THREAD REPAIR TOOL

CMS
Industrial Equipment Company
6112 N. Mesa St. #127, El Paso, TX 79912
Ph: 1-866-566-0222

RUKO

Thread repair tool

There are various causes that lead to the destruction of threads.

These include for instance corrosion, wear or a too high tightening torque. The ProCoil thread repair range by RUKO allows for a low-cost, simple and quick repair of damaged and worn out threads. Galvanized steel guarantees high quality internal threads that withstand effects of temperature and corrosion.

One more advantage of the ProCoil range is the simple and quick installation.

Application areas are for instance machine and plant construction, automotive and electrical engineering, power plant technology or shipbuilding. Besides repair, scrap recycling is also of great significance to the industry.

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Overview of symbols

HSS	Height-speed steel
C ≥ Ø 2,0 mm	Shape C: Split point
	Shank: square as per DIN 10
	right hand cutting
M	metric, DIN ISO 13
	right hand cutting
	Shank: cylindrical
ISO 6H	Thread tolerance for metric and metric fine threads according to DIN ISO 13 for internal threads
60°	Thread angle
	bright surface
	Point angle: 118°
h8	Tolerance e.g. h8
N	Type N
800 N/mm²	Tenacity classes
0°	Helix angle e.g. 25-30°
5 x D	Drilling depth e.g. 5 x diameter

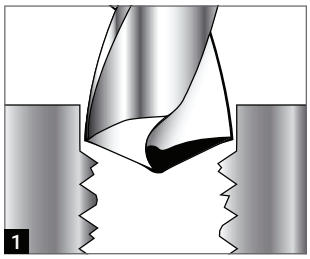
Product Information

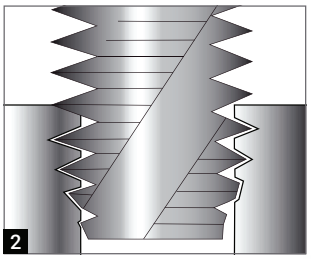
1 **Drilling out:**
Firstly drill out the damaged thread with a RUKO twist drill. In this regard it should be noted that larger drill holes are necessary with thread formers. Check that the screw tap and threaded bolt from the ProCoil set have the same thread and pitch.

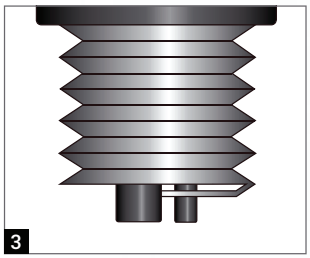
2 **Thread cutting:** The new internal thread is now cut into the drilled out hole with a RUKO screw tap. Using RUKO cutting oil is recommended.

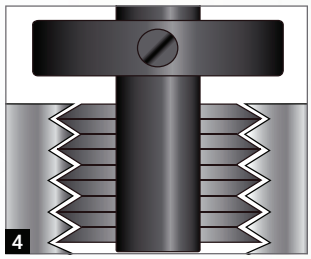
3 **Fitting the thread insert:**
Place the insert onto the insertion tool. Care should be taken here that the tang fits in the groove and the adjusting ring is correctly set. Now use light pressure to twist the thread insert in the direction of the thread. Attention: Do NOT twist against the thread direction, as the tang may break off.

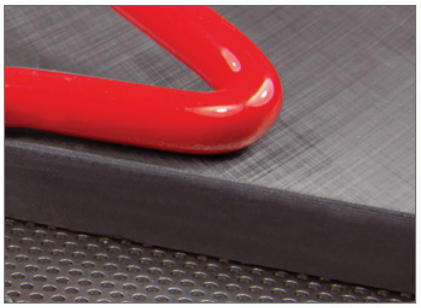
4 **Breaking the tang:**
Remove the insertion tool and break the tang with the tang breaking tool.
The new thread with the ProCoil thread insert is now ready for use.











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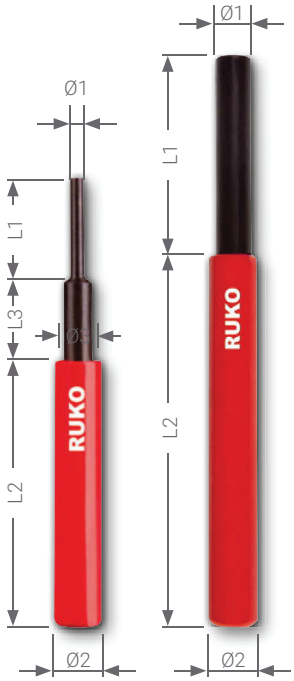
Thread Inserts

Standard design, stainless steel and free running.

Thread reinforcement for materials with low shearing strenght, e.g. aluminium alloys and magnesium alloys as well as to repair enables worn and damaged threads.

