.7	7.5	9.5	5.5	3.70	TX-25	Grade 5
P0149.050-030-T5	M 5	30	3.7	7.5	9.5	5.5	3.70	TX-25	Grade 5
P0149.050-040-T5	M 5	40	3.7	7.5	9.5	5.5	3.70	TX-25	Grade 5
P0149.050-050-T5	M 5	50	3.7	7.5	9.5	5.5	3.70	TX-25	Grade 5
P0149.050-060-T5	M 5	60	3.7	7.5	9.5	5.5	3.70	TX-25	Grade 5
P0149.060-016-T5	M 6	16	4.2	7.5	10.5	6.5	4.70	TX-30	Grade 5
P0149.060-020-T5	M 6	20	4.2	7.5	10.5	6.5	4.70	TX-30	Grade 5
P0149.060-025-T5	M 6	25	4.2	7.5	10.5	6.5	4.70	TX-30	Grade 5
P0149.060-030-T5	M 6	30	4.2	7.5	10.5	6.5	4.70	TX-30	Grade 5
P0149.060-040-T5	M 6	40	4.2	7.5	10.5	6.5	4.70	TX-30	Grade 5
P0149.060-050-T5	M 6	50	4.2	7.5	10.5	6.5	4.70	TX-30	Grade 5
P0149.060-060-T5	M 6	60	4.2	7.5	10.5	6.5	4.70	TX-30	Grade 5
P0149.060-080-T5	M 6	80	4.2	7.5	10.5	6.5	4.70	TX-30	Grade 5

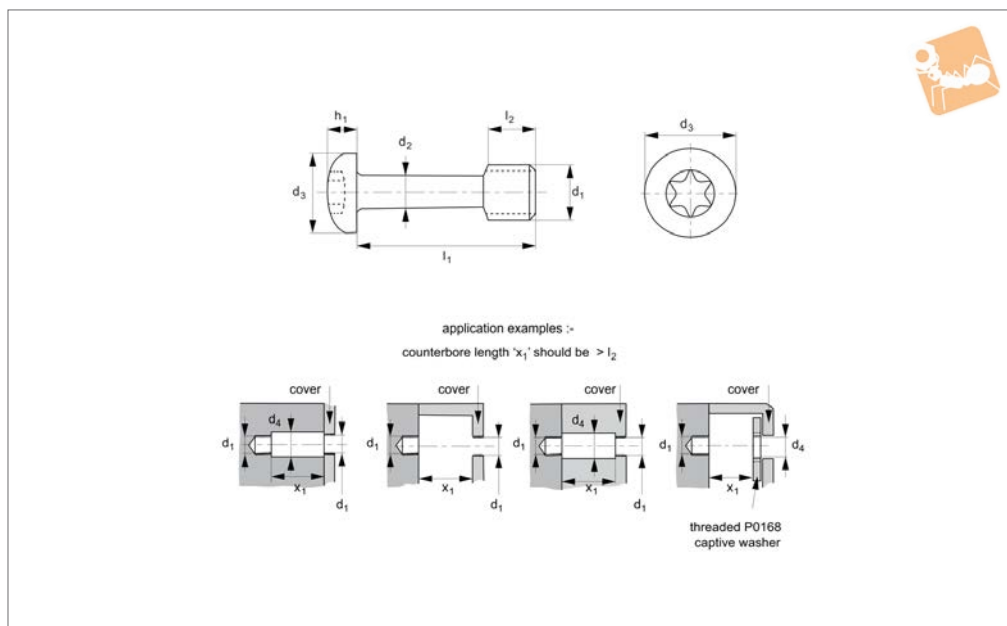


Captive Screws - Pan Head

TX drive - titanium



Captive Screws



P0150.Ti

CAPTIVE SCREWS

Material

Titanium grade 2 (tensile strength 345 N/mm²), or grade 5 (tensile strength 900 N/mm²). Also available on request in steel (anodised, black oxide or zinc plated), stainless steel (AISI 316, 1.440 or AISI 303, 1.4305), brass, aluminium etc.

Technical Notes

Used to comply with the Machinery Direc-

tive 2006/42/EC. Generally to ISO 14583. Often used with our captive washers (P0168) or retaining flanges (P0169 - for sheet metal applications). The use of our captive washers should be considered when fitted in panels with unthreaded holes.

*M 8 sizes have a reduced TX size.

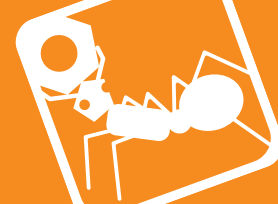
T5 also available on request.

Replace -T2 with -T5 at the end of part number.

Important Notes

Please note that these screws have a reduced diameter shank and should not be tightened to the recommended torque for an equivalent machine screw of size d₁.

Order No.	d ₁	l ₁ ±0.25	d ₂ ±0.12	l ₂ ±0.25	d ₃ max.	d ₄ min.	h ₁ max.	TX size	Material
P0150.030-008-T2	M 3	8	2.0	4.5	6	3.5	2.5	TX-10	Grade 2
P0150.030-010-T2	M 3	10	2.0	4.5	6	3.5	2.5	TX-10	Grade 2
P0150.030-016-T2	M 3	16	2.0	4.5	6	3.5	2.5	TX-10	Grade 2
P0150.030-020-T2	M 3	20	2.0	4.5	6	3.5	2.5	TX-10	Grade 2
P0150.030-025-T2	M 3	25	2.0	4.5	6	3.5	2.5	TX-10	Grade 2
P0150.030-030-T2	M 3	30	2.0	4.5	6	3.5	2.5	TX-10	Grade 2
P0150.040-008-T2	M 4	8	2.8	6.0	8	4.5	3.2	TX-20	Grade 2
P0150.040-010-T2	M 4	10	2.8	6.0	8	4.5	3.2	TX-20	Grade 2
P0150.040-012-T2	M 4	12	2.8	6.0	8	4.5	3.2	TX-20	Grade 2
P0150.040-016-T2	M 4	16	2.8	6.0	8	4.5	3.2	TX-20	Grade 2
P0150.040-020-T2	M 4	20	2.8	6.0	8	4.5	3.2	TX-20	Grade 2
P0150.040-025-T2	M 4	25	2.8	6.0	8	4.5	3.2	TX-20	Grade 2
P0150.040-030-T2	M 4	30	2.8	6.0	8	4.5	3.2	TX-20	Grade 2
P0150.040-040-T2	M 4	40	2.8	6.0	8	4.5	3.2	TX-20	Grade 2
P0150.040-050-T2	M 4	50	2.8	6.0	8	4.5	3.2	TX-20	Grade 2
P0150.050-010-T2	M 5	10	3.7	7.5	10	5.5	3.9	TX-25	Grade 2
P0150.050-012-T2	M 5	12	3.7	7.5	10	5.5	3.9	TX-25	Grade 2
P0150.050-016-T2	M 5	16	3.7	7.5	10	5.5	3.9	TX-25	Grade 2
P0150.050-020-T2	M 5	20	3.7	7.5	10	5.5	3.9	TX-25	Grade 2
P0150.050-025-T2	M 5	25	3.7	7.5	10	5.5	3.9	TX-25	Grade 2
P0150.050-030-T2	M 5	30	3.7	7.5	10	5.5	3.9	TX-25	Grade 2
P0150.050-040-T2	M 5	40	3.7	7.5	10	5.5	3.9	TX-25	Grade 2
P0150.050-050-T2	M 5	50	3.7	7.5	10	5.5	3.9	TX-25	Grade 2
P0150.060-010-T2	M 6	10	4.2	7.5	12	6.5	4.7	TX-30	Grade 2
P0150.060-012-T2	M 6	12	4.2	7.5	12	6.5	4.7	TX-30	Grade 2
P0150.060-016-T2	M 6	16	4.2	7.5	12	6.5	4.7	TX-30	Grade 2
P0150.060-020-T2	M 6	20	4.2	7.5	12	6.5	4.7	TX-30	Grade 2
P0150.060-025-T2	M 6	25	4.2	7.5	12	6.5	4.7	TX-30	Grade 2



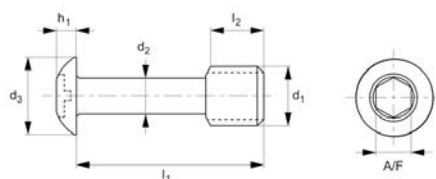
Order No.	d ₁	l ₁ ±0.25	d ₂ ±0.12	l ₂ ±0.25	d ₃ max.	d ₄ min.	h ₁ max.	TX size	Material
P0150.060-030-T2	M 6	30	4.2	7.5	12	6.5	4.7	TX-30	Grade 2
P0150.060-040-T2	M 6	40	4.2	7.5	12	6.5	4.7	TX-30	Grade 2
P0150.060-050-T2	M 6	50	4.2	7.5	12	6.5	4.7	TX-30	Grade 2
P0150.060-060-T2	M 6	60	4.2	7.5	12	6.5	4.7	TX-30	Grade 2
P0150.060-080-T2	M 6	80	4.2	7.5	12	6.5	4.7	TX-30	Grade 2
P0150.080-012-T2	M 8	12	6.0	10.0	16	8.5	6.1	TX-30*	Grade 2
P0150.080-016-T2	M 8	16	6.0	10.0	16	8.5	6.1	TX-30*	Grade 2
P0150.080-020-T2	M 8	20	6.0	10.0	16	8.5	6.1	TX-30*	Grade 2
P0150.080-025-T2	M 8	25	6.0	10.0	16	8.5	6.1	TX-30*	Grade 2
P0150.080-030-T2	M 8	30	6.0	10.0	16	8.5	6.1	TX-30*	Grade 2
P0150.080-035-T2	M 8	35	6.0	10.0	16	8.5	6.1	TX-30*	Grade 2
P0150.080-040-T2	M 8	40	6.0	10.0	16	8.5	6.1	TX-30*	Grade 2
P0150.080-045-T2	M 8	45	6.0	10.0	16	8.5	6.1	TX-30*	Grade 2
P0150.080-050-T2	M 8	50	6.0	10.0	16	8.5	6.1	TX-30*	Grade 2
P0150.080-060-T2	M 8	60	6.0	10.0	16	8.5	6.1	TX-30*	Grade 2
P0150.080-080-T2	M 8	80	6.0	10.0	16	8.5	6.1	TX-30*	Grade 2
P0150.030-008-T5	M 3	8	2.0	4.5	6	3.5	2.5	TX-10	Grade 5
P0150.030-010-T5	M 3	10	2.0	4.5	6	3.5	2.5	TX-10	Grade 5
P0150.030-016-T5	M 3	16	2.0	4.5	6	3.5	2.5	TX-10	Grade 5
P0150.030-020-T5	M 3	20	2.0	4.5	6	3.5	2.5	TX-10	Grade 5
P0150.030-025-T5	M 3	25	2.0	4.5	6	3.5	2.5	TX-10	Grade 5
P0150.030-030-T5	M 3	30	2.0	4.5	6	3.5	2.5	TX-10	Grade 5
P0150.040-008-T5	M 4	8	2.8	6.0	8	4.5	3.2	TX-20	Grade 5
P0150.040-010-T5	M 4	10	2.8	6.0	8	4.5	3.2	TX-20	Grade 5
P0150.040-012-T5	M 4	12	2.8	6.0	8	4.5	3.2	TX-20	Grade 5
P0150.040-016-T5	M 4	16	2.8	6.0	8	4.5	3.2	TX-20	Grade 5
P0150.040-020-T5	M 4	20	2.8	6.0	8	4.5	3.2	TX-20	Grade 5
P0150.040-025-T5	M 4	25	2.8	6.0	8	4.5	3.2	TX-20	Grade 5
P0150.040-030-T5	M 4	30	2.8	6.0	8	4.5	3.2	TX-20	Grade 5
P0150.040-040-T5	M 4	40	2.8	6.0	8	4.5	3.2	TX-20	Grade 5
P0150.040-050-T5	M 4	50	2.8	6.0	8	4.5	3.2	TX-20	Grade 5
P0150.050-010-T5	M 5	10	3.7	7.5	10	5.5	3.9	TX-25	Grade 5
P0150.050-012-T5	M 5	12	3.7	7.5	10	5.5	3.9	TX-25	Grade 5
P0150.050-016-T5	M 5	16	3.7	7.5	10	5.5	3.9	TX-25	Grade 5
P0150.050-020-T5	M 5	20	3.7	7.5	10	5.5	3.9	TX-25	Grade 5
P0150.050-025-T5	M 5	25	3.7	7.5	10	5.5	3.9	TX-25	Grade 5
P0150.050-030-T5	M 5	30	3.7	7.5	10	5.5	3.9	TX-25	Grade 5
P0150.050-040-T5	M 5	40	3.7	7.5	10	5.5	3.9	TX-25	Grade 5
P0150.050-050-T5	M 5	50	3.7	7.5	10	5.5	3.9	TX-25	Grade 5
P0150.060-010-T5	M 6	10	4.2	7.5	12	6.5	4.7	TX-30	Grade 5
P0150.060-012-T5	M 6	12	4.2	7.5	12	6.5	4.7	TX-30	Grade 5
P0150.060-016-T5	M 6	16	4.2	7.5	12	6.5	4.7	TX-30	Grade 5
P0150.060-020-T5	M 6	20	4.2	7.5	12	6.5	4.7	TX-30	Grade 5
P0150.060-025-T5	M 6	25	4.2	7.5	12	6.5	4.7	TX-30	Grade 5
P0150.060-030-T5	M 6	30	4.2	7.5	12	6.5	4.7	TX-30	Grade 5
P0150.060-040-T5	M 6	40	4.2	7.5	12	6.5	4.7	TX-30	Grade 5
P0150.060-050-T5	M 6	50	4.2	7.5	12	6.5	4.7	TX-30	Grade 5
P0150.060-060-T5	M 6	60	4.2	7.5	12	6.5	4.7	TX-30	Grade 5
P0150.060-080-T5	M 6	80	4.2	7.5	12	6.5	4.7	TX-30	Grade 5
P0150.080-012-T5	M 8	12	6.0	10.0	16	8.5	6.1	TX-30*	Grade 5
P0150.080-016-T5	M 8	16	6.0	10.0	16	8.5	6.1	TX-30*	Grade 5
P0150.080-020-T5	M 8	20	6.0	10.0	16	8.5	6.1	TX-30*	Grade 5
P0150.080-025-T5	M 8	25	6.0	10.0	16	8.5	6.1	TX-30*	Grade 5
P0150.080-030-T5	M 8	30	6.0	10.0	16	8.5	6.1	TX-30*	Grade 5
P0150.080-035-T5	M 8	35	6.0	10.0	16	8.5	6.1	TX-30*	Grade 5
P0150.080-040-T5	M 8	40	6.0	10.0	16	8.5	6.1	TX-30*	Grade 5
P0150.080-045-T5	M 8	45	6.0	10.0	16	8.5	6.1	TX-30*	Grade 5
P0150.080-050-T5	M 8	50	6.0	10.0	16	8.5	6.1	TX-30*	Grade 5
P0150.080-060-T5	M 8	60	6.0	10.0	16	8.5	6.1	TX-30*	Grade 5
P0150.080-080-T5	M 8	80	6.0	10.0	16	8.5	6.1	TX-30*	Grade 5



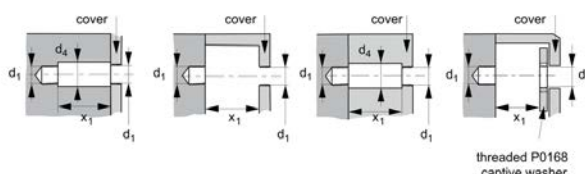
Captive Screws - Button Head

hex drive - titanium

Captive Screws



application examples :-
counterbore length 'x₁' should be > l₂



P0151.Ti

CAPTIVE SCREWS

Material

Titanium grade 2 (tensile strength 345 N/mm²), or grade 5 (tensile strength 900 N/mm²).

Also available on request in steel (anodised, black oxide or zinc plated) stainless steel (AISI 316, 1.440 or AISI 303, 1.4305), brass, aluminium etc.

Technical Notes

Used to comply with the Machinery Direc-

tive 2006/42/EC. Generally to ISO 7380-1. Often used with our captive washers (P0168) or retaining flanges (P0169 - for sheet metal applications). The use of our captive washers should be considered when fitted in panels with unthreaded holes.

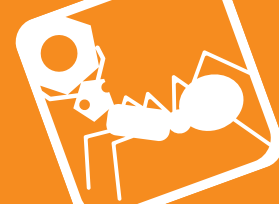
T5 also available on request.

Replace -T2 with -T5 at the end of part number.

Important Notes

Please note that these screws have a reduced diameter shank and should not be tightened to the recommended torque for an equivalent machine screw of size d₁.

Order No.	d ₁	l ₁ ±0.25	d ₂ ±0.12	l ₂ ±0.25	d ₃ max.	d ₄ min.	h ₁ max.	A/F	Material
P0151.025-008-T2	M 2,5	8	1.7	3.7	4.5	2.8	1.50	1.5	Grade 2
P0151.025-010-T2	M 2,5	10	1.7	3.7	4.5	2.8	1.50	1.5	Grade 2
P0151.025-012-T2	M 2,5	12	1.7	3.7	4.5	2.8	1.50	1.5	Grade 2
P0151.025-016-T2	M 2,5	16	1.7	3.7	4.5	2.8	1.50	1.5	Grade 2
P0151.025-020-T2	M 2,5	20	1.7	3.7	4.5	2.8	1.50	1.5	Grade 2
P0151.030-008-T2	M 3	8	2.0	4.5	5.7	3.5	1.53	2	Grade 2
P0151.030-010-T2	M 3	10	2.0	4.5	5.7	3.5	1.53	2	Grade 2
P0151.030-016-T2	M 3	16	2.0	4.5	5.7	3.5	1.53	2	Grade 2
P0151.030-020-T2	M 3	20	2.0	4.5	5.7	3.5	1.53	2	Grade 2
P0151.030-025-T2	M 3	25	2.0	4.5	5.7	3.5	1.53	2	Grade 2
P0151.030-030-T2	M 3	30	2.0	4.5	5.7	3.5	1.53	2	Grade 2
P0151.030-040-T2	M 3	40	2.0	4.5	5.7	3.5	1.53	2	Grade 2
P0151.040-010-T2	M 4	10	2.8	6.0	7.6	4.5	2.10	2.5	Grade 2
P0151.040-012-T2	M 4	12	2.8	6.0	7.6	4.5	2.10	2.5	Grade 2
P0151.040-016-T2	M 4	16	2.8	6.0	7.6	4.5	2.10	2.5	Grade 2
P0151.040-020-T2	M 4	20	2.8	6.0	7.6	4.5	2.10	2.5	Grade 2
P0151.040-025-T2	M 4	25	2.8	6.0	7.6	4.5	2.10	2.5	Grade 2
P0151.040-030-T2	M 4	30	2.8	6.0	7.6	4.5	2.10	2.5	Grade 2
P0151.040-035-T2	M 4	35	2.8	6.0	7.6	4.5	2.10	2.5	Grade 2
P0151.040-040-T2	M 4	40	2.8	6.0	7.6	4.5	2.10	2.5	Grade 2
P0151.040-050-T2	M 4	50	2.8	6.0	7.6	4.5	2.10	2.5	Grade 2
P0151.040-060-T2	M 4	60	2.8	6.0	7.6	4.5	2.10	2.5	Grade 2
P0151.050-012-T2	M 5	12	3.7	7.5	9.5	5.5	2.63	3	Grade 2
P0151.050-016-T2	M 5	16	3.7	7.5	9.5	5.5	2.63	3	Grade 2
P0151.050-020-T2	M 5	20	3.7	7.5	9.5	5.5	2.63	3	Grade 2
P0151.050-025-T2	M 5	25	3.7	7.5	9.5	5.5	2.63	3	Grade 2



Order No.	d ₁	l ₁ ±0.25	d ₂ ±0.12	l ₂ ±0.25	d ₃ max.	d ₄ min.	h ₁ max.	A/F	Material
P0151.050-030-T2	M 5	30	3.7	7.5	9.5	5.5	2.63	3	Grade 2
P0151.050-040-T2	M 5	40	3.7	7.5	9.5	5.5	2.63	3	Grade 2
P0151.050-050-T2	M 5	50	3.7	7.5	9.5	5.5	2.63	3	Grade 2
P0151.050-060-T2	M 5	60	3.7	7.5	9.5	5.5	2.63	3	Grade 2
P0151.060-012-T2	M 6	12	4.2	7.5	10.5	6.5	3.10	4	Grade 2
P0151.060-016-T2	M 6	16	4.2	7.5	10.5	6.5	3.10	4	Grade 2
P0151.060-020-T2	M 6	20	4.2	7.5	10.5	6.5	3.10	4	Grade 2
P0151.060-025-T2	M 6	25	4.2	7.5	10.5	6.5	3.10	4	Grade 2
P0151.060-030-T2	M 6	30	4.2	7.5	10.5	6.5	3.10	4	Grade 2
P0151.060-035-T2	M 6	35	4.2	7.5	10.5	6.5	3.10	4	Grade 2
P0151.060-040-T2	M 6	40	4.2	7.5	10.5	6.5	3.10	4	Grade 2
P0151.060-050-T2	M 6	50	4.2	7.5	10.5	6.5	3.10	4	Grade 2
P0151.060-060-T2	M 6	60	4.2	7.5	10.5	6.5	3.10	4	Grade 2
P0151.060-080-T2	M 6	80	4.2	7.5	10.5	6.5	3.10	4	Grade 2
P0151.080-016-T2	M 8	16	6.0	10.0	14.0	8.5	4.46	5	Grade 2
P0151.080-020-T2	M 8	20	6.0	10.0	14.0	8.5	4.46	5	Grade 2
P0151.080-025-T2	M 8	25	6.0	10.0	14.0	8.5	4.46	5	Grade 2
P0151.080-030-T2	M 8	30	6.0	10.0	14.0	8.5	4.46	5	Grade 2
P0151.080-035-T2	M 8	35	6.0	10.0	14.0	8.5	4.46	5	Grade 2
P0151.080-040-T2	M 8	40	6.0	10.0	14.0	8.5	4.46	5	Grade 2
P0151.080-045-T2	M 8	45	6.0	10.0	14.0	8.5	4.46	5	Grade 2
P0151.080-050-T2	M 8	50	6.0	10.0	14.0	8.5	4.46	5	Grade 2
P0151.080-060-T2	M 8	60	6.0	10.0	14.0	8.5	4.46	5	Grade 2
P0151.080-080-T2	M 8	80	6.0	10.0	14.0	8.5	4.46	5	Grade 2
P0151.100-020-T2	M 10	20	7.5	12.5	17.5	10.6	5.5	6	Grade 2
P0151.100-025-T2	M 10	25	7.5	12.5	17.5	10.6	5.5	6	Grade 2
P0151.100-030-T2	M 10	30	7.5	12.5	17.5	10.6	5.5	6	Grade 2
P0151.100-035-T2	M 10	35	7.5	12.5	17.5	10.6	5.5	6	Grade 2
P0151.100-040-T2	M 10	40	7.5	12.5	17.5	10.6	5.5	6	Grade 2
P0151.100-045-T2	M 10	45	7.5	12.5	17.5	10.6	5.5	6	Grade 2
P0151.100-050-T2	M 10	50	7.5	12.5	17.5	10.6	5.5	6	Grade 2
P0151.100-060-T2	M 10	60	7.5	12.5	17.5	10.6	5.5	6	Grade 2
P0151.100-080-T2	M 10	80	7.5	12.5	17.5	10.6	5.5	6	Grade 2
P0151.025-008-T5	M 2,5	8	1.7	3.7	4.5	2.8	1.50	1.5	Grade 5
P0151.025-010-T5	M 2,5	10	1.7	3.7	4.5	2.8	1.50	1.5	Grade 5
P0151.025-012-T5	M 2,5	12	1.7	3.7	4.5	2.8	1.50	1.5	Grade 5
P0151.025-016-T5	M 2,5	16	1.7	3.7	4.5	2.8	1.50	1.5	Grade 5
P0151.025-020-T5	M 2,5	20	1.7	3.7	4.5	2.8	1.50	1.5	Grade 5
P0151.030-008-T5	M 3	8	2.0	4.5	5.7	3.5	1.53	2	Grade 5
P0151.030-010-T5	M 3	10	2.0	4.5	5.7	3.5	1.53	2	Grade 5
P0151.030-016-T5	M 3	16	2.0	4.5	5.7	3.5	1.53	2	Grade 5
P0151.030-020-T5	M 3	20	2.0	4.5	5.7	3.5	1.53	2	Grade 5
P0151.030-025-T5	M 3	25	2.0	4.5	5.7	3.5	1.53	2	Grade 5
P0151.030-030-T5	M 3	30	2.0	4.5	5.7	3.5	1.53	2	Grade 5
P0151.030-040-T5	M 3	40	2.0	4.5	5.7	3.5	1.53	2	Grade 5
P0151.040-010-T5	M 4	10	2.8	6.0	7.6	4.5	2.10	2.5	Grade 5
P0151.040-012-T5	M 4	12	2.8	6.0	7.6	4.5	2.10	2.5	Grade 5
P0151.040-016-T5	M 4	16	2.8	6.0	7.6	4.5	2.10	2.5	Grade 5
P0151.040-020-T5	M 4	20	2.8	6.0	7.6	4.5	2.10	2.5	Grade 5
P0151.040-025-T5	M 4	25	2.8	6.0	7.6	4.5	2.10	2.5	Grade 5
P0151.040-030-T5	M 4	30	2.8	6.0	7.6	4.5	2.10	2.5	Grade 5
P0151.040-035-T5	M 4	35	2.8	6.0	7.6	4.5	2.10	2.5	Grade 5
P0151.040-040-T5	M 4	40	2.8	6.0	7.6	4.5	2.10	2.5	Grade 5
P0151.040-050-T5	M 4	50	2.8	6.0	7.6	4.5	2.10	2.5	Grade 5
P0151.040-060-T5	M 4	60	2.8	6.0	7.6	4.5	2.10	2.5	Grade 5
P0151.050-012-T5	M 5	12	3.7	7.5	9.5	5.5	2.63	3	Grade 5
P0151.050-016-T5	M 5	16	3.7	7.5	9.5	5.5	2.63	3	Grade 5
P0151.050-020-T5	M 5	20	3.7	7.5	9.5	5.5	2.63	3	Grade 5
P0151.050-025-T5	M 5	25	3.7	7.5	9.5	5.5	2.63	3	Grade 5
P0151.050-030-T5	M 5	30	3.7	7.5	9.5	5.5	2.63	3	Grade 5
P0151.050-040-T5	M 5	40	3.7	7.5	9.5	5.5	2.63	3	Grade 5
P0151.050-050-T5	M 5	50	3.7	7.5	9.5	5.5	2.63	3	Grade 5
P0151.050-060-T5	M 5	60	3.7	7.5	9.5	5.5	2.63	3	Grade 5
P0151.060-012-T5	M 6	12	4.2	7.5	10.5	6.5	3.10	4	Grade 5
P0151.060-016-T5	M 6	16	4.2	7.5	10.5	6.5	3.10	4	Grade 5
P0151.060-020-T5	M 6	20	4.2	7.5	10.5	6.5	3.10	4	Grade 5
P0151.060-025-T5	M 6	25	4.2	7.5	10.5	6.5	3.10	4	Grade 5
P0151.060-030-T5	M 6	30	4.2	7.5	10.5	6.5	3.10	4	Grade 5



Captive Screws - Button Head

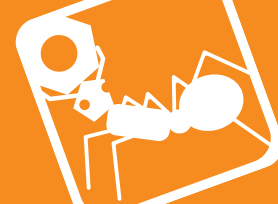
hex drive - titanium



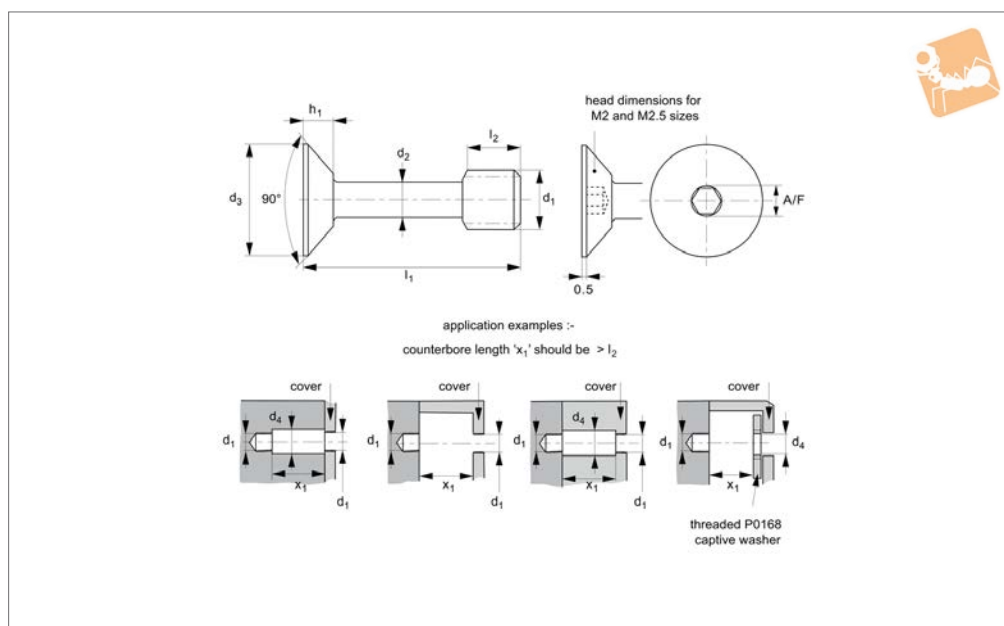
Captive Screws

Order No.	d ₁	l ₁ ±0.25	d ₂ ±0.12	l ₂ ±0.25	d ₃ max.	d ₄ min.	h ₁ max.	A/F	Material
P0151.060-035-T5	M 6	35	4.2	7.5	10.5	6.5	3.10	4	Grade 5
P0151.060-040-T5	M 6	40	4.2	7.5	10.5	6.5	3.10	4	Grade 5
P0151.060-050-T5	M 6	50	4.2	7.5	10.5	6.5	3.10	4	Grade 5
P0151.060-060-T5	M 6	60	4.2	7.5	10.5	6.5	3.10	4	Grade 5
P0151.060-080-T5	M 6	80	4.2	7.5	10.5	6.5	3.10	4	Grade 5
P0151.080-016-T5	M 8	16	6.0	10.0	14.0	8.5	4.46	5	Grade 5
P0151.080-020-T5	M 8	20	6.0	10.0	14.0	8.5	4.46	5	Grade 5
P0151.080-025-T5	M 8	25	6.0	10.0	14.0	8.5	4.46	5	Grade 5
P0151.080-030-T5	M 8	30	6.0	10.0	14.0	8.5	4.46	5	Grade 5
P0151.080-035-T5	M 8	35	6.0	10.0	14.0	8.5	4.46	5	Grade 5
P0151.080-040-T5	M 8	40	6.0	10.0	14.0	8.5	4.46	5	Grade 5
P0151.080-045-T5	M 8	45	6.0	10.0	14.0	8.5	4.46	5	Grade 5
P0151.080-050-T5	M 8	50	6.0	10.0	14.0	8.5	4.46	5	Grade 5
P0151.080-060-T5	M 8	60	6.0	10.0	14.0	8.5	4.46	5	Grade 5
P0151.080-080-T5	M 8	80	6.0	10.0	14.0	8.5	4.46	5	Grade 5
P0151.100-020-T5	M 10	20	7.5	12.5	17.5	10.6	5.5	6	Grade 5
P0151.100-025-T5	M 10	25	7.5	12.5	17.5	10.6	5.5	6	Grade 5
P0151.100-030-T5	M 10	30	7.5	12.5	17.5	10.6	5.5	6	Grade 5
P0151.100-035-T5	M 10	35	7.5	12.5	17.5	10.6	5.5	6	Grade 5
P0151.100-040-T5	M 10	40	7.5	12.5	17.5	10.6	5.5	6	Grade 5
P0151.100-045-T5	M 10	45	7.5	12.5	17.5	10.6	5.5	6	Grade 5
P0151.100-050-T5	M 10	50	7.5	12.5	17.5	10.6	5.5	6	Grade 5
P0151.100-060-T5	M 10	60	7.5	12.5	17.5	10.6	5.5	6	Grade 5
P0151.100-080-T5	M 10	80	7.5	12.5	17.5	10.6	5.5	6	Grade 5

CAPTIVE SCREWS



P0153.Ti



Material

Titanium grade 2 (tensile strength 345 N/mm²), or grade 5 (tensile strength 900 N/mm²).

Also available on request in steel (anodised, black oxide or zinc plated), brass, aluminium etc.

Technical Notes

Used to comply with the Machinery Direc-

tive 2006/42/EC. Often used with our captive washers (P0168) or retaining flanges (P0169 - for sheet metal applications). The use of our captive washers should be considered when fitted in panels with unthreaded hole.

Important Notes

Please note that these screws have a reduced diameter shank and should not be

tightened to the recommended torque for an equivalent machine screw of size d₁. To accommodate the slight undercut at the top of the shank, the hex socket is smaller than on a similar threaded machine screw.

