

Swanstrom Tools for Electronics

ESD Safe



Made in the USA

Ergonomic

Precision



**Swanstrom
Tools USA**



Swanstrom Tools USA

OUR MISSION

To profit with our partners by increasing productivity with precision quality ergonomic tools.

OUR PROMISE

We promise our customers simply the finest, most ergonomic and durable tools for their industrial requirements, and to serve them accurately, on time, and with the highest ethical standards.

OUR QUALITY AND ERGONOMICS

Our specialties are long life, user friendly tools, for high tech industries and people who use tools intensely . Swanstrom Tools soon prove themselves to operators, engineers, ergonomists, buyers and distributors.

Strength and long life starts in our steel. Smoother bearings, sharper blades, beautiful ergo black finishes and

Soft Touch [™] handles set our tools apart from the competition. Precision shaping, honing and other finishes conform exactly to each user's unique requirements.

Factory use proves our long edge and bearing life. Comfort of our ESD safe textured foam is immediately obvious and best for users' product quality and people, thereby reducing their tool costs, workers comp costs, and total costs.

OUR WARRANTY

We warrant these products free of defects in material or workmanship for a tool lifetime of normal use, often many years. Any product failing to satisfy the customer should be reported to our Sales Manager, who will quickly get the customer satisfied while directing the complaints, tools, and questions to quality manager for thorough analysis.

If inspection shows that the product failed to meet new tool specifications, we will repair, replace, or credit (our option). Abused or altered tools are not covered.

Introduction to Swanstrom Tools USA

Feature

Super cutters are forged out of high chromium, high carbon, 52100 grade ball bearing steel.

Swanstrom pioneered ergonomic handles for the electronic hand tool industry .

All Swanstrom Super, Spartan, and STUSA forged tools are manufactured in the USA.

Ergonomic handle designs combined with many choices of edges and bevels.

Super cutters have induction hardened (HRC65) cutting edges.

Factory reconditioning of all Super Tools and many competitors tools with fast turn-around time.

Scrivet joints [™].

Specialty tool design and manufacture.

Super Tools feature adjustable leaf springs and option of positive adjustable stops.

Multiple spring options available for Super Tools.

All Swanstrom Super Tools are ESD safe.

We offer leadcatchers.

Benefit

Best steel for combined durability (wear) and reliability (life).

Ergonomic handles reduce the probability of CTD's.

American jobs for American workers.

Provides ease of operator use.

Long life, more cuts.

Facilitates ISO 14000 compliance. Extends life of tool. Reduces cost per cut.

Allows for easy readjustment of joint.

Tools for unique applications.

Provides flexibility for the operator.

Leaf springs - adjustable.
Coil springs - field replaceable.

Appropriate for bench use in static sensitive areas.

Prevents cut wire from falling into components.

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SWANSTROM



Ergonomic Considerations

Ergonomic tools allow people to work safely and cost effectively. Tools should be selected based on the operator and task to be performed.

Size, weight and handle form and opening should be comfortable to the employee. Generally, smaller sized tools are more comfortable for smaller hands and larger tools are more effective with larger hands. Swanstrom electronic tools are available in sizes 3 to 7 dependent upon tool type.

Handles

- Traditional Shorts for less repetitive work areas with restricted access. A traditional style handle can also be an operator's preference. Typical width: 2.0"
- Double Ergonomic (E) disperse and minimize pressure. Extended handle lengths are available. Typical width: Sizes 4 & 5: 1.75"; S size 6-1.95"; Size 7-2.13"
- Pistol Grip (EPR or EPL) are excellent for highly repetitive tasks. They help maintain normal wrist alignment, reducing potential for carpal tunnel and disperse pressure on the hand; Pistol grips further reduce strain and fatigue by allowing all four fingers to be used.



Handle Features

- Handle diameter distributes the pressure over a larger hand surface and eases pick up
- Double action leaf springs soft touch and adjustable, minimizing the force and pressure on the hand.
- Static Dissipative Soft Touch™ foam handles distribute hand pressure evenly while protecting sensitive components from electro-static discharge.

Spring Choices Include:

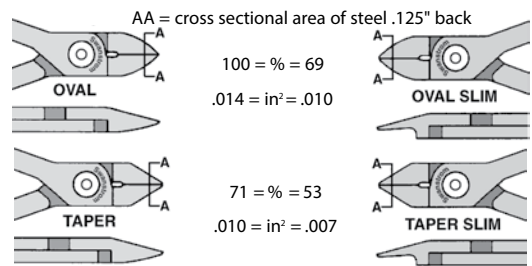
- Double adjustable leaf
- Coils

Head, Tip, and Edge Options

The many tool heads, angles and tip shapes, and edges allow tool choices based on arm and hand position to maximize visibility, ergonomics, and economics. Generally a tool with a larger head lasts longer.

Tip Shape

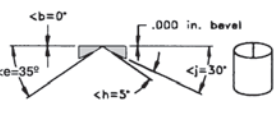
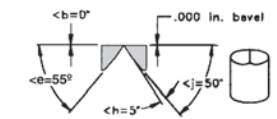
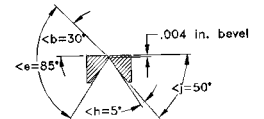
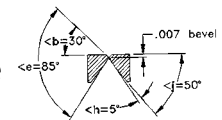
- Oval - the most durable
- Oval Slim - for getting into smaller spaces
- Taper - also for getting into very small spaces
- Taper Slim - most versatile but weaker tips



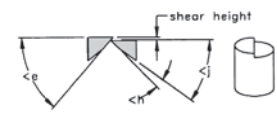
- Angle end and curved nose cutters - the most task specific.
- Leverage and Tip Control - operator effort minimized by using the shortest jaw length possible for the task.

Edge Type

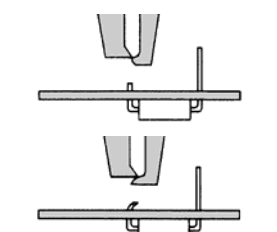
- Bevel - cuts where pinch or spike is not critical, longest life, most pressure to cut
- Flush - reduces pinch, spike and squeeze pressure
- Super Flush - produces minimal spike and shock transmittal, more ergonomic, less squeeze



- Near Shear - leaves a slight deformation and step left on the cut, reduces force required to cut
- Pure Shear - no spike, small side deformation, easiest cut



- Stand-Off Shear - minimizes shock, leaves no spike and produces consistent "stand off" lead lengths
- Stand-Off Bend/Cut



All Handles are ESD Safe (Static Dissipative)

Tool Life Expectancy

Tool attributes that give Swanstroms longest life:

- High chrome, high carbon alloy steel for bearings and edges. Aircraft grade bearing quality E52100 steel hardenable to HRC 65 and subsequently tempered.
- Edge angles for ease of cut and edge life (10 choices).
- Longer handles for leverage and pressure distribution.
- Wider bodies for better bearing properties and strength.
- Very hard cut edges for edge life (HRC 65, tempered).
- Scrivets™ for lubricity, adjustability, cleanliness.
- Stainless adjustable leaf springs welded in place.

Tools are scientifically inspected and tested at key production stages. Touch tests are performed on tool edges, tip, joints and springs to ensure ideal function.

Many years of lab and field testing prove that Swanstrom cutters used within design limits, give well over 1,000,000 clean cuts on common lead material such as .020 tinned copper

Tool Maintenance:

For better tool life, perform proper easy local maintenance.

- Oil joints regularly. An occasional single drop is wise.
- Oil joint and Scrivet™ before adjustment.
- Protect spring-to-handle weld if adjusting leaf spring.
- Cut only material the tool is designed to cut.
- Use proper size tools for parts being cut. Use larger tools for larger and harder parts.
- Keep tools with stops adjusted for type of material cut.
- Keep tools sharp and well serviced. Use Swanstrom Tool Service. ([allbrands](#))

Don'ts:

- Don't force a tight, stiff joint. (oil it)
- Don't cut material for which tool was not designed.
- Don't pull on springs without protecting the weld under the plastic (otate-bend for m~~ore~~ pressure).
- Don't improperly grind. Heat and the wrong touch will quickly damage tool beyond repair, may soften the edges, and void warranty
- Don't forget Swanstrom Tool Service. 1-800-287-8872



All Serviced Tools Are Returned ESD Safe
(Static Dissipative)

Abbreviations for Tool Head Descriptions

Anvil	A	High Leverage	HL	Short Nose	SN
Bevel/Semi Flush	BSF	Jaw Relief	JR	Slim	SL
Bend Cut	BC	Long Nose	LN	Smooth	SM
Bypass	BP	Long Slim	LS	Snipe Nose	SNP
Concave	CV	Micro	MI	Special Radius	SR
Convex	CX	Mini	M	Step	ST
Curved	C	Near Shear	NS	Stress Relief	STR
Double	D	Needle Nose	NN	Submini	SU
Double End	DE	Nipper	N	Super Flush	SPRF
Extra Long	EL	Oval	OV	Taper	T
Fine	FN	Oval Slim	OS	Taper Relieved	TR
Fine Tip	FT	Relieved	RE	Tip Cut	TC
Flat Nose	FLN	Round	R	Ultra Fine	UF
Flat/Round	F/R	Round Nose	RN	V Notch	V
Flush	F	Scissor	SC	Variable Jaw	VJ
Full Flush	FF	Serrated	SER		
Hose Clamp	HC	Shear	S		

Special radiused edges to meet DOD 2000 Specs are available by adding the suffix SR to the part number.

