

Threaded inserts are used to quickly repair stripped, damaged or worn out threads with new stronger threads, or are used in original equipment to guarantee stronger thread connections. Automotion inserts are easy to install and remove, without the need for special drills, taps or pre-winder tools. The 'locking keys' on threaded inserts are easily driven down into the thread of the surrounding base material – locking the insert securely in place.



P0083

Carbon Steel Insert



P0084

Stainless Steel Inserts

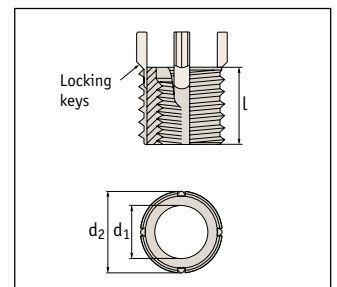


P0087

Solid Inserts

Key Features

- Solid, one-piece construction providing high pull-out strengths.
- Locking "keys" provide a positive mechanical lock against rotation of the insert.
- Easy installation and removal.
- Installation with standard drills and taps.
- No pre-winder tools required.
- No tangs to break off and account for in the assembly.
- For use in a wide variety of materials.
- Both metric and imperial sizes available in coarse and fine pitches.



Installation and Removal

Installation

- Select desired threaded insert, and from the product data table identify the installation drill and tap sizes (note the drill is slightly oversized deliberately).
Drill with standard tap drill as per product data table, and countersink with standard 82-100° countersink.
- Tap new threads with standard tap – as specified in product data table.
- Screw in the insert until it is 0.254 to 0.762mm (.010 to .030 inch) below the surface.
- Drive keys down with several hammer taps on the installation tool – see product data table for correct tool.
- Insert is installed.

Removal

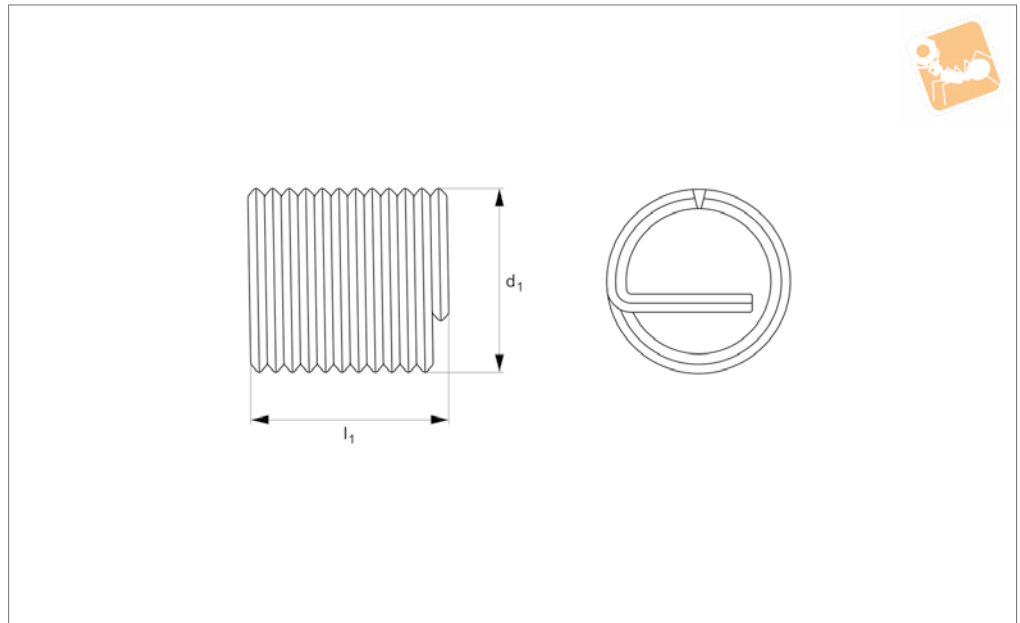
Automotion threaded inserts, if required, can be removed without damage to the parent/surrounding material, follow these steps.

- Refer to the product data table of the installed threaded insert and identify the drill size and drill depth required for removal. Drill out the material between the insert keys and the internal thread to specified depth.
- Bend the locking keys inward and break off.
- Remove the old insert using a screw extractor or similar.
- Install a replacement insert into the original tapped hole as per installation instruction above.





P0080



Material

Stainless steel (A2, AISI 304).

Technical Notes

To DIN 8140-1A

These inserts are used for the repair and reinforcement of cracked and damaged threads.

Thread inserts are oversized so that when installed they are kept in position,

by the pressure between the sides of the hole and the coils.

Threads are metric coarse threads, other pitches available on request.

Temperature range for use -160° C to +420° C and can withstand temperature surges up to +500° C.

Tips

A special tap is required to install these inserts.

The installation procedure includes the following steps:

1. Drill Hole 2. Tap with wire insert tap
3. Check hole with gauge 4. Install insert
5. Remove tang 6. Check thread ,go:no-go'.

Order No.	d ₁ x pitch	Drill dia. d ₂	C'bore dia. d ₃	l ₁
P0080.020-1.0-A2	M2 x0,4	2.1	2,52 - 2,61	2.0
P0080.020-1.5-A2	M2 x0,4	2.1	2,52 - 2,61	3.0
P0080.020-2.0-A2	M2 x0,4	2.1	2,52 - 2,61	4.0
P0080.020-2.5-A2	M2 x0,4	2.1	2,52 - 2,61	5.0
P0080.020-3.0-A2	M2 x0,4	2.1	2,52 - 2,61	6.0
P0080.030-1.0-A2	M3 x0,5	3.2	3,65 - 4,35	3.0
P0080.030-1.5-A2	M3 x0,5	3.2	3,65 - 4,35	4.5
P0080.030-2.0-A2	M3 x0,5	3.2	3,65 - 4,35	6.0
P0080.030-2.5-A2	M3 x0,5	3.2	3,65 - 4,35	7.5
P0080.030-3.0-A2	M3 x0,5	3.2	3,65 - 4,35	9.0
P0080.025-1.0-A2	M2,5x0,45	2.6	3,08 - 3,18	2.5
P0080.025-1.5-A2	M2,5x0,45	2.6	3,08 - 3,18	3.75
P0080.025-2.0-A2	M2,5x0,45	2.6	3,08 - 3,18	5.0
P0080.025-2.5-A2	M2,5x0,45	2.6	3,08 - 3,18	6.25
P0080.025-3.0-A2	M2,5x0,45	2.6	3,08 - 3,18	7.5
P0080.040-1.0-A2	M4 x0,7	4.2	4,9 - 5,06	4.0
P0080.040-1.5-A2	M4 x0,7	4.2	4,9 - 5,06	6.0
P0080.040-2.0-A2	M4 x0,7	4.2	4,9 - 5,06	8.0
P0080.040-2.5-A2	M4 x0,7	4.2	4,9 - 5,06	10.0
P0080.040-3.0-A2	M4 x0,7	4.2	4,9 - 5,06	12.0
P0080.050-1.0-A2	M5 x0,8	5.2	6,04 - 6,21	5.0
P0080.050-1.5-A2	M5 x0,8	5.2	6,04 - 6,21	7.5
P0080.050-2.0-A2	M5 x0,8	5.2	6,04 - 6,21	10.0
P0080.050-2.5-A2	M5 x0,8	5.2	6,04 - 6,21	12.5
P0080.050-3.0-A2	M5 x0,8	5.2	6,04 - 6,21	15.0
P0080.060-1.0-A2	M6 x1,0	6.3	7,3 - 7,51	6.0
P0080.060-1.5-A2	M6 x1,0	6.3	7,3 - 7,51	9.0
P0080.060-2.0-A2	M6 x1,0	6.3	7,3 - 7,51	12.0