Order No.	d ₁	l ₁ ±0.25	d ₂ ±0.12	l ₂ ±0.25	d ₃ max.	d ₄ min.	h ₁ max.	A/F	Material
P0153.020-010-T2	M 2	10	1.2	3.5	3.8	2.5	1.20	1.0	Grade 2
P0153.020-012-T2	M 2	12	1.2	3.5	3.8	2.5	1.20	1.0	Grade 2
P0153.020-016-T2	M 2	16	1.2	3.5	3.8	2.5	1.20	1.0	Grade 2
P0153.020-020-T2	M 2	20	1.2	3.5	3.8	2.5	1.20	1.0	Grade 2
P0153.025-010-T2	M 2,5	10	1.7	3.7	4.7	2.8	1.80	1.3	Grade 2
P0153.025-012-T2	M 2,5	12	1.7	3.7	4.7	2.8	1.80	1.3	Grade 2
P0153.025-016-T2	M 2,5	16	1.7	3.7	4.7	2.8	1.80	1.3	Grade 2
P0153.025-020-T2	M 2,5	20	1.7	3.7	4.7	2.8	1.80	1.3	Grade 2
P0153.030-008-T2	M 3	8	2.0	4.5	5.6	3.5	1.65	1.5	Grade 2
P0153.030-010-T2	M 3	10	2.0	4.5	5.6	3.5	1.65	1.5	Grade 2
P0153.030-012-T2	M 3	12	2.0	4.5	5.6	3.5	1.65	1.5	Grade 2
P0153.030-016-T2	M 3	16	2.0	4.5	5.6	3.5	1.65	1.5	Grade 2
P0153.030-020-T2	M 3	20	2.0	4.5	5.6	3.5	1.65	1.5	Grade 2
P0153.030-025-T2	M 3	25	2.0	4.5	5.6	3.5	1.65	1.5	Grade 2
P0153.030-030-T2	M 3	30	2.0	4.5	5.6	3.5	1.65	1.5	Grade 2
P0153.030-035-T2	M 3	35	2.0	4.5	5.6	3.5	1.65	1.5	Grade 2
P0153.030-040-T2	M 3	40	2.0	4.5	5.6	3.5	1.65	1.5	Grade 2
P0153.040-010-T2	M 4	10	2.8	6.0	7.5	4.5	2.20	2.0	Grade 2
P0153.040-012-T2	M 4	12	2.8	6.0	7.5	4.5	2.20	2.0	Grade 2
P0153.040-014-T2	M 4	14	2.8	6.0	7.5	4.5	2.20	2.0	Grade 2
P0153.040-016-T2	M 4	16	2.8	6.0	7.5	4.5	2.20	2.0	Grade 2
P0153.040-020-T2	M 4	20	2.8	6.0	7.5	4.5	2.20	2.0	Grade 2
P0153.040-025-T2	M 4	25	2.8	6.0	7.5	4.5	2.20	2.0	Grade 2
P0153.040-030-T2	M 4	30	2.8	6.0	7.5	4.5	2.20	2.0	Grade 2
P0153.040-035-T2	M 4	35	2.8	6.0	7.5	4.5	2.20	2.0	Grade 2
P0153.040-040-T2	M 4	40	2.8	6.0	7.5	4.5	2.20	2.0	Grade 2
P0153.040-050-T2	M 4	50	2.8	6.0	7.5	4.5	2.20	2.0	Grade 2
P0153.040-060-T2	M 4	60	2.8	6.0	7.5	4.5	2.20	2.0	Grade 2



Captive Screws - Countersunk

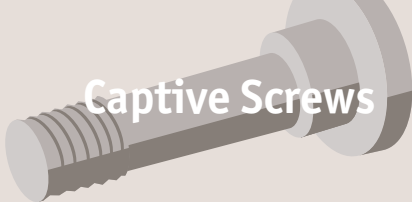
hex drive - titanium



Captive Screws

Order No.	d ₁	l ₁ ±0.25	d ₂ ±0.12	l ₂ ±0.25	d ₃ max.	d ₄ min.	h ₁ max.	A/F	Material
P0153.050-012-T2	M 5	12	3.7	7.5	9.2	5.5	2.50	2.5	Grade 2
P0153.050-014-T2	M 5	14	3.7	7.5	9.2	5.5	2.50	2.5	Grade 2
P0153.050-016-T2	M 5	16	3.7	7.5	9.2	5.5	2.50	2.5	Grade 2
P0153.050-020-T2	M 5	20	3.7	7.5	9.2	5.5	2.50	2.5	Grade 2
P0153.050-025-T2	M 5	25	3.7	7.5	9.2	5.5	2.50	2.5	Grade 2
P0153.050-030-T2	M 5	30	3.7	7.5	9.2	5.5	2.50	2.5	Grade 2
P0153.050-035-T2	M 5	35	3.7	7.5	9.2	5.5	2.50	2.5	Grade 2
P0153.050-040-T2	M 5	40	3.7	7.5	9.2	5.5	2.50	2.5	Grade 2
P0153.050-050-T2	M 5	50	3.7	7.5	9.2	5.5	2.50	2.5	Grade 2
P0153.050-060-T2	M 5	60	3.7	7.5	9.2	5.5	2.50	2.5	Grade 2
P0153.060-016-T2	M 6	16	4.2	8.0	11.0	6.5	3.00	3.0	Grade 2
P0153.060-020-T2	M 6	20	4.2	8.0	11.0	6.5	3.00	3.0	Grade 2
P0153.060-025-T2	M 6	25	4.2	8.0	11.0	6.5	3.00	3.0	Grade 2
P0153.060-030-T2	M 6	30	4.2	8.0	11.0	6.5	3.00	3.0	Grade 2
P0153.060-035-T2	M 6	35	4.2	8.0	11.0	6.5	3.00	3.0	Grade 2
P0153.060-040-T2	M 6	40	4.2	8.0	11.0	6.5	3.00	3.0	Grade 2
P0153.060-050-T2	M 6	50	4.2	8.0	11.0	6.5	3.00	3.0	Grade 2
P0153.060-060-T2	M 6	60	4.2	8.0	11.0	6.5	3.00	3.0	Grade 2
P0153.080-020-T2	M 8	20	6.0	10.0	15.0	8.5	4.10	4.0	Grade 2
P0153.080-025-T2	M 8	25	6.0	10.0	15.0	8.5	4.10	4.0	Grade 2
P0153.080-030-T2	M 8	30	6.0	10.0	15.0	8.5	4.10	4.0	Grade 2
P0153.080-040-T2	M 8	40	6.0	10.0	15.0	8.5	4.10	4.0	Grade 2
P0153.080-050-T2	M 8	50	6.0	10.0	15.0	8.5	4.10	4.0	Grade 2
P0153.080-060-T2	M 8	60	6.0	10.0	15.0	8.5	4.10	4.0	Grade 2
P0153.020-010-T5	M 2	10	1.2	3.5	3.8	2.5	1.20	1.0	Grade 5
P0153.020-012-T5	M 2	12	1.2	3.5	3.8	2.5	1.20	1.0	Grade 5
P0153.020-016-T5	M 2	16	1.2	3.5	3.8	2.5	1.20	1.0	Grade 5
P0153.020-020-T5	M 2	20	1.2	3.5	3.8	2.5	1.20	1.0	Grade 5
P0153.025-010-T5	M 2,5	10	1.7	3.7	4.7	2.8	1.80	1.3	Grade 5
P0153.025-012-T5	M 2,5	12	1.7	3.7	4.7	2.8	1.80	1.3	Grade 5
P0153.025-016-T5	M 2,5	16	1.7	3.7	4.7	2.8	1.80	1.3	Grade 5
P0153.025-020-T5	M 2,5	20	1.7	3.7	4.7	2.8	1.80	1.3	Grade 5
P0153.030-008-T5	M 3	8	2.0	4.5	5.6	3.5	1.65	1.5	Grade 5
P0153.030-010-T5	M 3	10	2.0	4.5	5.6	3.5	1.65	1.5	Grade 5
P0153.030-012-T5	M 3	12	2.0	4.5	5.6	3.5	1.65	1.5	Grade 5
P0153.030-016-T5	M 3	16	2.0	4.5	5.6	3.5	1.65	1.5	Grade 5
P0153.030-020-T5	M 3	20	2.0	4.5	5.6	3.5	1.65	1.5	Grade 5
P0153.030-025-T5	M 3	25	2.0	4.5	5.6	3.5	1.65	1.5	Grade 5
P0153.030-030-T5	M 3	30	2.0	4.5	5.6	3.5	1.65	1.5	Grade 5
P0153.030-035-T5	M 3	35	2.0	4.5	5.6	3.5	1.65	1.5	Grade 5
P0153.030-040-T5	M 3	40	2.0	4.5	5.6	3.5	1.65	1.5	Grade 5
P0153.040-010-T5	M 4	10	2.8	6.0	7.5	4.5	2.20	2.0	Grade 5
P0153.040-012-T5	M 4	12	2.8	6.0	7.5	4.5	2.20	2.0	Grade 5
P0153.040-014-T5	M 4	14	2.8	6.0	7.5	4.5	2.20	2.0	Grade 5
P0153.040-016-T5	M 4	16	2.8	6.0	7.5	4.5	2.20	2.0	Grade 5
P0153.040-020-T5	M 4	20	2.8	6.0	7.5	4.5	2.20	2.0	Grade 5
P0153.040-025-T5	M 4	25	2.8	6.0	7.5	4.5	2.20	2.0	Grade 5
P0153.040-030-T5	M 4	30	2.8	6.0	7.5	4.5	2.20	2.0	Grade 5
P0153.040-035-T5	M 4	35	2.8	6.0	7.5	4.5	2.20	2.0	Grade 5
P0153.040-040-T5	M 4	40	2.8	6.0	7.5	4.5	2.20	2.0	Grade 5
P0153.040-050-T5	M 4	50	2.8	6.0	7.5	4.5	2.20	2.0	Grade 5
P0153.040-060-T5	M 4	60	2.8	6.0	7.5	4.5	2.20	2.0	Grade 5
P0153.050-012-T5	M 5	12	3.7	7.5	9.2	5.5	2.50	2.5	Grade 5
P0153.050-014-T5	M 5	12	3.7	7.5	9.2	5.5	2.50	2.5	Grade 5
P0153.050-016-T5	M 5	16	3.7	7.5	9.2	5.5	2.50	2.5	Grade 5
P0153.050-020-T5	M 5	20	3.7	7.5	9.2	5.5	2.50	2.5	Grade 5
P0153.050-025-T5	M 5	25	3.7	7.5	9.2	5.5	2.50	2.5	Grade 5
P0153.050-030-T5	M 5	30	3.7	7.5	9.2	5.5	2.50	2.5	Grade 5
P0153.050-035-T5	M 5	35	3.7	7.5	9.2	5.5	2.50	2.5	Grade 5
P0153.050-040-T5	M 5	40	3.7	7.5	9.2	5.5	2.50	2.5	Grade 5
P0153.050-050-T5	M 5	50	3.7	7.5	9.2	5.5	2.50	2.5	Grade 5
P0153.050-060-T5	M 5	60	3.7	7.5	9.2	5.5	2.50	2.5	Grade 5
P0153.060-016-T5	M 6	16	4.2	8.0	11.0	6.5	3.00	3.0	Grade 5
P0153.060-020-T5	M 6	20	4.2	8.0	11.0	6.5	3.00	3.0	Grade 5
P0153.060-025-T5	M 6	25	4.2	8.0	11.0	6.5	3.00	3.0	Grade 5
P0153.060-030-T5	M 6	30	4.2	8.0	11.0	6.5	3.00	3.0	Grade 5
P0153.060-035-T5	M 6	35	4.2	8.0	11.0	6.5	3.00	3.0	Grade 5
P0153.060-040-T5	M 6	40	4.2	8.0	11.0	6.5	3.00	3.0	Grade 5

CAPTIVE SCREWS



Captive Screws

Captive Screws - Countersunk hex drive - titanium



CAPTIVE SCREWS

Order No.	d ₁	l ₁ ±0.25	d ₂ ±0.12	l ₂ ±0.25	d ₃ max.	d ₄ min.	h ₁ max.	A/F	Material
P0153.060-050-T5	M 6	50	4.2	8.0	11.0	6.5	3.00	3.0	Grade 5
P0153.060-060-T5	M 6	60	4.2	8.0	11.0	6.5	3.00	3.0	Grade 5
P0153.080-020-T5	M 8	20	6.0	10.0	15.0	8.5	4.10	4.0	Grade 5
P0153.080-025-T5	M 8	25	6.0	10.0	15.0	8.5	4.10	4.0	Grade 5
P0153.080-030-T5	M 8	30	6.0	10.0	15.0	8.5	4.10	4.0	Grade 5
P0153.080-040-T5	M 8	40	6.0	10.0	15.0	8.5	4.10	4.0	Grade 5
P0153.080-050-T5	M 8	50	6.0	10.0	15.0	8.5	4.10	4.0	Grade 5
P0153.080-060-T5	M 8	60	6.0	10.0	15.0	8.5	4.10	4.0	Grade 5

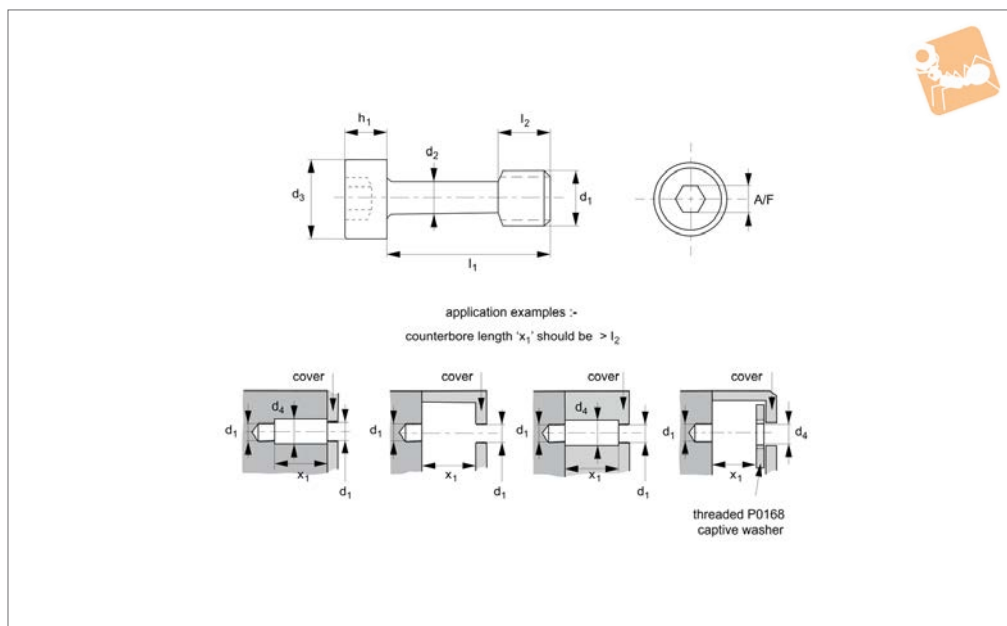


Captive Screws - Cap Head

hex drive - titanium



Captive Screws



P0154.Ti

CAPTIVE SCREWS

Material

Titanium grade 2 (tensile strength 345 N/mm²), or grade 5 (tensile strength 900 N/mm²).

Also available on request in steel (anodised, black oxide or zinc plated) stainless steel (AISI 316, 1.440 or AISI 303, 1.4305), brass, aluminium etc.

Technical Notes

Used to comply with the Machinery Direc-

tive 2006/42/EC. Generally to ISO 4762. Often used with our captive washer (P0168) or retaining flanges (P0169 - for sheet metal applications). The use of our captive washer should be considered when fitted in panels with unthreaded holes. T5 also available on request. Replace -T2 with -T5 at the end of part number.

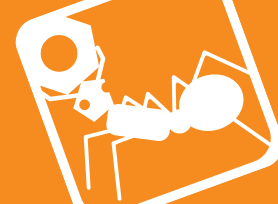
Tips

For TX drive style, see P0156.

Important Notes

Please note that these screws have a reduced diameter shank and should not be tightened to the recommended torque for an equivalent machine screw of size d₁.

Order No.	d ₁	l ₁ ±0.25	d ₂ ±0.12	l ₂ ±0.25	d ₃ max.	d ₄ min.	h ₁ max.	A/F	Material
P0154.025-005-T2	M 2,5	5	1.8	3.0	4.5	2.8	2.5	2	Grade 2
P0154.025-008-T2	M 2,5	8	1.8	3.0	4.5	2.8	2.5	2	Grade 2
P0154.025-010-T2	M 2,5	10	1.8	3.0	4.5	2.8	2.5	2	Grade 2
P0154.025-012-T2	M 2,5	12	1.8	3.0	4.5	2.8	2.5	2	Grade 2
P0154.030-008-T2	M 3	8	2.0	4.5	5.5	3.5	3.0	2.5	Grade 2
P0154.030-010-T2	M 3	10	2.0	4.5	5.5	3.5	3.0	2.5	Grade 2
P0154.030-012-T2	M 3	12	2.0	4.5	5.5	3.5	3.0	2.5	Grade 2
P0154.030-016-T2	M 3	16	2.0	4.5	5.5	3.5	3.0	2.5	Grade 2
P0154.030-020-T2	M 3	20	2.0	4.5	5.5	3.5	3.0	2.5	Grade 2
P0154.030-025-T2	M 3	25	2.0	4.5	5.5	3.5	3.0	2.5	Grade 2
P0154.030-030-T2	M 3	30	2.0	4.5	5.5	3.5	3.0	2.5	Grade 2
P0154.040-010-T2	M 4	10	2.8	6.0	7.0	4.5	4.0	3	Grade 2
P0154.040-012-T2	M 4	12	2.8	6.0	7.0	4.5	4.0	3	Grade 2
P0154.040-016-T2	M 4	16	2.8	6.0	7.0	4.5	4.0	3	Grade 2
P0154.040-020-T2	M 4	20	2.8	6.0	7.0	4.5	4.0	3	Grade 2
P0154.040-025-T2	M 4	25	2.8	6.0	7.0	4.5	4.0	3	Grade 2
P0154.040-030-T2	M 4	30	2.8	6.0	7.0	4.5	4.0	3	Grade 2
P0154.040-035-T2	M 4	35	2.8	6.0	7.0	4.5	4.0	3	Grade 2
P0154.040-040-T2	M 4	40	2.8	6.0	7.0	4.5	4.0	3	Grade 2
P0154.040-050-T2	M 4	50	2.8	6.0	7.0	4.5	4.0	3	Grade 2
P0154.050-012-T2	M 5	12	3.7	7.5	8.5	5.5	5.0	4	Grade 2
P0154.050-016-T2	M 5	16	3.7	7.5	8.5	5.5	5.0	4	Grade 2
P0154.050-020-T2	M 5	20	3.7	7.5	8.5	5.5	5.0	4	Grade 2
P0154.050-025-T2	M 5	25	3.7	7.5	8.5	5.5	5.0	4	Grade 2
P0154.050-030-T2	M 5	30	3.7	7.5	8.5	5.5	5.0	4	Grade 2
P0154.050-035-T2	M 5	35	3.7	7.5	8.5	5.5	5.0	4	Grade 2



Order No.	d ₁	l ₁ ±0.25	d ₂ ±0.12	l ₂ ±0.25	d ₃ max.	d ₄ min.	h ₁ max.	A/F	Material
P0154.050-040-T2	M 5	40	3.7	7.5	8.5	5.5	5.0	4	Grade 2
P0154.050-050-T2	M 5	50	3.7	7.5	8.5	5.5	5.0	4	Grade 2
P0154.060-012-T2	M 6	12	4.2	7.5	10.0	6.5	6.0	5	Grade 2
P0154.060-016-T2	M 6	16	4.2	7.5	10.0	6.5	6.0	5	Grade 2
P0154.060-020-T2	M 6	20	4.2	7.5	10.0	6.5	6.0	5	Grade 2
P0154.060-025-T2	M 6	25	4.2	7.5	10.0	6.5	6.0	5	Grade 2
P0154.060-030-T2	M 6	30	4.2	7.5	10.0	6.5	6.0	5	Grade 2
P0154.060-035-T2	M 6	35	4.2	7.5	10.0	6.5	6.0	5	Grade 2
P0154.060-040-T2	M 6	40	4.2	7.5	10.0	6.5	6.0	5	Grade 2
P0154.060-050-T2	M 6	50	4.2	7.5	10.0	6.5	6.0	5	Grade 2
P0154.060-060-T2	M 6	60	4.2	7.5	10.0	6.5	6.0	5	Grade 2
P0154.060-080-T2	M 6	80	4.2	7.5	10.0	6.5	6.0	5	Grade 2
P0154.080-016-T2	M 8	16	6.0	10.0	13.0	8.5	8.0	6	Grade 2
P0154.080-020-T2	M 8	20	6.0	10.0	13.0	8.5	8.0	6	Grade 2
P0154.080-025-T2	M 8	25	6.0	10.0	13.0	8.5	8.0	6	Grade 2
P0154.080-030-T2	M 8	30	6.0	10.0	13.0	8.5	8.0	6	Grade 2
P0154.080-035-T2	M 8	35	6.0	10.0	13.0	8.5	8.0	6	Grade 2
P0154.080-040-T2	M 8	40	6.0	10.0	13.0	8.5	8.0	6	Grade 2
P0154.080-045-T2	M 8	45	6.0	10.0	13.0	8.5	8.0	6	Grade 2
P0154.080-050-T2	M 8	50	6.0	10.0	13.0	8.5	8.0	6	Grade 2
P0154.080-060-T2	M 8	60	6.0	10.0	13.0	8.5	8.0	6	Grade 2
P0154.080-080-T2	M 8	80	6.0	10.0	13.0	8.5	8.0	6	Grade 2
P0154.100-020-T2	M10	20	7.5	12.5	16.0	10.6	10.0	8	Grade 2
P0154.100-025-T2	M10	25	7.5	12.5	16.0	10.6	10.0	8	Grade 2
P0154.100-030-T2	M10	30	7.5	12.5	16.0	10.6	10.0	8	Grade 2
P0154.100-035-T2	M10	35	7.5	12.5	16.0	10.6	10.0	8	Grade 2
P0154.100-040-T2	M10	40	7.5	12.5	16.0	10.6	10.0	8	Grade 2
P0154.100-045-T2	M10	45	7.5	12.5	16.0	10.6	10.0	8	Grade 2
P0154.100-050-T2	M10	50	7.5	12.5	16.0	10.6	10.0	8	Grade 2
P0154.100-060-T2	M10	60	7.5	12.5	16.0	10.6	10.0	8	Grade 2
P0154.100-080-T2	M10	80	7.5	12.5	16.0	10.6	10.0	8	Grade 2
P0154.120-025-T2	M12	25	8.0	15.0	18.0	13.2	12.0	10	Grade 2
P0154.120-030-T2	M12	30	8.0	15.0	18.0	13.2	12.0	10	Grade 2
P0154.120-035-T2	M12	35	8.0	15.0	18.0	13.2	12.0	10	Grade 2
P0154.120-040-T2	M12	40	8.0	15.0	18.0	13.2	12.0	10	Grade 2
P0154.120-045-T2	M12	45	8.0	15.0	18.0	13.2	12.0	10	Grade 2
P0154.120-050-T2	M12	50	8.0	15.0	18.0	13.2	12.0	10	Grade 2
P0154.120-060-T2	M12	60	8.0	15.0	18.0	13.2	12.0	10	Grade 2
P0154.120-080-T2	M12	80	8.0	15.0	18.0	13.2	12.0	10	Grade 2
P0154.160-030-T2	M16	30	12.0	20.0	24.0	17.5	16.0	14	Grade 2
P0154.160-035-T2	M16	35	12.0	20.0	24.0	17.5	16.0	14	Grade 2
P0154.160-040-T2	M16	40	12.0	20.0	24.0	17.5	16.0	14	Grade 2
P0154.160-045-T2	M16	45	12.0	20.0	24.0	17.5	16.0	14	Grade 2
P0154.160-050-T2	M16	50	12.0	20.0	24.0	17.5	16.0	14	Grade 2
P0154.160-060-T2	M16	60	12.0	20.0	24.0	17.5	16.0	14	Grade 2
P0154.160-080-T2	M16	80	12.0	20.0	24.0	17.5	16.0	14	Grade 2
P0154.160-100-T2	M16	100	12.0	20.0	24.0	17.5	16.0	14	Grade 2
P0154.200-040-T2	M20	40	16.0	25.0	30.0	22.0	20.0	19	Grade 2
P0154.200-060-T2	M20	60	16.0	25.0	30.0	22.0	20.0	19	Grade 2
P0154.200-080-T2	M20	80	16.0	25.0	30.0	22.0	20.0	19	Grade 2
P0154.200-100-T2	M20	100	16.0	25.0	30.0	22.0	20.0	19	Grade 2
P0154.200-120-T2	M20	120	16.0	25.0	30.0	22.0	20.0	19	Grade 2
P0154.025-005-T5	M 2,5	5	1.8	3.0	4.5	2.8	2.5	2	Grade 5
P0154.025-008-T5	M 2,5	8	1.8	3.0	4.5	2.8	2.5	2	Grade 5
P0154.025-010-T5	M 2,5	10	1.8	3.0	4.5	2.8	2.5	2	Grade 5
P0154.025-012-T5	M 2,5	12	1.8	3.0	4.5	2.8	2.5	2	Grade 5
P0154.030-008-T5	M 3	8	2.0	4.5	5.5	3.5	3.0	3	Grade 5
P0154.030-010-T5	M 3	10	2.0	4.5	5.5	3.5	3.0	3	Grade 5
P0154.030-012-T5	M 3	12	2.0	4.5	5.5	3.5	3.0	3	Grade 5
P0154.030-016-T5	M 3	16	2.0	4.5	5.5	3.5	3.0	3	Grade 5
P0154.030-020-T5	M 3	20	2.0	4.5	5.5	3.5	3.0	3	Grade 5
P0154.030-025-T5	M 3	25	2.0	4.5	5.5	3.5	3.0	3	Grade 5
P0154.030-030-T5	M 3	30	2.0	4.5	5.5	3.5	3.0	3	Grade 5
P0154.040-010-T5	M 4	10	2.8	6.0	7.0	4.5	4.0	3	Grade 5
P0154.040-012-T5	M 4	12	2.8	6.0	7.0	4.5	4.0	3	Grade 5
P0154.040-016-T5	M 4	16	2.8	6.0	7.0	4.5	4.0	3	Grade 5
P0154.040-020-T5	M 4	20	2.8	6.0	7.0	4.5	4.0	3	Grade 5
P0154.040-025-T5	M 4	25	2.8	6.0	7.0	4.5	4.0	3	Grade 5

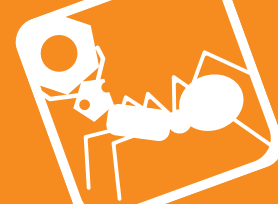


Captive Screws - Cap Head

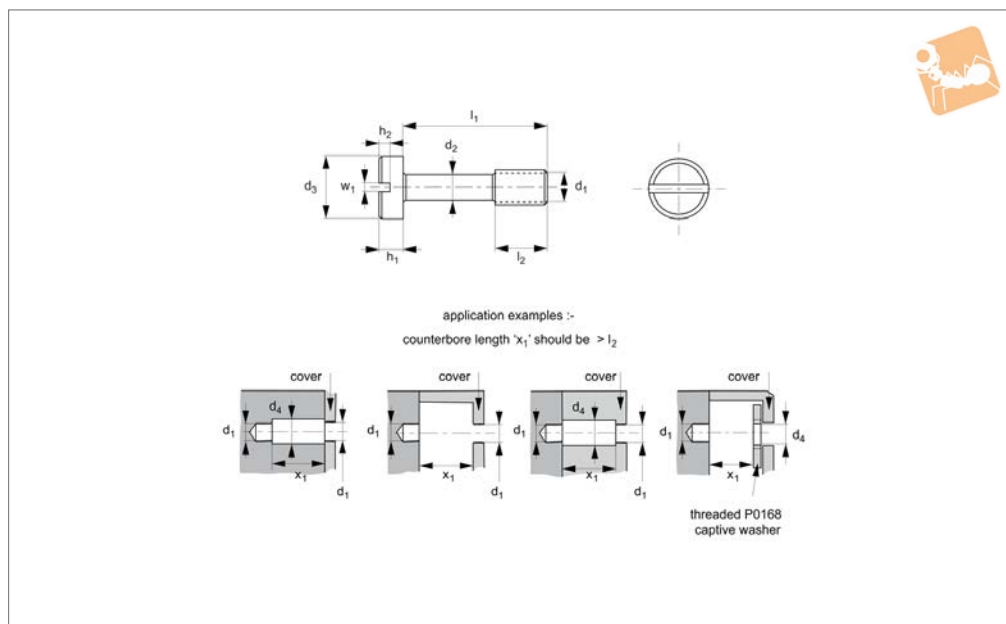
hex drive - titanium



Order No.	d ₁	l ₁ ±0.25	d ₂ ±0.12	l ₂ ±0.25	d ₃ max.	d ₄ min.	h ₁ max.	A/F	Material
P0154.040-030-T5	M 4	30	2.8	6.0	7.0	4.5	4.0	3	Grade 5
P0154.040-035-T5	M 4	35	2.8	6.0	7.0	4.5	4.0	3	Grade 5
P0154.040-040-T5	M 4	40	2.8	6.0	7.0	4.5	4.0	3	Grade 5
P0154.040-050-T5	M 4	50	2.8	6.0	7.0	4.5	4.0	3	Grade 5
P0154.050-012-T5	M 5	12	3.7	7.5	8.5	5.5	5.0	4	Grade 5
P0154.050-016-T5	M 5	16	3.7	7.5	8.5	5.5	5.0	4	Grade 5
P0154.050-020-T5	M 5	20	3.7	7.5	8.5	5.5	5.0	4	Grade 5
P0154.050-025-T5	M 5	25	3.7	7.5	8.5	5.5	5.0	4	Grade 5
P0154.050-030-T5	M 5	30	3.7	7.5	8.5	5.5	5.0	4	Grade 5
P0154.050-035-T5	M 5	35	3.7	7.5	8.5	5.5	5.0	4	Grade 5
P0154.050-040-T5	M 5	40	3.7	7.5	8.5	5.5	5.0	4	Grade 5
P0154.050-050-T5	M 5	50	3.7	7.5	8.5	5.5	5.0	4	Grade 5
P0154.060-012-T5	M 6	12	4.2	7.5	10.0	6.5	6.0	5	Grade 5
P0154.060-016-T5	M 6	16	4.2	7.5	10.0	6.5	6.0	5	Grade 5
P0154.060-020-T5	M 6	20	4.2	7.5	10.0	6.5	6.0	5	Grade 5
P0154.060-025-T5	M 6	25	4.2	7.5	10.0	6.5	6.0	5	Grade 5
P0154.060-030-T5	M 6	30	4.2	7.5	10.0	6.5	6.0	5	Grade 5
P0154.060-035-T5	M 6	35	4.2	7.5	10.0	6.5	6.0	5	Grade 5
P0154.060-040-T5	M 6	40	4.2	7.5	10.0	6.5	6.0	5	Grade 5
P0154.060-050-T5	M 6	50	4.2	7.5	10.0	6.5	6.0	5	Grade 5
P0154.060-060-T5	M 6	60	4.2	7.5	10.0	6.5	6.0	5	Grade 5
P0154.060-080-T5	M 6	80	4.2	7.5	10.0	6.5	6.0	5	Grade 5
P0154.080-016-T5	M 8	16	6.0	10.0	13.0	8.5	8.0	6	Grade 5
P0154.080-020-T5	M 8	20	6.0	10.0	13.0	8.5	8.0	6	Grade 5
P0154.080-025-T5	M 8	25	6.0	10.0	13.0	8.5	8.0	6	Grade 5
P0154.080-030-T5	M 8	30	6.0	10.0	13.0	8.5	8.0	6	Grade 5
P0154.080-035-T5	M 8	35	6.0	10.0	13.0	8.5	8.0	6	Grade 5
P0154.080-040-T5	M 8	40	6.0	10.0	13.0	8.5	8.0	6	Grade 5
P0154.080-045-T5	M 8	45	6.0	10.0	13.0	8.5	8.0	6	Grade 5
P0154.080-050-T5	M 8	50	6.0	10.0	13.0	8.5	8.0	6	Grade 5
P0154.080-060-T5	M 8	60	6.0	10.0	13.0	8.5	8.0	6	Grade 5
P0154.080-080-T5	M 8	80	6.0	10.0	13.0	8.5	8.0	6	Grade 5
P0154.100-020-T5	M10	20	7.5	12.5	16.0	10.6	10.0	8	Grade 5
P0154.100-025-T5	M10	25	7.5	12.5	16.0	10.6	10.0	8	Grade 5
P0154.100-030-T5	M10	30	7.5	12.5	16.0	10.6	10.0	8	Grade 5
P0154.100-035-T5	M10	35	7.5	12.5	16.0	10.6	10.0	8	Grade 5
P0154.100-040-T5	M10	40	7.5	12.5	16.0	10.6	10.0	8	Grade 5
P0154.100-045-T5	M10	45	7.5	12.5	16.0	10.6	10.0	8	Grade 5
P0154.100-050-T5	M10	50	7.5	12.5	16.0	10.6	10.0	8	Grade 5
P0154.100-060-T5	M10	60	7.5	12.5	16.0	10.6	10.0	8	Grade 5
P0154.100-080-T5	M10	80	7.5	12.5	16.0	10.6	10.0	8	Grade 5
P0154.120-025-T5	M12	25	8.0	15.0	18.0	13.2	12.0	10	Grade 5
P0154.120-030-T5	M12	30	8.0	15.0	18.0	13.2	12.0	10	Grade 5
P0154.120-035-T5	M12	35	8.0	15.0	18.0	13.2	12.0	10	Grade 5
P0154.120-040-T5	M12	40	8.0	15.0	18.0	13.2	12.0	10	Grade 5
P0154.120-045-T5	M12	45	8.0	15.0	18.0	13.2	12.0	10	Grade 5
P0154.120-050-T5	M12	50	8.0	15.0	18.0	13.2	12.0	10	Grade 5
P0154.120-060-T5	M12	60	8.0	15.0	18.0	13.2	12.0	10	Grade 5
P0154.120-080-T5	M12	80	8.0	15.0	18.0	13.2	12.0	10	Grade 5
P0154.160-030-T5	M16	30	12.0	20.0	24.0	17.5	16.0	14	Grade 5
P0154.160-035-T5	M16	35	12.0	20.0	24.0	17.5	16.0	14	Grade 5
P0154.160-040-T5	M16	40	12.0	20.0	24.0	17.5	16.0	14	Grade 5
P0154.160-045-T5	M16	45	12.0	20.0	24.0	17.5	16.0	14	Grade 5
P0154.160-050-T5	M16	50	12.0	20.0	24.0	17.5	16.0	14	Grade 5
P0154.160-060-T5	M16	60	12.0	20.0	24.0	17.5	16.0	14	Grade 5
P0154.160-080-T5	M16	80	12.0	20.0	24.0	17.5	16.0	14	Grade 5
P0154.160-100-T5	M16	100	12.0	20.0	24.0	17.5	16.0	14	Grade 5
P0154.200-040-T5	M20	40	16.0	25.0	30.0	22.0	20.0	19	Grade 5
P0154.200-060-T5	M20	60	16.0	25.0	30.0	22.0	20.0	19	Grade 5
P0154.200-080-T5	M20	80	16.0	25.0	30.0	22.0	20.0	19	Grade 5
P0154.200-100-T5	M20	100	16.0	25.0	30.0	22.0	20.0	19	Grade 5
P0154.200-120-T5	M20	120	16.0	25.0	30.0	22.0	20.0	19	Grade 5



P0155.Ti



Material

Titanium grade 2 (tensile strength 345 N/mm²), or grade 5 (tensile strength 900 N/mm²).

Also available on request in steel (anodised, black oxide or zinc plated) stainless steel (AISI 316, 1.440 or AISI 303, 1.4305), brass, aluminium etc.

Technical Notes

Used to comply with the Machinery Direc-

tive 2006/42/EC. Generally to ISO 1207. Often used with our captive washers (P0168) or retaining flanges (P0169 - for sheet metal applications). The use of our captive washers should be considered when fitted in panels with unthreaded holes.

Tips

Other head drive styles - add suffix:
-TX for Torx (hexalobular).

-PZ for Pozidrive.

-SE for snake-eye security.

Important Notes

Please note that these screws have a reduced diameter shank and should not be tightened to the recommended torque for an equivalent machine screw of size d₁.

