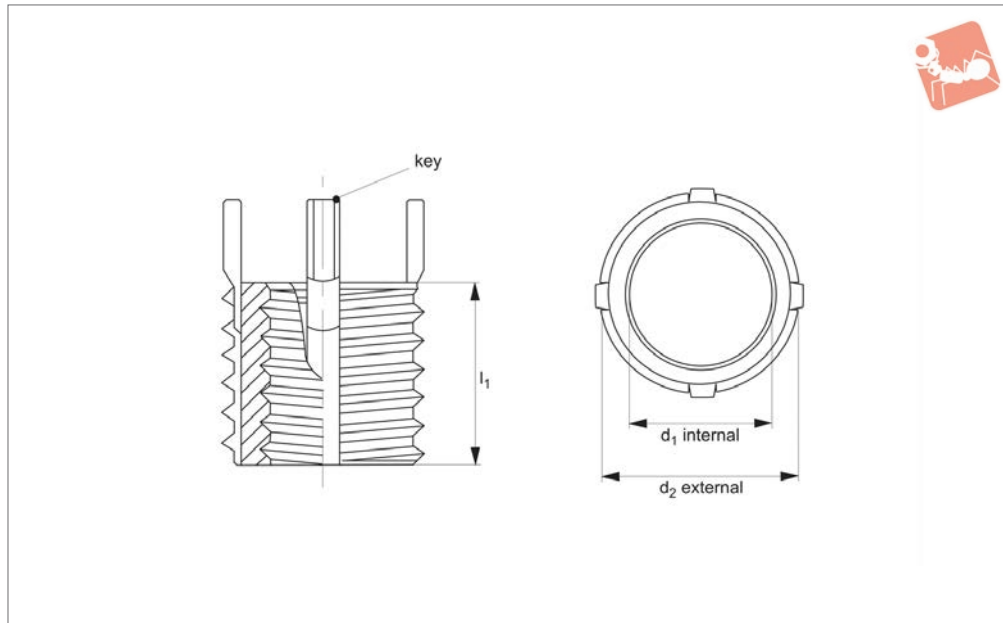




Threaded Insert - Inch extra heavy duty - stainless steel



Threaded Inserts



22024

THREADED INSERTS

Material

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

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

Technical Notes

General tolerances:

± 0,010" unless specified.

Tap drill hole tolerances:

0,234 to 0,500 = +0,004/-0,001".

0,500 and over = +0,005/-0,001".

Tips

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

Important Notes

Four locking keys on internal threads 5/16" and over. Two locking keys on internal

threads smaller than 5/16".

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

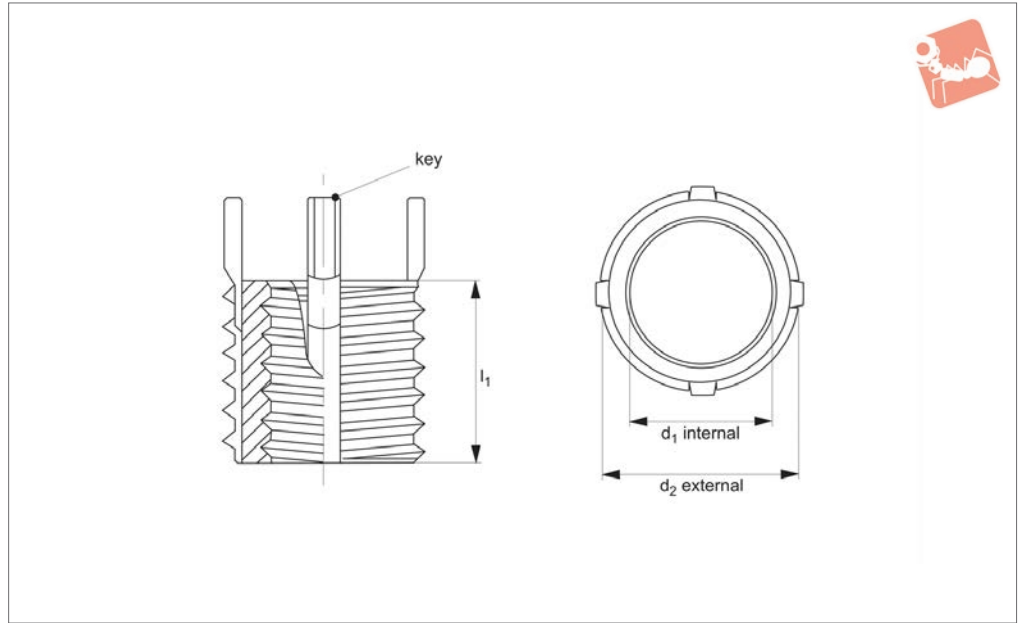
Removal drill size and drill depth as specified in table.

