# 85 Smart Grip™, the Water Pump pliers with automatic adjustment

patented DIN ISO 8976



85 01 250

- > self-controlled adjustment on the workpiece simply by squeezing handles.
- ➤ ideal for frequent changeover to workpieces of different size
- > one hand operation for right and left handed people
- > locking lever for space saving transport with reliable closed handles
- ➤ slim dimensions good access to the workpiece
- > box-joint design
- > self-locking on pipes and nuts: no slipping on the workpiece and low handforce required
- gripping surfaces with special hardened teeth, approx 61 HRC
- ➤ guard prevents fingers being pinched





Automatic adjustment: not time-consuming trial and error-adjusting of the correct opening size in case of differently sized workpieces (eg. the red high-lighted nuts and threaded connections). Everything done with a snatch



Locking lever for space saving transport with reliable closed handles



Slim dimensions for access to the workpiece using one-hand operation





## 86 Plier Wrenches, Plier and Wrench in a single tool





86 07 250



**86 07 250** scale for presetting the opening apart from the workpiece



**86 03 300** enormous pressure and capacity up to 60 mm/ 2 3/8" allows application even on large size nuts

- excellent for gripping, holding, pressing and bending workpieces
- ➤ for careful installation of finished-surface components
- > zero backlash jaw surface pressure prevents damage to edges of sensitive components
- ➤ fast adjustment directly on the workpiece by pushing a button
- > no unintentional shift of the gripping jaws and no slipping of the joint
- > replaces a complete set of wrenches
- > parallel jaws allow infinitely variable gripping of all widths to the specified maximum size
- > the action of the jaws allows screwed connections to be tightened and released quickly using the ratchet principle
- ▶ lever transmission greater than10 1 for strong gripping power
- > also for tile breaking
- > chrome vanadium electric steel, oil-hardened and tempered

#### Model 86 03 150:

> mini plier wrench for precision mechanics



The patented Plier Wrench is a multi functional fastening, gripping and holding tool with fast adjustment pushing a button. The high lever ratio, parallel jaws without profile and infinitely variable adjustment guarantee a secure and smooth gripping of the workpiece free from any backlash.



Working on plated fittings without damage of the surface





Works using the ratchet principle



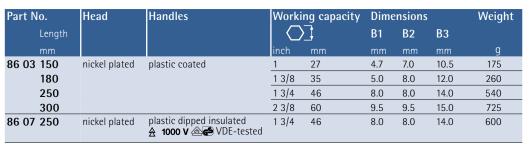
Fast adjustment by pushing a button

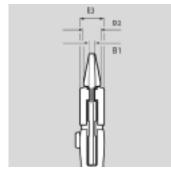


Plier Wrench: zero backlash under pressure



Conventional open end wrench: edge pressure causes surface damage









87 01 400

- ➤ Pipe Wrench and Water Pump Plier in one tool
- > self-locking on pipes and nuts: no slipping on the workpiece; low handforce required
- ➤ fast and firm adjustment directly on the workpiece
- > no unintentional shifting
- > non-slip joint
- > fine adjustment
- > optimum lever action
- > can be used as a wrench in a lot of situations
- > gripping surfaces with special hardened teeth, teeth hardness approx. 61 HRC: low wear and secure gripping
- > chrome vanadium electric steel, oil-hardened and tempered

#### Model 87 01 400:

on the workpiece.

- > capacity of jaws for pipes up to 3 1/2" at a total length of a 1 1/2" Pipe Wrench
- ➤ 20% less weight than a 1 1/2" Pipe Wrench
- > 27 adjustment positions

#### Model 87 01 560:

- > capacity of jaws for pipes up to 4 1/2" at a total length of a 2" Pipe Wrench
- ➤ 40% less weight than comparable Pipe Wrenches
- > 20 adjustment positions



Fine adjustment by pushing a button: quick and comfortable



Optimized shape of jaws for gripping pipes and nuts



**87 01 560** jaw-capacity for pipes upto 4 1/2" at a weight and length of a 2" Pipe Wrench



Fast and firm adjustment directly on the workpiece



Self-locking on pipes and nuts. No slipping on the workpiece and less handforce required

