



**Gordon Brush** Mfg. Co., Inc.

BIGGER BETTER BRUSH IDEAS

# ESD & CLEANROOM BRUSHES

**ESD** LINE

**24**  
New Products  
Included







**Gordon Brush** Mfg. Co., Inc.  
BIGGER BETTER BRUSH IDEAS



Welcome to Gordon Brush Mfg. Co., Inc. and our ESD Line and Cleanroom Brush Catalog. Founded in 1951, Gordon Brush continues the tradition of manufacturing quality special and custom industrial brushes with a renewed emphasis on providing new and improved solutions to ESD and Cleanroom problems.

Gordon Brush has made an ongoing commitment in time and research to become the nation's premier supplier of ESD brushes. We now provide a full line of brushes to meet your most demanding engineering requirements in Conductive, Static Dissipative or Anti-Static brushes. In addition, we have expanded our line to include Insulative brushes as well as Heat Tolerant (Autoclavable) brushes to meet your Cleanroom needs.

We at Gordon Brush are known throughout the brush industry for providing products at a competitive price that excel in quality, and are shipped on time. The majority of non-custom brushes are shipped the same day we receive the order due to our extensive inventory and sophisticated computer management system. Our move to a new, state of the art, 51,000 square foot facility in Commerce (Los Angeles), California underscores our commitment to growth and manufacturing brushes that meet your engineering specifications.

Call us at (800) 950-7950 or (323) 724-7777, or fax us at (323) 724-1111 with your questions or order today. You may also visit us at [www.gordonbrush.com](http://www.gordonbrush.com) for additional information, or e-mail us at [ESD@gordonbrush.com](mailto:ESD@gordonbrush.com)

© Copyright 2004, Gordon Brush Mfg. Co., Inc.

*No part of this catalog may be reproduced without prior written permission from Gordon Brush Mfg. Co., Inc.*

*All statements, technical data, and recommendations contained herein are based on information that we believe to be reliable, but the accuracy or completeness of which is not guaranteed, and the following is made in lieu of all warranties, express or implied:*

*Seller's and manufacturer's only obligations shall be to replace such quantities of the product proved to be defective. Neither seller nor manufacturer shall be liable for any injury, loss, or damage, direct or consequential, arising out of the use, or inability to use, the product. Before using, the user shall determine the suitability of the product for his intended use, and the user assumes all risk and liability whatsoever in connection herewith. No statement or recommendation contained herein shall have any force or effect, unless in an agreement signed by the officers of both user and seller.*

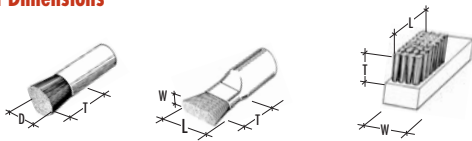
## BRUSHES & STATIC ELECTRICITY

Static charge (electricity) is a fairly simple, but often misunderstood event. Briefly stated, a static charge is generated between materials through friction, pressure, or separation of two materials. This process is called the Triboelectric Effect [tribo means rubbing]. A material that inhibits the generation of static charges [generally less than 200 volts] from triboelectric generation is classified as anti-static. Anti-static materials used to make brushes include Wood, Hog Bristle, Horse Hair, and Goat Hair. These materials can be used in ESD sensitive areas as long as the brush remains in a liquid environment. In a dry environment, only conductive or dissipative materials should be used in ESD safe areas. You will find these classifications of brushes on the following pages.

### New ESD and Cleanroom Brush Categories

<b>Conductive</b> Page:1	<b>Dissipative</b> Page:1	<b>Anti-Static</b> Pages:2-5	<b>Insulative</b> Pages:5-6	<b>Cleanroom/Heat Tolerant</b> Pages:6-7
-----------------------------	------------------------------	---------------------------------	--------------------------------	---

### Brush Dimensions



D = Diameter L = Bristle Length T = Bristle Trim W = Bristle Width

## TYPES OF BRISTLE MATERIALS OR FILL MATERIALS

Many of the following fibers are used exclusively in ESD brushes or are blended to obtain the best brushing action for the specific ESD needs. Uses for the brushes include board prep, solder ball removal, rework after lead trimming, edge connector cleaning and general board rework. The various materials listed below are available in a variety of lengths and diameters.

### Natural Bristle Materials or Fibers

#### Goat Hair

Goat Hair is a very soft yet fine natural material with properties that make it excellent for use in fine polishing and cleaning. It is non-conductive.

#### Horse Hair

Horse Hair is soft, resilient, and long lasting. Excellent for sweeping polished surfaces, Horse Hair works well for dusting, flux removal and general cleanup. It is non-conductive.

#### Hog Bristle

Natural Hog Bristle (or Chung King) is resilient and is the stiffest natural material available. A Hog Bristle brush will provide the best possible cleaning. It works well when dealing with sticky, crusty materials or viscous fluids. It is non-conductive.

### Synthetic Bristle Materials

#### Nylon

Nylon is the toughest and most durable synthetic filament available. Gordon Brush uses Nylon 6.12 in ESD and Cleanroom brushes, the highest quality nylon available. Nylon bristles discourage bacterial growth and resist most acids. It is non-shedding, and is excellent for cleaning and scrubbing applications with its strong abrasion resistance properties. It does not scratch most surfaces.

#### Static Dissipative Nylon

A type 6.12 nylon with a surface resistivity of  $10^9$  that does not shed or slough, and is clean room compatible.

#### Statico9

A static dissipative acetal ( $10^9$ ) that is as durable as nylon, thick enough to do mechanical work, does not shed or slough, and is clean room compatible.

#### Thunderon

A fine (.0015" diameter) acrylic fiber that has been chemically bonded with a layer of copper sulfide. It is conductive and can also be mixed with other fibers to add stiffness without diminishing its effectiveness.

### Wire Materials

#### Brass

Brass is a softer wire than stainless steel, yet ideal for uses that include burnishing, polishing, non-sparking static removal and some deburring and material removal. Gordon Brush uses wire diameters that range from extremely soft to stiff.

#### Stainless Steel

Stainless Steel is a highly corrosion-resistant wire to be used where contamination or rust is a problem. The Stainless Steel Gordon Brush uses ranges from extremely soft to stiff. The fine, .003" diameter, wire is excellent for burnishing without removing the base material. Rust-proof and very strong, Stainless Steel is used to prevent harmful ferrous deposits on brushed parts. It is non-shedding.

### Other Materials

If you want a material that is not mentioned here, please contact us. Gordon Brush has many filament types available and will gladly make your request.