All dimensions in inches.

Order No.	Int. d ₁ tol. 2B	Int. thread type d ₁	Ext. d ₂ (mod.) class 2A	Ext. thread type d ₂	l ₁	Inst. c'sink dia. +0.010 - 0.000	Inst. tap drill size	Inst. thread depth min.	Inst. thread tap tol. 2B	Inst. tool ref. 22058	Removal drill size	Removal drill depth
22024.W5310	6 - 32	UNC	5/16" - 18	UNC	0,31	0,32	17/64"	0,37	5/16"-18	.W0310	7/32"	1/8"
22024.W5320	8 - 32	UNC	3/8" - 16	UNC	0,31	0,38	21/64"	0,37	3/8"-16	.W0320	9/32"	1/8"
22024.W5330	10 - 24	UNC	7/16" - 14	UNC	0,31	0,44	25/64"	0,37	7/16"-14	.W0330	11/32"	3/16"
22024.W5331	10 - 32	UNF	7/16" - 14	UNC	0,31	0,44	25/64"	0,37	7/16"-14	.W0330	11/32"	3/16"
22024.W5340	1/4" - 20	UNC	1/2" - 13	UNC	0,37	0,51	29/64"	0,43	1/2"-13	.W0340	13/32"	3/16"
22024.W5341	1/4" - 28	UNF	1/2" - 13	UNC	0,37	0,51	29/64"	0,43	1/2"-13	.W0340	13/32"	3/16"
22024.W5350	5/16" -	UNC	9/16" - 12	UNC	0,43	0,57	33/64"	0,50	9/16"-12	.W0350	15/32"	3/16"
22024.W5351	5/16" -	UNF	9/16" - 12	UNC	0,43	0,57	33/64"	0,50	9/16"-12	.W0350	15/32"	3/16"
22024.W5360	3/8" - 16	UNC	5/8" - 11	UNC	0,50	0,63	37/64"	0,56	5/8"-11	.W0360	17/32"	3/16"
22024.W5361	3/8" - 24	UNF	5/8" - 11	UNC	0,50	0,63	37/64"	0,56	5/8"-11	.W0360	17/32"	3/16"
22024.W5370	7/16" -	UNC	3/4" - 16	UNF	0,62	0,76	45/64"	0,68	3/4"-16	.W0370	21/32"	3/16"
22024.W5371	7/16" -	UNF	3/4" - 16	UNF	0,62	0,76	45/64"	0,68	3/4"-16	.W0370	21/32"	3/16"
22024.W5380	1/2" - 13	UNC	7/8" - 14	UNF	0,68	0,88	53/64"	0,75	7/8"-14	.W0380	25/32"	5/16"
22024.W5381	1/2" - 20	UNF	7/8" - 14	UNF	0,68	0,88	53/64"	0,75	7/8"-14	.W0380	25/32"	5/16"
22024.W5390	9/16" -	UNC	7/8" - 14	UNF	0,81	0,88	53/64"	0,94	7/8"-14	.W0390	25/32"	5/16"
22024.W5391	9/16" -	UNF	7/8" - 14	UNF	0,81	0,88	53/64"	0,94	7/8"-14	.W0390	25/32"	5/16"
22024.W5400	5/8" - 11	UNC	1" - 12	UNF	0,87	1,02	15/16"	1,00	1"-12	.W0400	27/32"	5/16"
22024.W5401	5/8" - 18	UNF	1" - 12	UNF	0,87	1,02	15/16"	1,00	1"-12	.W0400	27/32"	5/16"
22024.W5410	3/4" - 10	UNC	1 - 1/4" - 12	UNF	1,12	1,27	1-3/16"	1,31	1-1/4"-12	.W0410	1-3/32"	5/16"
22024.W5411	3/4" - 16	UNF	1 - 1/4" - 12	UNF	1,12	1,27	1-3/16"	1,31	1-1/4"-12	.W0410	1-3/32"	5/16"
22024.W5420	7/8" - 9	UNC	1 - 3/8" - 12	UNF	1,25	1,39	1-5/16"	1,44	1-3/8"-12	.W0420	1-7/32"	5/16"
22024.W5421	7/8" - 14	UNF	1 - 3/8" - 12	UNF	1,25	1,39	1-5/16"	1,44	1-3/8"-12	.W0420	1-7/32"	5/16"
22024.W5430	1" - 8	UNC	1 - 1/2" - 12	UNF	1,37	1,52	1-7/16"	1,56	1-1/2"-12	.W0430	1-11/32"	5/16"
22024.W5431	1" - 12	UNF	1 - 1/2" - 12	UNF	1,37	1,52	1-7/16"	1,56	1-1/2"-12	.W0430	1-11/32"	5/16"



