



## Shilo Technologies Ltd - Company Profile

#### Company

Shilo Technologies Ltd was founded in 1986 to provide multipurpose, cost-effective, innovative mechanical and electromechanical tools for the professional and Do it Yourself markets worldwide. The company is located in Israel.

#### **▲** Business

Shilo Technologies Ltd. Is a leading manufacturer of innovative hand tools focusing on the field of thread restoring. Its first product the "Nes 1 external Thread restoring Tool" is a revolutionary hand tools, used by professionals as well as do-it-yourself users to restore damaged threads.

Due to the innovative nature of the cost effective products, the user can correct a wide range of thread types on site. Following positive reporting by some very prestigious publications – including "Popular Mechanics" – Shilo moved forward expanding its product range with the Nes 2 and Nes 3.

Shilo is now introducing a new range of tools for repairing internal threads that will further enhance the product range and position the company at the forefront of thread restoring technology.

#### Marketing

Shilo Technologies Ltd. Participate regularly in the major international tool exhibitions, demonstrating its product family. The products are protected by Patents and Intellectual Property Rights.

World-wide sales – USA, Europe & the Far East –are conducted via a network of international distribution outlets. Among Shilo's customers are some leading companies in a wide range of industries.

## **Restore Damaged Threads with NEW Exciting Range of Hand Tools**

Nes External and now NEW PATENTED Nes Internal thread restorers are the ideal tools for saving money during maintenance, Plumbing, construction, agriculture, car repair and many other applications where there are components with a damaged thread. Compare the cost of disassembling the part in order to repair a component with the INSTANT repair that need to be performed with the Nes External and Nes Internal thread restorers.

- ▲ These hand tools automatically adjust to any threads diameter and pitch, can be used on left & right hand threads, both inch and metric and need no prior measurement of the thread.
- ▲ Often the thread of component is damaged at the end of the thread eliminating the use of taps or dies for carrying out the repair. Nes External and Nes Internal thread restorers have the capability to enter BELOW the damadge area and work outwards to complete the repair.
- ▲ The blades are made of high quality hardened tool steel (internal tools' blades − HSS, external tools blades − O1). The blades are guided by the existing undamaged section of thread, in order to regroove the damaged section.



▲ The **Nes External** thread restorer is available in 4 sizes and can repair threads from 4 mm (<sup>5</sup>/<sub>32</sub>") diameter up to 152 mm (6") diameter.



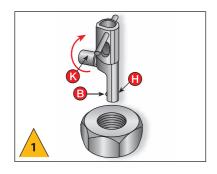
▲ The **Nes Internal** thread restorer is available in 6 sizes and can repair threads from 5 mm (#12) diameter up to 68 mm (2 <sup>5</sup>/<sub>8</sub>") diameter.



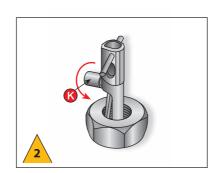
## Nes®

#### **User Guide**

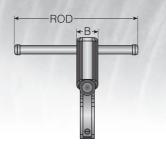
## **Internal Thread Repair**



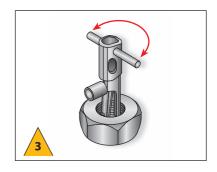
Turn knurled knob (**K**) to fully retract the blade (**B**) into housing (**H**). Insert **Nes Internal** tool into the threaded hole or bore to be repaired.



Turn knurled knob (**K**) to extend blade (**B**) into a thread groove on an undamaged section and tighten by hand only.

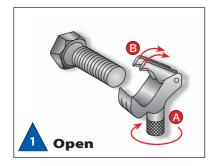




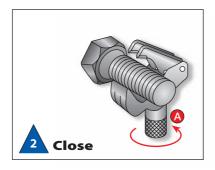


Rotate the **Nes Internal** tool by the cross-rod, as shown, in the desired direction.

