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## TWEEZERS MATERIALS

No Suffix = Carbon Steel

**-S** = Stainless Steel

**-SA** = Stainless Antiacid Antimagnetic Steel

**-N** = Nickel Silver

**-NI** = Nickel Plated

**-PB** = Phosphorus Bronze

**-BR** = Brass

Example :

**3C**

**3C-S**

**3C-SA**

**11-N**

**AA-Ni**

**3C-PB**

**3C-BR**

## COATINGS

**-TE** = TEFLON Coating (page 6)

Temperature resistance up to 280°C/520°F

Available on all Steel Tweezers

Example :

**2A-SA-TE**

**-HTC** = HTC Coating (page 7)

High temperature resistance up to 620°C/1150°F

Available on all Steel Tweezers

**2A-SA-HTC**

**ERGO-...** = Ergonomic Foam Coating (page 8)

Ergonomic Static Dissipative Foam Coating

Available on all Steel Tweezers

**ERGO-2A-SA**

**-EX** = Black EPOXY Coating (page 9)

Black Epoxy coating, prevents corrosion

Available on Cutting Tweezers series with EZ Lever

Available on PRIME-X Line Steel Tweezers

**2A-SA-EX**

## STEEL TWEEZERS' SIX GRADES (pages 12-20)

**.../BM** = Medical Line - BIO MED

**.../T** = Biology Line - BIO-TECH

**.../S** = High Tech Electronic Line - ZENITH

**.../E** = Electronic Line - PREMIUM

**.../P** = Low Cost PRIME-X Line

**SL.../P** = SUPER LIGHT PRIME-X Line

Example :

**3C-SA/BM**

**3C-SA/T**

**3C-SA/S**

**3C-SA/E**

**3C-SA/P**

**SL3C-SA/P**

## OPTIONS

Prefix **R** = Reverse Action Tweezers (pages 21, 22 & 33)

Suffix **-D** = Inside Serrated Tips

Suffix **-AP** = Adjustable Pressure(see below)

Example :

**R2A-SA**

**2A-SA-D**

**R2A-SA-AP**



## WHAT IS EZ LEVER ? (pages 38-40)

Supreme Ergonomic Tool design

EZ Lever makes cutting and handling much "easier"

EZ Lever is perfect for either right or left handed operators

EZ Lever enables better visibility and access

EZ Lever reduces fatigue

EZ Lever fits on all cutting tweezers as well as on steel tweezers

Suffix **-EZ** = Ergonomic EZ Lever(see below)

Example :

**3C-SA-EZ**



## ERGONOMIC ANTI-FATIGUE EZ LEVER



**EZ-5-ESD**



**EZ-3-ESD**



**EZ-2-ESD**



**EZ-1-ESD**

**MINI STEEL TWEEZERS** (pages 10-11)  
Very small, light weight, ergonomic design

**NICKEL PLATED SERRATED TIPS TWEEZERS** (page 23)  
Stainless Steel, Hardened Tip

**BRASS TWEEZERS** (page 24)  
Anti-Sparking Solid Brass  
Soft, for handling delicate parts

**WAFERS AND CDs HANDLING TWEEZERS** (pages 25-29)  
Stainless Antiacid Antimagnetic Steel  
Large range for handling any Wafers' sizes

**SMD TWEEZERS** (pages 30-33)  
Specially designed for Surface Mounted Devices  
Excellent for handling chips, ceramic devices and all small parts.  
Stainless Antiacid Antimagnetic Steel

**COMPONENTS HANDLING TWEEZERS** (pages 34-35)  
Stainless Antiacid Antimagnetic Steel  
Insertion-Extraction Tools

**MICRO CUTTING TWEEZERS** (page 36)  
Stainless Antiacid Antimagnetic Steel  
The largest choice for micro wires

**FLUSH CUTTING TWEEZERS** (pages 37-40)  
Hardened Polished Carbon Steel  
Black Epoxy Coated with EZ Lever

**PLASTIC TWEEZERS** (pages 41-42)  
Light weight, Light cost, 7 models, 28 versions  
Heat resistance 464°F - 240°C  
White Delrin 500  
Grey Static Dissipative  
Black Static Dissipative  
Black Conductive

**MINI SPATULAS** (page 44)  
Oilers, standard or ESD Safe  
Wide Variety of Applications

**SCISSORS** (pages 45-47)  
Stainless Steel, Shiny Polished

**FORCEPS** (pages 48-50)  
Stainless Steel, Shiny Polished  
Plastic Coated or Shiny Polished Handles

**SCALPEL HANDLES AND BLADES** (page 51)  
Stainless Steel  
Wide Variety of Blades and Handles

**SPATULAS, KNIVES, MIRRORS** (page 52)  
Stainless Steel  
For General Purpose

**MICRO SCREWDRIVERS** (page 53)  
Flat and Cross Blades

**VACUUM PICK-UP TOOLS AND ACCESSORIES** (pages 55-78)  
Wide range of Self-contained and Continuous Vacuum Tools, with Accessories

**DESOLDERING BRAIDS** (page 79)  
Complete catalog available upon request

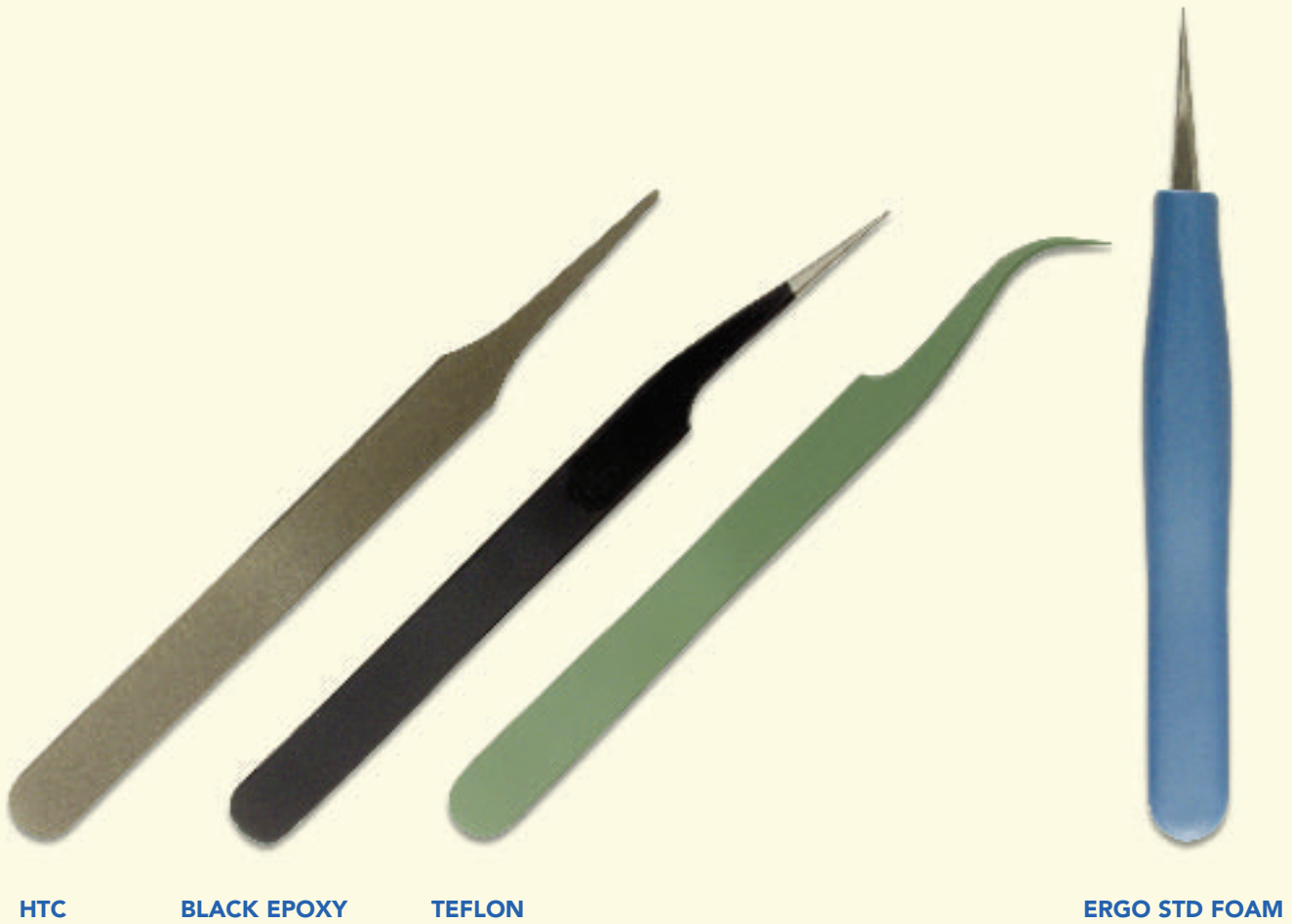
**R&R LOTIONS & CONTAINERS** (page 80)  
Complete catalog available upon request

# 4 NEW COATINGS FOR TWEEZERS

Available on All Steel Tweezers



Switzerland



## HTC

Suf: **-HTC** High Temperature Coating Resistance up to 620°C / 1150°F

## BLACK EPOXY

Suf: **-EX** Epoxy Coating 5 mil

## TEFLON

Suf: **-TE** Temperature Coating Resistance up to 280°C / 520°F

## ERGO STD FOAM

Préf: **ERGO-** Ergonomic Static Dissipative Foam Coating

# TEFLON COATING

















Available on All Steel Tweezers

Temperature coating resistance up to 280°C / 520°F

Suf: -TE



Switzerland

<p><b>2A-SA-TE</b>                    120 mm - 4<sup>3</sup>/<sub>4</sub>"</p> <p>-Very Popular Flat Tips</p>	 <p>* 2.0mm - .078"</p>	
<p><b>3C-SA-TE</b>                    110 mm - 4<sup>1</sup>/<sub>4</sub>"</p> <p>-Narrow Fine Tips</p>	 <p>* 0.25mm - .0098"</p>	
<p><b>7-SA-TE</b>                    120 mm - 4<sup>3</sup>/<sub>4</sub>"</p> <p>-Curved Very Fine Tips</p>	 <p>* 0.4mm - .0157"</p>	
<p><b>37S-SA-1-TE</b>                125 mm - 5"</p> <p>-For Wafers and Round Part -2 Prongs</p>	 <p>* 7.0mm - .275"</p>	
<p><b>300W-SA-TE</b>                125 mm - 5"</p> <p>-For 3" Wafers and Round Parts -3 Prongs</p>	 <p>* 9.0mm - .355"</p>	
<p><b>400W-SA-TE</b>                125 mm - 5"</p> <p>-For 4" Wafers and CD -4 Prongs</p>	 <p>* 12.5mm - .492"</p>	
<p><b>500W-SA-TE</b>                125 mm - 5"</p> <p>-For 5" Wafers and CD -5 Prongs</p>	 <p>* 16.0mm - .629"</p>	
<p><b>600W-SA-TE</b>                125 mm - 5"</p> <p>-For 6" Wafers and CD -6 Prongs</p>	 <p>* 19.50mm - .767"</p>	

# HTC COATING





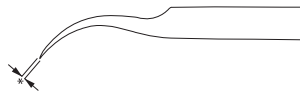




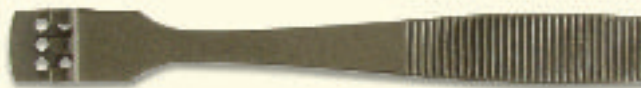






Available on All Steel Tweezers

High Temperature Coating Resistance up to 620°C / 1150°F

Suf: -HTC



Switzerland

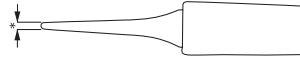

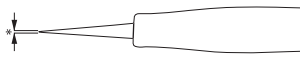

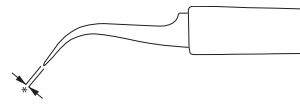

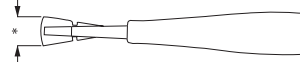

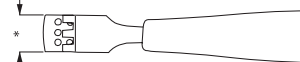

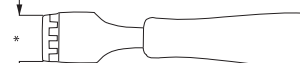

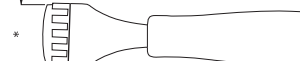



<p><b>2A-SA-HTC</b>            120 mm - 4<sup>3</sup>/<sub>4</sub>"</p> <p>-Very Popular Flat Tips</p>	 <p>* 2.0mm - .078"</p>	
<p><b>3C-SA-HTC</b>            110 mm - 4<sup>1</sup>/<sub>4</sub>"</p> <p>-Narrow Fine Tips</p>	 <p>* 0.25mm - .0098"</p>	
<p><b>7-SA-HTC</b>            120 mm - 4<sup>3</sup>/<sub>4</sub>"</p> <p>-Curved Very Fine Tips</p>	 <p>* 0.4mm - .0157"</p>	
<p><b>37S-SA-1-HTC</b>        125 mm - 5"</p> <p>-For Wafers and Round Parts -2 Prongs</p>	 <p>* 7.0mm - .275"</p>	
<p><b>39S-SA-3-HTC</b>        125 mm - 5"</p> <p>-For Wafers and Round Parts -3 Prongs -6 Holes</p>	 <p>* 9.0mm - .355"</p>	
<p><b>400W-SA-HTC</b>        125 mm - 5"</p> <p>-For 4" Wafers and CD -4 Prongs</p>	 <p>* 12.5mm - .492"</p>	
<p><b>500W-SA-HTC</b>        125 mm - 5"</p> <p>-For 5" Wafers and CD -5 Prongs</p>	 <p>* 16.0mm - .629"</p>	
<p><b>600W-SA-HTC</b>        125 mm - 5"</p> <p>-For 6" Wafers and CD -6 Prongs</p>	 <p>* 19.50mm - .767"</p>	

# ERGO STD FOAM COATING



Switzerland

Available on All Steel Tweezers  
Ergonomic Static Dissipative Foam Coating  
Pref: ERGO-

<p><b>ERGO-2A-SA</b>      120 mm - 4<sup>3</sup>/<sub>4</sub>"</p> <p>-Very Popular Flat Tips</p>	 <p>* 2.0mm - .078"</p>	
<p><b>ERGO-3C-SA</b>      110 mm - 4<sup>1</sup>/<sub>4</sub>"</p> <p>-Narrow Fine Tips</p>	 <p>* 0.25mm - .0098"</p>	
<p><b>ERGO-7-SA</b>      120 mm - 4<sup>3</sup>/<sub>4</sub>"</p> <p>-Curved Very Fine Tips</p>	 <p>* 0.20mm - .0078"</p>	
<p><b>ERGO-37S-SA-1</b>      125 mm - 5"</p> <p>-For Wafers and Round Parts -2 Prongs</p>	 <p>* 7.0mm - .275"</p>	
<p><b>ERGO-39S-SA-3</b>      125 mm - 5"</p> <p>-For Wafers and Round Parts -3 Prongs -6 Holes</p>	 <p>* 9.0mm - .355"</p>	
<p><b>ERGO-400W-SA</b>      125 mm - 5"</p> <p>-For 4" Wafers and CD -4 Prongs</p>	 <p>* 12.5mm - .492"</p>	
<p><b>ERGO-500W-SA</b>      125 mm - 5"</p> <p>-For 5" Wafers and CD -5 Prongs</p>	 <p>* 16.0mm - .629"</p>	
<p><b>ERGO-600W-SA</b>      125 mm - 5"</p> <p>-For 6" Wafer and CD -6 Prongs</p>	 <p>* 19.50mm - .767"</p>	



# BLACK EPOXY COATING

















Available on All Steel Tweezers

Epoxy Coating 5 mils Suf: -EX

One Grade Available: -PRIME-X, Suffix /P Example: 2A-SA-EX/P



Switzerland

<p><b>2A-SA-EX/P</b>      120 mm - 4<sup>3</sup>/<sub>4</sub>"</p> <p>-Very Popular Flat Tips</p>	 <p>* 2.0mm - .078"</p>	
<p><b>2AB-SA-EX/P</b>      120 mm - 4<sup>3</sup>/<sub>4</sub>"</p> <p>-Curved Flat Tips</p>	 <p>* 2.0mm - .078"</p>	
<p><b>3-SA-EX/P</b>      120 mm - 4<sup>3</sup>/<sub>4</sub>"</p> <p>-Fine Tips</p>	 <p>* 0.25mm - .0098"</p>	
<p><b>3C-SA-EX/P</b>      110 mm - 4<sup>1</sup>/<sub>4</sub>"</p> <p>-Narrow Fine Tips</p>	 <p>* 0.25mm - .0098"</p>	
<p><b>5-SA-EX/P</b>      110 mm - 4<sup>1</sup>/<sub>4</sub>"</p> <p>-Extra Fine, Very Sharp Tips</p>	 <p>* 0.20mm - .0078"</p>	
<p><b>5A-SA-EX/P</b>      120 mm - 4<sup>3</sup>/<sub>4</sub>"</p> <p>- Extra Fine, Very Sharp Tips</p>	 <p>* 0.35mm - .014"</p>	
<p><b>7-SA-EX/P</b>      115 mm - 4<sup>1</sup>/<sub>2</sub>"</p> <p>-Curved Very Fine Tips</p>	 <p>* 0.20mm - .0078"</p>	
<p><b>AA-SA-EX/P</b>      125 mm - 5"</p> <p>-Fine Strong Tips</p>	 <p>* 0.50mm - .020"</p>	

# MINI TWEEZERS

Stainless Antiacid Antimagnetic Steel



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Very Light Ergonomic Micro Tweezers

Two Grades Available:

ZENITH, Suffix /S

PRIME-X, Suffix /P

Example: MAC-SA/P



## MAC-SA

80 mm – 3<sup>2</sup>/<sub>16</sub>"

-Thick Short Tips



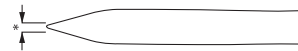
\* 0.30mm - .012"



## MH-SA

85 mm – 3<sup>5</sup>/<sub>16</sub>"

-Very Strong Tips



\* 0.50mm - .020"



## MHD-SA

80 mm – 3<sup>2</sup>/<sub>16</sub>"

-Very Strong Tips



\* 0.50mm - .020"



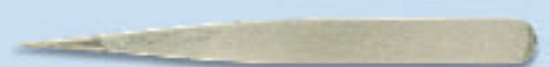
## MOC-SA

70 mm – 2<sup>3</sup>/<sub>4</sub>"

-Strong Short Tips



\* 0.40mm - .0157"



## MOOD-SA

85 mm – 3<sup>5</sup>/<sub>16</sub>"

-Strong Thick Serrated Tips



\* 0.40mm - .0157"



# MINI TWEEZERS

Stainless Antiacid Antimagnetic Steel



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Two Grades available: ZENITH, Suffix /S  
 PRIME-X, Suffix /P  
 Example: M3C-SA/S

<p><b>MSS-SA</b>                    90 mm – 3<sup>9</sup>/<sub>16</sub>"</p> <p>-Very Fine Long Tips</p>	 <p>* 0.35mm - .014"</p>	
<p><b>M2-SA</b>                    85 mm – 3<sup>5</sup>/<sub>16</sub>"</p> <p>-Medium Flat Tips</p>	 <p>* 0.50mm - .020"</p>	
<p><b>M2A-SA</b>                    70 mm – 2<sup>3</sup>/<sub>4</sub>"</p> <p>-Very Popular Flat Tips</p>	 <p>* 2.0mm - .078"</p>	
<p><b>M3C-SA</b>                    70 mm – 2<sup>3</sup>/<sub>4</sub>"</p> <p>-Narrow Fine Tips</p>	 <p>* 0.25mm - .0098"</p>	
<p><b>M4-SA</b>                    70 mm – 2<sup>3</sup>/<sub>4</sub>"</p> <p>-Very Fine Tips</p>	 <p>* 0.30mm - .0127"</p>	
<p><b>M4A-SA</b>                    85 mm – 3<sup>5</sup>/<sub>16</sub>"</p> <p>-Fine Tips</p>	 <p>* 0.40mm - .0157"</p>	
<p><b>M5-SA</b>                    80 mm – 3<sup>2</sup>/<sub>16</sub>"</p> <p>-Extra Fine Tips</p>	 <p>* 0.20mm - .0078"</p>	
<p><b>M7-SA</b>                    95 mm – 3<sup>3</sup>/<sub>4</sub>"</p> <p>-Curved Very Fine Tips</p>	 <p>* 0.20mm - .0078"</p>	

Other Models Available Upon Request

# STEEL TWEEZERS

Stainless Antiacid Antimagnetic Steel

Six Grades Available

BIO-MED, Suffix /BM

PREMIUM, Suffix /E

BIO-TECH, Suffix /T

PRIME-X, Suffix /P




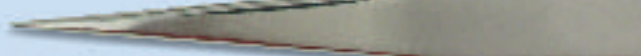











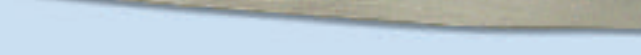

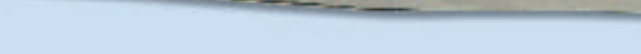
ZENITH, Suffix /S

SL PRIME-X, Prefix SL...

Example: AA-SA/T



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<p><b>A-SA</b> 115 mm – 4 1/2"</p> <p>-Fine Straight</p>	 <p>* 0.40mm - .0157"</p>	
<p><b>AA-NI</b> 125 mm – 5"</p> <p>-Fine Strong Tips -Nickel Plated</p>	 <p>* 0.40mm - .0157"</p>	
<p><b>AA-SA</b> 125 mm - 5"</p> <p>-Fine Strong Tips</p>	 <p>* 0.40mm - .0157"</p>	
<p><b>AC-SA</b> 110 mm – 4 1/4"</p> <p>-Fine Strong Tips</p>	 <p>* 0.30mm - .012"</p>	
<p><b>GG-SA</b> 125 mm - 5"</p> <p>-Very Fine Tips</p>	 <p>* 0.40mm - .0157"</p>	
<p><b>HH-NI</b> 110 mm – 4 1/4"</p> <p>-Strong Tips -Nickel Plated</p>	 <p>* 0.40mm - .0157"</p>	
<p><b>MM-NI</b> 125 mm – 5"</p> <p>-Strong Multipurpose -Nickel Plated</p>	 <p>* 0.50mm - .020"</p>	
<p><b>MM-SA</b> 125 mm – 5"</p> <p>-Strong Multipurpose</p>	 <p>* 0.50mm - .020"</p>	
<p><b>NN-NI</b> 125 mm – 5"</p> <p>-Fine Tips -Nickel Plated</p>	 <p>* 0.50mm - .020"</p>	

# STEEL TWEEZERS

Stainless Antiacid Antimagnetic Steel

Six Grades Available

BIO-MED, Suffix /BM

BIO-TECH, Suffix /T

ZENITH, Suffix /S

Example: OO-SA/S


















PREMIUM, Suffix /E

PRIME-X, Suffix /P

SL PRIME-X, Prefix SL...



