silbertool®

THE THREAD REPAIR TOOL.

series R

R16: 5 mm-16 mm	#6-5/8
R36: 10 mm-36 mm	7/16-1.1/4
R60: 10 mm-60 mm	7/16-2.1/4
R110: 50 mm-110 mm	2"-4.1/4

MADE IN GERMANY
DEUTSCHES WERKZEUG

silbertool®
THE THREAD REPAIR TOOL.

Content:

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THE THREAD REPAIR TOOL.

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Do Not Replace - Repair!

Original parts are repaired and preserved instead of being replaced.

SAFETY FIRST!

External threads are repaired without removal of material and thereby not weakened.

One Tool Fits All

Silbertool - Thread Repair Tool works on all threads such as metric, fine and imperial threads.

Higher Endurance

Material Testing Institute (MPA), Hanover have proven that a thread repaired with Silbertool withstands the same static and dynamic loads as a new undamaged thread. Furthermore, tests showed a higher fatigue endurance limit.

Cold Hardening

During the process the surface of the thread is hardening by cold hardening.

Made in Germany

Only the best choice of material, precise implementation and conscientious quality controls meet Silbertool demands.
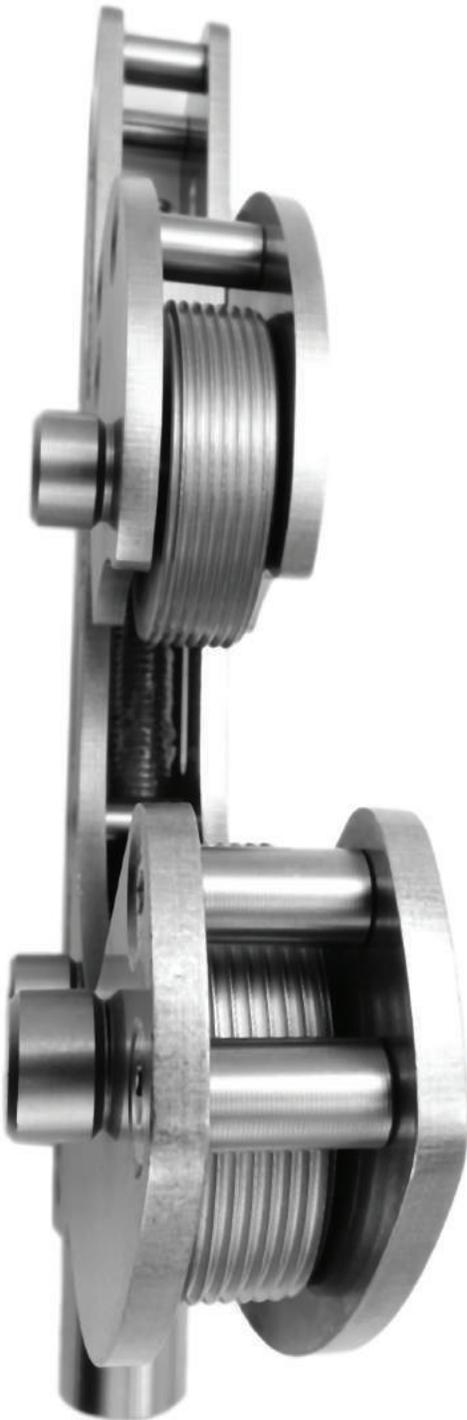
Silbertool Rolling Process

While working on any type of mechanical component it is only a matter of time before you struggle with a damaged thread. In many cases a damaged thread will require a replacement of the entire component.

Preserving the orginal shape of the thread is crucial for the integrity of the mechanical components. That is why using technology which removes material and weakens the thread can be hazardous.

Silbertool **uses the first non - cutting external thread repair technology in the world** and repairs the thread by forming it back to its original geometry.

Moreover the static and dynamic strengths are restored completely, the surface of the thread is hardening by cold hardening and the orginal parts are preserved.

Silbertool Rolling Process works on any external thread, including cut threads!