Part No.	ngth	Head	Handles	Working capacity ☐☐ for pipes ☐☐ for nuts		Weight
m	m			inch	mm (across flats)	g
87 01 40	00	polished	plastic coated	3 1/2	95	1190
50	60			4 1/2	120	2760

# 87 KNIPEX Cobra®, the HiTech Water Pump Pliers



- > fast adjustment directly on the workpiece: fast and comfortable handling
- ➤ fine adjustment: ensures optimum adjustment to differently sized workpieces and user-friendly handle position; 8701125: 13 adjustment positions 8701150: 11 adjustment positions 8701180: 11 adjustment positions 8701250: 25 adjustment positions 8701300: 30 adjustment positions 8701400: 27 adjustment positions
- > secure catching of the hinge bolt: no unintentional shifting
- > box-joint design: high stability because of double guide
- > self-locking on pipes and nuts: no slipping on the workpiece and low handforce required
- > gripping surfaces with special hardened teeth, teeth hardness approx. 61 HRC: low wear and secure gripping one-hand adjustment
- > guard prevents operators' fingers being pinched
- ➤ favourable lever action: optimum transmission of force
- > chrome vanadium electric steel, oil-hardened and tempered



#### Model 87 01 150:

- > mini- "Cobra",
- > length only 150 mm

#### Model 87 01 125:

- ➤ for use in hobbies, housework and precision mechanics
- > improved access in very confined spaces



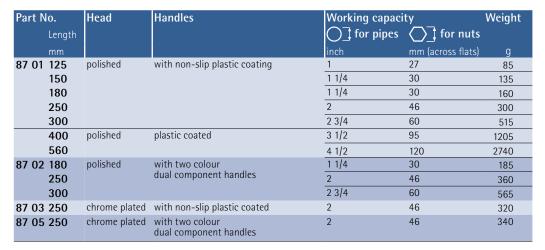
Self-locking on pipes and nuts. No slipping on the workpiece and less handforce required



Fine adjustment by pushing a button: quick and comfortable



Fast and firm adjustment directly on the workpiece





Operation on pneumatic pipes

### 87 KNIPEX Cobra®..matic, Water Pump Pliers for one-hand operation

patented

DIN ISO 8976

with automatic adjustmentthe plier can be opened and adjusted directly at the

workpiece with one hand

- ➤ KNIPEX Cobra®...matic closes when pushing a button
- > the integrated spring of the automatic adjustment is shielded in the handles
- > gripping surfaces with special hardened teeth, teeth hardness approx. 61 HRC: low wear and secure gripping
- > chrome vanadium electric steel, oil-hardened and tempered



87 11 250

Part No. Length	Head	Handles	Working capaci		Weight
mm			inch	mm (across flats)	g
87 11 180	polished	with non-slip plastic coating	1 1/4	30	170
250			1 1/2	36	300

### 87 Multiple Slip Joint Spanner

patented



87 41 250



Self-locking: no slip on workpieces; less effort required



Multiple Slip Joint Spanner as the second spanner for tightening locknuts



Working on tight nuts with rounded edges



Fine adjustment by pushing a button: fast and comfortable

- → for hexagonal screws and nuts width across flats 10 32 mm (3/8" 1 1/4"); self-locking in the range of 17 32 mm (11/16" 1 1/4"); no slip on workpieces; less effort required
- > replaces a complete set of spanners
- > perfect fitting grip on bolt heads and nuts with metric or imperial sizes; no rounding of gripping surfaces
- > the plier-type gripping movement of the jaws allows threaded connections to be tightened and released quickly using the ratchet principle
- > ideal for tightening locknuts
- > secure and tight grabbing of bolt heads with rounded edges, rusted nuts or heavily coated workpieces
- > secure catch of the hinge bolt: no unintentional shifting
- **>** box-joint design: high stability
- > because of double guide
- > guard prevents operators' fingers being pinched
- > ergonomic handle design with non-slip plastic coating for comfortable grip particularly with large and tight nuts



The new KNIPEX Multiple Slip Joint Spanner is a combination tool that offers the convenience of the comfortable push-button adjustment on the workpiece and the function of an adjustable spanner. Zero backlash pressure of the jaws avoids slipping on the threaded connection or a rounding effect on the edges. Even rounded edges and heavily coated workpieces that do not offer a convenient gripping surface to conventional wrenches, can be loosened with the exceptionally powerful gripping jaws of the Multiple Slip Joint Spanner.