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<p><b>O-SA</b> 120 mm – 4<sup>3</sup>/<sub>4</sub>"</p> <p>-Fine Straight Strong Tips</p>	 <p>* 0.40mm - .0157"</p>	
<p><b>OC-SA</b> 90 mm – 3<sup>9</sup>/<sub>16</sub>"</p> <p>-Strong Short Tips</p>	 <p>* 0.40mm - .0157"</p>	
<p><b>OC10-SA</b> 100 mm – 4"</p> <p><b>OC11-SA</b> 110 mm – 4<sup>1</sup>/<sub>4</sub>"</p>	<p>* 0.40mm - .0157"</p>	
<p><b>OO-SA</b> 120 mm – 4<sup>3</sup>/<sub>4</sub>"</p> <p>-Strong Thick Tips</p>	 <p>* 0.40mm - .0157"</p>	
<p><b>OO-NI</b> 115 mm – 4<sup>1</sup>/<sub>2</sub>"</p> <p>-Fine Tips -Nickel Plated</p>	 <p>* 0.30mm - .012"</p>	
<p><b>OOB-SA</b> 120 mm – 4<sup>3</sup>/<sub>4</sub>"</p> <p>- Fine Straight Strong Tips</p>	 <p>* 0.40mm - .0157"</p>	
<p><b>OOD-SA</b> 120 mm – 4<sup>3</sup>/<sub>4</sub>"</p> <p>-Strong Thick Serrated Tips</p>	 <p>* 0.40mm - .0157"</p>	
<p><b>OOO-SA</b> 120 mm – 4<sup>3</sup>/<sub>4</sub>"</p> <p>-Strong Thick Rounded Tips</p>	 <p>* 0.30mm - .012"</p>	
<p><b>PSF-SA</b> 130 mm – 5<sup>1</sup>/<sub>8</sub>"</p> <p>-Flat Square Tips</p>	 <p>* 2.30mm - .090"</p>	

# STEEL TWEEZERS

Stainless Antiacid Antimagnetic Steel



Switzerland

Six Grades Available

BIO-MED, Suffix /BM

BIO-TECH, Suffix /T

ZENITH, Suffix /S

Example: 1-SA/BM

PREMIUM, Suffix /E

PRIME-X, Suffix /P

SL PRIME-X, Prefix SL...

<p><b>RR-SA</b> 145 mm – 5<sup>3</sup>/<sub>4</sub>"</p> <p>-Heavy Straight Tips</p>	<p>* 0.50mm - .020"</p>	
<p><b>SS-SA</b> 140 mm – 5<sup>1</sup>/<sub>2</sub>"</p> <p>-Long Tweezers -Very Fine Tips</p>	<p>* 0.30mm - .012"</p>	
<p><b>SSL-SA</b> 150 mm - 6"</p> <p>-Very Long Tweezers -Very Fine Tips</p>	<p>* 0.40mm - .015"</p>	
<p><b>SSXL-SA</b> 205 mm - 8"</p> <p>-Extra Long Tweezers -Fine Tips</p>	<p>* 0.50mm - .020"</p>	
<p><b>ZA</b> 120 mm – 4<sup>3</sup>/<sub>4</sub>"</p> <p>-Carbon Hardened Strong Fine Tips</p>	<p>* 0.35mm - .014"</p>	
<p><b>1-SA</b> 115 mm – 4<sup>1</sup>/<sub>2</sub>"</p> <p>-Multipurpose Fine Tips</p>	<p>* 0.30mm - .012"</p>	
<p><b>1B-SA</b> 115 mm – 4<sup>1</sup>/<sub>2</sub>"</p> <p>-Serrated Tips</p>	<p>* 0.30mm - .012"</p>	
<p><b>2-SA</b> 115 mm – 4<sup>1</sup>/<sub>2</sub>"</p> <p>-Medium Flat Tips</p>	<p>* 0.50mm - .020"</p>	
<p><b>2A-SA</b> 120 mm – 4<sup>3</sup>/<sub>4</sub>"</p> <p>-Very Popular Flat Tips</p>	<p>* 2.00mm - .078"</p>	




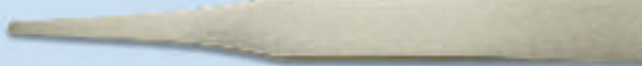

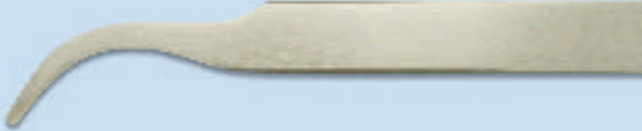







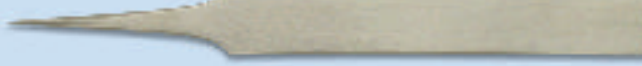

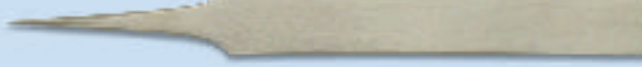


# STEEL TWEEZERS Stainless Antiacid Antimagnetic Steel

Six Grades Available

BIO-MED, Suffix /BM  
 BIO-TECH, Suffix /T  
 ZENITH, Suffix /S

PREMIUM, Suffix /E  
 PRIME-X, Suffix /P  
 SL PRIME-X, Prefix SL...  
 Example: 3C-SA/E



<p><b>2AB-SA</b>                      115 mm – 4 1/2"</p> <p>-Curved Flat Tips</p>	 <p>* 2.00mm - .078"</p>	
<p><b>2A-N</b>                         120 mm – 4 3/4"</p> <p>-Flat Round Tips -Nickel Alloy</p>	 <p>* 2.00mm - .078"</p>	
<p><b>2AB-N</b>                       115 mm – 4 1/2"</p> <p>-Curved Flat Tips -Nickel Alloy</p>	 <p>* 2.00mm - .078"</p>	
<p><b>3-SA</b>                         120 mm – 4 3/4"</p> <p>-Fine Tips</p>	 <p>* 0.25mm - .0098"</p>	
<p><b>3C-SA</b>                       110 mm – 4 1/4"</p> <p>-Narrow Fine Tips</p>	 <p>* 0.25mm - .0098"</p>	
<p><b>3CB-SA</b>                     100 mm – 4"</p> <p>-Narrow Fine Bent Tips</p>	 <p>* 0.25mm - .0098"</p>	
<p><b>4-SA</b>                         110 mm – 4 1/4"</p> <p>-Very Fine Tips</p>	 <p>* 0.30mm - .012"</p>	
<p><b>4A-SA</b>                       110 mm – 4 1/4"</p> <p>-Fine Tips</p>	 <p>* 0.40mm - .0157"</p>	
<p><b>5-SA</b>                         110 mm – 4 1/4"</p> <p>-Extra Fine, Very Sharp Tips</p>	 <p>* 0.20mm - .0078"</p>	

# STEEL TWEEZERS

Stainless Antiacid Antimagnetic Steel



Switzerland

Six Grades Available

BIO-MED, Suffix /BM

PREMIUM, Suffix /E














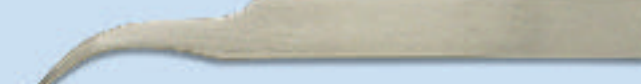




BIO-TECH, Suffix /T

PRIME-X, Suffix /P

ZENITH, Suffix /S

SL PRIME-X, Prefix SL...

Example: SL7-SA

<p><b>5A-SA</b>                      120 mm – 4<sup>3</sup>/<sub>4</sub>"</p> <p>-Extra Fine, Very Sharp Tips</p>	 <p>* 0.35mm - .014"</p>	
<p><b>5B-SA</b>                      110 mm – 4<sup>1</sup>/<sub>4</sub>"</p> <p>-Bent Tips</p>	 <p>* 0.40mm - .0157"</p>	
<p><b>5C-SA</b>                      115 mm – 4<sup>1</sup>/<sub>2</sub>"</p> <p>-Double Bent -Circumvented Tips</p>	 <p>* 0.20mm - .0078"</p>	
<p><b>6-SA</b>                         110 mm – 4<sup>1</sup>/<sub>4</sub>"</p> <p>-Fine Angled Tips</p>	 <p>* 0.40mm - .0157"</p>	
<p><b>7-SA</b>                         115 mm – 4<sup>1</sup>/<sub>2</sub>"</p> <p>-Curved Very Fine Tips</p>	 <p>* 0.20mm - .0078"</p>	
<p><b>7A-SA</b>                      120 mm – 4<sup>3</sup>/<sub>4</sub>"</p> <p>-Curved Fine Tips</p>	 <p>* 0.30mm - .012"</p>	
<p><b>7B-SA</b>                      120 mm – 4<sup>3</sup>/<sub>4</sub>"</p> <p>-Serrated Curved Fine Tips</p>	 <p>* 0.40mm - .0157"</p>	
<p><b>7C-SA</b>                      95 mm – 3<sup>3</sup>/<sub>4</sub>"</p> <p>-Curved Very Fine Tips</p>	 <p>* 0.20mm - .0078"</p>	
<p><b>11-N</b>                         120 mm – 4<sup>3</sup>/<sub>4</sub>"</p> <p>-Strong Fine Tips -Nickel Alloy</p>	 <p>* 0.40mm - .0157"</p>	



# STEEL TWEEZERS

Stainless Antiacid Antimagnetic Steel

Six Grades Available

BIO-MED, Suffix /BM

PREMIUM, Suffix /E

BIO-TECH, Suffix /T

PRIME-X, Suffix /P











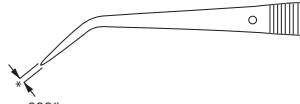





ZENITH, Suffix /S

SL PRIME-X, Prefix SL...

Example: 24-SA/P



Switzerland

<p><b>12-N</b> 120 mm – 4<sup>3</sup>/<sub>4</sub>"</p> <p>-Fine Tips -Nickel Alloy</p>	 <p>* 0.30mm - .012"</p>	
<p><b>12A-SA</b> 115 mm – 4<sup>1</sup>/<sub>2</sub>"</p> <p>-Flat Bowed Tips</p>	 <p>* 2.00mm - .078"</p>	
<p><b>20A-SA</b> 115 mm – 4<sup>1</sup>/<sub>2</sub>"</p> <p>-With Alignment Pin -Strong Fine Serrated Tips</p>	 <p>* 1.00mm - .0394"</p>	
<p><b>21-SA</b>/150 mm – 6" 21-SA/200 mm – 8" 21-SA/250 mm – 10" 21-SA/300 mm – 12"</p> <p>-Strong Rounded Tips</p>	 <p>* 2.00mm - .078"</p>	
<p><b>23-SA</b> 160 mm – 6<sup>1</sup>/<sub>4</sub>"</p> <p>-With Alignment Pin -Curved Tips</p>	 <p>* 1.20mm - .047"</p>	
<p><b>24-SA</b> 155 mm – 6<sup>2</sup>/<sub>16</sub>"</p> <p>-With Alignment Pin -Fine Bent Tips</p>	 <p>* 0.80mm - .032"</p>	
<p><b>25-SA</b> 120 mm – 4<sup>3</sup>/<sub>4</sub>"</p> <p>-Thin Tips</p>	 <p>* 4.00mm - .157"</p>	
<p><b>26-SA</b> 115 mm – 4<sup>1</sup>/<sub>2</sub>"</p> <p>-Round Tips</p>	 <p>* 6.00mm - .235"</p>	

# STEEL TWEEZERS

Stainless Antiacid Antimagnetic Steel



Switzerland

Six Grades Available

BIO-MED, Suffix /BM

BIO-TECH, Suffix /T

















ZENITH, Suffix /S

Example: 35A-SA/S

PREMIUM, Suffix /E

PRIME-X, Suffix /P

SL PRIME-X, Prefix SL...

<p><b>34-SA</b></p> <p>-Flat Straight Tips</p>	<p>120 mm – 4<sup>3</sup>/<sub>4</sub>"</p>	 <p>* 3.00mm - .118"</p>	
<p><b>34A-SA</b></p> <p>-Flat Straight Tips</p>	<p>120 mm – 4<sup>3</sup>/<sub>4</sub>"</p>	 <p>* 6.50mm - .256"</p>	
<p><b>34B-SA</b></p> <p>-Flat Angled Tips</p>	<p>120 mm – 4<sup>3</sup>/<sub>4</sub>"</p>	 <p>* 2.50mm - .098"</p>	
<p><b>34B-SA-M</b></p> <p>-Flat Angled Tips</p>	<p>120 mm – 4<sup>3</sup>/<sub>4</sub>"</p>	 <p>* 3.50mm - .14"</p>	
<p><b>35A-SA</b></p> <p>-For Handling Delicate Electronics Parts</p>	<p>120 mm – 4<sup>3</sup>/<sub>4</sub>"</p>	 <p>* 6.00mm - .235"</p>	
<p><b>35B-SA</b></p> <p>-Small Curved Tips</p>	<p>120 mm – 4<sup>3</sup>/<sub>4</sub>"</p>	 <p>* 1.40mm - .055"</p>	
<p><b>35AD-SA</b></p> <p>-Fine Straight Serrated Tips</p>	<p>120 mm – 4<sup>3</sup>/<sub>4</sub>"</p>	 <p>* 6.00mm - .235"</p>	
<p><b>36A-SA</b></p> <p>-Flat Angled Tips</p>	<p>120 mm – 4<sup>3</sup>/<sub>4</sub>"</p>	 <p>* 6.00mm - .235"</p>	

# STEEL TWEEZERS

Stainless Antiacid Antimagnetic Steel

Six Grades Available

BIO-MED, Suffix /BM

BIO-TECH, Suffix /T

ZENITH, Suffix /S

Example: 51-SA/BM

PREMIUM, Suffix /E

PRIME-X, Suffix /P

SL PRIME-X, Prefix SL...

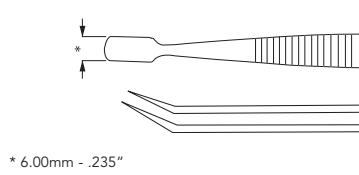


Switzerland

**36A-SA-R**

120 mm – 4<sup>3</sup>/<sub>4</sub>"

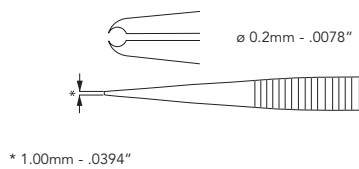
-Flat Angled Round End Tips



**38-SA**

110 mm – 4<sup>1</sup>/<sub>4</sub>"

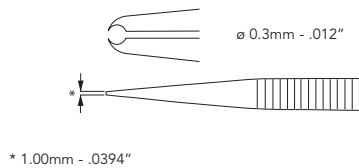
-Excellent For Pick Up Miniature Round Wire



**39-SA**

110 mm – 4<sup>1</sup>/<sub>4</sub>"

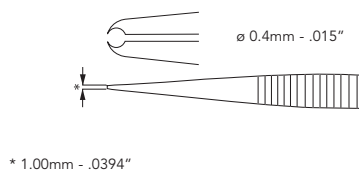
-Excellent For Pick Up Miniature Round Wire



**40-SA**

110 mm – 4<sup>1</sup>/<sub>4</sub>"

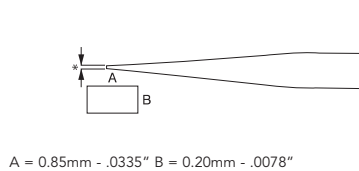
-Excellent For Pick Up Miniature Round Wire



**47-SA**

135 mm – 5<sup>1</sup>/<sub>4</sub>"

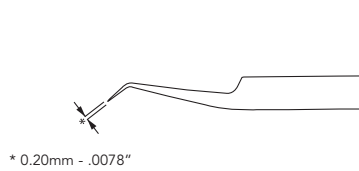
-Strong Flat Square Tips, Very Popular



**51-SA**

115 mm – 4<sup>1</sup>/<sub>2</sub>"

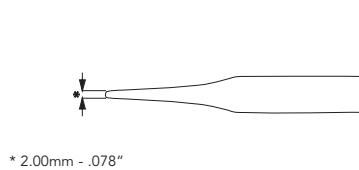
-Superfine Bent Tips



**52A-SA**

120 mm – 4<sup>3</sup>/<sub>4</sub>"

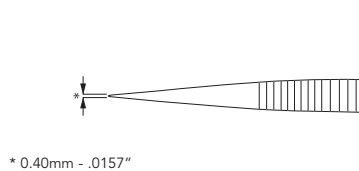
-Flat Tips  
-Smooth Action



**64-SA**

115 mm – 4<sup>1</sup>/<sub>2</sub>"

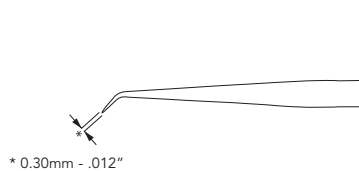
-Very Fine Tweezer



**65A-SA**

140 mm – 5<sup>1</sup>/<sub>2</sub>"

-Very Fine Bent Tips



# STEEL TWEEZERS

Stainless Antiacid Antimagnetic Steel



Switzerland

Six Grades Available

BIO-MED, Suffix /BM

BIO-TECH, Suffix /T












ZENITH, Suffix /S

PREMIUM, Suffix /E

PRIME-X, Suffix /P

SL PRIME-X, Prefix SL...

Example: 231-SA/E





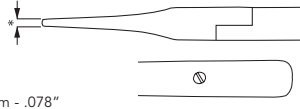









<p><b>218-SA</b>                      160 mm – 6<sup>1</sup>/<sub>4</sub>"</p> <p>-With Alignment Pin -Diamond Style, Fine Tips</p>	 <p>* 0.60mm - .0235"</p>	
<p><b>219-SA</b>                      160 mm – 6<sup>1</sup>/<sub>4</sub>"</p> <p>-With Alignment Pin -Diamond Style, Medium Tips</p>	 <p>* 0.80mm - .032"</p>	
<p><b>220-SA</b>                      140 mm – 5<sup>1</sup>/<sub>2</sub>"</p> <p>-With Alignment Pin -Diamond Style, Medium Tips</p>	 <p>* 0.90mm - .035"</p>	
<p><b>220C-SA</b>                      140 mm – 5<sup>1</sup>/<sub>2</sub>"</p> <p>-With Alignment Pin -Diamond Style, Medium Bent Tips</p>	 <p>* 0.90mm - .035"</p>	
<p><b>227-SA</b>                      140 mm – 5<sup>1</sup>/<sub>2</sub>"</p> <p>-Diamond Style, Medium Tips -Slide Lock</p>	 <p>* 1.00mm - .0394"</p>	
<p><b>231-SA</b>                      120 mm – 4<sup>3</sup>/<sub>4</sub>"</p> <p>-Fine Straight Tips</p>	 <p>* 0.60mm - .0235"</p>	
<p><b>231A-SA</b>                      120 mm – 4<sup>3</sup>/<sub>4</sub>"</p> <p>-Fine Straight Serrated Tips</p>	 <p>* 0.60mm - .0235"</p>	
<p><b>245-SA</b>                      145 mm – 5<sup>3</sup>/<sub>4</sub>"</p> <p>-Strong Serrated Tips</p>	 <p>* 3.50mm - .137"</p>	
<p><b>251A-SA</b>                      165 mm – 6<sup>1</sup>/<sub>2</sub>"</p> <p>-Long Flat Rounded End Tips</p>	 <p>* 6.00mm - .235"</p>	

# REVERSE ACTION TWEEZERS

Stainless Antiacid Antimagnetic Steel

Two Grades Available: ZENITH, Suffix /S  
 PRIME-X, Suffix /P  
 Example: R3-SA/S



<p><b>R1-SA</b> 125 mm – 5"</p> <p>-Multipurpose Fine Tips</p>	 <p>* 0.30mm - .012"</p>	
<p><b>R2A-SA</b> 115 mm – 4 1/2"</p> <p>-Very Popular Flat Tips</p>	 <p>* 2.00mm - .078"</p>	
<p><b>R2A-SA-AP</b> 115 mm – 4 1/2"</p> <p>-Adjustable Screw Pressure</p>	 <p>* 2.00mm - .078"</p>	
<p><b>R3-SA</b> 120 mm – 4 3/4"</p> <p>-Fine Tips</p>	 <p>* 0.40mm - .0157"</p>	
<p><b>R5-SA</b> 115 mm – 4 1/2"</p> <p>-Extra Fine, Very Sharp Tips</p>	 <p>* 0.20mm - .0078"</p>	
<p><b>R5A-SA</b> 110 mm – 4 1/4"</p> <p>-Fine, Very Sharp Tips</p>	 <p>* 0.30mm - .012"</p>	
<p><b>R7-SA</b> 115 mm – 4 1/2"</p> <p>-Curved Very Fine Tips</p>	 <p>* 0.40mm - .0157"</p>	

# REVERSE ACTION TWEEZERS













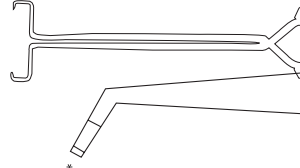



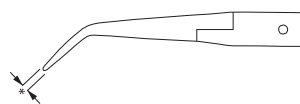

Switzerland

Stainless Antiacid Antimagnetic Steel

Two Grades Available: ZENITH, Suffix /S

PRIME-X, Suffix /P

Example: R218-SA/P

<p><b>R28-SA</b>                      160 mm – 6<sup>1</sup>/<sub>4</sub>"</p> <p>-Strong Tips</p>	 <p>* 3.00mm - .120"</p>	
<p><b>R28F-SA</b>                      160 mm – 6<sup>1</sup>/<sub>4</sub>"</p> <p>-Flat Strong Tips</p>	 <p>* 4.50mm - .177"</p>	
<p><b>R29-SA</b>                        160 mm – 6<sup>1</sup>/<sub>4</sub>"</p> <p>-Straight Tips</p>	 <p>* 2.50mm - .098"</p>	
<p><b>R29D-SA/14-16</b>            145 mm – 5<sup>3</sup>/<sub>4</sub>"</p> <p>R29D-SA/22 R29D-SA/28 R29D-SA/40 -For Handling DIP -Other Sizes Available</p>	 <p>* 2.00mm - .078"</p>	
<p><b>R30-SA</b>                        160 mm – 6<sup>1</sup>/<sub>4</sub>"</p> <p>-Bent Tips</p>	 <p>* 2.50mm - .098"</p>	
<p><b>R30D-SA/14-16</b>            150 mm – 6"</p> <p>R30D-SA/22 R30D-SA/28 R30D-SA/40 -Bent Tips, For Handling DIP -Other Sizes Available</p>	 <p>* 2.00mm - .078"</p>	
<p><b>R218-SA</b>                      160 mm – 6<sup>1</sup>/<sub>4</sub>"</p> <p>-Medium Tips</p>	 <p>* 1.20mm - .0472"</p>	
<p><b>R218B-SA</b>                    155 mm – 6<sup>2</sup>/<sub>10</sub>"</p> <p>-Medium Curved Tips</p>	 <p>* 1.20mm - .0472"</p>	

# NICKEL PLATED SERRATED TIPS TWEEZERS



Stainless Steel

**81083** 115 mm – 4 1/2"

-Inside Serrated Fine Straight Tips



\* 0.60mm - .0236"



**81084** 130 mm – 5 1/8"

-Inside Serrated Strong Tips



\* 2.00mm - .0787"



**81085** 115 mm – 4 1/2"

-Inside Serrated Fine Bent Tips



\* 0.60mm - .0236"



**81333** 115 mm – 4 1/2"

-Inside Serrated Fine Straight Tips



\* 0.60mm - .0236"