22034



Material

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

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

Technical Notes

General tolerances:

± 0,010" unless specified.

Tap drill hole tolerances:

0,234 to 0,500 = +0,004/-0,001"
0,500 and over = +0,005/-0,001"

Tips

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

Important Notes

Four locking keys on internal threads 5/16" and over. Two locking keys on internal

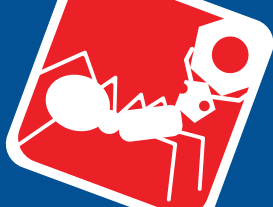
threads smaller than 5/16".

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

Removal drill size and drill depth as specified in table.

All dimensions in inches.

Order No.	Int. d ₁ tol. 2B	Int. thread type d ₁	Ext. d ₂ (mod.) class 2A	Ext. thread type d ₂	l ₁	Inst. c'sink dia. +0.010 - 0.000	Inst. tap drill size	Inst. thread depth min.	Inst. thread tap tol. 2B	Inst. tool ref. 22058	Removal drill size	Removal drill depth
22034.W0310	6 - 32	UNC	5/16" - 18	UNC	0,31	0,32		0,37	5/16"-18	.W0310	7/32"	1/8"
22034.W0320	8 - 32	UNC	3/8" - 16	UNC	0,31	0,38		0,37	3/8"-16	.W0320	9/32"	1/8"
22034.W0330	10 - 24	UNC	7/16" - 14	UNC	0,31	0,44		0,37	7/16"-14	.W0330	11/32"	3/16"
22034.W0331	10 - 32	UNF	7/16" - 14	UNC	0,31	0,44		0,37	7/16"-14	.W0330	11/32"	3/16"
22034.W0340	1/4" - 20	UNC	1/2" - 13	UNC	0,37	0,51	29/64"	0,43	1/2"-13	.W0340	13/32"	3/16"
22034.W0341	1/4" - 28	UNF	1/2" - 13	UNC	0,37	0,51	29/64"	0,43	1/2"-13	.W0340	13/32"	3/16"
22034.W0350	5/16" - 18	UNC	9/16" - 12	UNC	0,43	0,57	33/64"	0,50	9/16"-12	.W0350	15/32"	3/16"
22034.W0351	5/16" - 24	UNF	9/16" - 12	UNC	0,43	0,57	33/64"	0,50	9/16"-12	.W0350	15/32"	3/16"
22034.W0360	3/8" - 16	UNC	5/8" - 11	UNC	0,50	0,63	37/64"	0,56	5/8"-11	.W0360	17/32"	3/16"
22034.W0361	3/8" - 24	UNF	5/8" - 11	UNC	0,50	0,63	37/64"	0,56	5/8"-11	.W0360	17/32"	3/16"
22034.W0370	7/6" - 14	UNC	3/4" - 16	UNF	0,62	0,76	45/64"	0,68	3/4"-16	.W0370	21/32"	3/16"
22034.W0371	7/6" - 20	UNF	3/4" - 16	UNF	0,62	0,76	45/64"	0,68	3/4"-16	.W0370	21/32"	3/16"
22034.W0380	1/2" - 13	UNC	7/8" - 14	UNF	0,68	0,88	53/64"	0,75	7/8"-14	.W0380	25/32"	5/16"
22034.W0381	1/2" - 13	UNF	7/8" - 14	UNF	0,68	0,88	53/64"	0,75	7/8"-14	.W0380	25/32"	5/16"
22034.W0390	9/16" - 12	UNC	7/8" - 14	UNF	0,81	0,88	53/64"	0,94	7/8"-14	.W0390	25/32"	5/16"
22034.W0391	9/16" - 18	UNF	7/8" - 14	UNF	0,81	0,88	53/64"	0,94	7/8"-14	.W0390	25/32"	5/16"
22034.W0400	5/8" - 11	UNC	1" - 12	UNF	0,87	1,02	15/16"	1,00	1"-12	.W0400	27/32"	5/16"
22034.W0401	5/8" - 18	UNF	1" - 12	UNF	0,87	1,02	15/16"	1,00	1"-12	.W0400	27/32"	5/16"
22034.W0410	3/4" - 10	UNC	1 - 1/4" - 12	UNF	1,12	1,27	1-3/16"	1,31	1-1/4"-12	.W0410	1-3/32"	5/16"
22034.W0411	3/4" - 16	UNF	1 - 1/4" - 12	UNF	1,12	1,27	1-3/16"	1,31	1-1/4"-12	.W0410	1-3/32"	5/16"
22034.W0420	7/8" - 9	UNC	1 - 3/8" - 12	UNF	1,25	1,39	1-5/16"	1,44	1-3/8"-12	.W0420	1-7/32"	5/16"
22034.W0421	7/8" - 14	UNF	1 - 3/8" - 12	UNF	1,25	1,39	1-5/16"	1,44	1-3/8"-12	.W0420	1-7/32"	5/16"
22034.W0430	1" - 8	UNC	1 - 1/2" - 12	UNF	1,37	1,52	1-7/16"	1,56	1-1/2"-12	.W0430	1-11/32"	5/16"
22034.W0431	1" - 12	UNF	1 - 1/2" - 12	UNF	1,37	1,52	1-7/16"	1,56	1-1/2"-12	.W0430	1-11/32"	5/16"



