

**schmitz**  
SPECIAL PLIERS | MADE IN GERMANY

## FASCINATION WITH PRECISION

Special Pliers for the electronic,  
aeroplane and aerospace industries





Founded 1948 in Solingen, Germany, we specialise exclusively in the development and production of fine cutters and pliers for precision and special tasks. The use of Electronics in almost every industrial and scientific area created new challenges for us in order to meet the growing demand for small, functional and economical tools.

In close co-operation with international and German distributors and users, we have developed one of the most comprehensive product-ranges for almost every requirement in the international electronic-, aircraft- and space-industries. A range that is constantly being reviewed and optimized.

Our cutters and pliers are benchmarks for quality, ergonomic design, long life and above-average value for money.

The development and production of „Private Label“ series for other manufacturers and distributors with own brands is one of our strengths, as well as „Specials“ according to drawings and samples.

„Fascination with Precision“ is the maxim of the third generation of our family run company. And this is applied by our quality staff, the use of the best raw materials and state-of-the-art production-methods.

Take advantage of the experience and know-how of one of the most reliable manufacturers of high quality tools in Germany.

# FROM MINI TO MAXI

We deliberately offer a wide choice in line with the great number of possible applications.

Shown to the scale of 1:1 here are examples of the most popular sizes from 110 to 190 mm with dip-coated handles. For versions with textured thermoplastic handles add 5 mm (appr. 1/4") and for those with 2-compound handles add 10 mm (appr. 1/2").

Exact measurements are shown within the individual product descriptions.



# TECHNICAL INFORMATION

The high quality of our cutters and pliers is the result of our great experience and know-how, state-of-the-art production methods and a continuous optimizing process.



High-Alloy-Carbon or CV-steel



Hot drop forged blanks



Spot-welded fixed position double leaf springs



Manufacture on special equipment



Opto-electronic controlled hardening process



Modern roaming manufacturing process



Precise monitoring of measurements



High-tech hardness testers



Box-jointing



Grips at dip-coating

## Choice of raw materials

We carefully select different High Alloy Carbon and Chrome-Vanadium steels matching the varying demands and standards. Weglassen: of the individual versions.

## High gloss steel polished surfaces

The micro-fine steel surface provides a proven, safe, attractive and environment friendly finish. Avoiding chrome flaking and damages to circuits and components.

## Hot drop forged blanks

The optimized grain structure of our hot drop forged blanks form the base for the unsurpassed strength and hardness of our tools.

## Quality control/DIN/ISO

Our internal stringent quality assurance management which includes piece-testing of every tool guarantees a quality level exceeding DIN/ISO and similar standards and your entire satisfaction.

## State-of-the-art production technology

Our skilled staff together with specially designed machinery turn these blanks into an above average quality with every attention to detail.

## Box joint

Our speciality for a smooth, controlled and maintenance-free action, a perfect cutting edge alignment and a long life. There is no better technology for precision pliers and cutters.

## Double leaf springs – cannot be lost

Spot-welded and non-wearing for a smooth, consistent and controlled action with no maintenance costs.

## Laid-in joint

An alternative to save costs, but still conforming to our high quality standards. Excellent value for money.



# TECHNICAL INFORMATION



### Cutting edges

Application orientated, tungsten carbide tipped or induction hardened cutting edges with different bevels ensure sharp and easy cuts as well as a long cutter life.



### ESD

The materials used meet all requirements for hand tools used inside EPA's. They are marked accordingly.

### Choice of handles

3 ESD safe handle versions, all dissipative (not insulating), comfortable, slip free and functional. Design, material, task and costs are the decisive factors for your choice.

### Black/blue dual-compound thermoplastic grips

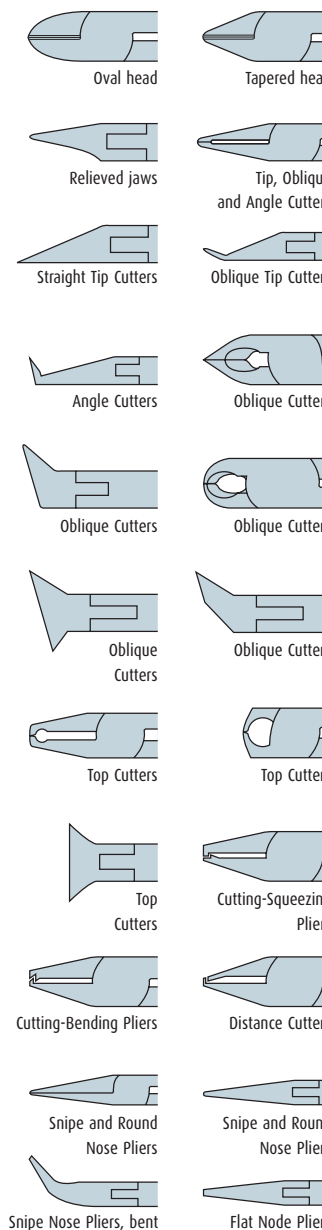
Ergonomic, wide, soft, comfortable and slip free for controlled and fatigue-free handling.

### Blue textured thermoplastic sleeves

Wide, comfortable, slip free, robust.

### Blue dip coating

Slim, slip free, economic.



### Different head designs

As one of the results of our close cooperation with experts and users worldwide we produce and offer a very wide choice – a standard version for almost every task.

### Dimensional specifications

All length- and head-dimensions are subject to minor production tolerances. We reserve the right to alter specifications without notice in our endeavour to optimize the quality of our tools.

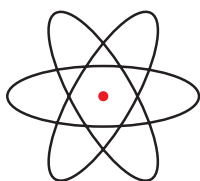
### Product-Compass

#### Box-joint versions

Cutters	06-17
Tungsten carbide Cutters	14-15
SMD cutters	16-17
Gripping Pliers	18-23

#### Laid-in joint versions

Cutters	24-27
Gripping Pliers	28



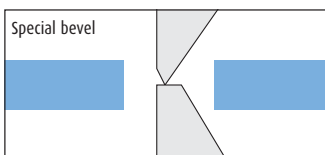
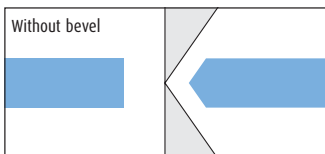
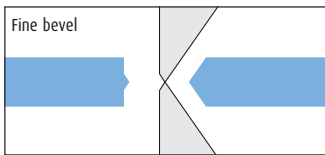
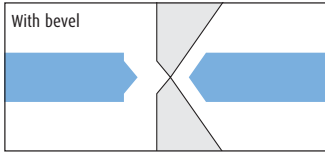
### Warning

All our grips are not insulated and not for use under electric tension.

## CUTTERS



**Different head-,cutting-edge- and handle-designs facilitate an easy choice**



**Cutting edge bevels**

The different bevels determine cutting pressure and shape of the material to be cut. The smaller and finer the bevel, the smoother the cut, with however a greater sensitivity of the cutting edges. Generally you have the choice of 4 different bevels – depending on the version of the cutter and the job to be done.

**1. “With bevel”**

With a distinct angle of intersection, for hard and soft wires, or universal use, robust and long lasting.

**2. “Fine bevel”**

With a fine angle of intersection, almost flush cutting. For soft steel and copper wires in general, but in some Front- and Oblique cutters also for hard steel.

**3. “Without bevel”**

No angle of intersection, full flush cutting. For copper wire. Reducing unwanted pressure on sensitive components and shock absorbing.

**4. “Special bevel”**

for fibre optic material, e. g. Kevlar®. The cutting capacities vary – depending on bevel and version chosen. For exact details please refer to the individual product dates.

Kevlar® is a registered trade mark of DuPont, Wilmington, USA



**Cutting Edge Hardness**

A most important quality feature of our cutters. As a result of our state-of-the-art precision-induction-hardening technology we achieve up to 65° HRC for an above-average long cutter life.

**Cutting Edge Quality**

The performance of a cutter not only depends on the material chosen and its hardness but also on the care and precision with which its cutting edges are dressed. For this reason we developed a special milling process providing very smooth, even and clean surfaces, reducing frictional resistance to a minimum. The intersection angles are ground with utmost care before experienced & qualified staff are testing each cutter carefully on special test wires, giving them their final and approved special “schmitz”- touch.

**Specialities**

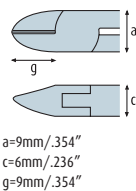
Highlights in our range are Tungsten-Carbide-Tipped Cutters (pages 14 – 15) and SMD-Cutters (pages 16- 17).

Wire definitions
<p><b>Piano Wire</b></p> <p>Hardened spring steel</p> <p>2200-2300 N/mm<sup>2</sup></p>
<p><b>Hard Wire</b></p> <p>Spring steel, steel nails</p> <p>1600-1800 N/mm<sup>2</sup></p>
<p><b>Medium Hard Wire</b></p> <p>Iron, nails</p> <p>750-800 N/mm<sup>2</sup></p>
<p><b>Soft Wire</b></p> <p>Copper, aluminium</p> <p>220-250 N/mm<sup>2</sup></p>
<p>N/mm<sup>2</sup> = tensile strength of wire</p>

**SIDE CUTTERS**



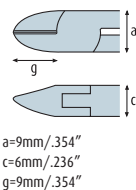
		Oval head. Small version.					
	Bevel	hard	medium	soft	weight g	length mm/"	
3101HS22	with	0.3 / 28	0.8 / 20	1.5 / 15	55	120 / 4.3/4	
3102HS22	fine		0.8 / 20	1.5 / 15	55	120 / 4.3/4	
3103HS22	without		0.6 / 22	1.5 / 15	55	120 / 4.3/4	
3101HS12	with	0.3 / 28	0.8 / 20	1.5 / 15	50	115 / 4.1/2	
3102HS12	fine		0.8 / 20	1.5 / 15	50	115 / 4.1/2	
3103HS12	without		0.6 / 22	1.5 / 15	50	115 / 4.1/2	
3101HS02	with	0.3 / 28	0.8 / 20	1.5 / 15	45	110 / 4.1/4	
3102HS02	fine		0.8 / 20	1.5 / 15	45	110 / 4.1/4	
3103HS02	without		0.6 / 22	1.5 / 15	45	110 / 4.1/4	



**SIDE CUTTERS**



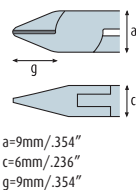
		Oval head. With wire catch. Small version.					
	Bevel	hard	medium	soft	weight g	length mm/"	
3111HS22	with	0.3 / 28	0.8 / 20	1.5 / 15	65	120 / 4.3/4	
3112HS22	fine		0.8 / 20	1.5 / 15	65	120 / 4.3/4	
3113HS22	without		0.6 / 22	1.5 / 15	65	120 / 4.3/4	
3111HS12	with	0.3 / 28	0.8 / 20	1.5 / 15	60	115 / 4.1/2	
3112HS12	fine		0.8 / 20	1.5 / 15	60	115 / 4.1/2	
3113HS12	without		0.6 / 22	1.5 / 15	60	115 / 4.1/2	
3111HS02	with	0.3 / 28	0.8 / 20	1.5 / 15	55	110 / 4.1/4	
3112HS02	fine		0.8 / 20	1.5 / 15	55	110 / 4.1/4	
3113HS02	without		0.6 / 22	1.5 / 15	55	110 / 4.1/4	