1. The required rollers are mounted in the tool which is then placed next to the damaged part.

2. The Silbertool is tightened up and manually rotated around the piece to restore the thread completely.

The Material Testing Institute Hanover has proven that a thread repaired with Silbertool shows an even higher fatigue endurance limit than a new thread.

Repair safe and easy with Silbertool - The thread repair tool!

Firmness of external thread rolled with Silbertool Rolling Process vs. machine cut thread

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ROTATING BENDING TEST

88%

88% firmer than a cut thread.

72 340	38 360

RBT

$F = 210 \ N/mm^2$
$f = 60Hz$

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72 340
revolutions

Cut Thread
38 360
revolutions

*revolutions - the number of cycles until the specimen breaks in the Bending Test Simulator.

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A thread repaired with Silbertool has a smoothest surface than most known production processes for creating thread. The smooth surface is one of the main factors reducing corrosion.

6 times smoother than a hand cut thread

6
ACHIEVABLE MEAN SURFACE FINISH TEST
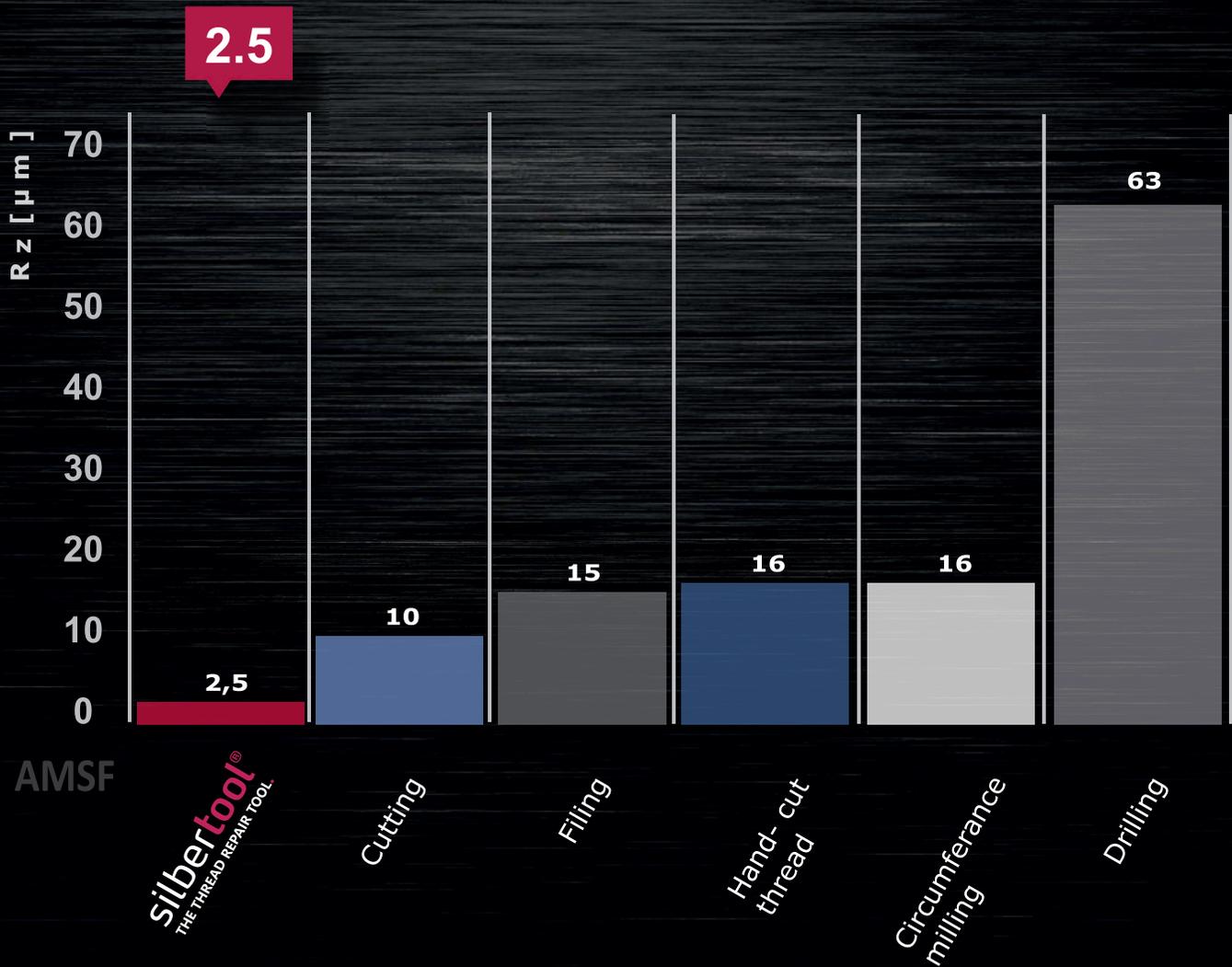
| 63 | 16 | 15 | 10 | 2.5 |

2.5

$Rz[\mu m]$

	2,5	10	15	16	16	63

- 70
- 60
- 50
- 40
- 30
- 20
- 10
- 0

AMSF

silbertool® THE THREAD REPAIR TOOL. • Cutting • Filing • Hand- cut thread • Circumferance milling • Drilling

www.CrossroadDistributorSource.com

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THE THREAD REPAIR TOOL.

MICRO HARDNESS
ROLLED THREAD TEST

39%

39% harder than
a cut thread.

Hardness [HV]

450
400
350
300
250
200
150
100
0

New Rolled Thread
silbertool®

New Cut Thread

100   200   300   400   500   600   700   800   900   1000

Distance from the surface[μm]

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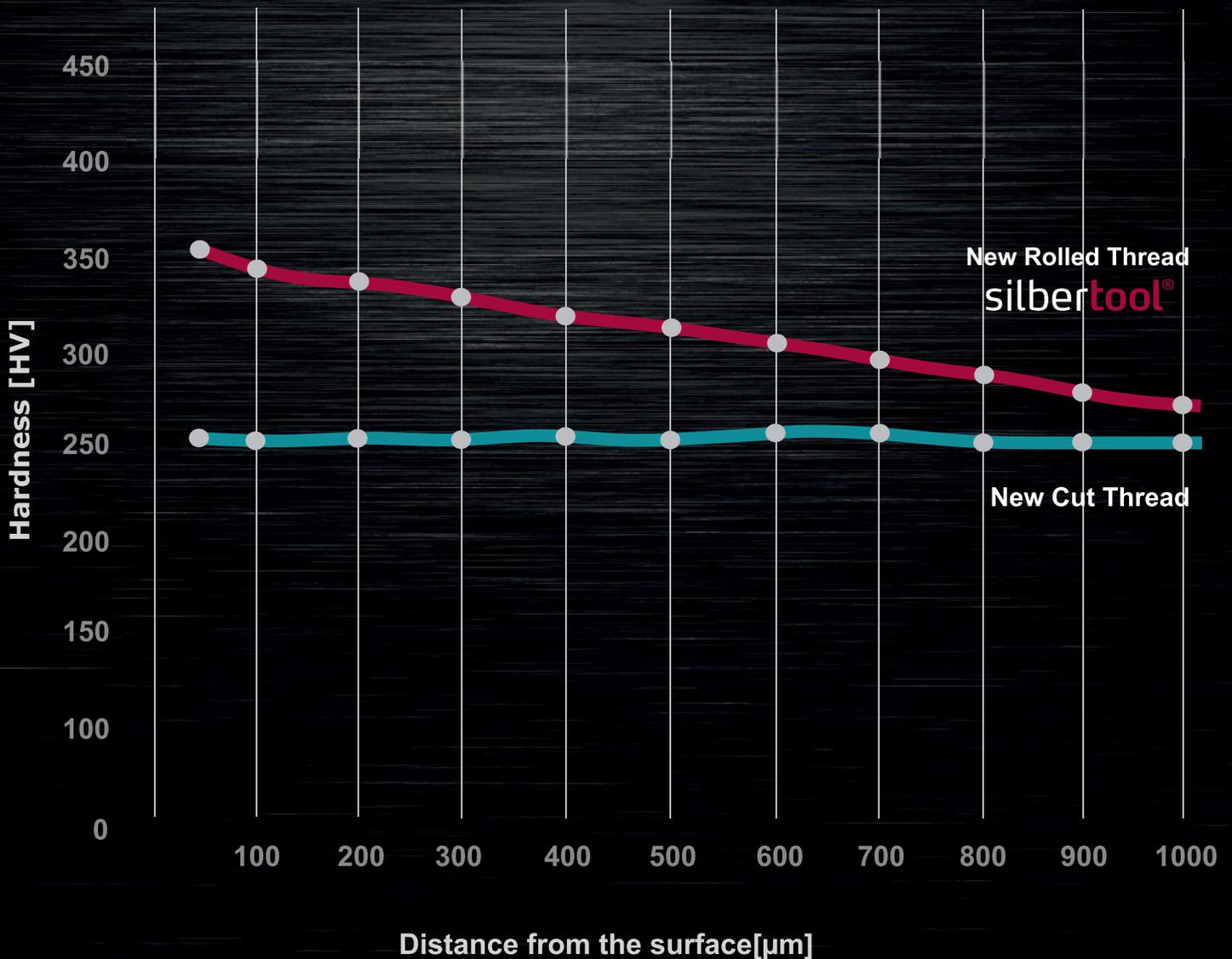
R16