- > one-hand fine adjustment by pushing a button with 15 adjustment positions directly on the workpiece for perfect grip on different sized workpieces and a favourable position of the hand
- > chrome vanadium steel, oil-hardened and tempered

Part No.	Head	Handles	Capacity	Capacity	
Length					
mm			mm	inch	g
87 41 250	polished	plastic coated	10 - 32	3/8" - 1 1/4'	315

# 87 KNIPEX Cobra® ES, the Extra Slim Water Pump Pliers

patented

**DIN ISO 8976** 



87 51 250

- > particularly good access to the workpiece due to very slim construction of head and joint area
- > long, narrow jaws
- > ideal for service and maintenance, equipment repair, automotive and general industry
- > one-hand fine adjustment by pushing a button with 19 adjustment positions directly on the workpiece for perfect grip on different sized workpieces and a favourable position of the hand
- > secure catching of the hinge bolt: no unintentional shifting

- **>** box-joint design: high stability because of double quide
- > firm grip also on flat material due to three-point rest
- > self-locking on pipes and nuts: no slipping on the workpiece and low handforce required
- > gripping surfaces with special hardened teeth, teeth hardness approx. 61 HRC: low wear and secure gripping
- **>** favourable lever action: optimum transmission of force
- > guard prevents operators' fingers being pinched
- > chrome vanadium electric steel, oil-hardened and tempered



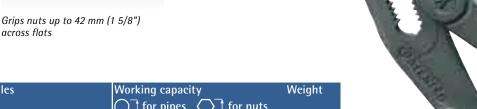
areas.



Optimum access to the workpiece. Ideal for service and maintenance, equipment repair, automotive and general industry



Grips nuts up to 42 mm (1 5/8")



Very slim construction in the complete head and joint area (compared to conventional water

pump pliers)

g
325

**DIN ISO 8976** 

### 89 Water Pump Pliers with groove joint



89 01 250

- > easy, convenient engagement in 5 different positions due to milled swivel
- > non-slip joint
- > can be used as a wrench in a lot of situations
- > all strain removed from the joint screw, hence no wear on pivot
- > guard prevents operators' fingers being pinched
- > gripping surfaces with special hardened teeth, teeth hardness approx. 61 HRC for tool length 250 mm: low wear for secure grip
- > chrome vanadium electric steel, oil-hardened and tempered

#### Model 89 01 250:

> self-locking on pipes and nuts: no slipping on the workpiece and low handforce required

mm inch mm (across flats)	
	g
<b>89 01 200</b> polished plastic coated 1 1/4 30	230
<b>250</b> 1 5/16 36	335

# 88 KNIPEX Alligator® Water Pump Pliers



- DIN ISO 8976 **>** box-joint design: high stability because of double guide
  - > self-locking on pipes and nuts: no slipping on the workpiece; low handforce required
  - > guard prevents operators' fingers being pinched
- ➤ favourable lever action: optimum transmission of force
- > gripping surfaces with special hardened teeth, teeth hardness approx. 61 HRC: low wear and secure gripping
- > chrome vanadium electric steel, oil-hardened and tempered



Self-locking on pipes and nuts. No slipping on the workpiece and less handforce required







Optimized shape of jaws for gripping pipes and nuts

Part N	<b>lo.</b> Length	Head	Handles	Adjust- ment positions	Capacity	for nuts	Weight
	mm				inch	mm (across flats)	g
88 01	180	polished	with non-slip plastic coating	7	1 1/4	30	185
	250			9	2	46	320
	300			7	2	46	505
88 02	180	polished	with two-colour dual	7	1 1/4	30	215
	250	0	component handles	9	2	46	355
	300			7	2	46	555
88 03	180	chrome	with non-slip plastic coating	7	1 1/4	30	185
	250	plated		9	2	46	315
88 05	300	chrome plated	with two-colour dual component handles	7	2	46	555
88 06	250	chrome plated	insulated with two-colour dual component handles  ★ 1000 V ♠ VDE-tested	9	2	46	375
88 07	250	chrome plated	plastic dipped insulated 会 <b>1000 V</b> 金 <b>令</b> VDE-tested	9	2	46	420