Packing unit: in plastic box

Nominal thread size	Pitch mm	Height = factor x Ø	Article no.	
M 3	0,50	1,0	244 303	50
M 4	0,70	1,0	244 304	50
M 5	0,80	1,0	244 305	50
M 6	1,00	1,0	244 306	50
M 8	1,25	1,0	244 308	50
M 10	1,50	1,0	244 310	50
M 12	1,75	1,0	244 312	25
M 14	2,00	1,0	244 314	25
MF 14	1,25	1,0	244 315	25
M 3	0,50	1,5	244 403	50
M 4	0,70	1,5	244 404	50
M 5	0,80	1,5	244 405	50
M 6	1,00	1,5	244 406	50
M 8	1,25	1,5	244 408	50
M 10	1,50	1,5	244 410	50
M 12	1,75	1,5	244 412	25
M 14	2,00	1,5	244 414	25
MF 14	1,25	1,5	244 415	25
M 3	0,50	2,0	244 503	50
M 4	0,70	2,0	244 504	50
M 5	0,80	2,0	244 505	50
M 6	1,00	2,0	244 506	50
M 8	1,25	2,0	244 508	50
M 10	1,50	2,0	244 510	50
M 12	1,75	2,0	244 512	25
M 14	2,00	2,0	244 514	25
MF 14	1,25	2,0	244 515	25



Pin-Breaker

Nominal thread size	Ø1 mm	Ø2 mm	Ø3 mm	L1 mm	L2 mm	L3 mm	Article no.	
M 3	2,0	9,8	6,0	15,0	75,0	25,0	244 163	1
M 4	2,7	9,8	6,0	20,0	75,0	20,0	244 164	1
M 5	3,5	9,8	-	22,0	75,0	18,0	244 165	1
M 6	4,6	9,8	-	22,0	75,0	18,0	244 166	1
M 8	6,0	9,8	-	40,0	75,0	-	244 168	1
M 10	7,5	9,8	-	40,0	75,0	-	244 170	1
M 12	9,0	12,2	-	40,0	75,0	-	244 172	1
M 14	10,0	14,5	-	40,0	80,0	-	244 174	1

Fitting-Tools

Nominal thread size	Ø1 mm	L1 mm	Article no.	
M 3	2,0	60,0	244 183	1
M 4	2,8	60,0	244 184	1
M 5	3,5	60,0	244 185	1
M 6	4,8	60,0	244 186	1
M 8	6,0	80,0	244 188	1
M 10	7,5	80,0	244 190	1
M 12	9,5	80,0	244 192	1
M 14	11,2	80,0	244 194	1

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ProCoil Thread repairing assortment in plastic case

		Article no.
Assortment 1	Assortment M 5 - M12 5 twist drills HSS Ø 5,2 - 6,2 - 8,3 - 10,3 - 12,4 mm + 5 single-cut taps DIN 352 HSS M 5 - M 6 - M 8 - M 10 - M 12 + 5 fitting tools M 5 - M 6 - M 8 - M 10 - M 12 + 5 pin-Breakers Ø 3,5 - 4,6 - 6,0 - 7,5 - 9,0 mm + 60 inserts M 5 - M 10, each 5 x Ø 1,0 / 1,5 / 2,0 : Height = 1,0 x Ø + 6 inserts M 12, each 2 x Ø 1,0 / 1,5 / 2,0 Height = 1,0 x Ø	244 208
Assortment 2 	Assortment M 6 - M14 5 twist drills HSS Ø 6,2 - 8,3 - 10,3 - 12,4 - 14,5 mm + 5 single-cut taps DIN 352 HSS M 6 - M 8 - M 10 - M 12 - MF 14 + 5 fitting tools M 6 - M 8 - M 10 - M 12 - M 14 + 5 pin-Breakers Ø 4,6 - 6,0 - 7,5 - 9,0 - 10,0 mm + 45 inserts M 6 - M 10, each 5 x Ø 1,0 / 1,5 / 2,0: Height = 1,0 x Ø + 12 inserts M 12 - MF 14, each 2 x Ø 1,0 / 1,5 / 2,0: Height = 1,0 x Ø	244 209

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ProCoil Thread repairing sets in plastic case