# BRASS TWEEZERS Anti Sparking Solid Brass



Switzerland

Soft for Handling Delicate Parts

Two Grades Available: ZENITH, Suffix /S  
PRIME-X, Suffix /P  
Example: AM-BR/P

<b>AA-BR</b>	125 mm – 5"		
-Fine Strong Tips		* 0.60mm - .0235"	
<b>AM-BR</b>	115 mm – 4 1/2"		
-Fine Strong Tips		* 0.60mm - .0235"	
<b>P-BR</b>	125 mm – 5"		
-Fine Tips		* 0.50mm - .020"	
<b>SS-BR</b>	135 mm – 5 1/4"		
-Very Fine Long Tips		* 0.50mm - .020"	
<b>1-BR</b>	120 mm – 4 3/4"		
-Multipurpose Fine Tips		* 0.30mm - .012"	
<b>2A-BR</b>	120 mm – 4 3/4"		
-Very Popular Flat Tips		* 2.0mm - .078"	
<b>3-BR</b>	120 mm – 4 3/4"		
-Fine Tips		* 0.40mm - .0157"	
<b>3C-BR</b>	110 mm – 4 1/4"		
-Narrow Fine Tips		* 0.40mm - .0157"	
<b>5-BR</b>	110 mm – 4 1/4"		
-Extra Fine, Very Sharp Tips		* 0.40mm - .0157"	
<b>7-BR</b>	115 mm – 4 1/2"		
-Curved Very Fine Tips		* 0.50mm - .020"	



# WAFER TWEEZERS

Stainless Antiacid Antimagnetic Steel



Switzerland

Large Range of Tweezers for Handling CDs and Wafers of all Sizes

**37S-SA-1** 120 mm – 4<sup>3</sup>/<sub>4</sub>"

-For Wafers and Round Parts  
-2 Prongs



\* 7.50mm - .295"



**37S-SA-L** 120 mm – 4<sup>3</sup>/<sub>4</sub>"

-Long Upper Tip  
-For Wafers and Round Parts  
-2 Prongs



\* 7.50mm - .295"



**39S-SA-3** 120 mm – 4<sup>3</sup>/<sub>4</sub>"

-For Wafers and Round Parts  
-3 Prongs  
-6 Holes

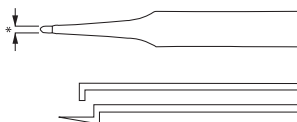


\* 9.00mm - .354"



**62A-SA** 115 mm – 4<sup>1</sup>/<sub>2</sub>"

-For Wafers and Round Parts  
-Straight

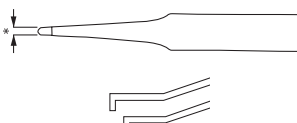


\* 2.00mm - .078"

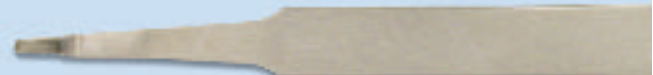


**72A-SA** 115 mm – 4<sup>1</sup>/<sub>2</sub>"

-For Wafers and Round Parts  
-Angulated

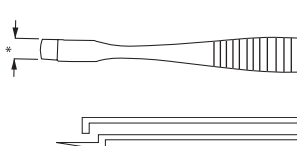


\* 2.00mm - .078"



**85A-SA** 120 mm – 4<sup>3</sup>/<sub>4</sub>"

-For Wafers and Round Parts  
-Straight

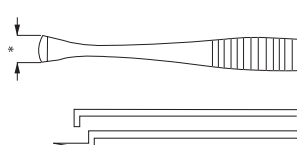


\* 6.50mm - .256"



**85C-SA** 120 mm – 4<sup>3</sup>/<sub>4</sub>"

-For Wafers and Round Parts  
-Straight

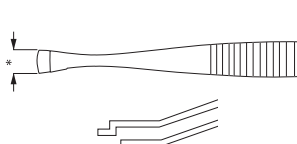


\* 6.00mm - .235"



**86B-SA** 120 mm – 4<sup>3</sup>/<sub>4</sub>"

-For Wafers and Round Parts  
-Angulated



\* 6.00mm - .235"



# WAFER TWEEZERS

Stainless Antiacid Antimagnetic Steel

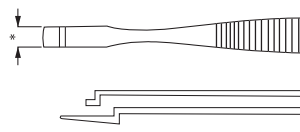


Switzerland

Large Range of Tweezers for Handling CDs and Wafers of all Sizes

**200A-SA** 120 mm – 4<sup>3</sup>/<sub>4</sub>"

-For 2" Wafers and Round Parts

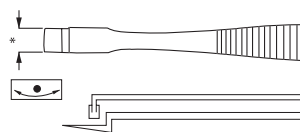


\* 5.50mm - .216"



**200J-SA** 120 mm – 4<sup>3</sup>/<sub>4</sub>"

-For 2" Wafers and Round Parts  
-Free Floating Teflon Paddle

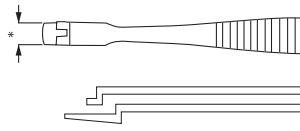


\* 6.50mm - .256"



**200W-SA** 120 mm – 4<sup>3</sup>/<sub>4</sub>"

-For 2" Wafers and Round Parts  
-2 Prongs

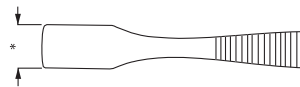


\* 6.50mm - .256"



**300-SA** 125 mm – 5"

-For 3" Wafers and Round Parts

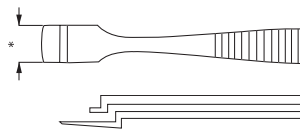


\* 11.00mm - .433"



**300A-SA** 125 mm – 5"

-For 3" Wafers and Round Parts

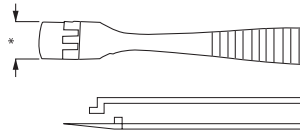


\* 9.50mm - .374"



**300E-SA** 125 mm – 5"

-For 3" Wafers and Round Parts  
-3 Prongs

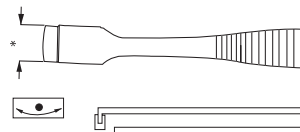


\* 9.50mm - .374"



**300J-SA** 125 mm – 5"

-For 3" Wafers and Round Parts  
-Free Floating Teflon Paddle

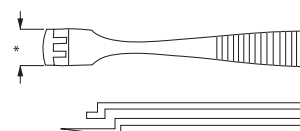


\* 9.50mm - .374"



**300W-SA** 125 mm – 5"

-For 3" Wafers and Round Parts  
-3 Prongs



\* 9.50mm - .374"



# WAFER TWEEZERS

Stainless Antiacid Antimagnetic Steel



Switzerland

Large Range of Tweezers for Handling CDs and Wafers of all Sizes

<p><b>400-SA</b></p> <p>125 mm – 5"</p> <p>-For 4" Wafers and CD</p>	<p>125 mm – 5"</p>	<p>* 13.50mm - .531"</p>	
<p><b>400A-SA</b></p> <p>125 mm – 5"</p> <p>-For 4" Wafers and CD</p>	<p>125 mm – 5"</p>	<p>* 12.50mm - .492"</p>	
<p><b>400E-SA</b></p> <p>125 mm – 5"</p> <p>-For 4" Wafers and CD</p> <p>-4 Prongs</p>	<p>125 mm – 5"</p>	<p>* 12.50mm - .492"</p>	
<p><b>400J-SA</b></p> <p>125 mm – 5"</p> <p>-For 4" Wafers and CD</p> <p>-Free Floating Teflon Paddle</p>	<p>125 mm – 5"</p>	<p>* 12.50mm - .492"</p>	
<p><b>400W-SA</b></p> <p>125 mm – 5"</p> <p>-For 4" Wafers and CD</p> <p>-4 Prongs</p>	<p>125 mm – 5"</p>	<p>* 12.50mm - .492"</p>	
<p><b>400WG-SA</b></p> <p>125 mm – 5"</p> <p>-For 4" Wafers and CD</p> <p>-4 Prongs</p> <p>-With a Gap 6 mm - .235"</p>	<p>125 mm – 5"</p>	<p>* 12.50mm - .492"</p>	
<p><b>500-SA</b></p> <p>130 mm – 5 1/8"</p> <p>-For 5" Wafers and CD</p>	<p>130 mm – 5 1/8"</p>	<p>* 17.00mm - .669"</p>	
<p><b>500A-SA</b></p> <p>125 mm – 5"</p> <p>-For 5" Wafers and CD</p>	<p>125 mm – 5"</p>	<p>* 16.00mm - .629"</p>	

# WAFER TWEEZERS

Stainless Antiacid Antimagnetic Steel



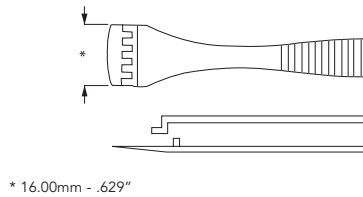
Switzerland

Large Range of Tweezers for Handling CDs and Wafers of all Sizes

## 500E-SA

125 mm – 5"

- For 5" Wafers and CD
- 5 Prongs



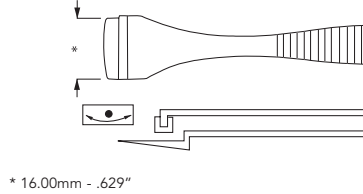
\* 16.00mm - .629"



## 500J-SA

125 mm – 5"

- For 5" Wafers and CD
- Free Floating Teflon Paddle



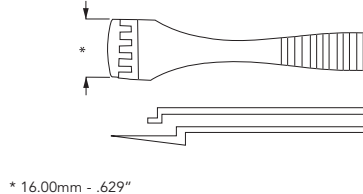
\* 16.00mm - .629"



## 500W-SA

125 mm – 5"

- For 5" Wafers and CD
- 5 Prongs



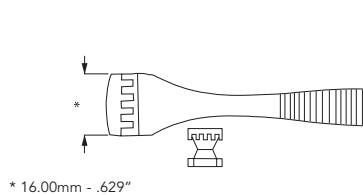
\* 16.00mm - .629"



## 500WG-SA

125 mm – 5"

- For 5" Wafers and CD
- 5 Prongs
- With a Gap 9 mm - .354"



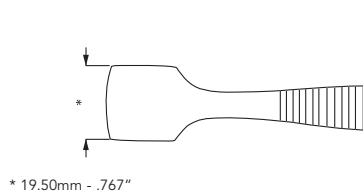
\* 16.00mm - .629"



## 600-SA

130 mm – 5 1/8"

- For 6" Wafers and CD



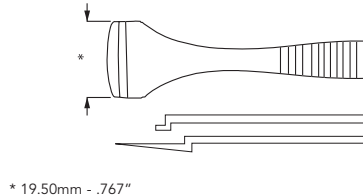
\* 19.50mm - .767"



## 600A-SA

125 mm – 5"

- For 6" Wafers and CD



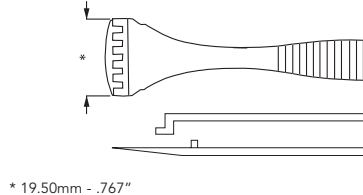
\* 19.50mm - .767"



## 600E-SA

125 mm – 5"

- For 6" Wafers and CD
- 6 Prongs



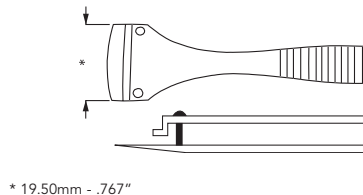
\* 19.50mm - .767"



## 600GB-SA

125 mm – 5"

- For 6" Wafers and CD
- Stop Opening



\* 19.50mm - .767"



# WAFER TWEEZERS

Stainless Antiacid Antimagnetic Steel

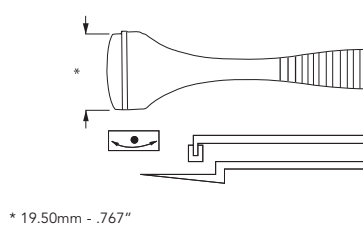


Switzerland

Large Range of Tweezers for Handling CDs and Wafers of all Sizes

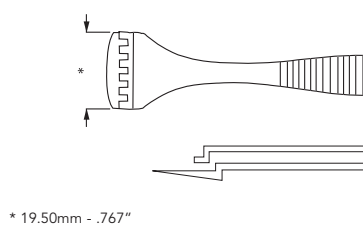
**600J-SA** 125 mm – 5"

- For 6" Wafers and CD
- Free Floating Teflon Paddle



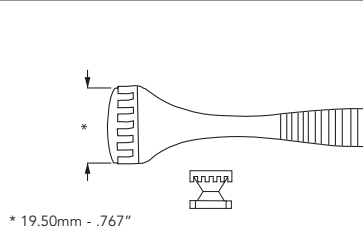
**600W-SA** 125 mm – 5"

- For 6" Wafers and CD
- 6 Prongs



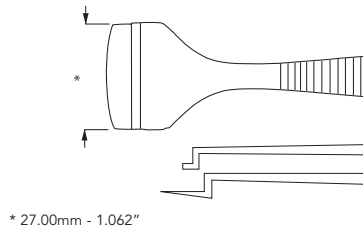
**600WG-SA** 125 mm – 5"

- For 6" Wafers and CD
- 6 Prongs
- With a Gap 11 mm - .433"



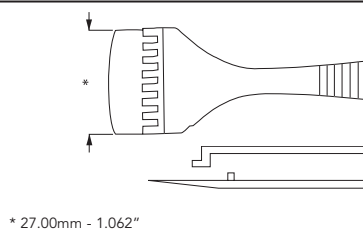
**800A-SA** 150 mm – 6"

- For 8" Wafers and CD



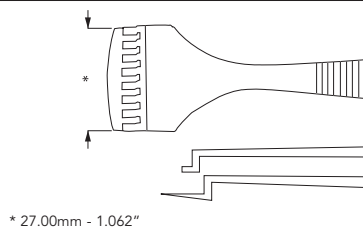
**800E-SA** 150 mm – 6"

- For 8" Wafers and CD
- 8 Prongs



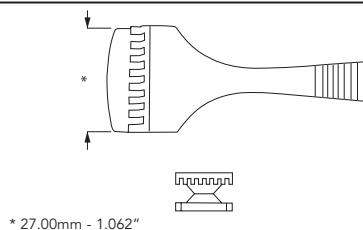
**800W-SA** 150 mm – 6"

- For 8" Wafers and CD
- 8 Prongs



**800WG-SA** 150 mm – 6"

- For 8" Wafers and CD
- 8 Prongs
- With a Gap 17mm - .669"



# SMD TWEEZERS

Stainless Antiacid Antimagnetic Steel



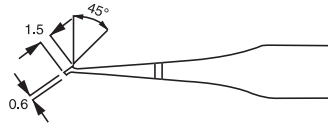
Switzerland

Especially designed for Surface Mounted Devices  
Teflon coating available, add "TE"

**SMD10-SA**

120 mm – 4<sup>3</sup>/<sub>4</sub>"

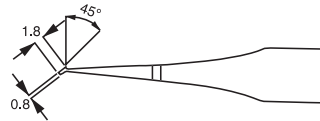
-45° Angle



**SMD10A-SA**

120 mm – 4<sup>3</sup>/<sub>4</sub>"

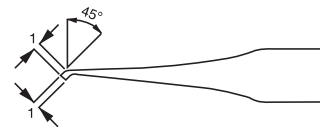
-45° Angle



**SMD20-SA**

120 mm – 4<sup>3</sup>/<sub>4</sub>"

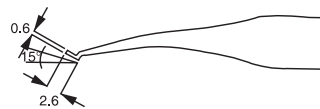
-45° Angle



**SMD30-SA**

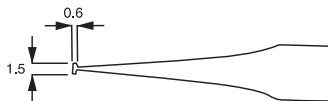
120 mm – 4<sup>3</sup>/<sub>4</sub>"

-15° Angle



**SMD40-SA**

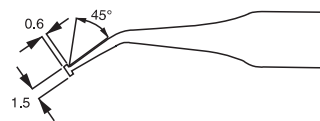
120 mm – 4<sup>3</sup>/<sub>4</sub>"



**SMD50-SA**

120 mm – 4<sup>3</sup>/<sub>4</sub>"

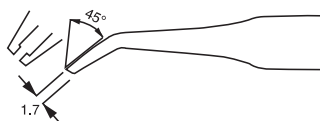
-45° Angle



**SMD60-SA**

120 mm – 4<sup>3</sup>/<sub>4</sub>"

-45° Angle



**SMD70-SA**

120 mm – 4<sup>3</sup>/<sub>4</sub>"

-45° Angle



# SMD TWEEZERS

Stainless Antiacid Antimagnetic Steel

Especially designed for Surface Mounted Devices  
Teflon coating available, add "TE"



<p><b>SMD80-SA</b>      120 mm – 4<sup>3</sup>/<sub>4</sub>"</p> <p>-15° Angle</p>		
<p><b>SMD90-SA</b>      120 mm – 4<sup>3</sup>/<sub>4</sub>"</p> <p>-15° Angle</p>		
<p><b>SMD100-SA</b>      120 mm – 4<sup>3</sup>/<sub>4</sub>"</p>		
<p><b>SMD110-SA</b>      120 mm – 4<sup>3</sup>/<sub>4</sub>"</p> <p>-15° Angle</p>		
<p><b>SMD120-SA</b>      120 mm – 4<sup>3</sup>/<sub>4</sub>"</p>		
<p><b>SMD130-SA</b>      120 mm – 4<sup>3</sup>/<sub>4</sub>"</p> <p>-45° Angle</p>		
<p><b>SMD200-SA</b>      120 mm – 4<sup>3</sup>/<sub>4</sub>"</p>		
<p><b>SMD201-SA</b>      120 mm – 4<sup>3</sup>/<sub>4</sub>"</p> <p>-45° Angle</p>		

# SMD TWEEZERS

Stainless Antiacid Antimagnetic Steel



Switzerland

Especially designed for Surface Mounted Devices  
Teflon coating available, add "TE"

<p><b>SMD202-SA</b>      120 mm – 4<sup>3</sup>/<sub>4</sub>"</p>		
<p><b>SMD203-SA</b>      120 mm – 4<sup>3</sup>/<sub>4</sub>"</p>		
<p><b>SMD204-SA</b>      120 mm – 4<sup>3</sup>/<sub>4</sub>" -45° Angle</p>		
<p><b>SMD205-SA</b>      120 mm – 4<sup>3</sup>/<sub>4</sub>" -45° Angle</p>		

## REVERSE ACTION SMD TWEEZERS

Stainless Antiacid Antimagnetic Steel

Especially designed for Surface Mounted Devices -Teflon coating available, add "TE"

<p><b>SMDR10-SA</b>      120 mm – 4<sup>3</sup>/<sub>4</sub>" -45° Angle -Reverse Action</p>		
<p><b>SMDR10A-SA</b>      120 mm – 4<sup>3</sup>/<sub>4</sub>" -45° Angle -Reverse Action</p>		
<p><b>SMDR30-SA</b>      120 mm – 4<sup>3</sup>/<sub>4</sub>" -15° Angle -Reverse Action</p>		



# REVERSE ACTION SMD TWEEZERS

Stainless Antiacid Antimagnetic Steel  
Especially designed for Surface Mounted Devices  
Teflon coating available, add "TE"



<p><b>SMDR250-SA</b>      115 mm – 4 1/2"</p> <p>-Reverse Action</p>		
<p><b>SMDR251-SA</b>      115 mm – 4 1/2"</p> <p>-45° Angle -Reverse Action</p>		
<p><b>SMDR252-SA</b>      115 mm – 4 1/2"</p> <p>-Reverse Action</p>		
<p><b>SMDR253-SA</b>      115 mm – 4 1/2"</p> <p>-Reverse Action</p>		
<p><b>SMDR254-SA</b>      115 mm – 4 1/2"</p> <p>-45° Angle -Reverse Action</p>		
<p><b>SMDR255-SA</b>      115 mm – 4 1/2"</p> <p>-Reverse Action</p>		
<p><b>SMDR256-SA</b>      115 mm – 4 1/2"</p> <p>-Reverse Action</p>		

# COMPONENTS HANDLING TWEEZERS

Stainless Antiacid Antimagnetic Steel  
Insertion Extraction Tweezers

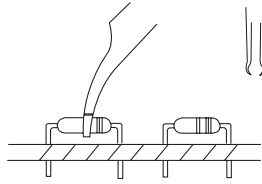


Switzerland

**532B-SA-2**

115 mm – 4<sup>1</sup>/<sub>2</sub>"  
\* 2.00 mm - .078"

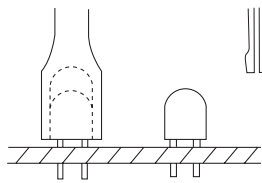
-For Components Ø 2mm - .078"



**571-SA**

120 mm – 4<sup>3</sup>/<sub>4</sub>"  
\* 4.00 mm - .157"

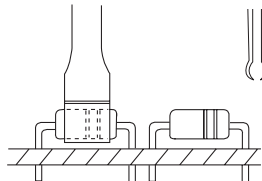
-For Components Ø 2.5mm - .1"  
to 5 mm - .2"



**572-SA**

120 mm – 4<sup>3</sup>/<sub>4</sub>"  
\* 6.40 mm - .251"

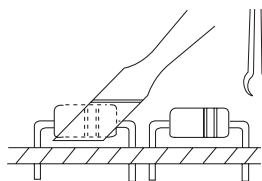
-For Components Ø 2.5mm - .1"  
to 5 mm - .2"



**573-SA**

120 mm – 4<sup>3</sup>/<sub>4</sub>"  
\* 6.40 mm - .251"

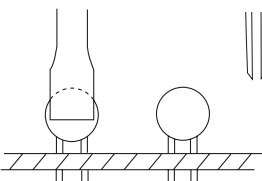
-For Components Ø 2.5mm - .1"  
to 6 mm - .24"  
-45° Angle



**574-SA**

120 mm – 4<sup>3</sup>/<sub>4</sub>"  
\* 6.40 mm - .251"

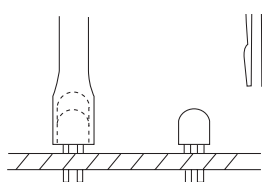
-Flat Tips



**577-SA**

120 mm – 4<sup>3</sup>/<sub>4</sub>"  
\* 2.70 mm - .106"

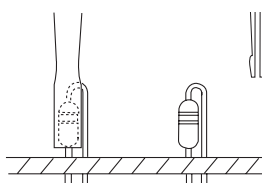
-For Components Ø 3 mm - .12"



**577A-SA**

120 mm – 4<sup>3</sup>/<sub>4</sub>"  
\* 2.00 mm - .078"

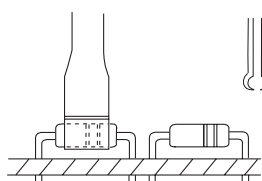
-For Components Ø 1.0 mm - .04"  
to 1.5 mm - .06"



**578-SA**

120 mm – 4<sup>3</sup>/<sub>4</sub>"  
\* 6.40 mm - .251"

-For Components Ø 2.5 mm - .1"