### 90 Small Water Pump Pliers, with groove joint



- ➤ easy, convenient engagement in 4 different positions
- ➤ all strain removed from the joint screw, hence no wear on pivot
- > non-slip joint
- > forged from chrome vanadium electric steel, oil-hardened and tempered

90 03 125

88 02 250

88 06 250

88 07 250

Part No. Length	Head	Handles	Capacity	for nuts	Weight
mm			mm	mm (across flats)	g
90 01 125	polished	plastic coated	17	14	100
90 03 125	chrome plated	plastic coated	17	14	100

# 90 Hose and Pipe Cutters



90 20 185

- > for cutting thin walled plastic pipes (e. g. armoured plastic pipes) and flexible hoses, also with fabric reinforcment, of plastic and rubber up to 25 mm dia. / 1" exterior dia.
- > not suitable for cutting cables
- > exchangeable blade

- ➤ with opening spring and locking lever
- > tool made of tough fibreglass reinforced plastic
- > blade made of high-strength special grade steel, oil-hardened and tempered

Part No.	Head	Handles	Cutting capacity	Cutting Edge Length	Weight
			mm	mm	g
90 20 185	chrome plated	tough fibreglass reinforced plastic handles	25	25	172
90 29 185		spare blade for 90 20 185			

# 90 Pipe Cutters for composite pipes and protective tubes



90 25 20



Protective tube: to be cut with the front blades



Composite pipe: to be cut with the rear cutter

- ➤ for cutting composite pipes with a diameter of 12.0 25.0 mm and for cutting flexible protective tubes with a diameter of 18.0 35.0 mm without damaging the pipe inside
- > exchangeable blades
- ➤ a calibration arbor can be fitted, for example for Geberit composite pipes with 11.5 and 15.0 mm dia.
- > galvanized head, with two-colour dual component handles
- > high strength special grade steel, oil-hardened and tempered



Clean cut of protective tubes 18 – 35 mm dia.



Composite pipes of 12 – 25 mm dia. are cut cleanly and without deformation

Part No.	Head	Handles	Cutting capacity	Cutting capacity		Weight
			composite pipes	protective pipes	Length	
			mm	mm	mm	g
90 25 20	galvanized	with two-clour dual component handles	12 - 25	18 - 35	210	325
90 29 01		spare blade for composite	e pipes			

### 90 Punch Lock Riveters



- > for producing solid connections of all metal section sheets used in partition walls and false ceilings
- for U- and C-shaped sections with max 1.2 mm metal (2 x 0.6 mm)
- > minimum handforce required due to optimum lever transmission
- > high strength special grade steel, oil-hardened and tempered
- > for one hand operation



Setting the plier for connection of two metal section sheets



The punching tool is pressed through the metal section sheets



The sheet projections are bent



Completed sheet connection

Part No. Length	Head	Handles	Capacity	Weight
mm			mm	g
90 42 250	burnished	with two-colour dual component handles	max 1.2 (2x 0.6)	676

### 90 Sheet Metal Nibbler



Part No.
Length
mm

90 55 280
nickel plated with plastic handles 560
90 59 280 spare blade

- for cutting iron, copper or aluminium plate up to max.
   1.2 mm thickness, plastic up to max.
   2.0 mm thickness
- ➤ materials are cut without deformation
- > clean cut edges no additional work needed on the cut profile
- > with chip breaker
- > easy handling
- ➤ nickel plated head, with plastic handles
- high strength special steel, particularly stressed parts oil-hardened and tempered



**90 55 280** notching and chip breaking in one operation



Notching without chip breaking

# 90 Revolving Punch Pliers



- > for punching holes in leather, textiles and plastic material
- > with six interchangeable punches: 2.0/2.5/3.0/3.5/ 4.0/5.0 mm dia.
- > with opening spring and locking lever
- > powder-coated for reliable protection against rust
- > punched and stamped from high-strength sheet steel