## BRUSH DESIGN CONSIDERATIONS

The most critical aspects of the ESD brush are the fiber, the core or handle material, and grounding. Surface resistivity of the brush materials largely determines the electrostatic properties of the brush. Surface resistivity is a mathematical representation of a material's ability to resist the passage of electricity across its surface. The range of surface resistivity (in Ohms) is as follows:

$10^{12} - 10^{16}$	Insulative materials
$10^5 - 10^{11}$	Dissipative materials
$10^2 - 10^4$	Conductive materials

These classifications (Conductive, Dissipative, Insulative) along with Anti-Static (static charge inhibitors) are used to segregate the brushes into useful groups in this catalog. The type of brush you will require depends on your application for the brush that is based in part upon the surface resistivity required for that application.

If the mounting location is not grounded, then a grounding strap or wire incorporating a 1 Mega Ohm resistor should be used between the brush and an electrical ground. Potentially severe bodily harm may result from the use of a conductive brush if a 1 Mega Ohm resistor is not used.

For further information, please contact Gordon Brush and ask for our free Information Note on Static Electricity.

Examples of hand-laced brush construction



**Gordon Brush** Mfg. Co., Inc.  
BIGGER BETTER BRUSH IDEAS

**CONDUCTIVE BRUSHES**

Conductive Brushes have a surface resistivity range of  $10^2 - 10^4$  and are perfect to use when you need to remove static buildup from the work surface. Conductive brushes will act as a conduit between the charged surface and the path to ground. Made with fully conductive materials that are active static eliminators, your choice becomes the style and size that best works for you. Please use these brushes with a wrist strap or other mechanism to provide a path to ground.

**SST Series**

Product Series	SST2	SST6	SST10	SST12
<b>Bristle Material</b>	<b>Part #</b>	<b>Part #</b>	<b>Part #</b>	<b>Part #</b>
Brass	SST2B	SST6B	SST10B	SST12B
Stainless Steel	SST2SS	SST6SS	SST10SS	SST12SS
Thunderon	SST2T	SST6T	SST10T	SST12T
<b>Handle Length</b>	3-1/2"	4-3/4"	4-3/4"	6"
<b>Diameter</b>	1/8"	3/16"	5/16"	3/8"
<b>Bristle Trim Length</b>	1/8"	5/16"	3/8"	3/4"
<b>Tuft Diameter (Oval)</b>	1/8"	1/4"	3/8"	7/16"
<b>Use</b>	Fine detail cleaning & fluid applicator		Fluid applicator & general use	

**Aluminum Handle Series:** The 11A, 22A and 33A Series brushes are the same style Aluminum handles, with one, two or three rows of bristles. Brushes are available with soft Stainless Steel (SS), soft Brass (B), Static Dissipative (SD), Statigo9 (S9), or Thunderon (T) material. These brushes are great for fine detailing and fitting into tight areas. The fibers are hand laced for better fiber retention and durability.

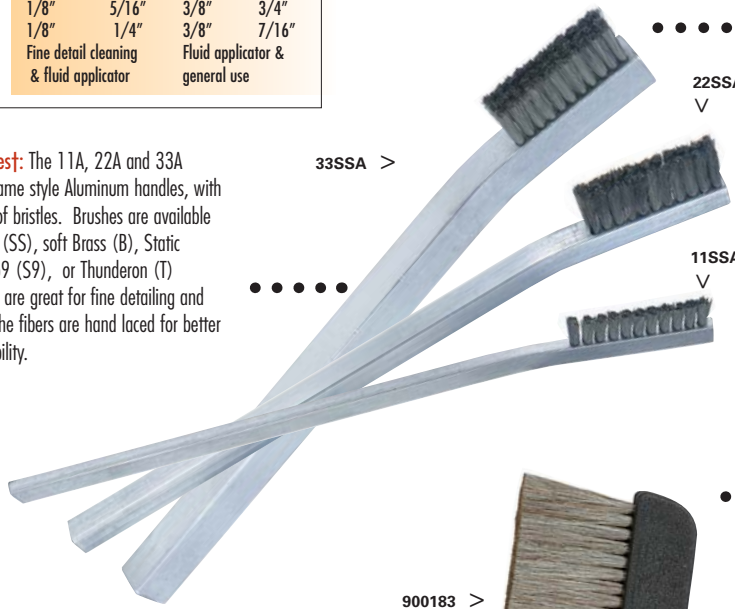


Application: All materials for these high quality brushes are manufactured for detail cleaning, such as printed circuit boards and SMT assemblies, or for use as fluid applicators.

**SST Series:** This series includes four handy sizes to fit most benchwork needs. All have strong mechanical fiber clamping for maximum fiber retention and no adhesives that can leach out and contaminate surface areas. All handles are made from Stainless Steel. Bristle material is available in Stainless Steel (SS), Brass (B), or Thunderon (T).

**Aluminum Handle Series**

Product Series	11A	22A	33A
<b>Bristle Material</b>	<b>Part #</b>	<b>Part #</b>	<b>Part #</b>
Brass	11BA	22BA	33BA
Stainless Steel	11SSA	22SSA	33SSA
Static Dissipative Nylon	11SDA	22SDA	33SDA
Statigo9	11S9A	22S9A	33S9A
Thunderon	11TA	22TA	33TA
<b>Handle Length</b>	6-7/16"	6-7/16"	6-7/16"
<b>Handle Width</b>	1/8"	1/4"	3/8"
<b>Bristle Trim Length</b>	7/16"	7/16"	7/16"
<b>Bristle Length</b>	1-3/16"	1-3/16"	1-3/16"
<b>Bristle Width</b>	3/16"	1/4"	5/16"
<b>Bristle Rows</b>	1	2	3
<b>Use</b>	Fine detail cleaning	Fine cleaning	Fine cleaning



**900183 and 900437 Series:** These brushes are made with 100% Thunderon, a conductive filament, or a mixture of Thunderon and Goat Hair. Thunderon is a very fine (.0015 diameter) acrylic fiber chemically bonded with copper sulfide. The special fiber will dissipate a charge on an electrically charged surface. The surface resistivity of Thunderon is  $10^{-2}$ . The plastic handle is dissipative with a surface resistivity of  $10^5$ .

Note: Conductive fibers are NOT recommended for use with unencapsulated electronic microcircuits. Minute pieces of conductive material have been known to cause short circuits.

**DISSIPATIVE BRUSHES**

These dissipative brushes have a surface resistivity of  $10^9 - 10^{11}$ , a higher resistivity than the conductive brushes, but sufficiently conductive to preclude any static build-up in the brush. These are excellent tools to use in removing any static charge that will result in the adhesion of particles, such as dust, to an object. Frequent use of these brushes will keep electrostatic charges from building up on your products. Please use these brushes with a wrist strap or other mechanism to provide a path to ground for safety.