# COMPONENTS HANDLING TWEEZERS

Stainless Antiacid Antimagnetic Steel  
Insertion Extraction Tweezers





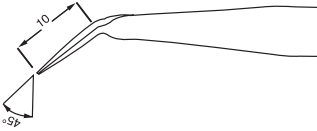









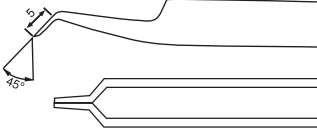

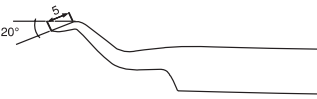

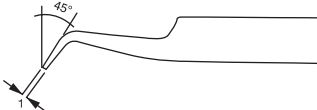

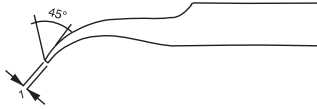

<p><b>578A-SA</b>                    110 mm – 4<sup>1</sup>/<sub>4</sub>"    * 2.30 mm - .090"</p> <p>-For Components Ø 1mm - .04" to 1.5 mm - .06"</p>		
<p><b>578B-SA</b>                    120 mm – 4<sup>3</sup>/<sub>4</sub>"    * 6.40 mm - .251"</p> <p>-For Components Ø 1.0mm - .04" to 1.5 mm - .06"</p>		
<p><b>579-SA</b>                      120 mm – 4<sup>3</sup>/<sub>4</sub>"    * 6.40 mm - .251"</p> <p>-For Components Ø 2.5mm - .1" -45° Angle</p>		
<p><b>579A-SA</b>                    115 mm – 4<sup>1</sup>/<sub>2</sub>"    * 2.30 mm - .090"</p> <p>-For Components Ø 1.0mm - .04" to 1.5 mm - .06" -45° Angle</p>		
<p><b>585-SA</b>                      145 mm – 5<sup>3</sup>/<sub>4</sub>"    * 4.00 mm - .157"</p> <p>-For Extraction</p>		

# MICRO CUTTING TWEEZERS

MC Series, for Micro Wires  
Stainless Antiacid Antimagnetic Steel



Switzerland

<p><b>MC16-SA</b>            120 mm – 4<sup>3</sup>/<sub>4</sub>"</p> <p>-For Micro Soft Wire</p>		
<p><b>MC17-SA</b>            120 mm – 4<sup>3</sup>/<sub>4</sub>"</p> <p>-For Micro Soft Wire</p>		
<p><b>MC18-SA</b>            120 mm – 4<sup>3</sup>/<sub>4</sub>"</p> <p>-For Micro Soft Wire</p>		
<p><b>MC19-SA</b>            115 mm – 4<sup>1</sup>/<sub>2</sub>"</p> <p>-For Micro Soft Wire</p>		
<p><b>MC20-SA</b>            110 mm – 4<sup>1</sup>/<sub>4</sub>"</p> <p>-For Micro Soft Wire</p>		
<p><b>MC21-SA</b>            110 mm – 4<sup>1</sup>/<sub>4</sub>"</p> <p>-For Micro Soft Wire</p>		
<p><b>MC22-SA</b>            110 mm – 4<sup>1</sup>/<sub>4</sub>"</p> <p>-For Micro Soft Wire</p>		
<p><b>MC23-SA</b>            110 mm – 4<sup>1</sup>/<sub>4</sub>"</p> <p>-For Micro Soft Wire</p>		
<p><b>MC24-SA</b>            110 mm – 4<sup>1</sup>/<sub>4</sub>"</p> <p>-For Micro Soft Wire</p>		
<p><b>MC25-SA</b>            110 mm – 4<sup>1</sup>/<sub>4</sub>"</p> <p>-For Micro Soft Wire</p>		

# FLUSH CUTTING TWEEZERS

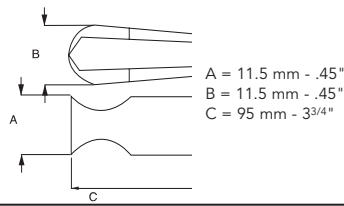
15A Series

Hardened Polished Carbon Steel

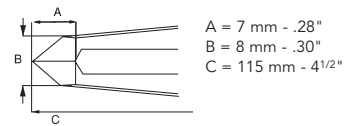


Switzerland

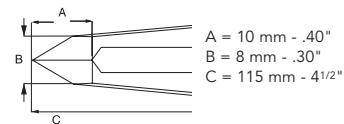
**D**  
-Transverse End Cutting  
-Nickel Plated Carbon Steel



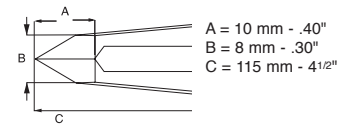
**15AC**  
-Flat Head  
-Tip Cutting



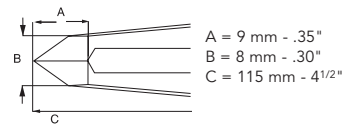
**15AP**  
-Flat Head  
-Parallel Cutting  
**15AP-SA**  
-same as above  
-Stainless Antiacid Antimagnetic Steel



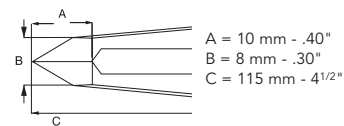
**15AP-T**  
-Flat Head  
-Parallel Cutting  
-CARBIDE BLADES



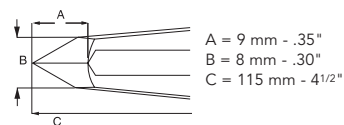
**15A-FW**  
-Flat Head  
-Tip Cutting



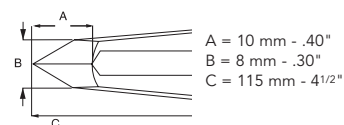
**15A-GW**  
-Flat Head  
-Tip Cutting  
**15A-GW-SA**  
-same as above  
-Stainless Antiacid Antimagnetic Steel



**15A-NW**  
-Rounded Head  
-Tip Cutting



**15A-SW**  
-Rounded Head  
-Tip Cutting  
**15A-SW-SA**  
-Stainless Antiacid Antimagnetic Steel  
**15AP-SW**  
-Rounded Head  
-Parallel Cutting



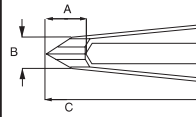
# FLUSH CUTTING TWEEZERS

Miniature 215A Series  
Hardened Polished Carbon Steel



## 215A

-Flat Head  
-Micro Cut

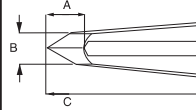


A = 5.5 mm - .22"  
B = 8 mm - .30"  
C = 115 mm - 4 1/2"



## 215AS

-Rounded Head  
-Micro Cut

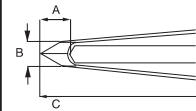


A = 5.5 mm - .22"  
B = 8 mm - .30"  
C = 115 mm - 4 1/2"



## 215ASM

-Rounded Head  
-Micro Cut

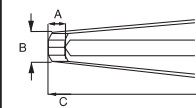


A = 3.5 mm - .10"  
B = 6.5 mm - .25"  
C = 115 mm - 4 1/2"



## 215B

-Flat Head  
-Micro Cut



A = 2.5 mm - .10"  
B = 4.5 mm - .18"  
C = 115 mm - 4 1/2"

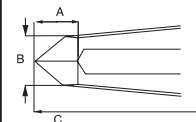


# FLUSH CUTTING TWEEZERS

15A and Miniature 215A Series  
Black Epoxy Coated With Patented EZ Lever

## 15AC-EZ

-Flat Head  
-Tip Cutting  
-Black Epoxy Coated

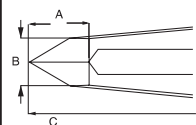


A = 7 mm - .28"  
B = 8 mm - .30"  
C = 115 mm - 4 1/2"



## 15A-GW-EZ

-Flat Head  
-Tip Cutting  
-Black Epoxy Coated

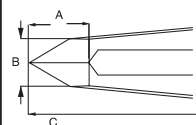


A = 10 mm - .40"  
B = 8 mm - .30"  
C = 115 mm - 4 1/2"



## 15AP-EX

-Flat Head  
-Parallel Cutting  
-Black Epoxy Coated

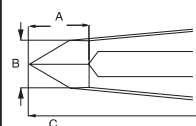


A = 10 mm - .40"  
B = 8 mm - .30"  
C = 115 mm - 4 1/2"



## 15AP-EZ

-Flat Head  
-Parallel Cutting  
-Black Epoxy Coated



A = 10 mm - .40"  
B = 8 mm - .30"  
C = 115 mm - 4 1/2"



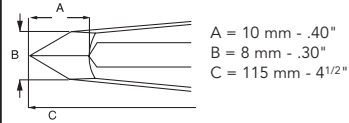
# FLUSH CUTTING TWEEZERS

15A and Miniature 215A Series  
Black Epoxy Coated With Patented EZ Lever



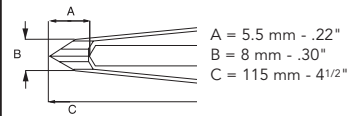
## 15A-SW-EZ

- Rounded Head
- Tip Cutting
- Black Epoxy Coated



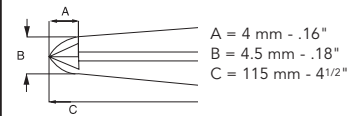
## 215A-EZ

- Flat Head
- Micro Cut
- Black Epoxy Coated



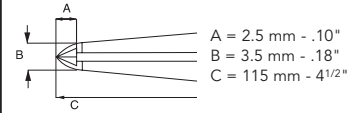
## 215AB-EZ

- Flat Head
- Micro Cut
- Black Epoxy Coated



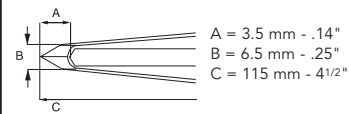
## 215AE-EZ

- Flat Head
- Micro Cut
- Black Epoxy Coated



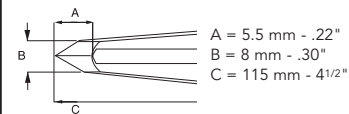
## 215ASM-EZ

- Rounded Head
- Micro Cut
- Black Epoxy Coated



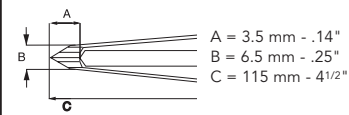
## 215AS-EZ

- Rounded Head
- Micro Cut
- Black Epoxy Coated



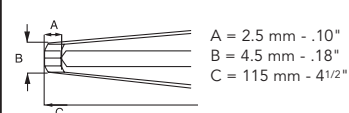
## 215AM-EZ

- Flat Head
- Micro Cut
- Black Epoxy Coated



## 215B-EZ

- Flat Head
- Micro Cut
- Black Epoxy Coated



# FLUSH CUTTING TWEEZERS

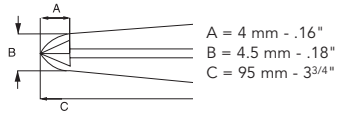
315A Series "Red Dot" With Stronger Blades  
Black Epoxy Coated With Patented EZ Lever



Switzerland

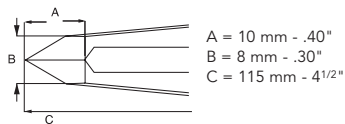
## 315AB-EZ

- Micro Strong Cut
- Black Epoxy Coated
- Red Dot



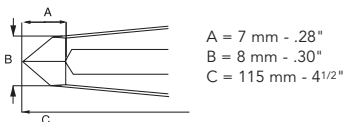
## 315A-GW-EZ

- Micro Strong Cut
- Tip Cutting
- Black Epoxy Coated
- Red Dot



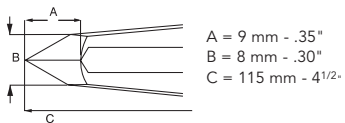
## 315AC-EZ

- Micro Strong Cut
- Tip Cutting
- Black Epoxy Coated
- Red Dot



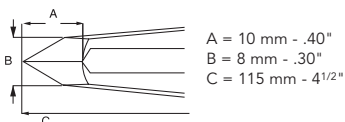
## 315A-NW-EZ

- Micro Strong Cut
- Tip Cutting
- Black Epoxy Coated
- Red Dot



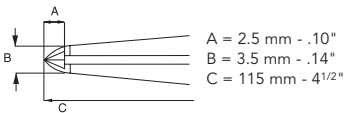
## 315A-SW-EZ

- Micro Strong Cut
- Tip Cutting
- Black Epoxy Coated
- Red Dot



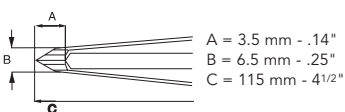
## 315AE-EZ

- Micro Strong Cut
- Black Epoxy Coated
- Red Dot



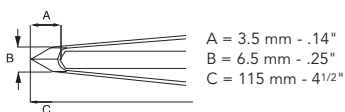
## 315AM-EZ

- Micro Strong Cut
- Black Epoxy Coated
- Red Dot



## 315ASM-EZ

- Micro Strong Cut
- Black Epoxy Coated
- Red Dot





# PLASTIC TWEEZERS

Light Weight - Light Cost

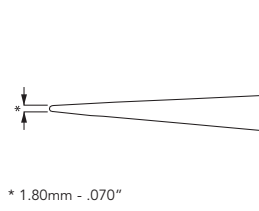
7 Models x 4 Different Materials = 28 Versions



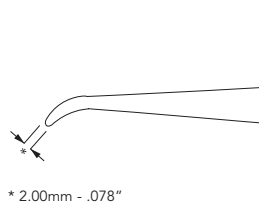
Switzerland



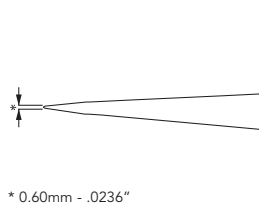
**P2A-DEL** White Delrin 500 118 mm – 4<sup>2</sup>/<sub>3</sub>"  
**P2A-STD/G** Grey Static Dissipative  
**P2A-STD** Black Static Dissipative  
**P2A-ESD** Black Conductive  
 -Straight Flat Rounded Tips



**P2AB-DEL** White Delrin 500 118 mm – 4<sup>2</sup>/<sub>3</sub>"  
**P2AB-STD/G** Grey Static Dissipative  
**P2AB-STD** Black Static Dissipative  
**P2AB-ESD** Black Conductive  
 -Curved Flat Rounded Tips



**P3C-DEL** White Delrin 500 118 mm – 4<sup>2</sup>/<sub>3</sub>"  
**P3C-STD/G** Grey Static Dissipative  
**P3C-STD** Black Static Dissipative  
**P3C-ESD** Black Conductive  
 -Very Fine Straight Tips



# PLASTIC TWEEZERS

Light Weight - Light Cost  
7 Models x 4 Different Materials = 28 Versions



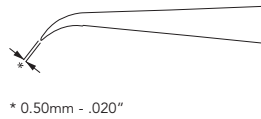
**P6A-DEL** White Delrin 500 118 mm – 4<sup>2</sup>/<sub>3</sub>"  
**P6A-STD/G** Grey Static Dissipative  
**P6A-STD** Black Static Dissipative  
**P6A-ESD** Black Conductive  
 -Very Fine Angulated Tips



\* 0.60mm - .0236"



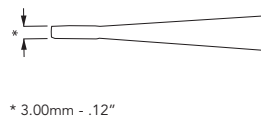
**P7-DEL** White Delrin 500 118 mm – 4<sup>2</sup>/<sub>3</sub>"  
**P7-STD/G** Grey Static Dissipative  
**P7-STD** Black Static Dissipative  
**P7-ESD** Black Conductive  
 -Very Fine Curved Tips



\* 0.50mm - .020"



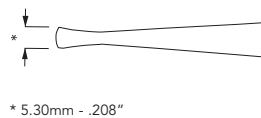
**P35-DEL** White Delrin 500 118 mm – 4<sup>2</sup>/<sub>3</sub>"  
**P35-STD/G** Grey Static Dissipative  
**P35-STD** Black Static Dissipative  
**P35-ESD** Black Conductive  
 -Straight Flat Tips



\* 3.00mm - .12"



**P35A-DEL** White Delrin 500 118 mm – 4<sup>2</sup>/<sub>3</sub>"  
**P35A-STD/G** Grey Static Dissipative  
**P35A-STD** Black Static Dissipative  
**P35A-ESD** Black Conductive  
 -Straight Flat Radiused Tips



\* 5.30mm - .208"



## FEATURES :

- Heat Resistant 240°C / 464°F
- No Contamination
- Non-Magnetic
- Acid Resistant
- Tips Do Not Spread Under Pressure

## SPECIFICATION SHEET UPON REQUEST ON :

- White Delrin 500
- Grey Static Dissipative
- Black Static Dissipative
- Black Conductive

**QUICK CHANGE SOFT-TIP TWEEZERS** Patented  
**QUICK CHANGE CERAMIC TIP TWEEZERS** Patented  
**PLIERS CUTTERS and SPECIAL APPLICATIONS**



FOR ELECTRONIC ASSEMBLY

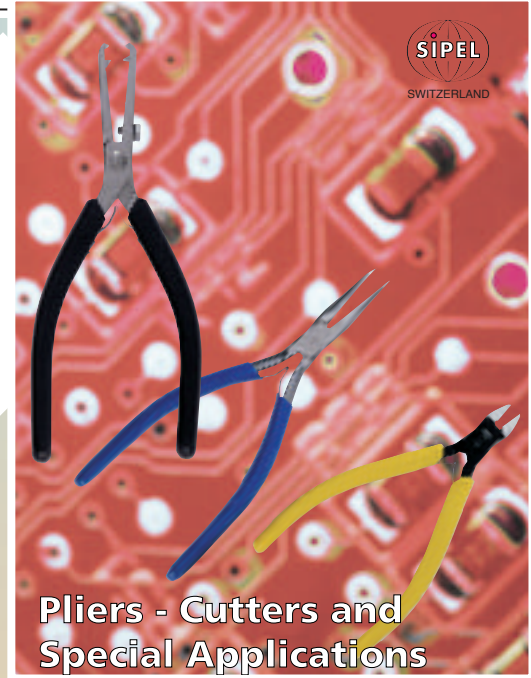
QUICK

CHANGE

NEW

CERAMIC TIPS  
Hundreds of Models Available

HIGH TECHNOLOGY



Pliers - Cutters and Special Applications

# MINI SPATULAS - NEW ESD SAFE



Switzerland

Wide Variety of Applications in all Types of Electronic Assembly:  
 Apply Epoxy and Fluxes  
 Touch up Solderpastes  
 Used as Oilers

TIP: Heat Treated Steel, 60 HRC  
 HANDLE: Easy Grip Hex Shape

Tip Length: 13 mm – 1/2"  
 Overall Length: 63.5 mm – 2 1/2"  
 White Cap  
**MS025**  
 Black Handle, Tip size: 0.25 mm - .010"  
**MS038**  
 Blue Handle, Tip size: 0.38 mm - .015"  
**MS050**  
 Green Handle, Tip size: 0.50 mm - .020"  
**MS063**  
 Red Handle, Tip size: 0.63 mm - .025"



5 Pieces Set - White Cap

**MS5**

2ea. MS025 Black  
 1ea. MS038 Blue  
 1ea. MS050 Green  
 1ea. MS063 Red



Tip Length: 13 mm – 1/2"  
 Overall Length: 63.5 mm – 2 1/2"  
 Black ESD Cap  
**MS025-ESD**  
 Black Handle, Black dot, Tip size: 0.25 mm - .010"  
**MS038-ESD**  
 Black Handle, Blue Dot, Tip size: 0.38 mm - .015"  
**MS050-ESD**  
 Black Handle, Green Dot, Tip size: 0.50 mm - .020"  
**MS063-ESD**  
 Black Handle, Red Dot, Tip size: 0.63 mm - .025"



5 Pieces Set, Black Handle - Black ESD Cap

**MS5-ESD**

2ea. MS025-ESD Black Dot  
 1ea. MS038-ESD Blue Dot  
 1ea. MS050-ESD Green Dot  
 1ea. MS063-ESD Red Dot

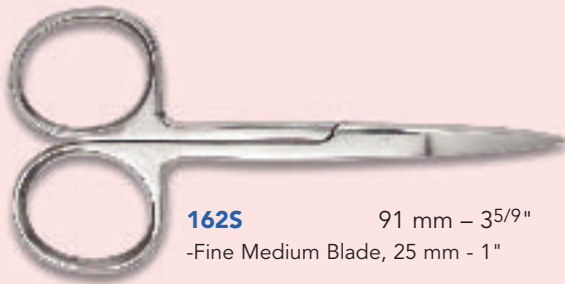


# SCISSORS

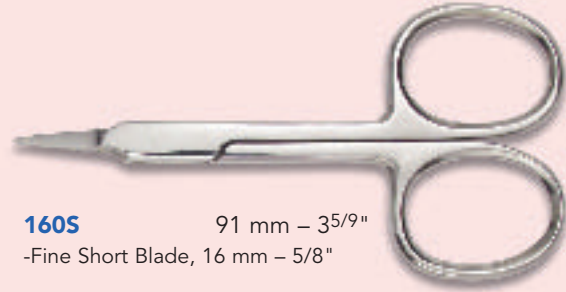
Stainless Steel  
Shiny Polished



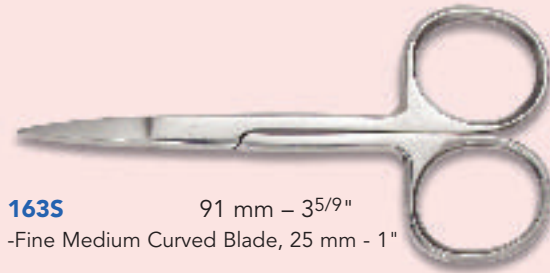
Switzerland



**162S** 91 mm – 3<sup>5</sup>/<sub>9</sub>"  
-Fine Medium Blade, 25 mm - 1"



**160S** 91 mm – 3<sup>5</sup>/<sub>9</sub>"  
-Fine Short Blade, 16 mm – 5/8"



**163S** 91 mm – 3<sup>5</sup>/<sub>9</sub>"  
-Fine Medium Curved Blade, 25 mm - 1"



**164S** 115 mm – 4<sup>1</sup>/<sub>2</sub>"  
-Straight Slim Blade, 30 mm – 1<sup>1</sup>/<sub>4</sub>"



**166S** 118 mm – 4<sup>2</sup>/<sub>5</sub>"  
-Bent Slim Blade, 30 mm – 1<sup>1</sup>/<sub>4</sub>"



**170S** 90 mm – 3<sup>1</sup>/<sub>2</sub>"  
-All Purpose Blade, 27 mm – 1"



**171S** 100 mm – 4"  
-All Purpose Blade, 35 mm – 1<sup>3</sup>/<sub>8</sub>"

# SCISSORS

Stainless Steel  
Shiny Polished



Switzerland



**172S** 120 mm – 4<sup>3</sup>/<sub>4</sub>"  
-All Purpose, Blade 44.5 mm – 1<sup>3</sup>/<sub>4</sub>"



**175S** 130 mm – 5<sup>1</sup>/<sub>8</sub>"  
-General Purpose "Electrician", Blade 46.5 mm – 1<sup>5</sup>/<sub>6</sub>"