18-piece set of ProCoil thread repairing tools

		Article no.
Set M 3	1 twist drill Ø 3,1 mm + 1 single-cut tap DIN 352 HSS for thread M 3 x 0,5 + 1 fitting tool M 3 + 1 pin-Breaker Ø 2,0 mm + each 5 inserts Height = 1,0 x Ø / Height = 1,5 x Ø / Height = 2,0 x Ø	244 200
Set M 4	1 twist drill Ø 4,1 mm + 1 single-cut tap DIN 352 HSS for thread M 4 x 0,7 + 1 fitting tool M 4 + 1 pin-Breaker Ø 2,7 mm + each 5 inserts Height = 1,0 x Ø / Height = 1,5 x Ø / Height = 2,0 x Ø	244 201
Set M 5	1 twist drill Ø 5,2 mm + 1 single-cut tap DIN 352 HSS for thread M 5 x 0,8 + 1 fitting tool M 5 + 1 pin-Breaker Ø 3,5 mm + each 5 inserts Height = 1,0 x Ø / Height = 1,5 x Ø / Height = 2,0 x Ø	244 202
Set M 6	1 twist drill Ø 6,2 mm + 1 single-cut tap DIN 352 HSS for thread M 6 x 1,0 + 1 fitting tool M 6 + 1 pin-Breaker Ø 4,6 mm + each 5 inserts Height = 1,0 x Ø / Height = 1,5 x Ø / Height = 2,0 x Ø	244 203
Set M 8	1 twist drill Ø 8,3 mm + 1 single-cut tap DIN 352 HSS for thread M 8 x 1,25 + 1 fitting tool M 8 + 1 pin-Breaker Ø 6,0 mm + each 5 inserts Height = 1,0 x Ø / Height = 1,5 x Ø / Height = 2,0 x Ø	244 204
Set M 10	1 twist drill Ø 10,3 mm + 1 single-cut tap DIN 352 HSS for thread M 10 x 1,5 + 1 fitting tool M 10 + 1 pin-Breaker Ø 7,5 mm + each 5 inserts Height = 1,0 x Ø / Height = 1,5 x Ø / Height = 2,0 x Ø	244 205
Set M 12	1 twist drill Ø 12,4 mm + 1 single-cut tap DIN 352 HSS for thread M 12 x 1,75 + 1 fitting tool M 12 + 1 pin-Breaker Ø 9,0 mm + each 5 inserts Height = 1,0 x Ø / Height = 1,5 x Ø / Height = 2,0 x Ø	244 206
Set M 14	1 twist drill Ø 14,5 mm + 1 single-cut tap DIN 352 HSS for thread M 14 x 2,0 + 1 fitting tool M 14 + 1 pin-Breaker Ø 10,0 mm + each 5 inserts Height = 1,0 x Ø / Height = 1,5 x Ø / Height = 2,0 x Ø	244 207

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Twist drills DIN 338 type N HSS ground

Height performance ground twist drill consisting of heavy-duty high speed steel. The fully ground twist drill has a more precise concentricity. Application areas: for steel, alloyed and unalloyed cast iron (up to a strength of 900 N/mm²), grey, malleable, ductile and die-cast iron, sintered iron, nickel silver, graphite, short chipping aluminium alloys, brass and bronze.

Packing unit: individual plastic pack

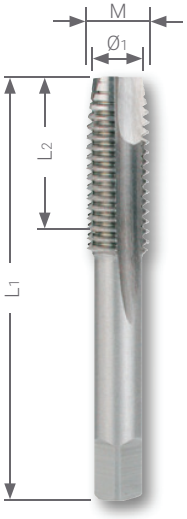
Steel (N/mm2) < 900	■
Steel (N/mm2) < 1100	
Steel (N/mm2) < 1300	
Stainless steel	
Aluminium	■

Brass	■
Bronze	□
Plastics	■
Cast iron	□
Titanium alloyed	

For thread	Thread core hole Ø1 mm	L1 mm	L2 mm	HSS	
M 3	3,10	65,0	36,0	214 031	10
M 4	4,10	75,0	43,0	214 041	10
M 5	5,20	86,0	52,0	214 052	10
M 6	6,20	101,0	63,0	214 062	10
M 8	8,30	117,0	75,0	214 083	10
M 10	10,30	133,0	87,0	214 103	10
M 12	12,40	151,0	101,0	214 124	5
M 14 + MF 14	14,50	169,0	114,0	214 145	5

Single-cut taps HSS ground

The single-cut tap HSS for through threads in unalloyed and low-alloyed steels up to a strength of 800 N/mm², malleable cast iron and non-ferrous metals. The thread can be cut in one operation by hand or machine.



Packing unit: individual plastic pack

Steel (N/mm2) < 900	■
Steel (N/mm2) < 1100	
Steel (N/mm2) < 1300	
Stainless steel	
Aluminium	■

Brass	■
Bronze	□
Plastics	■
Cast iron	□
Titanium alloyed	

For thread	Thread core hole Ø1 mm	M mm	L1 mm	L2 mm	HSS	
M 3	3,10	3,6	53,0	13,0	244 603	1
M 4	4,10	4,9	58,0	16,0	244 604	1
M 5	5,20	6,0	66,0	19,0	244 605	1
M 6	6,20	7,3	72,0	22,0	244 606	1
M 8	8,30	9,6	80,0	24,0	244 608	1
M 10	10,30	11,9	89,0	29,0	244 610	1
M 12	12,40	14,3	95,0	30,0	244 612	1
M 14	14,50	16,6	102,0	32,0	244 614	1
MF 14	14,50	15,6	102,0	32,0	244 615	1

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