**900183 and 900437 Series**

Product Series	900183	900183TL	900437
<b>Bristle Material</b>	<b>Part #</b>	<b>Part #</b>	<b>Part #</b>
Thunderon®	900183T	900183TL	900437T
Thunderon/Goat®	900183	900183L	900437
<b>Handle Length</b>	9-3/4"	16-3/4"	4"
<b>Handle Width</b>	1/4"	3/8"	1/4"
<b>Bristle Trim Length</b>	1-1/4"	1-3/8"	1-1/4"
<b>Bristle Length</b>	5-1/8"	10-7/8"	3-3/8"
<b>Bristle Width</b>	5/16"	5/16"	5/16"
<b>Use</b>	Static charge dissipation and fine dust removal		

# ANTI-STATIC BRUSHES



Anti-Static Brushes are made from low charging materials and natural materials that are near neutral on the triboelectric chart. They neither give nor take electrons and, therefore, remain essentially electrically neutral. There can, however, be a slight charge created. In extreme voltage sensitive applications, these brushes should be used only in a liquid environment.

### 1 Series

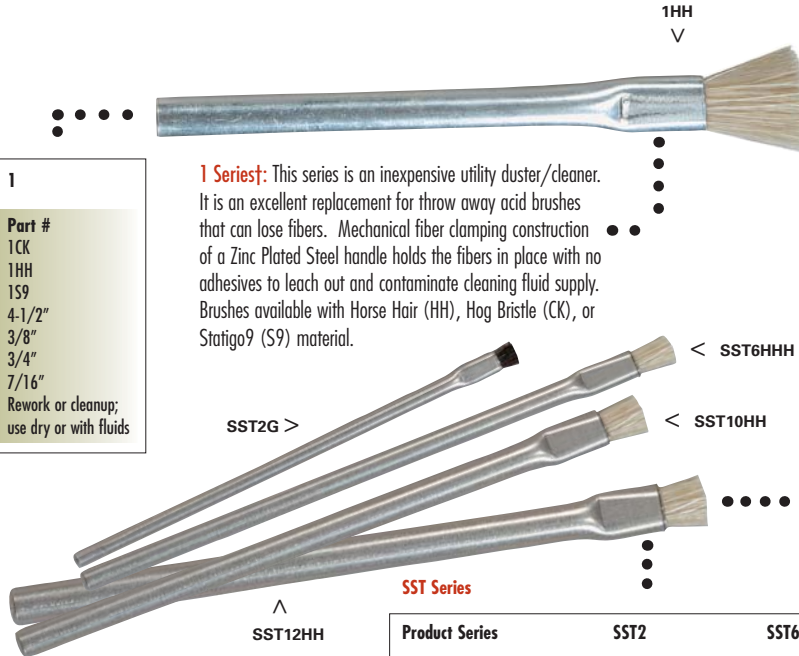
<b>Product Series</b>	1
<b>Bristle Material</b>	<b>Part #</b>
Hog Bristle	1CK
Horse Hair	1HH
<b>NEW</b> Statigo9	1S9
<b>Handle Length</b>	4-1/2"
<b>Diameter</b>	3/8"
<b>Bristle Trim Length</b>	3/4"
<b>Tuft Diameter (Oval)</b>	7/16"
<b>Use</b>	Rework or cleanup; use dry or with fluids

**1 Series†:** This series is an inexpensive utility duster/cleaner. It is an excellent replacement for throw away acid brushes that can lose fibers. Mechanical fiber clamping construction of a Zinc Plated Steel handle holds the fibers in place with no adhesives to leach out and contaminate cleaning fluid supply. Brushes available with Horse Hair (HH), Hog Bristle (CK), or Statigo9 (S9) material.

1HH  
V

\*All metal and wood handle brushes can be used in ESD sensitive environments as long as the brush remains saturated in liquid. It is recommended that the brush be tested on the required application to confirm ESD compatibility.

† Application: All materials for these high quality brushes are manufactured for detail cleaning, such as printed circuit boards and SMT assemblies, or for use as fluid applicators.

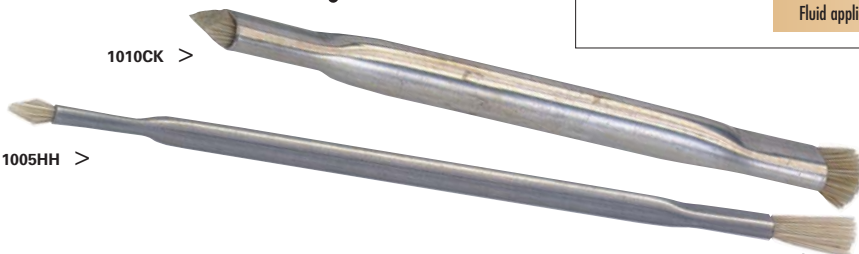


**SST Series †:** This series includes four handy sizes to fit most benchwork needs. All are made with Stainless Steel handles. All have strong mechanical fiber clamping for maximum fiber retention and no adhesives that can leach out and contaminate surface areas. Brushes are available with Goat Hair (G), Horse Hair (HH), or Hog Bristle (CK) material.

### SST Series

Product Series	SST2	SST6	SST10	SST12
<b>Bristle Material</b>	<b>Part #</b>	<b>Part #</b>	<b>Part #</b>	<b>Part #</b>
Goat	SST2G	SST6G	SST10G	SST12G
Hog Bristle	SST2CK	SST6CK	SST10CK	SST12CK
Horse Hair	SST2HH	SST6HH	SST10HH	SST12HH
<b>Handle Length</b>	3-1/2"	4-3/4"	4-3/4"	6"
<b>Diameter</b>	1/8"	3/16"	5/16"	3/8"
<b>Bristle Trim Length</b>	1/8"	5/16"	3/8"	3/4"
<b>Tuft Diameter (Oval)</b>	1/8"	1/4"	3/8"	7/16"
<b>Use</b>	Fine detail cleaning Fluid applicator	Fine detail cleaning Fluid applicator	Fluid applicator General use	Fluid applicator General use

**Double Ended Series †:** This series has two sizes with two end styles (tapered and flat) to fit your needs. Fibers are mechanically clamped into the handle for maximum fiber retention so that no adhesives can leach out and contaminate surfaces being cleaned. Brushes are available with Horse Hair (HH) or Hog Bristle (CK) material. Handle material for the 1005 is Stainless Steel, and the 1010 handle is Zinc Plated Steel.



### Double Ended Series

Product Series	1005	1010
<b>Bristle Material</b>	<b>Part #</b>	<b>Part #</b>
Hog Bristle	1005CK	1010CK
Horse Hair	1005HH	1010HH
<b>Handle Length</b>	4-1/2"	4-1/2"
<b>Diameter</b>	3/16"	3/8"
<b>Bristle Trim Length</b>	1/4" - Tapered 1/2" - Flat	3/16" - Tapered 1/4" - Flat
<b>Tuft Diameter (Oval)</b>	Oval	Oval
<b>Use</b>	Short end for heavy duty scrubbing Chiseled end to reach and scrub tight corners	

**Wood Scratch Brushes\*:** The 30 Series is a small, inexpensive, three row "scratch" or "toothbrush" style brush made of rugged and static-neutral Plywood. The 36 Series is a four row "scratch" brush on a larger handle. Horse Hair versions are great cleaners/dusters. Hog Bristle versions work great where a stiffer brush is needed. Both styles are available in Horse Hair (HH), Hog Bristle (CK), stiff Stainless Steel (SS), or stiff Brass (B) material.