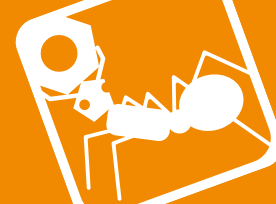
Wire Thread Inserts - Free Running

A2 stainless

Thread Inserts



Order No.	d ₁ x pitch	Drill dia. d ₂	C'bore dia. d ₃	l ₁
P0080.060-2.5-A2	M6 x1,0	6.3	7,3 - 7,51	15.0
P0080.060-3.0-A2	M6 x1,0	6.3	7,3 - 7,51	18.0
P0080.080-1.0-A2	M8 x1,25	8.3	9,62 - 9,89	8.0
P0080.080-1.5-A2	M8 x1,25	8.3	9,62 - 9,89	12.0
P0080.080-2.0-A2	M8 x1,25	8.3	9,62 - 9,89	16.0
P0080.080-2.5-A2	M8 x1,25	8.3	9,62 - 9,89	20.0
P0080.080-3.0-A2	M8 x1,25	8.3	9,62 - 9,89	24.0
P0080.100-1.0-A2	M10x1,5	10.4	11,95 - 12,27	10.0
P0080.100-1.5-A2	M10x1,5	10.4	11,95 - 12,27	15.0
P0080.100-2.0-A2	M10x1,5	10.4	11,95 - 12,27	20.0
P0080.100-2.5-A2	M10x1,5	10.4	11,95 - 12,27	25.0
P0080.100-3.0-A2	M10x1,5	10.4	11,95 - 12,27	30.0
P0080.120-1.0-A2	M12x1,75	12.5	14,27 - 14,65	12.0
P0080.120-1.5-A2	M12x1,75	12.5	14,27 - 14,65	18.0
P0080.120-2.0-A2	M12x1,75	12.5	14,27 - 14,65	24.0
P0080.120-2.5-A2	M12x1,75	12.5	14,27 - 14,65	30.0
P0080.120-3.0-A2	M12x1,75	12.5	14,27 - 14,65	36.0
P0080.140-1.0-A2	M14x2,0	14.5	16,60 - 17,03	14.0
P0080.140-1.5-A2	M14x2,0	14.5	16,60 - 17,03	21.0
P0080.140-2.0-A2	M14x2,0	14.5	16,60 - 17,03	28.0
P0080.140-2.5-A2	M14x2,0	14.5	16,60 - 17,03	35.0
P0080.140-3.0-A2	M14x2,0	14.5	16,60 - 17,03	42.0
P0080.160-1.0-A2	M16x2,0	16.5	18,60 - 19,03	16.0
P0080.160-1.5-A2	M16x2,0	16.5	18,60 - 19,03	24.0
P0080.160-2.0-A2	M16x2,0	16.5	18,60 - 19,03	32.0
P0080.160-2.5-A2	M16x2,0	16.5	18,60 - 19,03	40.0
P0080.160-3.0-A2	M16x2,0	16.5	18,60 - 19,03	48.0
P0080.180-1.0-A2	M18x2,5	18.8	21,25 - 21,79	18.0
P0080.180-1.5-A2	M18x2,5	18.8	21,25 - 21,79	27.0
P0080.180-2.0-A2	M18x2,5	18.8	21,25 - 21,79	36.0
P0080.180-2.5-A2	M18x2,5	18.8	21,25 - 21,79	45.0
P0080.180-3.0-A2	M18x2,5	18.8	21,25 - 21,79	54.0
P0080.200-1.0-A2	M20x2,5	20.8	23,25 - 23,79	20.0
P0080.200-1.5-A2	M20x2,5	20.8	23,25 - 23,79	30.0
P0080.200-2.0-A2	M20x2,5	20.8	23,25 - 23,79	40.0
P0080.200-2.5-A2	M20x2,5	20.8	23,25 - 23,79	50.0
P0080.200-3.0-A2	M20x2,5	20.8	23,25 - 23,79	60.0
P0080.220-1.0-A2	M22x2,5	22.8	25,25 - 25,79	22.0
P0080.220-1.5-A2	M22x2,5	22.8	25,25 - 25,79	33.0
P0080.220-2.0-A2	M22x2,5	22.8	25,25 - 25,79	44.0
P0080.220-2.5-A2	M22x2,5	22.8	25,25 - 25,79	55.0
P0080.220-3.0-A2	M22x2,5	22.8	25,25 - 25,79	66.0
P0080.240-1.0-A2	M24x3,0	25.0	27,90 - 28,54	24.0
P0080.240-1.5-A2	M24x3,0	25.0	27,90 - 28,54	36.0
P0080.240-2.0-A2	M24x3,0	25.0	27,90 - 28,54	48.0
P0080.240-2.5-A2	M24x3,0	25.0	27,90 - 28,54	60.0
P0080.240-3.0-A2	M24x3,0	25.0	27,90 - 28,54	72.0
P0080.270-1.0-A2	M27x3,0	28.0	30,90 - 31,54	27.0
P0080.270-1.5-A2	M27x3,0	28.0	30,90 - 31,54	40.5
P0080.270-2.0-A2	M27x3,0	28.0	30,90 - 31,54	54.0
P0080.270-2.5-A2	M27x3,0	28.0	30,90 - 31,54	67.5
P0080.270-3.0-A2	M27x3,0	28.0	30,90 - 31,54	81.0
P0080.300-1.0-A2	M30x3,5	31.0	34,55 - 35,30	30.0
P0080.300-1.5-A2	M30x3,5	31.0	34,55 - 35,30	45.0
P0080.300-2.0-A2	M30x3,5	31.0	34,55 - 35,30	60.0
P0080.300-2.5-A2	M30x3,5	31.0	34,55 - 35,30	75.0
P0080.300-3.0-A2	M30x3,5	31.0	34,55 - 35,30	90.0
P0080.330-1.0-A2	M33x3,5	34.0	37,55 - 38,30	33.0
P0080.330-1.5-A2	M33x3,5	34.0	37,55 - 38,30	49.5
P0080.330-2.0-A2	M33x3,5	34.0	37,55 - 38,30	66.0
P0080.330-2.5-A2	M33x3,5	34.0	37,55 - 38,30	82.5
P0080.330-3.0-A2	M33x3,5	34.0	37,55 - 38,30	99.0
P0080.360-1.0-A2	M36x4,0	37.0	41,20 - 42,06	36.0
P0080.360-1.5-A2	M36x4,0	37.0	41,20 - 42,06	54.0
P0080.360-2.0-A2	M36x4,0	37.0	41,20 - 42,06	72.0
P0080.360-2.5-A2	M36x4,0	37.0	41,20 - 42,06	90.0
P0080.360-3.0-A2	M36x4,0	37.0	41,20 - 42,06	108.0
P0080.390-1.0-A2	M39x4,0	40.0	44,20 - 45,06	39.0
P0080.390-1.5-A2	M39x4,0	40.0	44,20 - 45,06	58.5



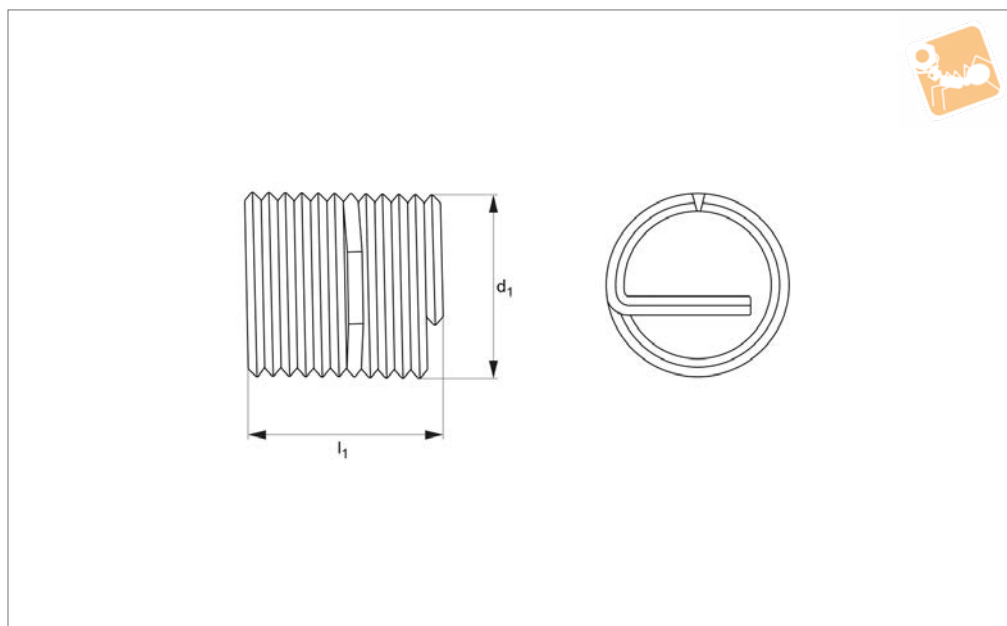
Order No.	d ₁ x pitch	Drill dia. d ₂	C'bore dia. d ₃	l ₁
P0080.390-2.0-A2	M39x4,0	40.0	44,20 - 45.06	78.0
P0080.390-2.5-A2	M39x4,0	40.0	44,20 - 45.06	97.5
P0080.390-3.0-A2	M39x4,0	40.0	44,20 - 45.06	117.0
P0080.420-1.0-A2	M42x4,5	43.0	47,85 - 48,82	42.0
P0080.420-1.5-A2	M42x4,5	43.0	47,85 - 48,82	63.0
P0080.420-2.0-A2	M42x4,5	43.0	47,85 - 48,82	84.0
P0080.420-2.5-A2	M42x4,5	43.0	47,85 - 48,82	105.0
P0080.420-3.0-A2	M42x4,5	43.0	47,85 - 48,82	126.0