Order No.	d ₁	l ₁ ±0.25	d ₂ ±0.12	l ₂ ±0.25	d ₃	d ₄ min.	h ₁	h ₂	w ₁	Material
P0155.020-010-T2	M 2	10	1.2	3.0	3.8	2.5	1.3	0.85	0.5	Grade 2
P0155.020-012-T2	M 2	12	1.2	3.0	3.8	2.5	1.3	0.85	0.5	Grade 2
P0155.020-016-T2	M 2	16	1.2	3.0	3.8	2.5	1.3	0.85	0.5	Grade 2
P0155.020-020-T2	M 2	20	1.2	3.0	3.8	2.5	1.3	0.85	0.5	Grade 2
P0155.025-010-T2	M 2,5	10	1.7	3.7	4.5	2.8	1.6	1.00	0.6	Grade 2
P0155.025-012-T2	M 2,5	12	1.7	3.7	4.5	2.8	1.6	1.00	0.6	Grade 2
P0155.025-016-T2	M 2,5	16	1.7	3.7	4.5	2.8	1.6	1.00	0.6	Grade 2
P0155.025-020-T2	M 2,5	20	1.7	3.7	4.5	2.8	1.6	1.00	0.6	Grade 2
P0155.025-025-T2	M 2,5	25	1.7	3.7	4.5	2.8	1.6	1.00	0.6	Grade 2
P0155.025-030-T2	M 2,5	30	1.7	3.7	4.5	2.8	1.6	1.00	0.6	Grade 2
P0155.030-006-T2	M 3	6	2.0	4.5	5.5	3.5	2.0	1.30	0.8	Grade 2
P0155.030-008-T2	M 3	8	2.0	4.5	5.5	3.5	2.0	1.30	0.8	Grade 2
P0155.030-010-T2	M 3	10	2.0	4.5	5.5	3.5	2.0	1.30	0.8	Grade 2
P0155.030-011-T2	M 3	11	2.0	4.5	5.5	3.5	2.0	1.30	0.8	Grade 2
P0155.030-013-T2	M 3	13	2.0	4.5	5.5	3.5	2.0	1.30	0.8	Grade 2
P0155.030-016-T2	M 3	16	2.0	4.5	5.5	3.5	2.0	1.30	0.8	Grade 2
P0155.030-018-T2	M 3	18	2.0	4.5	5.5	3.5	2.0	1.30	0.8	Grade 2
P0155.030-020-T2	M 3	20	2.0	4.5	5.5	3.5	2.0	1.30	0.8	Grade 2
P0155.030-025-T2	M 3	25	2.0	4.5	5.5	3.5	2.0	1.30	0.8	Grade 2
P0155.030-030-T2	M 3	30	2.0	4.5	5.5	3.5	2.0	1.30	0.8	Grade 2
P0155.030-040-T2	M 3	40	2.0	4.5	5.5	3.5	2.0	1.30	0.8	Grade 2
P0155.035-010-T2	M3,5	10	2.3	5.2	6.0	3.8	2.4	1.4	1.0	Grade 2
P0155.035-016-T2	M3,5	16	2.3	5.2	6.0	3.8	2.4	1.4	1.0	Grade 2
P0155.035-020-T2	M3,5	20	2.3	5.2	6.0	3.8	2.4	1.4	1.0	Grade 2
P0155.035-025-T2	M3,5	25	2.3	5.2	6.0	3.8	2.4	1.4	1.0	Grade 2
P0155.035-030-T2	M3,5	30	2.3	5.2	6.0	3.8	2.4	1.4	1.0	Grade 2



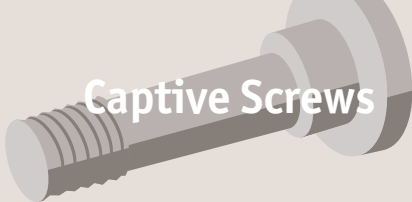
Captive Screws - Cheese Head slot drive - titanium



Captive Screws

Order No.	d ₁	l ₁ ±0.25	d ₂ ±0.12	l ₂ ±0.25	d ₃	d ₄ min.	h ₁	h ₂	w ₁	Material
P0155.035-040-T2	M3,5	40	2.3	5.2	6.0	3.8	2.4	1.4	1.0	Grade 2
P0155.040-010-T2	M 4	10	2.8	6.0	7.0	4.5	2.6	1.6	1.2	Grade 2
P0155.040-012-T2	M 4	12	2.8	6.0	7.0	4.5	2.6	1.6	1.2	Grade 2
P0155.040-016-T2	M 4	16	2.8	6.0	7.0	4.5	2.6	1.6	1.2	Grade 2
P0155.040-018-T2	M 4	18	2.8	6.0	7.0	4.5	2.6	1.6	1.2	Grade 2
P0155.040-019-T2	M 4	19	2.8	6.0	7.0	4.5	2.6	1.6	1.2	Grade 2
P0155.040-020-T2	M 4	20	2.8	6.0	7.0	4.5	2.6	1.6	1.2	Grade 2
P0155.040-025-T2	M 4	25	2.8	6.0	7.0	4.5	2.6	1.6	1.2	Grade 2
P0155.040-030-T2	M 4	30	2.8	6.0	7.0	4.5	2.6	1.6	1.2	Grade 2
P0155.040-040-T2	M 4	40	2.8	6.0	7.0	4.5	2.6	1.6	1.2	Grade 2
P0155.040-050-T2	M 4	50	2.8	6.0	7.0	4.5	2.6	1.6	1.2	Grade 2
P0155.040-060-T2	M 4	60	2.8	6.0	7.0	4.5	2.6	1.6	1.2	Grade 2
P0155.050-010-T2	M 5	10	3.7	7.5	8.5	5.5	3.3	2.0	1.2	Grade 2
P0155.050-012-T2	M 5	12	3.7	7.5	8.5	5.5	3.3	2.0	1.2	Grade 2
P0155.050-016-T2	M 5	16	3.7	7.5	8.5	5.5	3.3	2.0	1.2	Grade 2
P0155.050-018-T2	M 5	18	3.7	7.5	8.5	5.5	3.3	2.0	1.2	Grade 2
P0155.050-020-T2	M 5	20	3.7	7.5	8.5	5.5	3.3	2.0	1.2	Grade 2
P0155.050-022-T2	M 5	22	3.7	7.5	8.5	5.5	3.3	2.0	1.2	Grade 2
P0155.050-025-T2	M 5	25	3.7	7.5	8.5	5.5	3.3	2.0	1.2	Grade 2
P0155.050-030-T2	M 5	30	3.7	7.5	8.5	5.5	3.3	2.0	1.2	Grade 2
P0155.050-040-T2	M 5	40	3.7	7.5	8.5	5.5	3.3	2.0	1.2	Grade 2
P0155.050-050-T2	M 5	50	3.7	7.5	8.5	5.5	3.3	2.0	1.2	Grade 2
P0155.050-060-T2	M 5	60	3.7	7.5	8.5	5.5	3.3	2.0	1.2	Grade 2
P0155.050-080-T2	M 5	80	3.7	7.5	8.5	5.5	3.3	2.0	1.2	Grade 2
P0155.060-010-T2	M 6	10	4.2	7.5	10.0	6.5	3.9	2.3	1.6	Grade 2
P0155.060-012-T2	M 6	12	4.2	7.5	10.0	6.5	3.9	2.3	1.6	Grade 2
P0155.060-016-T2	M 6	16	4.2	7.5	10.0	6.5	3.9	2.3	1.6	Grade 2
P0155.060-020-T2	M 6	20	4.2	7.5	10.0	6.5	3.9	2.3	1.6	Grade 2
P0155.060-025-T2	M 6	25	4.2	7.5	10.0	6.5	3.9	2.3	1.6	Grade 2
P0155.060-030-T2	M 6	30	4.2	7.5	10.0	6.5	3.9	2.3	1.6	Grade 2
P0155.060-040-T2	M 6	40	4.2	7.5	10.0	6.5	3.9	2.3	1.6	Grade 2
P0155.060-050-T2	M 6	50	4.2	7.5	10.0	6.5	3.9	2.3	1.6	Grade 2
P0155.060-060-T2	M 6	60	4.2	7.5	10.0	6.5	3.9	2.3	1.6	Grade 2
P0155.060-080-T2	M 6	80	4.2	7.5	10.0	6.5	3.9	2.3	1.6	Grade 2
P0155.020-010-T5	M 2	10	1.2	3.0	3.8	2.5	1.3	0.85	0.5	Grade 5
P0155.020-012-T5	M 2	12	1.2	3.0	3.8	2.5	1.3	0.85	0.5	Grade 5
P0155.020-016-T5	M 2	16	1.2	3.0	3.8	2.5	1.3	0.85	0.5	Grade 5
P0155.020-020-T5	M 2	20	1.2	3.0	3.8	2.5	1.3	0.85	0.5	Grade 5
P0155.025-010-T5	M 2,5	10	1.7	3.7	4.5	2.8	1.6	1.00	0.6	Grade 5
P0155.025-012-T5	M 2,5	12	1.7	3.7	4.5	2.8	1.6	1.00	0.6	Grade 5
P0155.025-016-T5	M 2,5	16	1.7	3.7	4.5	2.8	1.6	1.00	0.6	Grade 5
P0155.025-020-T5	M 2,5	20	1.7	3.7	4.5	2.8	1.6	1.00	0.6	Grade 5
P0155.025-025-T5	M 2,5	25	1.7	3.7	4.5	2.8	1.6	1.00	0.6	Grade 5
P0155.025-030-T5	M 2,5	30	1.7	3.7	4.5	2.8	1.6	1.00	0.6	Grade 5
P0155.030-006-T5	M 3	6	2.0	4.5	5.5	3.5	2.0	1.30	0.8	Grade 5
P0155.030-008-T5	M 3	8	2.0	4.5	5.5	3.5	2.0	1.30	0.8	Grade 5
P0155.030-010-T5	M 3	10	2.0	4.5	5.5	3.5	2.0	1.30	0.8	Grade 5
P0155.030-011-T5	M 3	11	2.0	4.5	5.5	3.5	2.0	1.30	0.8	Grade 5
P0155.030-013-T5	M 3	13	2.0	4.5	5.5	3.5	2.0	1.30	0.8	Grade 5
P0155.030-016-T5	M 3	16	2.0	4.5	5.5	3.5	2.0	1.30	0.8	Grade 5
P0155.030-018-T5	M 3	18	2.0	4.5	5.5	3.5	2.0	1.30	0.8	Grade 5
P0155.030-020-T5	M 3	20	2.0	4.5	5.5	3.5	2.0	1.30	0.8	Grade 5
P0155.030-025-T5	M 3	25	2.0	4.5	5.5	3.5	2.0	1.30	0.8	Grade 5
P0155.030-030-T5	M 3	30	2.0	4.5	5.5	3.5	2.0	1.30	0.8	Grade 5
P0155.030-040-T5	M 3	40	2.0	4.5	5.5	3.5	2.0	1.30	0.8	Grade 5
P0155.035-010-T5	M3,5	10	2.3	5.2	6.0	3.8	2.4	1.4	1.0	Grade 5
P0155.035-016-T5	M3,5	16	2.3	5.2	6.0	3.8	2.4	1.4	1.0	Grade 5
P0155.035-020-T5	M3,5	20	2.3	5.2	6.0	3.8	2.4	1.4	1.0	Grade 5
P0155.035-025-T5	M3,5	25	2.3	5.2	6.0	3.8	2.4	1.4	1.0	Grade 5
P0155.035-030-T5	M3,5	30	2.3	5.2	6.0	3.8	2.4	1.4	1.0	Grade 5
P0155.035-040-T5	M3,5	40	2.3	5.2	6.0	3.8	2.4	1.4	1.0	Grade 5
P0155.040-010-T5	M 4	10	2.8	6.0	7.0	4.5	2.6	1.6	1.2	Grade 5
P0155.040-012-T5	M 4	12	2.8	6.0	7.0	4.5	2.6	1.6	1.2	Grade 5
P0155.040-016-T5	M 4	16	2.8	6.0	7.0	4.5	2.6	1.6	1.2	Grade 5
P0155.040-018-T5	M 4	18	2.8	6.0	7.0	4.5	2.6	1.6	1.2	Grade 5
P0155.040-019-T5	M 4	19	2.8	6.0	7.0	4.5	2.6	1.6	1.2	Grade 5
P0155.040-020-T5	M 4	20	2.8	6.0	7.0	4.5	2.6	1.6	1.2	Grade 5
P0155.040-025-T5	M 4	25	2.8	6.0	7.0	4.5	2.6	1.6	1.2	Grade 5

CAPTIVE SCREWS



Captive Screws

Captive Screws - Cheese Head slot drive - titanium



CAPTIVE SCREWS

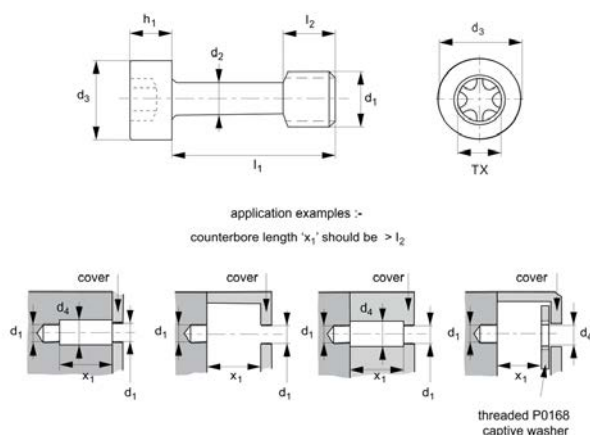
Order No.	d ₁	l ₁ ±0.25	d ₂ ±0.12	l ₂ ±0.25	d ₃	d ₄ min.	h ₁	h ₂	w ₁	Material
P0155.040-030-T5	M 4	30	2.8	6.0	7.0	4.5	2.6	1.6	1.2	Grade 5
P0155.040-040-T5	M 4	40	2.8	6.0	7.0	4.5	2.6	1.6	1.2	Grade 5
P0155.040-050-T5	M 4	50	2.8	6.0	7.0	4.5	2.6	1.6	1.2	Grade 5
P0155.040-060-T5	M 4	60	2.8	6.0	7.0	4.5	2.6	1.6	1.2	Grade 5
P0155.050-010-T5	M 5	10	3.7	7.5	8.5	5.5	3.3	2.0	1.2	Grade 5
P0155.050-012-T5	M 5	12	3.7	7.5	8.5	5.5	3.3	2.0	1.2	Grade 5
P0155.050-016-T5	M 5	16	3.7	7.5	8.5	5.5	3.3	2.0	1.2	Grade 5
P0155.050-018-T5	M 5	18	3.7	7.5	8.5	5.5	3.3	2.0	1.2	Grade 5
P0155.050-020-T5	M 5	20	3.7	7.5	8.5	5.5	3.3	2.0	1.2	Grade 5
P0155.050-022-T5	M 5	22	3.7	7.5	8.5	5.5	3.3	2.0	1.2	Grade 5
P0155.050-025-T5	M 5	25	3.7	7.5	8.5	5.5	3.3	2.0	1.2	Grade 5
P0155.050-030-T5	M 5	30	3.7	7.5	8.5	5.5	3.3	2.0	1.2	Grade 5
P0155.050-040-T5	M 5	40	3.7	7.5	8.5	5.5	3.3	2.0	1.2	Grade 5
P0155.050-050-T5	M 5	50	3.7	7.5	8.5	5.5	3.3	2.0	1.2	Grade 5
P0155.050-060-T5	M 5	60	3.7	7.5	8.5	5.5	3.3	2.0	1.2	Grade 5
P0155.050-080-T5	M 5	80	3.7	7.5	8.5	5.5	3.3	2.0	1.2	Grade 5
P0155.060-010-T5	M 6	10	4.2	7.5	10.0	6.5	3.9	2.3	1.6	Grade 5
P0155.060-012-T5	M 6	12	4.2	7.5	10.0	6.5	3.9	2.3	1.6	Grade 5
P0155.060-016-T5	M 6	16	4.2	7.5	10.0	6.5	3.9	2.3	1.6	Grade 5
P0155.060-020-T5	M 6	20	4.2	7.5	10.0	6.5	3.9	2.3	1.6	Grade 5
P0155.060-025-T5	M 6	25	4.2	7.5	10.0	6.5	3.9	2.3	1.6	Grade 5
P0155.060-030-T5	M 6	30	4.2	7.5	10.0	6.5	3.9	2.3	1.6	Grade 5
P0155.060-040-T5	M 6	40	4.2	7.5	10.0	6.5	3.9	2.3	1.6	Grade 5
P0155.060-050-T5	M 6	50	4.2	7.5	10.0	6.5	3.9	2.3	1.6	Grade 5
P0155.060-060-T5	M 6	60	4.2	7.5	10.0	6.5	3.9	2.3	1.6	Grade 5
P0155.060-080-T5	M 6	80	4.2	7.5	10.0	6.5	3.9	2.3	1.6	Grade 5



Captive Screws - Cap Head

TX drive - titanium

Captive Screws



P0156.Ti

CAPTIVE SCREWS

Material

Titanium grade 2 (tensile strength 345 N/mm²), or grade 5 (tensile strength 900 N/mm²).

Also available on request in steel (anodised, black oxide or zinc plated) stainless steel (AISI 316, 1.440 or AISI 303, 1.4305), brass, aluminium etc.

Technical Notes

Used to comply with the Machinery Direc-

tive 2006/42/EC. Generally to ISO 4762. Often used with our captive washers (P0168) or retaining flanges (P0169 - for sheet metal applications). The use of our captive washers should be considered when fitted in panels with unthreaded holes.

*M 8 sizes have a reduced TX size.

T5 also available on request.

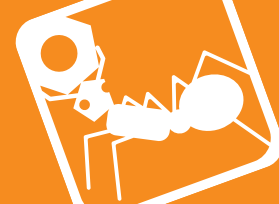
Replace -T2 with -T5 at the end of part

number.

Important Notes

Please note that these screws have a reduced diameter shank and should not be tightened to the recommended torque for an equivalent machine screw of size d₁.

Order No.	d ₁	l ₁ ±0.25	d ₂ ±0.12	l ₂ ±0.25	d ₃ max.	d ₄ min.	h ₁ max.	TX size	Material
P0156.030-008-T2	M 3	8	2.0	4.5	5.5	3.5	3	TX-10	Grade 2
P0156.030-010-T2	M 3	10	2.0	4.5	5.5	3.5	3	TX-10	Grade 2
P0156.030-016-T2	M 3	16	2.0	4.5	5.5	3.5	3	TX-10	Grade 2
P0156.030-020-T2	M 3	20	2.0	4.5	5.5	3.5	3	TX-10	Grade 2
P0156.030-025-T2	M 3	25	2.0	4.5	5.5	3.5	3	TX-10	Grade 2
P0156.030-030-T2	M 3	30	2.0	4.5	5.5	3.5	3	TX-10	Grade 2
P0156.040-008-T2	M 4	8	2.8	6.0	7.0	4.5	4	TX-20	Grade 2
P0156.040-010-T2	M 4	10	2.8	6.0	7.0	4.5	4	TX-20	Grade 2
P0156.040-012-T2	M 4	12	2.8	6.0	7.0	4.5	4	TX-20	Grade 2
P0156.040-016-T2	M 4	16	2.8	6.0	7.0	4.5	4	TX-20	Grade 2
P0156.040-020-T2	M 4	20	2.8	6.0	7.0	4.5	4	TX-20	Grade 2
P0156.040-025-T2	M 4	25	2.8	6.0	7.0	4.5	4	TX-20	Grade 2
P0156.040-030-T2	M 4	30	2.8	6.0	7.0	4.5	4	TX-20	Grade 2
P0156.040-040-T2	M 4	40	2.8	6.0	7.0	4.5	4	TX-20	Grade 2
P0156.040-050-T2	M 4	50	2.8	6.0	7.0	4.5	4	TX-20	Grade 2
P0156.050-010-T2	M 5	10	3.7	7.5	8.5	5.5	5	TX-25	Grade 2
P0156.050-012-T2	M 5	12	3.7	7.5	8.5	5.5	5	TX-25	Grade 2
P0156.050-016-T2	M 5	16	3.7	7.5	8.5	5.5	5	TX-25	Grade 2
P0156.050-020-T2	M 5	20	3.7	7.5	8.5	5.5	5	TX-25	Grade 2
P0156.050-025-T2	M 5	25	3.7	7.5	8.5	5.5	5	TX-25	Grade 2
P0156.050-030-T2	M 5	30	3.7	7.5	8.5	5.5	5	TX-25	Grade 2
P0156.050-040-T2	M 5	40	3.7	7.5	8.5	5.5	5	TX-25	Grade 2
P0156.050-050-T2	M 5	50	3.7	7.5	8.5	5.5	5	TX-25	Grade 2
P0156.060-010-T2	M 6	10	4.2	7.5	10.0	6.5	6	TX-30	Grade 2
P0156.060-012-T2	M 6	12	4.2	7.5	10.0	6.5	6	TX-30	Grade 2
P0156.060-016-T2	M 6	16	4.2	7.5	10.0	6.5	6	TX-30	Grade 2



Order No.	d ₁	l ₁ ±0.25	d ₂ ±0.12	l ₂ ±0.25	d ₃ max.	d ₄ min.	h ₁ max.	TX size	Material
P0156.060-020-T2	M 6	20	4.2	7.5	10.0	6.5	6	TX-30	Grade 2
P0156.060-025-T2	M 6	25	4.2	7.5	10.0	6.5	6	TX-30	Grade 2
P0156.060-030-T2	M 6	30	4.2	7.5	10.0	6.5	6	TX-30	Grade 2
P0156.060-040-T2	M 6	40	4.2	7.5	10.0	6.5	6	TX-30	Grade 2
P0156.060-050-T2	M 6	50	4.2	7.5	10.0	6.5	6	TX-30	Grade 2
P0156.060-060-T2	M 6	60	4.2	7.5	10.0	6.5	6	TX-30	Grade 2
P0156.060-080-T2	M 6	80	4.2	7.5	10.0	6.5	6	TX-30	Grade 2
P0156.080-012-T2	M 8	12	6.0	10.0	13.0	8.5	8	TX-30*	Grade 2
P0156.080-016-T2	M 8	16	6.0	10.0	13.0	8.5	8	TX-30*	Grade 2
P0156.080-020-T2	M 8	20	6.0	10.0	13.0	8.5	8	TX-30*	Grade 2
P0156.080-025-T2	M 8	25	6.0	10.0	13.0	8.5	8	TX-30*	Grade 2
P0156.080-030-T2	M 8	30	6.0	10.0	13.0	8.5	8	TX-30*	Grade 2
P0156.080-035-T2	M 8	35	6.0	10.0	13.0	8.5	8	TX-30*	Grade 2
P0156.080-040-T2	M 8	40	6.0	10.0	13.0	8.5	8	TX-30*	Grade 2
P0156.080-045-T2	M 8	45	6.0	10.0	13.0	8.5	8	TX-30*	Grade 2
P0156.080-050-T2	M 8	50	6.0	10.0	13.0	8.5	8	TX-30*	Grade 2
P0156.080-060-T2	M 8	60	6.0	10.0	13.0	8.5	8	TX-30*	Grade 2
P0156.080-080-T2	M 8	80	6.0	10.0	13.0	8.5	8	TX-30*	Grade 2
P0156.030-008-T5	M 3	8	2.0	4.5	5.5	3.5	3	TX-10	Grade 5
P0156.030-010-T5	M 3	10	2.0	4.5	5.5	3.5	3	TX-10	Grade 5
P0156.030-016-T5	M 3	16	2.0	4.5	5.5	3.5	3	TX-10	Grade 5
P0156.030-020-T5	M 3	20	2.0	4.5	5.5	3.5	3	TX-10	Grade 5
P0156.030-025-T5	M 3	25	2.0	4.5	5.5	3.5	3	TX-10	Grade 5
P0156.030-030-T5	M 3	30	2.0	4.5	5.5	3.5	3	TX-10	Grade 5
P0156.040-008-T5	M 4	8	2.8	6.0	7.0	4.5	4	TX-20	Grade 5
P0156.040-010-T5	M 4	10	2.8	6.0	7.0	4.5	4	TX-20	Grade 5
P0156.040-012-T5	M 4	12	2.8	6.0	7.0	4.5	4	TX-20	Grade 5
P0156.040-016-T5	M 4	16	2.8	6.0	7.0	4.5	4	TX-20	Grade 5
P0156.040-020-T5	M 4	20	2.8	6.0	7.0	4.5	4	TX-20	Grade 5
P0156.040-025-T5	M 4	25	2.8	6.0	7.0	4.5	4	TX-20	Grade 5
P0156.040-030-T5	M 4	30	2.8	6.0	7.0	4.5	4	TX-20	Grade 5
P0156.040-040-T5	M 4	40	2.8	6.0	7.0	4.5	4	TX-20	Grade 5
P0156.040-050-T5	M 4	50	2.8	6.0	7.0	4.5	4	TX-20	Grade 5
P0156.050-010-T5	M 5	10	3.7	7.5	8.5	5.5	5	TX-25	Grade 5
P0156.050-012-T5	M 5	12	3.7	7.5	8.5	5.5	5	TX-25	Grade 5
P0156.050-016-T5	M 5	16	3.7	7.5	8.5	5.5	5	TX-25	Grade 5
P0156.050-020-T5	M 5	20	3.7	7.5	8.5	5.5	5	TX-25	Grade 5
P0156.050-025-T5	M 5	25	3.7	7.5	8.5	5.5	5	TX-25	Grade 5
P0156.050-030-T5	M 5	30	3.7	7.5	8.5	5.5	5	TX-25	Grade 5
P0156.050-040-T5	M 5	40	3.7	7.5	8.5	5.5	5	TX-25	Grade 5
P0156.050-050-T5	M 5	50	3.7	7.5	8.5	5.5	5	TX-25	Grade 5
P0156.060-010-T5	M 6	10	4.2	7.5	10.0	6.5	6	TX-30	Grade 5
P0156.060-012-T5	M 6	12	4.2	7.5	10.0	6.5	6	TX-30	Grade 5
P0156.060-016-T5	M 6	16	4.2	7.5	10.0	6.5	6	TX-30	Grade 5
P0156.060-020-T5	M 6	20	4.2	7.5	10.0	6.5	6	TX-30	Grade 5
P0156.060-025-T5	M 6	25	4.2	7.5	10.0	6.5	6	TX-30	Grade 5
P0156.060-030-T5	M 6	30	4.2	7.5	10.0	6.5	6	TX-30	Grade 5
P0156.060-040-T5	M 6	40	4.2	7.5	10.0	6.5	6	TX-30	Grade 5
P0156.060-050-T5	M 6	50	4.2	7.5	10.0	6.5	6	TX-30	Grade 5
P0156.060-060-T5	M 6	60	4.2	7.5	10.0	6.5	6	TX-30	Grade 5
P0156.060-080-T5	M 6	80	4.2	7.5	10.0	6.5	6	TX-30	Grade 5
P0156.080-012-T5	M 8	12	6.0	10.0	13.0	8.5	8	TX-30*	Grade 5
P0156.080-016-T5	M 8	16	6.0	10.0	13.0	8.5	8	TX-30*	Grade 5
P0156.080-020-T5	M 8	20	6.0	10.0	13.0	8.5	8	TX-30*	Grade 5
P0156.080-025-T5	M 8	25	6.0	10.0	13.0	8.5	8	TX-30*	Grade 5
P0156.080-030-T5	M 8	30	6.0	10.0	13.0	8.5	8	TX-30*	Grade 5
P0156.080-035-T5	M 8	35	6.0	10.0	13.0	8.5	8	TX-30*	Grade 5
P0156.080-040-T5	M 8	40	6.0	10.0	13.0	8.5	8	TX-30*	Grade 5
P0156.080-045-T5	M 8	45	6.0	10.0	13.0	8.5	8	TX-30*	Grade 5
P0156.080-050-T5	M 8	50	6.0	10.0	13.0	8.5	8	TX-30*	Grade 5
P0156.080-060-T5	M 8	60	6.0	10.0	13.0	8.5	8	TX-30*	Grade 5
P0156.080-080-T5	M 8	80	6.0	10.0	13.0	8.5	8	TX-30*	Grade 5

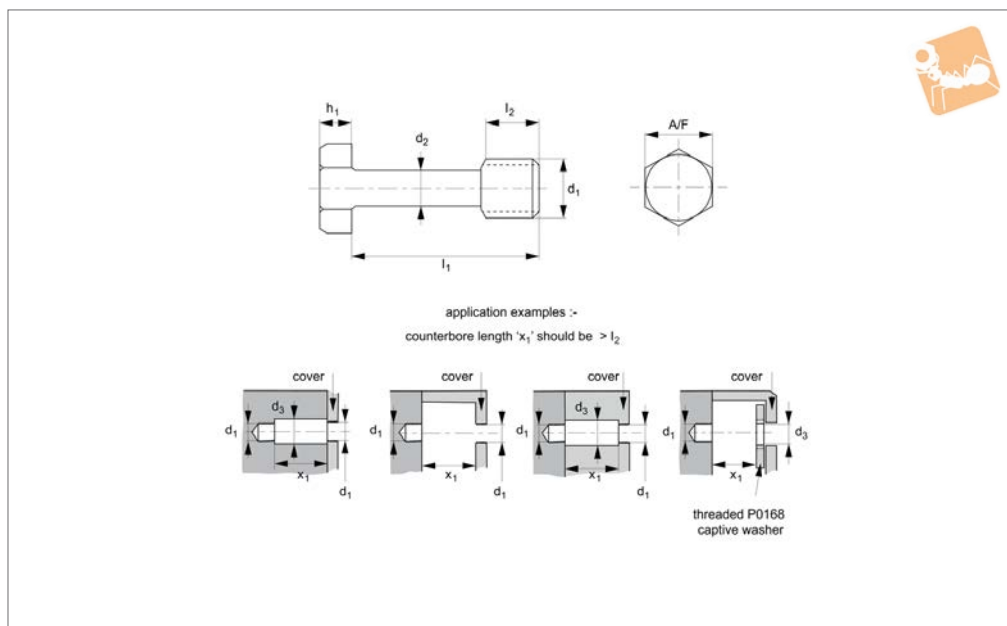


Captive Screws - Hex Bolts

titanium



Captive Screws



P0158.Ti

CAPTIVE SCREWS

Material

Titanium grade 2 (tensile strength 345 N/mm²), or grade 5 (tensile strength 900 N/mm²).

Also available on request in steel (anodised, black oxide or zinc plated) stainless steel (AISI 316, 1.440 or AISI 303, 1.4305), brass, aluminium etc.

Technical Notes

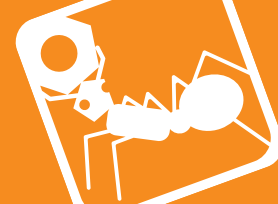
Used to comply with the Machinery Direc-

tive 2006/42/EC. Often used with our captive washer (P0168) or retaining flanges (P0169 - for sheet metal applications). The use of our captive washer should be considered when fitted in panels with unthreaded holes. T5 also available on request. Replace -T2 with -T5 at the end of part number.

Important Notes

Please note that these screws have a reduced diameter shank and should not be tightened to the recommended torque for an equivalent machine screw of size d₁.