## **External Thread Repair**

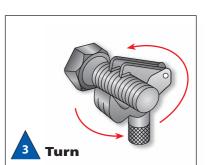


Turn handle (A) to raise floating blades (B). Place the **Nes External** tool over thread to be repaired.



Turn handle (**A**) to lower floating blades into grooves of thread and tighten by hand only.



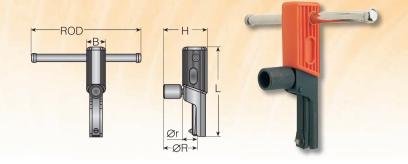


Turn the **Nes External** tool in direction of the arrow.



## **es** Internal

## **Universal Thread Repair Tool**



## Nes21 Cat # 07210

									Packag	e Size	Weig	ght
	ØD Range	Pipes	L	В	Н	ROD	Ør	ØR	W	Н	lb	gm
inch	<sup>5</sup> / <sub>16</sub> "- <sup>7</sup> / <sub>16</sub> "	<sup>1</sup> / <sub>16</sub> "- <sup>3</sup> / <sub>16</sub> "	45/16"	<sup>11</sup> / <sub>16</sub> "	13/4"	4%/16"	11/16"	1%/16"	4½"	73/8"	0.23	100
mm	8-11		109	18	45	116	17	39	115	187	0.23	100



#### **Replacement Blades:**

• RK21 60° Cat # 07216 (fitted as standard) • RK21 55° Cat # 07215

## Nes22 Cat # 07220

									Packag	e Size	Weig	ght
	ØD Range	Pipes	L	В	Н	ROD	Ør	ØR	W	Н	lb	gm
inch	1/2"-5/8"		45/16"	11/16"	13/4"	4%/16"	<sup>11</sup> / <sub>16</sub> "	1%"	4½"	73/8"	0.27	120
mm	12-16		109	18	45	116	17	39	115	187	0.27	120



#### **Replacement Blades:**

• RK22 60° Cat # 07226 (fitted as standard)

• RK22 55° Cat # 07225

## Nes23 Cat # 07230

									Packag	e Size	Weig	ght
	ØD Range	Pipes	L	В	Н	ROD	Ør	ØR	W	Н	lb	gm
inch	<sup>11</sup> / <sub>16</sub> "- <sup>13</sup> / <sub>16</sub> "		43/8"	<sup>13</sup> / <sub>16</sub> "	21/16"	51/8"	13/16"	13/4"	4½"	73/8"	0.45	200
mm	16-20		111	21	53	130	20	45	115	187	0.45	200



#### **Replacement Blades:**

• RK23 60° Cat # 07236 (fitted as standard) • RK23 55° Cat # 07235

## Nes24 Cat # 07240

									Packag	je Size	Wei	ght
	ØD Range	Pipes	L	В	Н	ROD	Ør	ØR	W	Н	lb	gm
inch	<sup>7</sup> / <sub>8</sub> "- 1 <sup>1</sup> / <sub>4</sub> "	1/2"-7/8"	53/8"	11/16"	21/2"	63/8"	11/16"	21/8"	5"	85/16"	0.9	400
mm	22-32		136	27	64	161	27	54	127	211	0.9	400



#### **Replacement Blades:**

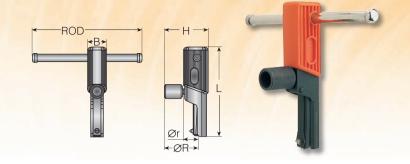
- RK24 60° Cat # 07246F (fitted as standard)
- RK24 60° Cat # 07248C best for threads coarser than 10 TPI or 2.5mm
- RK24 55° Cat # 07245F
- RK24 55° Cat # 07242C best for threads coarser than 10 TPI or 2.5mm

N.B. 55° blades are marked by orange dot.