**SIDE CUTTERS**



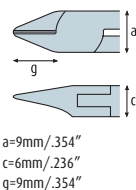
		Tapered head. Small version.					
	Bevel	hard	medium	soft	weight g	length mm/"	
3121HS22	with	0.2 / 34	0.8 / 20	1.5 / 15	55	120 / 4.3/4	
3122HS22	fine		0.8 / 20	1.5 / 15	55	120 / 4.3/4	
3123HS22	without		0.6 / 22	1.5 / 15	55	120 / 4.3/4	
3121HS12	with	0.2 / 34	0.8 / 20	1.5 / 15	50	115 / 4.1/2	
3122HS12	fine		0.8 / 20	1.5 / 15	50	115 / 4.1/2	
3123HS12	without		0.6 / 22	1.5 / 15	50	115 / 4.1/2	
3121HS02	with	0.2 / 34	0.8 / 20	1.5 / 15	45	110 / 4.1/4	
3122HS02	fine		0.8 / 20	1.5 / 15	45	110 / 4.1/4	
3123HS02	without		0.6 / 22	1.5 / 15	45	110 / 4.1/4	



**SIDE CUTTERS**



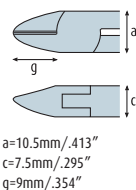
		Tapered head. Relieved jaws. Small version.					
	Bevel	hard	medium	soft	weight g	length mm/"	
3131HS22	with		0.8 / 20	1.5 / 15	53	120 / 4.3/4	
3132HS22	fine		0.8 / 20	1.5 / 15	53	120 / 4.3/4	
3133HS22	without		0.6 / 22	1.5 / 15	53	120 / 4.3/4	
3131HS12	with		0.8 / 20	1.5 / 15	48	115 / 4.1/2	
3132HS12	fine		0.8 / 20	1.5 / 15	48	115 / 4.1/2	
3133HS12	without		0.6 / 22	1.5 / 15	48	115 / 4.1/2	
3131HS02	with		0.8 / 20	1.5 / 15	43	110 / 4.1/4	
3132HS02	fine		0.8 / 20	1.5 / 15	43	110 / 4.1/4	
3133HS02	without		0.6 / 22	1.5 / 15	43	110 / 4.1/4	



**SIDE CUTTERS**



		Half-oval head. Small version, yet strong.					
	Bevel	hard	medium	soft	weight g	length mm/"	
3241HS22	with	0,4 / 26	1.0 / 18	2.0 / 12	60	120 / 4.3/4	
3242HS22	fine		1.0 / 18	2.0 / 12	60	120 / 4.3/4	
3243HS22	without		0.8 / 20	2.0 / 12	60	120 / 4.3/4	
3241HS12	with	0,4 / 26	1.0 / 18	2.0 / 12	55	115 / 4.1/2	
3242HS12	fine		1.0 / 18	2.0 / 12	55	115 / 4.1/2	
3243HS12	without		0.8 / 20	2.0 / 12	55	115 / 4.1/2	
3241HS02	with	0,4 / 26	1.0 / 18	2.0 / 12	50	110 / 4.1/4	
3242HS02	fine		1.0 / 18	2.0 / 12	50	110 / 4.1/4	
3243HS02	without		0.8 / 20	2.0 / 12	50	110 / 4.1/4	

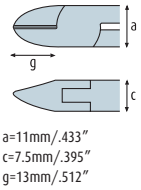




**SIDE CUTTERS**



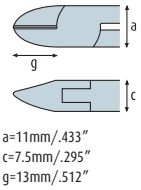
		Oval head.				weight g	length mm/"
	Bevel	hard	medium	soft			
3201HS22	with	0,4 / 26	1.0 / 18	1.5 / 15	70	125 / 5	
3202HS22	fine		1.0 / 18	1.5 / 15	70	125 / 5	
3203HS22	without		0.8 / 20	1.5 / 15	70	125 / 5	
3201HS12	with	0,4 / 26	1.0 / 18	1.5 / 15	65	120 / 4.3/4	
3202HS12	fine		1.0 / 18	1.5 / 15	65	120 / 4.3/4	
3203HS12	without		0.8 / 20	1.5 / 15	65	120 / 4.3/4	
3201HS02	with	0,4 / 26	1.0 / 18	1.5 / 15	60	115 / 4.1/2	
3202HS02	fine		1.0 / 18	1.5 / 15	60	115 / 4.1/2	
3203HS02	without		0.8 / 20	1.5 / 15	60	115 / 4.1/2	



**SIDE CUTTERS**



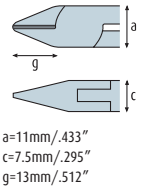
		Oval head. With wire catch.				weight g	length mm/"
	Bevel	hard	medium	soft			
3211HS22	with	0,4 / 26	1.0 / 18	1.5 / 15	75	125 / 5	
3212HS22	fine		1.0 / 18	1.5 / 15	75	125 / 5	
3213HS22	without		0.8 / 20	1.5 / 15	75	125 / 5	
3211HS12	with	0,4 / 26	1.0 / 18	1.5 / 15	70	120 / 4.3/4	
3212HS12	fine		1.0 / 18	1.5 / 15	70	120 / 4.3/4	
3213HS12	without		0.8 / 20	1.5 / 15	70	120 / 4.3/4	
3211HS02	with	0,4 / 26	1.0 / 18	1.5 / 15	65	115 / 4.1/2	
3212HS02	fine		1.0 / 18	1.5 / 15	65	115 / 4.1/2	
3213HS02	without		0.8 / 20	1.5 / 15	65	115 / 4.1/2	



**SIDE CUTTERS**



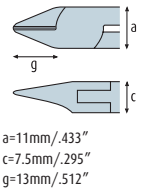
		Tapered head.				weight g	length mm/"
	Bevel	hard	medium	soft			
3221HS22	with	0.3 / 28	1.0 / 18	1.5 / 15	62	125 / 5	
3222HS22	fine		1.0 / 18	1.5 / 15	62	125 / 5	
3223HS22	without		0.8 / 20	1.5 / 15	62	125 / 5	
3221HS12	with	0.3 / 28	1.0 / 18	1.5 / 15	57	120 / 4.3/4	
3222HS12	fine		1.0 / 18	1.5 / 15	57	120 / 4.3/4	
3223HS12	without		0.8 / 20	1.5 / 15	57	120 / 4.3/4	
3221HS02	with	0.3 / 28	1.0 / 18	1.5 / 15	52	115 / 4.1/2	
3222HS02	fine		1.0 / 18	1.5 / 15	52	115 / 4.1/2	
3223HS02	without		0.8 / 20	1.5 / 15	52	115 / 4.1/2	



**SIDE CUTTERS**



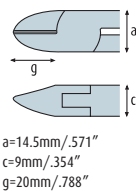
		Tapered head. Relieved jaws.				weight g	length mm/"
	Bevel	hard	medium	soft			
3231HS22	with		0.8 / 20	1.5 / 15	61	125 / 5	
3232HS22	fine		0.8 / 20	1.5 / 15	61	125 / 5	
3233HS22	without		0.6 / 22	1.5 / 15	61	125 / 5	
3231HS12	with		0.8 / 20	1.5 / 15	56	120 / 4.3/4	
3232HS12	fine		0.8 / 20	1.5 / 15	56	120 / 4.3/4	
3233HS12	without		0.6 / 22	1.5 / 15	56	120 / 4.3/4	
3231HS02	with		0.8 / 20	1.5 / 15	51	115 / 4.1/2	
3232HS02	fine		0.8 / 20	1.5 / 15	51	115 / 4.1/2	
3233HS02	without		0.6 / 22	1.5 / 15	51	115 / 4.1/2	



**SIDE CUTTERS**



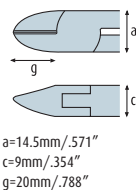
Oval head. Strong version.						
	Bevel	hard	medium	soft	weight g	length mm/"
3301HS12	with	0.7 / 21	1.5 / 15	2.0 / 12	105	135 / 5.3/8
3302HS12	fine		1.5 / 15	2.0 / 12	105	135 / 5.3/8
3303HS12	without		1.3 / 18	2.0 / 12	105	135 / 5.3/8
3301HS02	with	0.7 / 21	1.5 / 15	2.0 / 12	100	130 / 5.1/8
3302HS02	fine		1.5 / 15	2.0 / 12	100	130 / 5.1/8
3303HS02	without		1.3 / 18	2.0 / 12	100	130 / 5.1/8



**SIDE CUTTERS**



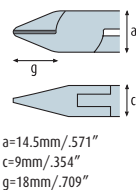
Oval head. With wire catch. Strong version.						
	Bevel	hard	medium	soft	weight g	length mm/"
3311HS12	with	0.7 / 21	1.5 / 15	2.0 / 12	110	135 / 5.3/8
3312HS12	fine		1.5 / 15	2.0 / 12	110	135 / 5.3/8
3313HS12	without		1.3 / 18	2.0 / 12	110	135 / 5.3/8
3311HS02	with	0.7 / 21	1.5 / 15	2.0 / 12	105	130 / 5.1/8
3312HS02	fine		1.5 / 15	2.0 / 12	105	130 / 5.1/8
3313HS02	without		1.3 / 18	2.0 / 12	105	130 / 5.1/8



**SIDE CUTTERS**



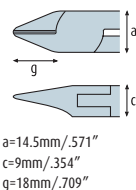
Tapered head. Strong version.						
	Bevel	hard	medium	soft	weight g	length mm/"
3321HS12	with	0.5 / 24	1.5 / 15	2.0 / 12	105	135 / 5.3/8
3322HS12	fine		1.5 / 15	2.0 / 12	105	135 / 5.3/8
3323HS12	without		1.3 / 18	2.0 / 12	105	135 / 5.3/8
3321HS02	with	0.5 / 24	1.5 / 15	2.0 / 12	100	130 / 5.1/8
3322HS02	fine		1.5 / 15	2.0 / 12	100	130 / 5.1/8
3323HS02	without		1.3 / 18	2.0 / 12	100	130 / 5.1/8



**SIDE CUTTERS**



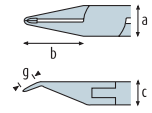
Tapered head. Relieved jaws. Strong version.						
	Bevel	hard	medium	soft	weight g	length mm/"
3331HS12	with		1.5 / 15	2.0 / 12	104	135 / 5.3/8
3332HS12	fine		1.5 / 15	2.0 / 12	104	135 / 5.3/8
3333HS12	without		1.3 / 18	2.0 / 12	104	135 / 5.3/8
3331HS02	with		1.5 / 15	2.0 / 12	99	130 / 5.1/8
3332HS02	fine		1.5 / 15	2.0 / 12	99	130 / 5.1/8
3333HS02	without		1.3 / 18	2.0 / 12	99	130 / 5.1/8