Wire Thread Inserts - Screw Lock

A2 stainless

Thread Inserts



P0081

THREAD INSERTS

Material

Stainless steel (A2, AISI 304).

Technical Notes

To DIN 8140-1A

These inserts are used for the repair and reinforcement of cracked and damaged threads. Thread inserts are oversized so that when installed they are kept in position by the pressure between the sides of the hole and the coils. These „screw lock“ thread inserts (prevailing torque) are

useful in applications where there is cyclic vibration or impact. A portion of the thread in the mid area of the insert has polygonal threads and these exert radial pressure on the male thread. It is recommended to use „close fit“ thread tolerance male bolts or screws.

Threads are metric coarse threads, other pitches available on request.

Temperature range for use -160° C to +420° C and can withstand temperature

surges up to +500° C.

Tips

A special tap is required to install these inserts.

The installation procedure includes the following steps:

1. Drill Hole
2. Tap with wire insert tap
3. Check hole with gauge
4. Install insert
5. Remove tang
6. Check thread „go:no-go“.

Order No.	d ₁ x pitch	Drill dia. d ₂	C'bore dia. d ₃	l ₁
P0081.020-1.0-A2	M2 x0,4	2.1	2,52 - 2,61	2.0
P0081.020-1.5-A2	M2 x0,4	2.1	2,52 - 2,61	3.0
P0081.020-2.0-A2	M2 x0,4	2.1	2,52 - 2,61	4.0
P0081.020-2.5-A2	M2 x0,4	2.1	2,52 - 2,61	5.0
P0081.020-3.0-A2	M2 x0,4	2.1	2,52 - 2,61	6.0
P0081.030-1.0-A2	M3 x0,5	3.2	3,65 - 4,35	3.0
P0081.030-1.5-A2	M3 x0,5	3.2	3,65 - 4,35	4.5
P0081.030-2.0-A2	M3 x0,5	3.2	3,65 - 4,35	6.0
P0081.030-2.5-A2	M3 x0,5	3.2	3,65 - 4,35	7.5
P0081.030-3.0-A2	M3 x0,5	3.2	3,65 - 4,35	9.0
P0081.025-1.0-A2	M2,5x0,45	2.6	3,08 - 3,18	2.5
P0081.025-1.5-A2	M2,5x0,45	2.6	3,08 - 3,18	3.75
P0081.025-2.0-A2	M2,5x0,45	2.6	3,08 - 3,18	5.0
P0081.025-2.5-A2	M2,5x0,45	2.6	3,08 - 3,18	6.25
P0081.025-3.0-A2	M2,5x0,45	2.6	3,08 - 3,18	7.5
P0081.040-1.0-A2	M4 x0,7	4.2	4,9 - 5,06	4.0
P0081.040-1.5-A2	M4 x0,7	4.2	4,9 - 5,06	6.0
P0081.040-2.0-A2	M4 x0,7	4.2	4,9 - 5,06	8.0
P0081.040-2.5-A2	M4 x0,7	4.2	4,9 - 5,06	10.0
P0081.040-3.0-A2	M4 x0,7	4.2	4,9 - 5,06	12.0
P0081.050-1.0-A2	M5 x0,8	5.2	6,04 - 6,21	5.0
P0081.050-1.5-A2	M5 x0,8	5.2	6,04 - 6,21	7.5
P0081.050-2.0-A2	M5 x0,8	5.2	6,04 - 6,21	10.0
P0081.050-2.5-A2	M5 x0,8	5.2	6,04 - 6,21	12.5
P0081.050-3.0-A2	M5 x0,8	5.2	6,04 - 6,21	15.0
P0081.060-1.0-A2	M6 x1,0	6.3	7,3 - 7,51	6.0