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.

Wixroyd 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.



Carbon steel inserts



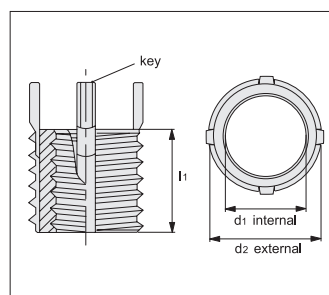
Stainless steel inserts



Solid inserts

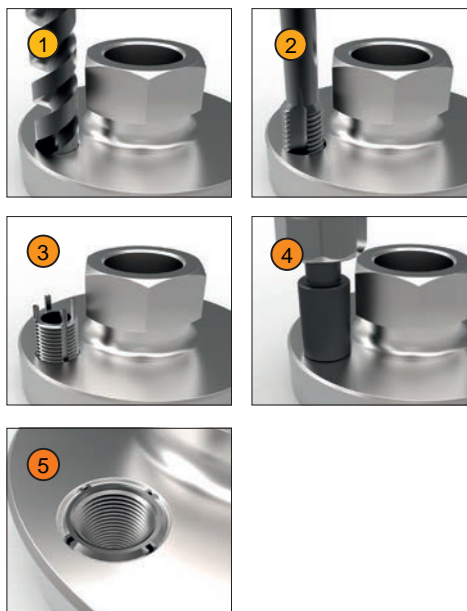
Key Features

- 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

- 1 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.
- 2 Tap new threads with standard tap – as specified in product data table.
- 3 Screw in the insert until it is 0.25 to 0.75mm (0.010 to 0.030 inch) below the surface.
- 4 Drive locking keys down with several hammer taps on the installation tool – see product data table for correct tool.
- 5 Insert is installed.



Installation

Wixroyd threaded inserts, can be removed (if required) without damage to the surrounding material.

- 1 Refer to product data tables to 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.

- 2 Bend the locking keys inward and break off.
- 3 Remove the old insert using a screw extractor.
- 4 Install a replacement insert into the original tapped hole.

Removal



Stainless Steel



22000 - Thinwall - Metric
Use installation tool no. 22060.



22002 - Heavy Duty - Metric.
Use installation tool no. 22062.



22012 - Heavy Duty - Metric - Inch.
Use installation tool no. 22064.



22020, 22022, 22024 - Inch - Thinwall - Heavy Duty - Extra Heavy Duty.
Use installation tool no. 22054-58.