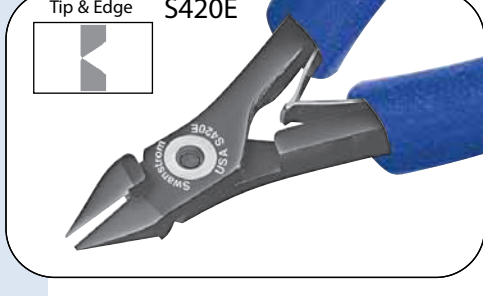
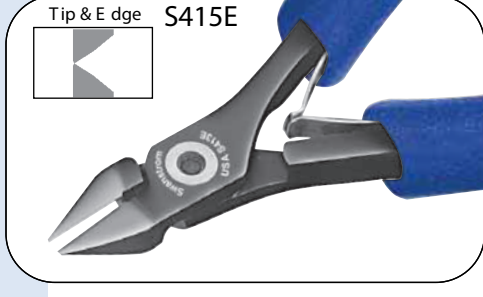
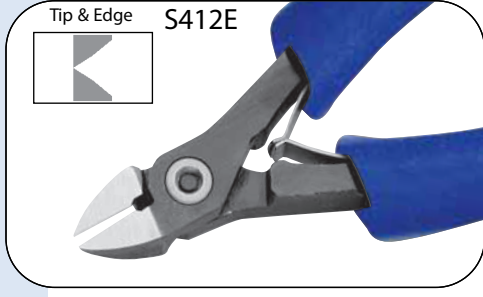
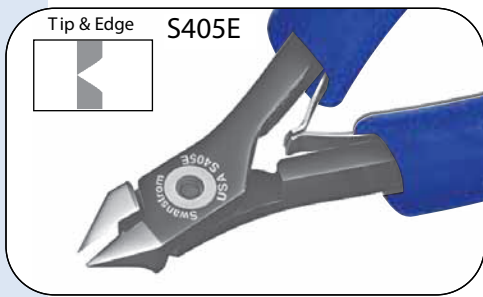
Cutting Capacities

Gage	in	mm	Part Numbers
32	0.007	0.2	S185E
24	0.020	0.6	S171E, S171, S219E, S219, S223E, S223
22	0.025	0.6	S170E, S170, S212E, S212, S215E, S215, S218E, S218, S224E, S224, S225E, S225, S482E, S482
20	0.032	0.8	S202E, S202, S203E, S203, S205B, S213E, S213, S233E, S233, S234E, S234, S291, S402E, S402, S423E, S423, S432E, S432, S483E, S483, S485E, S485, S491E, S491, S492E, S492, S605E, S605
18	0.040	1.0	S201E, S201, S205E, S205, S405E, S405, S412E, S412, S413E, S413, S414E, S414, S420E, S420, S421E, S421, S422E, S422, S430E, S430, S431E, S431, S435E, S435, SC15E
16	0.050	1.3	S410E, S410, S411E, S411, S415E, S415, S416E, S416, S512E, S512, S513E, S513, S514E, S514, S516E, S516, S520E, S520, S521E, S521
14	0.060	1.6	S510E, S510, S511E, S511, S515E, S515, S534E, S534, S535E, S535, S612E, S613E, S614E, S616E, S620E, S621E
12	0.080	2.0	S610E, S611E, S615E, SC5E, SC17E, ST5E, SV5E, SV5ESP
11	0.090	2.3	S700E, S710E
9	0.114	2.9	S350E, S350, S351E, S351
2	0.258	6.6	SC7E, ST7E, SV7E



Super Diagonal Cutters

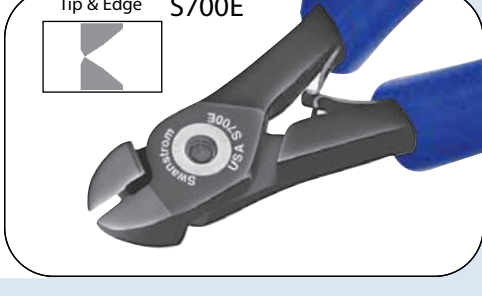
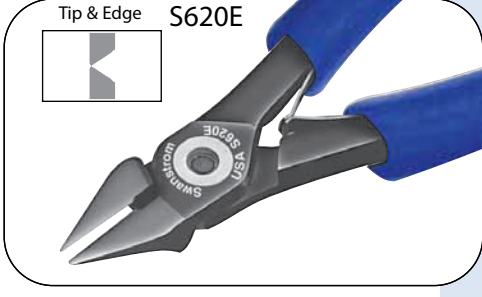
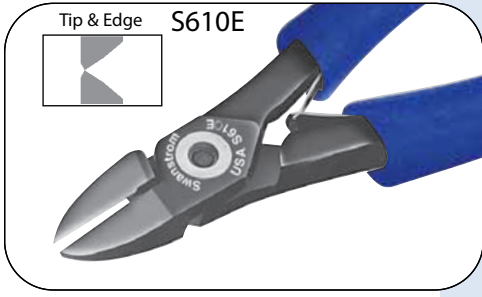
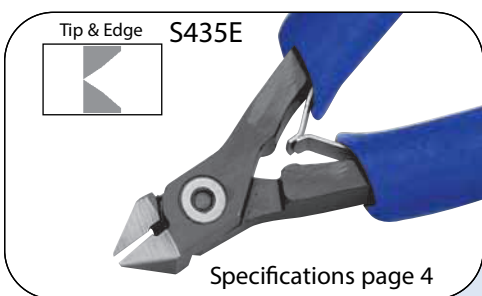
Super Diagonal Cutters



Tool Numbers	Description				Overall Length ergo	Jaw Length short	Cutter Length	Tip Width	Tip Thick		
	short	head	edge								
S111E	S111	OV	F	.004	in	5.65	4.25	0.53	0.40	0.23	0.03
				.100	mm	144	108	13	10	6	0.80
S112E	S112	OV	SF	.000	in	5.65	4.25	0.53	0.40	0.23	0.03
				.000	mm	144	108	13	10	6	0.80
S115E	S115	T	F	.004	in	5.65	4.25	0.53	0.40	0.17	0.03
				.100	mm	144	108	13	10	4	0.80
S116E	S116	T	SPRF	.000	in	5.65	4.25	0.53	0.40	0.17	0.03
				.000	mm	144	108	13	10	4	0.80
S121E	S121	TR	SPRF	.000	in	5.65	4.25	0.53	0.40	0.17	0.03
				.000	mm	144	108	13	10	4	0.80
S405E	S405	TS SN	SPRF	.000	in	5.46	4.61	0.34	0.21	0.25	0.03
				.000	mm	139	117	9	5	6	0.80
S410E	S410	OV	BSF	.007	in	5.65	4.80	0.53	0.40	0.23	0.03
				.180	mm	144	122	13	10	6	0.80
S411E	S411	OV	F	.004	in	5.65	4.80	0.53	0.40	0.23	0.03
				.100	mm	144	122	13	10	6	0.80
S412E	S412	OV	SPRF	.000	in	5.65	4.80	0.53	0.40	0.23	0.03
				.000	mm	144	122	13	10	6	0.80
S413E	S413	OS	F	.004	in	5.65	4.80	0.53	0.40	0.23	0.03
				.100	mm	144	122	13	10	6	0.80
S414E	S414	OS	SPRF	.000	in	5.65	4.80	0.53	0.40	0.23	0.03
				.000	mm	144	122	13	10	6	0.8
S415E	S415	T	F	.004	in	5.65	4.80	0.53	0.40	0.17	0.03
				.100	mm	144	122	13	10	4	0.80
S416E	S416	T	SPRF	.000	in	5.65	4.80	0.53	0.40	0.17	0.03
				.000	mm	144	122	13	10	4	0.80
S420E	S420	TR	F	.004	in	5.65	4.80	0.53	0.40	0.17	0.03
				.100	mm	144	122	13	10	4	0.80
S421E	S421	TR	SPRF	.000	in	5.65	4.80	0.53	0.40	0.17	0.03
				.000	mm	144	122	13	10	4	0.80
S422E	S422	OV SU	SPRF	.000	in	5.63	4.78	0.50	0.38	0.20	0.03
				.000	mm	143	121	13	10	5	0.80
S423E	S423	OSTC	SPRF	.000	in	5.63	4.78	0.50	0.30	0.20	0.03
				.000	mm	143	121	13	8	5	0.80
S430E	S430	OV HL	BSF	.007	in	5.53	4.68	0.40	0.28	0.20	0.03
		Mini		.180	mm	140	119	10	7	5	0.80
S431E	S431	OC HL	F	.004	in	5.53	4.68	0.40	0.28	0.20	0.03
		Mini		.100	mm	140	119	10	7	5	0.80
S432E	S432	OV HL	BSF	.000	in	5.53	4.68	0.40	0.28	0.20	0.03
		Mini		.000	mm	140	119	10	7	5	0.80
S435E	S435	T HL	SPRF	.000	in	5.51	4.66	0.38	0.26	0.19	0.03
		Mini		.000	mm	140	118	10	7	5	0.80
S510E	S510	OV	BSF	.007	in	5.78	4.93	0.63	0.50	0.24	0.05
				.180	mm	147	125	16	13	6	1.30
S511E	S511	OV	F	.004	in	5.78	4.93	0.63	0.50	0.24	0.05
				.100	mm	147	125	16	13	6	1.30
S512E	S512	OV	SPRF	.000	in	5.78	4.93	0.63	0.50	0.24	0.05
				.000	mm	147	125	16	13	6	1.30
S513E	S513	OS	F	.004	in	5.78	4.93	0.63	0.50	0.24	0.05
				.100	mm	147	125	16	13	6	1.30
S514E	S514	OS	SPRF	.000	in	5.78	4.93	0.63	0.50	0.24	0.05
				.000	mm	147	125	16	13	6	1.30
S515E	S515	T	F	.004	in	5.78	4.93	0.63	0.50	0.17	0.05
				.100	mm	147	125	16	13	4	1.30
S516E	S516	T	SPRF	.000	in	5.78	4.93	0.63	0.50	0.17	0.05
				.000	mm	147	1.25	16	13	4	1.30
S520E	S520	TR	F	.004	in	5.78	4.93	0.63	0.50	0.17	0.05
				.100	mm	147	125	16	13	4	1.30
S521E	S521	TR	SPRF	.000	in	5.78	4.93	0.63	0.50	0.17	0.05
				.000	mm	147	1.25	16	13	4	1.30

