

THREAD REPAIR

Thread repair inserts are used to repair or reinforce a thread while maintaining the nominal diameter.

The following tools are required: Tap hole twist drill, screw tap, insertion tool and break tool. Stainless steel thread inserts guarantee a very good corrosion and heat resistance. The cross section is rhombic. The wire is coiled into an elastic spring. There is a tappet at the lower end. While screwing in the thread insert, the spring is slightly tensed and holds the insert in the internal thread. The thread insert is therefore bigger when inserted compared to its initial state. There are three sizes, oriented at the nominal sizes (1 x d, 1.5 x d and 2.5 x d).

► **REPAIR**



BREAK TOOL



INSERTION TOOL

PROCEDURE

- 1 ▶ Drilling out the damaged thread
- 2 ▶ Cleaning the bore
- 3 ▶ Thread cutting for the thread insert
- 4 ▶ Cleaning the thread
- 5 ▶ Screwing in the thread insert
- 6 ▶ Breaking off the tappet of the thread insert

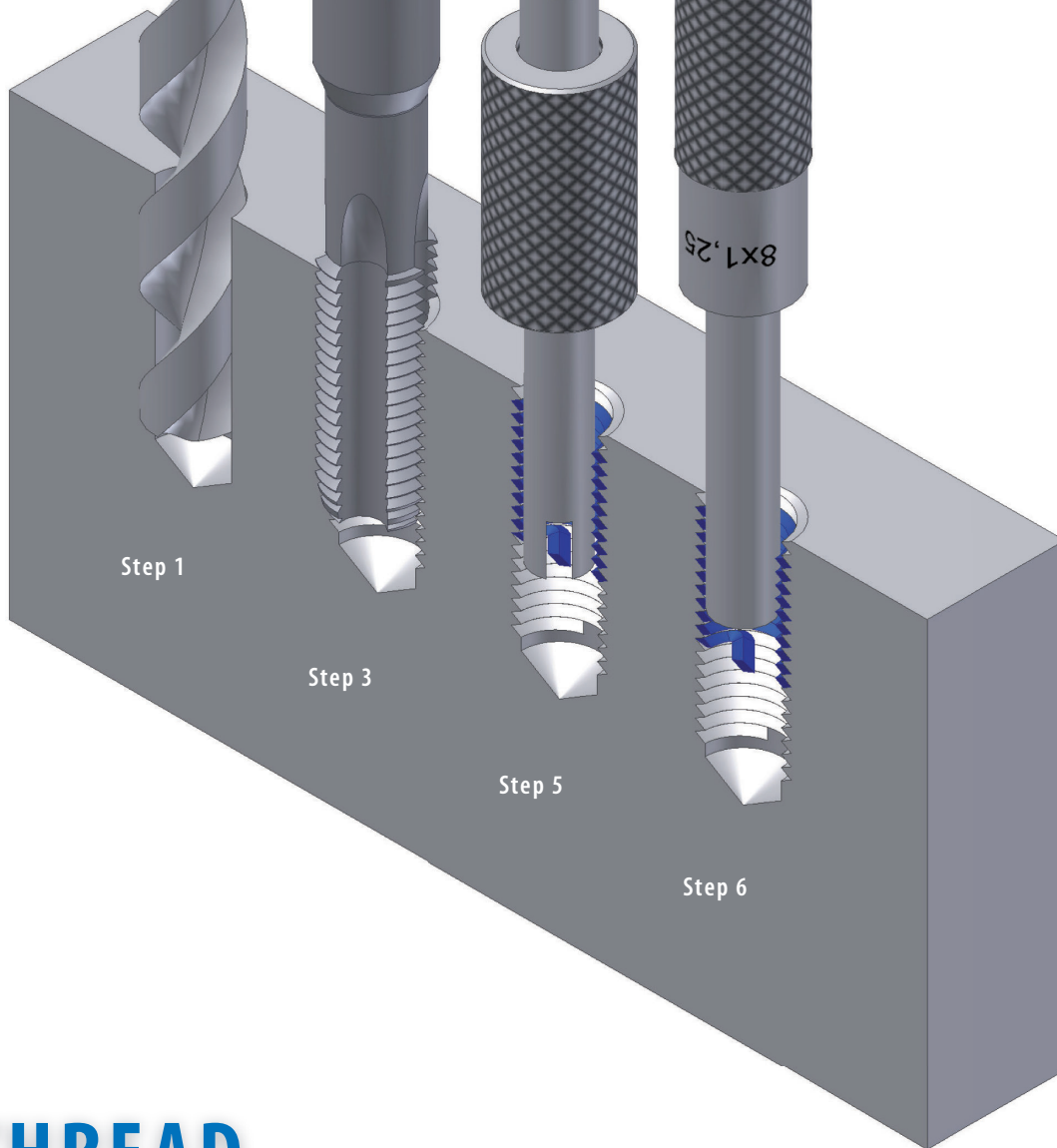
USAGE

Thread repair inserts are used to repair or reinforce a thread while maintaining the nominal diameter.

TOOLS

Following tools are required:

- Tap hole twist drill
- Screw tap
- Insertion tool
- Break tool



► THREAD REPAIR TOOLS

THREAD INSERTS

Stainless steel GSR thread inserts guarantee a very good corrosion and heat resistance. The cross section is rhombic. The wire is coiled into an elastic spring. There is a tappet at the lower end. While screwing in the thread insert, the spring is slightly tensed and holds the insert in the internal thread.