Interchangeable punches

Part No.	Finish	Weight
Length		
mm		g
90 70 220	powder-coated	265

# 92 Precision Tweezers





92 04 120  $\mathbb{I}_{\mathbb{R}}$ 





92 44 42 

> universally applicable

### 92 04 120/145:

- > straight pattern
- > blunt-wide tips
- > gripping surfaces with fine serration
- > spring steel

### 92 34 36:

- > straight pattern
- > narrow 45° bent tips
- > gripping surfaces with fine serration
- > chequered handles

#### 92 44 42:

- > jewellers' tweezers
- > wide, round tips. approx.2mm
- > gripping jaws with fine crosswise serration (cross cut)
- > chequered handles

Part No.	Finish		Weight
		Length	
		mm	g
92 04 120	mirror-finish nickel plated and polished	120	15
145		145	25
92 34 36	nickel plated	120	23
92 44 42	nickel plated	140	21

# 94 Cutter for Plastic Pipes, for electrical installation



- > for clean cutting of plastic pipes (e.g. plastic clad pipes) with 6 - 35 mm dia.
- > not suitable for cutting cables
- ➤ blade is replaceable and can be retracted in any position
- > low force requirement due to special blade geometry and optimum transmission
- > minimum operator fatigue due to ergonomic handle design and ratchet blade feed in stages
- > die-cast aluminium body, red lacquered

Part No. Length	Finish	Capacity	Weight
mm		Ø mm	g
94 10 185		6.0 - 35.0	560
94 19 185	spare blade		50

# 94 Mitre Shears, for plastic and rubber sections



- > for crushing-free cutting of plastic, rubber and soft timber section; also for ribbon cable up to 56 mm width
- ➤ exchangeable cutting base with fence angle for 45°-cuts and markings for 60°-, 75°- and 90°- cuts
- > replaceable, conventional trapezoidal blade
- > with opening spring and locking device
- ➤ handles and blade mounting made of high-strength special grade steel

Part No.	Head	Handles	Blade length	Weight
Length				
mm			mm	g
94 35 215	chrome plated	plastic coated	56	400
94 19 215	spare blade			50

# 95 Combination/Cable Shears



- > combination shears for cutting cardboard, plastics, aluminium, brass and copper foils
- > not suitable for steel wire or iron sheets
- ➤ precision ground, hardened blades
- **>** with opening spring and locking lever
- > with guard
- > adjustable screw joint
- > blades made of stainless steel
- > oil-hardened and tempered

95 05 190

Part No.	Head	Handles	Weight
Length			
mm			g
95 05 140	bright polished	with plastic handles	50
190			120

### 95 Cable Shears



- for cutting copper and aluminium cables, single and multiple wire
- > not suitable for steel wire and hard drawn copper conductors
- > precision ground, hardened blades
- > clean and smooth cut without crushing and deformation
- > easy cutting with one-hand operation
- > with guard
- > adjustable screw joint, self-locking
- > forged
- > special tool steel, oil-hardened and tempered

#### Model 95 11/12 165:

> universal use for dismantling and stripping



Cut performed with a Diagonal Cutters: high effort required, inaccurate cut, considerable deforming and crushing of the cable



Cut effected with Cable Shears: easy, clean cut without any deformation of the cable

Part N	<b>o.</b> Length	Head	Handles	Cutting capacity		Ту	Weight
	mm			Ø mm	mm²	AWG	g
95 11	165	burnished	plastic coated	15	50	1/0	210
95 12	165	burnished	with two-colour dual component handles	15	50	1/0	245
95 16	165	chrome plated	insulated with two-colour dual component handles <b>★ 1000 V ★</b> VDE-tested	15	50	1/0	255

### 95 Cable Shears



- > not suitable for steel wire and hard drawn copper conductors
- > precision ground, hardened blades
- no crushing, slight deformation of the cable only
- > with guard
- > adjustable screw joint