Super Diagonal Cutters

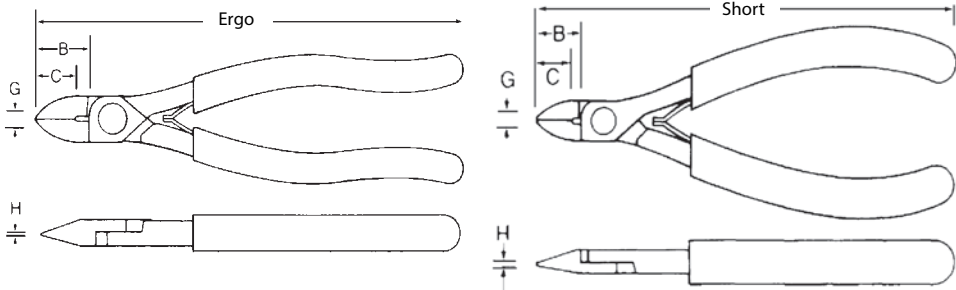
Tool Numbers	Description				Overall Length		Jaw Length	Cutter Length	Tip Width	Tip Thick	
	ergo	short	head	edge	ergo	short					
S534E	S534	T HL	F	.004	in	5.60	4.75	0.44	0.32	0.22	0.05
				.100	mm	142	121	11	8	5	1.30
S535E	S535	T HL	SPRF	.000	in	5.60	4.75	0.44	0.32	0.22	0.05
				.000	mm	142	121	11	8	5	1.30
S610E	S610	OV	BSF	.007	in	6.33	5.40	0.80	0.60	0.26	0.06
				.180	mm	161	137	20	15	7	1.50
S611E	S611	OV	F	.004	in	6.33	5.40	0.80	0.60	0.26	0.06
				.100	mm	161	137	20	15	7	1.50
S612E	S612	OV	SPRF	.000	in	6.33	5.40	0.80	0.60	0.26	0.06
				.000	mm	161	137	20	15	7	1.50
S613E	S613	OS	F	.004	in	6.33	5.40	0.80	0.60	0.26	0.06
				.100	mm	161	137	20	15	7	1.50
S614E	S614	OS	SPRF	.000	in	6.33	5.40	0.80	0.60	0.26	0.06
				.000	mm	161	137	20	15	7	1.50
S615E	S615	T	F	.004	in	6.33	5.40	0.80	0.60	0.18	0.05
				.100	mm	161	137	20	15	5	1.30
S616E	S616	T	SPRF	.000	in	6.33	5.40	0.80	0.60	0.18	0.05
				.000	mm	161	137	20	15	5	1.30
S620E	S620	TR	F	.004	in	6.33	5.40	0.80	0.60	0.18	0.05
				.100	mm	161	161	20	15	5	1.30
S621E	S621	TR	SPRF	.000	in	6.33	5.40	0.80	0.60	0.18	0.05
				.000	mm	161	161	20	15	5	1.30
S63E	S63	OS SN	FF	.002	in	6.23	5.30	0.70	0.50	0.28	0.04
				.050	mm	158	135	13	8	11	1
S700E	S700	OV	BSF	.007	in	7.34	6.10	0.50	0.30	0.44	0.07
				.180	mm	186	155	13	8	11	1.80
S710E	S710	OV	BSF	.007	in	7.74	6.50	0.90	0.70	0.33	0.07
				.180	mm	197	165	23	18	8	1.80



Super Diagonal Cutters

Ergonomic Handles

Traditional Handles



"G" measured .125 from tip.

- Ergo Overall Length
- Short Overall Length
- B Jaw Length
- C Cutter Length
- G Tip Width
- H Tip Thickness

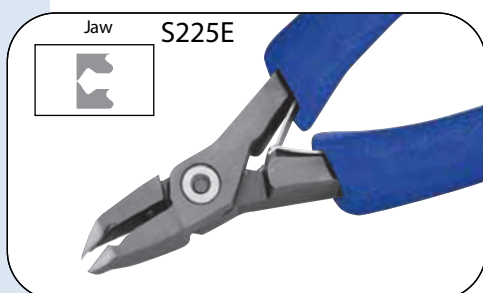
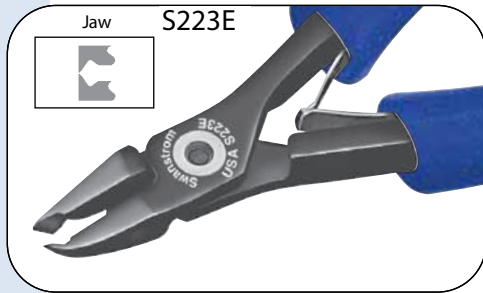
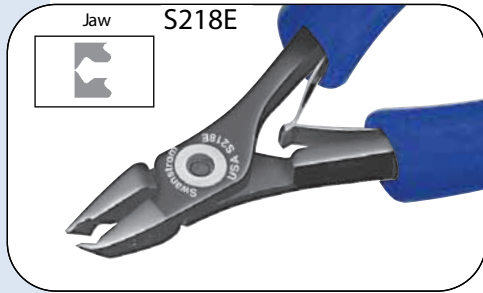
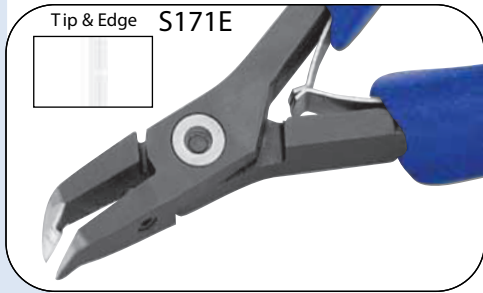


All tools ESD Safe (Static Dissipative)
Protects circuit components. Does not insulate. Do not use on live circuits!



Angle End and Tip Cutters

Reverse Angle, Angle End, and Tip Cutters

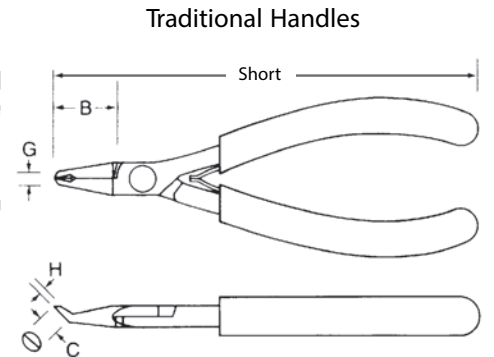
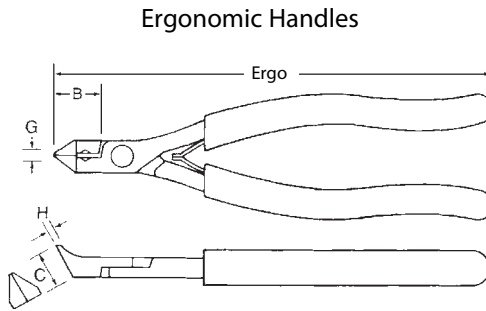


Reverse Angle Cutters

Tool Numbers		Description				Overall Length		Jaw Length	Cutter Length	Tip Width	Tip Thick
ergo	short	head	edge		ergo	short					
S170E	S170	long	SF	.000 in	5.74	4.88	0.61	0.20	0.15	0.03	
				.000 mm	146	124	15	5	4	0.80	
S171E	S171	long	SF	.000 in	5.73	4.88	0.60	0.17	0.13	0.02	
				.000 mm	146	124	15	4	3	0.50	

Angle End Cutters

Tool Numbers		Description				Overall Length		Jaw Length	Cutter Length	Tip Width	Tip Thick
ergo	short	head	edge		ergo	short					
S215E	S215	SU LN 45°	SF	.000 in	5.84	4.99	0.71	0.25	0.19	0.07	
				.000 mm	148	127	18	6	5	1.80	
S218E	S218	M 45° T	SF	.000 in	5.72	4.87	0.59	0.23	0.17	0.05	
				.000 mm	145	124	15	6	4	1.30	
S223E	S223	MI 45° LN	SF	.000 in	5.80	4.95	0.67	0.16	0.15	0.05	
				.000 mm	147	126	17	4	4	1.30	
S224E	S224	LN 45° JR	SF	.000 in	5.89	5.04	0.76	0.19	0.18	0.08	
				.000 mm	150	128	19	5	4	1.90	
S225E	S225	LN 45°	SF	.000 in	5.84	4.99	0.71	0.26	0.18	0.11	
				.000 mm	148	127	18	7	5	2.80	
S482E	S482	MI 45° N	SF	.000 in	5.59	4.74	0.46	0.23	0.20	0.04	
				.000 mm	142	121	12	6	5	1	
S483E	S483	T 60° N	SF	.000 in	5.76	4.91	0.60	0.45	0.18	0.03	
				.000 mm	146	125	15	11	5	0.80	
S485E	S485	R 60° N	SF	.000 in	5.76	4.91	0.60	0.45	0.25	0.03	
				.000 mm	146	125	15	11	6	0.80	
S491E	S491	60° N	F	.004 in	5.76	4.91	0.60	0.45	0.25	0.03	
				.100 mm	146	125	15	11	6	0.80	
S492E	S492	60° N	SF	.000 in	5.76	4.91	0.60	0.45	0.25	0.03	
				.000 mm	146	125	15	11	6	0.80	



"G" measured .125 back from tip on 60° angle cutter.

"G" measured at widest point on 45° angle cutter.