Order No.	d ₁	l ₁ ±0.25	d ₂ ±0.12	l ₂ ±0.25	d ₃ min.	h ₁ max.	A/F	Material
P0158.030-010-T2	M 3	10	2.0	4.5	3.5	2.2	6	Grade 2
P0158.030-016-T2	M 3	16	2.0	4.5	3.5	2.2	6	Grade 2
P0158.030-020-T2	M 3	20	2.0	4.5	3.5	2.2	6	Grade 2
P0158.030-025-T2	M 3	25	2.0	4.5	3.5	2.2	6	Grade 2
P0158.030-030-T2	M 3	30	2.0	4.5	3.5	2.2	6	Grade 2
P0158.030-040-T2	M 3	40	2.0	4.5	3.5	2.2	6	Grade 2
P0158.040-012-T2	M 4	12	2.8	6.0	4.5	2.9	7	Grade 2
P0158.040-016-T2	M 4	16	2.8	6.0	4.5	2.9	7	Grade 2
P0158.040-020-T2	M 4	20	2.8	6.0	4.5	2.9	7	Grade 2
P0158.040-025-T2	M 4	25	2.8	6.0	4.5	2.9	7	Grade 2
P0158.040-030-T2	M 4	30	2.8	8.0	4.5	2.9	7	Grade 2
P0158.040-035-T2	M 4	35	2.8	8.0	4.5	2.9	7	Grade 2
P0158.040-040-T2	M 4	40	2.8	8.0	4.5	2.9	7	Grade 2
P0158.040-050-T2	M 4	50	2.8	8.0	4.5	2.9	7	Grade 2
P0158.040-060-T2	M 4	60	2.8	8.0	4.5	2.9	7	Grade 2
P0158.050-012-T2	M 5	12	3.7	7.5	5.5	3.6	8	Grade 2
P0158.050-016-T2	M 5	16	3.7	7.5	5.5	3.6	8	Grade 2
P0158.050-020-T2	M 5	20	3.7	7.5	5.5	3.6	8	Grade 2
P0158.050-025-T2	M 5	25	3.7	7.5	5.5	3.6	8	Grade 2
P0158.050-030-T2	M 5	30	3.7	10.0	5.5	3.6	8	Grade 2
P0158.050-035-T2	M 5	35	3.7	10.0	5.5	3.6	8	Grade 2
P0158.050-040-T2	M 5	40	3.7	10.0	5.5	3.6	8	Grade 2
P0158.050-050-T2	M 5	50	3.7	10.0	5.5	3.6	8	Grade 2
P0158.050-060-T2	M 5	60	3.7	10.0	5.5	3.6	8	Grade 2
P0158.060-012-T2	M 6	12	4.2	7.5	6.5	4.1	10	Grade 2
P0158.060-016-T2	M 6	16	4.2	7.5	6.5	4.1	10	Grade 2



Order No.	d ₁	l ₁ ±0.25	d ₂ ±0.12	l ₂ ±0.25	d ₃ min.	h ₁ max.	A/F	Material
P0158.060-020-T2	M 6	20	4.2	7.5	6.5	4.1	10	Grade 2
P0158.060-025-T2	M 6	25	4.2	7.5	6.5	4.1	10	Grade 2
P0158.060-030-T2	M 6	30	4.2	7.5	6.5	4.1	10	Grade 2
P0158.060-035-T2	M 6	35	4.2	7.5	6.5	4.1	10	Grade 2
P0158.060-040-T2	M 6	40	4.2	7.5	6.5	4.1	10	Grade 2
P0158.060-050-T2	M 6	50	4.2	7.5	6.5	4.1	10	Grade 2
P0158.060-060-T2	M 6	60	4.2	7.5	6.5	4.1	10	Grade 2
P0158.060-080-T2	M 6	80	4.2	7.5	6.5	4.1	10	Grade 2
P0158.080-016-T2	M 8	16	6.0	10.0	8.5	5.3	13	Grade 2
P0158.080-020-T2	M 8	20	6.0	10.0	8.5	5.3	13	Grade 2
P0158.080-025-T2	M 8	25	6.0	10.0	8.5	5.3	13	Grade 2
P0158.080-030-T2	M 8	30	6.0	10.0	8.5	5.3	13	Grade 2
P0158.080-035-T2	M 8	35	6.0	10.0	8.5	5.3	13	Grade 2
P0158.080-040-T2	M 8	40	6.0	10.0	8.5	5.3	13	Grade 2
P0158.080-050-T2	M 8	50	6.0	10.0	8.5	5.3	13	Grade 2
P0158.080-060-T2	M 8	60	6.0	10.0	8.5	5.3	13	Grade 2
P0158.080-080-T2	M 8	80	6.0	10.0	8.5	5.3	13	Grade 2
P0158.100-020-T2	M10	20	7.5	12.5	10.6	6.4	17	Grade 2
P0158.100-025-T2	M10	25	7.5	12.5	10.6	6.4	17	Grade 2
P0158.100-030-T2	M10	30	7.5	12.5	10.6	6.4	17	Grade 2
P0158.100-035-T2	M10	35	7.5	12.0	10.6	6.4	17	Grade 2
P0158.100-040-T2	M10	40	7.5	12.5	10.6	6.4	17	Grade 2
P0158.100-050-T2	M10	50	7.5	12.5	10.6	6.4	17	Grade 2
P0158.100-060-T2	M10	60	7.5	12.5	10.6	6.4	17	Grade 2
P0158.100-080-T2	M10	80	7.5	12.5	10.6	6.4	17	Grade 2
P0158.120-025-T2	M12	25	8.0	15.0	13.2	7.5	19	Grade 2
P0158.120-030-T2	M12	30	8.0	15.0	13.2	7.5	19	Grade 2
P0158.120-035-T2	M12	35	8.0	15.0	13.2	7.5	19	Grade 2
P0158.120-040-T2	M12	40	8.0	15.0	13.2	7.5	19	Grade 2
P0158.120-050-T2	M12	50	8.0	15.0	13.2	7.5	19	Grade 2
P0158.120-060-T2	M12	60	8.0	15.0	13.2	7.5	19	Grade 2
P0158.120-080-T2	M12	80	8.0	15.0	13.2	7.5	19	Grade 2
P0158.030-010-T5	M 3	10	2.0	4.5	3.5	2.2	6	Grade 5
P0158.030-016-T5	M 3	16	2.0	4.5	3.5	2.2	6	Grade 5
P0158.030-020-T5	M 3	20	2.0	4.5	3.5	2.2	6	Grade 5
P0158.030-025-T5	M 3	25	2.0	4.5	3.5	2.2	6	Grade 5
P0158.030-030-T5	M 3	30	2.0	4.5	3.5	2.2	6	Grade 5
P0158.030-040-T5	M 3	40	2.0	4.5	3.5	2.2	6	Grade 5
P0158.040-012-T5	M 4	12	2.8	6.0	4.5	2.9	7	Grade 5
P0158.040-016-T5	M 4	16	2.8	6.0	4.5	2.9	7	Grade 5
P0158.040-020-T5	M 4	20	2.8	6.0	4.5	2.9	7	Grade 5
P0158.040-025-T5	M 4	25	2.8	6.0	4.5	2.9	7	Grade 5
P0158.040-030-T5	M 4	30	2.8	8.0	4.5	2.9	7	Grade 5
P0158.040-035-T5	M 4	35	2.8	8.0	4.5	2.9	7	Grade 5
P0158.040-040-T5	M 4	40	2.8	8.0	4.5	2.9	7	Grade 5
P0158.040-050-T5	M 4	50	2.8	8.0	4.5	2.9	7	Grade 5
P0158.040-060-T5	M 4	60	2.8	8.0	4.5	2.9	7	Grade 5
P0158.050-012-T5	M 5	12	3.7	7.5	5.5	3.6	8	Grade 5
P0158.050-016-T5	M 5	16	3.7	7.5	5.5	3.6	8	Grade 5
P0158.050-020-T5	M 5	20	3.7	7.5	5.5	3.6	8	Grade 5
P0158.050-025-T5	M 5	25	3.7	7.5	5.5	3.6	8	Grade 5
P0158.050-030-T5	M 5	30	3.7	10.0	5.5	3.6	8	Grade 5
P0158.050-035-T5	M 5	35	3.7	10.0	5.5	3.6	8	Grade 5
P0158.050-040-T5	M 5	40	3.7	10.0	5.5	3.6	8	Grade 5
P0158.050-050-T5	M 5	50	3.7	10.0	5.5	3.6	8	Grade 5
P0158.050-060-T5	M 5	60	3.7	10.0	5.5	3.6	8	Grade 5
P0158.060-012-T5	M 6	12	4.2	7.5	6.5	4.1	10	Grade 5
P0158.060-016-T5	M 6	16	4.2	7.5	6.5	4.1	10	Grade 5
P0158.060-020-T5	M 6	20	4.2	7.5	6.5	4.1	10	Grade 5
P0158.060-025-T5	M 6	25	4.2	7.5	6.5	4.1	10	Grade 5
P0158.060-030-T5	M 6	30	4.2	7.5	6.5	4.1	10	Grade 5
P0158.060-035-T5	M 6	35	4.2	7.5	6.5	4.1	10	Grade 5
P0158.060-040-T5	M 6	40	4.2	7.5	6.5	4.1	10	Grade 5
P0158.060-050-T5	M 6	50	4.2	7.5	6.5	4.1	10	Grade 5
P0158.060-060-T5	M 6	60	4.2	7.5	6.5	4.1	10	Grade 5
P0158.060-080-T5	M 6	80	4.2	7.5	6.5	4.1	10	Grade 5
P0158.080-016-T5	M 8	16	6.0	10.0	8.5	5.3	13	Grade 5
P0158.080-020-T5	M 8	20	6.0	10.0	8.5	5.3	13	Grade 5



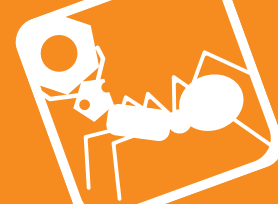
Captive Screws - Hex Bolts

titanium

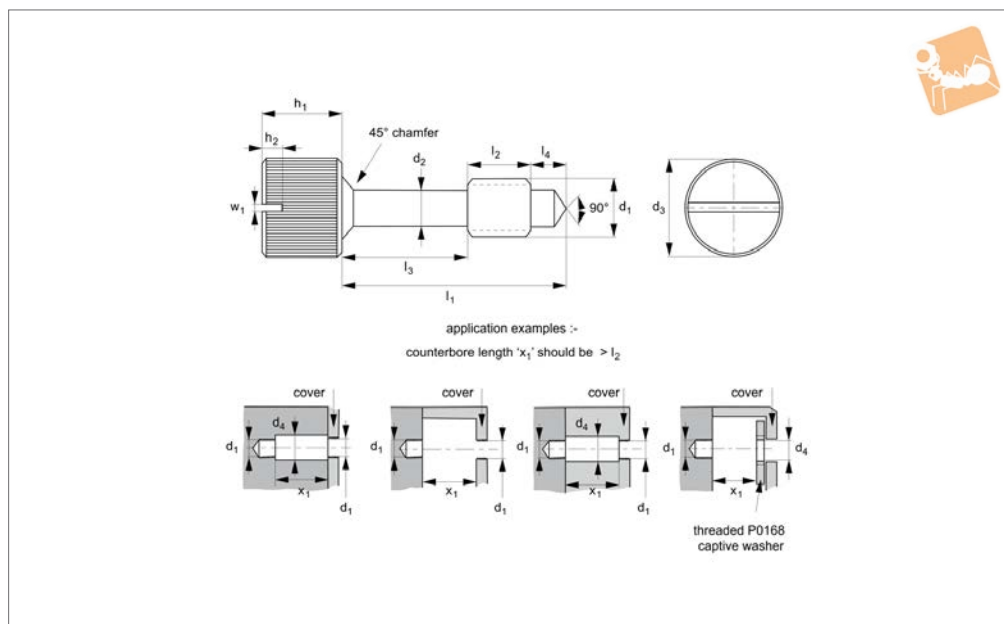


Order No.	d ₁	l ₁ ±0.25	d ₂ ±0.12	l ₂ ±0.25	d ₃ min.	h ₁ max.	A/F	Material
P0158.080-025-T5	M 8	25	6.0	10.0	8.5	5.3	13	Grade 5
P0158.080-030-T5	M 8	30	6.0	10.0	8.5	5.3	13	Grade 5
P0158.080-035-T5	M 8	35	6.0	10.0	8.5	5.3	13	Grade 5
P0158.080-040-T5	M 8	40	6.0	10.0	8.5	5.3	13	Grade 5
P0158.080-050-T5	M 8	50	6.0	10.0	8.5	5.3	13	Grade 5
P0158.080-060-T5	M 8	60	6.0	10.0	8.5	5.3	13	Grade 5
P0158.080-080-T5	M 8	80	6.0	10.0	8.5	5.3	13	Grade 5
P0158.100-020-T5	M10	20	7.5	12.5	10.6	6.4	17	Grade 5
P0158.100-025-T5	M10	25	7.5	12.5	10.6	6.4	17	Grade 5
P0158.100-030-T5	M10	30	7.5	12.5	10.6	6.4	17	Grade 5
P0158.100-035-T5	M10	35	7.5	12.0	10.6	6.4	17	Grade 5
P0158.100-040-T5	M10	40	7.5	12.5	10.6	6.4	17	Grade 5
P0158.100-050-T5	M10	50	7.5	12.5	10.6	6.4	17	Grade 5
P0158.100-060-T5	M10	60	7.5	12.5	10.6	6.4	17	Grade 5
P0158.100-080-T5	M10	80	7.5	12.5	10.6	6.4	17	Grade 5
P0158.120-025-T5	M12	25	8.0	15.0	13.2	7.5	19	Grade 5
P0158.120-030-T5	M12	30	8.0	15.0	13.2	7.5	19	Grade 5
P0158.120-035-T5	M12	35	8.0	15.0	13.2	7.5	19	Grade 5
P0158.120-040-T5	M12	40	8.0	15.0	13.2	7.5	19	Grade 5
P0158.120-050-T5	M12	50	8.0	15.0	13.2	7.5	19	Grade 5
P0158.120-060-T5	M12	60	8.0	15.0	13.2	7.5	19	Grade 5
P0158.120-080-T5	M12	80	8.0	15.0	13.2	7.5	19	Grade 5

CAPTIVE SCREWS



P0159.Ti



Material

Titanium grade 2 (tensile strength 345 N/mm²), or grade 5 (tensile strength 900 N/mm²).

Also available on request in steel (anodised, black oxide or zinc plated) stainless steel (AISI 316, 1.440 or AISI

303, 1.4305), brass, aluminium etc.

Technical Notes

Used to comply with the Machinery Directive 2006/42/EC. Often used with our captive washer (P0168) or retaining flanges (P0169 - for sheet metal applica-

tions). The use of our captive washer should be considered when fitted in panels with unthreaded holes.

T5 also available on request.

Replace -T2 with -T5 at the end of part number.

Order No.	d_1	l_1 ± 0.25	d_2 ± 0.12	l_2 ± 0.25	d_3	d_4 min.	h_1	h_2	l_3	l_4	w_1	Material
P0159.030-010-T2	M 3	10	2	3.2	6.5	3.5	6.5	2.0	4.8	2.0	1.2	Grade 2
P0159.030-014-T2	M 3	14	2	3.2	6.5	3.5	6.5	2.0	8.8	2.0	1.2	Grade 2
P0159.030-016-T2	M 3	16	2	3.2	6.5	3.5	6.5	2.0	10.8	2.0	1.2	Grade 2
P0159.030-020-T2	M 3	20	2	3.2	6.5	3.5	6.5	2.0	14.8	2.0	1.2	Grade 2
P0159.030-022-T2	M 3	22	2	3.2	6.5	3.5	6.5	2.0	16.8	2.0	1.2	Grade 2
P0159.030-024-T2	M 3	24	2	3.2	6.5	3.5	6.5	2.0	18.8	2.0	1.2	Grade 2
P0159.030-026-T2	M 3	26	2	3.2	6.5	3.5	6.5	2.0	20.8	2.0	1.2	Grade 2
P0159.031-010-T2	M 3	10	2	3.2	8	3.5	8.0	2.0	4.8	2.0	1.2	Grade 2
P0159.031-014-T2	M 3	14	2	3.2	8	3.5	8.0	2.0	8.8	2.0	1.2	Grade 2
P0159.031-016-T2	M 3	16	2	3.2	8	3.5	8.0	2.0	10.8	2.0	1.2	Grade 2
P0159.031-020-T2	M 3	20	2	3.2	8	3.5	8.0	2.0	14.8	2.0	1.2	Grade 2
P0159.031-022-T2	M 3	22	2	3.2	8	3.5	8.0	2.0	16.8	2.0	1.2	Grade 2
P0159.031-024-T2	M 3	24	2	3.2	8	3.5	8.0	2.0	18.8	2.0	1.2	Grade 2
P0159.040-010-T2	M 4	10	3	5.5	8	4.5	8.0	2.0	2.0	2.5	1.2	Grade 2
P0159.040-014-T2	M 4	14	3	5.5	8	4.5	8.0	2.0	6.0	2.5	1.2	Grade 2
P0159.040-016-T2	M 4	16	3	5.5	8	4.5	8.0	2.0	8.0	2.5	1.2	Grade 2
P0159.040-020-T2	M 4	20	3	5.5	8	4.5	8.0	2.0	12.0	2.5	1.2	Grade 2
P0159.040-022-T2	M 4	22	3	5.5	8	4.5	8.0	2.0	14.0	2.5	1.2	Grade 2
P0159.040-024-T2	M 4	24	3	5.5	8	4.5	8.0	2.0	16.0	2.5	1.2	Grade 2
P0159.040-027-T2	M 4	27	3	5.5	8	4.5	8.0	2.0	19.0	2.5	1.2	Grade 2
P0159.040-032-T2	M 4	32	3	5.5	8	4.5	8.0	2.0	24.0	2.5	1.2	Grade 2
P0159.050-014-T2	M 5	14	3.5	6.5	10	5.5	10.0	2.5	3.5	4.0	1.5	Grade 2
P0159.050-016-T2	M 5	16	3.5	6.5	10	5.5	10.0	2.5	5.5	4.0	1.5	Grade 2
P0159.050-020-T2	M 5	20	3.5	6.5	10	5.5	10.0	2.5	9.5	4.0	1.5	Grade 2
P0159.050-022-T2	M 5	22	3.5	6.5	10	5.5	10.0	2.5	11.5	4.0	1.5	Grade 2
P0159.050-024-T2	M 5	24	3.5	6.5	10	5.5	10.0	2.5	13.5	4.0	1.5	Grade 2
P0159.050-027-T2	M 5	27	3.5	6.5	10	5.5	10.0	2.5	16.5	4.0	1.5	Grade 2
P0159.050-032-T2	M 5	32	3.5	6.5	10	5.5	10.0	2.5	21.5	4.0	1.5	Grade 2
P0159.050-035-T2	M 5	35	3.5	6.5	10	5.5	10.0	2.5	24.5	4.0	1.5	Grade 2
P0159.050-040-T2	M 5	40	3.5	6.5	10	5.5	10.0	2.5	29.5	4.0	1.5	Grade 2
P0159.060-016-T2	M 6	16	4.5	8.0	12	6.5	15.0	2.5	3.0	5.0	2.0	Grade 2



Captive Panel Thumb Screws

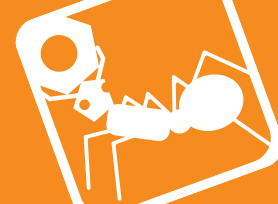
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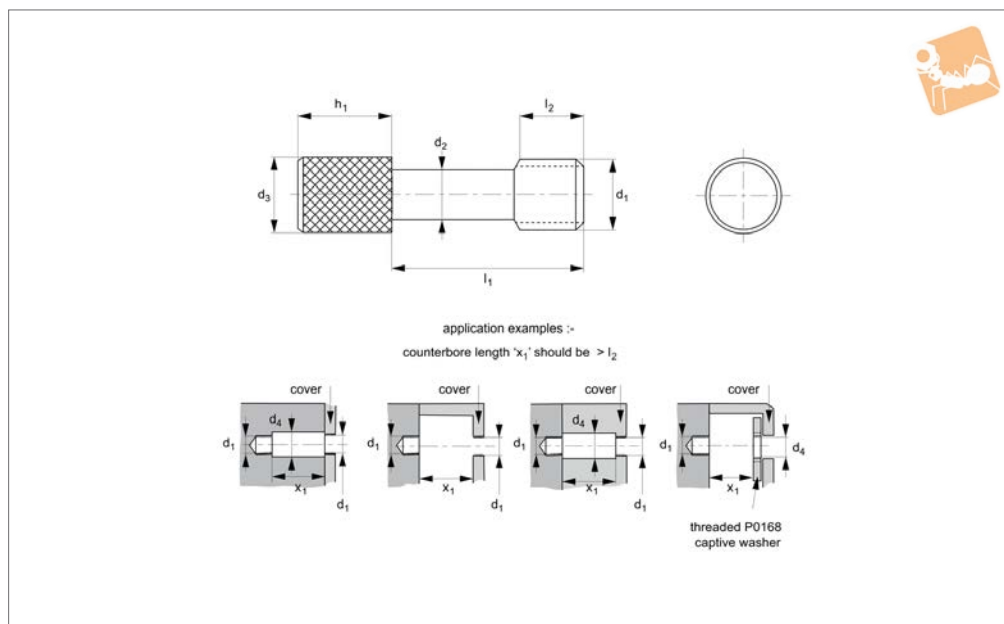
Captive Screws

Order No.	d ₁	l ₁ ±0.25	d ₂ ±0.12	l ₂ ±0.25	d ₃	d ₄ min.	h ₁	h ₂	l ₃	l ₄	w ₁	Material
P0159.060-020-T2	M 6	20	4.5	8.0	12	6.5	15.0	2.5	7.0	5.0	2.0	Grade 2
P0159.060-022-T2	M 6	22	4.5	8.0	12	6.5	15.0	2.5	9.0	5.0	2.0	Grade 2
P0159.060-024-T2	M 6	24	4.5	8.0	12	6.5	15.0	2.5	11.0	5.0	2.0	Grade 2
P0159.060-027-T2	M 6	27	4.5	8.0	12	6.5	15.0	2.5	14.0	5.0	2.0	Grade 2
P0159.060-032-T2	M 6	32	4.5	8.0	12	6.5	15.0	2.5	19.0	5.0	2.0	Grade 2
P0159.060-035-T2	M 6	35	4.5	8.0	12	6.5	15.0	2.5	22.0	5.0	2.0	Grade 2
P0159.060-040-T2	M 6	40	4.5	8.0	12	6.5	15.0	2.5	27.0	8.5	2.0	Grade 2
P0159.060-045-T2	M 6	45	4.5	8.0	12	6.5	15.0	2.5	32.0	8.5	2.0	Grade 2
P0159.060-050-T2	M 6	50	4.5	8.0	12	6.5	15.0	2.5	37.0	8.5	2.0	Grade 2
P0159.030-010-T5	M 3	10	2	3.2	6.5	3.5	6.5	2.0	4.8	2.0	1.2	Grade 5
P0159.030-014-T5	M 3	14	2	3.2	6.5	3.5	6.5	2.0	8.8	2.0	1.2	Grade 5
P0159.030-016-T5	M 3	16	2	3.2	6.5	3.5	6.5	2.0	10.8	2.0	1.2	Grade 5
P0159.030-020-T5	M 3	20	2	3.2	6.5	3.5	6.5	2.0	14.8	2.0	1.2	Grade 5
P0159.030-022-T5	M 3	22	2	3.2	6.5	3.5	6.5	2.0	16.8	2.0	1.2	Grade 5
P0159.030-024-T5	M 3	24	2	3.2	6.5	3.5	6.5	2.0	18.8	2.0	1.2	Grade 5
P0159.030-026-T5	M 3	26	2	3.2	6.5	3.5	6.5	2.0	20.8	2.0	1.2	Grade 5
P0159.031-010-T5	M 3	10	2	3.2	8	3.5	8.0	2.0	4.8	2.0	1.2	Grade 5
P0159.031-014-T5	M 3	14	2	3.2	8	3.5	8.0	2.0	8.8	2.0	1.2	Grade 5
P0159.031-016-T5	M 3	16	2	3.2	8	3.5	8.0	2.0	10.8	2.0	1.2	Grade 5
P0159.031-020-T5	M 3	20	2	3.2	8	3.5	8.0	2.0	14.8	2.0	1.2	Grade 5
P0159.031-022-T5	M 3	22	2	3.2	8	3.5	8.0	2.0	16.8	2.0	1.2	Grade 5
P0159.031-024-T5	M 3	24	2	3.2	8	3.5	8.0	2.0	18.8	2.0	1.2	Grade 5
P0159.040-010-T5	M 4	10	3	5.5	8	4.5	8.0	2.0	2.0	2.5	1.2	Grade 5
P0159.040-014-T5	M 4	14	3	5.5	8	4.5	8.0	2.0	6.0	2.5	1.2	Grade 5
P0159.040-016-T5	M 4	16	3	5.5	8	4.5	8.0	2.0	8.0	2.5	1.2	Grade 5
P0159.040-020-T5	M 4	20	3	5.5	8	4.5	8.0	2.0	12.0	2.5	1.2	Grade 5
P0159.040-022-T5	M 4	22	3	5.5	8	4.5	8.0	2.0	14.0	2.5	1.2	Grade 5
P0159.040-024-T5	M 4	24	3	5.5	8	4.5	8.0	2.0	16.0	2.5	1.2	Grade 5
P0159.040-027-T5	M 4	27	3	5.5	8	4.5	8.0	2.0	19.0	2.5	1.2	Grade 5
P0159.040-032-T5	M 4	32	3	5.5	8	4.5	8.0	2.0	24.0	2.5	1.2	Grade 5
P0159.050-014-T5	M 5	14	3.5	6.5	10	5.5	10.0	2.5	3.5	4.0	1.5	Grade 5
P0159.050-016-T5	M 5	16	3.5	6.5	10	5.5	10.0	2.5	5.5	4.0	1.5	Grade 5
P0159.050-020-T5	M 5	20	3.5	6.5	10	5.5	10.0	2.5	9.5	4.0	1.5	Grade 5
P0159.050-022-T5	M 5	22	3.5	6.5	10	5.5	10.0	2.5	11.5	4.0	1.5	Grade 5
P0159.050-024-T5	M 5	24	3.5	6.5	10	5.5	10.0	2.5	13.5	4.0	1.5	Grade 5
P0159.050-027-T5	M 5	27	3.5	6.5	10	5.5	10.0	2.5	16.5	4.0	1.5	Grade 5
P0159.050-032-T5	M 5	32	3.5	6.5	10	5.5	10.0	2.5	21.5	4.0	1.5	Grade 5
P0159.050-035-T5	M 5	35	3.5	6.5	10	5.5	10.0	2.5	24.5	4.0	1.5	Grade 5
P0159.050-040-T5	M 5	40	3.5	6.5	10	5.5	10.0	2.5	29.5	4.0	1.5	Grade 5
P0159.060-016-T5	M 6	16	4.5	8.0	12	6.5	15.0	2.5	3.0	5.0	2.0	Grade 5
P0159.060-020-T5	M 6	20	4.5	8.0	12	6.5	15.0	2.5	7.0	5.0	2.0	Grade 5
P0159.060-022-T5	M 6	22	4.5	8.0	12	6.5	15.0	2.5	9.0	5.0	2.0	Grade 5
P0159.060-024-T5	M 6	24	4.5	8.0	12	6.5	15.0	2.5	11.0	5.0	2.0	Grade 5
P0159.060-027-T5	M 6	27	4.5	8.0	12	6.5	15.0	2.5	14.0	5.0	2.0	Grade 5
P0159.060-032-T5	M 6	32	4.5	8.0	12	6.5	15.0	2.5	19.0	5.0	2.0	Grade 5
P0159.060-035-T5	M 6	35	4.5	8.0	12	6.5	15.0	2.5	22.0	5.0	2.0	Grade 5
P0159.060-040-T5	M 6	40	4.5	8.0	12	6.5	15.0	2.5	27.0	8.5	2.0	Grade 5
P0159.060-045-T5	M 6	45	4.5	8.0	12	6.5	15.0	2.5	32.0	8.5	2.0	Grade 5
P0159.060-050-T5	M 6	50	4.5	8.0	12	6.5	15.0	2.5	37.0	8.5	2.0	Grade 5

CAPTIVE SCREWS



P0160.A2



Material

Stainless steel (AISI 303, 1.4305). Tensile strength 550 N/mm². Proof stress min. 190 N/mm², austenitic stainless steel. Also available on request in steel (anodised, black oxide or zinc plated), stainless steel (AISI 316, 1.440), brass, aluminium etc.

Technical Notes

Used to comply with the Machinery Directive 2006/42/EC. Often used with our captive washers (P0168) or retaining flanges (P0169 - for sheet metal applications). The use of our captive washers should be considered when fitted in panels with unthreaded holes.

Important Notes

Please note that these screws have a reduced diameter shank and should not be tightened to the recommended torque for an equivalent machine screw of size d₁.

Order No.	d ₁	d ₂ ±0.12	l ₁ ±0.25	l ₂ ±0.25	d ₃	d ₄ min.	h ₁
P0160.030-016-A2	M 3	2.0	16	8.0	5	3.5	10
P0160.030-020-A2	M 3	2.0	20	10.0	5	3.5	10
P0160.030-025-A2	M 3	2.0	25	12.5	5	3.5	10
P0160.030-030-A2	M 3	2.0	30	15.0	5	3.5	10
P0160.030-035-A2	M 3	2.0	35	17.5	5	3.5	10
P0160.030-040-A2	M 3	2.0	40	20.0	5	3.5	10
P0160.030-050-A2	M 3	2.0	50	25.0	5	3.5	10
P0160.035-016-A2	M 3,5	2.3	16	8.0	5	3.8	10
P0160.035-020-A2	M 3,5	2.3	20	10.0	5	3.8	10
P0160.035-025-A2	M 3,5	2.3	25	12.5	5	3.8	10
P0160.035-030-A2	M 3,5	2.3	30	15.0	5	3.8	10
P0160.035-035-A2	M 3,5	2.3	35	17.5	5	3.8	10
P0160.035-040-A2	M 3,5	2.3	40	20.0	5	3.8	10
P0160.035-050-A2	M 3,5	2.3	50	25.0	5	3.8	10
P0160.040-016-A2	M 4	2.8	16	8.0	5	4.5	10
P0160.040-020-A2	M 4	2.8	20	10.0	5	4.5	10
P0160.040-025-A2	M 4	2.8	25	12.5	5	4.5	10
P0160.040-030-A2	M 4	2.8	30	15.0	5	4.5	10
P0160.040-035-A2	M 4	2.8	35	17.5	5	4.5	10
P0160.040-040-A2	M 4	2.8	40	20.0	5	4.5	10
P0160.040-050-A2	M 4	2.8	50	25.0	5	4.5	10
P0160.050-016-A2	M 5	3.7	16	8.0	6	5.5	12
P0160.050-020-A2	M 5	3.7	20	10.0	6	5.5	12
P0160.050-025-A2	M 5	3.7	25	12.5	6	5.5	12
P0160.050-030-A2	M 5	3.7	30	15.0	6	5.5	12
P0160.050-035-A2	M 5	3.7	35	17.5	6	5.5	12
P0160.050-040-A2	M 5	3.7	40	24.0	6	5.5	12
P0160.050-050-A2	M 5	3.7	50	25.0	6	5.5	12
P0160.060-016-A2	M 6	4.2	16	8.0	8	6.5	12



Captive Thumb Screws

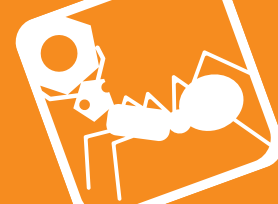
303 stainless



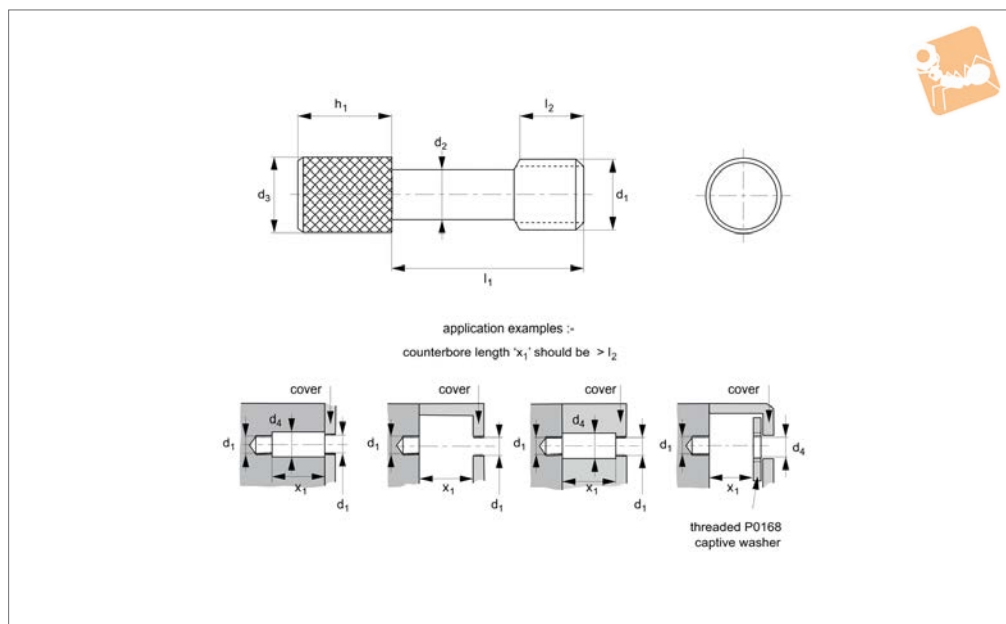
Captive Screws

Order No.	d ₁	d ₂ ±0.12	l ₁ ±0.25	l ₂ ±0.25	d ₃	d ₄ min.	h ₁
P0160.060-020-A2	M 6	4.2	20	10.0	8	6.5	12
P0160.060-025-A2	M 6	4.2	25	12.5	8	6.5	12
P0160.060-030-A2	M 6	4.2	30	15.0	8	6.5	12
P0160.060-035-A2	M 6	4.2	35	17.5	8	6.5	12
P0160.060-040-A2	M 6	4.2	40	20.0	8	6.5	12
P0160.060-050-A2	M 6	4.2	50	25.0	8	6.5	12
P0160.080-016-A2	M 8	6.0	16	8.0	10	8.5	16
P0160.080-020-A2	M 8	6.0	20	10.0	10	8.5	16
P0160.080-025-A2	M 8	6.0	25	12.5	10	8.5	16
P0160.080-030-A2	M 8	6.0	30	15.0	10	8.5	16
P0160.080-035-A2	M 8	6.0	35	17.5	10	8.5	16
P0160.080-040-A2	M 8	6.0	40	20.0	10	8.5	16
P0160.080-050-A2	M 8	6.0	50	25.0	10	8.5	16

CAPTIVE SCREWS



P0160.A4



Material

Stainless steel (AISI 316, 1.440).
Tensile strength 480 N/mm². Proof stress min. 200 N/mm², austenitic stainless steel.
Also available on request in steel (anodised, black oxide or zinc plated), stainless steel (AISI 303, 1.4305), brass, aluminium etc.

Technical Notes

Used to comply with the Machinery Directive 2006/42/EC. Often used with our captive washer (P0168) or retaining flanges (P0169 - for sheet metal applications). The use of our captive washer should be considered when fitted in panels with unthreaded holes.

Important Notes

Please note that these screws have a reduced diameter shank and should not be tightened to the recommended torque for an equivalent machine screw of size d₁.

Order No.	d ₁	d ₂ ±0.12	l ₁ ±0.25	l ₂ ±0.25	d ₃	d ₄ min.	h ₁
P0160.030-016-A4	M 3	2.0	16	8.0	5	3.5	10
P0160.030-020-A4	M 3	2.0	20	10.0	5	3.5	10
P0160.030-025-A4	M 3	2.0	25	12.5	5	3.5	10
P0160.030-030-A4	M 3	2.0	30	15.0	5	3.5	10
P0160.030-035-A4	M 3	2.0	35	17.5	5	3.5	10
P0160.030-040-A4	M 3	2.0	40	20.0	5	3.5	10
P0160.030-050-A4	M 3	2.0	50	25.0	5	3.5	10
P0160.035-016-A4	M 3,5	2.3	16	8.0	5	3.8	10
P0160.035-020-A4	M 3,5	2.3	20	10.0	5	3.8	10
P0160.035-025-A4	M 3,5	2.3	25	12.5	5	3.8	10
P0160.035-030-A4	M 3,5	2.3	30	15.0	5	3.8	10
P0160.035-035-A4	M 3,5	2.3	35	17.5	5	3.8	10
P0160.035-040-A4	M 3,5	2.3	40	20.0	5	3.8	10
P0160.035-050-A4	M 3,5	2.3	50	25.0	5	3.8	10
P0160.040-016-A4	M 4	2.8	16	8.0	5	4.5	10
P0160.040-020-A4	M 4	2.8	20	10.0	5	4.5	10
P0160.040-025-A4	M 4	2.8	25	12.5	5	4.5	10
P0160.040-030-A4	M 4	2.8	30	15.0	5	4.5	10
P0160.040-035-A4	M 4	2.8	35	17.5	5	4.5	10
P0160.040-040-A4	M 4	2.8	40	20.0	5	4.5	10
P0160.040-050-A4	M 4	2.8	50	25.0	5	4.5	10
P0160.050-016-A4	M 5	3.7	16	8.0	6	5.5	12
P0160.050-020-A4	M 5	3.7	20	10.0	6	5.5	12
P0160.050-025-A4	M 5	3.7	25	12.5	6	5.5	12
P0160.050-030-A4	M 5	3.7	30	15.0	6	5.5	12
P0160.050-035-A4	M 5	3.7	35	17.5	6	5.5	12
P0160.050-040-A4	M 5	3.7	40	24.0	6	5.5	12
P0160.050-050-A4	M 5	3.7	50	25.0	6	5.5	12
P0160.060-016-A4	M 6	4.2	16	8.0	8	6.5	12



Captive Thumb Screws

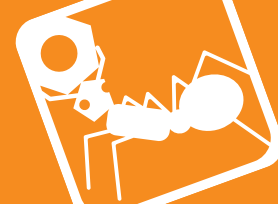
316 stainless



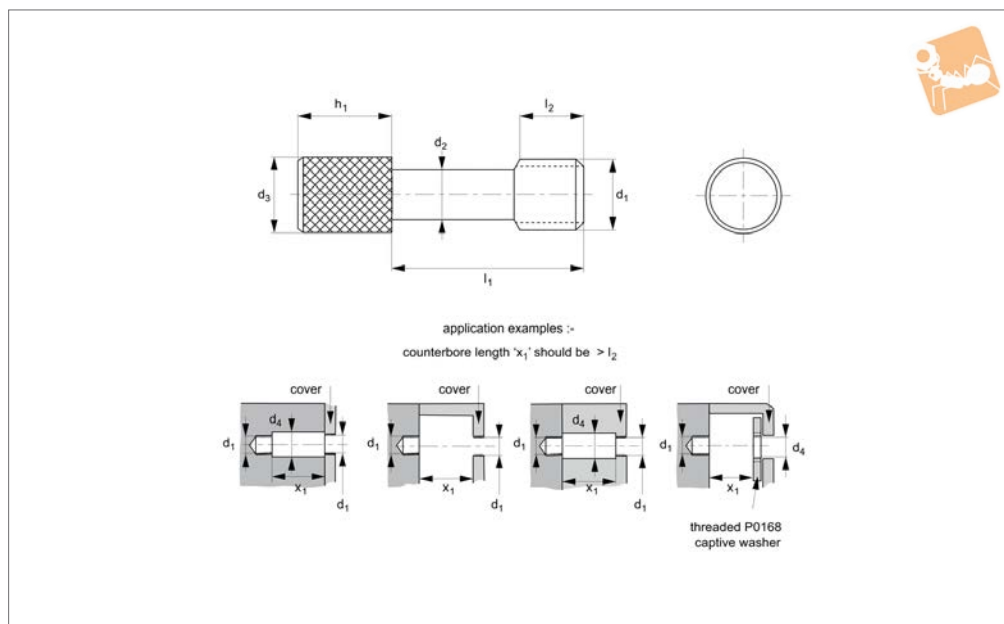
Captive Screws

Order No.	d ₁	d ₂ ±0.12	l ₁ ±0.25	l ₂ ±0.25	d ₃	d ₄ min.	h ₁
P0160.060-020-A4	M 6	4.2	20	10.0	8	6.5	12
P0160.060-025-A4	M 6	4.2	25	12.5	8	6.5	12
P0160.060-030-A4	M 6	4.2	30	15.0	8	6.5	12
P0160.060-035-A4	M 6	4.2	35	17.5	8	6.5	12
P0160.060-040-A4	M 6	4.2	40	20.0	8	6.5	12
P0160.060-050-A4	M 6	4.2	50	25.0	8	6.5	12

CAPTIVE SCREWS



P0160.B2



Material

Stainless steel (AISI 303, 1.4305), black oxide coating. Tensile strength 550 N/mm². Proof stress min. 190 N/mm², austenitic stainless steel.