#### Model 95 05 165:

- > cable shears for universal use; cuts cables up to 10 mm dia. / 24 mm<sup>2</sup>
- > with opening spring and locking lever
- > blades made of stainless steel
- > oil-hardened and tempered

### Model 95 06 230:

- ➤ for copper conductors single wire up to 16 mm², multiple wire up to 50 mm², fine strand up to 70 mm² and aluminium conductors multiple wire up to 70 mm²
- > easy cutting with one-hand operation due to high transmission ratio
- > stainless special grade steel, oil hardened and tempered
- ➤ VDE tested according to DIN EN/IEC 60900: 2004
- Part No. Head Handles Cutting capacity Weight 95 05 165 bright polished with plastic handles 115 10 24 3 plastic insulated
  ★ 1000 V ♠ VDE-tested 95 06 230 bright polished 16 50 1/0 275

### 95 Cable Shears with opening spring



- > ergonomically designed for relief of the arm muscles
- ➤ for fatigue-reduced cutting of copper and aluminium cables
- > not suitable for steel wire and hard drawn copper conductors
- **>** oil-hardened, precision ground blades
- > clean and smooth cut without crushing and deformation
- > easy cutting with one-hand operation
- > with guard
- adjustable self-locking screw joint
- > special high-grade tool steel, forged, oil-hardened



Oil-hardened precision ground blades for smooth and clean cuts



A more comfortable way for repetitive cutting

Part N	Part No. H		Handles	Cuttin	g capaci	ty	Weight
	mm			Ø mm	mm²	AWG	g
95 21	165	burnished	plastic coated	15	50	1/0	215
95 22	165	burnished	with two-colour dual component handles	15	50	1/0	255
95 26	165	chrome plated	insulated with two-colour dual component handles ★ 1000 V ♠ VDE-tested	15	50	1/0	275

### 95 Cable Shears, with twin cutting edge

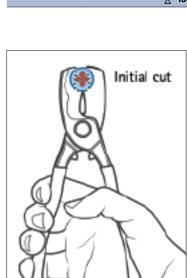
patented



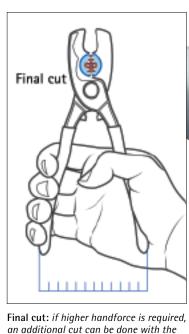


- > for cutting copper and aluminium cables, single and multiple wire
- > not suitable for steel wire and hard drawn copper conductors
- > precision ground, hardened blades
- > clean and smooth cut without crushing and deformation
- > easy cutting with one-hand operation
- > initial and final cut (upper and lower blade) allows cables of up to 20 mm dia. to be cut
- > low handforce required due to favourable lever ratio and new blade geometry
- > with guard
- > adjustable screw joint, self-locking
- > forged
- > special tool steel, oil-hardened and tempered

Part N	<b>lo.</b> Length	Head	Handles	Cutting	g capaci	ity	Weight
	mm			Ø mm	mm²	AWG	g
95 11	200	burnished	plastic coated	20	70	2/0	295
95 16	200	chrome plated	insulated with two-colour dual component handles ★ 1000 V 🍑 VDE-tested	20	70	2/0	345



Initial cut: using the upper cutting edge, an ergonomic handle opening is guaranteed even in case of large cable diameters



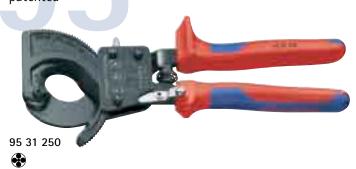
an additional cut can be done with the cutting edge profile near the joint. Initial cut with the upper cutting edge - final cut with the lower cutting edge





### 95 Cable Cutters, Ratchet Action

patented





95 3



95 36 250



- > for cutting copper and aluminium cables, single and multiple wire
- > not suitable for steel wire and wire ropes
- > precision ground, hardened blades
- > clean and smooth cut without crushing and deformation
- **>** one-hand operation using ratchet principle
- ➤ little handforce required due to optimum transmission ratio
- ➤ two-stage ratchet drive for easy cutting
- simple handling as a result of low weight and compact design
   can be used even in confined areas
- > with guard
- > special grade tool steel

### Model 95 31 250/280:

> fixed handle with support area for putting down the plier when cutting

### Model 95 31 280:

➤ suitable for aluminium sector cable up to 4 x 150 mm²



Cutting thicker cables usually requires a high handforce. KNIPEX Ratchet Cable Cutters facilitate this work by means of a two-stage ratchet drive and a handle with support (model 95 31) The cable cutter can be rested on a solid ground so that additional body weight can be applied to reduce lower arm musculature fatigue.