Order No.	d ₁ x pitch	Drill dia. d ₂	C'bore dia. d ₃	l ₁
P0081.060-1.5-A2	M6 x1,0	6.3	7,3 - 7,51	9.0
P0081.060-2.0-A2	M6 x1,0	6.3	7,3 - 7,51	12.0
P0081.060-2.5-A2	M6 x1,0	6.3	7,3 - 7,51	15.0
P0081.060-3.0-A2	M6 x1,0	6.3	7,3 - 7,51	18.0
P0081.080-1.0-A2	M8 x1,25	8.3	9,62 - 9,89	8.0
P0081.080-1.5-A2	M8 x1,25	8.3	9,62 - 9,89	12.0
P0081.080-2.0-A2	M8 x1,25	8.3	9,62 - 9,89	16.0
P0081.080-2.5-A2	M8 x1,25	8.3	9,62 - 9,89	20.0
P0081.080-3.0-A2	M8 x1,25	8.3	9,62 - 9,89	24.0
P0081.100-1.0-A2	M10x1,5	10.4	11,95 - 12,27	10.0
P0081.100-1.5-A2	M10x1,5	10.4	11,95 - 12,27	15.0
P0081.100-2.0-A2	M10x1,5	10.4	11,95 - 12,27	20.0
P0081.100-2.5-A2	M10x1,5	10.4	11,95 - 12,27	25.0
P0081.100-3.0-A2	M10x1,5	10.4	11,95 - 12,27	30.0
P0081.120-1.0-A2	M12x1,75	12.5	14,27 - 14,65	12.0
P0081.120-1.5-A2	M12x1,75	12.5	14,27 - 14,65	18.0
P0081.120-2.0-A2	M12x1,75	12.5	14,27 - 14,65	24.0
P0081.120-2.5-A2	M12x1,75	12.5	14,27 - 14,65	30.0
P0081.120-3.0-A2	M12x1,75	12.5	14,27 - 14,65	36.0
P0081.140-1.0-A2	M14x2,0	14.5	16,60 - 17,03	14.0
P0081.140-1.5-A2	M14x2,0	14.5	16,60 - 17,03	21.0
P0081.140-2.0-A2	M14x2,0	14.5	16,60 - 17,03	28.0
P0081.140-2.5-A2	M14x2,0	14.5	16,60 - 17,03	35.0
P0081.140-3.0-A2	M14x2,0	14.5	16,60 - 17,03	42.0
P0081.160-1.0-A2	M16x2,0	16.5	18,60 - 19,03	16.0
P0081.160-1.5-A2	M16x2,0	16.5	18,60 - 19,03	24.0
P0081.160-2.0-A2	M16x2,0	16.5	18,60 - 19,03	32.0
P0081.160-2.5-A2	M16x2,0	16.5	18,60 - 19,03	40.0
P0081.160-3.0-A2	M16x2,0	16.5	18,60 - 19,03	48.0
P0081.180-1.0-A2	M18x2,5	18.8	21,25 - 21,79	18.0
P0081.180-1.5-A2	M18x2,5	18.8	21,25 - 21,79	27.0
P0081.180-2.0-A2	M18x2,5	18.8	21,25 - 21,79	36.0
P0081.180-2.5-A2	M18x2,5	18.8	21,25 - 21,79	45.0
P0081.180-3.0-A2	M18x2,5	18.8	21,25 - 21,79	54.0
P0081.200-1.0-A2	M20x2,5	20.8	23,25 - 23,79	20.0
P0081.200-1.5-A2	M20x2,5	20.8	23,25 - 23,79	30.0
P0081.200-2.0-A2	M20x2,5	20.8	23,25 - 23,79	40.0
P0081.200-2.5-A2	M20x2,5	20.8	23,25 - 23,79	50.0
P0081.200-3.0-A2	M20x2,5	20.8	23,25 - 23,79	60.0
P0081.220-1.0-A2	M22x2,5	22.8	25,25 - 25,79	22.0
P0081.220-1.5-A2	M22x2,5	22.8	25,25 - 25,79	33.0
P0081.220-2.0-A2	M22x2,5	22.8	25,25 - 25,79	44.0
P0081.220-2.5-A2	M22x2,5	22.8	25,25 - 25,79	55.0
P0081.220-3.0-A2	M22x2,5	22.8	25,25 - 25,79	66.0
P0081.240-1.0-A2	M24x3,0	25.0	27,90 - 28,54	24.0
P0081.240-1.5-A2	M24x3,0	25.0	27,90 - 28,54	36.0
P0081.240-2.0-A2	M24x3,0	25.0	27,90 - 28,54	48.0
P0081.240-2.5-A2	M24x3,0	25.0	27,90 - 28,54	60.0
P0081.240-3.0-A2	M24x3,0	25.0	27,90 - 28,54	72.0
P0081.270-1.0-A2	M27x3,0	28.0	30,90 - 31,54	27.0
P0081.270-1.5-A2	M27x3,0	28.0	30,90 - 31,54	40.5
P0081.270-2.0-A2	M27x3,0	28.0	30,90 - 31,54	54.0
P0081.270-2.5-A2	M27x3,0	28.0	30,90 - 31,54	67.5
P0081.270-3.0-A2	M27x3,0	28.0	30,90 - 31,54	81.0
P0081.300-1.0-A2	M30x3,5	31.0	34,55 - 35,30	30.0
P0081.300-1.5-A2	M30x3,5	31.0	34,55 - 35,30	45.0
P0081.300-2.0-A2	M30x3,5	31.0	34,55 - 35,30	60.0
P0081.300-2.5-A2	M30x3,5	31.0	34,55 - 35,30	60.0
P0081.300-3.0-A2	M30x3,5	31.0	34,55 - 35,30	90.0
P0081.330-1.0-A2	M33x3,5	34.0	37,55 - 38,30	33.0
P0081.330-1.5-A2	M33x3,5	34.0	37,55 - 38,30	49.5
P0081.330-2.0-A2	M33x3,5	34.0	37,55 - 38,30	66.0
P0081.330-2.5-A2	M33x3,5	34.0	37,55 - 38,30	82.5
P0081.330-3.0-A2	M33x3,5	34.0	37,55 - 38,30	99.0
P0081.360-1.0-A2	M36x4,0	37.0	41,20 - 42,06	36.0
P0081.360-1.5-A2	M36x4,0	37.0	41,20 - 42,06	54.0
P0081.360-2.0-A2	M36x4,0	37.0	41,20 - 42,06	72.0
P0081.360-2.5-A2	M36x4,0	37.0	41,20 - 42,06	90.0
P0081.360-3.0-A2	M36x4,0	37.0	41,20 - 42,06	108.0



Wire Thread Inserts - Screw Lock

A2 stainless

Thread Inserts

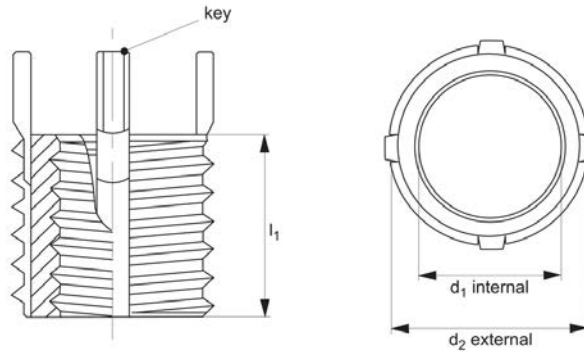


Order No.	d ₁ x pitch	Drill dia. d ₂	C'bore dia. d ₃	l ₁
P0081.390-1.0-A2	M39x4,0	40.0	44,20 - 45.06	39.0
P0081.390-1.5-A2	M39x4,0	40.0	44,20 - 45.06	58.5
P0081.390-2.0-A2	M39x4,0	40.0	44,20 - 45.06	78.0
P0081.390-2.5-A2	M39x4,0	40.0	44,20 - 45.06	97.5
P0081.390-3.0-A2	M39x4,0	40.0	44,20 - 45.06	117.0
P0081.420-1.0-A2	M42x4,5	43.0	47,85 - 48,82	42.0
P0081.420-1.5-A2	M42x4,5	43.0	47,85 - 48,82	63.0
P0081.420-2.0-A2	M42x4,5	43.0	47,85 - 48,82	84.0
P0081.420-2.5-A2	M42x4,5	43.0	47,85 - 48,82	105.0
P0081.420-3.0-A2	M42x4,5	43.0	47,85 - 48,82	126.0

THREAD INSERTS



P0083.1



Material

Inserts: stainless steel (AISI 303) or equivalent. Passivated.

Keys: stainless steel (302 CRES) or equivalent. Passivated.

Technical Notes

General tolerances:

±0,25, unless specified.

Tap drill hole tolerances:

6,9 to 10,8 = +0,10/-0,025.

12,8 and over = +0,13/-0,025.

Tips

Order installation tool separately, as identified by „Inst. tool ref.“ in table.

Important Notes

Four locking keys on internal threads M 8 and over. Two locking keys on internal threads smaller than M 8.

Installation (Inst.) drill size, countersink, thread tap and thread depth as specified in table.