Also available on request in steel (anodised, black oxide or zinc plated) stainless steel (AISI 316, 1.440), brass,

aluminium etc.

Technical Notes

Used to comply with the Machinery Directive 2006/42/EC. Often used with our captive washer (P0168) or retaining flanges (P0169 - for sheet metal applications). The use of our captive washer

should be considered when fitted in panels with unthreaded holes.

Important Notes

Please note that these screws have a reduced diameter shank and should not be tightened to the recommended torque for an equivalent machine screw of size d₁.

Order No.	d ₁	d ₂ ±0.12	l ₁ ±0.25	l ₂ ±0.25	d ₃	d ₄ min.	h ₁
P0160.030-016-B2	M 3	2.0	16	8.0	5	3.5	10
P0160.030-020-B2	M 3	2.0	20	10.0	5	3.5	10
P0160.030-025-B2	M 3	2.0	25	12.5	5	3.5	10
P0160.030-030-B2	M 3	2.0	30	15.0	5	3.5	10
P0160.030-035-B2	M 3	2.0	35	17.5	5	3.5	10
P0160.030-040-B2	M 3	2.0	40	20.0	5	3.5	10
P0160.030-050-B2	M 3	2.0	50	25.0	5	3.5	10
P0160.035-016-B2	M 3,5	2.3	16	8.0	5	3.8	10
P0160.035-020-B2	M 3,5	2.3	20	10.0	5	3.8	10
P0160.035-025-B2	M 3,5	2.3	25	12.5	5	3.8	10
P0160.035-030-B2	M 3,5	2.3	30	15.0	5	3.8	10
P0160.035-035-B2	M 3,5	2.3	35	17.5	5	3.8	10
P0160.035-040-B2	M 3,5	2.3	40	20.0	5	3.8	10
P0160.035-050-B2	M 3,5	2.3	50	25.0	5	3.8	10
P0160.040-016-B2	M 4	2.8	16	8.0	5	4.5	10
P0160.040-020-B2	M 4	2.8	20	10.0	5	4.5	10
P0160.040-025-B2	M 4	2.8	25	12.5	5	4.5	10
P0160.040-030-B2	M 4	2.8	30	15.0	5	4.5	10
P0160.040-035-B2	M 4	2.8	35	17.5	5	4.5	10
P0160.040-040-B2	M 4	2.8	40	20.0	5	4.5	10
P0160.040-050-B2	M 4	2.8	50	25.0	5	4.5	10
P0160.050-016-B2	M 5	3.7	16	8.0	6	5.5	12
P0160.050-020-B2	M 5	3.7	20	10.0	6	5.5	12
P0160.050-025-B2	M 5	3.7	25	12.5	6	5.5	12
P0160.050-030-B2	M 5	3.7	30	15.0	6	5.5	12
P0160.050-035-B2	M 5	3.7	35	17.5	6	5.5	12
P0160.050-040-B2	M 5	3.7	40	24.0	6	5.5	12
P0160.050-050-B2	M 5	3.7	50	25.0	6	5.5	12
P0160.060-016-B2	M 6	4.2	16	8.0	8	6.5	12



Captive Thumb Screws

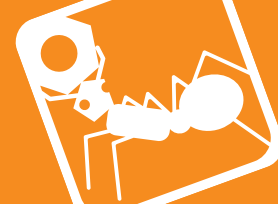
303 stainless, blackened



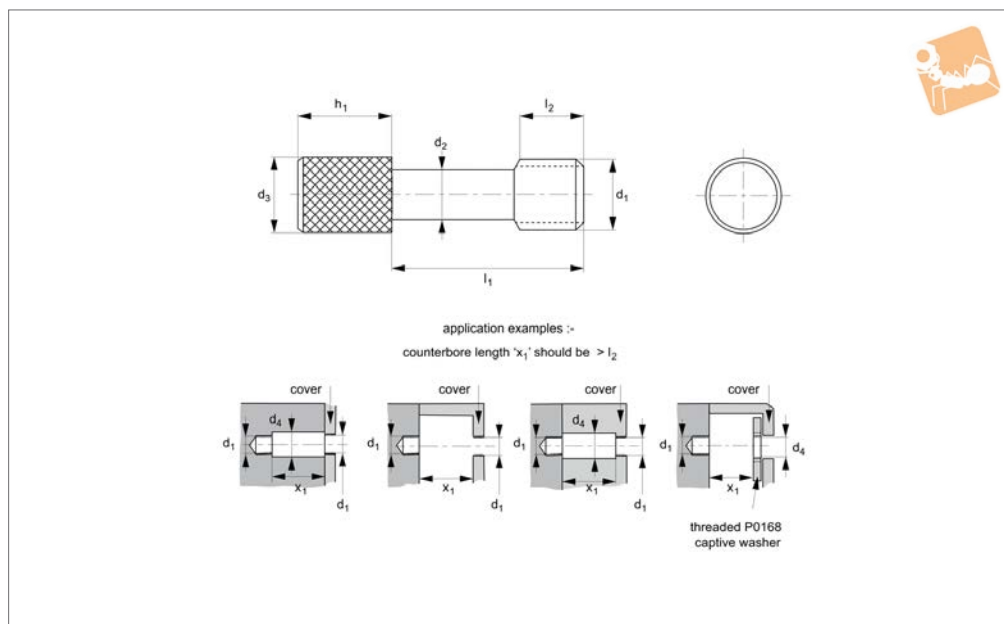
Captive Screws

Order No.	d ₁	d ₂ ±0.12	l ₁ ±0.25	l ₂ ±0.25	d ₃	d ₄ min.	h ₁
P0160.060-020-B2	M 6	4.2	20	10.0	8	6.5	12
P0160.060-025-B2	M 6	4.2	25	12.5	8	6.5	12
P0160.060-030-B2	M 6	4.2	30	15.0	8	6.5	12
P0160.060-035-B2	M 6	4.2	35	17.5	8	6.5	12
P0160.060-040-B2	M 6	4.2	40	20.0	8	6.5	12
P0160.060-050-B2	M 6	4.2	50	25.0	8	6.5	12

CAPTIVE SCREWS



P0160.B4



Material

Stainless steel (AISI 316, 1.440), black oxide coating. Tensile strength 480 N/mm². Proof stress min. 200 N/mm², austenitic stainless steel.

Also available on request in steel (anodised, black oxide or zinc plated) stainless steel (AISI 303, 1.4305), brass,

aluminium etc.

Technical Notes

Used to comply with the Machinery Directive 2006/42/EC. Often used with our captive washer (P0168) or retaining flanges (P0169 - for sheet metal applications). The use of our captive washer

should be considered when fitted in panels with unthreaded holes.

Important Notes

Please note that these screws have a reduced diameter shank and should not be tightened to the recommended torque for an equivalent machine screw of size d₁.

Order No.	d ₁	d ₂ ±0.12	l ₁ ±0.25	l ₂ ±0.25	d ₃	d ₄ min.	h ₁
P0160.030-016-B4	M 3	2.0	16	8.0	5	3.5	10
P0160.030-020-B4	M 3	2.0	20	10.0	5	3.5	10
P0160.030-025-B4	M 3	2.0	25	12.5	5	3.5	10
P0160.030-030-B4	M 3	2.0	30	15.0	5	3.5	10
P0160.030-035-B4	M 3	2.0	35	17.5	5	3.5	10
P0160.030-040-B4	M 3	2.0	40	20.0	5	3.5	10
P0160.030-050-B4	M 3	2.0	50	25.0	5	3.5	10
P0160.035-016-B4	M 3,5	2.3	16	8.0	5	3.8	10
P0160.035-020-B4	M 3,5	2.3	20	10.0	5	3.8	10
P0160.035-025-B4	M 3,5	2.3	25	12.5	5	3.8	10
P0160.035-030-B4	M 3,5	2.3	30	15.0	5	3.8	10
P0160.035-035-B4	M 3,5	2.3	35	17.5	5	3.8	10
P0160.035-040-B4	M 3,5	2.3	40	20.0	5	3.8	10
P0160.035-050-B4	M 3,5	2.3	50	25.0	5	3.8	10
P0160.040-016-B4	M 4	2.8	16	8.0	5	4.5	10
P0160.040-020-B4	M 4	2.8	20	10.0	5	4.5	10
P0160.040-025-B4	M 4	2.8	25	12.5	5	4.5	10
P0160.040-030-B4	M 4	2.8	30	15.0	5	4.5	10
P0160.040-035-B4	M 4	2.8	35	17.5	5	4.5	10
P0160.040-040-B4	M 4	2.8	40	20.0	5	4.5	10
P0160.040-050-B4	M 4	2.8	50	25.0	5	4.5	10
P0160.050-016-B4	M 5	3.7	16	8.0	6	5.5	12
P0160.050-020-B4	M 5	3.7	20	10.0	6	5.5	12
P0160.050-025-B4	M 5	3.7	25	12.5	6	5.5	12
P0160.050-030-B4	M 5	3.7	30	15.0	6	5.5	12
P0160.050-035-B4	M 5	3.7	35	17.5	6	5.5	12
P0160.050-040-B4	M 5	3.7	40	24.0	6	5.5	12
P0160.050-050-B4	M 5	3.7	50	25.0	6	5.5	12
P0160.060-016-B4	M 6	4.2	16	8.0	8	6.5	12



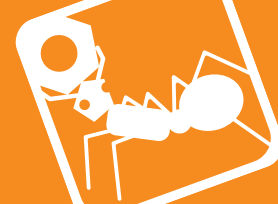
Captive Thumb Screws

316 stainless, blackened

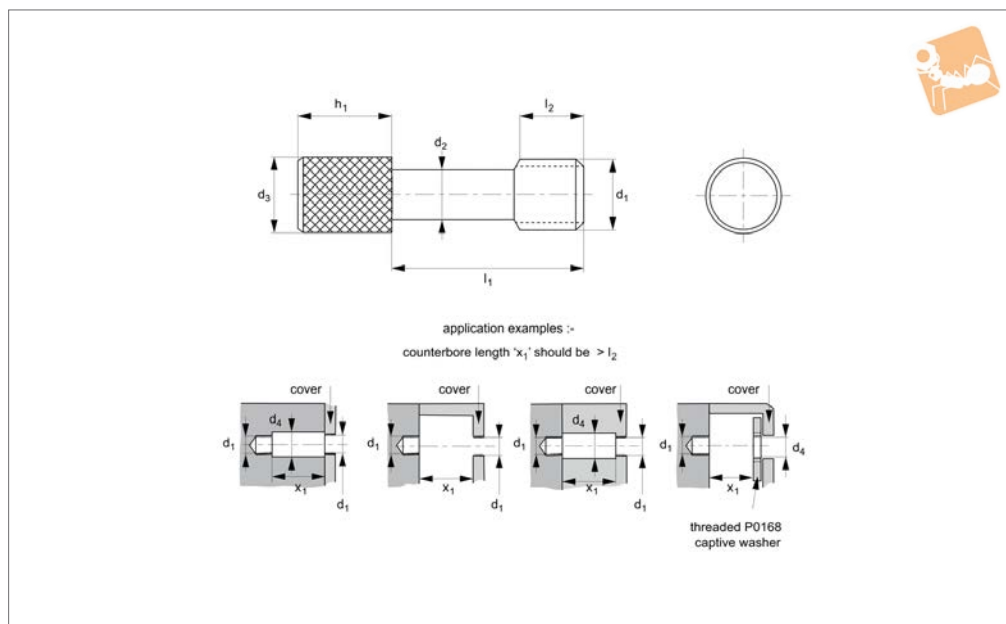


Captive Screws

Order No.	d ₁	d ₂ ±0.12	l ₁ ±0.25	l ₂ ±0.25	d ₃	d ₄ min.	h ₁
P0160.060-020-B4	M 6	4.2	20	10.0	8	6.5	12
P0160.060-025-B4	M 6	4.2	25	12.5	8	6.5	12
P0160.060-030-B4	M 6	4.2	30	15.0	8	6.5	12
P0160.060-035-B4	M 6	4.2	35	17.5	8	6.5	12
P0160.060-040-B4	M 6	4.2	40	20.0	8	6.5	12
P0160.060-050-B4	M 6	4.2	50	25.0	8	6.5	12



P0160.Ti



Material

Titanium grade 2 (tensile strength 345 N/mm²), or grade 5 (tensile strength 900 N/mm²).

Also available on request in steel (anodised, black oxide or zinc plated) stainless steel (AISI 316, 1.440 or AISI 303, 1.4305), brass, aluminium etc.

Technical Notes

Used to comply with the Machinery Direc-

tive 2006/42/EC. Often used with our captive washer (P0168) or retaining flanges (P0169 - for sheet metal applications). The use of our captive washer should be considered when fitted in panels with unthreaded holes.

T5 also available on request.

Replace -T2 with -T5 at the end of part number.

Important Notes

Please note that these screws have a reduced diameter shank and should not be tightened to the recommended torque for an equivalent machine screw of size d₁.

Order No.	d ₁	d ₂ ±0.12	l ₁ ±0.25	l ₂ ±0.25	d ₃	d ₄ min.	h ₁	Material
P0160.030-016-T2	M 3	2.0	16	8.0	5	3.5	10	Grade 2
P0160.030-020-T2	M 3	2.0	20	10.0	5	3.5	10	Grade 2
P0160.030-025-T2	M 3	2.0	25	12.5	5	3.5	10	Grade 2
P0160.030-030-T2	M 3	2.0	30	15.0	5	3.5	10	Grade 2
P0160.030-035-T2	M 3	2.0	35	17.5	5	3.5	10	Grade 2
P0160.030-040-T2	M 3	2.0	40	20.0	5	3.5	10	Grade 2
P0160.030-050-T2	M 3	2.0	50	25.0	5	3.5	10	Grade 2
P0160.035-016-T2	M 3,5	2.3	16	8.0	5	3.8	10	Grade 2
P0160.035-020-T2	M 3,5	2.3	20	10.0	5	3.8	10	Grade 2
P0160.035-025-T2	M 3,5	2.3	25	12.5	5	3.8	10	Grade 2
P0160.035-030-T2	M 3,5	2.3	30	15.0	5	3.8	10	Grade 2
P0160.035-035-T2	M 3,5	2.3	35	17.5	5	3.8	10	Grade 2
P0160.035-040-T2	M 3,5	2.3	40	20.0	5	3.8	10	Grade 2
P0160.035-050-T2	M 3,5	2.3	50	25.0	5	3.8	10	Grade 2
P0160.040-016-T2	M 4	2.8	16	8.0	5	4.5	10	Grade 2
P0160.040-020-T2	M 4	2.8	20	10.0	5	4.5	10	Grade 2
P0160.040-025-T2	M 4	2.8	25	12.5	5	4.5	10	Grade 2
P0160.040-030-T2	M 4	2.8	30	15.0	5	4.5	10	Grade 2
P0160.040-035-T2	M 4	2.8	35	17.5	5	4.5	10	Grade 2
P0160.040-040-T2	M 4	2.8	40	20.0	5	4.5	10	Grade 2
P0160.040-050-T2	M 4	2.8	50	25.0	5	4.5	10	Grade 2
P0160.050-016-T2	M 5	3.7	16	8.0	6	5.5	12	Grade 2
P0160.050-020-T2	M 5	3.7	20	10.0	6	5.5	12	Grade 2
P0160.050-025-T2	M 5	3.7	25	12.5	6	5.5	12	Grade 2
P0160.050-030-T2	M 5	3.7	30	15.0	6	5.5	12	Grade 2
P0160.050-035-T2	M 5	3.7	35	17.5	6	5.5	12	Grade 2



Captive Thumb Screws

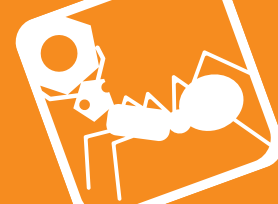
titanium



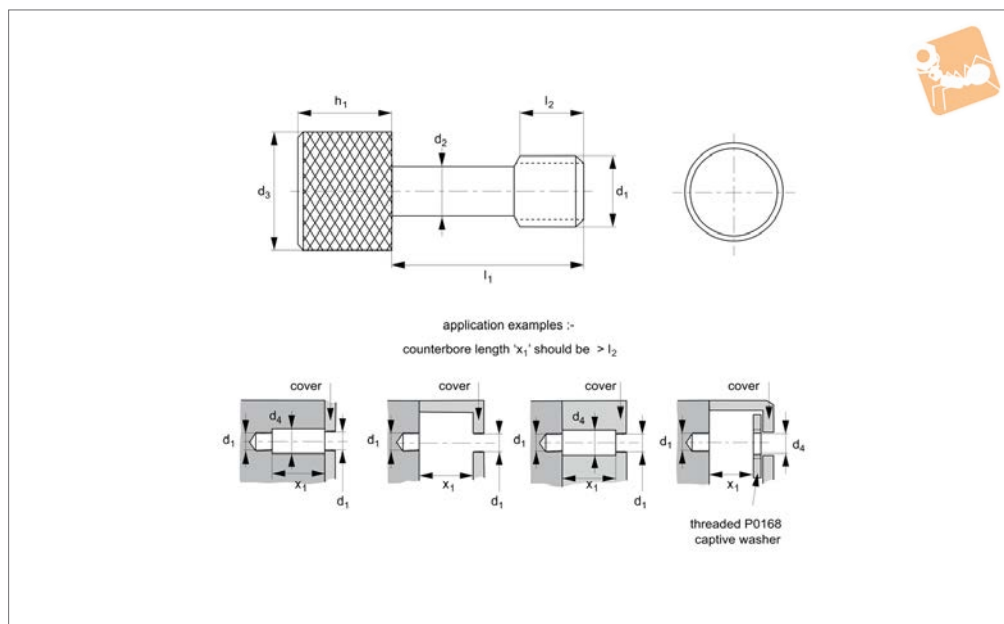
Captive Screws

Order No.	d ₁	d ₂ ±0.12	l ₁ ±0.25	l ₂ ±0.25	d ₃	d ₄ min.	h ₁	Material
P0160.050-040-T2	M 5	3.7	40	24.0	6	5.5	12	Grade 2
P0160.050-050-T2	M 5	3.7	50	25.0	6	5.5	12	Grade 2
P0160.060-016-T2	M 6	4.2	16	8.0	8	6.5	12	Grade 2
P0160.060-020-T2	M 6	4.2	20	10.0	8	6.5	12	Grade 2
P0160.060-025-T2	M 6	4.2	25	12.5	8	6.5	12	Grade 2
P0160.060-030-T2	M 6	4.2	30	15.0	8	6.5	12	Grade 2
P0160.060-035-T2	M 6	4.2	35	17.5	8	6.5	12	Grade 2
P0160.060-040-T2	M 6	4.2	40	20.0	8	6.5	12	Grade 2
P0160.060-050-T2	M 6	4.2	50	25.0	8	6.5	12	Grade 2
P0160.030-016-T5	M 3	2.0	16	8.0	5	3.5	10	Grade 5
P0160.030-020-T5	M 3	2.0	20	10.0	5	3.5	10	Grade 5
P0160.030-025-T5	M 3	2.0	25	12.5	5	3.5	10	Grade 5
P0160.030-030-T5	M 3	2.0	30	15.0	5	3.5	10	Grade 5
P0160.030-035-T5	M 3	2.0	35	17.5	5	3.5	10	Grade 5
P0160.030-040-T5	M 3	2.0	40	20.0	5	3.5	10	Grade 5
P0160.030-050-T5	M 3	2.0	50	25.0	5	3.5	10	Grade 5
P0160.035-016-T5	M 3,5	2.3	16	8.0	5	3.8	10	Grade 5
P0160.035-020-T5	M 3,5	2.3	20	10.0	5	3.8	10	Grade 5
P0160.035-025-T5	M 3,5	2.3	25	12.5	5	3.8	10	Grade 5
P0160.035-030-T5	M 3,5	2.3	30	15.0	5	3.8	10	Grade 5
P0160.035-035-T5	M 3,5	2.3	35	17.5	5	3.8	10	Grade 5
P0160.035-040-T5	M 3,5	2.3	40	20.0	5	3.8	10	Grade 5
P0160.035-050-T5	M 3,5	2.3	50	25.0	5	3.8	10	Grade 5
P0160.040-016-T5	M 4	2.8	16	8.0	5	4.5	10	Grade 5
P0160.040-020-T5	M 4	2.8	20	10.0	5	4.5	10	Grade 5
P0160.040-025-T5	M 4	2.8	25	12.5	5	4.5	10	Grade 5
P0160.040-030-T5	M 4	2.8	30	15.0	5	4.5	10	Grade 5
P0160.040-035-T5	M 4	2.8	35	17.5	5	4.5	10	Grade 5
P0160.040-040-T5	M 4	2.8	40	20.0	5	4.5	10	Grade 5
P0160.040-050-T5	M 4	2.8	50	25.0	5	4.5	10	Grade 5
P0160.050-016-T5	M 5	3.7	16	8.0	6	5.5	12	Grade 5
P0160.050-020-T5	M 5	3.7	20	10.0	6	5.5	12	Grade 5
P0160.050-025-T5	M 5	3.7	25	12.5	6	5.5	12	Grade 5
P0160.050-030-T5	M 5	3.7	30	15.0	6	5.5	12	Grade 5
P0160.050-035-T5	M 5	3.7	35	17.5	6	5.5	12	Grade 5
P0160.050-040-T5	M 5	3.7	40	24.0	6	5.5	12	Grade 5
P0160.050-050-T5	M 5	3.7	50	25.0	6	5.5	12	Grade 5
P0160.060-016-T5	M 6	4.2	16	8.0	8	6.5	12	Grade 5
P0160.060-020-T5	M 6	4.2	20	10.0	8	6.5	12	Grade 5
P0160.060-025-T5	M 6	4.2	25	12.5	8	6.5	12	Grade 5
P0160.060-030-T5	M 6	4.2	30	15.0	8	6.5	12	Grade 5
P0160.060-035-T5	M 6	4.2	35	17.5	8	6.5	12	Grade 5
P0160.060-040-T5	M 6	4.2	40	20.0	8	6.5	12	Grade 5
P0160.060-050-T5	M 6	4.2	50	25.0	8	6.5	12	Grade 5

CAPTIVE SCREWS



P0161.A2



Material

Stainless steel (AISI 303, 1.4305). Tensile strength 550 N/mm². Proof stress min. 190 N/mm², austenitic stainless steel. Also available on request in steel (anodised, black oxide or zinc plated), stainless steel (AISI 316, 1.440), brass, aluminium etc.

Technical Notes

Used to comply with the Machinery Directive 2006/42/EC. Often used with our captive washer (P0168) or retaining flanges (P0169 - for sheet metal applications). The use of our captive washer should be considered when fitted in panels with unthreaded holes.

Important Notes

Please note that these screws have a reduced diameter shank and should not be tightened to the recommended torque for an equivalent machine screw of size d₁.

Order No.	d ₁	d ₂ ±0.12	l ₁ ±0.25	l ₂ ±0.25	d ₃	d ₄ min.	h ₁
P0161.030-008-A2	M 3	2.0	8	4.5	8	3.5	5
P0161.030-010-A2	M 3	2.0	10	4.5	8	3.5	5
P0161.030-012-A2	M 3	2.0	12	4.5	8	3.5	5
P0161.030-014-A2	M 3	2.0	14	4.5	8	3.5	5
P0161.030-016-A2	M 3	2.0	16	4.5	8	3.5	5
P0161.035-008-A2	M 3,5	2.3	8	6.0	8	3.8	5
P0161.035-010-A2	M 3,5	2.3	10	6.0	8	3.8	5
P0161.035-012-A2	M 3,5	2.3	12	6.0	8	3.8	5
P0161.035-014-A2	M 3,5	2.3	14	6.0	8	3.8	5
P0161.035-016-A2	M 3,5	2.3	16	6.0	8	3.8	5
P0161.040-010-A2	M 4	2.8	10	6.0	10	4.5	5
P0161.040-012-A2	M 4	2.8	12	6.0	10	4.5	5
P0161.040-014-A2	M 4	2.8	14	6.0	10	4.5	5
P0161.040-016-A2	M 4	2.8	16	6.0	10	4.5	5
P0161.040-018-A2	M 4	2.8	18	6.0	10	4.5	5
P0161.040-020-A2	M 4	2.8	20	6.0	10	4.5	5
P0161.040-025-A2	M 4	2.8	25	6.0	10	4.5	5
P0161.050-010-A2	M 5	3.7	10	7.5	10	5.5	5
P0161.050-012-A2	M 5	3.7	12	7.5	10	5.5	5
P0161.050-014-A2	M 5	3.7	14	7.5	10	5.5	5
P0161.050-016-A2	M 5	3.7	16	7.5	10	5.5	5
P0161.050-018-A2	M 5	3.7	18	7.5	10	5.5	5
P0161.050-020-A2	M 5	3.7	20	7.5	10	5.5	5
P0161.050-025-A2	M 5	3.7	25	7.5	10	5.5	5
P0161.050-030-A2	M 5	3.7	30	7.5	10	5.5	5
P0161.060-012-A2	M 6	4.5	12	7.5	12	6.5	6
P0161.060-014-A2	M 6	4.5	14	7.5	12	6.5	6
P0161.060-016-A2	M 6	4.5	16	7.5	12	6.5	6
P0161.060-018-A2	M 6	4.5	18	7.5	12	6.5	6



Captive Thumb Screws

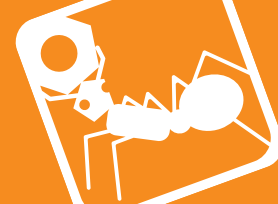
303 stainless



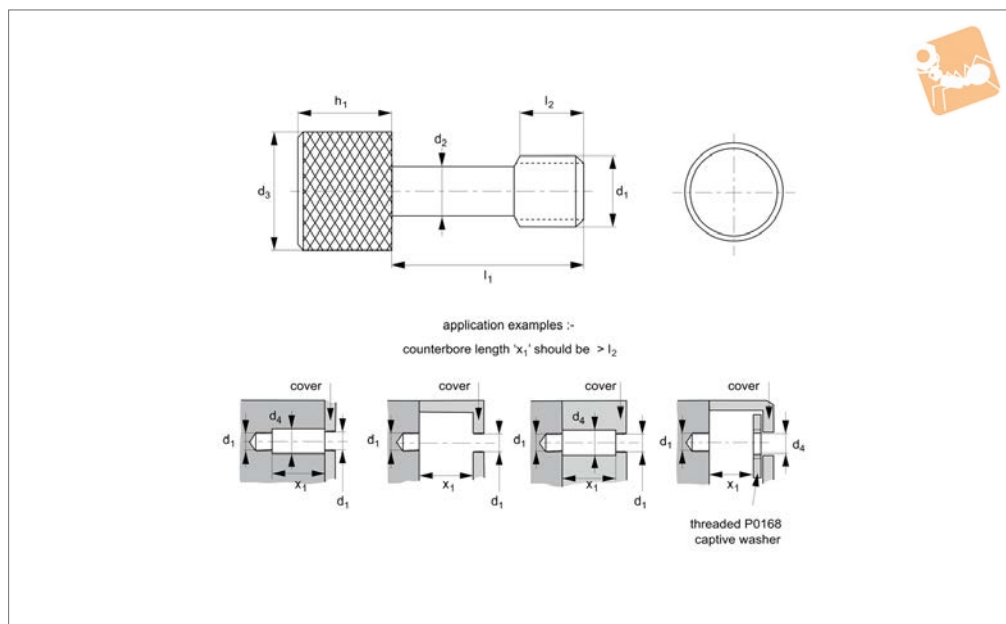
Captive Screws

Order No.	d ₁	d ₂ ±0.12	l ₁ ±0.25	l ₂ ±0.25	d ₃	d ₄ min.	h ₁
P0161.060-020-A2	M 6	4.5	20	7.5	12	6.5	6
P0161.060-025-A2	M 6	4.5	25	7.5	12	6.5	6
P0161.060-030-A2	M 6	4.5	30	7.5	12	6.5	6
P0161.080-016-A2	M 8	6.0	16	10.0	16	8.5	8
P0161.080-018-A2	M 8	6.0	18	10.0	16	8.5	8
P0161.080-020-A2	M 8	6.0	20	10.0	16	8.5	8
P0161.080-025-A2	M 8	6.0	25	10.0	16	8.5	8
P0161.080-030-A2	M 8	6.0	30	10.0	16	8.5	8
P0161.080-035-A2	M 8	6.0	35	10.0	16	8.5	8

CAPTIVE SCREWS



P0161.A4



Material

Stainless steel (AISI 316, 1.440).
Tensile strength 480 N/mm². Proof stress min. 200 N/mm², austenitic stainless steel.
Also available on request in steel (anodised, black oxide or zinc plated), stainless steel (AISI 303, 1.4305), brass, aluminium etc.

Technical Notes

Used to comply with the Machinery Directive 2006/42/EC. Often used with our captive washer (P0168) or retaining flanges (P0169 - for sheet metal applications). The use of our captive washer should be considered when fitted in panels with unthreaded holes.

Important Notes

Please note that these screws have a reduced diameter shank and should not be tightened to the recommended torque for an equivalent machine screw of size d₁.

Order No.	d ₁	d ₂ ±0.12	l ₁ ±0.25	l ₂ ±0.25	d ₃	d ₄ min.	h ₁
P0161.030-008-A4	M 3	2.0	8	4.5	8	3.5	5
P0161.030-010-A4	M 3	2.0	10	4.5	8	3.5	5
P0161.030-012-A4	M 3	2.0	12	4.5	8	3.5	5
P0161.030-014-A4	M 3	2.0	14	4.5	8	3.5	5
P0161.030-016-A4	M 3	2.0	16	4.5	8	3.5	5
P0161.035-008-A4	M3,5	2.3	8	6.0	8	3.8	5
P0161.035-010-A4	M3,5	2.3	10	6.0	8	3.8	5
P0161.035-012-A4	M3,5	2.3	12	6.0	8	3.8	5
P0161.035-014-A4	M3,5	2.3	14	6.0	8	3.8	5
P0161.035-016-A4	M3,5	2.3	16	6.0	8	3.8	5
P0161.040-010-A4	M 4	2.8	10	6.0	10	4.5	5
P0161.040-012-A4	M 4	2.8	12	6.0	10	4.5	5
P0161.040-014-A4	M 4	2.8	14	6.0	10	4.5	5
P0161.040-016-A4	M 4	2.8	16	6.0	10	4.5	5
P0161.040-018-A4	M 4	2.8	18	6.0	10	4.5	5
P0161.040-020-A4	M 4	2.8	20	6.0	10	4.5	5
P0161.040-025-A4	M 4	2.8	25	6.0	10	4.5	5
P0161.050-010-A4	M 5	3.7	10	7.5	10	5.5	5
P0161.050-012-A4	M 5	3.7	12	7.5	10	5.5	5
P0161.050-014-A4	M 5	3.7	14	7.5	10	5.5	5
P0161.050-016-A4	M 5	3.7	16	7.5	10	5.5	5
P0161.050-018-A4	M 5	3.7	18	7.5	10	5.5	5
P0161.050-020-A4	M 5	3.7	20	7.5	10	5.5	5
P0161.050-025-A4	M 5	3.7	25	7.5	10	5.5	5
P0161.050-030-A4	M 5	3.7	30	7.5	10	5.5	5
P0161.060-012-A4	M 6	4.5	12	7.5	12	6.5	6
P0161.060-014-A4	M 6	4.5	14	7.5	12	6.5	6
P0161.060-016-A4	M 6	4.5	16	7.5	12	6.5	6
P0161.060-018-A4	M 6	4.5	18	7.5	12	6.5	6



Captive Thumb Screws

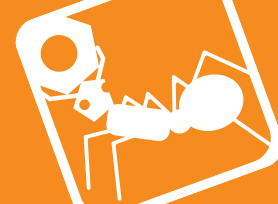
316 stainless



Captive Screws

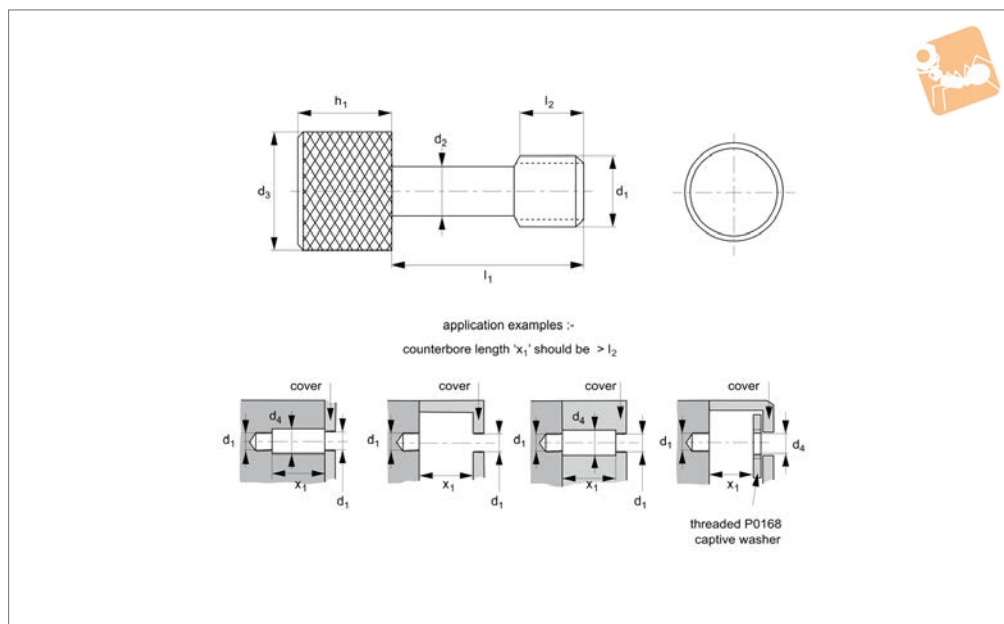
Order No.	d ₁	d ₂ ±0.12	l ₁ ±0.25	l ₂ ±0.25	d ₃	d ₄ min.	h ₁
P0161.060-020-A4	M 6	4.5	20	7.5	12	6.5	6
P0161.060-025-A4	M 6	4.5	25	7.5	12	6.5	6
P0161.060-030-A4	M 6	4.5	30	7.5	12	6.5	6
P0161.080-016-A4	M 8	6.0	16	10.0	16	8.5	8
P0161.080-018-A4	M 8	6.0	18	10.0	16	8.5	8
P0161.080-020-A4	M 8	6.0	20	10.0	16	8.5	8
P0161.080-025-A4	M 8	6.0	25	10.0	16	8.5	8
P0161.080-030-A4	M 8	6.0	30	10.0	16	8.5	8
P0161.080-035-A4	M 8	6.0	35	10.0	16	8.5	8

CAPTIVE SCREWS



P0161.B2

MADE IN
BRITAIN



Material

Stainless steel (AISI 303, 1.4305), black oxide coating. Tensile strength 550 N/mm². Proof stress min. 190 N/mm², austenitic stainless steel.