Part N	<b>No.</b> Length	Head	Handles		g capaci	ty	Weight
	mm			Ø mm	mm²	MCM	g
95 31	250	lacquered	with two-colour dual component handles	32	240	500	575
	280			52	380	750	750
95 36	250	lacquered	insulated with two-colour	32	240	500	560
	280		dual component handles  ★ 1000 V ♣ VDE-tested	52	380	750	735
95 39	250	spare moving blade for	95 31 250 & 95 36 250				130
95 39	280	spare moving blade for	95 31 280 & 95 36 280				260



95 31 280 Large cutting capacity: maximum 52 mm dia. / 380 mm<sup>2</sup>



Ratchet principle and two-stage ratchet drive for easier cutting.

# 97 KNIPEX MultiCrimp®



- one tool for the most common crimping applications
- > quick and easy exchange of the crimping dies without any additional tool
- ➤ for solder-free electrical connections
- > repetitive, high crimping quality due to precision dies and integral lock with very fine adjustment (self-releasing mechanism)
- ➤ interchangeable profiles are securely held in the tool
- head burnished, two-colour dual component handles

#### Model 97 33 01:

> crimping pliers with round magazine and 3 interchangeable profiles

### Model 97 33 02:

Crimping pliers with round magazine and 5 interchangeable profiles

Secure attachment of the dies in the pliers by reliable locking system

Crimping dies are marked with a pictogram: visible in the magazine and the pliers



Part No.	Range of applic	cation	Capacity			Weight
					Length	
			mm²	AWG	mm	g
97 33 01	A Coli	non-insulated, open plug-type connectors	0.5 - 6.0	20 - 10	250	755
	<b>5</b>	insulated terminals and plug connectors	0.5 - 6.0	20 - 10		
	<b>=</b>	End Sleeves (ferrules)	0.25 - 6.0	23 - 10		
97 33 02		non-insulated, open plug-type connectors	0.5 - 6.0	20 - 10	250	855
	<b>5</b>	insulated terminals and plug connectors	0.5 - 6.0	20 - 10		
		End Sleeves (ferrules)	0.25 - 6.0	23 - 10		
	v 🥜	non-insulated terminals and plug connectors	0.5 - 10.0	20 - 7		
	<b>O</b> //	non-insulated butt connectors	1.5 - 10.0	15 - 7		



Round magazine with belt clip: interchangeable dies are always ready to hand

## 97 Self-Adjusting Crimping Pliers for End Sleeves (ferrules)

with lateral access, patented





square crimp





hexagonal crimp

0.08 - 6.0mm<sup>2</sup>

- > for crimping end sleeves (ferrules) according to DIN46228 parts 1 + 4
- > for solder-free electrical connections
- > lateral loading of the end sleeves (ferrules) into the tool
- > simple handling as a result of self-adjustment to the size of the end sleeve (ferrule)
- > repetitive, high crimping quality due to integral lock (self-releasing mechanism)
- > these tools have been set precisely (calibrated) in the factory
- > optimum transmisson of force due to lever action for fatigue-reduced operation
- > high operation comfort thanks to handy shape and low weight
- **>** all stressed parts are made of special steel, oil-hardened and tempered



The Self-Adjusting Crimping Pliers for end sleeves (ferrules) adjusts automatically to the connector size desired in one profile. This means comfortable, reliable and fast crimping.