### Wood Scratch Brushes

Product Series	30	36
<b>Bristle Material</b>	<b>Part #</b>	<b>Part #</b>
Hog Bristle	30CK	36CK
Horse Hair	30HH	36HH
Brass	30B	36B
Stainless Steel	30SS	36SS
<b>Handle Length</b>	7-3/4"	8-3/8"
<b>Handle Width</b>	7/16"	1-1/16"
<b>Bristle Trim Length</b>	7/16"	3/4"
<b>Bristle Length</b>	1-3/8"	2-1/8"
<b>Bristle Width</b>	5/16"	7/8"
<b>Use</b>	Board rework and cleanup	Board rework and cleanup General utility brush





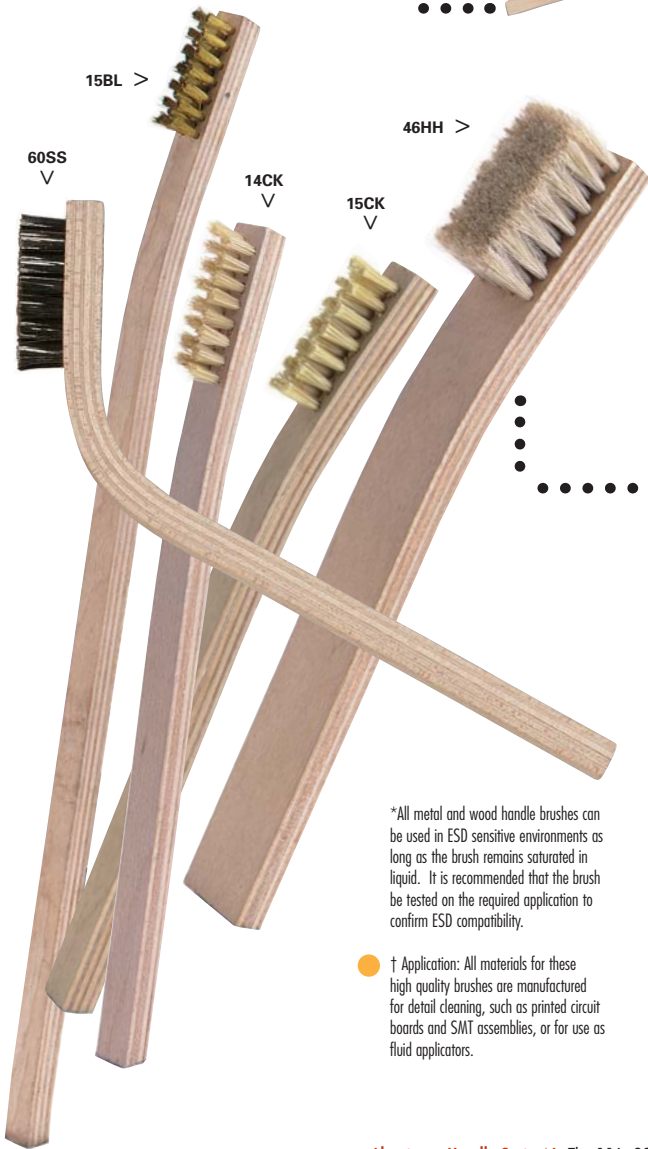
**WA Series**

Product Series	WA7	WA12	WA24	WA68
<b>Bristle Material</b>	<b>Part #</b>	<b>Part #</b>	<b>Part #</b>	<b>Part #</b>
Goat Hair	WA7G	—	—	—
Hog Bristle	WA7CK	WA12CK	WA24CK	WA68CK
Horse Hair	WA7HH	WA12HH	WA24HH	WA68HH
<b>Handle Length</b>	7"	4-15/16"	5-5/8"	5-5/8"
<b>Handle Width</b>	3/16"	1-1/16"	2" x 1/2"	6" x 3/4"
	diameter	at head	block head	block head
<b>Bristle Trim Length</b>	1/2"	1/2"	1/2"	1"
<b>Bristle Length</b>	N/A	7/8"	1-3/4"	5-3/4"
<b>Bristle Width</b>	N/A	3/8"	3/8"	1/2"
<b>Use</b>	Detail brush	Duster/scrub	Duster/scrub	Duster/Scrub
	For small to larger areas, especially on circuit boards			

WA68HH >



**WA Series\*†:** This series is comprised of various wood handle sizes designed for dusting and scrubbing, particularly on circuit boards. The WA7 Series has an "orange stick" chiseled handle on one end for debris removal. The WA12 Series is a heavy-duty scrubber or duster. The WA24 and WA68 Series are heavy-duty scrubbers or dusters for larger areas. Brushes are available in Goat Hair (G), Horse Hair (HH), or Hog Bristle (CK) material.



**Wood Scratch Brushes (Hand Laced)**

Product Series	11P	14	15	15L	46	60
<b>Bristle Material</b>	<b>Part #</b>	<b>Part #</b>	<b>Part #</b>	<b>Part #</b>	<b>Part #</b>	<b>Part #</b>
Hog Bristle	11CKP	14CK	15CK	15CKL	46CK	60CK
Horse Hair	11HHP	14HH	15HH	15HHL	46HH	60HH
Brass	11BP	14B	15B	15BL	46B	60B
Soft Brass	11BP-003	14B-003	15B-003	15BL-003	—	—
Stainless Steel	11SSP	14SS	15SS	15SSL	46SS	60SS
Soft Stainless Steel	11SSP-003	14SS-003	15SS-003	15SSL-003	—	—
<b>Handle Length</b>	7-3/4"	7-3/4"	7-3/4"	14"	8-1/2"	7-3/4"
<b>Handle Width</b>	7/16"	5/16"	7/16"	7/16"	1"	7/16"
<b>Bristle Trim Length</b>	7/16"	7/16"	7/16"	7/16"	3/4"	7/16"
<b>Bristle Length</b>	1-3/8"	1-3/8"	1-3/8"	1-3/8"	1-5/8"	1-3/8"
<b>Bristle Width</b>	1/8"	3/8"	5/16"	5/16"	7/8"	5/16"
<b>Use</b>	Fine detail cleaning	Slightly wider for tough spots	Detail cleaning and scrubbing	Long handle detail cleaning	Larger scrubber	60° angle for tough spots

**Wood Scratch Brushes (Hand Laced)\*†:** The 11P, 14 and 15 Series brushes are the same style Plywood handles, with one, two or three rows of bristles, hand laced with stainless steel wire for maximum fiber retention and long use. The 11P has a small face width. The 14 Series has a slightly wider Plywood handle. The 15 Series has hand laced fibers for maximum fiber retention and durability. Versions with extra fine Stainless Steel and Brass fill (.003 diameter) provide a very soft cleaning brush. The 15L Series is a 15 Series with the Plywood handle almost twice as long to reach those extra far away locations. The 46 Series is a large scrubber brush to be used when wide areas are cleaned. Again, the fibers are hand laced. The 60 Series is another variation on the 15 and 15L Series with a 60 degree angle handle to reach difficult locations. All brushes are available in Horse Hair (HH), Hog Bristle (CK), Stainless Steel (SS), or Brass (B) material.