**OBLIQUE TIP CUTTER**

**Slim jaws.**

	Bevel	hard	medium	soft	weight g	length mm/"
3521HS22	with		0.8 / 20	1.0 / 18	64	130 / 5.1/4
3522HS22	fine		0.6 / 22	0.8 / 20	64	130 / 5.1/4
3523HS22	without			0.6 / 22	64	130 / 5.1/4
3521HS12	with		0.8 / 20	1.0 / 18	59	125 / 5
3522HS12	fine		0.6 / 22	0.8 / 20	59	125 / 5
3523HS12	without			0.6 / 22	59	125 / 5
3521HS02	with		0.8 / 20	1.0 / 18	54	120 / 4.3/4
3522HS02	fine		0.6 / 22	0.8 / 20	54	120 / 4.3/4
3523HS02	without			0.6 / 22	54	120 / 4.3/4

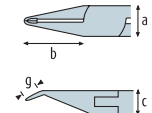


a=11mm/.433"  
b=20mm/.788"  
c=6.5mm/.256"  
g=5mm/.197"

**OBLIQUE TIP CUTTER**

**Strong version. Short jaws.**

	Bevel	hard	medium	soft	weight g	length mm/"
3621HS12	with		1.0 / 18	1.2 / 16	70	130 / 5.1/4
3622HS12	fine		0.8 / 20	1.0 / 18	70	130 / 5.1/4
3623HS12	without			0.8 / 20	70	130 / 5.1/4
3621HS02	with		1.0 / 18	1.2 / 16	65	125 / 5
3622HS02	fine		0.8 / 20	1.0 / 18	65	125 / 5
3623HS02	without			0.8 / 20	65	125 / 5

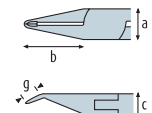


a=12mm/.473"  
b=20mm/.788"  
c=7.5mm/.295"  
g=6mm/.236"

**OBLIQUE TIP CUTTER**

**Strong version. Long jaws.**

	Bevel	hard	medium	soft	weight g	length mm/"
3624HS12	with		1.0 / 18	1.2 / 16	81	145 / 5.3/4
3625HS12	fine		0.8 / 20	1.0 / 18	81	145 / 5.3/4
3626HS12	without			0.8 / 20	81	145 / 5.3/4
3624HS02	with		1.0 / 18	1.2 / 16	76	140 / 5.1/2
3625HS02	fine		0.8 / 20	1.0 / 18	76	140 / 5.1/2
3626HS02	without			0.8 / 20	76	140 / 5.1/2

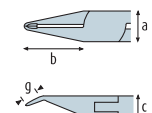


a=12mm/.473"  
b=33mm/1.130"  
c=7.5mm/.295"  
g=6.5mm/.236"

**OBLIQUE TIP CUTTER**

**Strong version. Very long jaws. With guide pin. Without spring.**

	Bevel	hard	medium	soft	weight g	length mm/"
3644HS02	with		1.0 / 18	1.2 / 16	105	165 / 6.1/2
3645HS02	fine		0.8 / 20	1.0 / 18	105	165 / 6.1/2
3646HS02	without			0.8 / 20	105	165 / 6.1/2

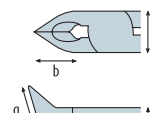


a=14mm/.551"  
b=45mm/1.85"  
c=8.5mm/.335"  
g=10mm/.394"

**OBLIQUE CUTTER**

**Straight head. Ideal for horizontal and vertical use. Compact, strong, handy.**

	Bevel	hard	medium	soft	weight g	length mm/"
3511HS22	with	0.6 / 22	1.0 / 18	1.2 / 16	61	120 / 4.3/4
3512HS22	fine	0.4 / 26	1.0 / 18	1.2 / 16	61	120 / 4.3/4
3513HS22	without		0.8 / 20	1.0 / 18	61	120 / 4.3/4
3511HS12	with	0.6 / 22	1.0 / 18	1.2 / 16	56	115 / 4.1/2
3512HS12	fine	0.4 / 26	1.0 / 18	1.2 / 16	56	115 / 4.1/2
3513HS12	without		0.8 / 20	1.0 / 18	56	115 / 4.1/2
3511HS02	with	0.6 / 22	1.0 / 18	1.2 / 16	51	110 / 4.1/4
3512HS02	fine	0.4 / 26	1.0 / 18	1.2 / 16	51	110 / 4.1/4
3513HS02	without		0.8 / 20	1.0 / 18	51	110 / 4.1/4

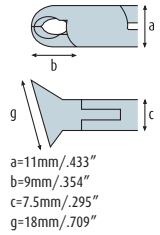


a=10mm/.394"  
b=10mm/.394"  
c=6.5mm/.256"  
g=12mm/.473"

**OBLIQUE CUTTER**

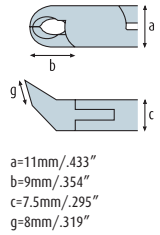
**Large head. Long cutting edges.**

	Bevel	hard	medium	soft	weight g	length mm/"
<b>3611HS22</b>	with	0.6 / 22	1.2 / 16	1.6 / 14	77	<b>125 / 5</b>
<b>3612HS22</b>	fine	0.5 / 24	1.2 / 16	1.6 / 14	77	<b>125 / 5</b>
<b>3613HS22</b>	without		1.0 / 18	1.4 / 16	77	<b>125 / 5</b>
<b>3611HS12</b>	with	0.6 / 22	1.2 / 16	1.6 / 14	72	<b>120 / 4.3/4</b>
<b>3612HS12</b>	fine	0.5 / 24	1.2 / 16	1.6 / 14	72	<b>120 / 4.3/4</b>
<b>3613HS12</b>	without		1.0 / 18	1.4 / 16	72	<b>120 / 4.3/4</b>
<b>3611HS02</b>	with	0.6 / 22	1.2 / 16	1.6 / 14	67	<b>115 / 4.1/2</b>
<b>3612HS02</b>	fine	0.5 / 24	1.2 / 16	1.6 / 14	67	<b>115 / 4.1/2</b>
<b>3613HS02</b>	without		1.0 / 18	1.4 / 16	67	<b>115 / 4.1/2</b>


**OBLIQUE CUTTER**

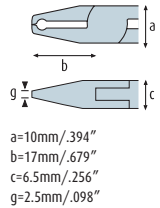
**Large head. Short cutting edges.**

	Bevel	hard	medium	soft	weight g	length mm/"
<b>3614HS22</b>	with	0.6 / 22	1.2 / 16	1.6 / 14	75	<b>125 / 5</b>
<b>3615HS22</b>	fine	0.5 / 24	1.2 / 16	1.6 / 14	75	<b>125 / 5</b>
<b>3616HS22</b>	without		1.0 / 18	1.4 / 16	75	<b>125 / 5</b>
<b>3614HS12</b>	with	0.6 / 22	1.2 / 16	1.6 / 14	70	<b>120 / 4.3/4</b>
<b>3615HS12</b>	fine	0.5 / 24	1.2 / 16	1.6 / 14	70	<b>120 / 4.3/4</b>
<b>3616HS12</b>	without		1.0 / 18	1.4 / 16	70	<b>120 / 4.3/4</b>
<b>3614HS02</b>	with	0.6 / 22	1.2 / 16	1.6 / 14	65	<b>115 / 4.1/2</b>
<b>3615HS02</b>	fine	0.5 / 24	1.2 / 16	1.6 / 14	65	<b>115 / 4.1/2</b>
<b>3616HS02</b>	without		1.0 / 18	1.4 / 16	65	<b>115 / 4.1/2</b>


**TOP CUTTER**

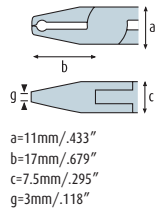
**Slim jaws. Short cutting edges.**

	Bevel	hard	medium	soft	weight g	length mm/"
<b>3501HS22</b>	with		0.8 / 20	1.0 / 18	63	<b>120 / 5</b>
<b>3502HS22</b>	fine		0.6 / 22	0.8 / 20	63	<b>120 / 5</b>
<b>3503HS22</b>	without			0.6 / 22	63	<b>120 / 5</b>
<b>3501HS12</b>	with		0.8 / 20	1.0 / 18	58	<b>115 / 4.3/4</b>
<b>3502HS12</b>	fine		0.6 / 22	0.8 / 20	58	<b>115 / 4.3/4</b>
<b>3503HS12</b>	without			0.6 / 22	58	<b>115 / 4.3/4</b>
<b>3501HS02</b>	with		0.8 / 20	1.0 / 18	53	<b>110 / 4.1/2</b>
<b>3502HS02</b>	fine		0.6 / 22	0.8 / 20	53	<b>110 / 4.1/2</b>
<b>3503HS02</b>	without			0.6 / 22	53	<b>110 / 4.1/2</b>


**TOP CUTTER**

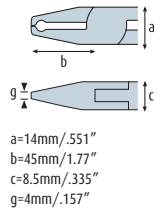
**Strong version. Short cutting edges**

	Bevel	hard	medium	soft	weight g	length mm/"
<b>3507HS12</b>	with		1.0 / 18	1.2 / 16	74	<b>130 / 5.1/4</b>
<b>3508HS12</b>	fine		0.8 / 20	1.0 / 18	74	<b>130 / 5.1/4</b>
<b>3509HS12</b>	without			0.8 / 20	74	<b>130 / 5.1/4</b>
<b>3507HS02</b>	with		1.0 / 18	1.2 / 16	69	<b>125 / 5</b>
<b>3508HS02</b>	fine		0.8 / 20	1.0 / 18	69	<b>125 / 5</b>
<b>3509HS02</b>	without			0.8 / 20	69	<b>125 / 5</b>


**TOP CUTTER**

**Strong version. Very long jaws. Short cutting edges. Without spring.**

	Bevel	hard	medium	soft	weight g	length mm/"
<b>3641HS02</b>	with		1.0 / 18	1.2 / 16	115	<b>165 / 6.1/2</b>
<b>3642HS02</b>	fine		0.8 / 20	1.0 / 18	115	<b>165 / 6.1/2</b>
<b>3643HS02</b>	without			0.8 / 20	115	<b>165 / 6.1/2</b>

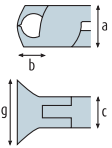


**TOP CUTTER**



**Large head. Long cutting edges.**

	Bevel	hard	medium	soft	weight g	length mm/"
<b>3601HS22</b>	with	0.7 / 21	1.2 / 16	1.6 / 14	74	125 / 5
<b>3602HS22</b>	fine	0.5 / 24	1.2 / 16	1.6 / 14	74	125 / 5
<b>3603HS22</b>	without		1.0 / 18	1.4 / 16	74	125 / 5
<b>3601HS12</b>	with	0.7 / 21	1.2 / 16	1.6 / 14	69	120 / 4.3/4
<b>3602HS12</b>	fine	0.5 / 24	1.2 / 16	1.6 / 14	69	120 / 4.3/4
<b>3603HS12</b>	without		1.0 / 18	1.4 / 16	69	120 / 4.3/4
<b>3601HS02</b>	with	0.7 / 21	1.2 / 16	1.6 / 14	64	115 / 4.1/2
<b>3602HS02</b>	fine	0.5 / 24	1.2 / 16	1.6 / 14	64	115 / 4.1/2
<b>3603HS02</b>	without		1.0 / 18	1.4 / 16	64	115 / 4.1/2