- Ergo Overall Length
- Short Overall Length
- B Jaw Length
- C Cutter Length
- G Tip Width
- H Tip Thickness

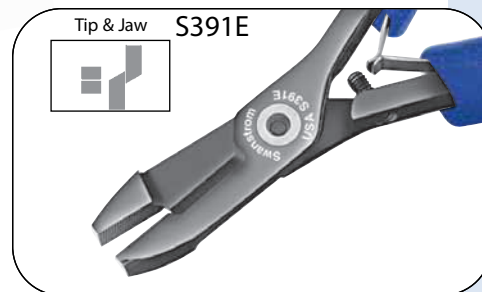
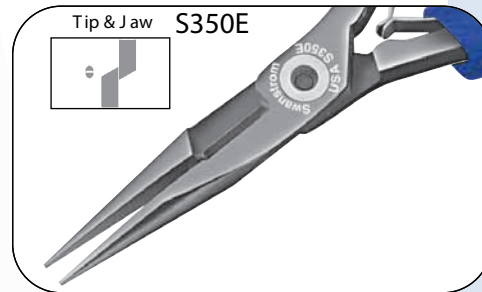
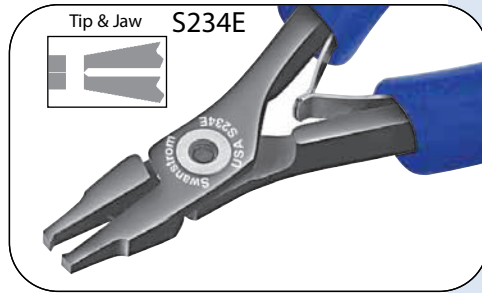
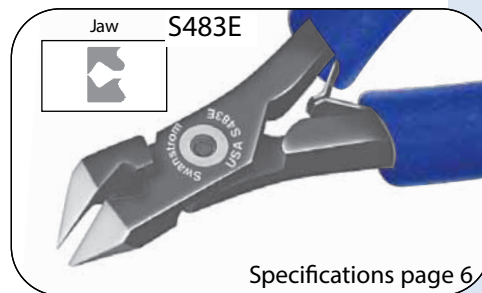
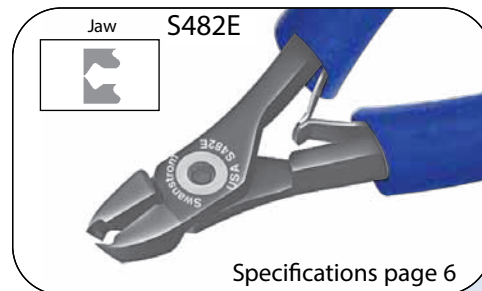
Transverse End and Long Nose Tip Cutters

Transverse End Cutters

Tool Numbers	Description				Overall		Jaw Length		Cutter Length	Tip Length	Tip Width	Thick
	ergo	short	head	edge	in	mm	ergo	short				
S233E	S233	LN	SF	.000	in	5.88	5.03	0.75	0.10	0.20	0.10	
				.000	mm	149	128	19	2.5	5	2.50	
S234E	S234	SN	F	.004	in	5.88	5.03	0.75	0.11	0.15	0.11	
				.100	mm	149	128	19	2.50	4	2.50	

Long Nose Tip Cutters

Tool Numbers	Description				Overall		Jaw Length		Cutter Length	Tip Length	Tip Width	Thick
	ergo	short	head	edge	in	mm	ergo	short				
S212E	S212	FN RE	SF	.000	in	5.99	5.14	0.86	0.17	0.15	0.10	
				.000	mm	152	131	22	4	4	0.25	
S213E	S213	RE	SF	.000	in	5.99	5.14	0.86	0.17	0.17	0.1	
				.000	mm	152	131	22	4	4	2.40	
S219E	S219	UF RE	SF	.000	in	5.99	5.14	0.86	0.17	0.13	0.08	
				.000	mm	152	131	22	4	3	2	
-	S291	LN SER	A		in	-	5.28	1.00	0.25	0.08	0.06	
					mm	-	134	25	6	2	1.50	
S350E	S350	SM	S		in	6.86	6.01	1.70	0.50	0.08	0.06	
					mm	174	153	43	13	2	1.50	
S351E	S351	SER	S		in	6.86	6.01	1.70	0.50	0.08	0.06	
					mm	174	153	43	13	2	1.50	
S391E	-	SER	S		in	6.16	-	1	0.50	0.23	0.23	
					mm	156	-	25	13	6	6	



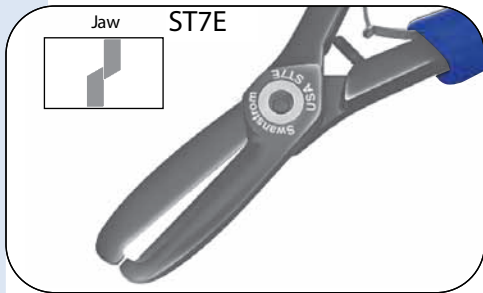
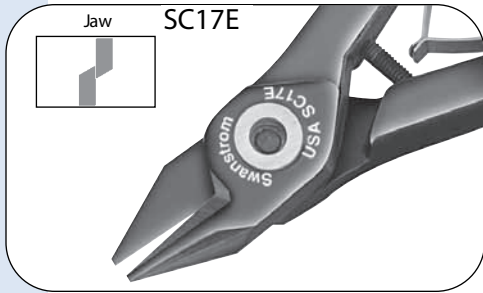
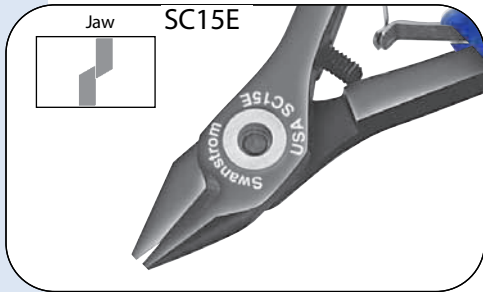
All tools ESD Safe (Static Dissipative)
Protects circuit components. Does not insulate. Do not use on live circuits!

Transverse End and Long Nose Tip Cutters



Shear Cutters and Strippers

Shear Cutters and Strippers



Shear Cutters

Tool Numbers	Description	Overall head	Overall edge	Jaw Length ergo	Cutter Length	Tip Length	Tip Width	Thick
SC5E	OvSC	S	in 6.41 mm 163	1.25 32	1.25 32	0.35 9	0.05 1.30	
SC7E	OvSC	S	in 8.29 mm 211	1.45 37	1.45 37	0.35 9	0.10 2.50	
SC15E	T SC	S	in 5.66 mm 144	0.50 13	0.50 13	0.06 1.4	0.05 1.30	
SC17E	T SC	S	in 7.50 mm 190	0.70 18	0.70 18	0.08 1.90	0.07 1.80	
ST5E	R ST	S	in 6.66 mm 169	1.50 38	1.25 32	0.33 8	0.20 5	
ST7E	R ST	S	in 8.47 mm 215	1.63 41	1.50 38	0.35 9	0.22 6	

Strippers

Tool Numbers	Description	Overall head	Overall edge	Jaw Length ergo	Cutter Length	Tip Length	Tip Width	Thick
SV5E	T V	S	in 5.79 mm 147	0.63 16	0.50 13	0.32 8	0.22 6	
SV5E-SP	T V BP	S	in 5.79 mm 147	0.63 16	0.50 13	0.32 8	0.22 6	
SV7E	Ov	S	in 8.29 mm 211	1.45 37	1.45 37	0.35 9	0.10 2.50	

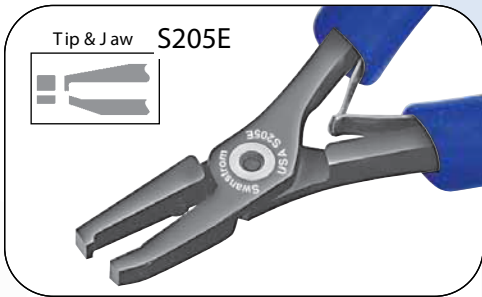
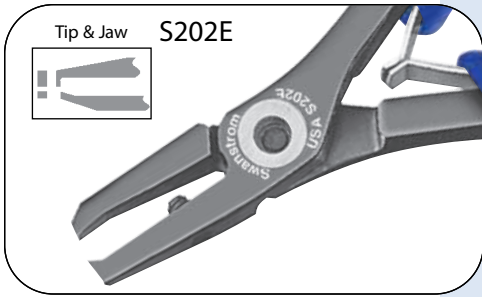
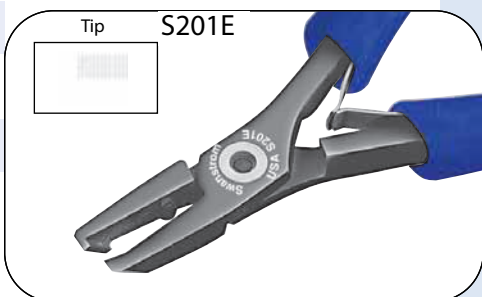
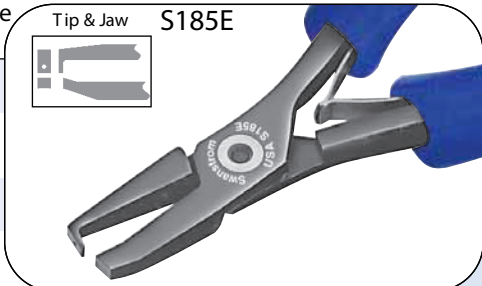


All tools ESD Safe (Static Dissipative)
Protects circuit components. Does not insulate. Do not use on live circuits!