\*All metal and wood handle brushes can be used in ESD sensitive environments as long as the brush remains saturated in liquid. It is recommended that the brush be tested on the required application to confirm ESD compatibility.

† Application: All materials for these high quality brushes are manufactured for detail cleaning, such as printed circuit boards and SMT assemblies, or for use as fluid applicators.

**Aluminum Handle Series\*†:** The 11A, 22A and 33A Series brushes are the same style Aluminum handles, with one, two or three rows of bristles. Brushes are available with Horse Hair (HH) or Hog Bristle (CK) material. These brushes are great for fine detailing and fitting into tight areas. The fibers are hand laced for better fiber retention and durability.



**Aluminum Handle Series**

Product Series	11A	22A	33A
<b>Bristle Material</b>	<b>Part #</b>	<b>Part #</b>	<b>Part #</b>
Hog Bristle	11CKA	22CKA	33CKA
Horse Hair	11HHA	22HHA	33HHA
<b>Handle Length</b>	6-7/16"	6-7/16"	6-7/16"
<b>Handle Width</b>	1/8"	1/4"	3/8"
<b>Bristle Trim Length</b>	7/16"	7/16"	7/16"
<b>Bristle Length</b>	1-3/16"	1-3/16"	1-3/16"
<b>Bristle Width</b>	3/16"	1/4"	5/16"
<b>Use</b>	Fine detail cleaning	Fine cleaning	Fine cleaning

**299991 Series**

<b>Bristle Material</b>	<b>Part #</b>
Hog Bristle	299991CK
Horse Hair	299991HH
<b>Handle Length and Width</b>	7-3/4" x 7/16"
<b>Bristle Trim Length</b>	7/16"
<b>Bristle Length and Width</b>	4" x 1/4"
<b>Use</b>	Forcefully clean narrow areas



**299991 Series\*†:** This series has a slightly curved Plywood handle that allows for a larger fiber area with reaching capability. Brush is available with Horse Hair (HH) or Hog Bristle (CK) material.

**359994 Brush\*:** This brush is a smaller handle scrub brush with a straight, Hardwood handle with soft Horse Hair fill to clean narrow areas.

**359994 Brush**

<b>Bristle Material</b>	<b>Part #</b>
Horse Hair	359994
<b>Handle Length and Width</b>	10-3/16" x 5/8"
<b>Bristle Trim Length</b>	3/4"
<b>Bristle Length and Width</b>	4-3/4" x 1/2"
<b>Use</b>	Scrub brush for narrow areas



**403 Series:** This series is a long Hardwood handle scrub brush with a large bristled area. Brush is available with Horse Hair (HH) or Hog Bristle (CK) material.

**403 Series**

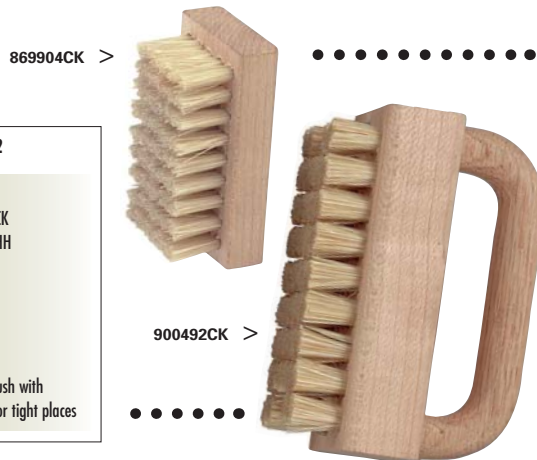
<b>Bristle Material</b>	<b>Part #</b>
Hog Bristle	403CK
Horse Hair	403HH
<b>Handle Length and Width</b>	13-3/4" x 7/8"
<b>Bristle Trim Length</b>	1"
<b>Bristle Length and Width</b>	5-1/2" x 5/8"
<b>Use</b>	Long handle scrub brush



**869904 Series and 900492 Series\*:** The 869904 Series is a great small scrub brush for use when a handle gets in the way. It is available with Horse Hair (HH) or Hog Bristle (CK) material. The 900492 Series is a scrub brush with a Hardwood handle for ease of use to get into tight places while providing protection for hand and knuckles. Made with Horse Hair (HH) or Hog Bristle (CK) material.

**869904 Series and 900492 Series**

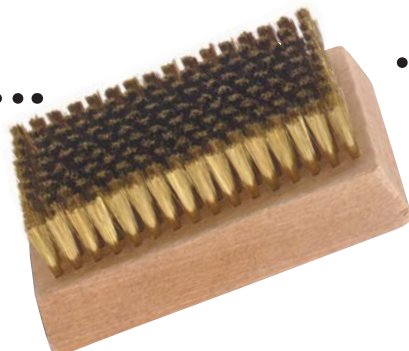
Product Series	869904	900492
<b>Bristle Material</b>	<b>Part #</b>	<b>Part #</b>
Hog Bristle	869904CK	900492CK
Horse Hair	869904HH	900492HH
<b>Handle Length</b>	2-1/2"	3-1/2"
<b>Handle Width</b>	1-3/8"	2-1/4"
<b>Bristle Trim Length</b>	5/8"	1/2"
<b>Bristle Length</b>	2"	3-1/8"
<b>Bristle Width</b>	1-1/8"	2"
<b>Use</b>	Small scrub without handle	Scrub brush with handle for tight places



**G1308 Series**

<b>Bristle Material</b>	<b>Part #</b>
Horse Hair	G1308HH
Stainless Steel	G1308SS
Brass	G1308B
Brass/Horse Hair	G1308
<b>Block Length and Width</b>	4-1/4" x 2-1/2"
<b>Bristle Trim Length</b>	3/4"
<b>Bristle Length and Width</b>	3-5/8" x 1-15/16"
<b>Use</b>	Rectangular design to clean circuit boards and other ESD uses

**G1308 Series\*:** This series is a small rectangular Hardwood block brush for the ESD controlled environment. It is densely filled and easy to grip. This brush is available with Horse Hair (HH), soft Stainless Steel (SS), soft Brass (B), and a version with an outer row of Horse Hair with the rest of the brush filled with soft Brass material.