Removal drill size and drill depth as speci-

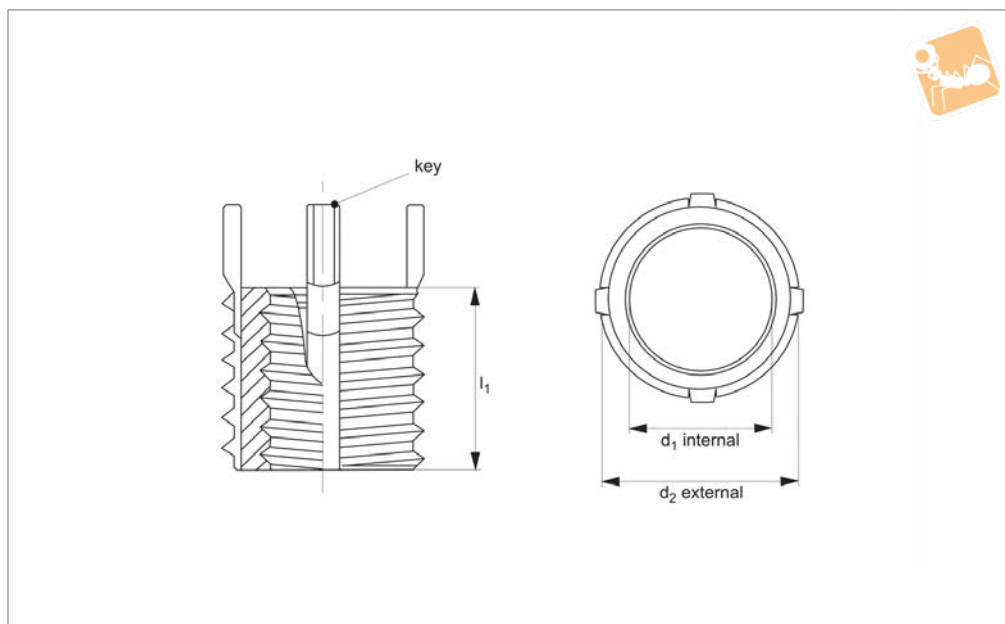
Order No.	Int. d ₁ tol. 6H	Int. thread type d ₁	Ext. d ₂ tol. 6g	Ext. thread type d ₂	l ₁	Inst. tool ref. 22062	Inst. tap drill size	Inst. c'sink dia. ±0.25 ± 0.000	Inst. thread tap tol. 6H	Inst. thread depth min.	Removal drill size	Removal drill depth
P0083.040-070-A2	M 4x0,70	Coarse	M 8x1,25	Coarse	8	.W0630	6,9	8,3	M 8x1,25	9,5	5,5	4,0
P0083.050-080-A2	M 5x0,80	Coarse	M10x1,25	Fine	10	.W0640	8,8	10,3	M10x1,25	12,5	7,5	4,8
P0083.060-100-A2	M 6x1,00	Coarse	M12x1,25	Fine	12	.W0650	10,8	12,3	M12x1,25	14,5	9,5	4,8
P0083.080-125-A2	M 8x1,25	Coarse	M14x1,50	Fine	14	.W0660	12,8	14,3	M14x1,50	16,5	11,5	4,8
P0083.080-100-A2	M 8x1,00	Fine	M14x1,50	Fine	14	.W0660	12,8	14,3	M14x1,50	16,5	11,5	4,8
P0083.100-150-A2	M10x1,50	Coarse	M16x1,50	Fine	16	.W0670	14,8	16,3	M16x1,50	18,5	13,5	4,8
P0083.100-125-A2	M10x1,25	Fine	M16x1,50	Fine	16	.W0670	14,8	16,3	M16x1,50	18,5	13,5	4,8
P0083.120-175-A2	M12x1,75	Coarse	M18x1,50	Fine	18	.W0690	16,8	18,3	M18x1,50	20,5	15,5	4,8
P0083.120-125-A2	M12x1,25	Fine	M18x1,50	Fine	18	.W0690	16,8	18,3	M18x1,50	20,5	15,5	4,8
P0083.140-200-A2	M14x2,00	Coarse	M20x1,50	Fine	20	.W0700	18,8	20,3	M20x1,50	22,5	17,5	4,8
P0083.140-150-A2	M14x1,50	Fine	M20x1,50	Fine	20	.W0700	18,8	20,3	M20x1,50	22,5	17,5	4,8
P0083.160-200-A2	M16x2,00	Coarse	M22x1,50	Fine	22	.W0710	20,5	22,3	M22x1,50	24,5	17,8	6,4
P0083.160-150-A2	M16x1,50	Fine	M22x1,50	Fine	22	.W0710	20,5	22,3	M22x1,50	24,5	17,8	6,4
P0083.180-150-A2	M18x1,50	Fine	M24x1,50	Fine	24	.W0720	22,5	24,3	M24x1,50	26,5	19,8	6,4
P0083.200-250-A2	M20x2,50	Coarse	M30x2,00	Non-Std	30	.W0730	28,0	30,3	M30x2,00	34,5	25,8	6,4
P0083.200-150-A2	M20x1,50	Fine	M30x2,00	Non-Std	30	.W0730	28,0	30,3	M30x2,00	34,5	25,8	6,4
P0083.220-150-A2	M22x1,50	Fine	M32x2,00	Non-Std	32	.W0740	30,0	32,3	M32x2,00	36,5	27,8	6,4
P0083.240-300-A2	M24x3,00	Coarse	M33x2,00	Non-Std	33	.W0750	31,0	33,3	M33x2,00	37,5	28,8	6,4
P0083.240-200-A2	M24x2,00	Fine	M33x2,00	Non-Std	33	.W0750	31,0	33,3	M33x2,00	37,5	28,8	6,4



Threaded Insert - Metric

heavy duty - carbon steel

Thread Inserts



P0083.2

THREAD INSERTS

Material

Inserts: carbon steel (C1215) or equivalent. Zinc phosphate.

Keys: stainless steel (302 CRES) or equivalent. Passivated.

Technical Notes

General tolerances:

±0,25, unless specified.

Tap drill hole tolerances:

6,9 to 10,8 = +0,10/-0,025.

12,8 and over = +0,13/-0,025.

Tips

Order installation tool separately, as identified by „Inst. tool ref.“ in table.

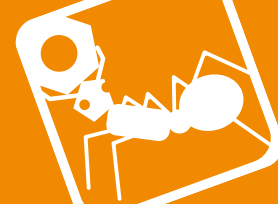
Important Notes

Four locking keys on internal threads M 8 and over. Two locking keys on internal threads smaller than M 8.

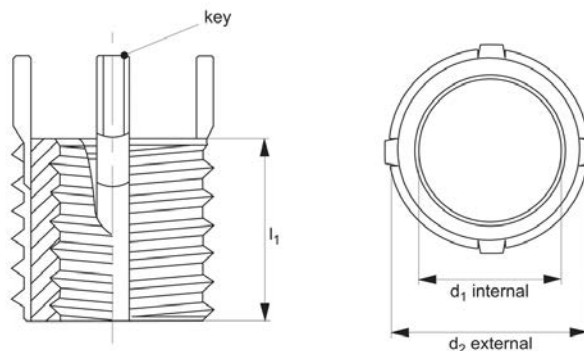
Installation (Inst.) drill size, countersink, thread tap and thread depth as specified in table.

Removal drill size and drill depth as speci-

Order No.	Int. d ₁ tol. 6H	Int. thread type d ₁	Ext. d ₂ tol. 6g	Ext. thread type d ₂	l ₁	Inst. tool ref. 22062	Inst. tap drill size	Inst. c'sink dia. ±0.25 ± 0.000	Inst. thread tap tol. 6H	Inst. thread depth min.	Removal drill size	Removal drill depth
P0083.040-070-CS	M 4x0,70	Coarse	M 8x1,25	Coarse	8	.W0630	6,9	8,3	M 8x1,25	9,5	5,5	4,0
P0083.050-080-CS	M 5x0,80	Coarse	M10x1,25	Fine	10	.W0640	8,8	10,3	M10x1,25	12,5	7,5	4,8
P0083.060-100-CS	M 6x1,00	Coarse	M12x1,25	Fine	12	.W0650	10,8	12,3	M12x1,25	14,5	9,5	4,8
P0083.080-125-CS	M 8x1,25	Coarse	M14x1,50	Fine	14	.W0660	12,8	14,3	M14x1,50	16,5	11,5	4,8
P0083.080-100-CS	M 8x1,00	Fine	M14x1,50	Fine	14	.W0660	12,8	14,3	M14x1,50	16,5	11,5	4,8
P0083.100-150-CS	M10x1,50	Coarse	M16x1,50	Fine	16	.W0670	14,8	16,3	M16x1,50	18,5	13,5	4,8
P0083.100-125-CS	M10x1,25	Fine	M16x1,50	Fine	16	.W0670	14,8	16,3	M16x1,50	18,5	13,5	4,8
P0083.120-175-CS	M12x1,75	Coarse	M18x1,50	Fine	18	.W0690	16,8	18,3	M18x1,50	20,5	15,5	4,8
P0083.120-125-CS	M12x1,25	Fine	M18x1,50	Fine	18	.W0690	16,8	18,3	M18x1,50	20,5	15,5	4,8
P0083.140-200-CS	M14x2,00	Coarse	M20x1,50	Fine	20	.W0700	18,8	20,3	M20x1,50	22,5	17,5	4,8
P0083.140-150-CS	M14x1,50	Fine	M20x1,50	Fine	20	.W0700	18,8	20,3	M20x1,50	22,5	17,5	4,8
P0083.160-200-CS	M16x2,00	Coarse	M22x1,50	Fine	22	.W0710	20,5	22,3	M22x1,50	24,5	17,8	6,4
P0083.160-150-CS	M16x1,50	Fine	M22x1,50	Fine	22	.W0710	20,5	22,3	M22x1,50	24,5	17,8	6,4
P0083.180-150-CS	M18x1,50	Fine	M24x1,50	Fine	24	.W0720	22,5	24,3	M24x1,50	26,5	19,8	6,4
P0083.200-250-CS	M20x2,50	Coarse	M30x2,00	Non-Std	30	.W0730	28,0	30,3	M30x2,00	34,5	25,8	6,4
P0083.200-150-CS	M20x1,50	Fine	M30x2,00	Non-Std	30	.W0730	28,0	30,3	M30x2,00	34,5	25,8	6,4
P0083.220-150-CS	M22x1,50	Fine	M32x2,00	Non-Std	32	.W0740	30,0	32,3	M32x2,00	36,5	27,8	6,4
P0083.240-300-CS	M24x3,00	Coarse	M33x2,00	Non-Std	33	.W0750	31,0	33,3	M33x2,00	37,5	28,8	6,4
P0083.240-200-CS	M24x2,00	Fine	M33x2,00	Non-Std	33	.W0750	31,0	33,3	M33x2,00	37,5	28,8	6,4



P0084.1



Material

Inserts: stainless steel (AISI 303) or equivalent. Passivated.