The thread insert is therefore bigger when inserted compared to its initial state. There are three sizes, oriented at the nominal sizes ($1 \times d$, $1.5 \times d$ and $2.5 \times d$).



$1 \times d$



$1.5 \times d$



$2.5 \times d$

d = nominal diameter

THREAD INSERTS

THREAD REPAIR TOOLS

THREAD REPAIR KIT



TECHNICAL INFORMATION

Material HSS / TS

Direction Right

each 1x twist drill – tap – insertion tool – break tool / each 5x thread inserts: 1d – 1.5 d – 2.5 d

Size	Tap		Twist drill		Insertion tool		Break tool		Art. No.
	Ø	Length	Ø	Length	Ø	Length	Ø	Length	
M 2 × 0,4	2,52	45	2,1	60	1,1	104	1	100	00803001
M 2,5 × 0,45	3,08	48	2,6	60	1,4	104	1,5	100	00803002
M 3 × 0,5	3,65	50	3,1	75	1,8	104	2,1	100	00803003
M 4 × 0,7	4,91	58	4,1	85	2,5	104	2,8	100	00803004
M 5 × 0,8	6,04	66	5,2	85	3,2	104	3,6	100	00803005
M 6 × 1,0	7,3	72	6,2	85	4,4	104	4,5	105	00803006
M 7 × 1,0	8,3	72	7,2	85	5	1304	5	110	00803007
M 8 × 1	9,3	80	8,2	115	5,7	140	5	110	00803008
M 8 × 1,25	9,62	80	8,3	115	5,7	140	6,2	110	00803009
M 9 × 1,25	10,62	89	9,3	115	6,5	145	6	110	00803010
M 10 × 1	11,3	89	10,3	130	7,5	150	7	115	00803011
M 10 × 1,25	11,62	89	10,3	130	7,5	150	7	115	00803012
M 10 × 1,5	11,95	89	10,3	130	7,5	150	7,85	115	00803013
M 12 × 1	13,3	95	12,3	140	9	150	9	120	00803014
M 12 × 1,25	13,62	95	12,3	140	9	150	9	120	00803015
M 12 × 1,5	13,95	95	12,5	140	9	150	9	120	00803016
M 12 × 1,75	14,27	95	12,4	140	9	150	9	120	00803035

THREAD REPAIR KIT

TECHNICAL INFORMATION

Material HSS / TS

Direction Right

each 1x tap – insertion tool – break tool / each 4x thread inserts: 1d – 1.5 d – 2.5 d