# **es**® Internal

### **Universal Thread Repair Tool**



### Nes25 Cat # 07251

									Pac	kage S	ize	Weig	ght
	ØD Range	Pipes	L	В	Н	ROD	Ør	ØR	L	W	Н	lb	gm
inch	11/4"- 21/8"	<sup>7</sup> / <sub>8</sub> "- 1 <sup>3</sup> / <sub>4</sub> "	6 <sup>7</sup> / <sub>16</sub> "	1½"	33/16"	7%/16"	13/8"	27/16"	8 <sup>3</sup> / <sub>16</sub> "	33/8"	15/8"	2.10	950
mm	32-54		163	38	81	192	35	62	208	85	42	2.10	930



#### **Replacement Blades:**

- RK25 60° Cat # 07256C (fitted as standard)
- RK25 55° Cat # 07255C
- RK25 60° Cat # 07258F best for threads finer than 14 TPI or 1.75mm
- RK25 55° Cat # 07252F best for threads finer than 14 TPI or 1.75mm

### Nes26 Cat # 07263

١,										Pac	kage S	ize	Wei	ght
ľ		ØD Range	Pipes	L	В	Н	ROD	Ør	ØR	L	W	Н	lb	gm
	inch	11/4"- 25/8"	<sup>7</sup> / <sub>8</sub> "- 2 <sup>1</sup> / <sub>4</sub> "	67/16"	1 <sup>15</sup> / <sub>16</sub> "	35/8"	7%/16"	15/8"	23/4"	8 <sup>3</sup> / <sub>16</sub> "	33/8"	15/8"	2.40	1100
	mm	32-68		163	50	92	192	41	70	208	85	42	2.40	1100



#### **Replacement Blades:**

- RK25 60° Cat # 07256C (fitted as standard)
- RK25 55° Cat # 07255C
- RK25 60° Cat # 07258F best for threads finer than 14 TPI or 1.75mm
- RK25 55° Cat # 07252F best for threads finer than 14 TPI or 1.75mm
- RK 26 60° Cat No. 07266C
- RK 26 60° Cat No. 07265C
- RK26 60° Cat # 07268F best for threads finer than 14 TPI or 1.75mm
- RK26 55° Cat # 07262F best for threads finer than 14 TPI or 1.75mm

N.B 55° blades are marked by Orange dot

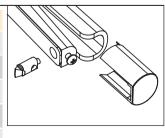
## **Nylon Pads**

#### Internal tool accessories

Available for TM20, TM21, Nes21, Nes22, Nes23, Nes24 Internal tools to be used for repair of threads in Aluminum or other soft metals. Each Pad is clearly embossed with the Nes item number. Nes Nylon Pads are produced from top quality Polyamide resins which represent superior toughness, resilience and outstanding mechanical properties over a wide range of operating environments. The Pads are designed for multiple usages – dependent on the severity of the damage.

Note: Range dimensions for Nes tools with Nylon Pads are as follows:

Tool	Pad Cat #	mm	inch
TM20	07207	6-9	1/4 - 3/8
TM21/ Nes21	07217	9-12	$\frac{3}{8} - \frac{1}{2}$
Nes22	07227	14-18	<sup>9</sup> / <sub>16</sub> - <sup>11</sup> / <sub>16</sub>
Nes23	07237	18-22	$^{11}/_{16} - ^{7}/_{8}$
Nes24	07247	22-33	$\frac{7}{8} - 1\frac{5}{16}$





<sup>\*</sup> Attachable sleeve (code 07259) included to use with diameters between 44-54 mm.

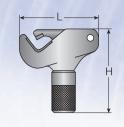
<sup>\*</sup>Attachable sleeve (code 07259) included to use with diameters between 44-54 mm.

<sup>\*</sup>Attachable sleeve (code 07269) included to use with diameters between 54-68 mm.