Silbertool R16
External Thread Repair Tool
5 mm - 16 mm #6-5/8

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Article	Article - No.	[mm]	[mm]	[lbs]
R16 tool	300	5 - 16	0.5 - 2	.32
set of rollers	301	5 - 16	0.5	.04
metric	302	5 - 16	0.75	.04
	303	5 - 16	0.8	.04
	304	5 - 16	1	.04
	305◊	5 - 16	1.25◊	.04
	306◊	5 - 16	1.5 ◊	.04
	307◊	5 - 16	1.75◊	.04
	308◊	5 - 16	2	.04
	301.1*	5 - 16	0.5L	.04
	302.1*	5 - 16	0.75L	.04
	303.1*	5 - 16	0.8L	.04
	304.1*	5 - 16	1L	.04
	305.1*	5 - 16	1.25L	.04
	306.1*	5 - 16	1 5L	.04
	307.1*	5 - 16	1.75L	.04
	308.1*	5 - 16	2L	.04
UNC/UNF/UNEF ANSI B1.1			threads per inch	
	321*◊	5 - 16	32◊	.04
	322*	5 - 16	28	.04
	323*	5 - 16	24	.04
	324◊	5 - 16	20◊	.04
	325◊	5 - 16	18◊	.04
	326◊	5 - 16	16◊	.04
	327	5 - 16	14	.04
	328◊	5 - 16	13◊	.04
	329*	5 - 16	12	.04
	330	5 - 16	11	.04
BSW/BSF/BSPP/BS 84/ DIN ISO 228	341*	5 - 16	32	.04
	342*	5 - 16	28	.04
	343*	5 - 16	26	.04
	344*	5 - 16	24	.04
	345*	5 - 16	20	.04
	346*	5 - 16	19	.04
	347*	5 - 16	18	.04
	348*	5 - 16	16	.04
	349*	5 - 16	14	.04
	350*	5 - 16	12	.04
	351*	5 - 16	11	.04

Note: L indicates left hand thread

* Available by Special Order
◊ Stock

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THE THREAD REPAIR TOOL.