Stand-Off Cutters

Stand-Off Cutters

Tool Numbers	Description				Overall Length ergo	Jaw Length short	Cutter Length	Tip Width	Tip Thick	Stand-Off Distance	
	short	head	edge								
S185E (lead stabilizing hole)	-	LSH	S	in	5.93	-	0.78	0.13	0.32	0.03	0.03
S201E	S201	45°	S	in	5.83	4.98	0.70	0.18	0.25	0.18	0.04
S202E	S202	UF LN	S	in	5.92	5.07	0.79	0.10	0.215	0.09	0.04
S203E	S203	LN	A	in	6.09	5.24	0.96	0.10	0.18	0.03	0.04
S205E	S205	LN	S	in	5.92	5.07	0.79	0.18	0.235	0.18	0.04
S205EB	S205B	BC	S	in	5.92	5.10	0.79	0.18	0.235	0.18	0.04
S605E	S605	LS	S	in	6.52	5.67	1.36	0.092	0.193	0.09	0.03
				mm	166	144	35	2	5	23	0.80

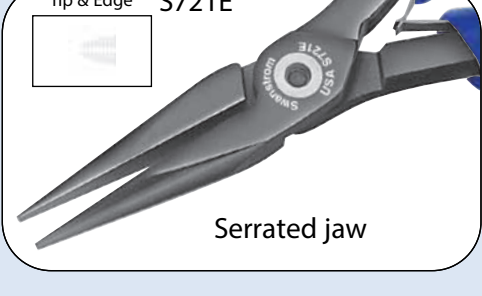
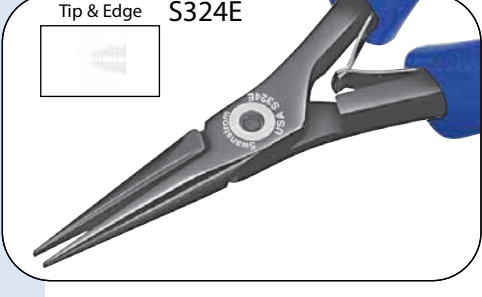
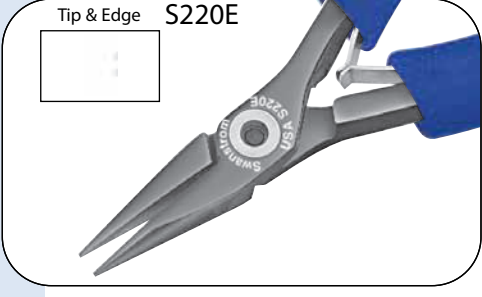
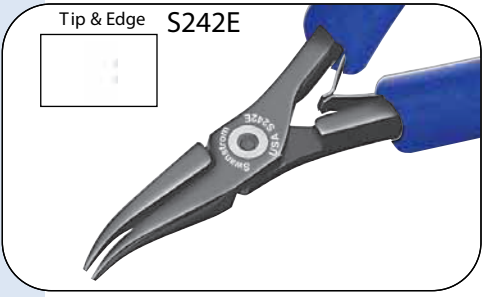
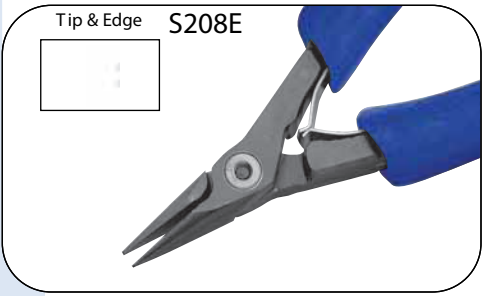


Stand-Off Cutters



Snipe (short) and Long Nose Pliers

Snipe (short) and Long Nose Pliers

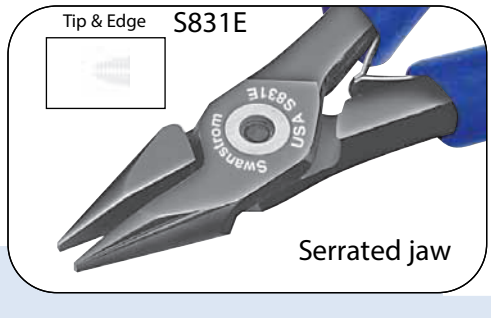


Snipe Nose Pliers

Tool Numbers		Description			Overall Length		Jaw Length	Tip Width	Tip Thick
ergo	short	head	jaw		ergo	short			
S108E	S108	MI	SM	in	6.00	4.61	0.88	0.05	0.03
				mm	152	117	22	1.10	0.80
S109E	S109	MI	SER	in	6.00	4.61	0.88	0.05	0.03
				mm	152	117	22	1.10	0.80
S206E	S206	MI	SM	in	5.58	4.73	0.45	0.05	0.03
				mm	142	120	11	1.10	0.80
S208E	S208	SU	SM	in	5.93	5.08	0.80	0.05	0.03
				mm	151	129	20	1.10	0.80
S209E	S209	SU	SER	in	5.93	5.08	0.80	0.05	0.03
				mm	151	129	20	1.10	0.80
S210E	S210	SNP	SM	in	5.93	5.08	0.80	0.06	0.03
				mm	151	129	20	1.50	0.80
S211E	S211	SNP	SER	in	5.93	5.08	0.80	0.06	0.03
				mm	151	129	20	1.50	0.80
S242E	S242	C	SM	in	6.03	5.18	0.90	0.07	0.04
				mm	153	132	23	1.80	1
S243E	S243	C	SER	in	6.03	5.18	0.90	0.07	0.04
				mm	153	132	23	1.80	1

Long Nose Pliers

Tool Numbers		Description			Overall Length		Jaw Length	Tip Width	Tip Thick
ergo	short	head	jaw		ergo	short			
S220E	S220	LN	SM	in	6.13	5.28	1.00	0.06	0.03
				mm	156	134	25	1.50	0.80
S221E	S221	LN	SER	in	6.13	5.28	1.00	0.06	0.03
				mm	156	134	25	1.50	0.80
SS221E	-	LN	SCR	in	6.13	-	1.00	0.06	0.03
				mm	156	-	25	1.50	0.80
S320E	S320	LN	SM	in	6.86	6.01	1.70	0.06	0.03
				mm	174	153	43	1.50	0.80
S321E	S321	LN	SER	in	6.86	6.01	1.70	0.06	0.03
				mm	174	153	43	1.50	0.80
S323E	-	LN	SER	in	6.86	-	1.70	0.06	0.06
				mm	174	-	43	1.60	1.60
S324E	S324	SL	SM	in	6.21	5.36	1.08	0.06	0.06
				mm	158	136	27	1.50	1.50
S325E	S325	SL	SER	in	6.21	5.36	1.08	0.06	0.06
				mm	158	136	27	1.50	1.50
S328E	S328	EL	SM	in	6.94	6.09	1.78	0.08	0.08
				mm	176	155	45	2	2
S329E	S329	EL	SER	in	6.94	6.09	1.78	0.08	0.08
				mm	176	155	45	2	2
S630E	S630	LN	SM	in	7.53	6.55	1.85	0.08	0.06
				mm	191	166	47	2	1.50
S631E	S631	LN	SER	in	7.53	6.55	1.85	0.08	0.06
				mm	191	166	47	2	1.50
S721E	-	LN	SER	in	8.94	-	2.13	0.13	0.13
				mm	227	-	54	3	3
S831E	-	LN	SER	in	7.94	-	1.10	0.09	0.09
				mm	202	-	28	2.40	2.40



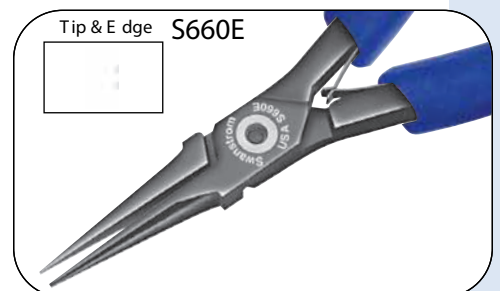
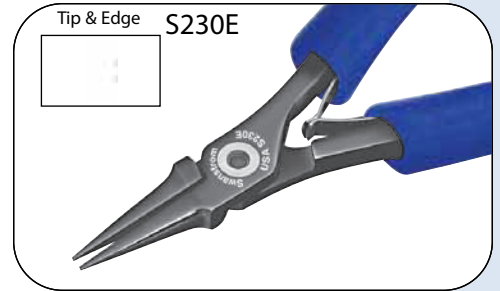
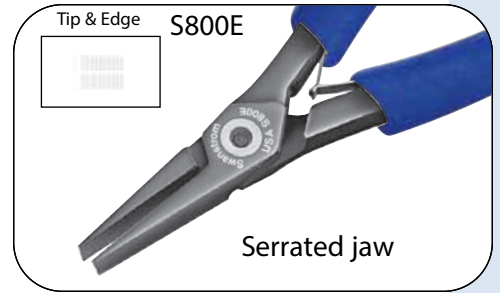
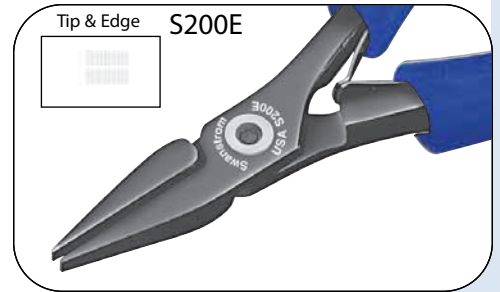
Flat, Needle, and Curve Nose Pliers

Flat Nose Pliers

Tool Numbers		Description			Overall Length		Jaw Length	Tip Width	Tip Thick
ergo	short	head	SM	in	ergo	short			
S200E	S200	FLN	SM	in	6.13	5.28	1.00	0.05	0.12
				mm	156	134	25	1.30	3
S300E	S300	FLN	SM	in	6.86	6.01	1.70	0.05	0.12
				mm	174	153	43	1.30	3
S380EPR-		FLN	SM	in	7.64	-	1.00	0.05	0.12
(pistol grip)				mm	194	-	-	25	1.30
S800E	-	FLN	SER	in	8.21	-	1.25	0.14	0.40
				mm	209	-	32	3.50	10

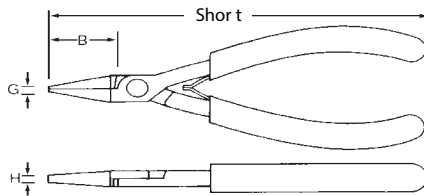
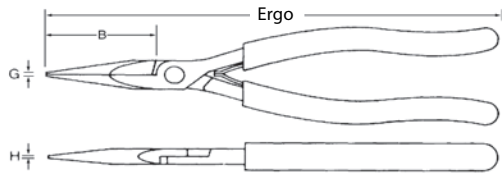
Needle Nose Pliers