## **es**<sup>®</sup> External

### **Universal Thread Repair Tool**

#### Nes1A Cat # 06001







	ØD Range	Dinos		W	ш	R	Packag	jed Size	We	ight	
	WD halige	Pipes	L	VV	п	n	W	Н	lb	gm	1
inch	5/32"- 3/4"	Up to - 7/16"	23/8"	29/32"	2 <sup>7</sup> / <sub>16</sub> "	211/16"	4½"	7 <sup>3</sup> / <sub>8</sub> "	0.5	225	-
mm	4-19		61	23	62	68	115	187	0.5	223	



#### **Replacement Blades:**

- RK 1 60° Cat # 00010 (fitted as standard)
- RK 1 55° Cat # 00020

#### **Nes2** Cat # 02000

	ØD Range	Dinos		W	Н	R	Packag	ed Size	We	ight
	D hange	Pipes	-	VV	п	n	W	Н	lb	gm
inch	11/16"- 11/2"	<sup>3</sup> / <sub>8</sub> "- 1 <sup>1</sup> / <sub>8</sub> "	41/8"	1½"	45/16"	45/8"	5 <sup>5</sup> / <sub>16</sub> "	81/8"	1 2	550
mm	17-38		105	32	110	117	135	205	1.2	330



#### **Replacement Blades:**

- RK 2 60° Cat # 00030 (fitted as standard)
- RK 2 55° Cat # 00040

- RK2 60° Cat # 00031F For threads finer than 17 TPI or 1.5mm
- RK2 55° Cat # 00041F For threads finer than 17 TPI or 1.5mm





## **Nes3** Cat # 03000

	ØD Range	Dinos		W	ш	D	Pack	aged	Size	We	ight
	אס Kalige	Pipes		VV	Н	R	L	W	Н	lb	gm
inch	13/8" - 6"	1" - 5½"	12"	11/4"	51/8"	97/8"	123/8"	2"	5½"	4.0	1820
mm	35-152		305	32	130	250	315	51	140	4.0	1020



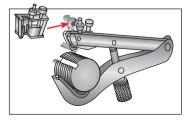
#### **Replacement Blades:**

- RK 3 60° Cat # 03010 (fitted as standard)
- RK 3 55° Cat # 03020

- RK 3 60° Cat # 03011C For threads coarser than 7 TPI or 3.5mm
- RK 3 55° Cat # 03021C For threads coarser than 7 TPI or 3.5mm
- RK 3 60° Cat # 03012F For threads finer than 14 TPI or 1.75mm
- $\bullet$  RK 3 55° Cat # 03022F For threads finer than 14 TPI or 1.75mm

### **Nes 3 Keyway Skip Accessory**

Cat # 03101 for threads finar than 2.5mm or 10 TPI Cat # 03104 for threads coarser than 2.5mm or 10 TPI



Providing a new dimension to Nes 3, This accessory enables the versatile re-threader to glide over Keyway, Slots, Grooves or channels. For repairing damage threaded shafts with slots for key or tab washer, choose the appropriate addition cutter for best results.

#### Replacement Blades:

Replacei	Helit bia	ues.
• RK 3 60°	1.0mm	03032
• RK 3 60°	1.25mm	03033
• RK 3 60°	1.5mm	03034
• RK 3 60°	1.75mm	03035
• RK 3 60°	2.0mm	03036
• RK 3 60°	24 TPI	03124
• RK 3 60°	20 TPI	03120
• RK 3 60°	18 TPI	03118
• RK 3 60°	16 TPI	03116

• RK 3 60° 14 TPI





## **es**<sup>®</sup> Sets

## **Universal Thread Repair Tool**

## Nes1000 External External 4-38 mm 5/32" - 11/2"

					Pack	aged S	ize	Wei	ight
Model	Cat.#	Contents			L	W	Н	lb	gm
Nes 1000	01000	Nes external 1A	RK 1 60°	inch	101/16"	6"	113/16"	2.7	1200
		Nes External 2	RK 2 60°	mm	256	152	46	2.7	1200



