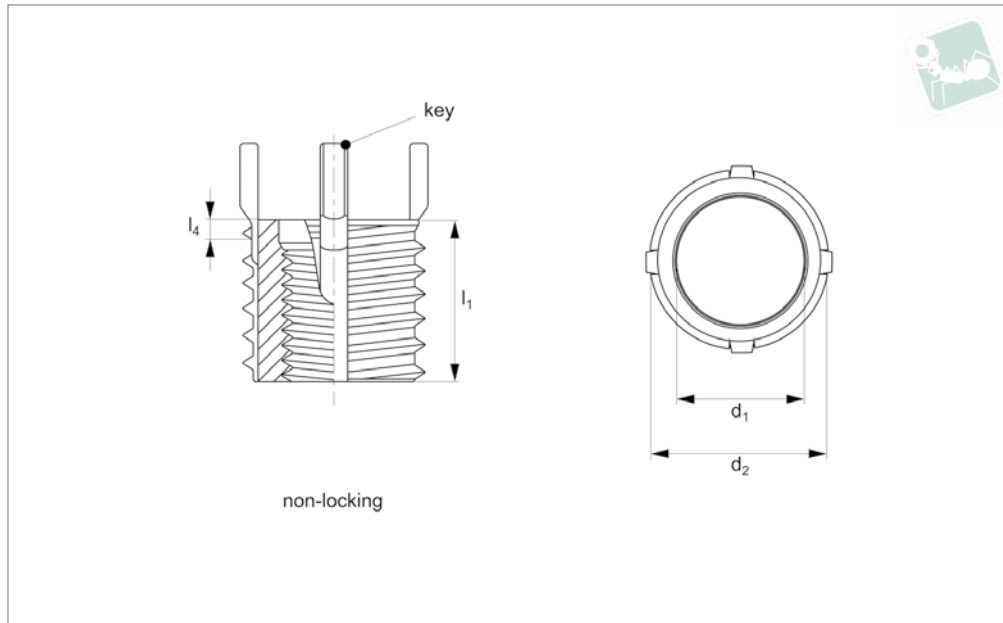
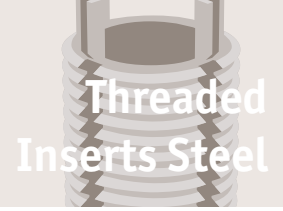




Threaded Insert MS/NAS - Extra H

4140 steel - non-locking - MS/NAS grade



TR1666

THREADED INSERTS STEEL

Material

Inserts - 4140 alloy steel (160 KSI Min).
Keys - 302 CRES.
Cadmium plate (QQ-P-416 Type II, Cl. 2).
Dry film lubricatoin on self-locking inserts only.

Technical Notes

All dimensions in inches.
Internal threads: to SAE AS8879.
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
NL = Non-Locking type.

Tips

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

Important Notes

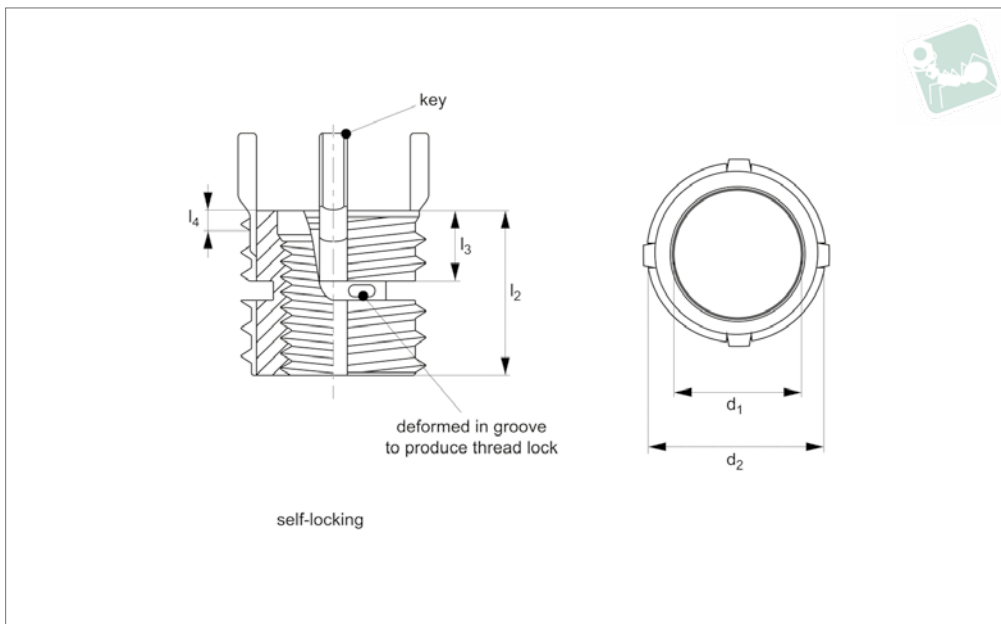
Four locking keys on internal threads 1/4