Tool Numbers		Description			Overall Length		Jaw Length	Tip Width	Tip Thick
ergo	short	head	SM	in	ergo	short			
S230E	S230	NN	SM	in	6.13	5.28	1.00	0.06	0.03
				mm	156	134	25	1.50	0.80
S231E	S231	NN	SER	in	6.13	5.28	1.00	0.06	0.03
				mm	156	134	25	1.50	0.80
S240E	S240	C	SM	in	5.93	5.08	0.80	0.06	0.03
				mm	151	129	20	1.5	0.80
S330E	S330	NN	SM	in	6.86	6.01	1.70	0.06	0.03
				mm	174	153	43	1.50	0.80
S331E	S331	NN	SER	in	6.86	6.01	1.70	0.06	0.03
				mm	174	153	43	1.50	0.80
S331E-1	-	NN	SER	in	6.86	-	1.70	0.09	0.06
				mm	174	-	43	2.30	1.50
S330AE	S330A	EL	SM	in	7.35	6.50	2.19	0.06	0.06
				mm	187	165	56	1.60	1.60
S340E	S340	C	SM	in	6.56	5.71	1.40	0.06	0.03
				mm	167	145	36	1.50	0.80
S340AE	-	90° EL	SM	in	6.21	-	1.05	0.06	0.06
		C		mm	158	-	27	1.60	1.60
S341E	S341	C	SER	in	6.21	5.71	1.40	0.06	0.03
				mm	158	145	36	1.50	0.80
S660E	S660	NN	SM	in	7.53	6.45	1.85	0.08	0.80
				mm	191	164	47	2	1.50
S661E	S661	NN	SER	in	7.53	6.45	1.85	0.08	0.06
				mm	191	164	47	2	1.50



Ergonomic Handles

Traditional Handles



Ergo Overall Length
 Short Overall Length
 B Jaw Length
 G Tip Width
 H Tip Thickness

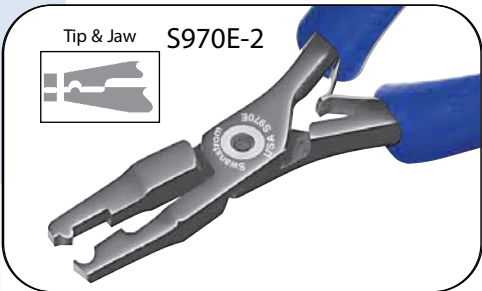
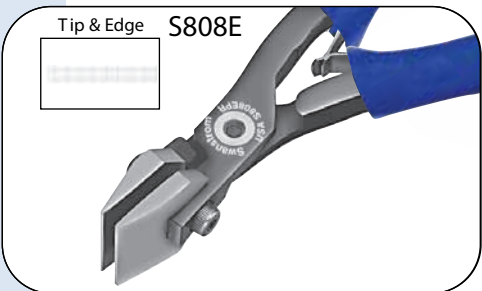
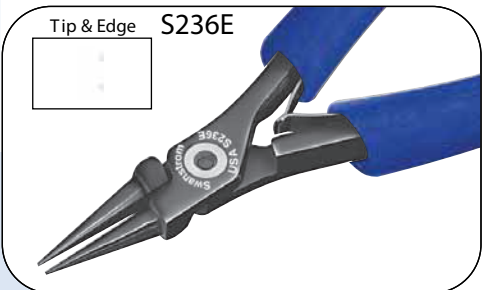


All tools ESD Safe (Static Dissipative)
 Protects circuit components. Does not insulate. Do not use on live circuits!



Round Nose, Straightening, and Forming Pliers

Round Nose, Straightening, and Forming Pliers



Round Nose Pliers

Tool Numbers	Description				Overall Length		Jaw Length	Tip Width	Tip Thick
	ergo	short	head	jaw	ergo	short			
S236E	S236	RN	SM	in	6.13	5.28	1.00	0.06	0.03
				mm	156	134	25	1.50	0.80
S238E	S238	RN	SM	in	5.60	4.75	0.63	0.06	0.03
				mm	142	-	16	1.50	0.80

Straightening Pliers

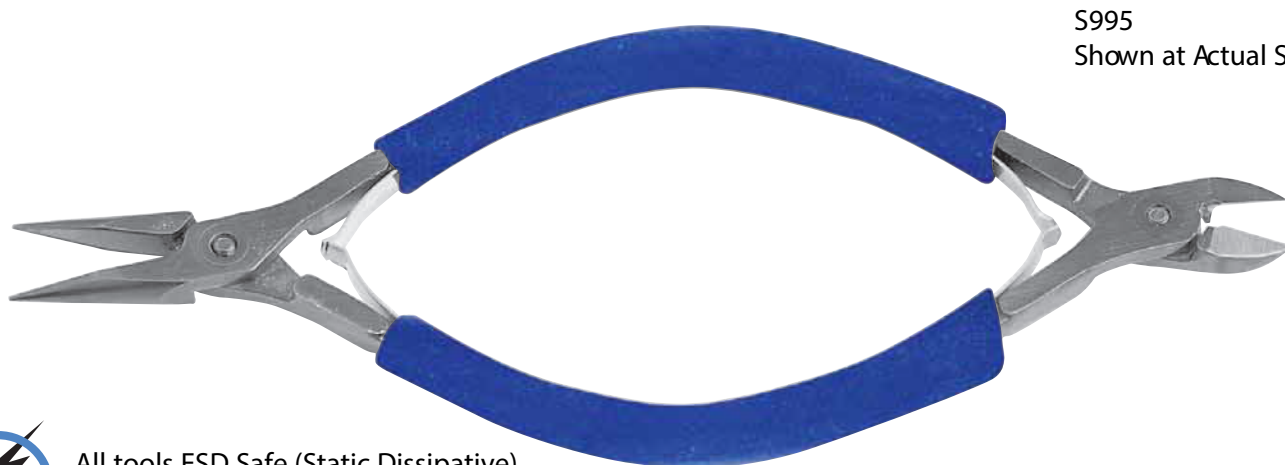
Tool Numbers	Description				Overall Length		Jaw Length	Tip Width	Tip Thick
	ergo	short	head	jaw	ergo	short			
S808E	-	-	SM	in	6.06	-	0.90	0.06	0.75
				mm	154	-	23	1.50	19

Forming Pliers

Tool Numbers	Description				Overall Length		Jaw Length	Tip Width	Tip Thick
	ergo	short	head	jaw	ergo	short			
S195E	-	LN	-	in	6.26	-	1.00	0.09	0.03
				mm	159	-	25	2.30	0.80
S970E-2	-	STR	S	in	6.25	-	1.09	0.27	0.13
				mm	159	-	27	6.90	3.30
S980E	S980	CV/CX	SM	in	5.88	5.03	1.00	0.11	0.14
				mm	149	128	25	2.80	3.60
S986E	-	F/R	SM	in	6.13	-	1.00	0.11	0.14
				mm	156	-	25	2.80	3.60
S990E	S990	STR	-	in	6.19	5.34	1.03	0.17	0.13
				mm	157	136	26	4.30	3.30
S991E	-	D STR	-	in	6.39	-	1.23	0.75	0.38
				mm	162	-	31	19	9.50

Double Ended Pliers

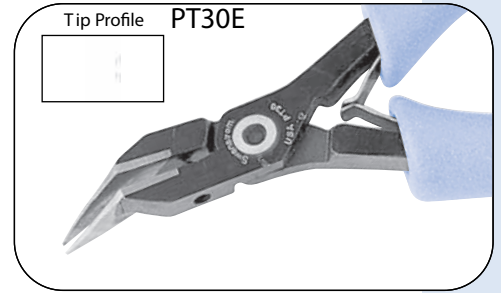
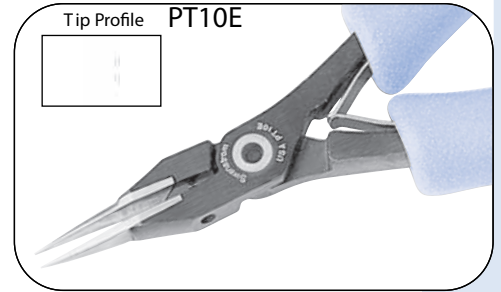
Tool Numbers	Description		Overall Length		Jaw Length		Tip Width		Tip Thick	
S995	DE	in	7.50	0.53	Cutter	Plier	Cutter	Plier	Cutter	Plier
	Cutter/Pier	mm	191	13	22	6	1.10	0.80	0.80	
	Round	Flat	Round	Flat	Round	Flat				
S996	DE	in	7.75	0.75	0.80	0.06	0.05	0.03	0.11	
	Round Nose /Flat Nose	mm	197	19	20	1.50	1.30	0.80	2.80	