## **Nes1300 External** External 4-152 mm 5/32" - 6"

					Pacl	kaged S	ize	Weight		
Model	Cat.#	Contents			L	W	Н	lb	gm	
Nes 1300	01300	Nes external 1A Nes External 2	RK 1 60° RK 2 60°	inch	17"	91/2"	29/16"	8.4	3750	
		Nes External 3 Nes Cleaner Nes 3 extension handle	RK 3 60°	mm	430	240	65	0.4	3/30	



## **Nes 1007** Internal Internal 8-20 mm 5/16" - 13/16"

					Packa	ize	Wei	ight	
Model	Cat.#	Contents			L	W	Н	lb	gm
Nes 1007	01007	Nes Internal 21	RK 21 60°	inch	10 <sup>13</sup> / <sub>16</sub> "	81/16"	115/16"	1 0	860
		Nes Internal 22 Nes Internal 23	RK 22 60° RK 23 60°	mm	275	205	50	1.9	800



## Nes1008 Internal Internal 8-32 mm 5/16" - 11/4"

					Packa	We	ight		
Model	Cat.#	Contents			L	W	Н	lb	gm
Nes 1008	01008	Nes Internal 21 Nes Internal 22	RK 21 60° RK 22 60°	inch	10 <sup>13</sup> / <sub>16</sub> "	81/16"	115/16"	2.0	1300
		Nes Internal 23 Nes Internal 24	RK 23 60° RK 24 60°	mm	275	205	50	2.9	1300



## Nes1036 Internal Internal 22-68 mm 3/8" - 25/8"

					Packa	We	ight		
Model	Cat.#	Contents			L	W	Н	lb	gm
Nes 1036	01036	Nes Internal 24 Nes Internal 25	RK 24 60° RK 25 60° F	inch	10 <sup>13</sup> / <sub>16</sub> "	81/16"	115/16"	44	2000
		Sleeve 07259 Sleeve 07269	RK 26 60° F RK 26 60° C	mm	275	205	50	4.4	2000





## **es** Sets

## **Universal Thread Repair Tool**

Nes1015 Combination External 4-19 mm 5/32" - 3/4" Internal 8-16 mm 5/16" - 5/8"

					Packa	Wei	ight		
Model	Cat.#	Contents			L	W	Н	lb	gm
Nes 1015		RK 1 60°	inch	101/16"	6"	113/16"	17	800	
		Nes Internal 21 Nes Internal 22	RK 21 60° RK 22 60°	mm	256	152	46	1.7	800



Nes1017 Combination External 4-19 mm 5/32" - 3/4" Internal 8-20 mm 5/16" - 13/16"

					Packa	We	ight		
Model	Cat.#	Contents			L	W	Н	lb	gm
Nes 1017	01017	Nes External 1A Nes Internal 21	RK 1 60° RK 21 60°	inch	101/16"	6"	113/16"	2.2	1000
		Nes Internal 22 Nes Internal 23	RK 22 60° RK 23 60°	mm	256	152	46	2.2	1000



Nes1025 Combination External 4-38 mm 5/32" - 11/2" Internal 8-32 mm 5/16" - 11/4"

					Packa	Weight			
Model	Cat.#	Contents			L	W	Н	lb	gm
Nes 1025	01025	Nes External 1A Nes External 2 Nes Internal 21	RK 1 60° RK 2 60° RK 21 60°	inch	10 <sup>13</sup> / <sub>16</sub> "	81/16"	115/16"	4.9	2200
		Nes Internal 22 Nes Internal 23 Nes Internal 24	RK 22 60° RK 23 60° RK 24 60°	mm	275	205	50	4.9	2200





## **es**<sup>®</sup> Sets

## **Universal Thread Repair Tool**

### Nes1044 MINI-KIT

External 4-13 mm  $\frac{5}{32}$ " -  $\frac{1}{2}$ " Internal 5-12 mm #12" -  $\frac{1}{2}$ "