**Gordon Brush** Mfg. Co., Inc.  
BIGGER BETTER BRUSH IDEAS

**426 Series**

<b>Product Series</b>	<b>426</b>	<b>426ST</b>
<b>Bristle Material</b>	<b>Part #</b>	<b>Part #</b>
Hog Bristle	426CK	426CKST
Horse Hair	426HH	426HHST
<b>Block Length and Width</b>	7-1/8" x 2-1/4"	7-1/8" x 2-1/4"
<b>Bristle Trim Length</b>	3/4"	1/4"
<b>Bristle Length and Width</b>	6-5/8" x 1-7/8"	6-5/8" x 1-7/8"
<b>Use</b>	Hand scrub	Hand scrub



< 426CK

^  
426CKST

**426 Series\***: This series is an all natural material hand scrub brush. The brush is available with Horse Hair (HH) or Hog Bristle (CK) material. These brushes are used for large printed circuit board rework. The suffix "ST" in the part number refers to "Short Trim". Short Trim makes the brush extremely stiff for lead trimming removal and tough cleaning jobs.

**INSULATIVE BRUSHES**

Insulative Brushes have a surface resistivity of  $10^{12} - 10^{16}$  and are an inexpensive water resistant alternative to Anti-Static Brushes. They are best used in an environment where static is not critical to the task at hand or where the brush is submerged in liquid when in use.

**Plastic Handle Applicator Series**

<b>Product Series</b>	<b>187</b>	<b>250</b>	<b>375</b>	<b>499</b>
<b>Bristle Material</b>	<b>Part #</b>	<b>Part #</b>	<b>Part #</b>	<b>Part #</b>
Nylon	187NP	250NP	375NP	499NP
<b>Handle Length</b>	4-1/2"	4-1/2"	4-1/2"	4-1/2"
<b>Diameter</b>	3/16"	1/4"	3/8"	1/2"
<b>Bristle Trim Length</b>	3/8"	1/2"	3/4"	1"
<b>Bristle Diameter</b>	3/16"	1/4"	3/8"	1/2"
<b>Use</b>	Applying liquids or fluids, as well as brushing			



**Plastic Handle Applicator Series\*▲**: The 187, 250, 375 and 499 Series represent four sizes of applicator style brushes made with Nylon fiber and Delrin handles. For use in situations where you need a round brush to clean fine areas.

\*All metal, plastic, and wood handle brushes can be used in ESD sensitive environments as long as the brush remains saturated in liquid. It is recommended that the brush be tested on the required application to confirm ESD compatibility.

▲ Application: All Insulative brushes are made of all non-shedding material that is perfect for use in cleaning very small areas that ESD and Cleanroom functions demand.

**SST Series\*▲**: This series includes four handy sizes to fit most benchwork needs. All have strong mechanical fiber clamping on a Stainless Steel handle for maximum fiber retention and no adhesives that can leach out and contaminate surface areas. Filament is nylon or Statigo9.



**SST Series**

<b>Product Series</b>	<b>SST2</b>	<b>SST6</b>	<b>SST10</b>	<b>SST12</b>
<b>Bristle Material</b>	<b>Part #</b>	<b>Part #</b>	<b>Part #</b>	<b>Part #</b>
Nylon	SST2N	SST6N	SST10N	SST12N
<b>NEW</b> Statigo9	SST2S9	SST6S9	SST10S9	SST12S9
<b>Handle Length</b>	3-1/2"	4-3/4"	4-3/4"	6"
<b>Diameter</b>	1/8"	3/16"	5/16"	3/8"
<b>Bristle Trim Length</b>	1/8"	5/16"	3/8"	3/4"
<b>Bristle Diameter (Oval)</b>	1/8"	1/4"	3/8"	7/16"
<b>Use</b>	Fine detail cleaning	Fluid applicator	Fluid applicator	General use

**21 Series**

<b>Bristle Material:</b>	<b>Part #</b>
Horse Hair	21HHLT
<b>Handle Length and Width</b>	7-3/16" x 7/16"
<b>Bristle Trim Length</b>	1"
<b>Bristle Length and Width</b>	1-3/8" x 1/4"
<b>Use</b>	Gentle cleaning

21HHLT  
v



**21 Series\***: This series is a staple set brush with long, soft Horse Hair fiber in a plastic handle to clean keyboards and narrow areas.

**AL251 Series\*▲**: This series is an applicator style brush made with an Aluminum handle and Nylon bristles.



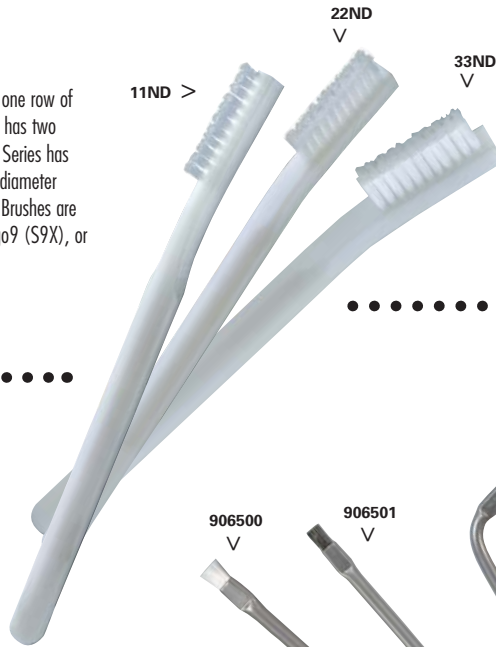
^  
AL251N

**AL251 Series**

<b>Bristle Material</b>	<b>Part #</b>
Nylon	AL251N
<b>Handle Length and Width</b>	4" x 1/4"
<b>Bristle Trim Length</b>	1/2"
<b>Bristle Diameter (Oval)</b>	5/16"
<b>Use</b>	Applicator brush for general cleaning



**Delrin Handle Brush Series\*** ▲: The 11D Series has one row of fiber hand tied into the Delrin handle. The 22D Series has two rows of fibers to clean a slightly wider area. The 33D Series has three rows of fibers. The 33ND-003 has finer, .003" diameter Nylon bristle to make it softer than the regular 33ND. Brushes are made with soft Stainless Steel (SS), Nylon (N), Statigo9 (S9X), or Static Dissipative Nylon (SDX) material.