**179S** 150 mm – 6"  
-Sharp End Tips, Blade 50 mm – 2"



**179AS** 145 mm – 5<sup>1</sup>/<sub>2</sub>"  
-One Sharp End Tip, Blade 50 mm – 2"  
-One Rounded End Tip

# SCISSORS

Stainless Steel  
Shiny Polished



Switzerland



**177S** 180 mm – 7<sup>1</sup>/<sub>2</sub>"  
-Bent Trimmer Scissors, Blade 73 mm – 2<sup>5</sup>/<sub>6</sub>"



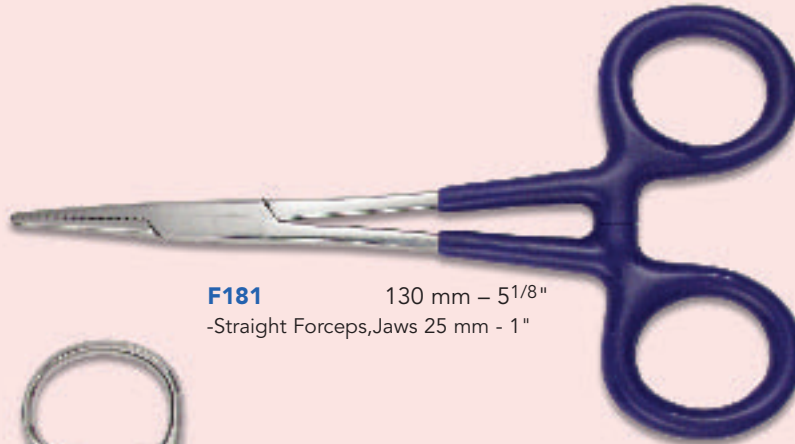
**178S** 200 mm – 8"  
-Bent Trimmer Scissors, Blade 95 mm – 3<sup>3</sup>/<sub>4</sub>"

# FORCEPS

Stainless Steel  
Shiny Polished  
Plastic Coated Handles



Switzerland



**F181** 130 mm – 5<sup>1</sup>/<sub>8</sub>"  
-Straight Forceps, Jaws 25 mm - 1"



**F181-P** 130 mm – 5<sup>1</sup>/<sub>8</sub>"  
-Straight Forceps, Jaws 25 mm - 1"



**F182** 160 mm – 6<sup>1</sup>/<sub>3</sub>"  
-Straight Forceps, Jaws 38 mm – 1<sup>1</sup>/<sub>2</sub>"



**F182-P** 160 mm – 6<sup>1</sup>/<sub>3</sub>"  
-Straight Forceps, Jaws 38 mm – 1<sup>1</sup>/<sub>2</sub>"



# FORCEPS

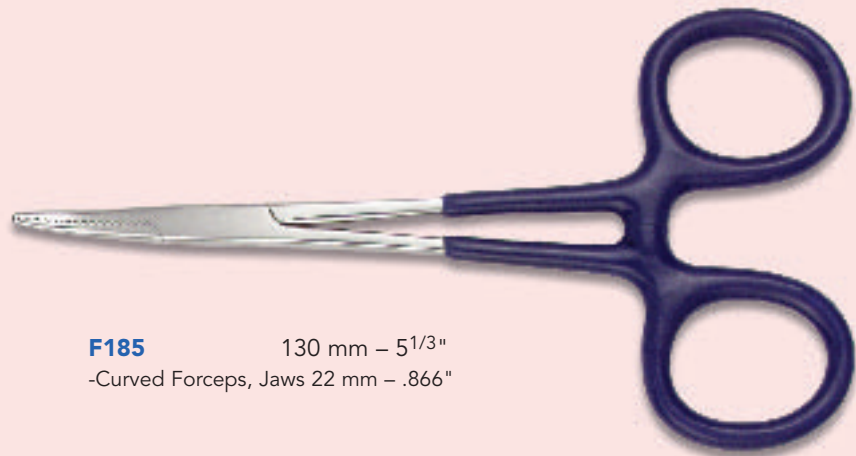
Stainless Steel  
Shiny Polished  
Plastic Coated Handles



**F183** 200 mm – 8"  
-Straight Forceps, Jaws 45 mm – 1<sup>7</sup>/<sub>8</sub>"



**F183-P** 200 mm – 8"  
-Straight Forceps, Jaws 45 mm – 1<sup>7</sup>/<sub>8</sub>"



**F185** 130 mm – 5<sup>1</sup>/<sub>3</sub>"  
-Curved Forceps, Jaws 22 mm – .866"



**F185-P** 130 mm – 5<sup>1</sup>/<sub>3</sub>"  
-Curved Forceps, Jaws 22 mm - .866"

# FORCEPS

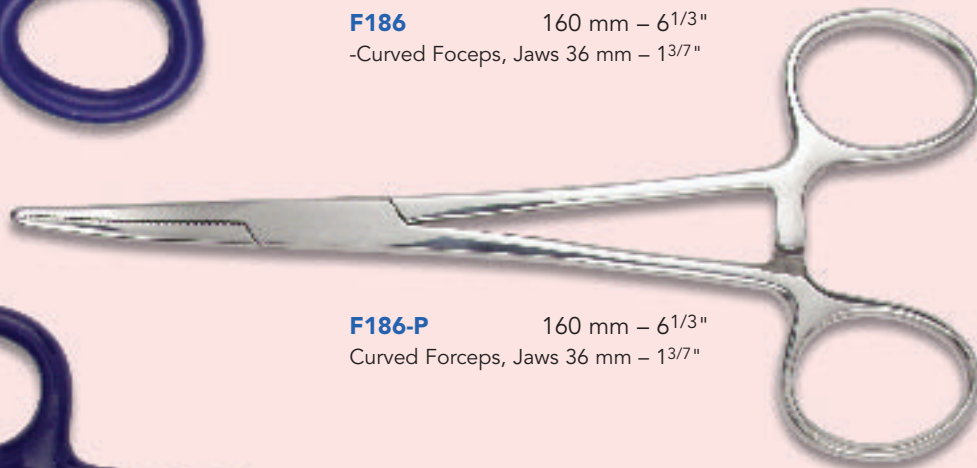
Stainless Steel  
Shiny Polished  
Plastic Coated Handles



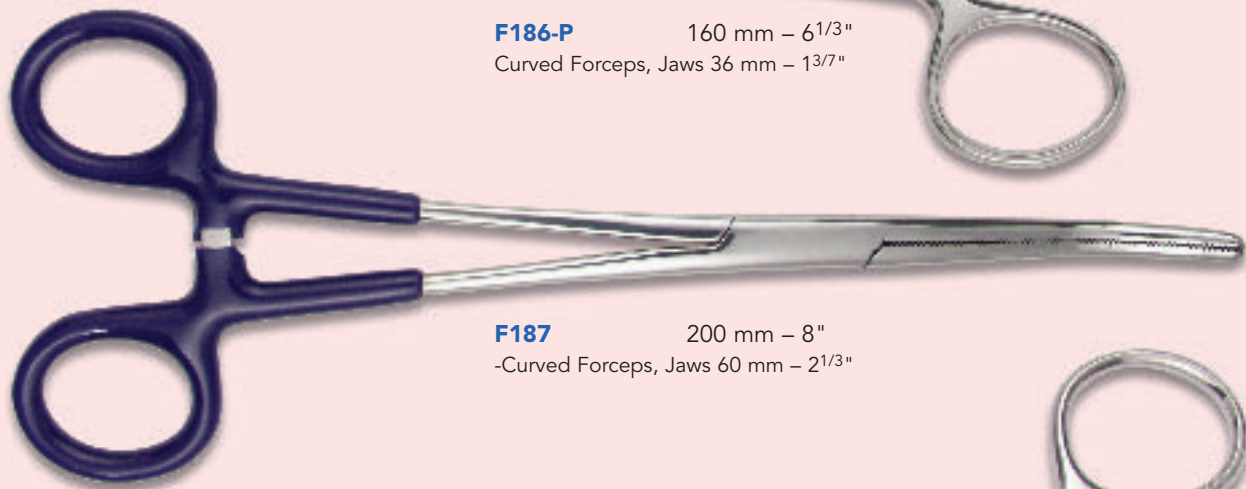
Switzerland



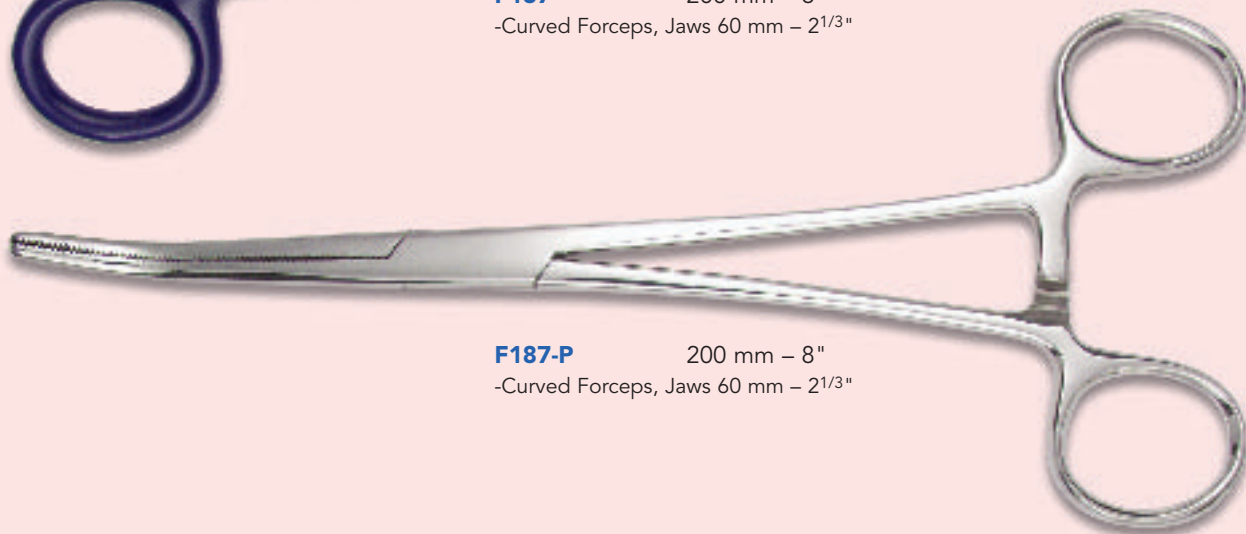
**F186** 160 mm – 6<sup>1</sup>/<sub>3</sub>"  
-Curved Forceps, Jaws 36 mm – 1<sup>3</sup>/<sub>7</sub>"



**F186-P** 160 mm – 6<sup>1</sup>/<sub>3</sub>"  
Curved Forceps, Jaws 36 mm – 1<sup>3</sup>/<sub>7</sub>"



**F187** 200 mm – 8"  
-Curved Forceps, Jaws 60 mm – 2<sup>1</sup>/<sub>3</sub>"



**F187-P** 200 mm – 8"  
-Curved Forceps, Jaws 60 mm – 2<sup>1</sup>/<sub>3</sub>"

# SCALPEL HANDLES AND BLADES

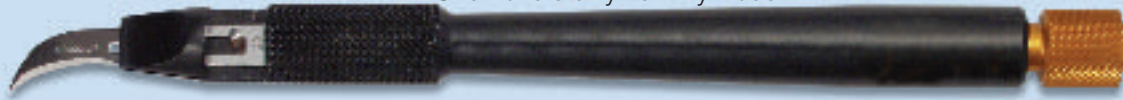


Switzerland

**MULTI BLADE HANDLE** 130 mm – 5 1/8"

**MULTI 34-SA**

-Black Anodized  
"One Handle only For Any Blade"



**GUARD LOCK 34**

55 mm – 2 1/6"



-Safety Guard Lock For Multi 34-SA  
-Totally Safe, Locked With Pocket Clip

**SCALPEL HANDLES**



**No 3** Stainless Steel 125 mm – 4 5/6"



**No 4** Stainless Steel 135 mm – 5 1/4"

**SCALPEL BLADES**

-For Handle No 3



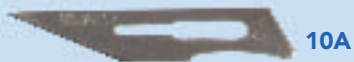
6



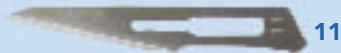
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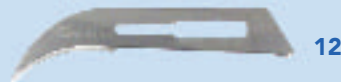
10



10A



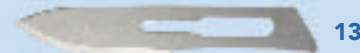
11



12



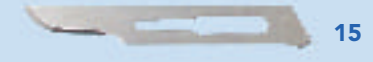
12D



13



14



15

**SCALPEL BLADES**

-For Handle No 4



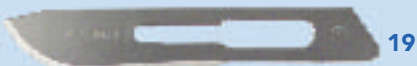
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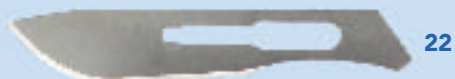
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24



19



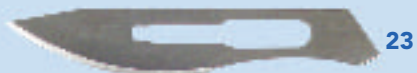
22



25



20



23



36

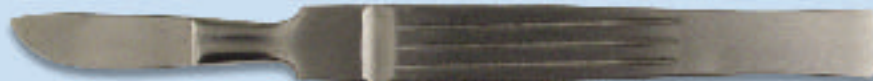
# MISCELLANEOUS TOOLS

Stainless Steel  
For General Purpose



Switzerland

**350-S** 110 mm - 4.33"



-Strong Cutting Scalpel  
-Stainless Steel, Shiny Polished

**350L-S** 155 mm - 6.1"



-Strong Cutting Scalpel  
-Stainless Steel, Shiny Polished

**342-S** 185 mm - 7.28"



-Double End Strong Mixing Spatula  
-Stainless Steel, Shiny Polished

**345-S** 220 mm - 8.66" **346-S** 180 mm - 7.086" **347-S** 155 mm - 6.102"



-Flexible Mixing Spatula  
-Stainless Steel w/Wooden Handle

**M10**



Mirror 170 mm - 6<sup>5</sup>/<sub>8</sub>"  
Ø 16 mm - .6299"

**M15**



Mirror 165 mm - 6<sup>1</sup>/<sub>2</sub>"  
Ø 22 mm - .8661"

**M18**



Mirror 185 mm - 7<sup>2</sup>/<sub>7</sub>"  
Ø 25 mm - .984"

**M30**



Mirror 190 mm - 7<sup>2</sup>/<sub>5</sub>"  
Ø 30 mm - 1.181"

# MICRO SCREWDRIVERS

Flat and Cross Blades



Switzerland

## MICRO SCREWDRIVER



**-B1** 50 mm - 2"  
-Blade Width 1.6 mm - .063" ⊖

## MICRO SCREWDRIVER



**-B2** 60 mm - 2<sup>1</sup>/<sub>3</sub>"  
-Blade Width A = 0.8 mm - .0314" ⊖  
B = 1.7 mm - .0669" ⊕

0.8 mm - .0314" Yellow ⊖

1.0 mm - .0393" Black ⊖

1.2 mm - .0472" Red ⊖

1.4 mm - .0551" Grey ⊖

2.0 mm - .0787" Green ⊖

## MICRO SCREWDRIVERS' SET B5



## MICRO SCREWDRIVERS' SET B6

1.0 mm-.0393" ⊖    1.3 mm-.0511" ⊖    1.5 mm-.0590" ⊖    1.0 mm-.0393" ⊕    1.4 mm-.0551" ⊕    2.0 mm-.0787" ⊕



## **SIPEL ELECTRONIC S.A.**

7, chemin de la Pallanterie 1252 MEINIER / Geneva -Switzerland  
Tél. +41 (0) 22 752 45 55 / 752 40 64 - Fax. +41 (0) 22 752 40 55  
e-mail: sipel@sipel.ch - www.sipel.com

# VACUUM PICK-UP TOOLS AND ACCESSORIES



Complete Program pages 56 to 77



# PEN-VAC® ORIGINAL

Self Contained Vacuum Handling Tools



Switzerland

Blue Anodized Finish.

With Storage Compartment. Ideal for Picking up Small Flat Parts up to 200 Grams.

With High Temperature BLUE Silicone Cups, Can Handle up to 250°C / 480°F

## V8901

-Without Probe+Cup



146 mm - 5 3/4"

## V8901-L

With 2 Probes+Cups

-1ea V8906-LB

Bent Probe+Cup Ø 9.53 mm – 3/8"

-1ea V8906-LS

Straight Probe+Cup Ø 9.53 mm – 3/8"

## V8901-M

With 2 Probes+Cups

-1ea V8906-MB

Bent Probe+Cup Ø 6.35 mm – 1/4"

-1ea V8906-MS

Straight Probe+Cup Ø 6.35 mm – 1/4"

## V8901-S

With 2 Probes+Cups

-1ea V8906-SB

Bent Probe+Cup Ø 3.18 mm – 1/8"

-1ea V8906-SS

Straight Probe+Cup Ø 3.18 mm – 1/8"

## V8901-A

With 4 Probes+Cups

-1ea V8906-LB

Bent Probe+Cup Ø 9.53 mm – 3/8"

-1ea V8906-MB

Bent Probe+Cup Ø 6.35 mm – 1/4"

-1ea V8906-MS

Straight Probe+Cup Ø 6.35 mm – 1/4"

-1ea V8906-SB

Bent Probe+Cup Ø 3.18 mm – 1/8"

## V8901-LMS

With 6 Probes+Cups

-1ea V8906-LB

Bent Probe+Cup Ø 9.53 mm – 3/8"

-1ea V8906-LS

Straight Probe+Cup Ø 9.53 mm – 3/8"

-1ea V8906-MB

Bent Probe+Cup Ø 6.35 mm – 1/4"

-1ea V8906-MS

Straight Probe+Cup Ø 6.35 mm – 1/4"

-1ea V8906-SB

Bent Probe+Cup Ø 3.18 mm – 1/8"

-1ea V8906-SS

Straight Probe+Cup Ø 3.18 mm – 1/8"

## V8901-LMS-D

See Page 62





# PEN-VAC® ORIGINAL ESD SAFE

Self Contained Vacuum Handling Tools



Switzerland

Clear Aluminum Finish.

With Storage Compartment. Ideal for Picking up Small Flat Parts up to 200 Grams.

With High Temperature BLACK ESD Silicone Cups, Can Handle up to 230°C / 445°F

## V8901-ESD

-Without Probe + Cup



146 mm - 5 3/4"

## V8901-L-ESD

With 2 Probes+Cups

-1ea V8904-LB

Bent Probe+Cup Ø 9.53 mm – 3/8"

-1ea V8904-LS

Straight Probe+Cup Ø 9.53 mm – 3/8"

## V8901-M-ESD

With 2 Probes+Cups

-1ea V8904-MB

Bent Probe+Cup Ø 6.35 mm – 1/4"

-1ea V8904-MS

Straight Probe+Cup Ø 6.35 mm – 1/4"

## V8901-S-ESD

With 2 Probes+Cups

-1ea V8904-SB

Bent Probe+Cup Ø 3.18 mm – 1/8"

-1ea V8904-SS

Straight Probe+Cup Ø 3.18 mm – 1/8"

## V8901-A-ESD

With 4 Probes+Cups

-1ea V8904-LB

Bent Probe+Cup Ø 9.53 mm – 3/8"

-1ea V8904-MB

Bent Probe+Cup Ø 6.35 mm – 1/4"

-1ea V8904-MS

Straight Probe+Cup Ø 6.35 mm – 1/4"

-1ea V8904-SB

Bent Probe+Cup Ø 3.18 mm – 1/8"

## V8901-LMS-ESD

With 6 Probes+Cups

-1ea V8904-LB

Bent Probe+Cup Ø 9.53 mm – 3/8"

-1ea V8904-LS

Straight Probe+Cup Ø 9.53 mm – 3/8"

-1ea V8904-MB

Bent Probe+Cup Ø 6.35 mm – 1/4"

-1ea V8904-MS

Straight Probe+Cup Ø 6.35 mm – 1/4"

-1ea V8904-SB

Bent Probe+Cup Ø 3.18 mm – 1/8"

-1ea V8904-SS

Straight Probe+Cup Ø 3.18 mm – 1/8"

## V8901-LMS-D-ESD

See Page 62



# PEN-VAC® JUNIOR

Self Contained Vacuum Handling Tools



Switzerland

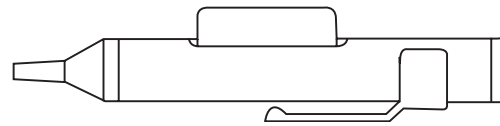
Red Anodized Finish.

No Storage Compartment. Ideal for Picking up Small Flat Parts up to 200 Grams.

With High Temperature RED Silicone Cups, Can Handle up to 250°C / 480°F

## V8920

-Without Probe+Cup



110 mm - 4 1/4"

## V8920-L

With 2 Probes+Cups

-1ea V8902-LB

Bent Probe+Cup Ø 9.53 mm – 3/8"

-1ea V8902-LS

Straight Probe+Cup Ø 9.53 mm – 3/8"

## V8920-M

With 2 Probes+Cups

-1ea V8902-MB

Bent Probe+Cup Ø 6.35 mm – 1/4"

-1ea V8902-MS

Straight Probe+Cup Ø 6.35 mm – 1/4"

## V8920-S

With 2 Probes+Cups

-1ea V8902-SB

Bent Probe+Cup Ø 3.18 mm – 1/8"

-1ea V8902-SS

Straight Probe+Cup Ø 3.18 mm – 1/8"

## V8920-A

With 4 Probes+Cups

-1ea V8902-LB

Bent Probe+Cup Ø 9.53 mm – 3/8"

-1ea V8902-MB

Bent Probe+Cup Ø 6.35 mm – 1/4"

-1ea V8902-MS

Straight Probe+Cup Ø 6.35 mm – 1/4"

-1ea V8902-SB

Bent Probe+Cup Ø 3.18 mm – 1/8"

## V8920-LMS

With 6 Probes+Cups

-1ea V8902-LB

Bent Probe+Cup Ø 9.53 mm – 3/8"

-1ea V8902-LS

Straight Probe+Cup Ø 9.53 mm – 3/8"

-1ea V8902-MB

Bent Probe+Cup Ø 6.35 mm – 1/4"

-1ea V8902-MS

Straight Probe+Cup Ø 6.35 mm – 1/4"

-1ea V8902-SB

Bent Probe+Cup Ø 3.18 mm – 1/8"

-1ea V8902-SS

Straight Probe+Cup Ø 3.18 mm – 1/8"

## V8920-LMS-D

See Page 62



# PEN-VAC® JUNIOR ESD SAFE

Self Contained Vacuum Handling Tools



Switzerland

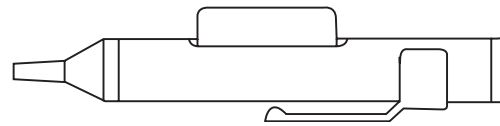
Clear Aluminum Finish.

No Storage Compartment. Ideal for Picking up Small Flat Parts up to 200 Grams.

With High Temperature BLACK ESD Silicone Cups, Can Handle up to 230°C / 445°F

## V8920-ESD

-Without Probe+Cup



110 mm - 4 1/4"

## V8920-L-ESD

With 2 Probes+Cups

-1ea V8904-LB

Bent Probe+Cup Ø 9.53 mm – 3/8"

-1ea V8904-LS

Straight Probe+Cup Ø 9.53 mm – 3/8"

## V8920-M-ESD

With 2 Probes+Cups

-1ea V8904-MB

Bent Probe+Cup Ø 6.35 mm – 1/4"

-1ea V8904-MS

Straight Probe+Cup Ø 6.35 mm – 1/4"

## V8920-S-ESD

With 2 Probes+Cups

-1ea V8904-SB

Bent Probe+Cup Ø 3.18 mm – 1/8"

-1ea V8904-SS

Straight Probe+Cup Ø 3.18 mm – 1/8"

## V8920-A-ESD

With 4 Probes+Cups

-1ea V8904-LB

Bent Probe+Cup Ø 9.53 mm – 3/8"

-1ea V8904-MB

Bent Probe+Cup Ø 6.35 mm – 1/4"

-1ea V8904-MS

Straight Probe+Cup Ø 6.35 mm – 1/4"

-1ea V8904-SB

Bent Probe+Cup Ø 3.18 mm – 1/8"

## V8920-LMS-ESD

With 6 Probes+Cups

-1ea V8904-LB

Bent Probe+Cup Ø 9.53 mm – 3/8"

-1ea V8904-LS

Straight Probe+Cup Ø 9.53 mm – 3/8"

-1ea V8904-MB

Bent Probe+Cup Ø 6.35 mm – 1/4"

-1ea V8904-MS

Straight Probe+Cup Ø 6.35 mm – 1/4"

-1ea V8904-SB

Bent Probe+Cup Ø 3.18 mm – 1/8"

-1ea V8904-SS

Straight Probe+Cup Ø 3.18 mm – 1/8"

## V8920-LMS-D-ESD

See Page 62



# PEN-VAC® JUNIOR-E New Generation



Switzerland

Self Contained Vacuum Handling Tools

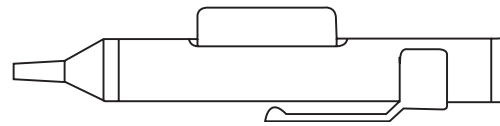
Red Anodized Finish.