Also available on request in steel (anodised, black oxide or zinc plated) stainless steel (AISI 316, 1.440), brass,

aluminium etc.

Technical Notes

Used to comply with the Machinery Directive 2006/42/EC. Often used with our captive washer (P0168) or retaining flanges (P0169 - for sheet metal applications). The use of our captive washer

should be considered when fitted in panels with unthreaded holes.

Important Notes

Please note that these screws have a reduced diameter shank and should not be tightened to the recommended torque for an equivalent machine screw of size d₁.

Order No.	d ₁	d ₂ ±0.12	l ₁ ±0.25	l ₂ ±0.25	d ₃	d ₄ min.	h ₁
P0161.030-008-B2	M 3	2.0	8	4.5	8	3.5	5
P0161.030-010-B2	M 3	2.0	10	4.5	8	3.5	5
P0161.030-012-B2	M 3	2.0	12	4.5	8	3.5	5
P0161.030-014-B2	M 3	2.0	14	4.5	8	3.5	5
P0161.030-016-B2	M 3	2.0	16	4.5	8	3.5	5
P0161.035-008-B2	M 3,5	2.3	8	6.0	8	3.8	5
P0161.035-010-B2	M 3,5	2.3	10	6.0	8	3.8	5
P0161.035-012-B2	M 3,5	2.3	12	6.0	8	3.8	5
P0161.035-014-B2	M 3,5	2.3	14	6.0	8	3.8	5
P0161.035-016-B2	M 3,5	2.3	16	6.0	8	3.8	5
P0161.040-010-B2	M 4	2.8	10	6.0	10	4.5	5
P0161.040-012-B2	M 4	2.8	12	6.0	10	4.5	5
P0161.040-014-B2	M 4	2.8	14	6.0	10	4.5	5
P0161.040-016-B2	M 4	2.8	16	6.0	10	4.5	5
P0161.040-018-B2	M 4	2.8	18	6.0	10	4.5	5
P0161.040-020-B2	M 4	2.8	20	6.0	10	4.5	5
P0161.040-025-B2	M 4	2.8	25	6.0	10	4.5	5
P0161.050-010-B2	M 5	3.7	10	7.5	10	5.5	5
P0161.050-012-B2	M 5	3.7	12	7.5	10	5.5	5
P0161.050-014-B2	M 5	3.7	14	7.5	10	5.5	5
P0161.050-016-B2	M 5	3.7	16	7.5	10	5.5	5
P0161.050-018-B2	M 5	3.7	18	7.5	10	5.5	5
P0161.050-020-B2	M 5	3.7	20	7.5	10	5.5	5
P0161.050-025-B2	M 5	3.7	25	7.5	10	5.5	5
P0161.050-030-B2	M 5	3.7	30	7.5	10	5.5	5
P0161.060-012-B2	M 6	4.5	12	7.5	12	6.5	6
P0161.060-014-B2	M 6	4.5	14	7.5	12	6.5	6
P0161.060-016-B2	M 6	4.5	16	7.5	12	6.5	6
P0161.060-018-B2	M 6	4.5	18	7.5	12	6.5	6



Captive Thumb Screws

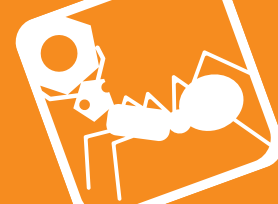
303 stainless, blackened



Captive Screws

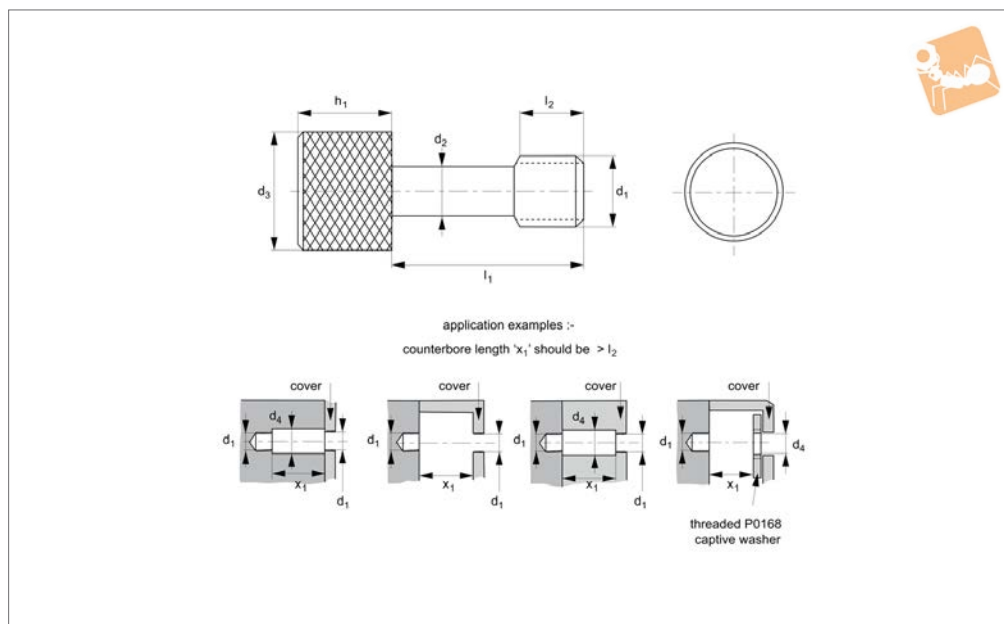
Order No.	d ₁	d ₂ ±0.12	l ₁ ±0.25	l ₂ ±0.25	d ₃	d ₄ min.	h ₁
P0161.060-020-B2	M 6	4.5	20	7.5	12	6.5	6
P0161.060-025-B2	M 6	4.5	25	7.5	12	6.5	6
P0161.060-030-B2	M 6	4.5	30	7.5	12	6.5	6
P0161.080-016-B2	M 8	6.0	16	10.0	16	8.5	8
P0161.080-018-B2	M 8	6.0	18	10.0	16	8.5	8
P0161.080-020-B2	M 8	6.0	20	10.0	16	8.5	8
P0161.080-025-B2	M 8	6.0	25	10.0	16	8.5	8
P0161.080-030-B2	M 8	6.0	30	10.0	16	8.5	8
P0161.080-035-B2	M 8	6.0	35	10.0	16	8.5	8

CAPTIVE SCREWS



P0161.B4

MADE IN
BRITAIN



Material

Stainless steel (AISI 316, 1.440), black oxide coating. Tensile strength 480 N/mm². Proof stress min. 200 N/mm², austenitic stainless steel.

Also available on request in steel (anodised, black oxide or zinc plated) stainless steel (AISI 303, 1.4305), brass,

aluminium etc.

Technical Notes

Used to comply with the Machinery Directive 2006/42/EC. Often used with our captive washer (P0168) or retaining flanges (P0169 - for sheet metal applications). The use of our captive washer

should be considered when fitted in panels with unthreaded holes.

Important Notes

Please note that these screws have a reduced diameter shank and should not be tightened to the recommended torque for an equivalent machine screw of size d₁.

Order No.	d ₁	d ₂ ±0.12	l ₁ ±0.25	l ₂ ±0.25	d ₃	d ₄ min.	h ₁
P0161.030-008-B4	M 3	2.0	8	4.5	8	3.5	5
P0161.030-010-B4	M 3	2.0	10	4.5	8	3.5	5
P0161.030-012-B4	M 3	2.0	12	4.5	8	3.5	5
P0161.030-014-B4	M 3	2.0	14	4.5	8	3.5	5
P0161.030-016-B4	M 3	2.0	16	4.5	8	3.5	5
P0161.035-008-B4	M 3,5	2.3	8	6.0	8	3.8	5
P0161.035-010-B4	M 3,5	2.3	10	6.0	8	3.8	5
P0161.035-012-B4	M 3,5	2.3	12	6.0	8	3.8	5
P0161.035-014-B4	M 3,5	2.3	14	6.0	8	3.8	5
P0161.035-016-B4	M 3,5	2.3	16	6.0	8	3.8	5
P0161.040-010-B4	M 4	2.8	10	6.0	10	4.5	5
P0161.040-012-B4	M 4	2.8	12	6.0	10	4.5	5
P0161.040-014-B4	M 4	2.8	14	6.0	10	4.5	5
P0161.040-016-B4	M 4	2.8	16	6.0	10	4.5	5
P0161.040-018-B4	M 4	2.8	18	6.0	10	4.5	5
P0161.040-020-B4	M 4	2.8	20	6.0	10	4.5	5
P0161.040-025-B4	M 4	2.8	25	6.0	10	4.5	5
P0161.050-010-B4	M 5	3.7	10	7.5	10	5.5	5
P0161.050-012-B4	M 5	3.7	12	7.5	10	5.5	5
P0161.050-014-B4	M 5	3.7	14	7.5	10	5.5	5
P0161.050-016-B4	M 5	3.7	16	7.5	10	5.5	5
P0161.050-018-B4	M 5	3.7	18	7.5	10	5.5	5
P0161.050-020-B4	M 5	3.7	20	7.5	10	5.5	5
P0161.050-025-B4	M 5	3.7	25	7.5	10	5.5	5
P0161.050-030-B4	M 5	3.7	30	7.5	10	5.5	5
P0161.060-012-B4	M 6	4.5	12	7.5	12	6.5	6
P0161.060-014-B4	M 6	4.5	14	7.5	12	6.5	6
P0161.060-016-B4	M 6	4.5	16	7.5	12	6.5	6
P0161.060-018-B4	M 6	4.5	18	7.5	12	6.5	6



Captive Thumb Screws

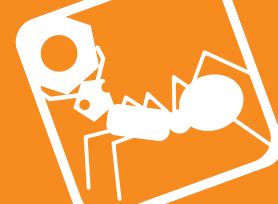
316 stainless, blackened



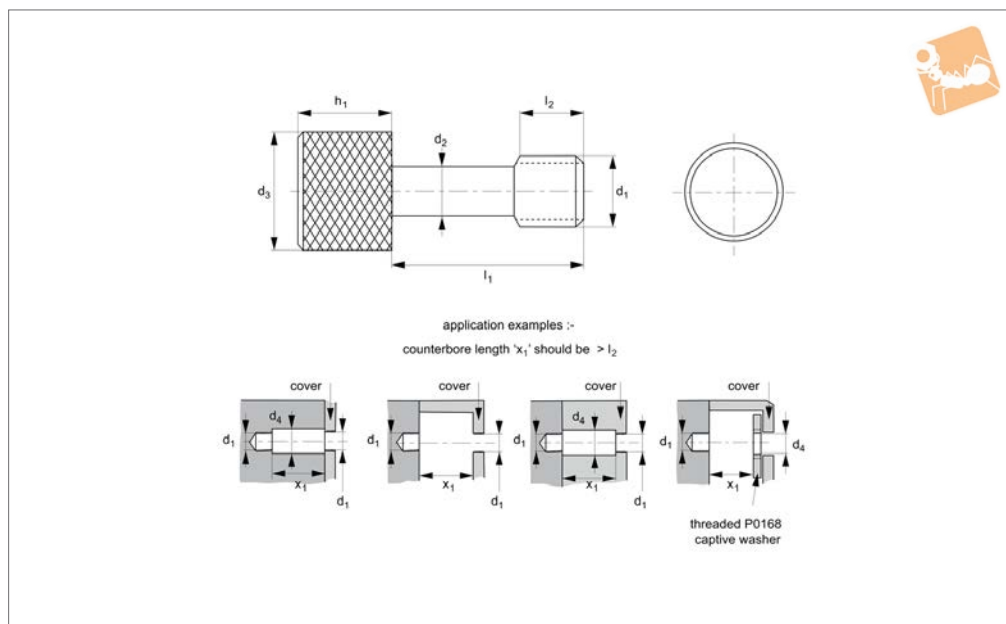
Captive Screws

Order No.	d ₁	d ₂ ±0.12	l ₁ ±0.25	l ₂ ±0.25	d ₃	d ₄ min.	h ₁
P0161.060-020-B4	M 6	4.5	20	7.5	12	6.5	6
P0161.060-025-B4	M 6	4.5	25	7.5	12	6.5	6
P0161.060-030-B4	M 6	4.5	30	7.5	12	6.5	6
P0161.080-016-B4	M 8	6.0	16	10.0	16	8.5	8
P0161.080-018-B4	M 8	6.0	18	10.0	16	8.5	8
P0161.080-020-B4	M 8	6.0	20	10.0	16	8.5	8
P0161.080-025-B4	M 8	6.0	25	10.0	16	8.5	8
P0161.080-030-B4	M 8	6.0	30	10.0	16	8.5	8
P0161.080-035-B4	M 8	6.0	35	10.0	16	8.5	8

CAPTIVE SCREWS



P0161.Ti



Material

Titanium grade 2 (tensile strength 345 N/mm²), or grade 5 (tensile strength 900 N/mm²).

Also available on request in steel (anodised, black oxide or zinc plated) stainless steel (AISI 316, 1.440 or AISI 303, 1.4305), brass, aluminium etc.

Technical Notes

Used to comply with the Machinery Direc-

tive 2006/42/EC. Often used with our captive washer (P0168) or retaining flanges (P0169 - for sheet metal applications). The use of our captive washer should be considered when fitted in panels with unthreaded holes.

T5 also available on request.

Replace -T2 with -T5 at the end of part number.

Important Notes

Please note that these screws have a reduced diameter shank and should not be tightened to the recommended torque for an equivalent machine screw of size d₁.

Order No.	d ₁	d ₂ ±0.12	l ₁ ±0.25	l ₂ ±0.25	d ₃	d ₄ min.	h ₁	Material
P0161.030-008-T2	M 3	2.0	8.0	4.5	8	3.5	5	Grade 2
P0161.030-010-T2	M 3	2.0	10.0	4.5	8	3.5	5	Grade 2
P0161.030-012-T2	M 3	2.0	12.0	4.5	8	3.5	5	Grade 2
P0161.030-014-T2	M 3	2.0	14.0	4.5	8	3.5	5	Grade 2
P0161.030-016-T2	M 3	2.0	16.0	4.5	8	3.5	5	Grade 2
P0161.035-008-T2	M 3,5	2.3	8.0	6.0	8	3.8	5	Grade 2
P0161.035-010-T2	M 3,5	2.3	10.0	6.0	8	3.8	5	Grade 2
P0161.035-012-T2	M 3,5	2.3	12.0	6.0	8	3.8	5	Grade 2
P0161.035-014-T2	M 3,5	2.3	14.0	6.0	8	3.8	5	Grade 2
P0161.035-016-T2	M 3,5	2.3	16.0	6.0	8	3.8	5	Grade 2
P0161.040-010-T2	M 4	2.8	10.0	6.0	10	4.5	5	Grade 2
P0161.040-012-T2	M 4	2.8	12.0	6.0	10	4.5	5	Grade 2
P0161.040-014-T2	M 4	2.8	14.0	6.0	10	4.5	5	Grade 2
P0161.040-016-T2	M 4	2.8	16.0	6.0	10	4.5	5	Grade 2
P0161.040-018-T2	M 4	2.8	18.0	6.0	10	4.5	5	Grade 2
P0161.040-020-T2	M 4	2.8	20.0	6.0	10	4.5	5	Grade 2
P0161.040-025-T2	M 4	2.8	25.0	6.0	10	4.5	5	Grade 2
P0161.050-010-T2	M 5	3.7	10.0	7.5	10	5.5	5	Grade 2
P0161.050-012-T2	M 5	3.7	12.0	7.5	10	5.5	5	Grade 2
P0161.050-014-T2	M 5	3.7	14.0	7.5	10	5.5	5	Grade 2
P0161.050-016-T2	M 5	3.7	16.0	7.5	10	5.5	5	Grade 2
P0161.050-018-T2	M 5	3.7	18.0	7.5	10	5.5	5	Grade 2
P0161.050-020-T2	M 5	3.7	20.0	7.5	10	5.5	5	Grade 2
P0161.050-025-T2	M 5	3.7	25.0	7.5	10	5.5	5	Grade 2
P0161.050-030-T2	M 5	3.7	30.0	7.5	10	5.5	5	Grade 2
P0161.060-012-T2	M 6	4.5	12.0	7.5	12	6.5	6	Grade 2



Captive Thumb Screws

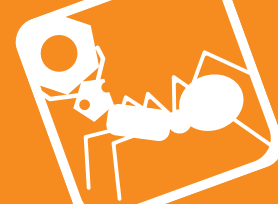
titanium



Captive Screws

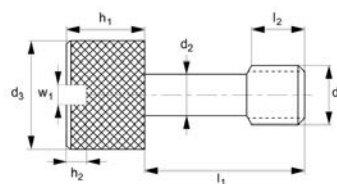
Order No.	d ₁	d ₂ ±0.12	l ₁ ±0.25	l ₂ ±0.25	d ₃	d ₄ min.	h ₁	Material
P0161.060-014-T2	M 6	4.5	14.0	7.5	12	6.5	6	Grade 2
P0161.060-016-T2	M 6	4.5	16.0	7.5	12	6.5	6	Grade 2
P0161.060-018-T2	M 6	4.5	18.0	7.5	12	6.5	6	Grade 2
P0161.060-020-T2	M 6	4.5	20.0	7.5	12	6.5	6	Grade 2
P0161.060-025-T2	M 6	4.5	25.0	7.5	12	6.5	6	Grade 2
P0161.060-030-T2	M 6	4.5	30	7.5	12	6.5	6	Grade 2
P0161.030-008-T5	M 3	2.0	8.0	4.5	8	3.5	5	Grade 5
P0161.030-010-T5	M 3	2.0	10.0	4.5	8	3.5	5	Grade 5
P0161.030-012-T5	M 3	2.0	12.0	4.5	8	3.5	5	Grade 5
P0161.030-014-T5	M 3	2.0	14.0	4.5	8	3.5	5	Grade 5
P0161.030-016-T5	M 3	2.0	16.0	4.5	8	3.5	5	Grade 5
P0161.035-008-T5	M3,5	2.3	8.0	6.0	8	3.8	5	Grade 5
P0161.035-010-T5	M3,5	2.3	10.0	6.0	8	3.8	5	Grade 5
P0161.035-012-T5	M3,5	2.3	12.0	6.0	8	3.8	5	Grade 5
P0161.035-014-T5	M3,5	2.3	14.0	6.0	8	3.8	5	Grade 5
P0161.035-016-T5	M3,5	2.3	16.0	6.0	8	3.8	5	Grade 5
P0161.040-010-T5	M 4	2.8	10.0	6.0	10	4.5	5	Grade 5
P0161.040-012-T5	M 4	2.8	12.0	6.0	10	4.5	5	Grade 5
P0161.040-014-T5	M 4	2.8	14.0	6.0	10	4.5	5	Grade 5
P0161.040-016-T5	M 4	2.8	16.0	6.0	10	4.5	5	Grade 5
P0161.040-018-T5	M 4	2.8	18.0	6.0	10	4.5	5	Grade 5
P0161.040-020-T5	M 4	2.8	20.0	6.0	10	4.5	5	Grade 5
P0161.040-025-T5	M 4	2.8	25.0	6.0	10	4.5	5	Grade 5
P0161.050-010-T5	M 5	3.7	10.0	7.5	10	5.5	5	Grade 5
P0161.050-012-T5	M 5	3.7	12.0	7.5	10	5.5	5	Grade 5
P0161.050-014-T5	M 5	3.7	14.0	7.5	10	5.5	5	Grade 5
P0161.050-016-T5	M 5	3.7	16.0	7.5	10	5.5	5	Grade 5
P0161.050-018-T5	M 5	3.7	18.0	7.5	10	5.5	5	Grade 5
P0161.050-020-T5	M 5	3.7	20.0	7.5	10	5.5	5	Grade 5
P0161.050-025-T5	M 5	3.7	25.0	7.5	10	5.5	5	Grade 5
P0161.050-030-T5	M 5	3.7	30.0	7.5	10	5.5	5	Grade 5
P0161.060-012-T5	M 6	4.5	12.0	7.5	12	6.5	6	Grade 5
P0161.060-014-T5	M 6	4.5	14.0	7.5	12	6.5	6	Grade 5
P0161.060-016-T5	M 6	4.5	16.0	7.5	12	6.5	6	Grade 5
P0161.060-018-T5	M 6	4.5	18.0	7.5	12	6.5	6	Grade 5
P0161.060-020-T5	M 6	4.5	20.0	7.5	12	6.5	6	Grade 5
P0161.060-025-T5	M 6	4.5	25.0	7.5	12	6.5	6	Grade 5
P0161.060-030-T5	M 6	4.5	30	7.5	12	6.5	6	Grade 5

CAPTIVE SCREWS

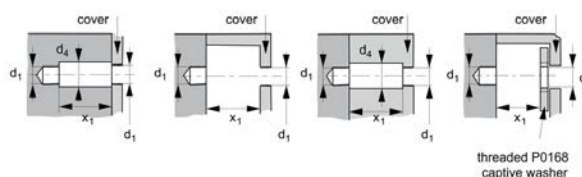


P0162.A2

MADE IN
BRITAIN



application examples :-
counterbore length 'x₁' should be > l₂



threaded P0168
captive washer

Material

Stainless steel (AISI 303, 1.4305). Tensile strength 550 N/mm². Proof stress min. 190 N/mm², austenitic stainless steel. Also available on request in steel (anodised, black oxide or zinc plated), stainless steel (AISI 316, 1.440), brass, aluminium etc.

Technical Notes

Used to comply with the Machinery Directive 2006/42/EC. Often used with our captive washer (P0168) or retaining flanges (P0169 - for sheet metal applications). The use of our captive washer should be considered when fitted in panels with unthreaded holes.

Important Notes

Please note that these screws have a reduced diameter shank and should not be tightened to the recommended torque for an equivalent machine screw of size d₁.

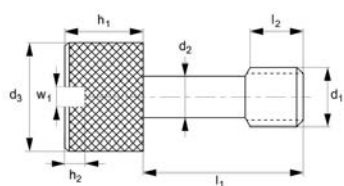
Order No.	d ₁	d ₂ ±0.12	l ₁ ±0.25	l ₂ ±0.25	d ₃	d ₄ min.	h ₁	h ₂	w ₁
P0162.030-008-A2	M 3	2.0	8.0	4.5	8	3.5	5	1.8	0.8
P0162.030-010-A2	M 3	2.0	10.0	4.5	8	3.5	5	1.8	0.8
P0162.030-012-A2	M 3	2.0	12.0	4.5	8	3.5	5	1.8	0.8
P0162.030-014-A2	M 3	2.0	14.0	4.5	8	3.5	5	1.8	0.8
P0162.030-016-A2	M 3	2.0	16.0	4.5	8	3.5	5	1.8	0.8
P0162.040-010-A2	M 4	2.8	10.0	6.0	10	4.5	5	2.2	1.0
P0162.040-012-A2	M 4	2.8	12.0	6.0	10	4.5	5	2.2	1.0
P0162.040-014-A2	M 4	2.8	14.0	6.0	10	4.5	5	2.2	1.0
P0162.040-016-A2	M 4	2.8	16.0	6.0	10	4.5	5	2.2	1.0
P0162.040-018-A2	M 4	2.8	18.0	6.0	10	4.5	5	2.2	1.0
P0162.040-020-A2	M 4	2.8	20.0	6.0	10	4.5	5	2.2	1.0
P0162.040-025-A2	M 4	2.8	25.0	6.0	10	4.5	5	2.2	1.0
P0162.050-010-A2	M 5	3.7	10.0	7.5	10	5.5	5	2.8	1.2
P0162.050-012-A2	M 5	3.7	12.0	7.5	10	5.5	5	2.8	1.2
P0162.050-014-A2	M 5	3.7	14.0	7.5	10	5.5	5	2.8	1.2
P0162.050-016-A2	M 5	3.7	16.0	7.5	10	5.5	5	2.8	1.2
P0162.050-018-A2	M 5	3.7	18.0	7.5	10	5.5	5	2.8	1.2
P0162.050-020-A2	M 5	3.7	20.0	7.5	10	5.5	5	2.8	1.2
P0162.050-025-A2	M 5	3.7	25.0	7.5	10	5.5	5	2.8	1.2
P0162.050-030-A2	M 5	3.7	30.0	7.5	10	5.5	5	2.8	1.2
P0162.060-012-A2	M 6	4.5	12.0	7.5	12	6.5	6	3.5	1.6
P0162.060-014-A2	M 6	4.5	14.0	7.5	12	6.5	6	3.5	1.6
P0162.060-016-A2	M 6	4.5	16.0	7.5	12	6.5	6	3.5	1.6
P0162.060-018-A2	M 6	4.5	18.0	7.5	12	6.5	6	3.5	1.6
P0162.060-020-A2	M 6	4.5	20.0	7.5	12	6.5	6	3.5	1.6
P0162.060-025-A2	M 6	4.5	25.0	7.5	12	6.5	6	3.5	1.6
P0162.060-030-A2	M 6	4.5	30.0	7.5	12	6.5	6	3.5	1.6



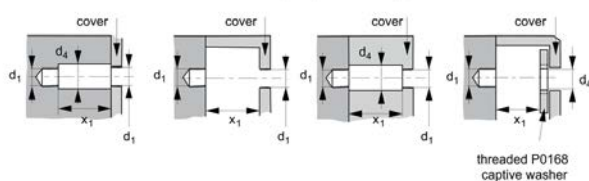
Captive Thumb Screws

slot drive - 316 stainless

Captive Screws



application examples :-
counterbore length 'x₁' should be > l₂



P0162.A4

CAPTIVE SCREWS

Material

Stainless steel (AISI 316, 1.440).
Tensile strength 480 N/mm². Proof stress
min. 200 N/mm², austenitic stainless steel.
Also available on request in steel
(anodised, black oxide or zinc plated),
stainless steel (AISI 303, 1.4305), brass,
aluminium etc.

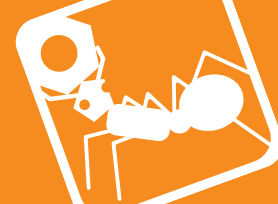
Technical Notes

Used to comply with the Machinery Direc-
tive 2006/42/EC. Often used with our
captive washer (P0168) or retaining
flanges (P0169 - for sheet metal applica-
tions). The use of our captive washer
should be considered when fitted in panels
with unthreaded holes.

Important Notes

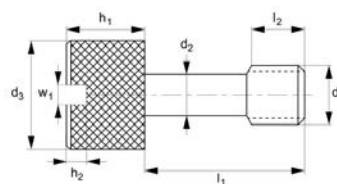
Please note that these screws have a
reduced diameter shank and should not be
tightened to the recommended torque for
an equivalent machine screw of size d₁.

Order No.	d ₁	d ₂ ±0.12	l ₁ ±0.25	l ₂ ±0.25	d ₃	d ₄ min.	h ₁	h ₂	w ₁
P0162.030-008-A4	M 3	2.0	8.0	4.5	8	3.5	5	1.8	0.8
P0162.030-010-A4	M 3	2.0	10.0	4.5	8	3.5	5	1.8	0.8
P0162.030-012-A4	M 3	2.0	12.0	4.5	8	3.5	5	1.8	0.8
P0162.030-014-A4	M 3	2.0	14.0	4.5	8	3.5	5	1.8	0.8
P0162.030-016-A4	M 3	2.0	16.0	4.5	8	3.5	5	1.8	0.8
P0162.040-010-A4	M 4	2.8	10.0	6.0	10	4.5	5	2.2	1.0
P0162.040-012-A4	M 4	2.8	12.0	6.0	10	4.5	5	2.2	1.0
P0162.040-014-A4	M 4	2.8	14.0	6.0	10	4.5	5	2.2	1.0
P0162.040-016-A4	M 4	2.8	16.0	6.0	10	4.5	5	2.2	1.0
P0162.040-018-A4	M 4	2.8	18.0	6.0	10	4.5	5	2.2	1.0
P0162.040-020-A4	M 4	2.8	20.0	6.0	10	4.5	5	2.2	1.0
P0162.040-025-A4	M 4	2.8	25.0	6.0	10	4.5	5	2.2	1.0
P0162.050-010-A4	M 5	3.7	10.0	7.5	10	5.5	5	2.8	1.2
P0162.050-012-A4	M 5	3.7	12.0	7.5	10	5.5	5	2.8	1.2
P0162.050-014-A4	M 5	3.7	14.0	7.5	10	5.5	5	2.8	1.2
P0162.050-016-A4	M 5	3.7	16.0	7.5	10	5.5	5	2.8	1.2
P0162.050-018-A4	M 5	3.7	18.0	7.5	10	5.5	5	2.8	1.2
P0162.050-020-A4	M 5	3.7	20.0	7.5	10	5.5	5	2.8	1.2
P0162.050-025-A4	M 5	3.7	25.0	7.5	10	5.5	5	2.8	1.2
P0162.050-030-A4	M 5	3.7	30.0	7.5	10	5.5	5	2.8	1.2
P0162.060-012-A4	M 6	4.5	12.0	7.5	12	6.5	6	3.5	1.6
P0162.060-014-A4	M 6	4.5	14.0	7.5	12	6.5	6	3.5	1.6
P0162.060-016-A4	M 6	4.5	16.0	7.5	12	6.5	6	3.5	1.6
P0162.060-018-A4	M 6	4.5	18.0	7.5	12	6.5	6	3.5	1.6
P0162.060-020-A4	M 6	4.5	20.0	7.5	12	6.5	6	3.5	1.6
P0162.060-025-A4	M 6	4.5	25.0	7.5	12	6.5	6	3.5	1.6
P0162.060-030-A4	M 6	4.5	30.0	7.5	12	6.5	6	3.5	1.6

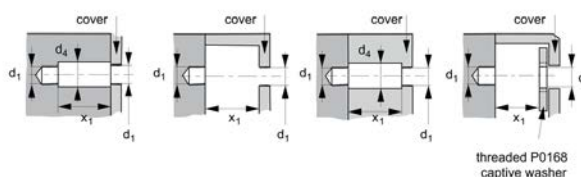


P0162.B2

MADE IN
BRITAIN



application examples :-
counterbore length 'x1' should be > l2



threaded P0168
captive washer

Material

Stainless steel (AISI 303, 1.4305), black oxide coating. Tensile strength 550 N/mm². Proof stress min. 190 N/mm², austenitic stainless steel.

Also available on request in steel (anodised, black oxide or zinc plated) stainless steel (AISI 316, 1.440), brass,

aluminium etc.

Technical Notes

Used to comply with the Machinery Directive 2006/42/EC. Often used with our captive washer (P0168) or retaining flanges (P0169 - for sheet metal applications). The use of our captive washer

should be considered when fitted in panels with unthreaded holes.

Important Notes

Please note that these screws have a reduced diameter shank and should not be tightened to the recommended torque for an equivalent machine screw of size d₁.

Order No.	d ₁	d ₂ ±0.12	l ₁ ±0.25	l ₂ ±0.25	d ₃	d ₄ min.	h ₁	h ₂	w ₁
P0162.030-008-B2	M 3	2.0	8.0	4.5	8	3.5	5	1.8	0.8
P0162.030-010-B2	M 3	2.0	10.0	4.5	8	3.5	5	1.8	0.8
P0162.030-012-B2	M 3	2.0	12.0	4.5	8	3.5	5	1.8	0.8
P0162.030-014-B2	M 3	2.0	14.0	4.5	8	3.5	5	1.8	0.8
P0162.030-016-B2	M 3	2.0	16.0	4.5	8	3.5	5	1.8	0.8
P0162.040-010-B2	M 4	2.8	10.0	6.0	10	4.5	5	2.2	1.0
P0162.040-012-B2	M 4	2.8	12.0	6.0	10	4.5	5	2.2	1.0
P0162.040-014-B2	M 4	2.8	14.0	6.0	10	4.5	5	2.2	1.0
P0162.040-016-B2	M 4	2.8	16.0	6.0	10	4.5	5	2.2	1.0
P0162.040-018-B2	M 4	2.8	18.0	6.0	10	4.5	5	2.2	1.0
P0162.040-020-B2	M 4	2.8	20.0	6.0	10	4.5	5	2.2	1.0
P0162.040-025-B2	M 4	2.8	25.0	6.0	10	4.5	5	2.2	1.0
P0162.050-010-B2	M 5	3.7	10.0	7.5	10	5.5	5	2.8	1.2
P0162.050-012-B2	M 5	3.7	12.0	7.5	10	5.5	5	2.8	1.2
P0162.050-014-B2	M 5	3.7	14.0	7.5	10	5.5	5	2.8	1.2
P0162.050-016-B2	M 5	3.7	16.0	7.5	10	5.5	5	2.8	1.2
P0162.050-018-B2	M 5	3.7	18.0	7.5	10	5.5	5	2.8	1.2
P0162.050-020-B2	M 5	3.7	20.0	7.5	10	5.5	5	2.8	1.2
P0162.050-025-B2	M 5	3.7	25.0	7.5	10	5.5	5	2.8	1.2
P0162.050-030-B2	M 5	3.7	30.0	7.5	10	5.5	5	2.8	1.2
P0162.060-012-B2	M 6	4.5	12.0	7.5	12	6.5	6	3.5	1.6
P0162.060-014-B2	M 6	4.5	14.0	7.5	12	6.5	6	3.5	1.6
P0162.060-016-B2	M 6	4.5	16.0	7.5	12	6.5	6	3.5	1.6
P0162.060-018-B2	M 6	4.5	18.0	7.5	12	6.5	6	3.5	1.6
P0162.060-020-B2	M 6	4.5	20.0	7.5	12	6.5	6	3.5	1.6
P0162.060-025-B2	M 6	4.5	25.0	7.5	12	6.5	6	3.5	1.6
P0162.060-030-B2	M 6	4.5	30.0	7.5	12	6.5	6	3.5	1.6

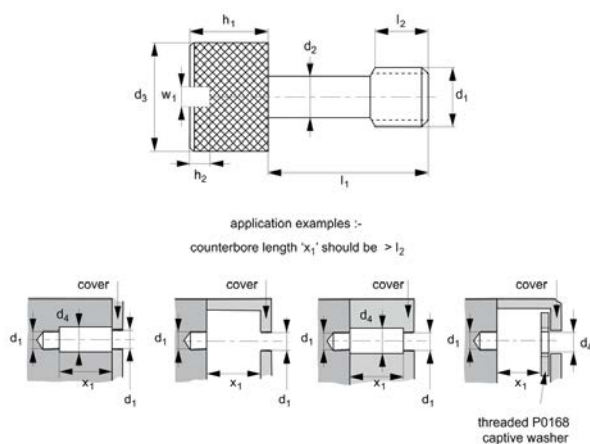


Captive Thumb Screws

slot drive - 316 stainless, blackened



Captive Screws



P0162.B4

CAPTIVE SCREWS

Material

Stainless steel (AISI 316, 1.440), black oxide coating. Tensile strength 480 N/mm². Proof stress min. 200 N/mm², austenitic stainless steel.