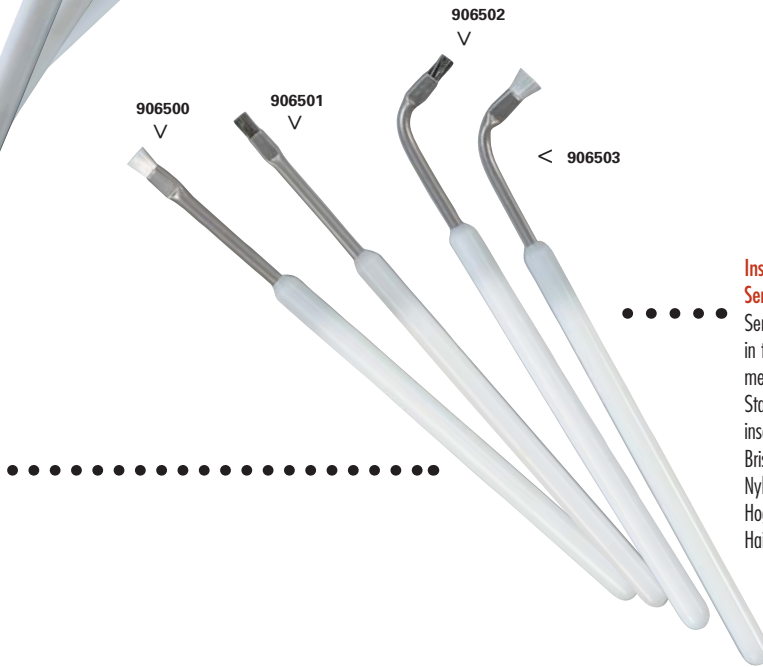


**Delrin Handle Brush Series (Hand Laced)**

Product Series	11	22	33
<b>Bristle Material</b>	<b>Part #</b>	<b>Part #</b>	<b>Part #</b>
Nylon	11ND	22ND	33ND
Soft Nylon	—	—	33ND-003
Stainless Steel	11SSD	22SSD	33SSD
<b>NEW</b> Statigo9	11S9X	22S9X	33S9X
<b>NEW</b> Static Dissipative Nylon	11SDX	22SDX	33SDX
<b>Handle Length</b>	6-1/4"	6-1/4"	6-1/4"
<b>Width</b>	3/8"	3/8"	3/8"
<b>Bristle Trim Length</b>	7/16"	7/16"	7/16"
<b>Bristle Length</b>	1-3/16"	1-3/16"	1-3/16"
<b>Bristle Width</b>	1/4"	3/16"	5/16"
<b>Use</b>	Cleaning, scrubbing, wiping, dirt removal		

**Instrument Cleaning Series**

Product Series	906500-501	906502-503
<b>Bristle Material:</b>	<b>Part #</b>	<b>Part #</b>
Hog Bristle	906500CK	906502CK
Horse Hair	906500HH	906502HH
Nylon	906500	906503
Stainless Steel	906501	906502
<b>Handle Length</b>	6"	5-1/4"
<b>Diameter</b>	1/4"	1/4"
<b>Bristle Trim Length</b>	3/16"	3/16"
<b>Bristle Width</b>	1/16"	1/16"
<b>Use</b>	Clean tight areas including instrumentation and pinpoint cleaning	

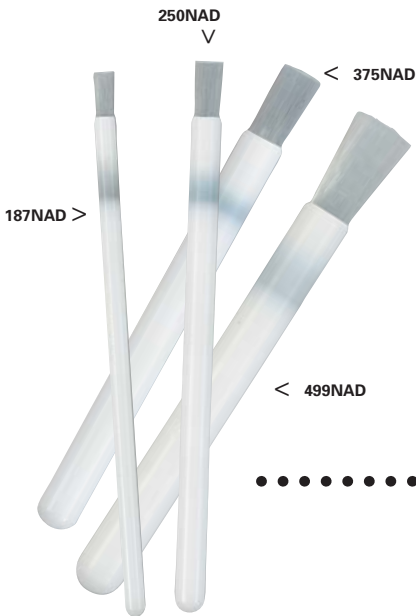


**Instrument Cleaning Series\*** ▲: The 906500-503 Series is designed for cleaning in tight areas. The fiber is mechanically clamped in a Stainless Steel tube which is inserted into a Delrin handle. Bristle material is either soft Nylon, stiff Stainless Steel, Hog Bristle (CK), or Horse Hair (HH).



**CLEANROOM/HEAT TOLERANT BRUSHES**

Heat Tolerant/Cleanroom brushes are designed for use in Cleanroom and Autoclave environments. They are all made with plastic or stainless steel materials that are durable and non-shedding. These materials make the brushes suitable for work in a Cleanroom. They will withstand most sterilizing environments. The brushes with Nylon fiber are perfect for use on delicate surfaces. The brushes need to be cleaned prior to being brought into a Cleanroom.



**Plastic Handle Applicator Series**

Product Series	187	250	375	499
<b>Bristle Material</b>	<b>Part #</b>	<b>Part #</b>	<b>Part #</b>	<b>Part #</b>
Nylon	187NAD	250NAD	375NAD	499NAD
<b>Handle Length</b>	4-1/2"	4-1/2"	4-1/2"	4-1/2"
<b>Diameter</b>	3/16"	1/4"	3/8"	1/2"
<b>Bristle Trim Length</b>	3/8"	1/2"	3/4"	1"
<b>Bristle Diameter</b>	3/16"	1/4"	3/8"	1/2"
<b>Use</b>	Applying liquids or fluids, as well as brushing			

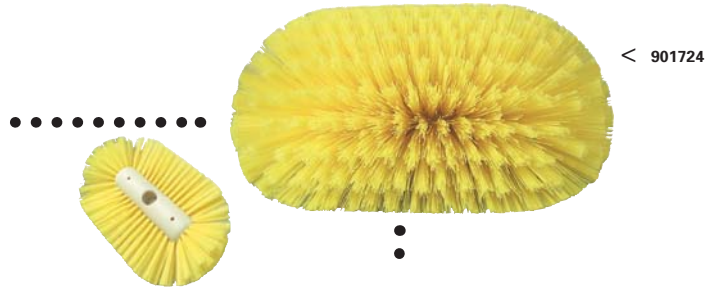
**Plastic Handle Applicator Series:** The 187, 250, 375 and 499 Series represent four sizes of applicator style brushes made with 6.12 soft Nylon fiber and Delrin handles. They are epoxy set with a high temperature adhesive to resist deterioration in an autoclave.



**Gordon Brush** Mfg. Co., Inc.  
BIGGER BETTER BRUSH IDEAS

**Static Dissipative Vat Brush**

<b>NEW</b>	<b>Bristle Material</b>	<b>Part #</b>
	.016" Static Dissipative Nylon	901724
	<b>Bristle Trim Length</b>	2"
	<b>Core Length</b>	5-1/2"
	<b>Core Width</b>	1-1/2"
	<b>Overall Length</b>	9-1/2"
	<b>Overall Width</b>	5-1/2"
<b>Threaded Hole</b>	1/2" NPT	



**Static Dissipative Vat Brush:** Static Dissipative 6.12 Nylon Filament material meets FDA 21 CFR 177.1632. Core material is static dissipative acetal, use where dust and static electricity are a concern. All materials used in brush have good chemical resistance.