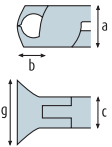
a=11mm/.433"  
b=6mm/.236"  
c=7.5mm/.295"  
g=15mm/.590"

**TOP CUTTER**



**Extra strong version. Very long cutting edges.**

	Bevel	hard	medium	soft	weight g	length mm/"
<b>3631HS12</b>	with	1.2 / 16	2.0 / 12	2.5 / 10	118	135 / 5.1/2
<b>3632HS12</b>	fine	0.8 / 22	2.0 / 12	2.5 / 10	118	135 / 5.1/2
<b>3633HS12</b>	without		1.6 / 14	2.0 / 12	118	135 / 5.1/2
<b>3631HS02</b>	with	1.2 / 16	2.0 / 12	2.5 / 10	113	130 / 5.1/4
<b>3632HS02</b>	fine	0.8 / 22	2.0 / 12	2.5 / 10	113	130 / 5.1/4
<b>3633HS02</b>	without		1.6 / 14	2.0 / 12	113	130 / 5.1/4



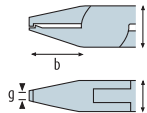
a=14mm/.550"  
b=9mm/.354"  
c=9mm/.354"  
g=23mm/.900"

**CUTTING & BENDING PLIERS**



**Cuts 1,5 mm above surface and secures position of component by squeezing the wire.**

	hard	medium	soft	weight g	length mm/"
<b>3661HS12</b>		1.2 / 16	1.2 / 16	74	130 / 5.1/4
<b>3661HS02</b>		1.2 / 16	1.2 / 16	69	125 / 5



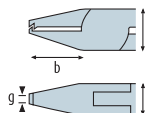
a=11mm/.433"  
b=17mm/.669"  
c=7.5mm/.295"  
g=4mm/.157"

**CUTTING & BENDING PLIERS**



**Cuts 1,5 mm above surface and secures position of component by squeezing and bending the wire.**

	hard	medium	soft	weight g	length mm/"
<b>3662HS12</b>		0.8 / 20	0.8 / 20	72	130 / 5.1/4
<b>3662HS02</b>		0.8 / 20	0.8 / 20	67	125 / 5



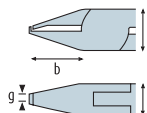
a=11mm/.433"  
b=17mm/.669"  
c=7.5mm/.295"  
g=4mm/.157"

**DISTANCE CUTTER**



**Cuts 1,5 mm above surface.**

	hard	medium	soft	weight g	length mm/"
<b>3671HS12</b>		1.2 / 16	1.2 / 16	70	130 / 5.1/4
<b>3671HS02</b>		1.2 / 16	1.2 / 16	65	125 / 5



a=12mm/.473"  
b=20mm/.788"  
c=7.5mm/.295"  
g=4mm/.157"



## TUNGSTEN-CARBIDE TIPPED SIDE- AND OBLIQUE CUTTERS



Our answer to extreme demands when cutting extra hard or tough materials, i.e. piano-, nickel- and diode-wires, Kevlar and similar glass-fibres as used increasingly in today's electronic-, air- and spacecraft-industries.

Precision tungsten-carbide edges integrated into forged high-alloy steel blanks with box joint.

Convincingly high cutting capacities with a minimum of effort – even under constant load and aggravating circumstances.

With different head- and bevel designs and a special cutting edge shape for glass-fibre materials.

State-of-the-art, innovative tools for highest expectations – the result of a new technology developed by us.

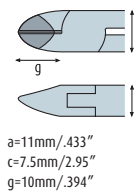
Profitable Quality.

Kevlar® is a registered trademark of DuPont, Wilmington, USA.

**TUNGSTEN-CARBIDE SIDE CUTTERS**



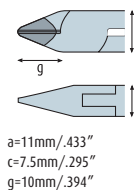
		Oval head.				weight g	length mm/"
		Bevel	Piano	hard	soft		
3401HS22	with	0.6 / 22	1.0 / 18	1.0 / 18	2.0 / 12	62	125 / 5
3402HS22	fine	0.6 / 22	1.0 / 18	1.0 / 18	2.0 / 12	62	125 / 5
3405HS22	special	For fibre optic materials only, e. g. Kevlar®				62	125 / 5
3401HS12	with	0.6 / 22	1.0 / 18	1.0 / 18	2.0 / 12	57	120 / 4.3/4
3402HS12	fine	0.6 / 22	1.0 / 18	1.0 / 18	2.0 / 12	57	120 / 4.3/4
3405HS12	special	For fibre optic materials only, e. g. Kevlar®				57	120 / 4.3/4
3401HS02	with	0.6 / 22	1.0 / 18	1.0 / 18	2.0 / 12	52	115 / 4.1/2
3402HS02	fine	0.6 / 22	1.0 / 18	1.0 / 18	2.0 / 12	52	115 / 4.1/2
3405HS02	special	For fibre optic materials only, e. g. Kevlar®				52	115 / 4.1/2



**TUNGSTEN-CARBIDE SIDE CUTTERS**



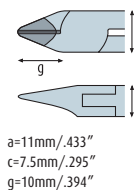
		Tapered head.				weight g	length mm/"
		Bevel	Piano	hard	soft		
3421HS22	with	0.4 / 26	0.8 / 20	0.8 / 20	1.8 / 13	62	125 / 5
3422HS22	fine	0.4 / 26	0.8 / 20	0.8 / 20	1.8 / 13	62	125 / 5
3425HS22	special	For fibre optic materials only, e. g. Kevlar®				62	125 / 5
3421HS12	with	0.4 / 26	0.8 / 20	0.8 / 20	1.8 / 13	57	120 / 4.3/4
3422HS12	fine	0.4 / 26	0.8 / 20	0.8 / 20	1.8 / 13	57	120 / 4.3/4
3425HS12	special	For fibre optic materials only, e. g. Kevlar®				57	120 / 4.3/4
3421HS02	with	0.4 / 26	0.8 / 20	0.8 / 20	1.8 / 13	52	115 / 4.1/2
3422HS02	fine	0.4 / 26	0.8 / 20	0.8 / 20	1.8 / 13	52	115 / 4.1/2
3425HS02	special	For fibre optic materials only, e. g. Kevlar®				52	115 / 4.1/2



**TUNGSTEN-CARBIDE SIDE CUTTERS**



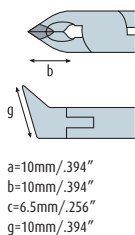
		Tapered head. Relieved jaws.				weight g	length mm/"
		Bevel	Piano	hard	soft		
3431HS22	with	0.4 / 26	0.8 / 20	0.8 / 20	1.8 / 13	61	125 / 5
3432HS22	fine	0.4 / 26	0.8 / 20	0.8 / 20	1.8 / 13	61	125 / 5
3435HS22	special	For fibre optic materials only, e. g. Kevlar®				61	125 / 5
3431HS12	with	0.4 / 26	0.8 / 20	0.8 / 20	1.8 / 13	56	120 / 4.3/4
3432HS12	fine	0.4 / 26	0.8 / 20	0.8 / 20	1.8 / 13	56	120 / 4.3/4
3435HS12	special	For fibre optic materials only, e. g. Kevlar®				56	120 / 4.3/4
3431HS02	with	0.4 / 26	0.8 / 20	0.8 / 20	1.8 / 13	51	115 / 4.1/2
3432HS02	fine	0.4 / 26	0.8 / 20	0.8 / 20	1.8 / 13	51	115 / 4.1/2
3435HS02	special	For fibre optic materials only, e. g. Kevlar®				51	115 / 4.1/2



**TUNGSTEN-CARBIDE OBLIQUE CUTTER**



		Straight head. Ideal for horizontal and vertical use. Compact, strong, handy.				weight g	length mm/"
		Bevel	Piano	hard	soft		
3471HS22	with	0.6 / 22	1.0 / 18	1.0 / 18	2.0 / 12	62	120 / 4.3/4
3472HS22	fine	0.6 / 22	1.0 / 18	1.0 / 18	2.0 / 12	62	120 / 4.3/4
3475HS22	special	For fibre optic materials only, e. g. Kevlar®				62	120 / 4.3/4
3471HS12	with	0.6 / 22	1.0 / 18	1.0 / 18	2.0 / 12	57	115 / 4.1/2
3472HS12	fine	0.6 / 22	1.0 / 18	1.0 / 18	2.0 / 12	57	115 / 4.1/2
3475HS12	special	For fibre optic materials only, e. g. Kevlar®				57	115 / 4.1/2
3471HS02	with	0.6 / 22	1.0 / 18	1.0 / 18	2.0 / 12	52	110 / 4.1/4
3472HS02	fine	0.6 / 22	1.0 / 18	1.0 / 18	2.0 / 12	52	110 / 4.1/4
3475HS02	special	For fibre optic materials only, e. g. Kevlar®				52	110 / 4.1/4



## OBLIQUE, TIP AND ANGLE CUTTERS FOR SMD-TECHNOLOGY



Miniature components and surface mounting require tools with extremely fine, slim and pointed jaws, fitting into the small raster screens yet firmly holding and easily cutting. For these and similar high demands we designed our range of SMD-cutters and pliers.

- extremely fine, slim and pointed jaws
- different bevel shapes to choose from
- high cutting capacities
- box jointed
- controlled and easy cuts in confined spaces
- ergonomically designed handles
- comfortable handling
- ESD safe

Tip and Oblique Cutters with straight and oblique jaws, Angle Cutters for close cutting in front of or behind components.

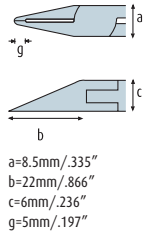
Cutters for many purposes, not only for SMD.