Also available on request in steel (anodised, black oxide or zinc plated) stainless steel (AISI 303, 1.4305), brass,

aluminium etc.

Technical Notes

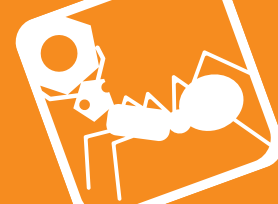
Used to comply with the Machinery Directive 2006/42/EC. Often used with our captive washer (P0168) or retaining flanges (P0169 - for sheet metal applications). The use of our captive washer

should be considered when fitted in panels with unthreaded holes.

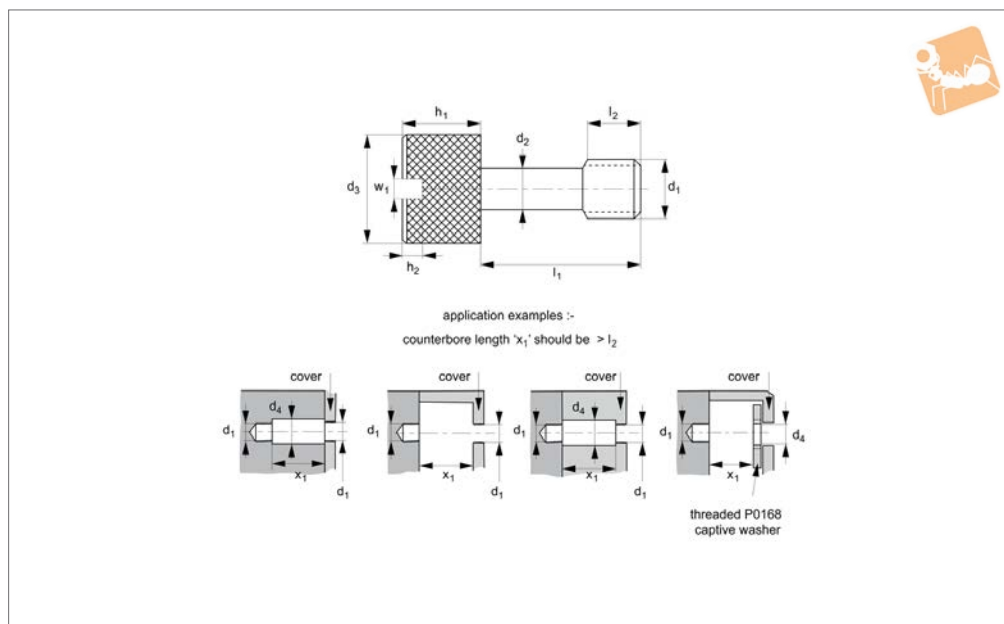
Important Notes

Please note that these screws have a reduced diameter shank and should not be tightened to the recommended torque for an equivalent machine screw of size d_1 .

Order No.	d_1	d_2 ± 0.12	l_1 ± 0.25	l_2 ± 0.25	d_3	d_4 min.	h_1	h_2	w_1
P0162.030-008-B4	M 3	2.0	8.0	4.5	8	3.5	5	1.8	0.8
P0162.030-010-B4	M 3	2.0	10.0	4.5	8	3.5	5	1.8	0.8
P0162.030-012-B4	M 3	2.0	12.0	4.5	8	3.5	5	1.8	0.8
P0162.030-014-B4	M 3	2.0	14.0	4.5	8	3.5	5	1.8	0.8
P0162.030-016-B4	M 3	2.0	16.0	4.5	8	3.5	5	1.8	0.8
P0162.040-010-B4	M 4	2.8	10.0	6.0	10	4.5	5	2.2	1.0
P0162.040-012-B4	M 4	2.8	12.0	6.0	10	4.5	5	2.2	1.0
P0162.040-014-B4	M 4	2.8	14.0	6.0	10	4.5	5	2.2	1.0
P0162.040-016-B4	M 4	2.8	16.0	6.0	10	4.5	5	2.2	1.0
P0162.040-018-B4	M 4	2.8	18.0	6.0	10	4.5	5	2.2	1.0
P0162.040-020-B4	M 4	2.8	20.0	6.0	10	4.5	5	2.2	1.0
P0162.040-025-B4	M 4	2.8	25.0	6.0	10	4.5	5	2.2	1.0
P0162.050-010-B4	M 5	3.7	10.0	7.5	10	5.5	5	2.8	1.2
P0162.050-012-B4	M 5	3.7	12.0	7.5	10	5.5	5	2.8	1.2
P0162.050-014-B4	M 5	3.7	14.0	7.5	10	5.5	5	2.8	1.2
P0162.050-016-B4	M 5	3.7	16.0	7.5	10	5.5	5	2.8	1.2
P0162.050-018-B4	M 5	3.7	18.0	7.5	10	5.5	5	2.8	1.2
P0162.050-020-B4	M 5	3.7	20.0	7.5	10	5.5	5	2.8	1.2
P0162.050-025-B4	M 5	3.7	25.0	7.5	10	5.5	5	2.8	1.2
P0162.050-030-B4	M 5	3.7	30.0	7.5	10	5.5	5	2.8	1.2
P0162.060-012-B4	M 6	4.5	12.0	7.5	12	6.5	6	3.5	1.6
P0162.060-014-B4	M 6	4.5	14.0	7.5	12	6.5	6	3.5	1.6
P0162.060-016-B4	M 6	4.5	16.0	7.5	12	6.5	6	3.5	1.6
P0162.060-018-B4	M 6	4.5	18.0	7.5	12	6.5	6	3.5	1.6
P0162.060-020-B4	M 6	4.5	20.0	7.5	12	6.5	6	3.5	1.6
P0162.060-025-B4	M 6	4.5	25.0	7.5	12	6.5	6	3.5	1.6
P0162.060-030-B4	M 6	4.5	30.0	7.5	12	6.5	6	3.5	1.6



P0162.Ti



Material

Titanium grade 2 (tensile strength 345 N/mm²), or grade 5 (tensile strength 900 N/mm²).

Also available on request in steel (anodised, black oxide or zinc plated) stainless steel (AISI 316, 1.440 or AISI 303, 1.4305), brass, aluminium etc.

Technical Notes

Used to comply with the Machinery Directive 2006/42/EC. Often used with our captive washer (P0168) or retaining flanges (P0169 - for sheet metal applications). The use of our captive washer should be considered when fitted in panels with unthreaded holes.

Important Notes

Please note that these screws have a reduced diameter shank and should not be tightened to the recommended torque for an equivalent machine screw of size d₁.

Order No.	d ₁	d ₂ ±0.12	l ₁ ±0.25	l ₂ ±0.25	d ₃	d ₄ min.	h ₁	h ₂	w ₁	Material
P0162.030-008-T2	M 3	2.0	8.0	4.5	8	3.5	5	1.8	0.8	Grade 2
P0162.030-010-T2	M 3	2.0	10.0	4.5	8	3.5	5	1.8	0.8	Grade 2
P0162.030-012-T2	M 3	2.0	12.0	4.5	8	3.5	5	1.8	0.8	Grade 2
P0162.030-014-T2	M 3	2.0	14.0	4.5	8	3.5	5	1.8	0.8	Grade 2
P0162.030-016-T2	M 3	2.0	16.0	4.5	8	3.5	5	1.8	0.8	Grade 2
P0162.040-010-T2	M 4	2.8	10.0	6.0	10	4.5	5	2.2	1.0	Grade 2
P0162.040-012-T2	M 4	2.8	12.0	6.0	10	4.5	5	2.2	1.0	Grade 2
P0162.040-014-T2	M 4	2.8	14.0	6.0	10	4.5	5	2.2	1.0	Grade 2
P0162.040-016-T2	M 4	2.8	16.0	6.0	10	4.5	5	2.2	1.0	Grade 2
P0162.040-018-T2	M 4	2.8	18.0	6.0	10	4.5	5	2.2	1.0	Grade 2
P0162.040-020-T2	M 4	2.8	20.0	6.0	10	4.5	5	2.2	1.0	Grade 2
P0162.040-025-T2	M 4	2.8	25.0	6.0	10	4.5	5	2.2	1.0	Grade 2
P0162.050-010-T2	M 5	3.7	10.0	7.5	10	5.5	5	2.8	1.2	Grade 2
P0162.050-012-T2	M 5	3.7	12.0	7.5	10	5.5	5	2.8	1.2	Grade 2
P0162.050-014-T2	M 5	3.7	14.0	7.5	10	5.5	5	2.8	1.2	Grade 2
P0162.050-016-T2	M 5	3.7	16.0	7.5	10	5.5	5	2.8	1.2	Grade 2
P0162.050-018-T2	M 5	3.7	18.0	7.5	10	5.5	5	2.8	1.2	Grade 2
P0162.050-020-T2	M 5	3.7	20.0	7.5	10	5.5	5	2.8	1.2	Grade 2
P0162.050-025-T2	M 5	3.7	25.0	7.5	10	5.5	5	2.8	1.2	Grade 2
P0162.050-030-T2	M 5	3.7	30.0	7.5	10	5.5	5	2.8	1.2	Grade 2
P0162.060-012-T2	M 6	4.5	12.0	7.5	12	6.5	6	3.5	1.6	Grade 2
P0162.060-014-T2	M 6	4.5	14.0	7.5	12	6.5	6	3.5	1.6	Grade 2
P0162.060-016-T2	M 6	4.5	16.0	7.5	12	6.5	6	3.5	1.6	Grade 2
P0162.060-018-T2	M 6	4.5	18.0	7.5	12	6.5	6	3.5	1.6	Grade 2
P0162.060-020-T2	M 6	4.5	20.0	7.5	12	6.5	6	3.5	1.6	Grade 2
P0162.060-025-T2	M 6	4.5	25.0	7.5	12	6.5	6	3.5	1.6	Grade 2
P0162.060-030-T2	M 6	4.5	30.0	7.5	12	6.5	6	3.5	1.6	Grade 2
P0162.030-008-T5	M 3	2.0	8.0	4.5	8	3.5	5	1.8	0.8	Grade 5
P0162.030-010-T5	M 3	2.0	10.0	4.5	8	3.5	5	1.8	0.8	Grade 5



Captive Thumb Screws

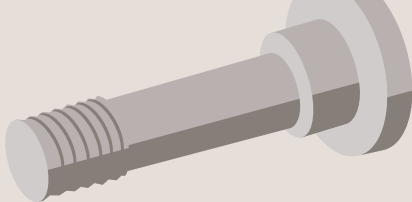
slot drive - titanium



Captive Screws

Order No.	d ₁	d ₂ ±0.12	l ₁ ±0.25	l ₂ ±0.25	d ₃	d ₄ min.	h ₁	h ₂	w ₁	Material
P0162.030-012-T5	M 3	2.0	12.0	4.5	8	3.5	5	1.8	0.8	Grade 5
P0162.030-014-T5	M 3	2.0	14.0	4.5	8	3.5	5	1.8	0.8	Grade 5
P0162.030-016-T5	M 3	2.0	16.0	4.5	8	3.5	5	1.8	0.8	Grade 5
P0162.040-010-T5	M 4	2.8	10.0	6.0	10	4.5	5	2.2	1.0	Grade 5
P0162.040-012-T5	M 4	2.8	12.0	6.0	10	4.5	5	2.2	1.0	Grade 5
P0162.040-014-T5	M 4	2.8	14.0	6.0	10	4.5	5	2.2	1.0	Grade 5
P0162.040-016-T5	M 4	2.8	16.0	6.0	10	4.5	5	2.2	1.0	Grade 5
P0162.040-018-T5	M 4	2.8	18.0	6.0	10	4.5	5	2.2	1.0	Grade 5
P0162.040-020-T5	M 4	2.8	20.0	6.0	10	4.5	5	2.2	1.0	Grade 5
P0162.040-025-T5	M 4	2.8	25.0	6.0	10	4.5	5	2.2	1.0	Grade 5
P0162.050-010-T5	M 5	3.7	10.0	7.5	10	5.5	5	2.8	1.2	Grade 5
P0162.050-012-T5	M 5	3.7	12.0	7.5	10	5.5	5	2.8	1.2	Grade 5
P0162.050-014-T5	M 5	3.7	14.0	7.5	10	5.5	5	2.8	1.2	Grade 5
P0162.050-016-T5	M 5	3.7	16.0	7.5	10	5.5	5	2.8	1.2	Grade 5
P0162.050-018-T5	M 5	3.7	18.0	7.5	10	5.5	5	2.8	1.2	Grade 5
P0162.050-020-T5	M 5	3.7	20.0	7.5	10	5.5	5	2.8	1.2	Grade 5
P0162.050-025-T5	M 5	3.7	25.0	7.5	10	5.5	5	2.8	1.2	Grade 5
P0162.050-030-T5	M 5	3.7	30.0	7.5	10	5.5	5	2.8	1.2	Grade 5
P0162.060-012-T5	M 6	4.5	12.0	7.5	12	6.5	6	3.5	1.6	Grade 5
P0162.060-014-T5	M 6	4.5	14.0	7.5	12	6.5	6	3.5	1.6	Grade 5
P0162.060-016-T5	M 6	4.5	16.0	7.5	12	6.5	6	3.5	1.6	Grade 5
P0162.060-018-T5	M 6	4.5	18.0	7.5	12	6.5	6	3.5	1.6	Grade 5
P0162.060-020-T5	M 6	4.5	20.0	7.5	12	6.5	6	3.5	1.6	Grade 5
P0162.060-025-T5	M 6	4.5	25.0	7.5	12	6.5	6	3.5	1.6	Grade 5
P0162.060-030-T5	M 6	4.5	30.0	7.5	12	6.5	6	3.5	1.6	Grade 5

CAPTIVE SCREWS



Captive Screws

Ordering Options



Automotion provides a wide range of captive screws to aid customers to comply with the Machinery Directive 2006/42/EC.

In general there is a requirement that fixings for fixed guards shall remain attached to the guard or machinery when the guard is removed. This was implemented mainly to ensure that as far as possible fasteners are not lost when the guard is removed and the guard is therefore re-installed with all required fixings.

A wide range of captive screws and thumb screws are provided...



P0151
Button Head - Hex
Security and Torx Options



P0154
Socket Head - Cap Screw
Security and Torx Options



P0158
Hexagon Head Bolt



P0159
Captive Panel Screw



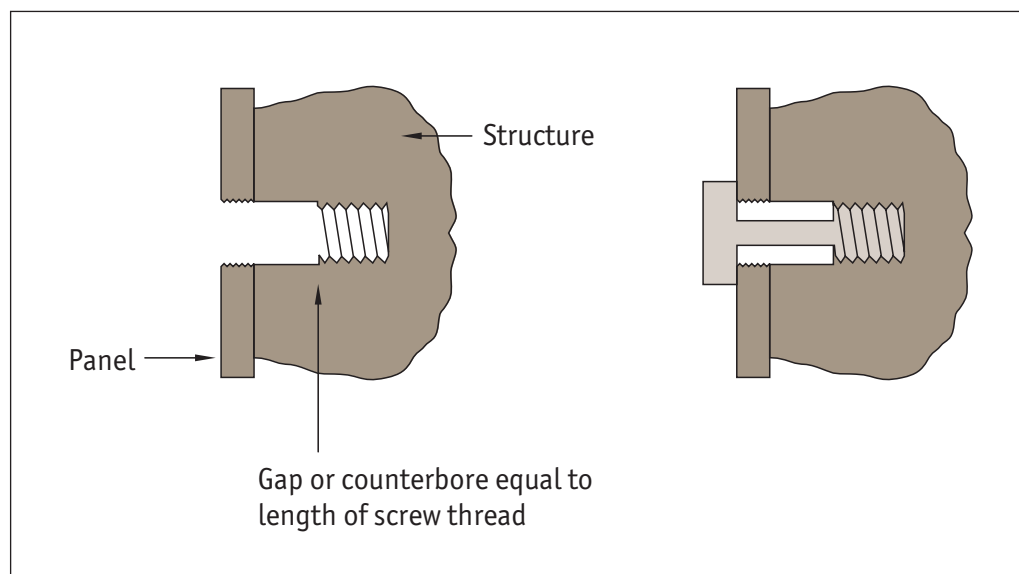
P0160
Thin Head Thumb Screws



P0161
Thumb Screws

Installation

To work effectively the captive screw when installed needs to have a space or counterbore between the thread and cover at least equal to the length of the thread.



Captive Screws from Automotion Components



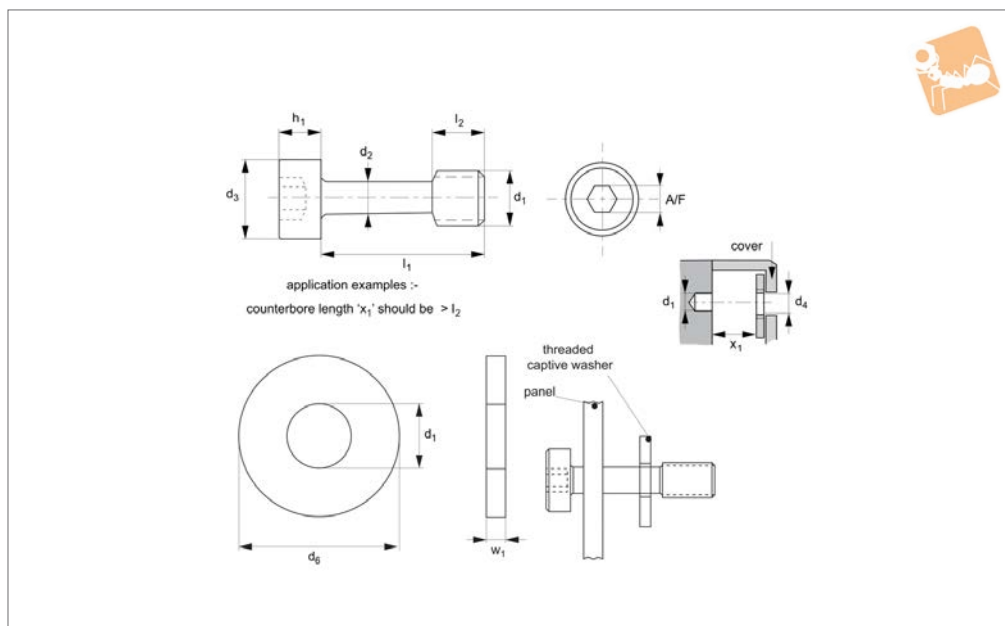
Captive Screws with Washer

hex drive - 303 stainless



Captive Screws

CAPTIVE SCREWS



P0163.A2

Material

Screw.

Stainless steel (AISI 303, 1.4305). Tensile strength 550 N/mm². Proof stress min. 190 N/mm², austenitic stainless steel.

Also available on request in steel (anodised, black oxide or zinc plated), stainless steel (AISI 316, 1.440), brass, aluminium etc.

Washer.

Stainless steel (AISI 303, 1.4305 and AISI 316, 1.440), Also available on request in

steel (anodised, black oxide or zinc plated), stainless steel (AISI 316, 1.440), brass, aluminium etc steel (zinc-plated or black-oxide) and titanium (grade 2 and grade 5)

Technical Notes

Used to comply with the Machinery Directive 2006/42/EC. Generally to ISO 4762.

Tips

TX drive style also available.

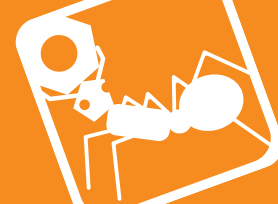
Captive washers are primarily used to retain captive screws in panels which have

unthreaded holes. The panel (onto which the screw needs to be retained) is placed onto the captive screw, the threaded washer is then threaded onto the screw, past the threaded section and the screw is therefore captive to the panel.

Important Notes

Please note that these screws have a reduced diameter shank and should not be tightened to the recommended torque for an equivalent machine screw of size d₁.

Order No.	d ₁	l ₁ ±0.25	d ₂ ±0.12	d ₃ max.	d ₄ min.	d ₆	h ₁ max.	l ₂ ±0.25	w ₁ ±0.05	A/F
P0163.025-005-A2	M 2.5	5	1.8	4.5	2.8	5.0	2.5	3.0	1.0	2.0
P0163.025-008-A2	M 2.5	8	1.8	4.5	2.8	5.0	2.5	3.0	1.0	2.0
P0163.025-010-A2	M 2.5	10	1.8	4.5	2.8	5.0	2.5	3.0	1.0	2.0
P0163.025-012-A2	M 2.5	12	1.8	4.5	2.8	5.0	2.5	3.0	1.0	2.0
P0163.030-008-A2	M 3	8	2.0	5.5	3.5	6.0	3.0	4.5	1.0	2.5
P0163.030-010-A2	M 3	10	2.0	5.5	3.5	6.0	3.0	4.5	1.0	2.5
P0163.030-012-A2	M 3	12	2.0	5.5	3.5	6.0	5.5	4.5	1.0	2.5
P0163.030-016-A2	M 3	16	2.0	5.5	3.5	6.0	3.0	4.5	1.0	2.5
P0163.030-020-A2	M 3	20	2.0	5.5	3.5	6.0	3.0	4.5	1.0	2.5
P0163.030-025-A2	M 3	25	2.0	5.5	3.5	6.0	3.0	4.5	1.0	2.5
P0163.030-030-A2	M 3	30	2.0	5.5	3.5	6.0	3.0	4.5	1.0	2.5
P0163.040-010-A2	M 4	10	2.8	7.0	4.5	8.0	4.0	6.0	1.2	3.0
P0163.040-012-A2	M 4	12	2.8	7.0	4.5	8.0	4.0	6.0	1.2	3.0
P0163.040-016-A2	M 4	16	2.8	7.0	4.5	8.0	4.0	5.0	1.2	3.0
P0163.040-020-A2	M 4	20	2.8	7.0	4.5	8.0	4.0	6.0	1.2	3.0
P0163.040-025-A2	M 4	25	2.8	7.0	4.5	8.0	4.0	6.0	1.2	3.0
P0163.040-030-A2	M 4	30	2.8	7.0	4.5	8.0	4.0	6.0	1.2	3.0
P0163.040-035-A2	M 4	35	2.8	7.0	4.5	8.0	4.0	6.0	1.2	3.0
P0163.040-040-A2	M 3	40	2.8	7.0	4.5	8.0	4.0	6.0	1.2	3.0
P0163.040-050-A2	M 4	50	2.8	7.0	4.5	8.0	4.0	6.0	1.2	3.0
P0163.050-012-A2	M 5	12	3.7	8.5	5.5	10.0	5.0	7.5	1.5	4.0
P0163.050-016-A2	M 5	16	3.7	8.5	5.5	10.0	5.0	7.5	1.5	4.0
P0163.050-020-A2	M 5	20	3.7	8.5	5.5	10.0	5.0	7.5	1.5	4.0



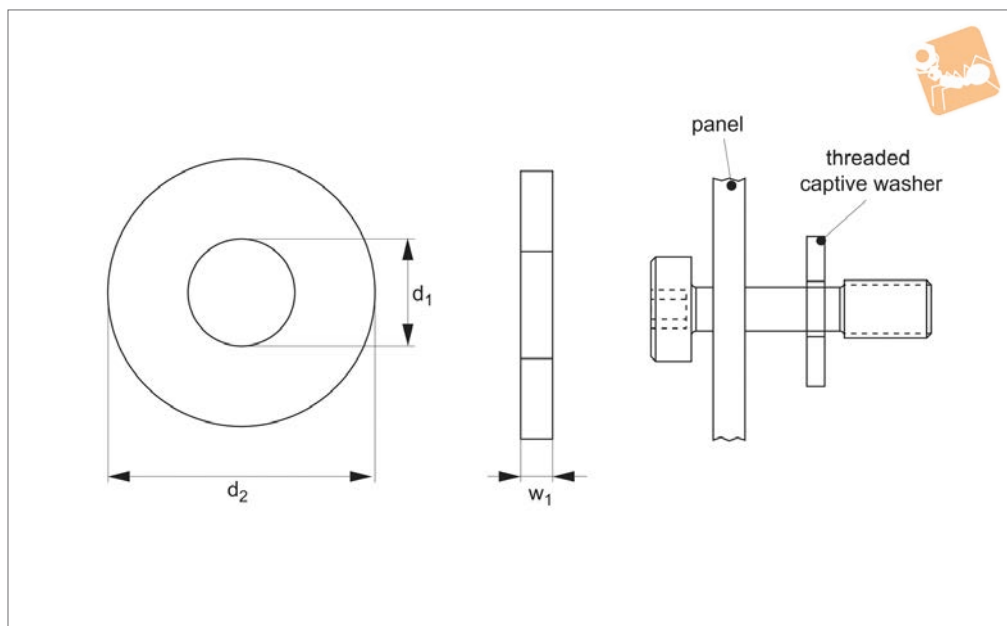
Order No.	d ₁	l ₁ ±0.25	d ₂ ±0.12	d ₃ max.	d ₄ min.	d ₆	h ₁ max.	l ₂ ±0.25	w ₁ ±0.05	A/F
P0163.050-025-A2	M 5	28	37	8.5	5.5	10.0	5.0	7.5	1.5	4.0
P0163.050-030-A2	M 5	30	3.7	8.5	5.5	10.0	5.0	7.5	1.5	4.0
P0163.050-035-A2	M 5	35	3.7	8.5	5.5	10.0	5.0	7.5	1.5	4.0
P0163.050-040-A2	M 5	40	3.7	8.5	5.5	10.0	5.0	7.5	1.5	4.0
P0163.050-050-A2	M 5	50	3.7	8.5	5.5	10.0	5.0	7.5	1.5	4.0
P0163.060-012-A2	M 6	12	4.2	10.0	6.5	12.0	6.0	7.5	1.6	5.0
P0163.060-016-A2	M 6	16	4.2	10.0	6.5	12.0	6.0	7.5	1.6	5.0
P0163.060-020-A2	M 6	20	4.2	10.0	6.5	12.0	6.0	7.5	1.6	5.0
P0163.060-025-A2	M 6	25	4.2	10.0	6.5	12.0	6.0	7.5	1.6	5.0
P0163.060-030-A2	M 6	30	4.2	10.0	6.5	12.0	7.5	7.5	1.6	5.0
P0163.060-035-A2	M 6	35	4.2	10.0	6.5	12.0	6.0	7.5	1.6	5.0
P0163.060-040-A2	M 6	40	4.2	10.0	6.5	12.0	6.0	7.5	1.6	5.0
P0163.060-050-A2	M 6	50	4.2	10.0	6.5	12.0	6.0	7.5	1.6	5.0
P0163.060-060-A2	M 6	60	4.2	10.0	6.5	12.0	6.0	7.5	1.6	5.0
P0163.060-080-A2	M 6	80	4.2	10.0	5.5	12.0	6.0	7.5	1.6	5.0
P0163.080-016-A2	M 8	16	6.0	13.0	8.5	16.0	8.0	10.0	2.0	6.0
P0163.080-020-A2	M 8	20	6.0	13.0	8.5	16.0	8.0	10.0	2.0	6.0
P0163.080-025-A2	M 8	25	6.0	13.0	8.5	16.0	8.0	10.0	2.0	6.0
P0163.080-030-A2	M 8	30	6.0	13.0	8.5	16.0	8.0	10.0	2.0	6.0
P0163.080-035-A2	M 8	35	6.0	13.0	8.5	16.0	8.0	10.0	2.0	6.0
P0163.080-040-A2	M 8	40	6.0	13.0	8.5	16.0	8.0	10.0	2.0	6.0
P0163.080-045-A2	M 8	45	6.0	13.0	8.5	16.0	8.0	10.0	2.0	6.0
P0163.080-050-A2	M 8	50	6.0	13.0	8.5	16.0	8.0	10.0	2.0	6.0
P0163.080-060-A2	M 8	60	6.0	13.0	8.5	16.0	8.0	10.0	2.0	6.0
P0163.080-080-A2	M 8	80	6.0	13.0	8.5	16.0	8.0	10.0	2.0	6.0
P0163.100-020-A2	M 10	20	7.5	16.0	10.6	20.0	10.0	12.5	3.0	8.0
P0163.100-025-A2	M 10	25	7.5	16.0	10.6	20.0	10.0	12.5	3.0	8.0
P0163.100-030-A2	M 10	30	7.5	16.0	10.6	20.0	10.0	12.5	3.0	8.0
P0163.100-035-A2	M 10	35	7.5	16.0	10.6	20.0	10.0	12.5	3.0	8.0
P0163.100-040-A2	M 10	40	7.5	16.0	10.6	20.0	10.0	12.5	3.0	8.0
P0163.100-045-A2	M 10	45	7.5	16.0	10.6	20.0	10.0	12.5	3.0	8.0
P0163.100-050-A2	M 10	50	7.5	16.0	10.6	20.0	10.0	12.5	3.0	8.0
P0163.100-060-A2	M 10	60	7.5	16.0	10.6	20.0	10.0	12.5	3.0	8.0
P0163.100-080-A2	M 10	80	7.5	16.0	10.6	20.0	10.0	12.5	3.0	8.0
P0163.120-025-A2	M 12	25	8.0	18.0	13.2	24.0	12.0	15.0	3.5	10.0
P0163.120-030-A2	M 12	30	8.0	18.0	13.2	24.0	12.0	15.0	3.5	10.0
P0163.120-035-A2	M 12	35	8.0	18.0	13.2	24.0	12.0	15.0	3.5	10.0
P0163.120-040-A2	M 12	40	8.0	18.0	13.2	24.0	12.0	15.0	3.5	10.0
P0163.120-045-A2	M 12	45	8.0	18.0	12.0	24.0	12.0	15.0	3.5	10.0
P0163.120-050-A2	M 12	50	8.0	18.0	13.2	24.0	12.0	15.0	3.5	10.0
P0163.120-060-A2	M 12	60	8.0	18.0	13.2	24.0	12.0	15.0	3.5	10.0
P0163.120-080-A2	M 12	80	8.0	18.0	13.2	24.0	12.0	15.0	3.5	10.0
P0163.160-030-A2	M 16	30	12.0	24.0	17.5	32.0	16.0	20.0	4.0	14.0
P0163.160-035-A2	M 16	35	12.0	24.0	17.5	32.0	16.0	20.0	4.0	14.0
P0163.160-040-A2	M 16	45	12.0	24.0	17.5	32.0	16.0	20.0	4.0	14.0
P0163.160-045-A2	M 16	40	12.0	24.0	17.5	32.0	16.0	20.0	4.0	14.0
P0163.160-050-A2	M 16	50	12.0	24.0	17.5	32.0	16.0	20.0	4.0	14.0
P0163.160-060-A2	M 16	60	12.0	24.0	17.5	32.0	16.0	20.0	4.0	14.0
P0163.160-080-A2	M 16	80	12.0	24.0	17.5	32.0	16.0	20.0	4.0	14.0
P0163.160-100-A2	M 16	100	12.0	24.0	17.5	32.0	16.0	20.0	4.0	14.0
P0163.200-040-A2	M 20	40	16.0	30.0	22.0	40.0	20.0	25.0	5.0	19.0
P0163.200-060-A2	M 20	60	16.0	30.0	22.0	40.0	20.0	25.0	5.0	19.0
P0163.200-080-A2	M 20	80	16.0	30.0	22.0	40.0	20.0	25.0	5.0	19.0
P0163.200-100-A2	M 20	100	16.0	30.0	22.0	40.0	20.0	25.0	5.0	19.0
P0163.200-120-A2	M 20	120	16.0	30.0	22.0	40.0	20.0	25.0	5.0	19.0



Threaded Captive Washers for captive screws



Captive Screws



P0168

CAPTIVE SCREWS

Material

Stainless steel (AISI 303, 1.4305 and AISI 316, 1.440), steel (zinc-plated or black-oxide) and titanium (grade 2 and grade 5).

Technical Notes

Captive washers have a very shallow thread on the i/d.

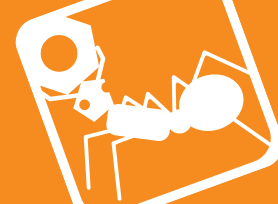
This enables them to be screwed on, and once past the threads they do not separate from the captive screw or bolt.

Tips

Captive washers are primarily used to retain captive screws in panels which have

unthreaded holes. The panel (onto which the screw needs to be retained) is placed onto the captive screw, the threaded washer is then threaded onto the screw, past the threaded section and the screw is therefore captive to the panel.