					Pack	aged Si	ize	Wei	ight
Model	Cat.#	Contents			L	W	Н	lb	gm
Nes 1044		4 Nylon Pad 20	inch	5 <sup>13</sup> / <sub>16</sub> "	41/16"	<sup>13</sup> / <sub>16</sub> "	0.7	320	
Mini-Kit		TM 20 Internal TM 21 Internal	4 Nylon Pad 21	mm	148	104	21	0.7	320

#### **Replacement Blades:**

- RK TM20 60° + holder Cat # 06056
- RK TM20 55° + holder Cat # 06058
- RK TM21 60° + holder Cat # 06057
- RK TM21 55° + holder Cat # 06059





## ThreadMate Cat # 06040

	ØD Range	Pipes		W	н	R	Packag	jed Size	Wei	ight
	WD halige	ripes	L	VV	П	n	W	Н	lb	gm
inch	5/32"- 1/2"	Up to $-\frac{1}{4}$ "	23/4"	27/8"	<sup>9</sup> / <sub>16</sub> "	25/16"	4½"	7½"	0.3	136
mm	4-13		70	73	14	59	115	190	0.5	130

#### **Replacement Blades:**

- RK TM1 60° Cat # 06046
- RKTM1 55° Cat # 06045





**Present 6 Mini-Kits together** 





## **Recommendation for Nes Internal tool selection**

Find the best tool for your application by the color at the intersection of the column represented by the diameter of your workpiece and the row with the pitch of thread to be repaired.

Dian inch	neter	Nr. 12	1/4	5/16	3/8	7/16	1/2	9/16	2/8	11/16-3/4		13/16		2//8	15/16	1-1.1/16	1.1/8	1.3/16	1.1/4	1.5/16	1.3/8-1.9/16	1.5/8	1.3/4	1.7/8	2-2.3/16	2.3/16-2.5/8
Dian mm	neter	22	9	ω	10	Ξ	12	14-15	16	17-19	20		21	22	24	25-27	28	30	32	33	35-40	42	44	45-48	50-55	54-68
tpi	Pitch																									
32	0.8																									
28																										
26																										
24	1																									
22																										
20	1.25																									
18																										
	1.5																									
16																										
14	1.75																									
13	2																									
12																										
11.5																										
11																										
10	2.5																									
9	0																									
0	3																									
8	3.5																									
7	3.5																									
7	4																									
6	4																									
	4.5																									
5	5																									
4.5	J																									

### **Color Key:**

ThreadMate 20

Nes Internal 24

Nes Internal 21 & ThreadMate 21

Nes Internal 25

Nes Internal 22

Nes Internal 25 Including sleeve

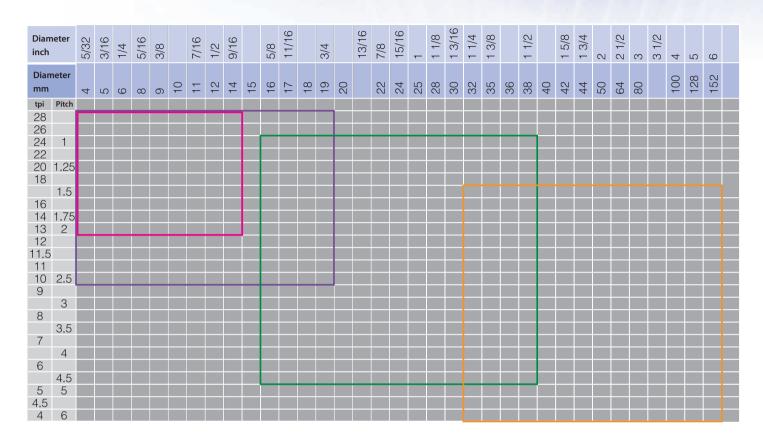
Nes Internal 23

Sleeve 26



# Nes®

### **Recommendation for Nes External tool selection**



### **Color Key:**

ThreadMate 1

Nes 1A

Nes 2

Nes 3