**SMD-STRAIGHT TIP CUTTER**



**Straight cutting edges. Very slim, pointed jaws.**

	Bevel	hard	medium	soft	weight g	length mm/"
<b>3532HS22</b>	fine		0.6 / 22	0.8 / 20	64	130 / 5.1/4
<b>3533HS22</b>	without			0.6 / 22	64	130 / 5.1/4
<b>3532HS12</b>	fine		0.6 / 22	0.8 / 20	59	125 / 5
<b>3533HS12</b>	without			0.6 / 22	59	125 / 5
<b>3532HS02</b>	fine		0.6 / 22	0.8 / 20	54	120 / 4.3/4
<b>3533HS02</b>	without			0.6 / 22	54	120 / 4.3/4

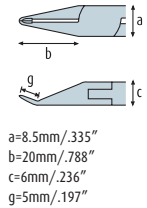


**SMD-OBLIQUE TIP CUTTER**



**Oblique cutting edges. Very slim, pointed jaws.**

	Bevel	hard	medium	soft	weight g	length mm/"
<b>3542HS22</b>	fine		0.6 / 22	0.8 / 20	64	130 / 5.1/4
<b>3543HS22</b>	without			0.6 / 22	64	130 / 5.1/4
<b>3542HS12</b>	fine		0.6 / 22	0.8 / 20	59	125 / 5
<b>3543HS12</b>	without			0.6 / 22	59	125 / 5
<b>3542HS02</b>	fine		0.6 / 22	0.8 / 20	54	120 / 4.3/4
<b>3543HS02</b>	without			0.6 / 22	54	120 / 4.3/4

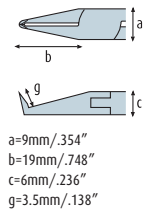


**SMD-REVERSE ANGLE CUTTER**



**Cuts flush behind components. Very slim, pointed jaws.**

	Bevel	hard	medium	soft	weight g	length mm/"
<b>3552HS22</b>	fine		0.6 / 22	0.8 / 20	61	125 / 5
<b>3553HS22</b>	without			0.6 / 22	61	125 / 5
<b>3552HS12</b>	fine		0.6 / 22	0.8 / 20	56	120 / 4.3/4
<b>3553HS12</b>	without			0.6 / 22	56	120 / 4.3/4
<b>3552HS02</b>	fine		0.6 / 22	0.8 / 20	51	115 / 4.1/2
<b>3553HS02</b>	without			0.6 / 22	51	115 / 4.1/2

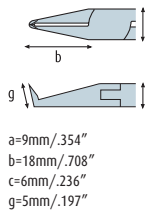


**SMD-FRONT ANGLE CUTTER**



**Cuts flush in front of components. Very slim, pointed jaws.**

	Bevel	hard	medium	soft	weight g	length mm/"
<b>3562HS22</b>	fine		0.6 / 22	0.8 / 20	61	125 / 5
<b>3563HS22</b>	without			0.6 / 22	61	125 / 5
<b>3562HS12</b>	fine		0.6 / 22	0.8 / 20	56	120 / 4.3/4
<b>3563HS12</b>	without			0.6 / 22	56	120 / 4.3/4
<b>3562HS02</b>	fine		0.6 / 22	0.8 / 20	51	115 / 4.1/2
<b>3563HS02</b>	without			0.6 / 22	51	115 / 4.1/2

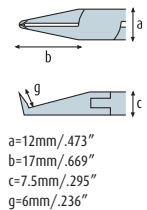


**SMD-REVERSE ANGLE CUTTER**



**Cuts flush behind components, e. g. DIL-contacts.. Strong, yet slim, pointed jaws.**

	Bevel	hard	medium	soft	weight g	length mm/"
<b>3652HS12</b>	fine		0.8 / 20	1.2 / 16	78	130 / 5.1/4
<b>3653HS12</b>	without			1.0 / 18	78	130 / 5.1/4
<b>3652HS02</b>	fine		0.8 / 20	1.2 / 16	73	125 / 5
<b>3653HS02</b>	without			1.0 / 18	73	125 / 5



# GRIPPING – BENDING – HOLDING PLIERS



Gripping – Holding – Bending: we offer the widest choice. In different lengths, with different handles, point sizes, jaws straight or bent, insides smooth or serrated, our “schmitz” pliers are versatile assistants in electronic and precision engineering. Please pay attention to the following criteria:

### The lengths

We distinguish between total- and jaw-length, both together with the individual task at hand, govern your choice. Short pliers generally are easier to control and handle. Longer ones produce a greater leverage combined with a deeper reach which often is of great assistance. To ease your choice we are stating the total- and the jaw-lengths as well as the head-dimensions of each version.

### The jaws

Usually straight, but also bent in 2 versions: near the point or in the middle of the jaws, both with 45°. Bent jaws are of great advantage in confined spaces. Of equal importance are the insides: smooth to protect wire surfaces and components – or – with fine serrations to produce a safe grip.

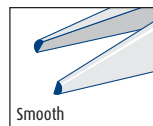
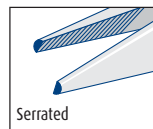
### The points

3 standard shapes: “flat” – “round” – “half round / pointed”, available in different diameters and dimensions with all pointed versions, but also with some flat-nosed versions. Fine points for delicate jobs, heavier points for more leverage. For an easier choice all dimensions are shown against the individual models.

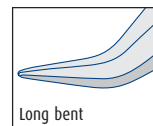
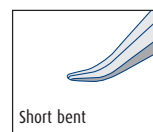
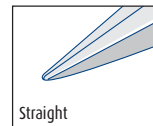
### Performance and workmanship

Extremely precise, hot drop forged, box jointed. With double leaf springs on most models. High gloss steel polished heads, ESD safe and comfortable handles, dissipative. (Not insulating). Guaranteed “schmitz” quality.

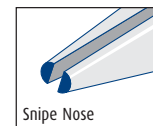
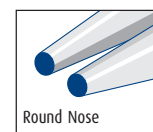
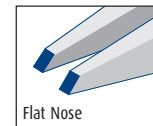
### Inside jaws



### The jaws



### The points



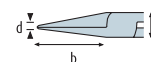


**SNIPE NOSE PLIERS**



**Straight, short jaws.**

			weight g	length mm/"
	4211HS22	Smooth	62	130 / 5.1/4
	4212HS22	Serrated	62	130 / 5.1/4
	4211HS12	Smooth	57	125 / 5
	4212HS12	Serrated	57	125 / 5
	4211HS02	Smooth	52	120 / 4.3/4
	4212HS02	Serrated	52	120 / 4.3/4



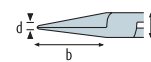
a=10mm/.394"  
b=23mm/.905"  
c=6.5mm/.250"  
d=2mm/.079"  
e=1mm/.039"

**SNIPE NOSE PLIERS**



**Bent, short jaws.**

			weight g	length mm/"
	4213HS22	Smooth	62	130 / 5.1/4
	4214HS22	Serrated	62	130 / 5.1/4
	4213HS12	Smooth	57	125 / 5
	4214HS12	Serrated	57	125 / 5
	4213HS02	Smooth	52	120 / 4.3/4
	4214HS02	Serrated	52	120 / 4.3/4



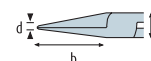
a=10mm/.394"  
b=20mm/.788"  
c=6.5mm/.250"  
d=2mm/.079"  
e=1mm/.039"  
f=10mm/.394"

**SNIPE NOSE PLIERS**



**Bent near tip, short jaws.**

			weight g	length mm/"
	4215HS22	Smooth	62	130 / 5.1/4
	4216HS22	Serrated	62	130 / 5.1/4
	4215HS12	Smooth	57	125 / 5
	4216HS12	Serrated	57	125 / 5
	4215HS02	Smooth	52	120 / 4.3/4
	4216HS02	Serrated	52	120 / 4.3/4



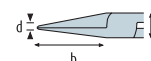
a=10mm/.394"  
b=21mm/.827"  
c=6.5mm/.250"  
d=2mm/.079"  
e=1mm/.039"  
f=5mm/.197"

**SNIPE NOSE PLIERS**



**Straight, short jaws. Microfine pointed tips for very delicate work.**

			weight g	length mm/"
	4217HS22	Smooth	56	130 / 5.1/4
	4217HS12	Smooth	51	125 / 5
	4217HS02	Smooth	46	120 / 4.3/4



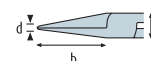
a=10mm/.394"  
b=22mm/.866"  
c=6.5mm/.250"  
d=0.2mm/.0078"  
e=0.1mm/.0039"

**SNIPE NOSE PLIERS**



**Straight, long jaws.**

			weight g	length mm/"
	4201HS22	Smooth	68	140 / 5.3/4
	4202HS22	Serrated	68	140 / 5.3/4
	4201HS12	Smooth	63	135 / 5.1/2
	4202HS12	Serrated	63	135 / 5.1/2
	4201HS02	Smooth	58	130 / 5.1/8
	4202HS02	Serrated	58	130 / 5.1/8









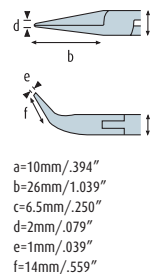
a=10mm/.394"  
b=32mm/1.260"  
c=6.5mm/.250"  
d=2mm/.079"  
e=1mm/.039"

**SNIPE NOSE PLIERS**



**Bent, long jaws.**







			weight g	length mm/"
	4203HS22	Smooth	68	140 / 5.3/4
	4204HS22	Serrated	68	140 / 5.3/4
	4203HS12	Smooth	63	135 / 5.1/2
	4204HS12	Serrated	63	135 / 5.1/2
	4203HS02	Smooth	58	130 / 5.1/8
	4204HS02	Serrated	58	130 / 5.1/8

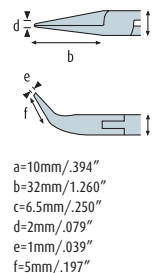


**SNIPE NOSE PLIERS**



**Bent near tip, long jaws.**





			weight g	length mm/"
	4205HS22	Smooth	68	140 / 5.3/4
	4206HS22	Serrated	68	140 / 5.3/4
	4205HS12	Smooth	63	135 / 5.1/2
	4206HS12	Serrated	63	135 / 5.1/2
	4205HS02	Smooth	58	130 / 5.1/8
	4206HS02	Serrated	58	130 / 5.1/8

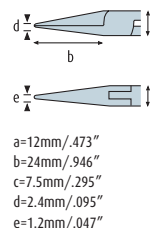


**SNIPE NOSE PLIERS**



**Straight, short and strong jaws.**







			weight g	length mm/"
	4311HS12	Smooth	79	135 / 5.1/4
	4312HS12	Serrated	79	135 / 5.1/4
	4311HS02	Smooth	74	130 / 5.1/8
	4312HS02	Serrated	74	130 / 5.1/8

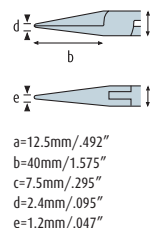


**SNIPE NOSE PLIERS**



**Straight, long jaws.**







			weight g	length mm/"
	4411HS22	Smooth	93	155 / 6.1/8
	4412HS22	Serrated	93	155 / 6.1/8
	4411HS12	Smooth	88	150 / 6
	4412HS12	Serrated	88	150 / 6
	4411HS02	Smooth	83	145 / 5.3/4
	4412HS02	Serrated	83	145 / 5.3/4

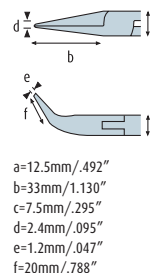


**SNIPE NOSE PLIERS**



**Bent, long jaws.**

			weight g	length mm/"
	4413HS22	Smooth	93	155 / 6.1/8
	4414HS22	Serrated	93	155 / 6.1/8
	4413HS12	Smooth	88	150 / 6
	4414HS12	Serrated	88	150 / 6
	4413HS02	Smooth	83	145 / 5.3/4
	4414HS02	Serrated	83	145 / 5.3/4



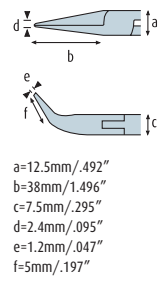
**SNIPE NOSE PLIERS**



Bent near tip, long jaws.