Keys: stainless steel (302 CRES) or equivalent. Passivated.

Technical Notes

General tolerances:

±0,25, unless specified.

Tap drill hole tolerances:

6,9 to 10,8 = +0,10/-0,025.

12,8 and over = +0,13/-0,025.

Tips

Order installation tool separately, as identified by „Inst. tool ref.“ in table.

Important Notes

Four locking keys on internal threads M 8 and over. Two locking keys on internal threads smaller than M 8.

Installation (Inst.) drill size, countersink, thread tap and thread depth as specified in table.

Removal drill size and drill depth as speci-

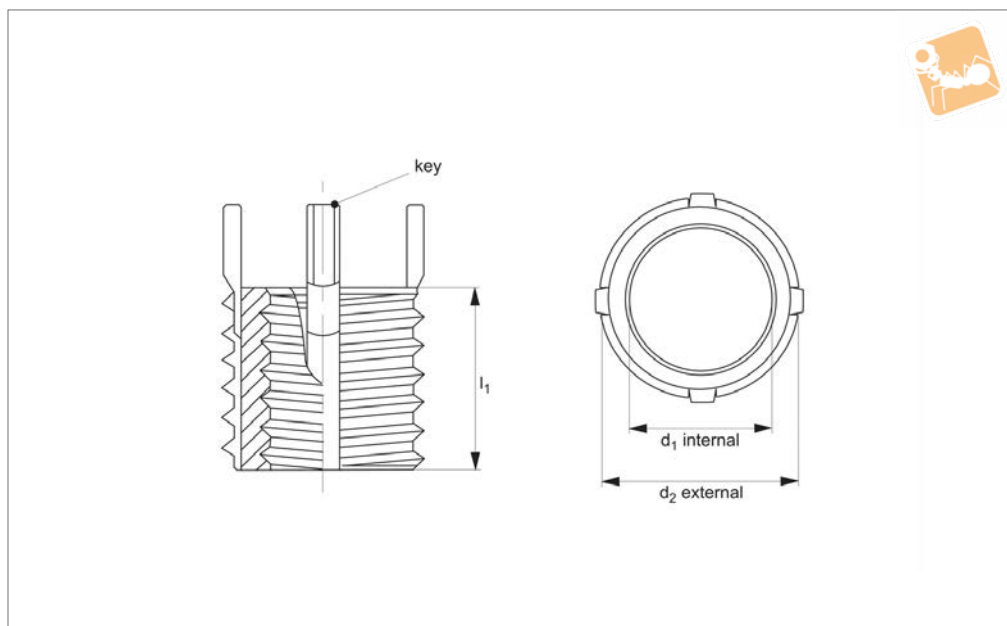
Order No.	Int. d ₁ tol. 6H	Int. thread type d ₁	Ext. d ₂ tol. 6g	Ext. thread type d ₂	l ₁	Inst. tap drill size	Inst. tool ref. 22060	Inst. c'sink dia. ±0.25 ± 0.000	Inst. thread tap tol. 6H	Inst. thread depth min.	Removal drill size	Removal drill depth
P0084.050-080-A2	M 5x0,80	Coarse	M 8x1,25	Coarse	8	6,9	.W0510	8,3	M 8x1,25	9,5	5,5	4,0
P0084.060-100-A2	M 6x1,00	Coarse	M10x1,25	Fine	10	8,8	.W0520	10,3	M10x1,25	11,5	7,5	4,8
P0084.080-125-A2	M 8x1,25	Coarse	M12x1,25	Fine	12	10,8	.W0530	12,3	M12x1,25	13,5	9,5	4,8
P0084.080-100-A2	M 8x1,00	Fine	M12x1,25	Fine	12	10,8	.W0530	12,3	M12x1,25	13,5	9,5	4,8
P0084.100-150-A2	M10x1,50	Coarse	M14x1,50	Fine	14	12,8	.W0550	14,3	M14x1,50	15,5	11,5	4,8
P0084.100-125-A2	M10x1,25	Fine	M14x1,50	Fine	14	12,8	.W0550	14,3	M14x1,50	15,5	11,5	4,8
P0084.120-175-A2	M12x1,75	Coarse	M16x1,50	Fine	16	14,2	.W0560	14,3	M16x1,50	17,5	13,5	4,8
P0084.120-125-A2	M12x1,25	Fine	M16x1,50	Fine	16	14,8	.W0560	16,3	M16x1,50	17,5	13,5	4,8



Threaded Insert - Metric

thinwall - carbon steel

Thread Inserts



P0084.2

THREAD INSERTS

Material

Inserts: carbon steel (C1215) or equivalent. Zinc phosphate.
Keys: stainless steel (302 CRES) or equivalent. Passivated.

Technical Notes

General tolerances:

±0,25, unless specified.

Tap drill hole tolerances:

6,9 to 10,8 = +0,10/-0,025.
12,8 and over = +0,13/-0,025.

Tips

Order installation tool separately, as identified by „Inst. tool ref.“ in table.

Important Notes

Four locking keys on internal threads M 8 and over. Two locking keys on internal threads smaller than M 8.

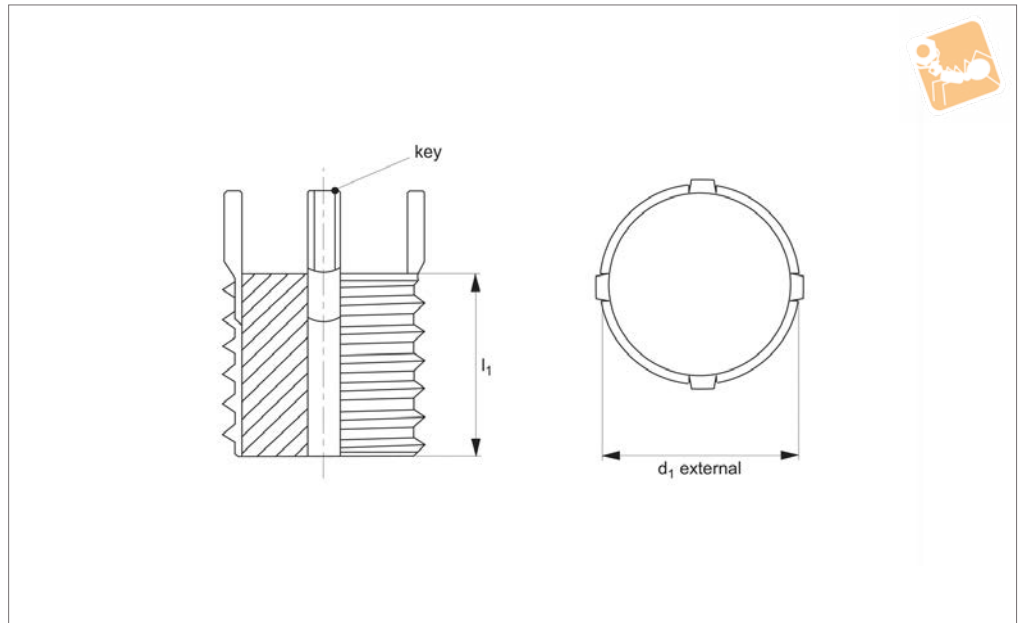
Installation (Inst.) drill size, countersink, thread tap and thread depth as specified in table.