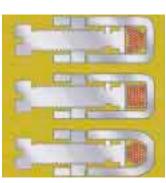
#### Model 97 53 04:

> square crimping for optimum contact areas in the clamp connection

### Model 97 53 14:

> heaxagonal crimping for optimum positioning in confined areas

Part No.	Range of applicat	Range of application		Capacity			Weight
						Length	
			mm	2 μ	AWG	mm	g
97 53 04		nd sleeves ferrules)	0.08	3 - 10 2	28 - 7	180	380
97 53 14		nd sleeves ferrules)	0.08	3 - 6.0 2	28 - 10	180	400



The section shows clearly that the square crimping produces a better contact than the trapezoidal crimping. The hexagonal crimping comes close to the space saving round shape and guarantees optimum contact in narrow round terminal connectors, in contrast to square crimping of the same cross-section



# 97 KNIPEX PreciForce® Crimping Pliers







97 52 35





97 52 36



- ➤ for solder-free electrical connections conforming to standards
- > repetitive, standard conforming high crimping quality due to precision dies and integral lock (self-releasing mechanism)
- ➤ these tools have been set precisely (calibrated) in the KNIPEX factory
- ➤ high transmission of force thanks to lever action for fatigue-reduced working
- > good handling thanks to favourable handle position, low weight, short design and ergonomically shaped handles
- ➤ all stressed parts are made of special steel, oil-hardened and tempered
- > head burnished, handles with two-colour dual component sleeves





Part No.	Range of applicati	ion	Capacity	Capacity		
					Length	
			mm²	AWG	mm	g
97 52 30		non-insulated butt connectors	1.5 - 10.0	15 - 7	220	490
97 52 33	v 🧳	non-insulated terminals and plug conectors	0.5 - 10.0	20 - 7	220	490
97 52 34	نقعہ 🛪	non-insulated open	0.1 - 2.5	27 - 13	220	490
97 52 35		plug-type conectors 2.8+4.8mm / 2.8+6.3mm	0.5 - 6.0	20 - 10	220	490
97 52 36	<b>5</b>	insulated terminals and connectors	0.5 - 6.0	20 - 10	220	490
97 52 38	₩ 🔑	end sleeve (ferrules)	0.25 - 6.0	23 - 10	220	490
97 52 50		COAX-BNC- connectors RG 58, 174, 188, 316			220	490

# 97 Self-Adjusting Crimping Pliers for End Sleeves (ferrules)

with front loading, patented



97 53 08



square crimp

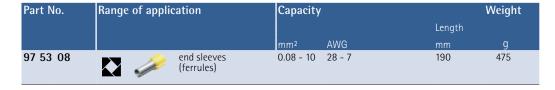
- 46228 parts 1 + 4 > for solder-free electrical connections

> for crimping end sleeves (ferrules) according to DIN

- > front loading of the end sleeves (ferrules) into the tool
- > simple handling as a result of self-adjustment to the size of the end sleeve (ferrule)
- > with square crimping for optimum contact areas in the clamp connection
- > repetitive, high crimping quality due to precision dies and integral lock (self-releasing mechanism)

Specia	
The Self-Adjusting Crimping Plier for end sleeves (ferrules) with front and lateral loading allows secure and comfortable working even in confined areas.	

- > optimum transmisson of force due to lever action for fatigue-reduced operation
- **>** high operation comfort thanks to handy shape and low weight
- > all stressed parts are made of special steel, oil-hardened and tempered
- > crimping from 0.08 10.0 mm<sup>2</sup> in one profile
- > end sleeves (ferrules) up to 2.5mm2 can also be loaded parallel from the side





Front loading of end sleeves (ferrules) e. g. in switchboards



97 53 08: lateral loading of end sleeves (ferrules) e. g. in confined areas



Square crimping for optimum contact zones

## 97 Crimping Pliers for End Sleeves (ferrules)



Part No. Lengt	Head	Handles	Range of a	Range of application (			Weight
mm					mm²	AWG	g
97 71 180	polished	plastic coated		end sleeves (ferrules)	0.25 - 16.0	23 - 5	265

- > for crimping end sleeves (ferrules) according DIN 46228 parts 1 + 4 from 0.25 to 16 mm<sup>2</sup>
- > crimping in marked half-round dies for secure connections between the sleeve and the conductor
- > 9 extremely deep troughs with conical side faces
- > special tool steel, oil-hardened and tempered