			weight g	length mm/"
4415HS22	Smooth		93	155 / 6.1/8
4416HS22	Serrated		93	155 / 6.1/8
4415HS12	Smooth		88	150 / 6
4416HS12	Serrated		88	150 / 6
4415HS02	Smooth		83	145 / 5.3/4
4416HS02	Serrated		83	145 / 5.3/4



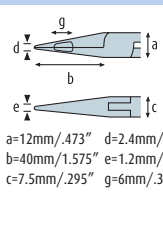
**SNIPE NOSE PLIERS WITH WIRE CUTTER**



Straight, long jaws. Cutter integrated. Cap.: medium 0.6mm / 22 AWG, soft 0.8mm / 20 AWG



			weight g	length mm/"
3665HS12	Smooth		77	150 / 6
3666HS12	Serrated		77	150 / 6
3665HS02	Smooth		72	145 / 5.3/4
3666HS02	Serrated		72	145 / 5.3/4



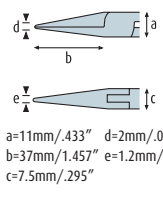
**SNIPE NOSE PLIERS**



Straight, long and very slim, tapered jaws. Fine points.



			weight g	length mm/"
4441HS12	Smooth		74	150 / 6
4442HS12	Serrated		74	150 / 6
4441HS02	Smooth		69	145 / 5.3/4
4442HS02	Serrated		69	145 / 5.3/4



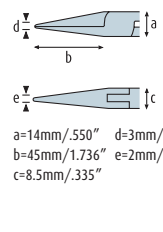
**SNIPE NOSE PLIERS**



Straight, long and strong jaws. Without spring.



			weight g	length mm/"
4611HS02	Smooth		110	160 / 6.1/4
4612HS02	Serrated		110	160 / 6.1/4



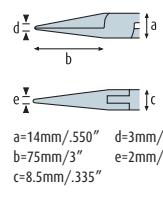
**SNIPE NOSE PLIERS**



Straight, very long and strong jaws. Without spring.



			weight g	length mm/"
4911HS02	Smooth		120	190 / 7.1/2
4912HS02	Serrated		120	190 / 7.1/2



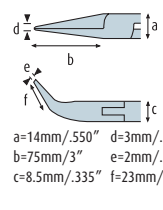
**SNIPE NOSE PLIERS**



Bent, very long and strong jaws. Without spring.



			weight g	length mm/"
4913HS02	Smooth		120	190 / 7.1/2
4914HS02	Serrated		120	190 / 7.1/2



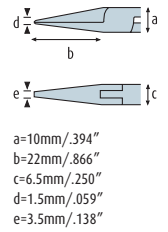
**FLAT NOSE PLIERS**



**Short jaws.**



			weight g	length mm/"
4221HS22	Smooth		61	130 / 5.1/4
4222HS22	Serrated		61	130 / 5.1/4
4221HS12	Smooth		56	125 / 5
4222HS12	Serrated		56	125 / 5
4221HS02	Smooth		51	120 / 4.3/4
4222HS02	Serrated		51	120 / 4.3/4



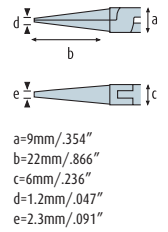
**SMD-FLAT NOSE PLIERS**



**Short, very slim, tapered jaws.**



			weight g	length mm/"
4225HS22	Smooth		58	130 / 5.1/4
4226HS22	Serrated		58	130 / 5.1/4
4225HS12	Smooth		53	125 / 5
4226HS12	Serrated		53	125 / 5
4225HS02	Smooth		48	120 / 4.3/4
4226HS02	Serrated		48	120 / 4.3/4



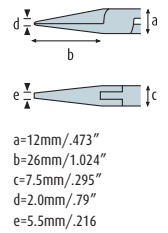
**FLAT NOSE PLIERS**



**Short, strong jaws.**



			weight g	length mm/"
4321HS12	Smooth		76	135 / 5.1/4
4322HS12	Serrated		76	135 / 5.1/4
4321HS02	Smooth		71	130 / 5.1/8
4322HS02	Serrated		71	130 / 5.1/8



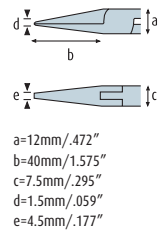
**FLAT NOSE PLIERS**



**Long jaws.**



			weight g	length mm/"
4421HS12	Smooth		82	150 / 6
4422HS12	Serrated		82	150 / 6
4421HS02	Smooth		77	145 / 5.3/4
4422HS02	Serrated		77	145 / 5.3/4



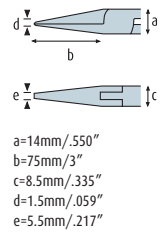
**FLAT NOSE PLIERS**



**Very long, strong jaws. Without spring.**



			weight g	length mm/"
4921HS02	Smooth		120	190 / 7.1/2
4922HS02	Serrated		120	190 / 7.1/2





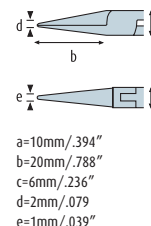
**ROUND NOSE PLIERS**



**Short jaws.**



			weight g	length mm/"
4231HS22	Smooth		62	130 / 5.1/4
4232HS22	Serrated		62	130 / 5.1/4
4231HS12	Smooth		57	125 / 5
4232HS12	Serrated		57	125 / 5
4231HS02	Smooth		52	120 / 4.3/4
4232HS02	Serrated		52	120 / 4.3/4



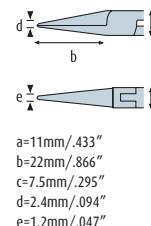
**ROUND NOSE PLIERS**



**Short, strong jaws.**



			weight g	length mm/"
4331HS12	Smooth		73	135 / 5.1/4
4332HS12	Serrated		73	135 / 5.1/4
4331HS02	Smooth		68	130 / 5.1/8
4332HS02	Serrated		68	130 / 5.1/8



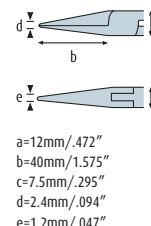
**ROUND NOSE PLIERS**



**Long jaws.**



			weight g	length mm/"
4431HS12	Smooth		74	150 / 6
4432HS12	Serrated		74	150 / 6
4431HS02	Smooth		69	145 / 5.3/4
4432HS02	Serrated		69	145 / 5.3/4



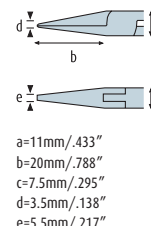
**U-SHAPE BENDING PLIERS**



**Bends wires to an U-shape.**



			weight g	length mm/"
4317HS12			73	135 / 5.1/2
4317HS02			68	130 / 5.1/8



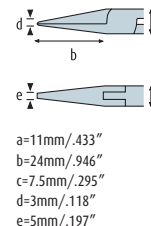
**ROUND-CONCAVE BENDING PLIERS**



**Bends wire round or to crimp shape**



			weight g	length mm/"
4337HS12			73	140 / 5.3/4
4337HS02			68	135 / 5.1/2





## CUTTERS AND PLIERS WITH LAID-IN JOINT



An economical alternative to box-joint and high-gloss steel polish.

Less costly in production – but of fully guaranteed quality – based on the same principles:

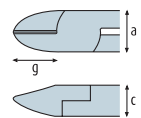
- selected high alloy steels
- hot drop forged blanks
- different head- and cutting-edge designs
- precision induction hardened cutting edges
- ESD safe handles
- double leaf springs – spot welded
- matt polished finish
- a wide choice of versions
- tested piece by piece

A selection of approved, tried and tested quality cutters and pliers.

**SIDE CUTTERS**

**Oval head.**

	Bevel	hard	medium	soft	weight g	length mm/"
1201EP02	with	0.4 / 26	1.0 / 18	1.5 / 15	62	120 / 4.3/4
1202EP02	fine		1.0 / 18	1.5 / 15	62	120 / 4.3/4
1203EP02	without		0.8 / 20	1.5 / 15	62	120 / 4.3/4



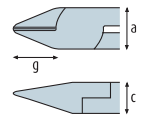
a=11mm/.433"  
c=7mm/.276"  
g=13mm/.512"



**SIDE CUTTERS**

**Tapered head.**

	Bevel	hard	medium	soft	weight g	length mm/"
1221EP02	with	0.3 / 28	1.0 / 18	1.5 / 15	62	120 / 4.3/4
1222EP02	fine		1.0 / 18	1.5 / 15	62	120 / 4.3/4
1223EP02	without		0.8 / 20	1.5 / 15	62	120 / 4.3/4



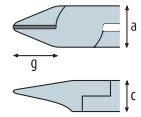
a=11mm/.433"  
c=7mm/.276"  
g=13mm/.512"



**SIDE CUTTERS**

**Tapered head. Relieved jaws.**

	Bevel	hard	medium	soft	weight g	length mm/"
1231EP02	with		0.8 / 20	1.5 / 15	60	120 / 4.3/4
1232EP02	fine		0.8 / 20	1.5 / 15	60	120 / 4.3/4
1233EP02	without		0.6 / 22	1.5 / 15	60	120 / 4.3/4



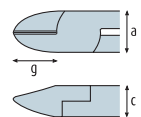
a=11mm/.433"  
c=7mm/.276"  
g=13mm/.512"



**SIDE CUTTERS**

**Oval head. Strong version.**

	Bevel	hard	medium	soft	weight g	length mm/"
1241EP02	with	0.5 / 24	1.2 / 16	1.8 / 13	90	125 / 5
1242EP02	fine		1.2 / 16	1.8 / 13	90	125 / 5
1243EP02	without		1.0 / 18	1.8 / 13	90	125 / 5



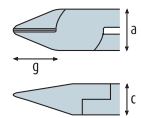
a=14.5mm/.571"  
c=8mm/.315"  
g=16mm/.630"



**SIDE CUTTERS**

**Tapered head. Strong version.**

	Bevel	hard	medium	soft	weight g	length mm/"
1251EP02	with	0.4 / 26	1.2 / 16	1.8 / 13	90	125 / 5
1252EP02	fine		1.2 / 16	1.8 / 13	90	125 / 5
1253EP02	without		1.0 / 18	1.8 / 13	90	125 / 5



a=14.5mm/.571"  
c=8mm/.315"  
g=16mm/.630"

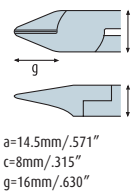


**SIDE CUTTERS**

**Tapered head. Relieved jaws. Strong version.**



	Bevel	hard	medium	soft	weight g	length mm/"
1261EP02	with		1.0 / 18	1.8 / 13	80	125 / 5
1262EP02	fine		1.0 / 18	1.8 / 13	80	125 / 5
1263EP02	without		0.8 / 20	1.8 / 13	80	125 / 5

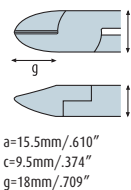


**SIDE CUTTERS**

**Oval head. Very strong version.**



	Bevel	hard	medium	soft	weight g	length mm/"
1341EP02	with	0.7 / 21	1.5 / 15	2.0 / 12	110	135 / 5.1/2
1342EP02	fine		1.5 / 15	2.0 / 12	110	135 / 5.1/2
1343EP02	without		1.3 / 16	2.0 / 12	110	135 / 5.1/2