Removal drill size and drill depth as speci-

Order No.	Int. d ₁ tol. 6H	Int. thread type d ₁	Ext. d ₂ tol. 6g	Ext. thread type d ₂	l ₁	Inst. tap drill size	Inst. tool ref. 22060	Inst. c'sink dia. ±0.25 ± 0.000	Inst. thread tap tol. 6H	Inst. thread depth min.	Removal drill size	Removal drill depth
P0084.050-080-CS	M 5x0,80	Coarse	M 8x1,25	Coarse	8	6,9	.W0510	8,3	M 8x1,25	9,5	5,5	4,0
P0084.060-100-CS	M 6x1,00	Coarse	M10x1,25	Fine	10	8,8	.W0520	10,3	M10x1,25	11,5	7,5	4,8
P0084.080-125-CS	M 8x1,25	Coarse	M12x1,25	Fine	12	10,8	.W0530	12,3	M12x1,25	13,5	9,5	4,8
P0084.080-100-CS	M 8x1,00	Fine	M12x1,25	Fine	12	10,8	.W0530	12,3	M12x1,25	13,5	9,5	4,8
P0084.100-150-CS	M10x1,50	Coarse	M14x1,50	Fine	14	12,8	.W0550	14,3	M14x1,50	15,5	11,5	4,8
P0084.100-125-CS	M10x1,25	Fine	M14x1,50	Fine	14	12,8	.W0550	14,3	M14x1,50	15,5	11,5	4,8
P0084.120-175-CS	M12x1,75	Coarse	M16x1,50	Fine	16	14,8	.W0560	16,3	M16x1,50	17,5	13,5	4,8
P0084.120-125-CS	M12x1,25	Fine	M16x1,50	Fine	16	14,8	.W0560	16,3	M16x1,50	17,5	13,5	4,8



P0087.1



Material

Inserts: carbon steel (C1215) or equivalent. Zinc phosphate.

Keys: stainless steel (302 CRES) or equivalent. Passivated.

Technical Notes

General tolerances:

± 0,25" unless specified.

Tap drill hole tolerances:

6,9 to 10,8 = +0,10/-0,025".

12,8 and over = +0,13/-0,025".

Tips

Order installation tool separately, as identified by „Inst. tool ref.“ in table.

Important Notes

Four locking keys on external threads M12 and over. Two locking keys on external

threads smaller than M12.

Installation (Inst.) drill size, countersink, thread tap and thread depth as specified in table.

Removal drill size and drill depth as specified in table.

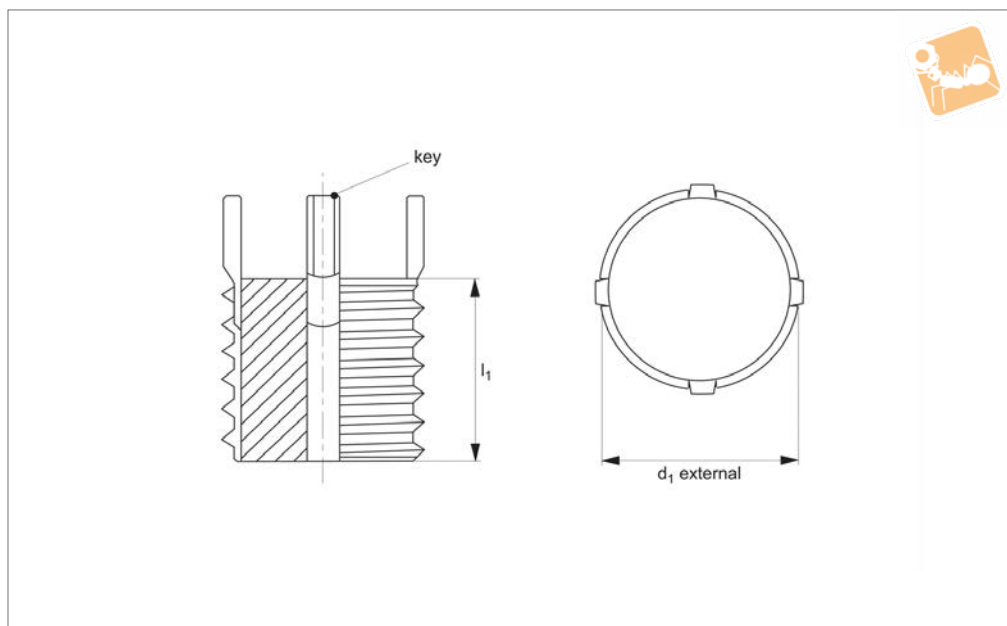
External metric thread allows you to machine your internal thread.

Order No.	d ₁ tol. 6g	Thread type d ₁	l ₁	Inst. tool ref. 22052	Inst. tap drill size	Inst. c'sink dia. +0.25 -0.00	Inst. thread tap tol. 6H	Inst. thread tap depth min.	Removal drill size	Removal drill depth
P0087.080-125-CS	M 8x1,25	Coarse	8	.W0210	6,90	8,3	M 8x1,25	9,5	5,5	4,0
P0087.100-125-CS	M10x1,25	Fine	10	.W0220	8,80	10,3	M10x1,25	12,5	7,5	4,8
P0087.120-125-CS	M12x1,25	Fine	12	.W0230	10,80	12,3	M12x1,25	14,5	9,5	4,8
P0087.140-150-CS	M14x1,50	Fine	14	.W0240	12,80	14,3	M14x1,50	16,5	11,5	4,8
P0087.160-150-CS	M16x1,50	Fine	16	.W0250	14,75	16,3	M16x1,50	18,5	13,5	4,8
P0087.180-150-CS	M18x1,50	Fine	18	.W0260	16,75	18,3	M18x1,50	20,5	15,5	4,8
P0087.200-150-CS	M20x1,50	Fine	20	.W0270	18,75	20,3	M20x1,50	22,5	17,5	4,8
P0087.220-150-CS	M22x1,50	Fine	22	.W0280	20,50	22,3	M22x1,50	24,5	17,8	6,4
P0087.240-150-CS	M24x1,50	Fine	24	.W0290	22,50	24,3	M24x1,50	26,5	19,8	6,4
P0087.300-200-CS	M30x2,00	Fine	30	.W0300	28,00	30,3	M30x2,00	34,5	25,8	6,4
P0087.320-200-CS	M32x2,00	Non-Std	32	.W0310	30,00	32,3	M32x2,00	36,5	27,8	6,4
P0087.330-200-CS	M33x2,00	Non-Std	33	.W0320	31,00	33,3	M33x2,00	37,5	28,8	6,4



Threaded Insert - Solid - Metric stainless steel

Thread Inserts



P0087.2

THREAD INSERTS

Material

Inserts: stainless steel (AISI 303) or equivalent. Passivated.

Keys: stainless steel (302 CRES) or equivalent. Passivated.

Technical Notes

General tolerances:

± 0,25 unless specified.

Tap drill hole tolerances:

6,9 to 10,8 = +0,10/-0,025.

12,8 and over = +0,13/-0,025.

Tips

Order installation tool separately, as identified by „Inst. tool ref.“ in table.

Important Notes

Four locking keys on external threads M12 and over. Two locking keys on external

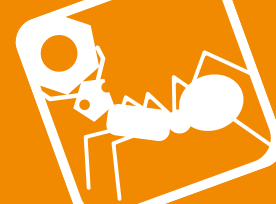
threads smaller than M12.

Installation (Inst.) drill size, countersink, thread tap and thread depth as specified in table.