No Storage Compartment. Ideal for Picking up Small Flat Parts up to 200 Grams.

With High Temperature RED Silicone Cups, Can Handle up to 250°C / 480°F

## V8920E

-Without Probe+Cup



127 mm - 5"

## V8920E-L

With 2 Probes+Cups

-1ea V8902-LB

Bent Probe+Cup Ø 9.53 mm – 3/8"

-1ea V8902-LS

Straight Probe+Cup Ø 9.53 mm – 3/8"

## V8920E-M

With 2 Probes +9 Cups

-1ea V8902-MB

Bent Probe+Cup Ø 6.35 mm – 1/4"

-1ea V8902-MS

Straight Probe+Cup Ø 6.35 mm – 1/4"

## V8920E-S

With 2 Probes+Cups

-1ea V8902-SB

Bent Probe+Cup Ø 3.18 mm – 1/8"

-1ea V8902-SS

Straight Probe+Cup Ø 3.18 mm – 1/8"

## V8920E-A

With 4 Probes+Cups

-1ea V8902-LB

Bent Probe+Cup Ø 9.53 mm – 3/8"

-1ea V8902-MB

Bent Probe+Cup Ø 6.35 mm – 1/4"

-1ea V8902-MS

Straight Probe+Cup Ø 6.35 mm – 1/4"

-1ea V8902-SB

Bent Probe+Cup Ø 3.18 mm – 1/8"

## V8920E-LMS

With 6 Probes+Cups

-1ea V8902-LB

Bent Probe+Cup Ø 9.53 mm – 3/8"

-1ea V8902-LS

Straight Probe+Cup Ø 9.53 mm – 3/8"

-1ea V8902-MB

Bent Probe+Cup Ø 6.35 mm – 1/4"

-1ea V8902-MS

Straight Probe+Cup Ø 6.35 mm – 1/4"

-1ea V8902-SB

Bent Probe+Cup Ø 3.18 mm – 1/8"

-1ea V8902-SS

Straight Probe+Cup Ø 3.18 mm – 1/8"

## V8920E-LMS-D

See Page 62



# PEN-VAC® JUNIOR-E ESD SAFE

New Generation. Self Contained Vacuum Handling Tools.



Switzerland

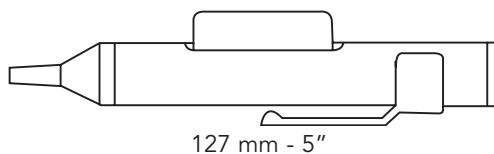
Clear Aluminum Finish.

No Storage Compartment. Ideal for Picking up Small Flat Parts up to 200 Grams.

With High Temperature BLACK ESD Silicone Cups, Can Handle up to 230°C / 445°F

## V8920E-ESD

-Without Probe+Cup



## V8920E-L-ESD

With 2 Probes+Cups

-1ea V8904-LB

Bent Probe+Cup Ø 9.53 mm – 3/8"

-1ea V8904-LS

Straight Probe+Cup Ø 9.53 mm – 3/8"

## V8920E-M-ESD

With 2 Probes+Cups

-1ea V8904-MB

Bent Probe+Cup Ø 6.35 mm – 1/4"

-1ea V8904-MS

Straight Probe+Cup Ø 6.35 mm – 1/4"

## V8920E-S-ESD

With 2 Probes+Cups

-1ea V8904-SB

Bent Probe+Cup Ø 3.18 mm – 1/8"

-1ea V8904-SS

Straight Probe+Cup Ø 3.18 mm – 1/8"

## V8920E-A-ESD

With 4 Probes+Cups

-1ea V8904-LB

Bent Probe+Cup Ø 9.53 mm – 3/8"

-1ea V8904-MB

Bent Probe+Cup Ø 6.35 mm – 1/4"

-1ea V8904-MS

Straight Probe+Cup Ø 6.35 mm – 1/4"

-1ea V8904-SB

Bent Probe+Cup Ø 3.18 mm – 1/8"

## V8920E-LMS-ESD

With 6 Probes+Cups

-1ea V8904-LB

Bent Probe+Cup Ø 9.53 mm – 3/8"

-1ea V8904-LS

Straight Probe+Cup Ø 9.53 mm – 3/8"

-1ea V8904-MB

Bent Probe+Cup Ø 6.35 mm – 1/4"

-1ea V8904-MS

Straight Probe+Cup Ø 6.35 mm – 1/4"

-1ea V8904-SB

Bent Probe+Cup Ø 3.18 mm – 1/8"

-1ea V8904-SS

Straight Probe+Cup Ø 3.18 mm – 1/8"

## V8920E-LMS-D-ESD

See Page 62



# PEN-VAC® ORIGINAL, JUNIOR AND JUNIOR-E DELUXE PACKAGING



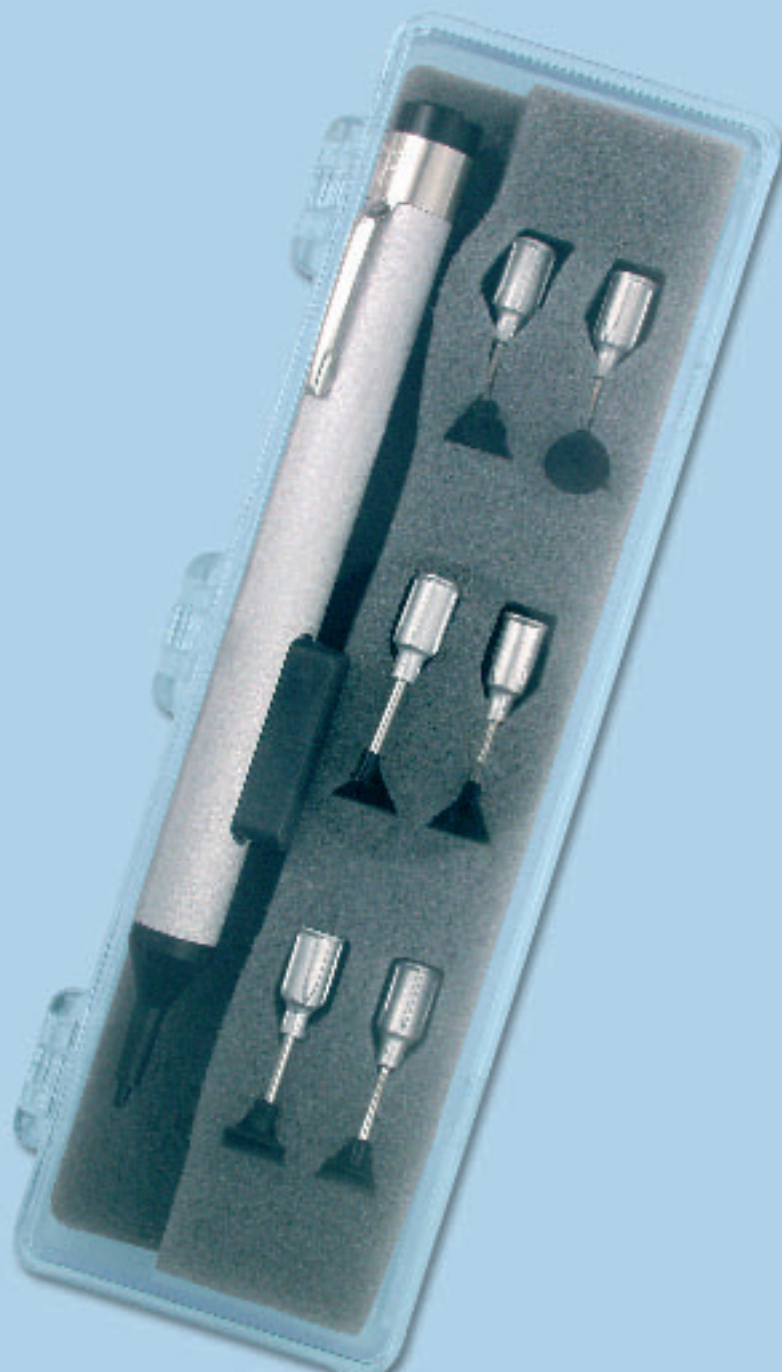
Hard Clear Plastic Box with Foam Location for Each Item

**V8901-LMS-D** Blue Anodized Finish  
 With 6 Probes+Cups  
 -1ea V8906-LB  
 Bent Probe+Cup Ø 9.53 mm – 3/8"  
 -1ea V8906-LS  
 Straight Probe+Cup Ø 9.53 mm – 3/8"  
 -1ea V8906-MB  
 Bent Probe+Cup Ø 6.35 mm – 1/4"  
 -1ea V8906-MS  
 Straight Probe+Cup Ø 6.35 mm – 1/4"  
 -1ea V8906-SB  
 Bent Probe+Cup Ø 3.18 mm – 1/8"  
 -1ea V8906-SS  
 Straight Probe+Cup Ø 3.18 mm – 1/8"

**V8901-LMS-D-ESD** Clear Aluminum Finish  
 With 6 Probes+Cups  
 -1ea V8904-LB  
 Bent Probe+Cup Ø 9.53 mm – 3/8"  
 -1ea V8904-LS  
 Straight Probe+Cup Ø 9.53 mm – 3/8"  
 -1ea V8904-MB  
 Bent Probe+Cup Ø 6.35 mm – 1/4"  
 -1ea V8904-MS  
 Straight Probe+Cup Ø 6.35 mm – 1/4"  
 -1ea V8904-SB  
 Bent Probe+Cup Ø 3.18 mm – 1/8"  
 -1ea V8904-SS  
 Straight Probe+Cup Ø 3.18 mm – 1/8"

**V8920E-LMS-D** Red Anodized Finish  
**V8920-LMS-D**  
 With 6 Probes+Cups  
 -1ea V8902-LB  
 Bent Probe+Cup Ø 9.53 mm – 3/8"  
 -1ea V8902-LS  
 Straight Probe+Cup Ø 9.53 mm – 3/8"  
 -1ea V8902-MB  
 Bent Probe+Cup Ø 6.35 mm – 1/4"  
 -1ea V8902-MS  
 Straight Probe+Cup Ø 6.35 mm – 1/4"  
 -1ea V8902-SB  
 Bent Probe+Cup Ø 3.18 mm – 1/8"  
 -1ea V8902-SS  
 Straight Probe+Cup Ø 3.18 mm – 1/8"

**V8920E-LMS-D-ESD**  
**V8920-LMS-D-ESD** Clear Aluminium Finish  
 With 6 Probes+Cups  
 -1ea V8904-LB  
 Bent Probe+Cup Ø 9.53 mm – 3/8"  
 -1ea V8904-LS  
 Straight Probe+Cup Ø 9.53 mm – 3/8"  
 -1ea V8904-MB  
 Bent Probe+Cup Ø 6.35 mm – 1/4"  
 -1ea V8904-MS  
 Straight Probe+Cup Ø 6.35 mm – 1/4"  
 -1ea V8904-SB  
 Bent Probe+Cup Ø 3.18 mm – 1/8"  
 -1ea V8904-SS  
 Straight Probe+Cup Ø 3.18 mm – 1/8"



# PEN-VAC® PRO SERIES

Self Contained Vacuum Handling Tools



Switzerland

Black or Grey Light Weight ESD Safe Plastic

High Temperature BLACK ESD Silicone Cups or Static Dissipative BLACK BUNA-N Cups

**V8910-9BK-ESD** 127 mm - 5"  
-Black Body

With 4 Probes+Cups

-1ea V8904-LB

Bent Probe+Cup Ø 9.53 mm – 3/8"

-1ea V8904-MB

Bent Probe+Cup Ø 6.35 mm – 1/4"

-1ea V8904-MS

Straight Probe+Cup Ø 6.35 mm – 1/4"

-1ea V8904-SB

Bent Probe+Cup Ø 3.18 mm – 1/8"

Available Also in Version:

**V8910-9BK-B** Black Buna-N Static  
Dissipative Non-Marking Material

**V8910-BK-X-ESD** Without Probes and Cups



**V8910-9GR-ESD** 127 mm - 5"  
-Grey Body

With 4 Probes+Cups

-1ea V8904-LB

Bent Probe+Cup Ø 9.53 mm – 3/8"

-1ea V8904-MB

Bent Probe+Cup Ø 6.35 mm – 1/4"

-1ea V8904-MS

Straight Probe+Cup Ø 6.35 mm – 1/4"

-1ea V8904-SB

Bent Probe+Cup Ø 3.18 mm – 1/8"

Available Also in Version:

**V8910-9GR-B** Black Buna-N Static  
Dissipative Non-Marking Material

**V8910-GR-X-ESD** Without Probes and Cups



## SLIM-VAC®

Self Contained Vacuum Handling Tools

**V9501-ESD** 118 mm – 45/8"

With 4 Probes+Cups

-1ea V8904-LS

Straight Probe+Cup Ø 9.53 mm – 3/8"

-1ea V8904-MB

Bent Probe+Cup Ø 6.35 mm – 1/4"

-1ea V8904-SB

Bent Probe+Cup Ø 3.18 mm – 1/8"

-1ea V8904-SS

Straight Probe+Cup Ø 3.18 mm – 1/8"

Available Also in Version:

**V9501-B** Black Buna-N Static  
Dissipative Non-Marking Material

**V9501-X-ESD** Without Probes and Cups



# VACULA®

New Self Contained Vacuum Handling Tools ESD Safe Slim Body With Top Plunger



Switzerland

## HP 300-ESD

Easily Handles up to 500 Grams

## PINCH-VAC® ESD SAFE

Low Cost Vacuum Tool

### VACULA® VC-1-ESD

140 mm – 5 1/2"

With 3 Probes+Cups

-1ea V8904-HS

Straight Probe+Cup Ø12.70mm-1/2"

-1ea V8904-LS

Straight Probe+Cup Ø 9.53 mm-3/8"

-1ea V8904-MS

Straight Probe+Cup Ø 6.35 mm-1/4"

Available Also in Version:

**VC-1-B** Black Buna-N Static

Dissipative Non-Marking Material

**VC-1-X** Without Probes and Cups



### VACULA® VC-2-ESD

135 mm – 5 1/4"

With 2 Cups Only

-1 ea V9062-ESD Ø 15.88 mm – 5/8"

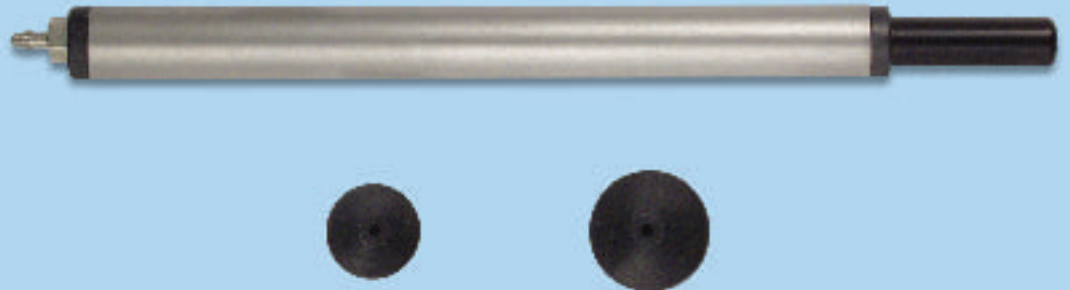
-1 ea V9050-ESD Ø 12.70 mm – 1/2"

Available Also in Version:

**VC-2-B** Black Buna-N Static

Dissipative Non-Marking Material

**VC-2-X** Without Cups



### HP 300-ESD

120 mm – 4 3/4"

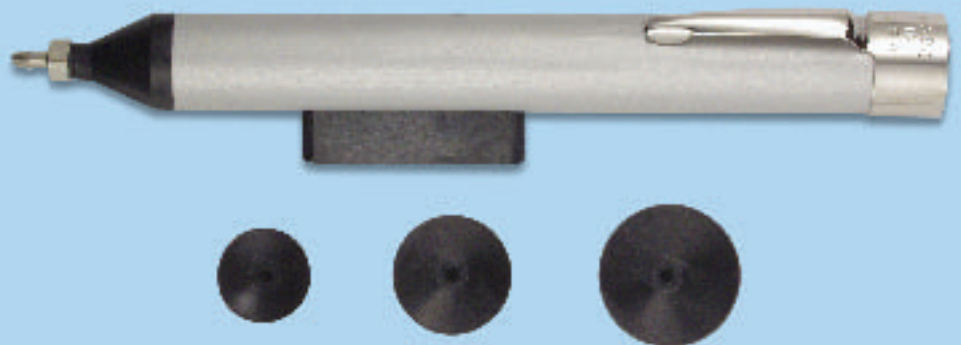
ESD Safe High Power Vacuum Tool for Large Component Easily Lifts up to 500 grams

With 3 Cups Only

-1 ea V9075-ESD Ø 19.05 mm – 3/4"

-1 ea V9062-ESD Ø 15.88 mm – 5/8"

-1 ea V9050-ESD Ø 12.70 mm – 1/2"



### PINCH-VAC® ESD SAFE VPV-6-ESD

125 mm – 4 7/8"

With 2 Probes + Cups

-1 ea V8904-LS

Straight Probe+Cup Ø 9.53mm -3/8"

-1 ea V8904-MB

Bent Probe+Cup Ø 6.35 mm -1/4"

+ 1 Cup Only V9013-ESD

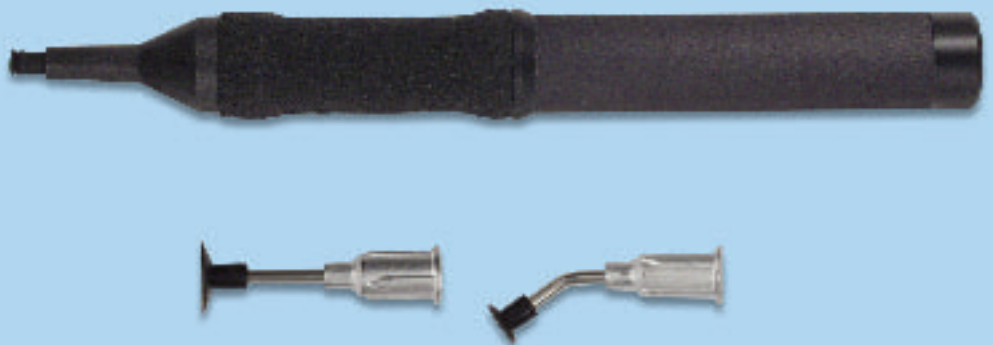
Ø3.18mm-1/8"

Available Also in Version:

**VPV-6-B** Black Buna-N Static

Dissipative Non-Marking Material

**VPV-6-X** Without Probes and Cups





# LOW COST ESD SAFE VACUUM HANDLING TOOLS

## HANDY-VAC®

**HV-X-ESD** (body only-no cup) 70 mm – 2<sup>3</sup>/<sub>4</sub>"



## HANDY-VAC®

**HV-013-ESD** (cup only Ø 3.18mm – 1/8")

**HV-025-ESD** (cup only Ø 6.35mm – 1/4")

**HV-038-ESD** (cup only Ø 9.53mm – 3/8")

**HV-050-ESD** (cup only Ø 12.70mm – 1/2")

**HV-062-ESD** (cup only Ø 15.88mm – 5/8")

**HV-075-ESD** (cup only Ø 19.05mm – 3/4")



## HANDY-VAC®

**HV-SB-ESD** (Bent Probe+Cup Ø 3.18mm – 1/8")

**HV-SS-ESD** (Straight Probe+Cup Ø 3.18mm – 1/8")

**HV-MB-ESD** (Bent Probe+Cup Ø 6.35mm – 1/4")

**HV-MS-ESD** (Straight Probe+Cup Ø 6.35mm – 1/4")

**HV-LB-ESD** (Bent Probe+Cup Ø 9.53mm – 3/8")

**HV-LS-ESD** (Straight Probe+Cup Ø 9.53mm – 3/8")

**HV-HB-ESD** (Bent Probe+Cup Ø 12.70mm – 1/2")

**HV-HS-ESD** (Straight Probe+Cup Ø 12.70mm – 1/2")

**HV-JB-ESD** (Bent Probe+Cup Ø 15.88mm – 5/8")

**HV-JS-ESD** (Straight Probe+Cup Ø 15.88mm – 5/8")

**HV-KB-ESD** (Bent Probe+Cup Ø 19.05mm – 3/4")

**HV-KS-ESD** (Straight Probe+Cup Ø 19.05mm – 3/4")



## HANDY-VAC® DELUXE KIT

**HV-4-ESD** (4 probes and cups)

V8904-LB/MB/MS/SB

**HV-6-ESD** (6 probes and cups)

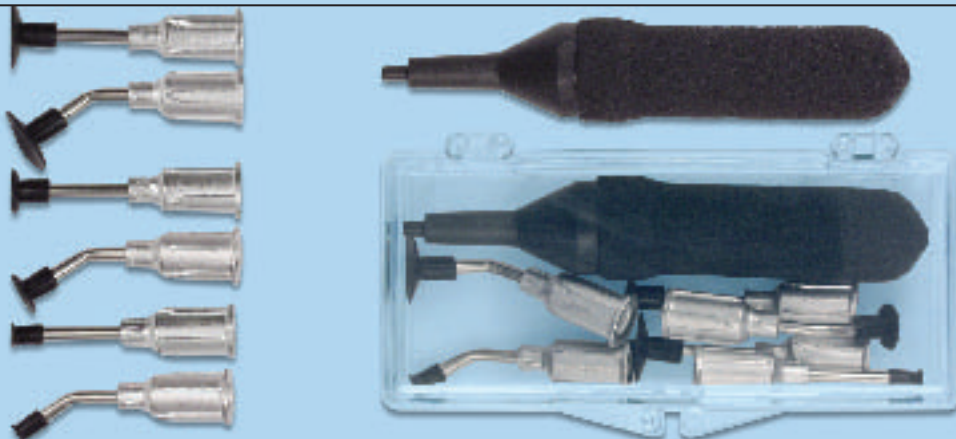
V8904-LB/LS/MB/MS/SB/SS

**HV-4-B** (4 Probes and Black Buna-N Cups)

V8903-LB/MB/MS/SB

**HV-6-B** (6 probes and Black Buna-N Cups)

V8903-LB/LS/MB/MS/SB/SS



## BULB-VAC

**BVJ-X-ESD** (without cup) 90 mm – 3<sup>1</sup>/<sub>2</sub>"

**BVJ-025-ESD** (cup Ø 6.35mm – 1/4")

**BVJ-038-ESD** (cup Ø 9.53mm – 3/8")

**BVJ-050-ESD** (cup Ø 12.70mm – 1/2")

**BVJ-062-ESD** (cup Ø 15.88mm – 5/8")

**BVJ-075-ESD** (cup Ø 19.05mm – 3/4")

**BVJ-025-B** (Black Buna cup Ø 6.35mm – 1/4")

**BVJ-038-B** (Black Buna cup Ø 9.53mm – 3/8")

**BVJ-050-B** (Black Buna cup Ø 12.70mm – 1/2")

**BVJ-062-B** (Black Buna cup Ø 15.88mm – 5/8")

**BVJ-075-B** (Black Buna cup Ø 19.05mm – 3/4")



# VACUUM CUPS

ESD Safe and NON ESD Safe  
Wide Selection of Materials and Sizes



Switzerland



**V9009**

Ø 2.38mm – 3/32"



**V9013**

Ø 3.18mm – 1/8"



**V9018**

Ø 4.76mm – 3/16"



**V9025**

Ø 6.35mm – 1/4"



**V9038**

Ø 9.53mm – 3/8"



**V9050**

Ø 12.70mm – 1/2"



**V9062**

Ø 15.88mm – 5/8"



**V9075**

Ø 19.05mm – 3/4"

Available in Following Materials. Add Suffix:

- R **RED** High-Temperature Silicone Cups (up to 480°F / 250°C)
- B **BLACK BUNA-N** Static Dissipative Non-Marking Cups (up to 250°F / 120°C)
- ESD **BLACK ESD** High Temperature Safe Silicone Cups. See Above (up to 445°F / 230°C)
- W **WHITE** Silicone Cups (up to 480°F / 250°C)
- U **BLUE** High Temperature Silicone Cups (up to 480°F / 250°C)
- C **CLEAR** High Temperature Silicone Cups (up to 480°F / 250°C)

## NEW TEFLON VACUUM CUPS, ANTI-STATIC

Semi-Rigid. For Handling Contamination Sensitive Parts. Ideal for Optics. No Residue.  
Temperature up to 500°F / 260°C. For Continuous Vacuum only.