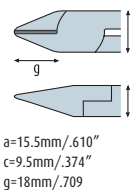


**SIDE CUTTERS**

**Tapered head. Very strong version.**



	Bevel	hard	medium	soft	weight g	length mm/"
1351EP02	with	0.5 / 24	1.5 / 15	2.0 / 12	110	135 / 5.1/2
1352EP02	fine		1.5 / 15	2.0 / 12	110	135 / 5.1/2
1353EP02	without		1.3 / 16	2.0 / 12	110	135 / 5.1/2

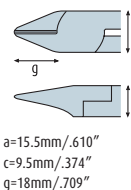


**SIDE CUTTERS**

**Tapered head. Relieved jaws. Very strong version.**



	Bevel	hard	medium	soft	weight g	length mm/"
1361EP02	with		1.5 / 15	2.0 / 12	109	135 / 5.1/2
1362EP02	fine		1.5 / 15	2.0 / 12	109	135 / 5.1/2
1363EP02	without		1.3 / 16	2.0 / 12	109	135 / 5.1/2

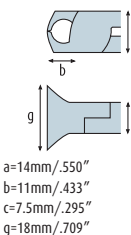


**TOP CUTTER**

**Large head. Long cutting edges.**



	Bevel	hart	mittel	weich	Gewicht g	Länge mm/"
1501EP02	with	0.7 / 21	1.2 / 16	1.6 / 14	91	120 / 4.3/4
1502EP02	fine	0.5 / 24	1.2 / 16	1.6 / 14	91	120 / 4.3/4
1503EP02	without		1.0 / 18	1.4 / 16	91	120 / 4.3/4

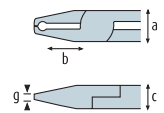


**TOP CUTTER**



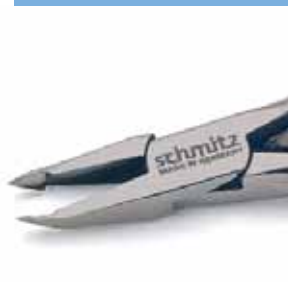
**Narrow cutting edges. Short jaws.**

	Bevel	hard	medium	soft	weight g	length mm/"
<b>1504EP02</b>	with		0.8 / 20	1.0 / 18	73	120 / 4.3/4
<b>1505EP02</b>	fine		0.6 / 22	0.8 / 20	73	120 / 4.3/4
<b>1506EP02</b>	without			0.6 / 22	73	120 / 4.3/4



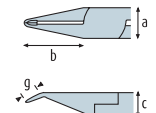
a=12mm/.473"  
b=23mm/.905"  
c=8mm/.315"  
g=2.5mm/.098"

**OBLIQUE TIP CUTTER**



**Short jaws.**

	Bevel	hard	medium	soft	weight g	length mm/"
<b>1521EP02</b>	with		0.8 / 20	1.0 / 18	70	120 / 4.3/4
<b>1522EP02</b>	fine		0.6 / 22	0.8 / 20	70	120 / 4.3/4
<b>1523EP02</b>	without			0.6 / 22	70	120 / 4.3/4



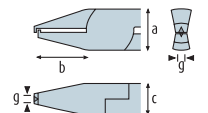
a=12.5mm/.492"  
b=24mm/.945"  
c=7.5mm/.295"  
g=12mm/.473"

**WIRE STRIPPING PLIERS**



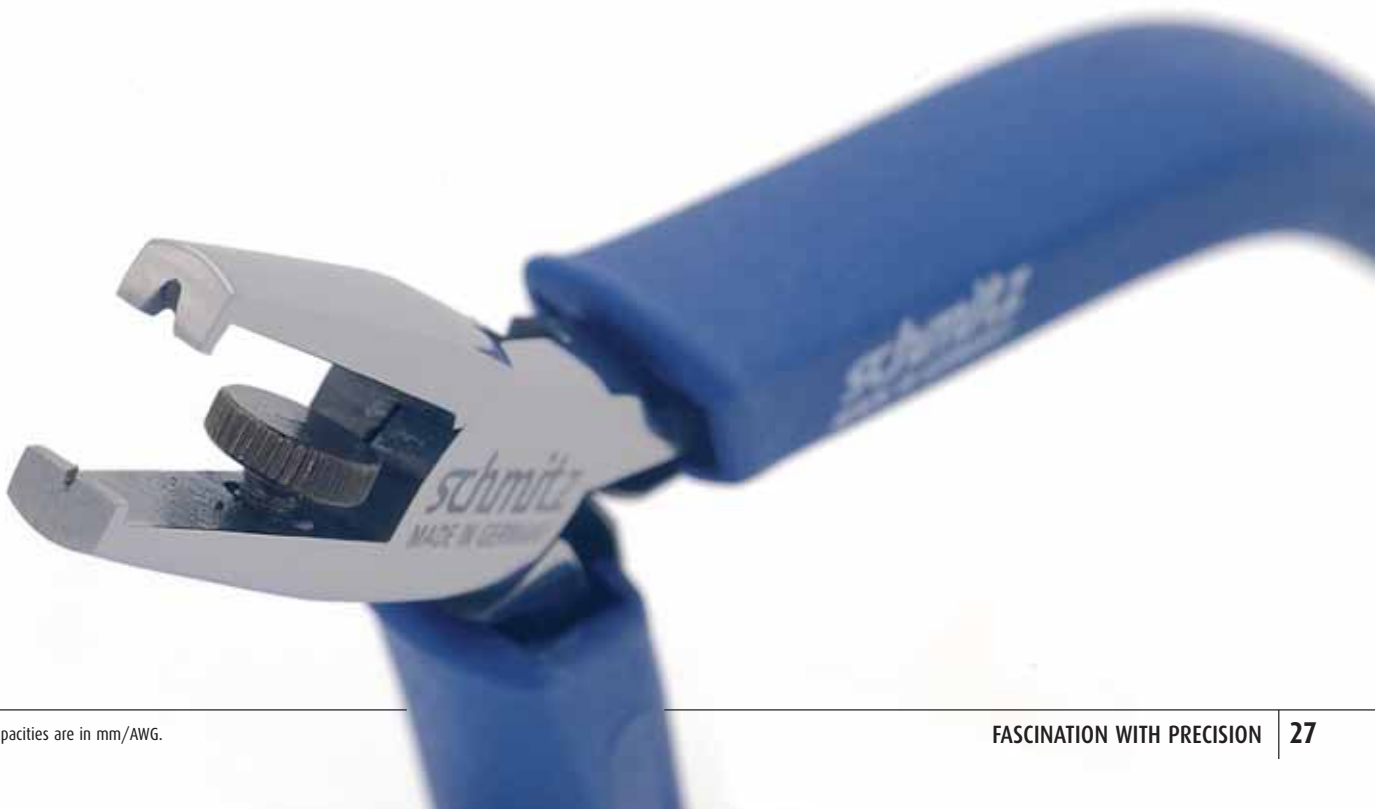
**Brass adjustment screw inside jaws. For PVC, Teflon and similar wire coatings.**

		weight g	length mm/"
<b>2441EP02</b>	Draht-Ø 0.1 - 0.8 mm	79	140
<b>2461EP02</b>	Draht-Ø 0.1 - 1.5 mm	90	160



2441 a=12mm/.473"  
b=?mm/??"  
c=7mm/.276"  
g=32mm/1.26"

2461 a=15mm/.590"  
b=47mm/1.850"  
c=9mm/.354"  
g=?mm/??"



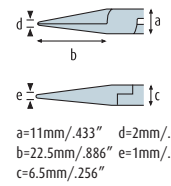
**SNIPE NOSE PLIERS**



**Straight, short jaws.**



			weight g	length mm/"
2211EP02	Smooth		56	120 / 4.3/4
2212EP02	Serrated		56	120 / 4.3/4



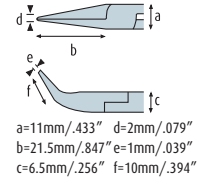
**SNIPE NOSE PLIERS**



**Bent, short jaws.**



			weight g	length mm/"
2213EP02	Smooth		56	120 / 4.3/4
2214EP02	Serrated		56	120 / 4.3/4



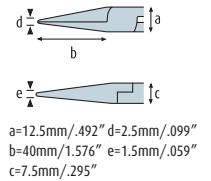
**SNIPE NOSE PLIERS**



**Straight, long jaws.**



			weight g	length mm/"
2411EP02	Smooth		84	145 / 5.3/4
2412EP02	Serrated		84	145 / 5.3/4



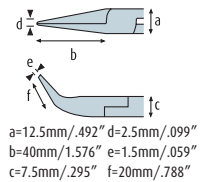
**SNIPE NOSE PLIERS**



**Bent, long jaws.**



			weight g	length mm/"
2413EP02	Smooth		84	145 / 5.3/4
2414EP02	Serrated		84	145 / 5.3/4



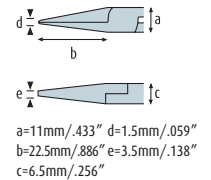
**FLAT NOSE PLIERS**



**Short jaws.**



			weight g	length mm/"
2221EP02	Smooth		54	120 / 4.3/4
2222EP02	Serrated		54	120 / 4.3/4



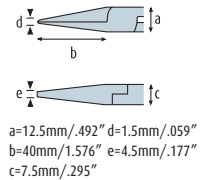
**FLAT NOSE PLIERS**



**Long jaws.**



			weight g	length mm/"
2421EP02	Smooth		89	145 / 5.3/4
2422EP02	Serrated		89	145 / 5.3/4



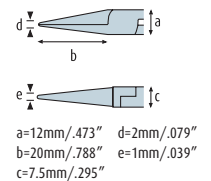
**ROUND NOSE PLIERS**



**Short jaws.**



			weight g	length mm/"
2231EP02	Smooth		73	120 / 4.3/4
2232EP02	Serrated		73	120 / 4.3/4