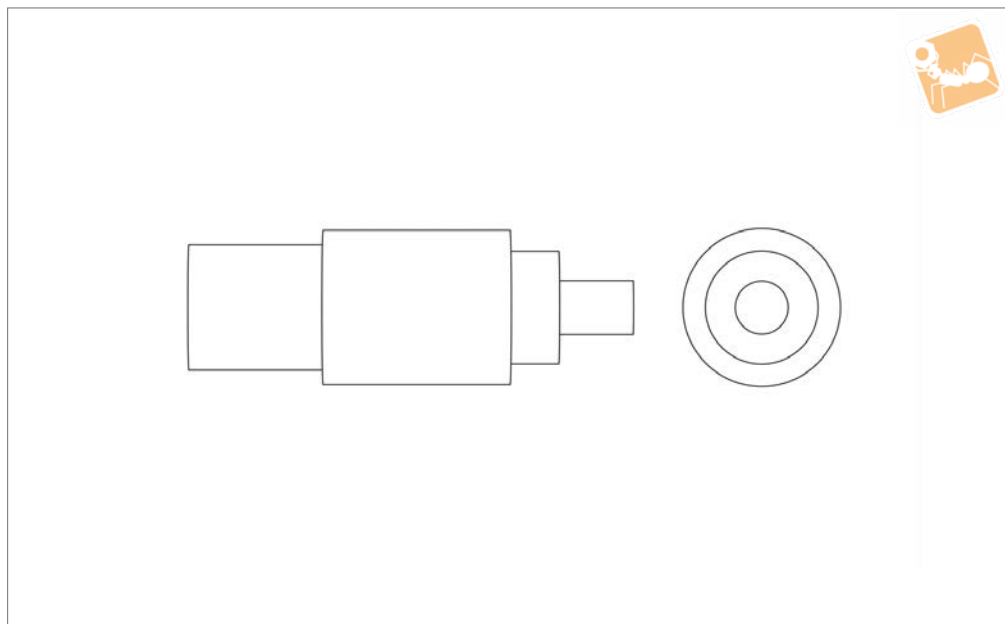
Removal drill size and drill depth as specified in table.

External metric thread allows you to machine your internal thread.

Order No.	d ₁ tol. 6g	Thread type d ₁	l ₁	Inst. tool ref. 22052	Inst. tap drill size	Inst. c'sink dia. +0.25 -0.00	Inst. thread tap tol. 6H	Inst. thread depth min.	Removal drill size	Removal drill depth
P0087.080-125-A2	M 8x1,25	Coarse	8	.W0210	6,9	8,3	M 8x1,25	9,5	5,50	4,0
P0087.100-125-A2	M10x1,25	Fine	10	.W0220	8,8	10,3	M10x1,25	12,5	7,50	4,8
P0087.120-125-A2	M12x1,25	Fine	12	.W0230	10,8	12,3	M12x1,25	14,5	9,50	4,8
P0087.140-150-A2	M14x1,50	Fine	14	.W0240	12,8	14,3	M14x1,50	16,5	11,50	4,8
P0087.160-150-A2	M16x1,50	Fine	16	.W0250	14,8	16,3	M16x1,50	18,5	13,50	4,8
P0087.180-150-A2	M18x1,50	Fine	18	.W0260	16,8	18,3	M18x1,50	20,5	15,50	4,8
P0087.200-150-A2	M20x1,50	Fine	20	.W0270	18,8	20,3	M20x1,50	22,5	17,50	4,8
P0087.220-150-A2	M22x1,50	Fine	22	.W0280	20,5	22,3	M22x1,50	24,5	17,75	6,4
P0087.240-150-A2	M24x1,50	Fine	24	.W0290	22,5	24,3	M24x1,50	26,5	19,75	6,4
P0087.300-200-A2	M30x2,00	Non-Std	30	.W0300	28,0	30,3	M30x2,00	34,5	25,75	6,4
P0087.320-200-A2	M32x2,00	Non-Std	32	.W0310	30,0	32,3	M32x2,00	36,5	27,75	6,4
P0087.330-200-A2	M33x2,00	Non-Std	33	.W0320	31,0	33,3	M33x2,00	37,5	28,75	6,4



P0088.1



Material

Steel, blackened.

Tips

For use with metric thinwall threaded

inserts P0084.1 and P0084.2.

Select installation tool of corresponding insert internal thread d_1 and external thread d_2 . If in doubt refer to data tables of

insert where correct „Inst. tool ref.“ is stated.

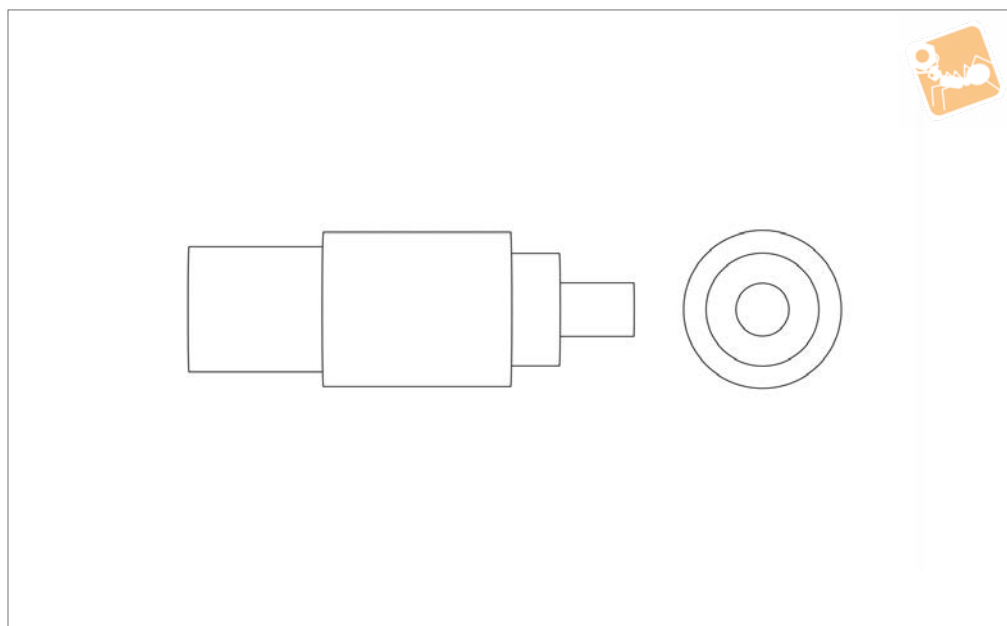
Order No.	For insert of internal thread = d_1	For insert of external thread = d_2
P0088.050-TW	M 5x0,75	M 8x1,25
P0088.060-TW	M 6x1,00	M10x1,25
P0088.080-TW	M 8x1,25/ M 8x1,00	M12x1,25
P0088.100-TW	M10x1,50/ M10x1,25	M14x1,50
P0088.120-TW	M12x1,75/ M12x1,25	M16x1,50



Installation Tool - Metric - Heavy Duty

for threaded inserts P0083.1 & P0083.2

Thread Inserts



P0088.2

THREAD INSERTS

Material

Steel, blackened.

Tips

For use with metric heavy duty threaded

inserts P0083.1 and P0083.2.

Select installation tool of corresponding insert internal thread d_1 and external thread d_2 . If in doubt refer to data tables of

insert where correct „Inst. tool ref.“ is stated.

Order No.	For insert of internal thread = d_1	For insert of external thread = d_2
P0088.040-HD	M 4x0,70	M 8x1,25
P0088.050-HD	M 5x0,75	M10x1,30
P0088.060-HD	M 6x1,00	M12x1,25
P0088.080-HD	M 8x1,25/ M 8x1,00	M14x1,50
P0088.100-HD	M10x1,50/ M10x1,25	M16x1,50
P0088.120-HD	M12x1,75/ M12x1,25	M18x1,50
P0088.140-HD	M14x2,00/ M14x1,50	M20x1,50
P0088.160-HD	M16x2,00/ M16x1,50	M22x1,50
P0088.180-HD	M18x1,50	M24x1,50
P0088.200-HD	M20x2,50/ M20x1,50	M30x2,00
P0088.220-HD	M22x1,50	M32x2,00
P0088.240-HD	M24x3,00/ M24x2,00	M33x2,00