Size	Tap		Insertion tool		Break tool		Art. No.
	Ø	Length	Ø	Length	Ø	Length	
M 14 × 1	15,3	102	11,2	170	10	103	00803017
M 14 × 1,25	15,62	102	10,8	170	10	103	00803018
M 14 × 1,5	15,95	102	10,8	170	10	103	00803019
M 14 × 2	16,6	102	10,5	170	10	103	00803020
M 16 × 1,5	17,95	112	12,5	170	12	103	00803021
M 16 × 2,0	18,6	112	12,2	170	12	103	00803022

THREAD REPAIR KIT

TECHNICAL INFORMATION

Material HSS / TS

Direction Right

each 1x tap – insertion tool – break tool / each 2x thread inserts: 1d – 1.5 d – 2.5 d

Size	Tap		Insertion tool		Break tool		Art. No.
	Ø	Length	Ø	Length	Ø	Length	
M 18 × 1,5	19,95	112	14,5	200	14	138	00803023
M 18 × 2,0	20,6	118	14	200	14	138	00803024
M 18 × 2,5	21,25	118	13,5	200	14	138	00803025
M 20 × 1,5	21,95	118	16,5	200	16	138	00803026
M 20 × 2,0	22,6	118	16	200	16	138	00803027
M 20 × 2,5	23,25	130	15,5	200	16	138	00803028
M 22 × 1,5	23,95	120	18,5	210	18	138	00803029
M 22 × 2,0	24,6	120	18	210	18	138	00803030
M 22 × 2,5	25,25	135	17,5	210	18	138	00803031
M 24 × 1,5	25,95	127	20,5	215	19	138	00803032
M 24 × 2,0	27,6	127	20	215	19	138	00803033
M 24 × 3,0	27,9	135	18,5	215	19	138	00803034

THREAD REPAIR KITS / SPARE PARTS

THREAD REPAIR KIT M5 – M12



TECHNICAL INFORMATION

Material HSS / TS

Direction Right

each 5x twist drills – taps – insertion tools – break tools / each 25x M5-M10 thread inserts: 1d
10x M12 thread inserts: 1d

Size	Tap		Twist drill		Insertion tool		Break tool		Art. No.
	Ø	Length	Ø	Length	Ø	Length	Ø	Length	
5 × 0,8	6,04	66	5,2	85	3,2	104	3,6	100	00803040
6 × 1,0	7,3	72	6,2	85	4,4	104	4,5	105	00803040
8 × 1,25	9,62	80	8,3	115	5,7	140	6,2	110	00803040
10 × 1,25	11,62	89	10,3	130	7,5	150	7	115	00803040
12 × 1,75	14,27	95	12,4	140	9	150	9	120	00803040

THREAD REPAIR KIT M6 – M14



TECHNICAL INFORMATION

Material HSS / TS

Direction Right

4x twist drills – each 5x taps – insertion tools – break tools / M14 x 1.25 for spark plug threads
each 25x M6-M10 thread inserts: 1d / 10x M12-M14 thread inserts: 1d

Size	Tap		Twist drill		Insertion tool		Break tool		Art. No.
	Ø	Length	Ø	Length	Ø	Length	Ø	Length	
6 × 1,0	7,3	72	6,2	85	4,4	104	4,5	105	00803041
8 × 1,25	9,62	80	8,3	115	5,7	140	6,2	110	00803041
10 × 1,5	11,95	89	10,3	130	7,5	150	7,85	115	00803041
12 × 1,5	13,95	95	12,5	140	9	150	9	120	00803041
14 × 1,25	15,62	102	14,3	90	10,8	170	10	103	00803041