Order No.	d ₁	w ₁ ±0.05	d ₂	Material
P0168.025-A2	M 2,5	1.0	5.0	Stainless steel 303
P0168.030-A2	M 3	1.0	6.0	Stainless steel 303
P0168.035-A2	M 3,5	1.2	8.0	Stainless steel 303
P0168.040-A2	M 4	1.2	8.0	Stainless steel 303
P0168.050-A2	M 5	1.5	10.0	Stainless steel 303
P0168.060-A2	M 6	1.6	12.0	Stainless steel 303
P0168.080-A2	M 8	2.0	16.0	Stainless steel 303
P0168.100-A2	M10	3.0	20.0	Stainless steel 303
P0168.120-A2	M12	3.5	24.0	Stainless steel 303
P0168.160-A2	M16	4.0	32.0	Stainless steel 303
P0168.200-A2	M20	5.0	40.0	Stainless steel 303
P0168.025-A4	M 2,5	1.0	5.0	Stainless steel 316
P0168.030-A4	M 3	1.0	6.0	Stainless steel 316
P0168.035-A4	M 3,5	1.2	8.0	Stainless steel 316
P0168.040-A4	M 4	1.2	8.0	Stainless steel 316
P0168.050-A4	M 5	1.5	10.0	Stainless steel 316
P0168.060-A4	M 6	1.6	12.0	Stainless steel 316
P0168.080-A4	M 8	2.0	16.0	Stainless steel 316
P0168.100-A4	M10	3.0	20.0	Stainless steel 316
P0168.120-A4	M12	3.5	24.0	Stainless steel 316
P0168.160-A4	M16	4.0	32.0	Stainless steel 316
P0168.200-A4	M20	5.0	40.0	Stainless steel 316
P0168.025-B2	M 2,5	1.0	5.0	Blackened stainless 303
P0168.030-B2	M 3	1.0	6.0	Blackened stainless 303
P0168.035-B2	M 3,5	1.2	8.0	Blackened stainless 303
P0168.040-B2	M 4	1.2	8.0	Blackened stainless 303
P0168.050-B2	M 5	1.5	10.0	Blackened stainless 303
P0168.060-B2	M 6	1.6	12.0	Blackened stainless 303
P0168.080-B2	M 8	2.0	16.0	Blackened stainless 303
P0168.100-B2	M10	3.0	20.0	Blackened stainless 303



Order No.	d ₁	w ₁ ±0.05	d ₂	Material
P0168.120-B2	M12	3.5	24.0	Blackened stainless 303
P0168.160-B2	M16	4.0	32.0	Blackened stainless 303
P0168.200-B2	M20	5.0	40.0	Blackened stainless 303
P0168.025-B4	M 2,5	1.0	5.0	Blackened stainless 316
P0168.030-B4	M 3	1.0	6.0	Blackened stainless 316
P0168.035-B4	M 3,5	1.2	8.0	Blackened stainless 316
P0168.040-B4	M 4	1.2	8.0	Blackened stainless 316
P0168.050-B4	M 5	1.5	10.0	Blackened stainless 316
P0168.060-B4	M 6	1.6	12.0	Blackened stainless 316
P0168.080-B4	M 8	2.0	16.0	Blackened stainless 316
P0168.100-B4	M10	3.0	20.0	Blackened stainless 316
P0168.120-B4	M12	3.5	24.0	Blackened stainless 316
P0168.160-B4	M16	4.0	32.0	Blackened stainless 316
P0168.200-B4	M20	5.0	40.0	Blackened stainless 316
P0168.025-ZP	M 2,5	1.0	5.0	Zinc-plated steel
P0168.030-ZP	M 3	1.0	6.0	Zinc-plated steel
P0168.035-ZP	M 3,5	1.2	8.0	Zinc-plated steel
P0168.040-ZP	M 4	1.2	8.0	Zinc-plated steel
P0168.050-ZP	M 5	1.5	10.0	Zinc-plated steel
P0168.060-ZP	M 6	1.6	12.0	Zinc-plated steel
P0168.080-ZP	M 8	2.0	16.0	Zinc-plated steel
P0168.100-ZP	M10	3.0	20.0	Zinc-plated steel
P0168.120-ZP	M12	3.5	24.0	Zinc-plated steel
P0168.160-ZP	M16	4.0	32.0	Zinc-plated steel
P0168.200-ZP	M20	5.0	40.0	Zinc-plated steel
P0168.025-BL	M 2,5	1.0	5.0	Blackened steel
P0168.030-BL	M 3	1.0	6.0	Blackened steel
P0168.035-BL	M 3,5	1.2	8.0	Blackened steel
P0168.040-BL	M 4	1.2	8.0	Blackened steel
P0168.050-BL	M 5	1.5	10.0	Blackened steel
P0168.060-BL	M 6	1.6	12.0	Blackened steel
P0168.080-BL	M 8	2.0	16.0	Blackened steel
P0168.100-BL	M10	3.0	20.0	Blackened steel
P0168.120-BL	M12	3.5	24.0	Blackened steel
P0168.160-BL	M16	4.0	32.0	Blackened steel
P0168.200-BL	M20	5.0	40.0	Blackened steel
P0168.025-T2	M 2,5	1.0	5.0	Grade 2 titanium
P0168.030-T2	M 3	1.0	6.0	Grade 2 titanium
P0168.035-T2	M 3,5	1.2	8.0	Grade 2 titanium
P0168.040-T2	M 4	1.2	8.0	Grade 2 titanium
P0168.050-T2	M 5	1.5	10.0	Grade 2 titanium
P0168.060-T2	M 6	1.6	12.0	Grade 2 titanium
P0168.080-T2	M 8	2.0	16.0	Grade 2 titanium
P0168.100-T2	M10	3.0	20.0	Grade 2 titanium
P0168.120-T2	M12	3.5	24.0	Grade 2 titanium
P0168.160-T2	M16	4.0	32.0	Grade 2 titanium
P0168.200-T2	M20	5.0	40.0	Grade 2 titanium
P0168.025-T5	M 2,5	1.0	5.0	Grade 5 titanium
P0168.030-T5	M 3	1.0	6.0	Grade 5 titanium
P0168.035-T5	M 3,5	1.2	8.0	Grade 5 titanium
P0168.040-T5	M 4	1.2	8.0	Grade 5 titanium
P0168.050-T5	M 5	1.5	10.0	Grade 5 titanium
P0168.060-T5	M 6	1.6	12.0	Grade 5 titanium
P0168.080-T5	M 8	2.0	16.0	Grade 5 titanium
P0168.100-T5	M10	3.0	20.0	Grade 5 titanium
P0168.120-T5	M12	3.5	24.0	Grade 5 titanium
P0168.160-T5	M16	4.0	32.0	Grade 5 titanium
P0168.200-T5	M20	5.0	40.0	Grade 5 titanium

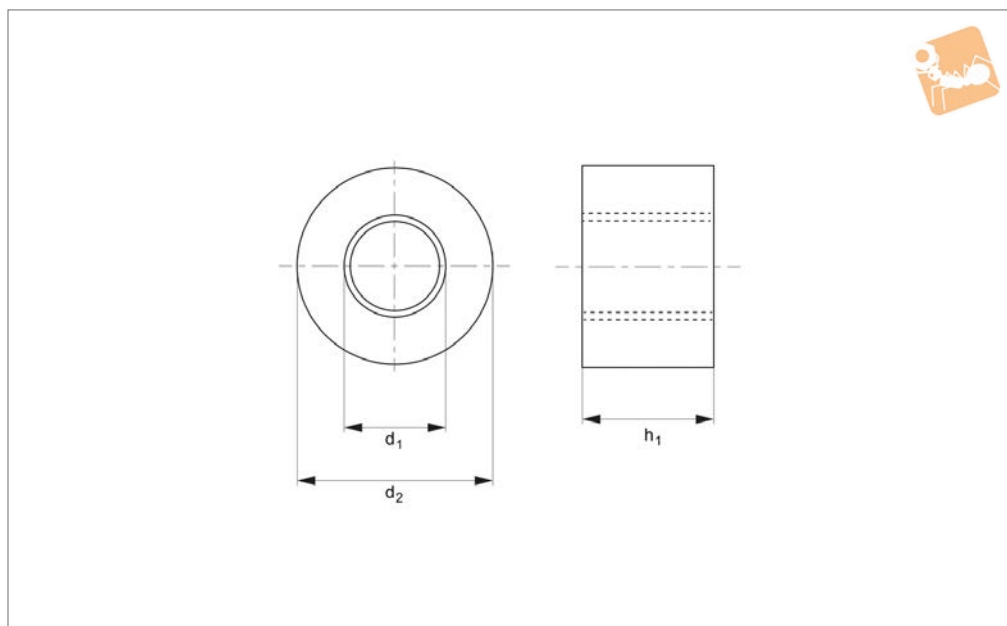


Threaded Washers

303 stainless



Captive Screws



P0340

CAPTIVE SCREWS

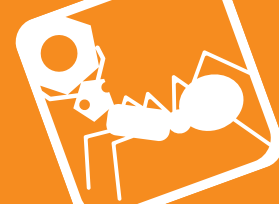
Material

Stainless steel (AISI 303, 1.4305).

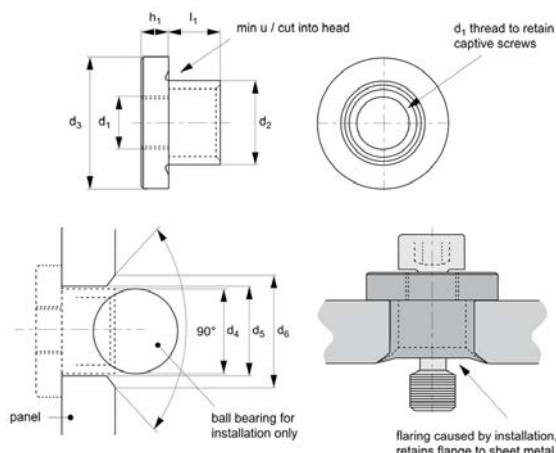
Available with a grey metallic or matte

black (black oxide coated) finish.

Order No.	Coarse thread d_1	d_2 $+2 -0.2$	h_1 ± 0.1	Material
P0340.020-10-06-A2	M 2	10	6	Stainless steel 303
P0340.025-10-06-A2	M2,5	10	6	Stainless steel 303
P0340.030-10-06-A2	M 3	10	6	Stainless steel 303
P0340.020-10-05-B2	M 2	10	5	Blackened stainless 303
P0340.020-10-06-B2	M 2	10	6	Blackened stainless 303
P0340.020-10-08-B2	M 2	10	8	Blackened stainless 303
P0340.020-10-10-B2	M 2	10	10	Blackened stainless 303
P0340.025-10-05-B2	M2,5	10	5	Blackened stainless 303
P0340.025-10-06-B2	M2,5	10	6	Blackened stainless 303
P0340.025-10-08-B2	M2,5	10	8	Blackened stainless 303
P0340.025-10-10-B2	M2,5	10	10	Blackened stainless 303
P0340.030-10-05-B2	M 3	10	5	Blackened stainless 303
P0340.030-10-06-B2	M 3	10	6	Blackened stainless 303
P0340.030-10-08-B2	M 3	10	8	Blackened stainless 303
P0340.030-10-10-B2	M 3	10	10	Blackened stainless 303
P0340.040-10-05-B2	M 4	10	5	Blackened stainless 303
P0340.040-10-08-B2	M 4	10	8	Blackened stainless 303
P0340.040-10-10-B2	M 4	10	10	Blackened stainless 303
P0340.040-12-05-B2	M 4	12	5	Blackened stainless 303
P0340.040-12-08-B2	M 4	12	8	Blackened stainless 303
P0340.040-12-10-B2	M 4	12	10	Blackened stainless 303
P0340.040-12-15-B2	M 4	12	15	Blackened stainless 303
P0340.050-10-05-B2	M 5	10	5	Blackened stainless 303
P0340.050-10-08-B2	M 5	10	8	Blackened stainless 303
P0340.050-10-10-B2	M 5	10	10	Blackened stainless 303
P0340.050-12-05-B2	M 5	12	5	Blackened stainless 303
P0340.050-12-08-B2	M 5	12	8	Blackened stainless 303
P0340.050-12-10-B2	M 5	12	10	Blackened stainless 303
P0340.050-12-15-B2	M 5	12	15	Blackened stainless 303
P0340.050-16-05-B2	M 5	16	5	Blackened stainless 303
P0340.050-16-08-B2	M 5	16	8	Blackened stainless 303
P0340.050-16-10-B2	M 5	16	10	Blackened stainless 303
P0340.050-16-15-B2	M 5	16	15	Blackened stainless 303
P0340.060-12-05-B2	M 6	12	5	Blackened stainless 303



Order No.	Coarse thread d_1	d_2 $+2 -0.2$	h_1 ± 0.1	Material
P0340.060-12-08-B2	M 6	12	8	Blackened stainless 303
P0340.060-12-10-B2	M 6	12	10	Blackened stainless 303
P0340.060-12-15-B2	M 6	12	15	Blackened stainless 303
P0340.060-16-05-B2	M 6	16	5	Blackened stainless 303
P0340.060-16-08-B2	M 6	16	8	Blackened stainless 303
P0340.060-16-10-B2	M 6	16	10	Blackened stainless 303
P0340.060-16-15-B2	M 6	16	15	Blackened stainless 303
P0340.060-20-08-B2	M 6	20	8	Blackened stainless 303
P0340.060-20-10-B2	M 6	20	10	Blackened stainless 303
P0340.060-20-15-B2	M 6	20	15	Blackened stainless 303
P0340.060-20-20-B2	M 6	20	20	Blackened stainless 303
P0340.080-16-05-B2	M 8	16	5	Blackened stainless 303
P0340.080-16-08-B2	M 8	16	8	Blackened stainless 303
P0340.080-16-10-B2	M 8	16	10	Blackened stainless 303
P0340.080-16-15-B2	M 8	16	15	Blackened stainless 303
P0340.080-16-20-B2	M 8	16	20	Blackened stainless 303
P0340.080-20-08-B2	M 8	20	8	Blackened stainless 303
P0340.080-20-10-B2	M 8	20	10	Blackened stainless 303
P0340.080-20-15-B2	M 8	20	15	Blackened stainless 303
P0340.080-20-20-B2	M 8	20	20	Blackened stainless 303
P0340.020-10-05-A2	M 2	10	5	Stainless steel 303
P0340.020-10-08-A2	M 2	10	8	Stainless steel 303
P0340.020-10-10-A2	M 2	10	10	Stainless steel 303
P0340.025-10-05-A2	M2,5	10	5	Stainless steel 303
P0340.025-10-08-A2	M2,5	10	8	Stainless steel 303
P0340.025-10-10-A2	M2,5	10	10	Stainless steel 303
P0340.030-10-05-A2	M 3	10	5	Stainless steel 303
P0340.030-10-08-A2	M 3	10	8	Stainless steel 303
P0340.030-10-10-A2	M 3	10	10	Stainless steel 303
P0340.040-10-05-A2	M 4	10	5	Stainless steel 303
P0340.040-10-08-A2	M 4	10	8	Stainless steel 303
P0340.040-10-10-A2	M 4	10	10	Stainless steel 303
P0340.040-12-05-A2	M 4	12	5	Stainless steel 303
P0340.040-12-08-A2	M 4	12	8	Stainless steel 303
P0340.040-12-10-A2	M 4	12	10	Stainless steel 303
P0340.040-12-15-A2	M 4	12	15	Stainless steel 303
P0340.050-10-05-A2	M 5	10	5	Stainless steel 303
P0340.050-10-08-A2	M 5	10	8	Stainless steel 303
P0340.050-10-10-A2	M 5	10	10	Stainless steel 303
P0340.050-12-05-A2	M 5	12	5	Stainless steel 303
P0340.050-12-08-A2	M 5	12	8	Stainless steel 303
P0340.050-12-10-A2	M 5	12	10	Stainless steel 303
P0340.050-12-15-A2	M 5	12	15	Stainless steel 303
P0340.050-16-05-A2	M 5	16	5	Stainless steel 303
P0340.050-16-08-A2	M 5	16	8	Stainless steel 303
P0340.050-16-10-A2	M 5	16	10	Stainless steel 303
P0340.050-16-15-A2	M 5	16	15	Stainless steel 303
P0340.060-12-05-A2	M 6	12	5	Stainless steel 303
P0340.060-12-08-A2	M 6	12	8	Stainless steel 303
P0340.060-12-10-A2	M 6	12	10	Stainless steel 303
P0340.060-12-15-A2	M 6	12	15	Stainless steel 303
P0340.060-16-05-A2	M 6	16	5	Stainless steel 303
P0340.060-16-08-A2	M 6	16	8	Stainless steel 303
P0340.060-16-10-A2	M 6	16	10	Stainless steel 303
P0340.060-16-15-A2	M 6	16	15	Stainless steel 303
P0340.060-20-08-A2	M 6	20	8	Stainless steel 303
P0340.060-20-10-A2	M 6	20	10	Stainless steel 303
P0340.060-20-15-A2	M 6	20	15	Stainless steel 303
P0340.060-20-20-A2	M 6	20	20	Stainless steel 303
P0340.080-16-05-A2	M 8	16	5	Stainless steel 303
P0340.080-16-08-A2	M 8	16	8	Stainless steel 303
P0340.080-16-10-A2	M 8	16	10	Stainless steel 303
P0340.080-16-15-A2	M 8	16	15	Stainless steel 303
P0340.080-16-20-A2	M 8	16	20	Stainless steel 303
P0340.080-20-08-A2	M 8	20	8	Stainless steel 303
P0340.080-20-10-A2	M 8	20	10	Stainless steel 303
P0340.080-20-15-A2	M 8	20	15	Stainless steel 303
P0340.080-20-20-A2	M 8	20	20	Stainless steel 303



P0169.A2

CAPTIVE SCREWS

Material

Stainless steel (AISI 303, 1.4305).
Also available on request in steel
(anodised, black oxide or zinc plated)
stainless steel (AISI 316, 1.440), brass.

Technical Notes

Select the retainer flange to suit thread of

the captive screw and the thickness of the panel to be retained.

Drill and countersink hole in the panel and use the ball bearing supplied to spread the flange into the countersunk hole.

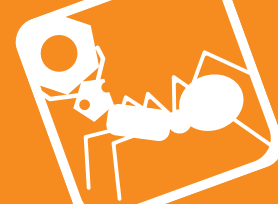
The captive screw is then screwed into the flange and the screw is retained to the

panel.

Tips

Mounting hole diameter to H9 clearance.
Countersunk d_6 to 90° .

Order No.	For thread d ₁	Panel t ₁ ±8%	d ₂	h ₁	l ₁	d ₃	Installation ball dia. d ₄	d ₅ tol. H9	d ₆	Sheet metal gauge
P0169.030-007-A2	M 3	0.70	5.0	1.5	0.70	7.5	5	5.0	6.0	22
P0169.030-009-A2	M 3	0.90	5.0	1.5	0.90	7.5	5	5.0	6.0	20
P0169.030-012-A2	M 3	1.25	5.0	1.5	1.25	7.5	5	5.0	6.0	18
P0169.030-015-A2	M 3	1.50	5.0	1.5	1.50	7.5	5	5.0	6.0	16
P0169.030-020-A2	M 3	2.00	5.0	1.5	2.00	7.5	5	5.0	6.0	14
P0169.030-025-A2	M 3	2.50	5.0	1.5	2.50	7.5	5	5.0	6.0	12
P0169.030-030-A2	M 3	3.00	5.0	1.5	3.00	7.5	5	5.0	6.0	10
P0169.030-040-A2	M 3	4.00	5.0	1.5	4.00	7.5	5	5.0	6.0	8
P0169.030-050-A2	M 3	5.00	5.0	1.5	5.00	7.5	5	5.0	6.0	6
P0169.030-060-A2	M 3	6.00	5.0	1.5	6.00	7.5	5	5.0	6.0	4
P0169.040-007-A2	M 4	0.70	6.8	2.0	0.70	10.0	7	6.8	8.2	22
P0169.040-009-A2	M 4	0.90	6.8	2.0	0.90	10.0	7	6.8	8.2	20
P0169.040-012-A2	M 4	1.25	6.8	2.0	1.25	10.0	7	6.8	8.2	18
P0169.040-015-A2	M 4	1.50	6.8	2.0	1.50	10.0	7	6.8	8.2	16
P0169.040-020-A2	M 4	2.00	6.8	2.0	2.00	10.0	7	6.8	8.2	14
P0169.040-025-A2	M 4	2.50	6.8	2.0	2.50	10.0	7	6.8	8.2	12
P0169.040-030-A2	M 4	3.00	6.8	2.0	3.00	10.0	7	6.8	8.2	10
P0169.040-040-A2	M 4	4.00	6.8	2.0	4.00	10.0	7	6.8	8.2	8
P0169.040-050-A2	M 4	5.00	6.8	2.0	5.00	10.0	7	6.8	8.2	6
P0169.040-060-A2	M 4	6.00	6.8	2.0	6.00	10.0	7	6.8	8.2	4
P0169.050-007-A2	M 5	0.70	8.0	2.5	0.70	12.5	8	8.0	9.6	22
P0169.050-009-A2	M 5	0.90	8.0	2.5	0.90	12.5	8	8.0	9.6	20
P0169.050-012-A2	M 5	1.25	8.0	2.5	1.25	12.5	8	8.0	9.6	18
P0169.050-015-A2	M 5	1.50	8.0	2.5	1.50	12.5	8	8.0	9.6	16
P0169.050-020-A2	M 5	2.00	8.0	2.5	2.00	12.5	8	8.0	9.6	14
P0169.050-025-A2	M 5	2.50	8.0	2.5	2.50	12.5	8	8.0	9.6	12
P0169.050-030-A2	M 5	3.00	8.0	2.5	3.00	12.5	8	8.0	9.6	10
P0169.050-040-A2	M 5	4.00	8.0	2.5	4.00	12.5	8	8.0	9.6	8
P0169.050-050-A2	M 5	5.00	8.0	2.5	5.00	12.5	8	8.0	9.6	6
P0169.050-060-A2	M 5	6.00	8.0	2.5	6.00	12.5	8	8.0	9.6	4



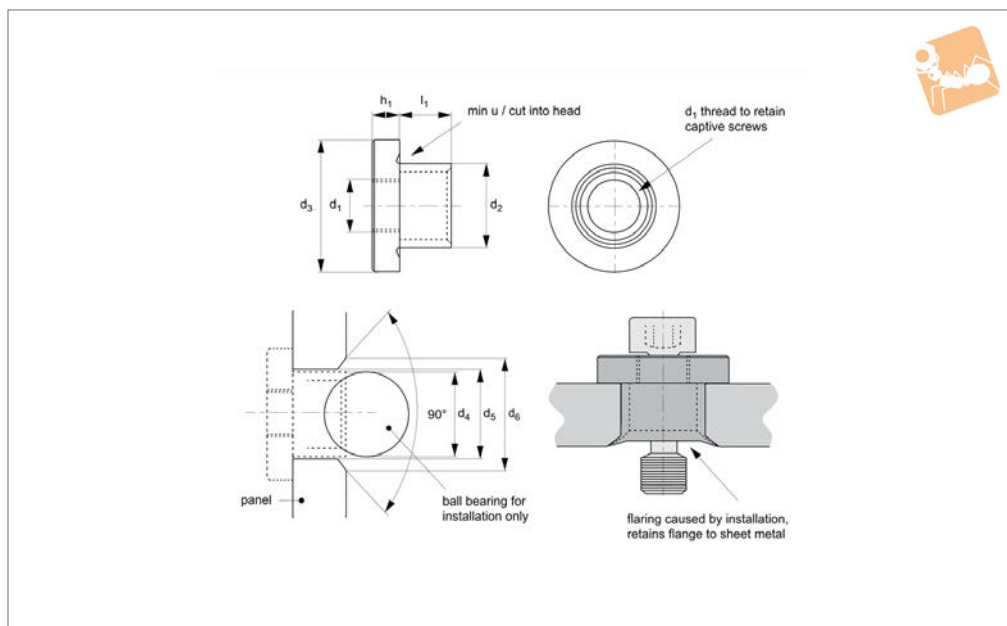
Order No.	For thread d ₁	Panel t ₁ ±8%	d ₂	h ₁	l ₁	d ₃	Installation ball dia. d ₄	d ₅ tol. H9	d ₆	Sheet metal gauge
P0169.060-007-A2	M 6	0.70	10.0	3.0	0.70	15.0	10	10.0	12.0	22
P0169.060-009-A2	M 6	0.90	10.0	3.0	0.90	15.0	10	10.0	12.0	20
P0169.060-012-A2	M 6	1.25	10.0	3.0	1.25	15.0	10	10.0	12.0	18
P0169.060-015-A2	M 6	1.50	10.0	3.0	1.50	15.0	10	10.0	12.0	16
P0169.060-020-A2	M 6	2.00	10.0	3.0	2.00	15.0	10	10.0	12.0	14
P0169.060-025-A2	M 6	2.50	10.0	3.0	2.50	15.0	10	10.0	12.0	12
P0169.060-030-A2	M 6	3.00	10.0	3.0	3.00	15.0	10	10.0	12.0	10
P0169.060-040-A2	M 6	4.00	10.0	3.0	4.00	15.0	10	10.0	12.0	8
P0169.060-050-A2	M 6	5.00	10.0	3.0	5.00	15.0	10	10.0	12.0	6
P0169.060-060-A2	M 6	6.00	10.0	3.0	6.00	15.0	10	10.0	12.0	4
P0169.080-007-A2	M 8	0.70	13.0	4.0	0.70	20.0	13	13.0	15.5	22
P0169.080-009-A2	M 8	0.90	13.0	4.0	0.90	20.0	13	13.0	15.5	20
P0169.080-012-A2	M 8	1.25	13.0	4.0	1.25	20.0	13	13.0	15.5	18
P0169.080-015-A2	M 8	1.50	13.0	4.0	1.50	20.0	13	13.0	15.5	16
P0169.080-020-A2	M 8	2.00	13.0	4.0	2.00	20.0	13	13.0	15.5	14
P0169.080-025-A2	M 8	2.50	13.0	4.0	2.50	20.0	13	13.0	15.5	12
P0169.080-030-A2	M 8	3.00	13.0	4.0	3.00	20.0	13	13.0	15.5	10
P0169.080-040-A2	M 8	4.00	13.0	4.0	4.00	20.0	13	13.0	15.5	8
P0169.080-050-A2	M 8	5.00	13.0	4.0	5.00	20.0	13	13.0	15.5	6
P0169.080-060-A2	M 8	6.00	13.0	4.0	6.00	20.0	13	13.0	15.5	4



Captive Screw Retainer Flange

aluminium

Captive Screws



P0169.AL

CAPTIVE SCREWS

Material

Aluminium.

Also available on request in steel (anodised, black oxide or zinc plated) stainless steel (A4, AISI 316), brass. For stainless (A2) retainer flanges please see part no. P0169.A2.

Technical Notes

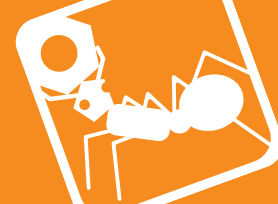
Select the retainer flange to suit thread of

the captive screw and the thickness of the panel to be retained. Drill and countersink hole in the panel and use the ball bearing supplied to spread the flange into the countersunk hole. The captive screw is then screwed into the flange and the screw is retained to the panel.

Tips

Mounting hole diameter to H9 clearance. Countersunk d_6 to 90° .

Order No.	For thread d_1	Panel t_1 $\pm 8\%$	d_2	h_1	l_1	d_3	Installation ball dia. d_4	d_5 tol. H9	d_6	Sheet metal gauge
P0169.030-007-AL	M3	0.7	5.0	1.5	0.7	7.5	5	5.0	6.0	22
P0169.030-009-AL	M3	0.9	5.0	1.5	0.9	7.5	5	5.0	6.0	20
P0169.030-012-AL	M3	1.25	5.0	1.5	1.25	7.5	5	5.0	6.0	18
P0169.030-015-AL	M3	1.5	5.0	1.5	1.5	7.5	5	5.0	6.0	16
P0169.030-020-AL	M3	2.0	5.0	1.5	2.0	7.5	5	5.0	6.0	14
P0169.030-025-AL	M3	2.5	5.0	1.5	2.5	7.5	5	5.0	6.0	12
P0169.030-030-AL	M3	3.0	5.0	1.5	3.0	7.5	5	5.0	6.0	10
P0169.030-040-AL	M3	4.0	5.0	1.5	4.0	7.5	5	5.0	6.0	8
P0169.030-050-AL	M3	5.0	5.0	1.5	5.0	7.5	5	5.0	6.0	6
P0169.030-060-AL	M3	6.0	5.0	1.5	6.0	7.5	5	5.0	6.0	4
P0169.040-007-AL	M4	0.7	6.8	2.0	0.7	10.0	7	6.8	8.2	22
P0169.040-009-AL	M4	0.9	6.8	2.0	0.9	10.0	7	6.8	8.2	20
P0169.040-012-AL	M4	1.25	6.8	2.0	1.25	10.0	7	6.8	8.2	18
P0169.040-015-AL	M4	1.5	6.8	2.0	1.5	10.0	7	6.8	8.2	16
P0169.040-020-AL	M4	2.0	6.8	2.0	2.0	10.0	7	6.8	8.2	14
P0169.040-025-AL	M4	2.5	6.8	2.0	2.5	10.0	7	6.8	8.2	12
P0169.040-030-AL	M4	3.0	6.8	2.0	3.0	10.0	7	6.8	8.2	10
P0169.040-040-AL	M4	4.0	6.8	2.0	4.0	10.0	7	6.8	8.2	8
P0169.040-050-AL	M4	5.0	6.8	2.0	5.0	10.0	7	6.8	8.2	6
P0169.040-060-AL	M4	6.0	6.8	2.0	6.0	10.0	7	6.8	8.2	4
P0169.050-007-AL	M5	0.7	8.0	2.5	0.7	12.5	8	8.0	9.6	22
P0169.050-009-AL	M5	0.9	8.0	2.5	0.9	12.5	8	8.0	9.6	20
P0169.050-012-AL	M5	1.25	8.0	2.5	1.25	12.5	8	8.0	9.6	18
P0169.050-015-AL	M5	1.5	8.0	2.5	1.5	12.5	8	8.0	9.6	16
P0169.050-020-AL	M5	2.0	8.0	2.5	2.0	12.5	8	8.0	9.6	14
P0169.050-025-AL	M5	2.5	8.0	2.5	2.5	12.5	8	8.0	9.6	12
P0169.050-030-AL	M5	3.0	8.0	2.5	3.0	12.5	8	8.0	9.6	10
P0169.050-040-AL	M5	4.0	8.0	2.5	4.0	12.5	8	8.0	9.6	8

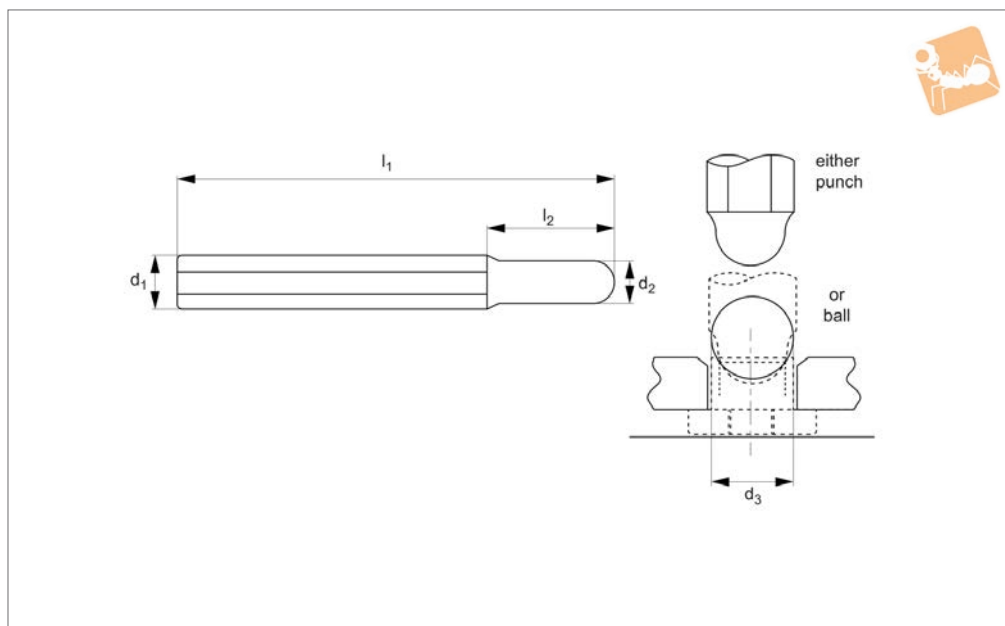


Order No.	For thread d ₁	Panel t ₁ ±8%	d ₂	h ₁	l ₁	d ₃	Installation ball dia. d ₄	d ₅ tol. H9	d ₆	Sheet metal gauge
P0169.050-050-AL	M5	5.0	8.0	2.5	5.0	12.5	8	8.0	9.6	6
P0169.050-060-AL	M5	6.0	8.0	2.5	6.0	12.5	8	8.0	9.6	4
P0169.060-007-AL	M6	0.7	10.0	3.0	0.7	15.0	10	10.0	12.0	22
P0169.060-009-AL	M6	0.9	10.0	3.0	0.9	15.0	10	10.0	12.0	20
P0169.060-012-AL	M6	1.25	10.0	3.0	1.25	15.0	10	10.0	12.0	18
P0169.060-015-AL	M6	1.5	10.0	3.0	1.5	15.0	10	10.0	12.0	16
P0169.060-020-AL	M6	2.0	10.0	3.0	2.0	15.0	10	10.0	12.0	14
P0169.060-025-AL	M6	2.5	10.0	3.0	2.5	15.0	10	10.0	12.0	12
P0169.060-030-AL	M6	3.0	10.0	3.0	3.0	15.0	10	10.0	12.0	10
P0169.060-040-AL	M6	4.0	10.0	3.0	4.0	15.0	10	10.0	12.0	8
P0169.060-050-AL	M6	5.0	10.0	3.0	5.0	15.0	10	10.0	12.0	6
P0169.060-060-AL	M6	6.0	10.0	3.0	6.0	15.0	10	10.0	12.0	4
P0169.080-007-AL	M8	0.7	13.0	4.0	0.7	20.0	13	13.0	15.5	22
P0169.080-009-AL	M8	0.9	13.0	4.0	0.9	20.0	13	13.0	15.5	20
P0169.080-012-AL	M8	1.25	13.0	4.0	1.25	20.0	13	13.0	15.5	18
P0169.080-015-AL	M8	1.5	13.0	4.0	1.5	20.0	13	13.0	15.5	16
P0169.080-020-AL	M8	2.0	13.0	4.0	2.0	20.0	13	13.0	15.5	14
P0169.080-025-AL	M8	2.5	13.0	4.0	2.5	20.0	13	13.0	15.5	12
P0169.080-030-AL	M8	3.0	13.0	4.0	3.0	20.0	13	13.0	15.5	10
P0169.080-040-AL	M8	4.0	13.0	4.0	4.0	20.0	13	13.0	15.5	8
P0169.080-050-AL	M8	5.0	13.0	4.0	5.0	20.0	13	13.0	15.5	6
P0169.080-060-AL	M8	6.0	13.0	4.0	6.0	20.0	13	13.0	15.5	4



Installation Tools for retainer flanges

Captive Screws



P0169.TL

CAPTIVE SCREWS

Material

Ball bearings and punches from steel.
For small quantity installation we suggest you install the flanges using the ball bearings,
for large quantities it is easier to purchase the retaining flange punch.

Technical Notes

Select the retainer flange to suit thread of the captive screw and the thickness of the panel to be retained.
Drill and countersink hole in the panel and use the ball bearing supplied to spread the flange into the countersunk hole.

The captive screw is then screwed into the flange and the screw is retained to the panel.

Tips

Mounting hole diameter to H9 clearance.

Order No.	Type	For flange size	d ₁	d ₂	l ₁	d ₃	l ₂
P0169.030-BL	Ball bearing	P0169.030	-	-	-	5	-
P0169.040-BL	Ball bearing	P0169.040	-	-	-	7	-
P0169.050-BL	Ball bearing	P0169.050	-	-	-	8	-
P0169.060-BL	Ball bearing	P0169.060	-	-	-	10	-
P0169.080-BL	Ball bearing	P0169.080	-	-	-	13	-
P0169.030-PN	Punch	P0169.030	10.0	5	100	-	30
P0169.040-PN	Punch	P0169.040	11.5	7	100	-	30
P0169.050-PN	Punch	P0169.050	13.0	8	100	-	30
P0169.060-PN	Punch	P0169.060	16.0	10	100	-	30
P0169.080-PN	Punch	P0169.080	19.0	13	100	-	30