R36

Silbertool R36
External Thread Repair Tool
10 mm - 36 mm 7/16-1.1/4

One Tool Fits All - R36

Article	Article - No.	[mm]	[mm]	[lbs]
R36 tool	200	10 - 36		1.62
set of rollers	201*	10 - 36	0.5	.19
	202*	10 - 36	0.75	.19
	203*	10 - 36	1	.19
	204	10 - 36	1.25	.19
	205	10 - 36	1.5	.19
	206	10 - 36	1.75	.19
	207	10 - 36	2	.19
	208	10 - 36	2.5	.19
	209	10 - 36	3	.19
	210	10 - 36	3.5	.19
metric	211	10 - 36	4	.19
	201.1*	10 - 36	0.5 L	.19
	202.1*	10 - 36	0.75 L	.19
	203.1*	10 - 36	1 L	.19
	204.1*	10 - 36	1.25 L	.19
	205.1*	10 - 36	1.5 L	.19
	206.1*	10 - 36	1.75 L	.19
	207.1*	10 - 36	2 L	.19
	208.1*	10 - 36	2.5 L	.19
	209.1*	10 - 36	3 L	.19
	210.1*	10 - 36	3.5 L	.19
	211.1*	10 - 36	4 L	.19
			threads per inch	
	221*	10 - 36	24	.19
	222*	10 - 36	20	.19
	223*	10 - 36	18	.19
	224*	10 - 36	16	.19
	225*	10 - 36	14	.19
UNC/UNF/UNEF	226*	10 - 36	13	.19
ANSI B1.1	227	10 - 36	12	.19
	228	10 - 36	11	.19
	229	10 - 36	10	.19
	230	10 - 36	9	.19
	231	10 - 36	8	.19
	232	10 - 36	7	.19
	241*	10 - 36	14	.19
	242*	10 - 36	12	.19
BSW/BSF/BSPP/BS 84/	243*	10 - 36	11	.19
DIN ISO 228	244*	10 - 36	10	.19
	245*	10 - 36	9	.19
	246*	10 - 36	8	.19
	247*	10 - 36	7	.19
	248*	10 - 36	6	.19
	249*	10 - 36	5	.19

Note: L indicates left hand thread

* Available by Special Order

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R60

Silbertool R60
External Thread Repair Tool
10 mm - 60 mm   7/16-2.1/4

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R110

Silbertool R110
External Thread Repair Tool
50 mm - 110 mm 2"-4.1/4

Article	Article - No.	[mm]	[mm]	[lbs]
R60 tool	100	10 - 60	0.5 - 3	2.67
R110 tool	010	50 - 110	0.5 - 3	3.06
set of rollers	101 *	10 -110	0.5	.76
	102 *	10 -110	0.8	.76
	103	10 -110	1	.76
	104	10 -110	1.25	.76
	105	10 -110	1.5	.76
	106	10 -110	1.75	.76
	107	10 -110	2	.76
	108	10 -110	2.5	.76
metric	109	10 -110	3	.76
	101.1*	10 -110	0.5L	.76
	102.1*	10 -110	0.8L	.76
	103.1*	10 -110	1L	.76
	104.1*	10 -110	1.25L	.76
	105.1*	10 -110	1.5L	.76
	106.1*	10 -110	1.75L	.76
	107.1*	10 -110	2L	.76
	108.1*	10 -110	2.5L	.76
	109.1*	10 -110	3L	.76
			threads per inch	
	121*	10 -110	28	.76
	122	10 -110	24	.76
	123	10 -110	20	.76
UNC/UNF/UNEF	124	10 -110	18	.76
ANSI B1.1	125	10 -110	16	.76
	126	10 -110	14	.76
	127	10 -110	12	.76
	128*	10 -110	11	.76
	129*	10 -110	10	.76
	130*	10 -110	9	.76
	141*	10 -110	19	.76
	142*	10 -110	18	.76
BSW/BSF/BSPP/BS 84/	143*	10 -110	16	.76
DIN ISO 228	144*	10 -110	14	.76
	145*	10 -110	12	.76
	146*	10 -110	11	.76
	147*	10 -110	10	.76
	148*	10 -110	9	.76