**VTC9013**

Ø 3.18mm – 1/8"



**VTC9018**

Ø 4.76mm – 3/16"



**VTC9025**

Ø 6.35mm – 1/4"



**VTC9038**

Ø 9.53mm – 3/8"



**VTC9050**

Ø 12.70mm – 1/2"



**VTC9062**

Ø 15.88mm – 5/8"



**VTC9075**

Ø 19.05mm – 3/4"

# VACUUM CUPS

## WITH 12.70mm – 1/2" PROBE

Wide Selection of Materials and Sizes



**V8904-** Series: High Temperature **BLACK** ESD Safe Silicone Cup



Available in Following Materials, With 12.70mm - 1/2" Probe:

- V8902- RED** High-temperature Silicone cups (up to 250°C / 480°F)
- V8903- BLACK BUNA-N** Static Dissipative Non-Marking Cups (up to 120°C / 250°F)
- V8904- BLACK** High Temperature ESD Safe Silicone Cups. See Above (up to 230°C / 445°F)
- V8905- WHITE** Silicone Cups (up to 250°C / 480°F)
- V8906- BLUE** High Temperature Silicone Cups (up to 250°C / 480°F)
- V8907- CLEAR** High Temperature Silicone Cups (up to 250°C / 480°F)

Add Suffix:

- DB** to order with the 2.38mm – 3/32" Ø Cup and **45° Bent** Probe
- DS** to order with the 2.38mm – 3/32" Ø Cup and **Straight** Probe
- SB** to order with the 3.18mm – 1/8" Ø Cup and **45° Bent** Probe
- SS** to order with the 3.18mm – 1/8" Ø Cup and **Straight** Probe
- PB** to order with the 4.76mm – 3/16" Ø Cup and **45° Bent** Probe
- PS** to order with the 4.76mm – 3/16" Ø Cup and **Straight** Probe
- MB** to order with the 6.35mm – 1/4" Ø Cup and **45° Bent** Probe
- MS** to order with the 6.35mm – 1/4" Ø Cup and **Straight** Probe
- LB** to order with the 9.53mm – 3/8" Ø Cup and **45° Bent** Probe
- LS** to order with the 9.53mm – 3/8" Ø Cup and **Straight** Probe
- HB** to order with the 12.70mm – 1/2" Ø Cup and **45° Bent** Probe
- HS** to order with the 12.70mm – 1/2" Ø Cup and **Straight** Probe
- JB** to order with the 15.88mm – 5/8" Ø Cup and **45° Bent** Probe
- JS** to order with the 15.88mm – 5/8" Ø Cup and **Straight** Probe
- KB** to order with the 19.05mm – 3/4" Ø Cup and **45° Bent** Probe
- KS** to order with the 19.05mm – 3/4" Ø Cup and **Straight** Probe

# VACUUM CUPS

## WITH 25.40mm – 1" PROBE

Wide Selection of Materials and Sizes



### V8914- Series: High Temperature **BLACK** ESD Safe Silicone Cup



Available in Following Materials, With 25.40mm - 1" Probe:

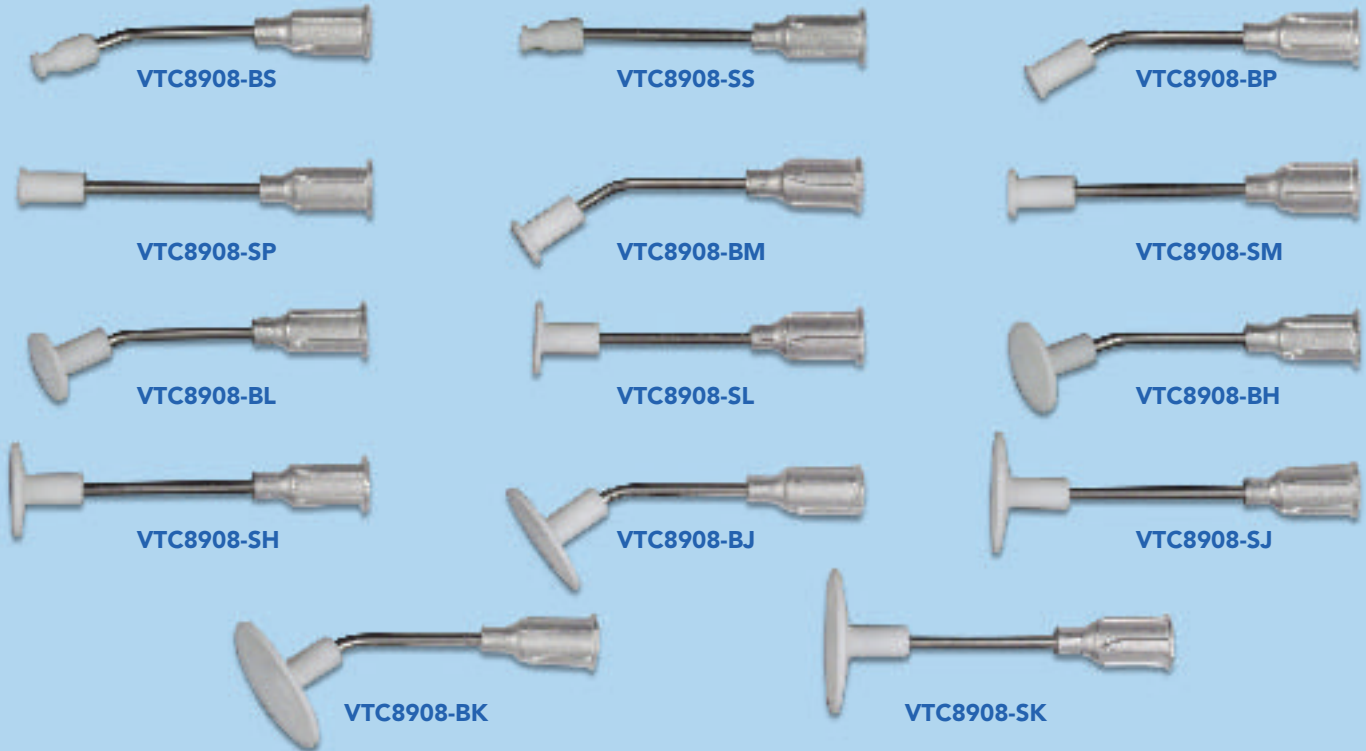
- V8912- RED** High-temperature Silicone cups (up to 250°C / 480°F)
- V8913- BLACK BUNA-N** Static Dissipative Non-Marking Cups (up to 120°C / 250°F)
- V8914- BLACK** High Temperature ESD Safe Silicone Cups. See Above (up to 230°C / 445°F)
- V8915- WHITE** Silicone Cups (up to 250°C / 480°F)
- V8916- BLUE** High Temperature Silicone Cups (up to 250°C / 480°F)
- V8917- CLEAR** High Temperature Silicone Cups (up to 250°C / 480°F)

Add Suffix:

- DB** to order with the 2.38mm – 3/32" Ø Cup and **45° Bent** Probe
- DS** to order with the 2.38mm – 3/32" Ø Cup and **Straight** Probe
- SB** to order with the 3.18mm – 1/8" Ø Cup and **45° Bent** Probe
- SS** to order with the 3.18mm – 1/8" Ø Cup and **Straight** Probe
- PB** to order with the 4.76mm – 3/16" Ø Cup and **45° Bent** Probe
- PS** to order with the 4.76mm – 3/16" Ø Cup and **Straight** Probe
- MB** to order with the 6.35mm – 1/4" Ø Cup and **45° Bent** Probe
- MS** to order with the 6.35mm – 1/4" Ø Cup and **Straight** Probe
- LB** to order with the 9.53mm – 3/8" Ø Cup and **45° Bent** Probe
- LS** to order with the 9.53mm – 3/8" Ø Cup and **Straight** Probe
- HB** to order with the 12.70mm – 1/2" Ø Cup and **45° Bent** Probe
- HS** to order with the 12.70mm – 1/2" Ø Cup and **Straight** Probe
- JB** to order with the 15.88mm – 5/8" Ø Cup and **45° Bent** Probe
- JS** to order with the 15.88mm – 5/8" Ø Cup and **Straight** Probe
- KB** to order with the 19.05mm – 3/4" Ø Cup and **45° Bent** Probe
- KS** to order with the 19.05mm – 3/4" Ø Cup and **Straight** Probe

To order with 90° bent Probe, Add /90 to the P/N . Example: **V8914-MB/90**

# NEW ANTI-STATIC TEFLON VACUUM CUPS VTC 8908 SERIES AVAILABLE WITH 25.40mm – 1" PROBE ONLY



- VTC8908-BS** with 3.18mm – 1/8" Ø Cup and **45° Bent** Probe
- VTC8908-SS** with 3.18mm – 1/8" Ø Cup and **Straight** Probe
- VTC8908-BP** with 4.76mm – 3/16" Ø Cup and **45° Bent** Probe
- VTC8908-SP** with 4.76mm – 3/16" Ø Cup and **Straight** Probe
- VTC8908-BM** with 6.35mm – 1/4" Ø Cup and **45° Bent** Probe
- VTC8908-SM** with 6.35mm – 1/4" Ø Cup and **Straight** Probe
- VTC8908-BL** with 9.53mm – 3/8" Ø Cup and **45° Bent** Probe
- VTC8908-SL** with 9.53mm – 3/8" Ø Cup and **Straight** Probe
- VTC8908-BH** with 12.70mm – 1/2" Ø Cup and **45° Bent** Probe
- VTC8908-SH** with 12.70mm – 1/2" Ø Cup and **Straight** Probe
- VTC8908-BJ** with 15.88mm – 5/8" Ø Cup and **45° Bent** Probe
- VTC8908-SJ** with 15.88mm – 5/8" Ø Cup and **Straight** Probe
- VTC8908-BK** with 19.05mm – 3/4" Ø Cup and **45° Bent** Probe
- VTC8908-SK** with 19.05mm – 3/4" Ø Cup and **Straight** Probe

To order with 90° bent Probe, Add /90 to the P/N . Example: **VTC8908-BM/90**

# NEW DUAL CUPS

Additional Sizes And Information Upon Request

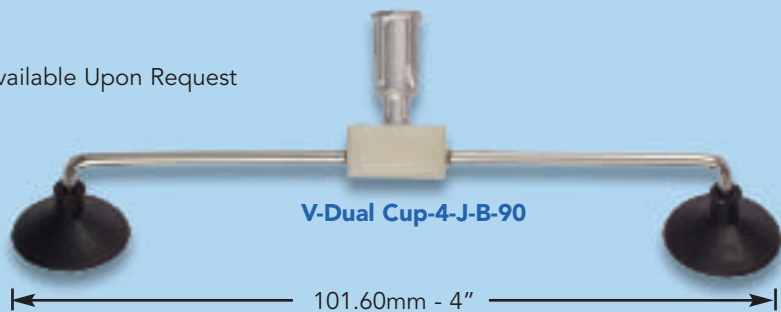


Switzerland



**V-Dual Cup-2-L-B-00**  
Straight Dual Cup, with 2 Cups  
2ea V9038 Black Buna Ø 9.53mm - 3/8"

Other Angle Available Upon Request



**V-Dual Cup-4-J-B-90**  
90° Angle Dual Cup, with 2 Cups  
2ea V9062 Black Buna Ø 15.88mm - 5/8"

## NEW MICRO VAC TIPS S3950 SERIES AVAILABLE WITH 12.70mm – 1/2" PROBE ONLY

Designed For Continuous Vacuum Tools, for Handling Very Small Parts, such as 0.15 mm - .006"



**S3950-B-ESD**



**S3950-S-ESD**



**S3951-B-ESD**



**S3951-S-ESD**



**S3955-B-ESD**



**S3955-S-ESD**



**S3956-B-ESD**



**S3956-S-ESD**

- S3950-B...** : Outside Ø 0.30mm - .011" - Inside Ø 0.14mm - .006", w / **45° Bent** Probe
- S3950-S...** : Outside Ø 0.30mm - .011" - Inside Ø 0.14mm - .006", w / **Straight** Probe
- S3951-B...** : Outside Ø 0.80mm - .031" - Inside Ø 0.50mm - .012", w / **45° Bent** Probe
- S3951-S...** : Outside Ø 0.80mm - .031" - Inside Ø 0.50mm - .012", w / **Straight** Probe
- S3955-B...** : Outside Ø 1.00mm - .039" - Inside Ø 0.40mm - .015", w / **45° Bent** Probe
- S3955-S...** : Outside Ø 1.00mm - .039" - Inside Ø 0.40mm - .015", w / **Straight** Probe
- S3956-B...** : Outside Ø 1.27mm - .050" - Inside Ø 0.86mm - .034", w / **45° Bent** Probe
- S3956-S...** : Outside Ø 1.27mm - .050" - Inside Ø 0.86mm - .034", w / **Straight** Probe

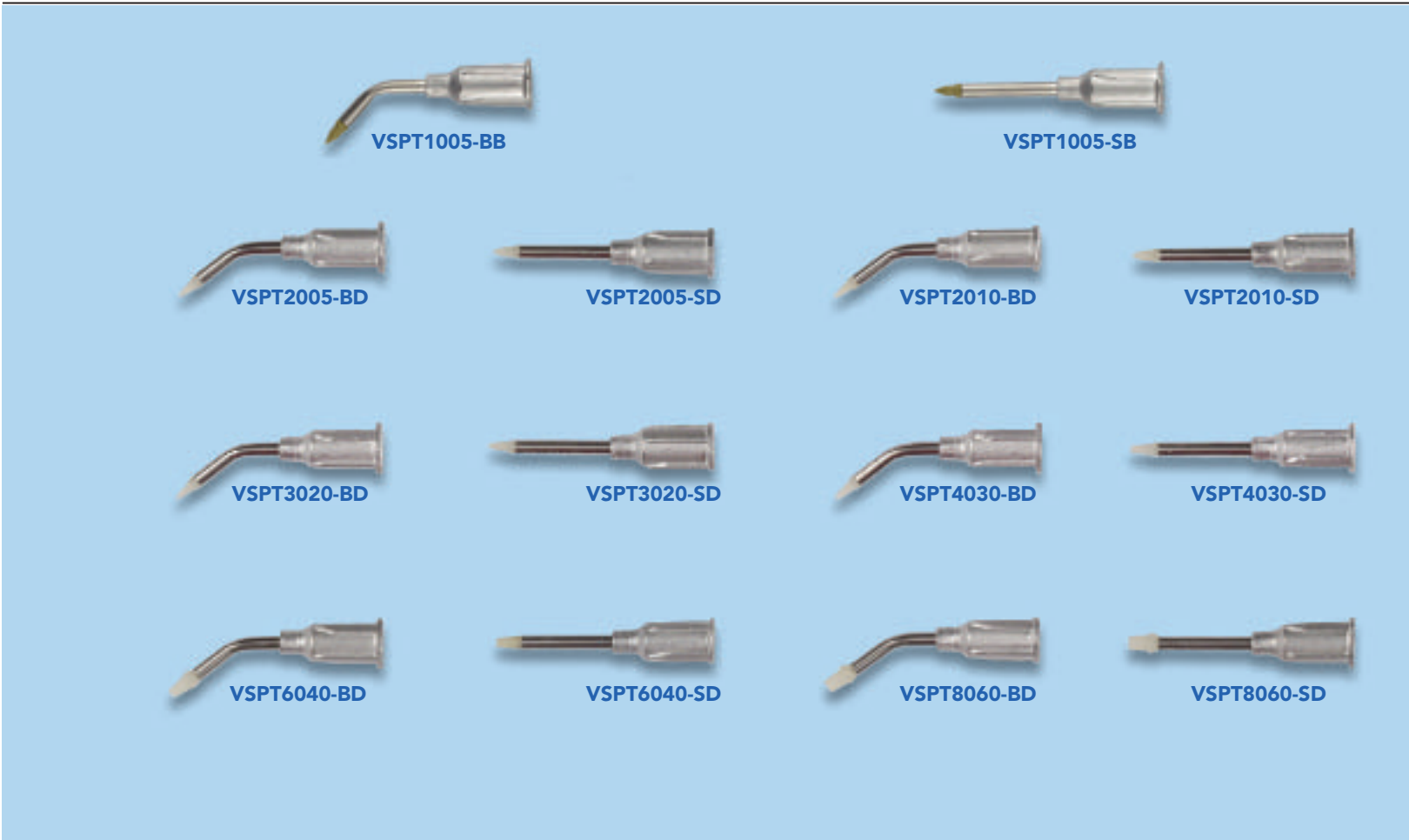
Available in Following Materials. Add Suffix:

- ESD** **BLACK ESD** Safe Carbon Fibre. See Above (Heat Resistance up to 230°C / 445°F)
- STD** **GREY Static** Dissipative Carbon Fibre (Heat Resistance up to 230°C / 445°F)
- W** **WHITE** Delrin 500 (up to 230°C / 445°F)

# NEW MICRO VAC TIPS VSPT SERIES

## AVAILABLE WITH 12.70mm – 1/2" PROBE ONLY

Designed For Continuous Vacuum Tools, for Handling Very Small Parts, such as 0.152mm - .006"



Available in Following Materials. Add Suffix:

- D**     **WHITE DELRIN** Static Dissipative, up to 100°C / 212°F
- B**     **BRASS** Conductive, Gold Plated, up to 260°C / 500°F
- T**     **TORLON** Non ESD Safe, up to 232°C / 475°F

- VSPT1005-B...** : Outside Ø 0.25mm - .010" - Inside Ø 0.13mm - .005", w / **45° Bent** Probe, available only in BRASS or TORLON
- VSPT1005-S...** : Outside Ø 0.25mm - .010" - Inside Ø 0.13mm - .005", w / **Straight** Probe, available only in BRASS or TORLON
- VSPT2005-BD...** : Outside Ø 0.51mm - .020" - Inside Ø 0.13mm - .005", w / **45° Bent** Probe, available only in DELRIN
- VSPT2005-SD...** : Outside Ø 0.51mm - .020" - Inside Ø 0.13mm - .005", w / **Straight** Probe, available only in DELRIN
- VSPT2010-B...** : Outside Ø 0.51mm - .020" - Inside Ø 0.25mm - .010", w / **45° Bent** Probe
- VSPT2010-S...** : Outside Ø 0.51mm - .020" - Inside Ø 0.25mm - .010", w / **Straight** Probe
- VSPT3020-B...** : Outside Ø 0.76mm - .030" - Inside Ø 0.51mm - .020", w / **45° Bent** Probe
- VSPT3020-S...** : Outside Ø 0.76mm - .030" - Inside Ø 0.51mm - .020", w / **Straight** Probe
- VSPT4030-B...** : Outside Ø 1.02mm - .040" - Inside Ø 0.76mm - .030", w / **45° Bent** Probe
- VSPT4030-S...** : Outside Ø 1.02mm - .040" - Inside Ø 0.76mm - .030", w / **Straight** Probe
- VSPT6040-B...** : Outside Ø 1.52mm - .060" - Inside Ø 1.02mm - .040", w / **45° Bent** Probe
- VSPT6040-S...** : Outside Ø 1.52mm - .060" - Inside Ø 1.02mm - .040", w / **Straight** Probe
- VSPT8060-B...** : Outside Ø 2.00mm - .080" - Inside Ø 1.52mm - .060", w / **45° Bent** Probe
- VSPT8060-S...** : Outside Ø 2.00mm - .080" - Inside Ø 1.52mm - .060", w / **Straight** Probe

# CONTINUOUS VACUUM HANDLING TOOLS



## PAC-VAC™ PORTABLE ESD SAFE

The PAC-VAC is Battery Operated and Self-Contained.

Comes Complete With Following Features:

- A Belt/Pocket Clip on the Housing
- 4 Feet of Straight Vacuum Hose, #VSH-1/16-4
- 4 Feet of Coiled Vacuum Hose, #VCH-1/16-4
- A Set of Seven Vacuum Tips, #VCS-7-B
- A Vacuum Pick-Up Handle, #V3020-RF-1/16
- 9 Volt Disposable Alkaline Battery
- Lightweight – Only 156 Grams
- Runs up to Eight Hours Continuously on One 9 Volt Alkaline Battery
- Produces Vacuum of Over Ten Inches of Mercury

**V3200**



## SMD-VAC™-GP ESD SAFE

A General Purpose Vacuum Handling Tool That Plugs Directly Into 110 VAC or 200 VAC 50-60HZ.