Carbon Steel



22004 - Thinwall - Metric
Use installation tool no. 22060.



22006 - Heavy Duty - Metric
Use installation tool no. 22062.



22010 - Heavy Duty - Metric - Inch.
Use installation tool no. 22064.



22030 - 22034 - Inch - Thinwall - Heavy Duty - Extra Heavy Duty
Use installation tool no. 22054, 20058.

Solid



22040 - Metric - Carbon
Use installation tool no. 22052.



22042 - Metric - Stainless Steel
Use installation tool no. 22052.



22044 - Inch - Carbon
Use installation tool no. 22050.



22046 - Inch - Stainless Steel
Use installation tool no. 22050.

Installation Tools



22050 for 22044 & 22046



22052 for 22040 & 22042



22054, 22058 for 22020, 22024, 22030, 22034,



22060 for 22000 & 22004



22062 for 22002 & 22006



22064 for 22010 & 22012

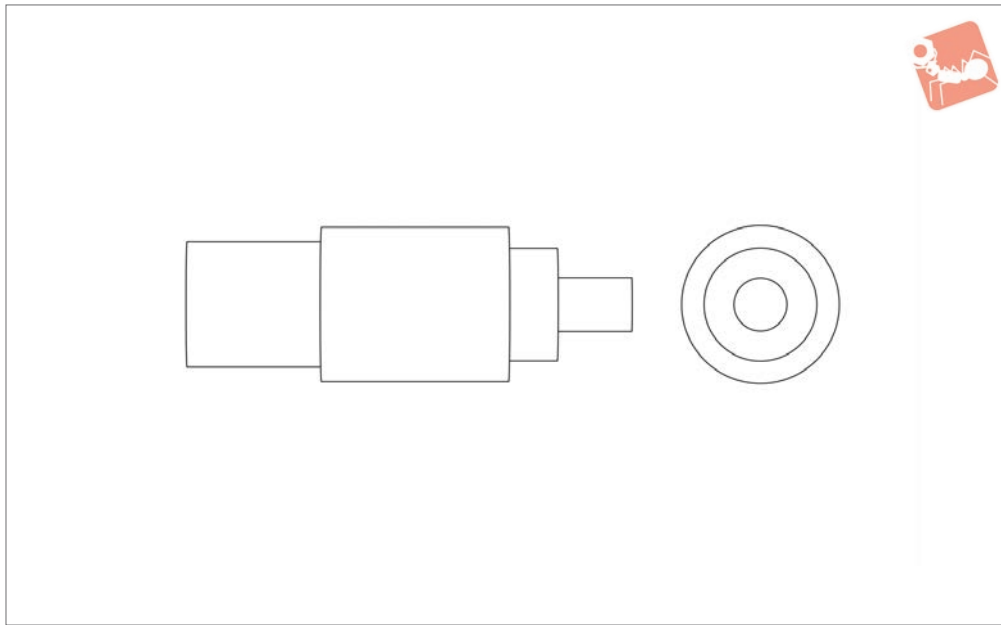


Installation Tool - Extra Heavy Duty

for threaded inserts 22024 & 22034 - inch



Threaded Inserts



22058

THREADED INSERTS

Material

Steel, blackened.

threaded inserts 22024 and 22034.

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

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

Tips

For use with metric extra heavy duty

Order No.	For insert of internal thread = d_1	For insert of external thread = d_2
22058.W0310	6-32	5/16"-18
22058.W0320	8-32	3/8"-16
22058.W0330	10-24/ 10-32	7/16"-14
22058.W0340	1/4"-20/ 1/4"-28	1/2"-13
22058.W0350	5/16"-18/ 5/16"-24	9/16"-12
22058.W0360	3/8"-16/ 3/8"-24	5/8"-11
22058.W0370	7/16"-14/ 7/16"-20	3/4"-16
22058.W0380	1/2"-13/ 1/2"-20	7/8"-14
22058.W0390	9/16"-12/ 9/16"-18	7/8"-14
22058.W0400	5/8"-11/ 5/8"-18	1"-12
22058.W0410	3/4"-10/ 3/4"-16	1-1/4"-12
22058.W0420	7/8"-9/ 7/8"-14	1-3/8"-12
22058.W0430	1"-8/ 1"-12	1-1/2"-12