and over. Two locking keys on internal threads smaller than 1/4.
Installation (Inst.) drill size, counter sink, thread tap and thread depth as specified in table.
Removal (Rem.) drill size and drill depth as specified in table.
Perform to standards: MIL-I-45914A (MS51832)

Order No.	Type	d ₁ class 3B	Thread type d ₁	d ₂ (mod.) class 2A	Thread type d ₂	l ₁	l ₄ c'bore depth	Inst. c'sink hole size +0.010 - 0.000	Inst. tap drill size	Inst. thread tap depth min.	Inst. thread tap size class 2B	Inst. tool ref. TR1706	Removal drill size	Removal drill depth
TR1666.80333	NL	10-24	UNC	7/16-14	UNC	,312	,07	,447	,397	,37	7/16-14	.0330	11/32	3/16
TR1666.80533	NL	10-32	UNF	7/16-14	UNC	,312	,07	,447	,397	,37	7/16-14	.0331	11/32	3/16
TR1666.80334	NL	1/4-20	UNC	1/2-13	UNC	,375	,07	,510	,453	,44	1/2-13	.0340	13/32	3/16
TR1666.80534	NL	1/4-28	UNF	1/2-13	UNC	,375	,07	,510	,453	,44	1/2-13	.0341	13/32	3/16
TR1666.80335	NL	5/16-18	UNC	9/16-12	UNC	,437	,07	,572	,516	,50	9/16-12	.0350	15/32	3/16
TR1666.80535	NL	5/16-24	UNF	9/16-12	UNC	,437	,07	,572	,516	,50	9/16-12	.0351	15/32	3/16
TR1666.80336	NL	3/8-16	UNC	5/8-11	UNC	,500	,07	,635	,578	,56	5/8-11	.0360	17/32	3/16
TR1666.80536	NL	3/8-24	UNF	5/8-11	UNC	,500	,07	,635	,578	,56	5/8-11	.0361	17/32	3/16
TR1666.80337	NL	7/16-14	UNC	11/16-11NS	UNS	,625	,10	,700	,641	,68	11/16-11NS	.0370	19/32	3/16
TR1666.80537	NL	7/16-20	UNF	11/16-11NS	UNS	,625	,10	,700	,641	,68	11/16-11NS	.0371	19/32	3/16
TR1666.80338	NL	1/2-13	UNC	13/16-16	UN	,688	,10	,822	,766	,75	13/16-16	.0380	23/32	3/16
TR1666.80538	NL	1/2-20	UNF	13/16-16	UN	,688	,10	,822	,766	,75	13/16-16	.0381	23/32	3/16
TR1666.80339	NL	9/16-12	UNC	7/8-14	UNF	,812	,10	,885	,828	,94	7/8-14	.0390	25/32	3/16
TR1666.80539	NL	9/16-18	UNF	7/8-14	UNF	,812	,10	,885	,828	,94	7/8-14	.0391	25/32	3/16
TR1666.80340	NL	5/8-11	UNC	1"-12	UNF	,875	,10	1,020	,937	1,00	1"-12	.0400	27/32	3/16
TR1666.80540	NL	5/8-18	UNF	1"-12	UNF	,875	,10	1,020	,937	1,00	1"-12	.0401	27/32	5/16
TR1666.80341	NL	3/4-10	UNC	1-1/4-12	UNF	1,125	,10	1,270	1,187	1,31	1-1/4-12	.0410	1-3/32	5/16
TR1666.80541	NL	3/4-16	UNF	1-1/4-12	UNF	1,125	,10	1,270	1,187	1,31	1-1/4-12	.0411	1-3/32	5/16
TR1666.80342	NL	7/8-9	UNC	1-3/8-12	UNF	1,250	,10	1,395	1,312	1,44	1-3/8-12	.0420	1-7/32	5/16
TR1666.80542	NL	7/8-14	UNF	1-3/8-12	UNF	1,250	,10	1,395	1,312	1,44	1-3/8-12	.0421	1-7/32	5/16
TR1666.80343	NL	1-8	UNC	1-1/2-12	UNF	1,375	,10	1,520	1,437	1,56	1-1/2-12	.0430	1-11/32	5/16
TR1666.80543	NL	1-12	UNF	1-1/2-12	UNF	1,375	,10	1,520	1,437	1,56	1-1/2-12	.0431	1-11/32	5/16