Comes Complete With Following Features:

- Whisper-Quiet Operation
- 4 Feet of Straight Vacuum Hose, #VSH-1/16-4
- 4 Feet of Coiled Vacuum Hose, #VCH-1/16-4
- A Set of Seven Vacuum Tips, #VCS-7-B
- A Vacuum Pick-Up Handle, #V3020-RF-1/16
- Produces Vacuum of Over Six Inches of Mercury

**V8000/110V**

**V8000/220V**

With Optional Side Mounted Vacuum Pen Holder

**V8000/110V-HLD**

**V8000/220V-HLD**

## SMD-VAC™-HF ESD SAFE

Same as SMD-VAC-GP V8000. Provides Twice The Air Flow

Comes With Same Features as V8000

**V8400/110V**

**V8400/220V**

With Optional Side Mounted Vacuum Pen Holder

**V8400/110V-HLD**

**V8400/220V-HLD**



## SMD-VAC™-HP ESD SAFE

Comes With Same Features as V8000

- Automatic Vacuum pump ON/OFF Control
- Produces Vacuum of Over Fifteen Inches of Mercury
- Variable Air Flow Control

**V8100A-110V**

**V8100A-220V**



Foot Switch With Vacuum Pen V3021

**VFS-1**





# CONTINUOUS VACUUM HANDLING TOOLS



## STEALTH-VAC™

### VVSX Without Probes and Cups

High Powered Vacuum Pen, operates on Compressed Air or Nitrogen

- Operates from 30 to 70 P.S.I. at less than 3 C.F.M
- Supplied with coiled hose and straight hose
- Made of ESD Safe materials
- Whisper quite operation
- Air exhausts out the rear of the tool
- Lightweight, Ergonomic design
- **Will accept any of our Probes and Cups**

## STEALTH-WAND™

### VVSW-X Without Wafer Tip

Innovative Wafer Wand, operates on Compressed Air or Nitrogen

- Operates from 30 to 70 P.S.I. at less than 3 C.F.M
- Supplied with coiled hose and straight hose
- Made of ESD Safe materials
- Cleanroom Safe
- Whisper quite operation
- Air exhausts out the rear of the tool
- Lightweight, Ergonomic design
- **Will accept any of our molded Peek Wafer Tip**



## PORTA-VAC® II BATTERY OPERATED WAFER HANDLING TOOLS

Comes With one MOLDED Wafer Tip as Listed Below.  
Easily Lifts over 500 Grams.  
9V Battery is Included.

**PV4000A-MW4** Handling up to 4" (100 mm) Wafers

**PV4000A-MW6** Handling up to 6" (150 mm) Wafers

**PV4000A-MW8** Handling up to 8" (200 mm) Wafers

PORTA-VAC II Only

**PV4000A-X** Without Wafer Tip

## PORTA-VAC® SERIES 3 BATTERY OPERATED WAFER HANDLING TOOLS

Same as PORTA-VAC II , With Vacuum Level Indicator  
Comes With one MOLDED Wafer Tip as Listed Below.  
Easily Lifts 300 mm Wafers

**PV4300-MW4** Handling up to 4" (100 mm) Wafers

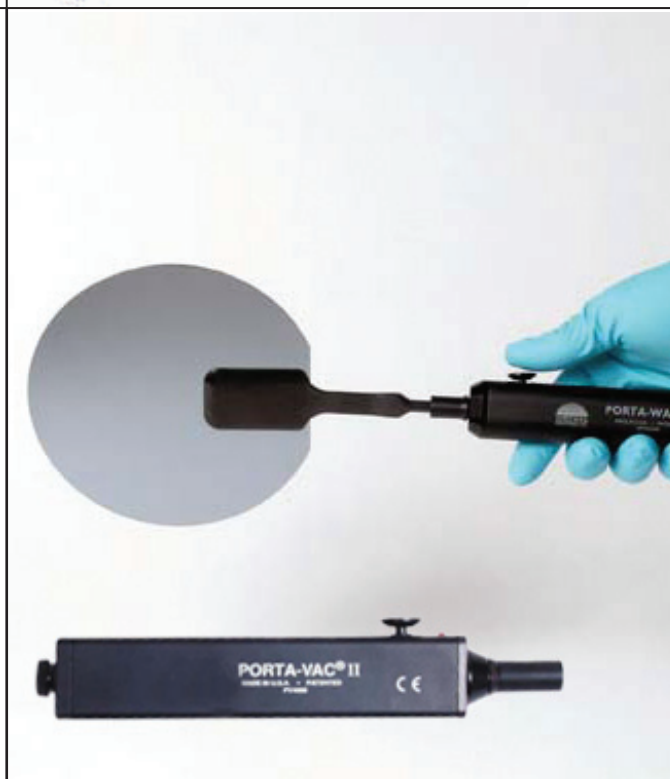
**PV4300-MW6** Handling up to 6" (150 mm) Wafers

**PV4300-MW8** Handling up to 8" (200 mm) Wafers

**PV4300-VWT5R** Handling up to 12" (300 mm) Wafers

PORTA-VAC SERIES 3 Only

**PV4300-X** Without Wafer Tip



# CONTINUOUS VACUUM HANDLING TOOLS



## PORTA-WAND® BATTERY OPERATED WAFER HANDLING TOOL

Comes With a fixed internal 9.6V NiMH Rechargeable Battery,  
In-Stand Charger (P/N VPW6000-CHRG).  
Available in 110V or 220V.  
Easily Lifts Over 500 Grams.

**VPW6000B-MW4/110V** Handling up to 4" Wafers  
**VPW6000B-MW4/220V** Handling up to 4" Wafers  
**VPW6000B-MW6/110V** Handling up to 6" Wafers  
**VPW6000B-MW6/220V** Handling up to 6" Wafers  
**VPW6000B-MW8/110V** Handling up to 8" Wafers  
**VPW6000B-MW8/220V** Handling up to 8" Wafers

PORTA WAND® Only  
**VPW6000B-X** Without Wafer Tip , Without Charger



## PORTA-WAND® SERIES 3 BATTERY OPERATED WAFER HANDLING TOOL

Same as VPW6000B  
With Vacuum Level Indicator

**VPW6300B-MW4/110V** Handling up to 4" Wafers  
**VPW6300B-MW4/220V** Handling up to 4" Wafers  
**VPW6300B-MW6/110V** Handling up to 6" Wafers  
**VPW6300B-MW6/220V** Handling up to 6" Wafers  
**VPW6300B-MW8/110V** Handling up to 8" Wafers  
**VPW6300B-MW8/220V** Handling up to 8" Wafers

**VPW6300B-VWT5R/110V** With Wafer Tip VWT5R  
**VPW6300B-VWT5R/220V** With Wafer Tip VWT5R  
Handles up to 12" (300 mm) Wafers.

PORTA WAND® Series 3 Only  
**VPW6300B-X** Without Wafer Tip , Without Charger



## CHARGER STAND

**VPW6000-CHRG/110V** With 110V Transformer Included  
**VPW6000-CHRG/220V** With 220V Transformer Included  
**VPW6000-CHRG-XT** Without Transformer



# CONTINUOUS VACUUM HANDLING TOOLS



## PORTA-WAND® ELITE - VPWE7000

Portable Cleanroom Vacuum Wand

- No Vacuum Lines required
- Available with 110 or 220 Volt Power Supply
- 9.6 Volt rechargeable Nickel Metal Hybride battery pack is compatible with existing PORTA-WAND charging stand VPW6000-CHRG
- Made of ESD Safe Materials
- Internal filters insure Class I Cleanroom performance
- Will accept any of our Molded Peek Wafer Tip
- Lightweight, Ergonomic Design
- Power Switch locks to the ON Position

**VPWE7000-MW4/110V** Handling up to 4" Wafers

**VPWE7000-MW4/220V** Handling up to 4" Wafers

**VPWE7000-MW6/110V** Handling up to 6" Wafers

**VPWE7000-MW6/220V** Handling up to 6" Wafers

**VPWE7000-MW8/110V** Handling up to 8" Wafers

**VPWE7000-MW8/220V** Handling up to 8" Wafers

PORTA-WAND® ELITE Only

**VPWE7000-X** Without Wafer Tip, Without Charger

## PORTA-WAND® ELITE - VPWE7300

- Same as above
- With Led that indicates power on and battery condition

**VPWE7300-MW4/110V** Handling up to 4" Wafers

**VPWE7300-MW4/220V** Handling up to 4" Wafers

**VPWE7300-MW6/110V** Handling up to 6" Wafers

**VPWE7300-MW6/220V** Handling up to 6" Wafers

**VPWE7300-MW8/110V** Handling up to 8" Wafers

**VPWE7300-MW8/220V** Handling up to 8" Wafers

PORTA-WAND® ELITE Only

**VPWE7300-X** Without Wafer Tip, Without Charger



Complete details on page 77

# ESD SAFE VACUUM HANDLES AND ATTACHEMENTS



## STANDARD VACUUM PEN WITH CONTROL HOLE

For Continuous Air Vacuum Handling Systems.

**V3020-RF-1/16"** (for 1/16" ID Hose)

**V3020-RF-1/8"** (for 1/8" ID Hose)



## STANDARD VACUUM PEN WITHOUT CONTROL HOLE, NO FILTER

For Continuous Vacuum Handling Systems

**V3021-1/16"** (for 1/16" ID Hose)

**V3021-1/8"** (for 1/8" ID Hose)



## VACUUM INTERRUPTER KIT

Includes Four Feet of Straight Hose, Handle and Interrupter Block.

**V3025** With 1/2" (12.7 mm) Diameter standard Handle



## SLIM VACUUM PEN WITH CONTROL HOLE

For Continuous Vacuum Handling Systems

**V3120**



## SLIM VACUUM PEN WITHOUT CONTROL HOLE

For Continuous Vacuum Handling Systems

**V3121**



# CLEAN ROOM SAFE WAFER WANDS

## SLIDE SWITCH WAFER WAND

For Connection to Continuous Vacuum Systems. Can be Used With an In-House Vacuum Systems or With one of V8000 Series Continuous Vacuum Systems.

**VWW-2-SD-1/16"** (for 1/16" ID Hose)

**VWW-2-SD-1/8"** (for 1/8" ID Hose)



## PUSH-BUTTON WAFER WAND

For Connection to Continuous Vacuum Systems. Can be Used With an In-House Vacuum Systems or With one of V8000 Series Continuous Vacuum Systems.

**VWWB-2-SD-1/16"** (for 1/16" ID Hose)

**VWWB-2-SD-1/8"** (for 1/8" ID Hose)



# HIGH PERFORMANCE MOLDED WAFER TIPS



## PRESS-FIT MOLDED PEEK WAFER TIPS

These Wafer Tips are Molded From ESD Safe PEEK Plastic to Handle Wafers up to 100°C. The Low profile of the Wafer Tip Head Provides Easy Access to Wafers in Industry Standard Boats. These Tips Attach to All of Our Wafer Handling Tools as Well as Competitive Systems.

**VMWT-A** Recommended for Handling up to 4" (100 mm) Wafers

**VMWT-B** Recommended for Handling up to 6" (150 mm) Wafers

**VMWT-C** Recommended for Handling up to 8" (200 mm) Wafers

**VMWT-D** Recommended for Handling Larger Sized Wafers



Molded Wafer Tips VMWT-A, VMWT-B and VMWT-C are Available With 30° Bend in the Up or Down Direction as Shown in the Left Drawing Above. To order a Tip With the Up or Down Bend, Add the Angle Plus a "U" for Up or a "D" for Down to the Part Number.

Example: Part Number VMWT-A30D is a VMWT-A Wafer Tip With a 30 Degree Bend in the Down Direction.

Molded Wafer Tips VMWT-A, VMWT-B and VMWT-C are Available With 20° Bend in the Left or Right Direction as Shown in the Right Drawing Above. To order a Tip With the Left or Right Bend, Add the Angle Plus a "L" for Left or a "R" for Right to the Part Number.

Example: Part Number VMWT-C20R is a VMWT-C Wafer Tip With a 20 Degree Bend in the Right Direction.

**VMWT-A-30D, VMWT-A-30U, VMWT-A-20L, VMWT-A-20R**

**VMWT-B-30D, VMWT-B-30U, VMWT-B-20L, VMWT-B-20R**

**VMWT-C-30D, VMWT-C-30U, VMWT-C-20L, VMWT-C-20R**

**VMWT-D-30D, VMWT-D-30U, VMWT-D-20L, VMWT-D-20R**



Other Down and Up Bending Upon Request, Maximum 30°  
Other Left and Right Bending Upon Request, Maximum 20°

## 300MM WAFER HANDLING TIP

### VWT-5R

Designed For Safely Handling 12" (300 mm) Wafers.

This Unique Design Allows Connection to any of Our Continuous Vacuum Wafer Handling Tools



# ESD SAFE VACUUM HANDLING TOOL ACCESSORIES



## PV-RESISTOR

The Resistor Adaptor provides a Series Resistor Between the Wafer Tip and Handling Tool.



## V2404

Press Fit Hub Adapter ESD Safe. Allows the use of Probes With Vacuum Cups.



## V2407

The Adapter for .094 Inch Tube Accepts the Wafer Tips Described in this Catalog as Well as Many Third Party Wafer Tips. Simply unscrew the Adapter From the Front of the Wafer Handling Tools and Replace it with this Adapter.



## V2408

Hub Adapter Attaches to the Front of the Wafer Handling Tools to Allow Use of the Probes With Vacuum Cups. Simply Unscrew the Adapter From the Front of the Wafer Handling Tools and Replace it With the Hub Adapter.



## V2409

Press Fit Adapter Attaches to the Front of the Wafer handling Tools to Allow Use of Third Party Molded and Quartz Wafer Tips that You May Already Have in this House. Simply Unscrew the Adapter From the Front of the wafer Handling Tools and Replace it With the Press Fit Adapter.



## VCH-1/8" VCH-1/16"

ESD Safe Coiled Vacuum Hose. Available 4", 6", 8" Long.



## VSH-1/8" VSH-1/16"

ESD Safe Straight Vacuum Hose. Available 4", 6", 8" Long.



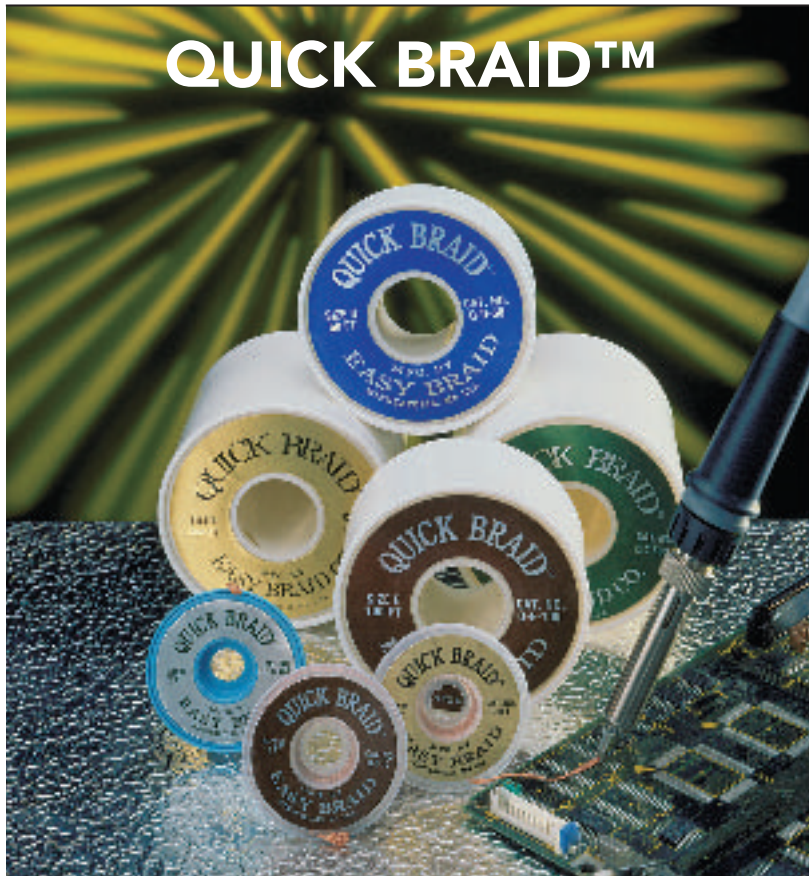
# DESOLDERING BRAIDS

Four Answers to your Desoldering Problems



Switzerland

## QUICK BRAID™



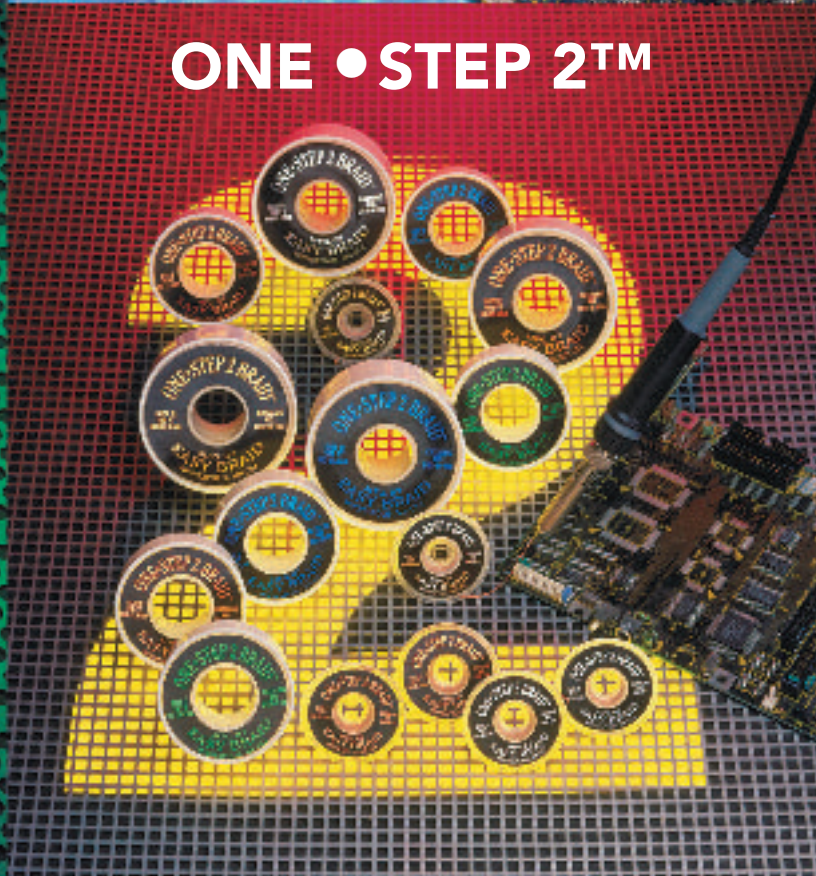
## SEA BRAID™



## ONE • STEP™



## ONE • STEP 2™



# R & R LOTION AND CONTAINERS

Static Dissipative Bottles and Containers  
 Static Dissipative Lotions and Cleaners



- 1 - FD-1-ESD
- 2 - FD-2-ESD
- 3 - FD-3-ESD
- 4 - ICL-16-ESD
- 5 - ICSC-16-ESD
- 6 - WB-8-ESD
- 7 - SB-32-ESD
- 8 - SD-6-ESD
- 9 - SD-6-ESD-PP
- 10 - IC-SC-32-ESD
- 11 - CTAL-ESD
- 12 - FD-PEN-ESD



- 1 - ICSC-16-ESD
- 2 - ICSC-2
- 3 - ICSC-GAL
- 4 - ICSC-32-ESD
- 5 - ICC-2
- 6 - ICC-32
- 7 - ICC-GAL



- 1 - ICL-32-CR IN A WALL-BR-32
- 2 - ICL-8-CR
- 3 - ICL-32-CR
- 4 - ICL-CR-GAL
- 5 - ICL-1-CR-TUBE
- 6 - ICL8-CR-ESD
- 7 - ICL-16-CR-ESD





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AA-NI	12	HV-4-B	65	P2A-ESD	41	SMD60-SA	30
AA-SA	12	HV-4-ESD	65	P2A-STD	41	SMD70-SA	30
AA-SA-EX/P	09	HV-6-B	65	P2A-STD/G	41	SMD80-SA	31
AC-SA	12	HV-6-ESD	65	P35A-DEL	42	SMD90-SA	31
AM-BR	24	HV-HB-ESD	65	P35A-ESD	42	SMDR10A-SA	32
A-SA	12	HV-HS-ESD	65	P35A-STD	42	SMDR10-SA	32
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BLADE 9	51	HV-JS-ESD	65	P35-DEL	42	SMDR251-SA	33
BLADE 10	51	HV-KB-ESD	65	P35-ESD	42	SMDR252-SA	33
BLADE 10A	51	HV-KS-ESD	65	P35-STD	42	SMDR253-SA	33
BLADE 11	51	HV-LB-ESD	65	P35-STD/G	42	SMDR254-SA	33
BLADE 12	51	HV-LS-ESD	65	P3C-DEL	41	SMDR255-SA	33
BLADE 12D	51	HV-MB-ESD	65	P3C-ESD	41	SMDR256-SA	33
BLADE 13	51	HV-MS-ESD	65	P3C-STD	41	SMDR30-SA	32
BLADE 14	51	HV-SB-ESD	65	P3C-STD/G	41	SS-BR	24
BLADE 15	51	HV-SS-ESD	65	P6A-DEL	42	SSL-SA	14
BLADE 16	51	HV-X-ESD	65	P6A-ESD	42	SS-SA	14
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BLADE 21	51	M15	52	P7-DEL	42	S3950-B-STD	70
BLADE 22	51	M18	52	P7-ESD	42	S3950-B-W	70
BLADE 23	51	M2A-SA	11	P7-STD	42	S3950-S-ESD	70
BLADE 24	51	M2-SA	11	P7-STD/G	42	S3950-S-STD	70
BLADE 25	51	M30	52	P-BR	24	S3950-S-W	70
BLADE 36	51	M3C-SA	11	PSF-SA	13	S3951-B-ESD	70
B1	53	M4A-SA	11	PV4000A-MW4	73	S3951-B-STD	70
B2	53	M4-SA	11	PV4000A-MW6	73	S3951-B-W	70
B5	53	M5-SA	11	PV4000A-MW8	73	S3951-S-ESD	70
B6	53	M7-SA	11	PV4000A-X	73	S3951-S-STD	70
BVJ-025-ESD	65	MAC-SA	10	PV4300-MW4	73	S3951-S-W	70
BVJ-038-ESD	65	MC16-SA	36	PV4300-MW6	73	S3955-B-ESD	70
BVJ-050-ESD	65	MC17-SA	36	PV4300-MW8	73	S3955-B-STD	70
BVJ-062-ESD	65	MC18-SA	36	PV4300-VWT5R	73	S3955-B-W	70
BVJ-075-ESD	65	MC19-SA	36	PV4300-X	73	S3955-S-ESD	70
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ERGO-375-SA-1	08	MC25-SA	36	R28F-SA	22	S3956-S-ESD	70
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ERGO-500W-SA	08	MM-SA	12	R29D-SA/28	22	VC-1-ESD	64
ERGO-600W-SA	08	MOC-SA	10	R29D-SA/40	22	VC-1-X	64
ERGO-7-SA	08	MOOD-SA	10	R29-SA	22	VC-2-B	64
EZ-1-ESD	03	MS025	44	R2A-SA	21	VC-2-ESD	64
EZ-2-ESD	03	MS025-ESD	44	R2A-SA-AP	21	VC-2-X	64
EZ-3-ESD	03	MS038	44	R30D-SA/14-16	22	VCH-1/16	78
EZ-5-ESD	03	MS038-ESD	44	R30D-SA/22	22	VCH-1/8	78
F181	48	MS050	44	R30D-SA/28	22	V-DUALCUP-2-L-B-00	70
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F183	49	MS5	44	R5A-SA	21	VMWT-B	77
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F185	49	MSS-SA	11	R7-SA	21	VMWT-D	77
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HV-050-ESD	65	P2AB-STD	41	SMD30-SA	30	VPW6300B-MW4/220V	74
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A large rectangular area with a vertical color gradient from yellow at the top to blue at the bottom. It contains 20 horizontal dotted lines for writing.