THREAD INSERTS

TECHNICAL INFORMATION

Material Stainless steel

Thread 6H / ISO2

Size	QTY	Art.-No. 1,0 d	Art.-No. 1,5 d	Art.-No. 2,5 d
M 2 × 0,4	100	00806001	00806002	00806003
M 2,5 × 0,45	100	00806004	00806005	00806006
M 3 × 0,5	100	00806007	00806008	00806009
M 4 × 0,7	100	00806010	00806011	00806012
M 5 × 0,8	100	00806013	00806014	00806015
M 6 × 1,0	100	00806016	00806017	00806018
M 7 × 1,0	100	00806019	00806020	00806021
M 8 × 1	100	00806022	00806023	00806024
M 8 × 1,25	100	00806025	00806026	00806027
M 9 × 1,25	100	00806028	00806029	00806030
M 10 × 1	100	00806031	00806032	00806033
M 10 × 1,25	100	00806034	00806035	00806036
M 10 × 1,5	100	00806037	00806038	00806039
M 12 × 1	100	00806040	00806041	00806042
M 12 × 1,25	100	00806043	00806044	00806045
M 12 × 1,5	100	00806046	00806047	00806048
M 12 × 1,75	100	00806103	00806104	00806105
M 14 × 1	100	00806049	00806050	00806051
M 14 × 1,25	50	00806052	00806053	00806054
M 14 × 1,5	50	00806055	00806056	00806057
M 14 × 2	50	00806058	00806059	00806060
M 16 × 1,5	50	00806061	00806062	00806063
M 16 × 2,0	50	00806064	00806065	00806066
M 18 × 1,5	50	00806067	00806068	00806069
M 18 × 2,0	25	00806070	00806071	00806072
M 18 × 2,5	25	00806073	00806074	00806075
M 20 × 1,5	25	00806076	00806077	00806078
M 20 × 2,0	25	00806079	00806080	00806081
M 20 × 2,5	25	00806082	00806083	00806084
M 22 × 1,5	25	00806085	00806086	00806087
M 22 × 2,0	10	00806088	00806089	00806090
M 22 × 2,5	10	00806091	00806092	00806093
M 24 × 1,5	10	00806094	00806095	00806096
M 24 × 2,0	10	00806097	00806098	00806099
M 24 × 3,0	10	00806100	00806101	00806102

THREAD REPAIR SPARE PARTS

INSERTION TOOLS



Material: TS

Size	ø	Length	Art.-No.
M 2 × 0,4	1,1	104	00805001
M 2,5 × 0,45	1,4	104	00805002
M 3 × 0,5	1,8	104	00805003
M 4 × 0,7	2,5	104	00805004
M 5 × 0,8	3,2	104	00805005
M 6 × 1,0	4,4	104	00805006
M 7 × 1,0	5	1304	00805007
M 8 × 1	5,7	140	00805008
M 8 × 1,25	5,7	140	00805009
M 9 × 1,25	6,5	145	00805010
M 10 × 1	7,5	150	00805011
M 10 × 1,25	7,5	150	00805012
M 10 × 1,5	7,5	150	00805013
M 12 × 1	9	150	00805014
M 12 × 1,25	9	150	00805015
M 12 × 1,5	9	150	00805016
M 12 × 1,75	9	150	00805035
M 14 × 1	11,2	170	00805017
M 14 × 1,25	10,8	170	00805018
M 14 × 1,5	10,8	170	00805019
M 14 × 2	10,5	170	00805020
M 16 × 1,5	12,5	170	00805021
M 16 × 2,0	12,2	170	00805022
M 18 × 1,5	14,5	200	00805023
M 18 × 2,0	14	200	00805024
M 18 × 2,5	13,5	200	00805025
M 20 × 1,5	16,5	200	00805026
M 20 × 2,0	16	200	00805027
M 20 × 2,5	15,5	200	00805028
M 22 × 1,5	18,5	210	00805029
M 22 × 2,0	18	210	00805030
M 22 × 2,5	17,5	210	00805031
M 24 × 1,5	20,5	215	00805032
M 24 × 2,0	20	215	00805033
M 24 × 3,0	18,5	215	00805034