TR1667



Material

Inserts - 4140 alloy steel (160 KSI Min).
 Keys - 302 CRES.
 Cadmium plate (QQ-P-416 Type II, Cl. 2).
 Dry film lubrication on self-locking inserts only.

Technical Notes

All dimensions in inches.
 Internal threads: to SAE AS8879.
 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

SL = Self-Locking type, deliberate deformity in thread produces self-affect once installed (see technical diagram).

Tips

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

Important Notes

Four locking keys on internal threads 1/4 and over. Two locking keys on internal threads smaller than 1/4.

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

Removal (Rem.) drill size and drill depth as specified in table.

Perform to standards: MIL-I-45914A (MS51832)

Order No.	Type	d ₁ class 3B	Thread type d ₁	d ₂ (mod.) class 2A	Thread type d ₂	l ₁	l ₃ ±0.030	l ₄ c'bore depth	Inst. hole size +0.010 -0.000	Inst. tap drill size	Inst. thread depth min.	Inst. thread tap size class 2B	Inst. tool ref. TR170 6	Removal drill size	Removal drill depth
TR1667.81333	SL	10-24	UNC	7/16-14	UNC	,312	,22	,07	,447	,397	,37	7/16-14	.0330	11/32	3/16
TR1667.81533	SL	10-32	UNF	7/16-14	UNC	,312	,22	,07	,447	,397	,37	7/16-14	.0331	11/32	3/16
TR1667.81334	SL	1/4-20	UNC	1/2-13	UNC	,375	,22	,07	,510	,453	,44	1/2-13	.0340	13/32	3/16
TR1667.81534	SL	1/4-28	UNF	1/2-13	UNC	,375	,22	,07	,510	,453	,44	1/2-13	.0341	13/32	3/16
TR1667.81335	SL	5/16-18	UNC	9/16-12	UNC	,437	,22	,07	,572	,516	,50	9/16-12	.0350	15/32	3/16
TR1667.81535	SL	5/16-24	UNF	9/16-12	UNC	,437	,22	,07	,572	,516	,50	9/16-12	.0351	15/32	3/16
TR1667.81336	SL	3/8-16	UNC	5/8-11	UNC	,500	,25	,07	,635	,578	,56	5/8-11	.0360	17/32	3/16
TR1667.81536	SL	3/8-24	UNF	5/8-11	UNC	,500	,25	,07	,635	,578	,56	5/8-11	.0361	17/32	3/16
TR1667.81337	SL	7/16-14	UNC	11/16-11NS	UNS	,625	,28	,10	,700	,641	,68	11/16-11NS	.0370	19/32	3/16
TR1667.81537	SL	7/16-20	UNF	11/16-11NS	UNS	,625	,28	,10	,700	,641	,68	11/16-11NS	.0371	19/32	3/16
TR1667.81338	SL	1/2-13	UNC	13/16-16	UN	,688	,28	,10	,822	,766	,75	13/16-16	.0380	23/32	3/16
TR1667.81538	SL	1/2-20	UNF	13/16-16	UN	,688	,28	,10	,822	,766	,75	13/16-16	.0381	23/32	3/16
TR1667.81339	SL	9/16-12	UNC	7/8-14	UNF	,812	,32	,10	,885	,828	,94	7/8-14	.0390	25/32	3/16
TR1667.81539	SL	9/16-18	UNF	7/8-14	UNF	,812	,32	,10	,885	,828	,94	7/8-14	.0391	25/32	3/16
TR1667.81340	SL	5/8-11	UNC	1-12	UNF	,875	,33	,10	1,020	,937	1,00	1-12	.0400	27/32	5/16
TR1667.81540	SL	5/8-18	UNF	1-12	UNF	,875	,33	,10	1,020	,937	1,00	1-12	.0401	27/32	5/16