## SPECIALS AS PER YOUR DRAWINGS OR SAMPLES



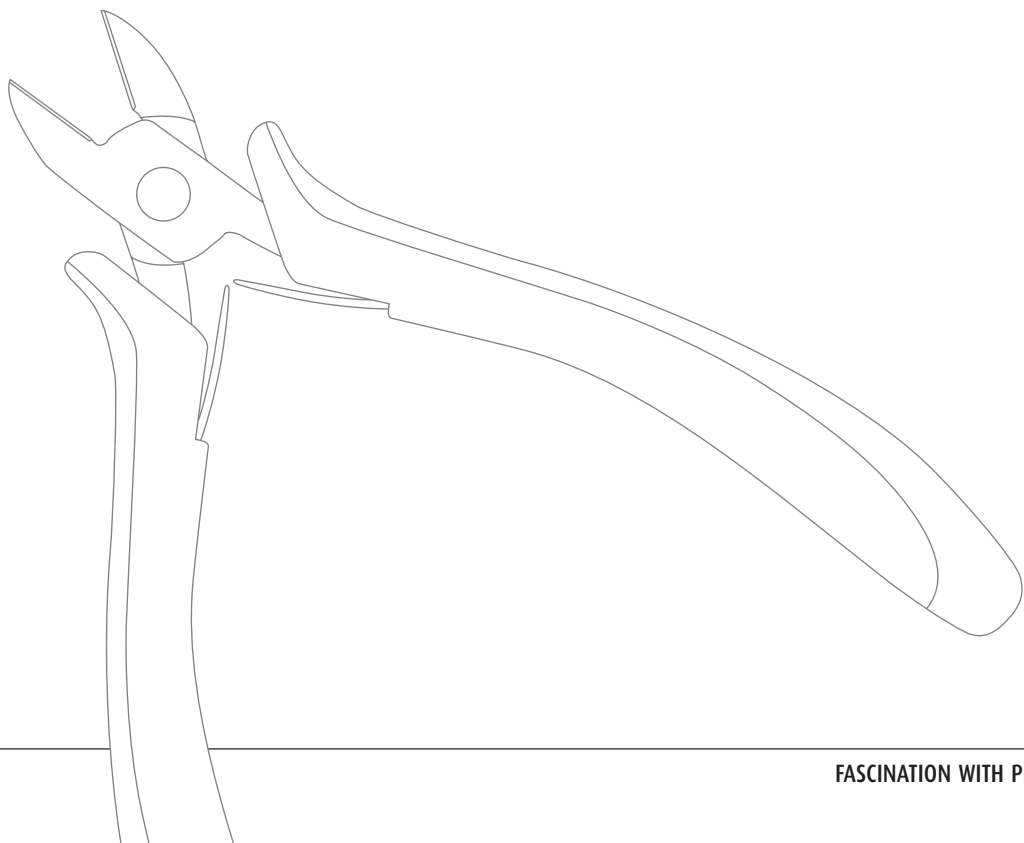
As manufacturer of quality cutters and pliers for the Electronic-, air- and space-craft industries we also produce special versions as per your specifications.

Please ask. In most instances we will be able to offer a well designed and economical solution.

### **Other finishes of our standard ranges**

Also available on request are other finishes like matt polished, black burnished, high-gloss burnished and chromium-plated. Or different handle colours and shapes as well as different spring shapes, i. e. spiral springs.

Please ask for details.



# NUMERICAL INDEX

	<u>Item number</u>	<u>Page</u>	<u>Item number</u>	<u>Page</u>	<u>Item number</u>	<u>Page</u>	<u>Item number</u>	<u>Page</u>	<u>Item number</u>	<u>Page</u>	<u>Item number</u>	<u>Page</u>
Our part numbers contain 3 elements.	<u>1201</u>	25	<u>1523</u>	27	<u>3213</u>	9	<u>3501</u>	12	<u>3626</u>	11	<u>4231</u>	23
Example 3101HS22:	<u>1202</u>	25	<u>2211</u>	28	<u>3221</u>	9	<u>3502</u>	12	<u>3631</u>	13	<u>4232</u>	23
3101 = 4 digit basic item number	<u>1203</u>	25	<u>2212</u>	28	<u>3222</u>	9	<u>3503</u>	12	<u>3632</u>	13	<u>4311</u>	20
HS = code for finish	<u>1221</u>	25	<u>2213</u>	28	<u>3223</u>	9	<u>3507</u>	12	<u>3633</u>	13	<u>4312</u>	20
22 = code for type of handle	<u>1222</u>	25	<u>2214</u>	28	<u>3231</u>	9	<u>3508</u>	12	<u>3641</u>	12	<u>4317</u>	23
Please search for the 4 basic item number	<u>1223</u>	25	<u>2221</u>	28	<u>3232</u>	9	<u>3509</u>	12	<u>3642</u>	12	<u>4321</u>	22
below.	<u>1231</u>	25	<u>2222</u>	28	<u>3233</u>	9	<u>3511</u>	11	<u>3643</u>	12	<u>4322</u>	22
	<u>1232</u>	25	<u>2231</u>	28	<u>3241</u>	8	<u>3512</u>	11	<u>3644</u>	11	<u>4331</u>	23
	<u>1233</u>	25	<u>2232</u>	28	<u>3242</u>	8	<u>3513</u>	11	<u>3645</u>	11	<u>4332</u>	23
	<u>1241</u>	25	<u>2411</u>	28	<u>3243</u>	8	<u>3521</u>	11	<u>3646</u>	11	<u>4337</u>	23
	<u>1242</u>	25	<u>2412</u>	28	<u>3301</u>	10	<u>3522</u>	11	<u>3652</u>	17	<u>4411</u>	20
	<u>1243</u>	25	<u>2413</u>	28	<u>3302</u>	10	<u>3523</u>	11	<u>3653</u>	17	<u>4412</u>	20
	<u>1251</u>	25	<u>2414</u>	28	<u>3303</u>	10	<u>3532</u>	17	<u>3661</u>	13	<u>4413</u>	20
	<u>1252</u>	25	<u>2421</u>	28	<u>3311</u>	10	<u>3533</u>	17	<u>3662</u>	13	<u>4414</u>	20
	<u>1253</u>	25	<u>2422</u>	28	<u>3312</u>	10	<u>3542</u>	17	<u>3665</u>	21	<u>4415</u>	21
	<u>1261</u>	26	<u>2441</u>	27	<u>3313</u>	10	<u>3543</u>	17	<u>3666</u>	21	<u>4416</u>	21
	<u>1262</u>	26	<u>2461</u>	27	<u>3321</u>	10	<u>3552</u>	17	<u>3671</u>	13	<u>4421</u>	22
	<u>1263</u>	26	<u>3101</u>	8	<u>3322</u>	10	<u>3553</u>	17	<u>4201</u>	19	<u>4422</u>	22
	<u>1341</u>	26	<u>3102</u>	8	<u>3323</u>	10	<u>3562</u>	17	<u>4202</u>	19	<u>4431</u>	23
	<u>1342</u>	26	<u>3103</u>	8	<u>3331</u>	10	<u>3563</u>	17	<u>4203</u>	20	<u>4432</u>	23
	<u>1343</u>	26	<u>3111</u>	8	<u>3332</u>	10	<u>3601</u>	13	<u>4204</u>	20	<u>4441</u>	21
	<u>1351</u>	26	<u>3112</u>	8	<u>3333</u>	10	<u>3602</u>	13	<u>4205</u>	20	<u>4442</u>	21
	<u>1352</u>	26	<u>3113</u>	8	<u>3401</u>	15	<u>3603</u>	13	<u>4206</u>	20	<u>4611</u>	21
	<u>1353</u>	26	<u>3121</u>	8	<u>3402</u>	15	<u>3611</u>	12	<u>4211</u>	19	<u>4612</u>	21
	<u>1361</u>	26	<u>3122</u>	8	<u>3405</u>	15	<u>3612</u>	12	<u>4212</u>	19	<u>4911</u>	21
	<u>1362</u>	26	<u>3123</u>	8	<u>3421</u>	15	<u>3613</u>	12	<u>4213</u>	19	<u>4912</u>	21
	<u>1363</u>	26	<u>3131</u>	8	<u>3422</u>	15	<u>3614</u>	12	<u>4214</u>	19	<u>4913</u>	21
	<u>1501</u>	26	<u>3132</u>	8	<u>3425</u>	15	<u>3615</u>	12	<u>4215</u>	19	<u>4914</u>	21
	<u>1502</u>	26	<u>3133</u>	8	<u>3431</u>	15	<u>3616</u>	12	<u>4216</u>	19	<u>4921</u>	22
	<u>1503</u>	26	<u>3201</u>	9	<u>3432</u>	15	<u>3621</u>	11	<u>4217</u>	19	<u>4922</u>	22
	<u>1505</u>	27	<u>3202</u>	9	<u>3435</u>	15	<u>3622</u>	11	<u>4221</u>	22		
	<u>1506</u>	27	<u>3203</u>	9	<u>3471</u>	15	<u>3623</u>	11	<u>4222</u>	22		
	<u>1521</u>	27	<u>3211</u>	9	<u>3472</u>	15	<u>3624</u>	11	<u>4225</u>	22		
	<u>1522</u>	27	<u>3212</u>	9	<u>3475</u>	15	<u>3625</u>	11	<u>4226</u>	22		

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## TERMS AND CONDITIONS

### 1. Validity

The following conditions are the basis for offers, orders and supplies. Any deviations need to be confirmed in writing. Customers Conditions of Purchase are excluded. By placing an order the customer accepts our Terms and Conditions. Circumstances beyond our control that lead to an interruption or standstill of our production release us from our commitments.

### 2. Our Offers

are subject to alteration, our latest catalogue and pricelist are part of all our quotations. All catalogue specifications and samples are approximate and we reserve the right to alter these without prior notice.

### 3. Prices

Our prices are in EURO, excluding any VAT. They are to be understood for deliveries EX WORKS, Solingen, Germany, packaging costs not included. We reserve the right to alter them in case substantial and unforeseeable increases of our productions costs occur after orders were placed.

### 4. Delivery/Transferral of Risk

Delivery ex works, Solingen, Germany. Goods travel at customers risk.

### 5. Delivery Time

Delivery times confirmed by us are given to the best of our knowledge but not binding. We reserve the right to arrange for part deliveries.

### 6. Terms of Payment

Our invoices shall be paid within 10 days from invoice date with 2 % cash discount or nett within 30 days from invoice date. Noncompliance may lead to interest charges on our part. The buyer is not entitled to withhold payment or deduct any amounts by virtue of claim or allegation.

### 7. Reservation of Property

All goods supplied by us are and remain our full property until full payment of all monies due to us have been received. The sale of our goods by the buyer during the Reservation of Property period is only possible with our express agreement and after all rights have been transferred to us.

### 8. Manufacturers Guarantee, Warranty and Liability

On condition of correct use and handling of our products they are fully guaranteed against faulty materials and workmanship. They will be replaced or repaired free of charge at our discretion should they be faulty despite our stringent quality controls. We are not liable for any direct consequential loss or damage resulting from the failure of any of our products.

### 9. Claims

Any claims should be submitted to us immediately after receipt of the goods or when a reason for claim becomes obvious, within a maximum period of 2 years from invoice date. Damage, theft and shortages should be reported to the Carriers immediately with copies to us.

### 10. Returns

Unless agreed by us in writing returns will not be accepted. Correctly packaged and resaleable goods will be credited with 80 % of their price invoiced. Any costs occurring by having to refinish and repack the goods will be charged to the customer.

### 11. Special Production

For specially produced goods, including standard lines with customers markings, we reserve the right of supplying up to plus/minus 10% of the ordered quantity. Orders for Special Production items cannot be cancelled.

### 12. Governing Law

All contracts are subject to German Law. Place of payment and contract fulfilment, as well as Court of Jurisdiction, is Solingen, Germany.



**Helmut Schmitz GmbH**  
**Spezialzangen für die Elektronik-,**  
**Luft- und Raumfahrtindustrie**

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