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Note: L indicates left hand thread

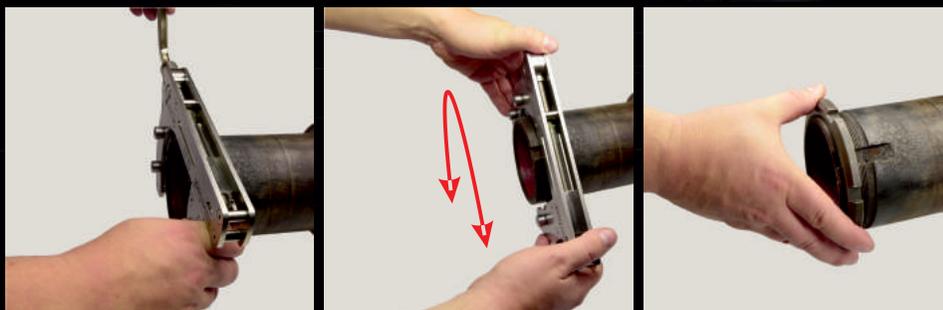* Available by Special Order

Handling

- **Silbertool** is used manually. No external energy supply is required.
- After choosing the required rollers, they are mounted into the tool.
- **Silbertool** is placed next to the damaged part of the thread.
- Using an Allen key, which is included in the delivered content, the tool is fixed and then rotated manually around the work piece.
- To reduce friction the work piece should be greased with customary lubricant.

Application R16
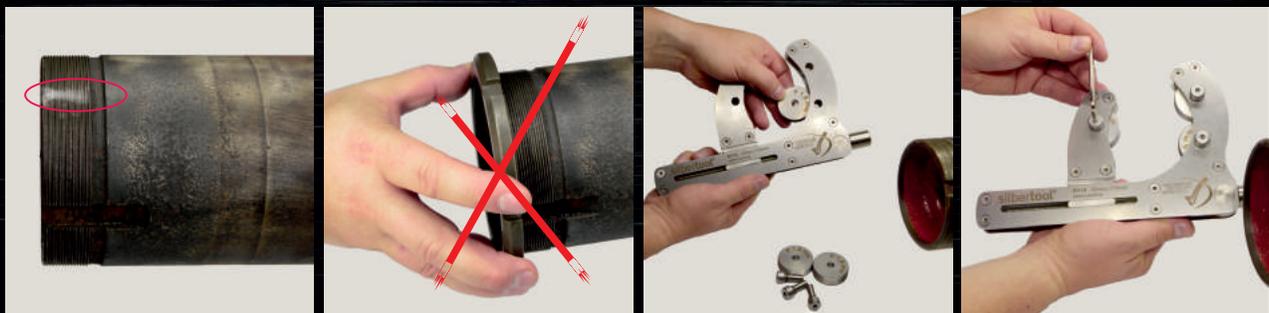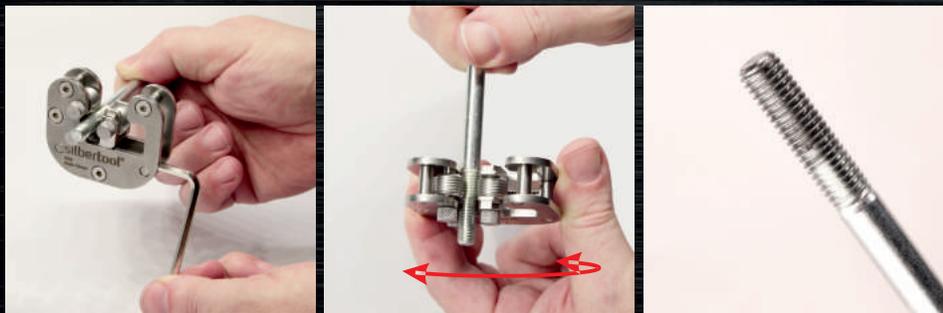
Application R110

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THE THREAD REPAIR TOOL.