Threaded Insert MS/NAS - Extra H

4140 steel - self-locking - MS/NAS grade



Threaded Inserts Steel

Order No.	Type	d ₁ class 3B	Thread type d ₁	d ₂ (mod.) class 2A	Thread type d ₂	l ₁	l ₃ ±0.030	l ₄ c'bore depth	Inst. c'sink hole size +0.010 - 0.000	Inst. tap drill size	Inst. thread depth min.	Inst. thread tap size class 2B	Inst. tool ref. TR170 6	Remova l drill size	Removal drill depth
TR1667.81341	SL	3/4-10	UNC	1-1/14- 12	UNF	1,250	,49	,10	1,270	1.187	1,44	1-1/4-12	.0410	1-3/32	5/16
TR1667.81541	SL	3/4-16	UNF	1-1/14- 12	UNF	1,250	,49	,10	1,270	1.187	1,44	1-1/4-12	.0411	1-3/32	5/16
TR1667.81342	SL	7/8-9	UNC	1-3/8-12	UNF	1,375	,49	,10	1,395	1.312	1,56	1-3/8-12	.0420	1-7/32	5/16
TR1667.81542	SL	7/8-14	UNF	1-3/8-12	UNF	1,375	,49	,10	1,395	1.312	1,56	1-3/8-12	.0421	1-7/32	5/16
TR1667.81343	SL	1-8	UNC	1-1/2-12	UNF	1,500	,55	,10	1,520	1.437	1,68	1-1/2-12	.0430	1-11/ 32	5/16
TR1667.81543	SL	1-12	UNF	1-1/2-12	UNF	1,500	,55	,10	1,520	1.437	1,68	1-1/2-12	.0431	1-11/ 32	5/16

Order No.	l ₄ c'bore depth	Inst. c'sink hole size	Inst. tap drill size	Inst. thread tap depth	Inst. thread tap size	Inst. tool ref. TR1706	Removal drill size	Removal drill depth
TR1667.81333	.07	.447	.397	.37	7/16-14	.0330	11/32	3/16
TR1667.81533	.07	.447	.397	.37	7/16-14	.0331	11/32	3/16
TR1667.81334	.07	.510	.453	.44	1/2-13	.0340	13/32	3/16
TR1667.81534	.07	.510	.453	.44	1/2-13	.0341	13/32	3/16
TR1667.81335	.07	.572	.516	.50	9/16-12	.0350	15/32	3/16
TR1667.81535	.07	.572	.516	.50	9/16-12	.0351	15/32	3/16
TR1667.81336	.07	.635	.578	.56	5/8-11	.0360	17/32	3/16
TR1667.81536	.07	.635	.578	.56	5/8-11	.0361	17/32	3/16
TR1667.81337	.10	.700	.641	.68	11/16-11NS	.0370	19/32	3/16
TR1667.81537	.10	.700	.641	.68	11/16-11NS	.0371	19/32	3/16
TR1667.81338	.10	.822	.766	.75	13/16-16	.0380	23/32	3/16
TR1667.81538	.10	.822	.766	.75	13/16-16	.0381	23/32	3/16
TR1667.81339	.10	.885	.828	.94	7/8-14	.0390	25/32	3/16
TR1667.81539	.10	.885	.828	.94	7/8-14	.0391	25/32	3/16
TR1667.81340	.10	1.020	.937	1.00	1-12	.0400	27/32	5/16
TR1667.81540	.10	1.020	.937	1.00	1-12	.0401	27/32	5/16
TR1667.81341	.10	1.270	1.187	1.44	1-1/4-12	.0410	1-3/32	5/16
TR1667.81541	.10	1.270	1.187	1.44	1-1/4-12	.0411	1-3/32	5/16
TR1667.81342	.10	1.395	1.312	1.56	1-3/8-12	.0420	1-7/32	5/16
TR1667.81542	.10	1.395	1.312	1.56	1-3/8-12	.0421	1-7/32	5/16
TR1667.81343	.10	1.520	1.437	1.68	1-1/2-12	.0430	1-11/32	5/16
TR1667.81543	.10	1.520	1.437	1.68	1-1/2-12	.0431	1-11/32	5/16

THREADED INSERTS STEEL