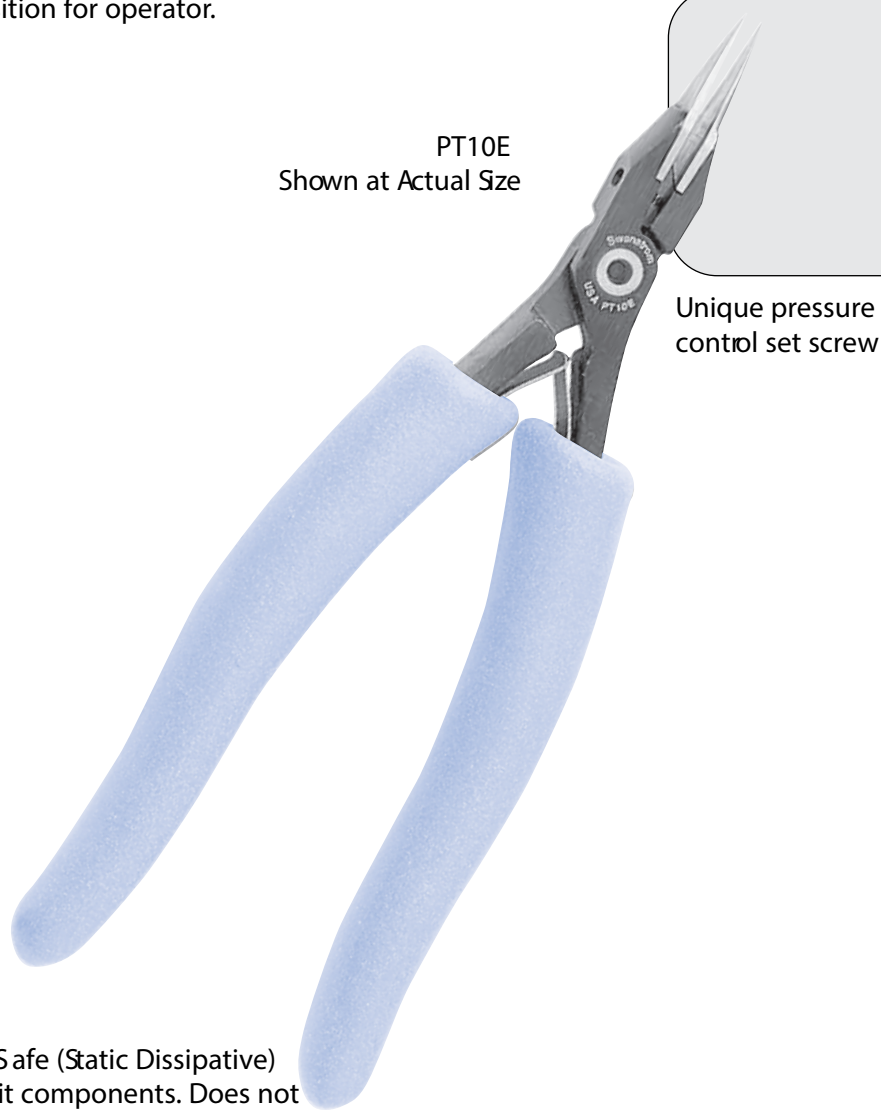
All tools ESD Safe (Static Dissipative)
Protects circuit components. Does not insulate. Do not use on live circuits!

Plazers

Plazers Part	Jaw/Head Type		Overall length	Jaw Length	Width at Joint	Thick at Joint	Handle Width
PT10	Straight Smooth	in	5.50	1.27	0.40	0.25	2
		mm	140	32	10	6	51
PT11	Straight Serrated	in	5.50	1.27	0.40	0.25	2
		mm	140	32	10	6	51
PT30	Bent Smooth	in	5.10	0.93	0.40	0.25	2
		mm	130	24	10	6	51
PT31	Bent Serrated	in	5.10	0.93	0.40	0.25	2
		mm	130	24	10	6	51
PT10E	Straight Smooth	in	6.40	1.27	0.40	0.25	1.75
		mm	163	32	10	6	44
PT11E	Straight Serrated	in	6.40	1.27	0.40	0.25	1.75
		mm	163	32	10	6	44
PT30E	Bent Smooth	in	6.10	0.93	0.40	0.25	1.75
		mm	155	24	10	6	44
PT31E	Bent Serrated	in	6.10	0.93	0.40	0.25	1.75
		mm	155	24	10	6	44



Swanstrom, first in the world to bring tweezer precision, stainless, anti-magnetic, and ESD safe ergo handles to bear on the work without the uncomfortable pinch position for operator.



PT10E
Shown at Actual Size

Unique pressure control set screw



All tools ESD Safe (Static Dissipative)
Protects circuit components. Does not insulate. Do not use on live circuits!

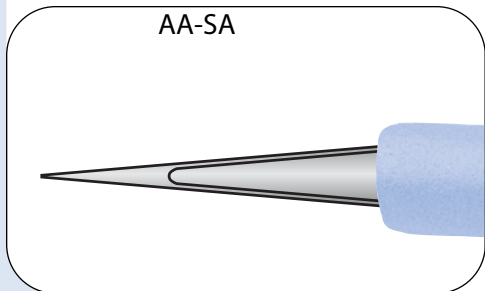


Swanstrom, first in the world to ergonomicize tweezers, and thereby render them ESD safe.

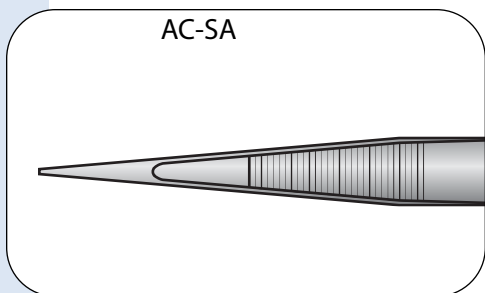
Part	Description	Size in	Size mm
AA-SAH	Fine Strong Tips	4.75	120
AC-SAH	Thick Short Tips	4.25	110
MM-SAH	Strong Multi Purpose	5.00	125
OO-SAH	Strong Thick Smooth Tips	4.75	120
OOD-SAH	Strong Thick Serrated Tips	4.75	120
2H	Fine Point Tapered Tips	4.50	115
2A-SAH	Rounded Flat Tips	4.50	115
3-SAH	Fine Tips	4.75	120
3C-SAH	Narrow Fine Tips	4.25	110
5A-SAH	Extra Fine, Very Sharp Tips	4.50	115
5-SAH	Extra Fine, Very Sharp Tips	4.50	115
7-SAH	Curved, Very Fine Tips	4.50	115
7-SADH	Curved, Serrated Tips	4.50	115
21-SAH	Strong Rounded Tips	6.25	159
24-SAH	Fine Bent Tips	6.00	152

Swanstrom's standard foamed tweezers are ESD safe. For no foam drop suffix "H". For serrations add suffix "D"