BREAK TOOLS



Material: TS

Size	ø	Length	Art.-No.
M 2 × 0,4	1	100	00804001
M 2,5 × 0,45	1,5	100	00804002
M 3 × 0,5	2,1	100	00804003
M 4 × 0,7	2,8	100	00804004
M 5 × 0,8	3,6	100	00804005
M 6 × 1,0	4,5	105	00804006
M 7 × 1,0	5	110	00804007
M 8 × 1	5	110	00804008
M 8 × 1,25	6,2	110	00804009
M 9 × 1,25	6	110	00804010
M 10 × 1	7	115	00804011
M 10 × 1,25	7	115	00804012
M 10 × 1,5	7,85	115	00804013
M 12 × 1	9	120	00804014
M 12 × 1,25	9	120	00804015
M 12 × 1,5	9	120	00804016
M 12 × 1,75	9	120	00804035
M 14 × 1	10	103	00804017
M 14 × 1,25	10	103	00804018
M 14 × 1,5	10	103	00804019
M 14 × 2	10	103	00804020
M 16 × 1,5	12	103	00804021
M 16 × 2,0	12	103	00804022
M 18 × 1,5	14	138	00804023
M 18 × 2,0	14	138	00804024
M 18 × 2,5	14	138	00804025
M 20 × 1,5	16	138	00804026
M 20 × 2,0	16	138	00804027
M 20 × 2,5	16	138	00804028
M 22 × 1,5	18	138	00804029
M 22 × 2,0	18	138	00804030
M 22 × 2,5	18	138	00804031
M 24 × 1,5	19	138	00804032
M 24 × 2,0	19	138	00804033
M 24 × 3,0	19	138	00804034

TAPS


Material: HSS

Size	Ø	Length	Art.-No.
M 2 × 0,4	2,52	45	00802000
M 2,5 × 0,45	3,08	48	00802010
M 3 × 0,5	3,65	50	00802020
M 4 × 0,7	4,91	58	00802030
M 5 × 0,8	6,04	66	00802040
M 6 × 1,0	7,3	72	00802050
M 7 × 1,0	8,3	72	00802060
M 8 × 1	9,3	80	00802070
M 8 × 1,25	9,62	80	00802080
M 9 × 1,25	10,62	89	00802090
M 10 × 1	11,3	89	00802100
M 10 × 1,25	11,62	89	00802110
M 10 × 1,5	11,95	89	00802120
M 12 × 1	13,3	95	00802130
M 12 × 1,25	13,62	95	00802140
M 12 × 1,5	13,95	95	00802150
M 12 × 1,75	14,27	95	00802340
M 14 × 1	15,3	102	00802160
M 14 × 1,25	15,62	102	00802170
M 14 × 1,5	15,95	102	00802180
M 14 × 2	16,6	102	00802190
M 16 × 1,5	17,95	112	00802200
M 16 × 2,0	18,6	112	00802210
M 18 × 1,5	19,95	112	00802220
M 18 × 2,0	20,6	118	00802230
M 18 × 2,5	21,25	118	00802240
M 20 × 1,5	21,95	118	00802250
M 20 × 2,0	22,6	118	00802260
M 20 × 2,5	23,25	130	00802270
M 22 × 1,5	23,95	120	00802280
M 22 × 2,0	24,6	120	00802290
M 22 × 2,5	25,25	135	00802300
M 24 × 1,5	25,95	127	00802310
M 24 × 2,0	27,6	127	00802320
M 24 × 3,0	27,9	135	00802330

TWIST DRILLS


Material: HSS

Size	Ø	Length	Art.-No.
M 2 × 0,4	2,1	60	03445021
M 2,5 × 0,45	2,6	60	03445026
M 3 × 0,5	3,1	75	03445031
M 4 × 0,7	4,1	85	03445041
M 5 × 0,8	5,2	85	03445052
M 6 × 1,0	6,2	85	03445062
M 7 × 1,0	7,2	85	03445072
M 8 × 1	8,2	115	03445082
M 8 × 1,25	8,3	115	03445083
M 9 × 1,25	9,3	115	03445093
M 10 × 1	10,3	130	03445103
M 10 × 1,25	10,3	130	03445103
M 10 × 1,5	10,3	130	03445103
M 12 × 1	12,3	140	03445123
M 12 × 1,25	12,3	140	03445123
M 12 × 1,5	12,5	140	03445125
M 12 × 1,75	12,4	140	03445124