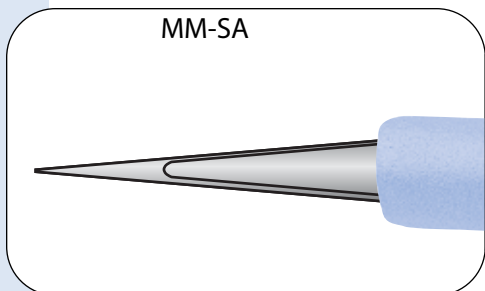
AA-SA



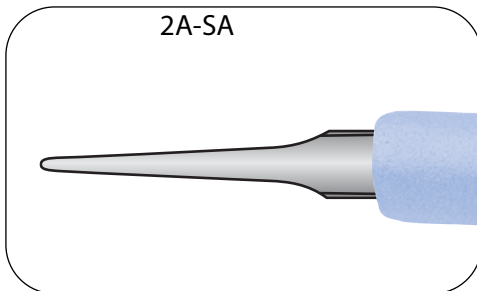
AC-SA



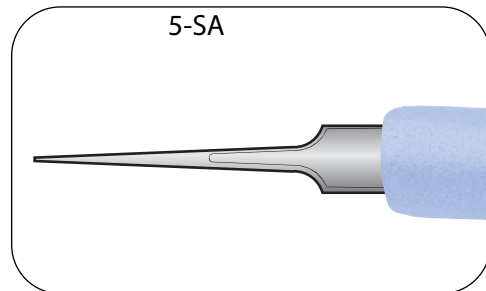
MM-SA



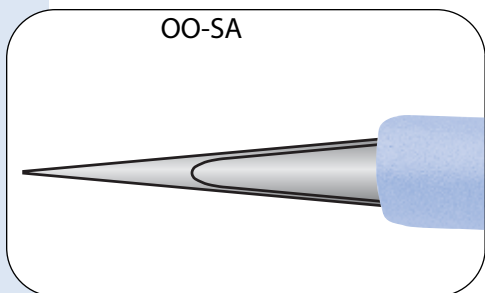
2A-SA



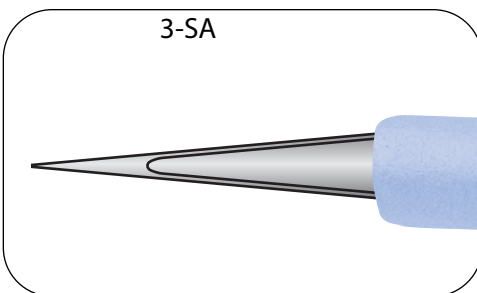
5-SA



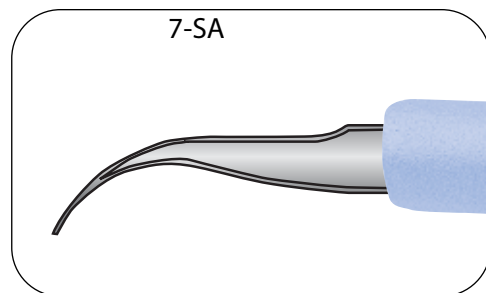
OO-SA



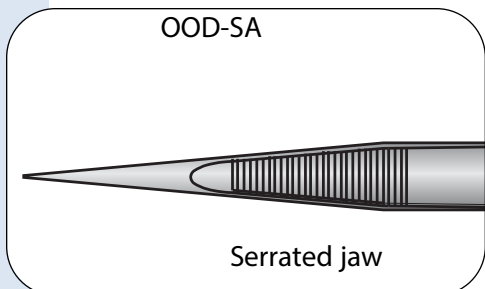
3-SA



7-SA

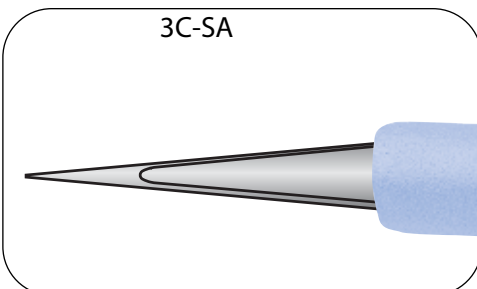


OOD-SA

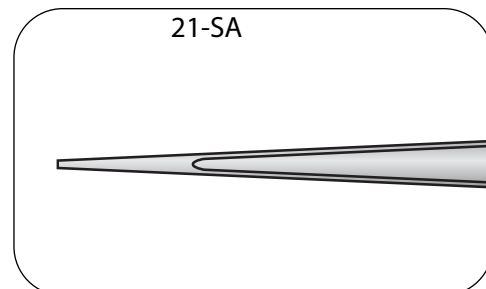


Serrated jaw

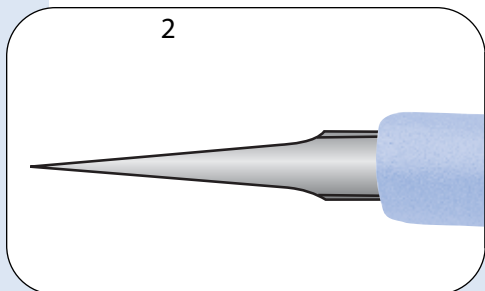
3C-SA



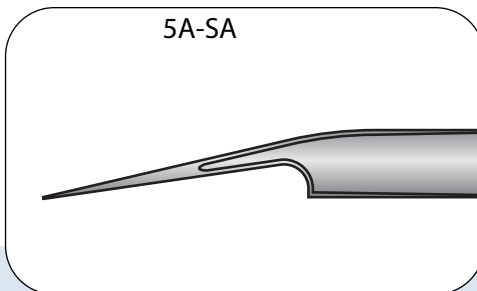
21-SA



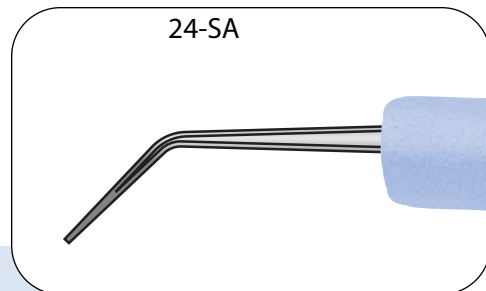
2



5A-SA

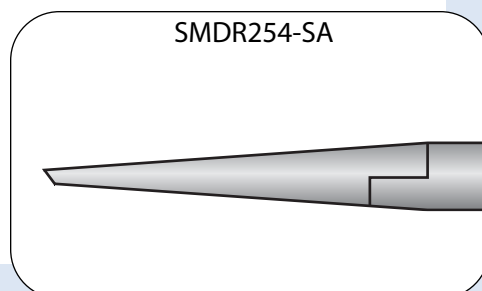
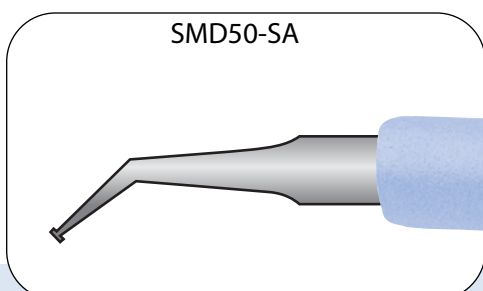
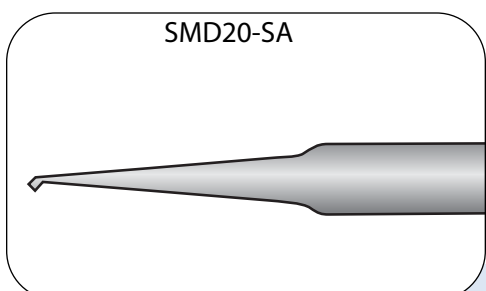
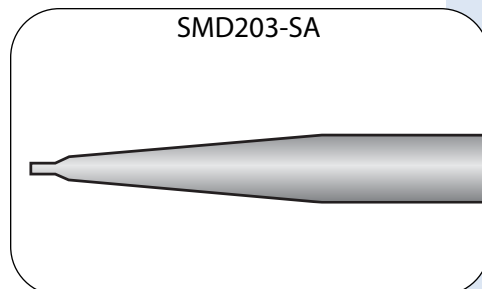
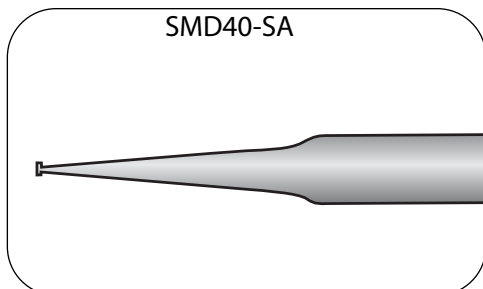
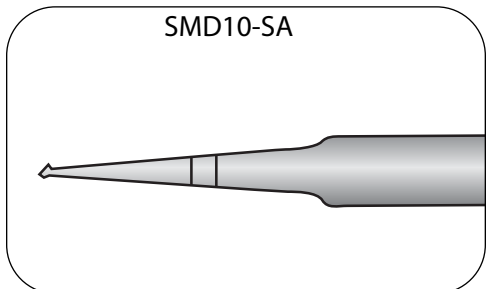
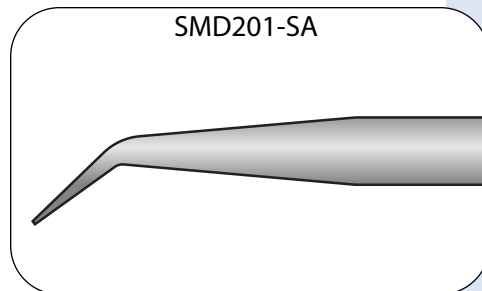
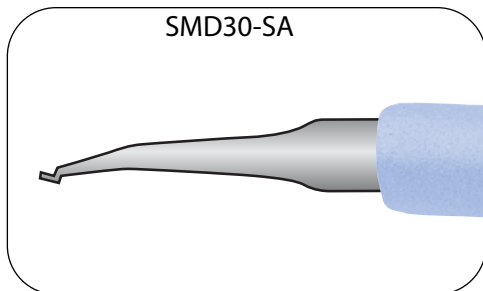
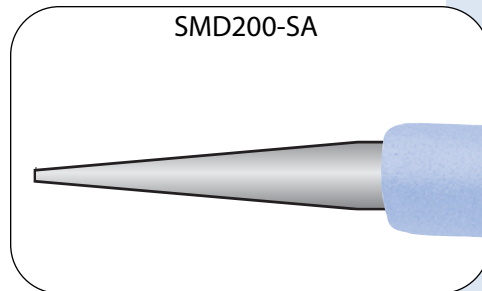
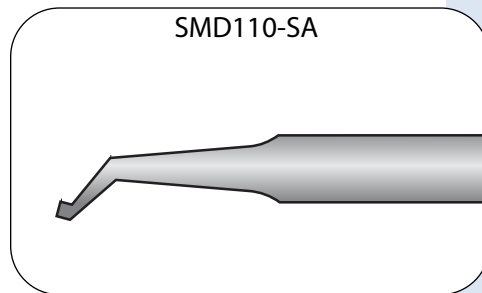
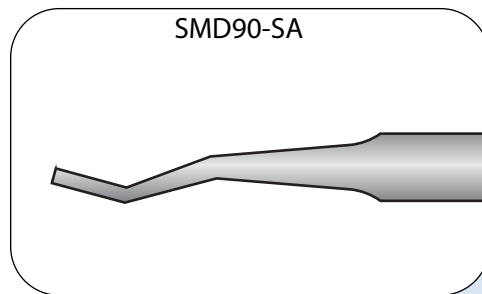
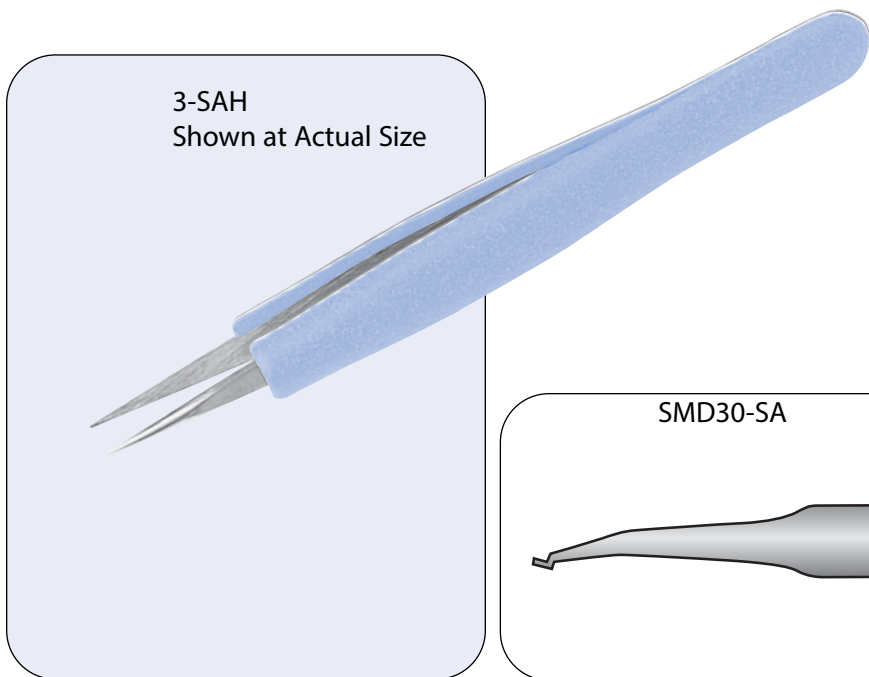


24-SA



SMD Tweezers

Part	Description	Size in Size mm	
SMD10-SA	Groove Tips w/ Anti Crush Control	4.75	120
SMDR10-SA	Groove Tips w/ Anti Crush Control	4.75	120
SMD20-SA	Groove Tips	4.75	120
SMD30-SA	Horizontal Tips	4.75	120
SMDR30-SA	Horizontal Tips, Reverse Action	4.75	120
SMD40-SA	Vertical Placement	4.75	120
SMD50-SA	45° Angle Tips	4.75	120
SMD90-SA	Placing at 60°	4.75	120
SMD110-SA	Tips Relieved	4.75	120
SMD200-SA	Fine Relieved Tips	4.75	120
SMD201-SA	Curved Fine Relieved Tips	4.75	120
SMD203-SA	Narrow Relieved Tips	4.75	120
SMDR254-SA	Angled Flat Tip w/ Inside Relieve	4.50	115



SMD Tweezers

Distributor Label Here