901350-016SD >



**Anti Static Brush Vacuum**

<b>NEW</b>	<b>Bristle Material</b>	<b>Part #</b>
	.016" Static Dissipative Nylon	901350-016SD
	<b>Inlet Diameter</b>	1"
	<b>Head Diameter</b>	2-1/2"
<b>Trim Length</b>	1"	

**Anti-Static Vacuum Brush:** Standard molded plastic vacuum head with grounding point, providing electrical continuity to the static dissipative filament. Use in static sensitive areas.

**Static Dissipative Broom:** 23" wide push broom is made with an oval channel, filled with yellow static dissipative 6.12 Nylon. A 5 foot steel handle is available. Recommended for use in static sensitive areas for static free sweeping.

901820 >



**Static Dissipative Bowl Brush**

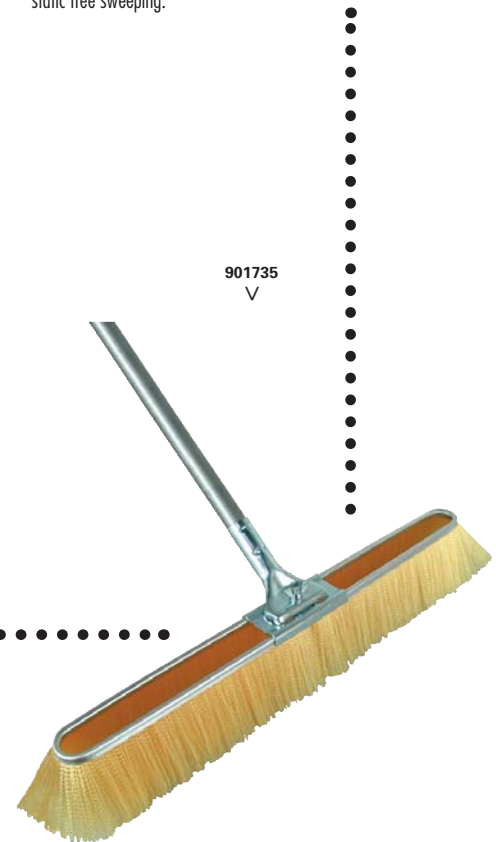
<b>NEW</b>	<b>Bristle Material</b>	<b>Part #</b>
	.016" Static Dissipative 6.12 Nylon Filament	901820
	<b>Overall Length</b>	16"
	<b>Handle Diameter</b>	1"
	<b>Brush Head Diameter</b>	3"
	<b>Brush Head Length</b>	6"
<b>Bristle Trim Length</b>	7/8"	

**Static Dissipative Bowl Brush:** Utilize this static dissipative acetal handle brush where dust and static electricity are a concern. All materials used in the brush have good chemical resistance. Static dissipative 6.12 Nylon filament material meets FDA 21 CFR 177.1632.

901735  
V

**Static Dissipative Broom**

<b>NEW</b>	<b>Bristle Material</b>	<b>Part #</b>
	.015"/.022" Static Dissipative Nylon	901735
	<b>Trim Length</b>	3-1/2"
5 Foot steel handle		901735H





## INDEX BY PART NUMBER

Part #	Page(s)	Part #	Page(s)
1CK	2	403HH	4
1HH	2	426CK	5
1S9	2	426HH	5
11BA	1	426CKST	5
11BP	3	426HHST	5
11BP-003	3	499NAD	6
11CKA	3	499NP	5
11CKP	3	1005CK	2
11HHA	3	1005HH	2
11HHP	3	1010CK	2
11ND	6	1010HH	2
11S9A	1	299991CK	4
11S9X	6	299991HH	4
11SDA	1	359994	4
11SDX	6	869904CK	4
11SSA	1	869904HH	4
11SSD	6	900183	1
11SSP	3	900183LT	1
11SSP-003	3	900183L	1
11TA	1	900183T	1
14B	3	900437	1
14B-003	3	900437T	1
14CK	3	900492CK	4
14HH	3	900492HH	4
14SS	3	901350-016SD	7
14SS-003	3	901724	7
15B	3	901735	7
15B-003	3	901735H	7
15BL	3	901820	7
15BL-003	3	901824	7
15CK	3	906500	6
15CKL	3	906500CK	6
15HH	3	906500HH	6
15HHL	3	906501	6
15SS	3	906502	6
15SS-003	3	906502CK	6
15SSL	3	906502HH	6
15SSL-003	3	906503	6
21HHLT	5	AL251N	5
22BA	1	G1308	4
22CKA	3	G1308B	4
22HHA	3	G1308HH	4
22ND	6	G1308SS	4
22S9A	1	SST2B	1
22S9X	6	SST2CK	2
22SDA	1	SST2G	2
22SDX	6	SST2HH	2
22SSA	1	SST2N	5
22SSD	6	SST2S9	5
22TA	1	SST2SS	1
30B	2	SST2T	1
30CK	2	SST6B	1
30HH	2	SST6CK	2
30SS	2	SST6G	2
33BA	1	SST6HH	2
33CKA	3	SST6N	5
33HHA	3	SST6S9	5
33ND	6	SST6SS	1
33ND-003	6	SST6T	1
33S9A	1	SST10B	1
33S9X	6	SST10CK	2
33SDA	1	SST10G	2
33SDX	6	SST10HH	2
33SSA	1	SST10N	5
33SSD	6	SST10S9	5
33TA	1	SST10SS	1
36B	2	SST10T	1
36CK	2	SST12B	1
36HH	2	SST12CK	2
36SS	2	SST12G	2
46B	3	SST12HH	2
46CK	3	SST12N	5
46HH	3	SST12S9	5
46SS	3	SST12SS	1
60B	3	SST12T	1
60CK	3	WA7CK	3
60HH	3	WA7G	3
60SS	3	WA7HH	3
187NAD	6	WA12CK	3
187NP	5	WA12HH	3
250NAD	6	WA24CK	3
250NP	5	WA24HH	3
375NAD	6	WA68CK	3
375NP	5	WA68HH	3
403CK	4		

## INDEX BY CATEGORY

Category	Page(s)	Category	Page(s)	Category	Page(s)
Conductive	1	Anti-Static	2-5	Cleanroom/Heat Tolerant	6-7
Dissipative	1-7	Insulative	5-6		

## INDEX BY APPLICATION

Application	Page(s)
Anti-Static	2,3,4,5
Applicator Brushes	1,2,5,6
Autoclavable	6
Board Rework	1,2,3,4,5,6
Bowl Brush	7
Broom	7
Circuit Board Cleaning	1,2,3,4,5,6
Cleanroom	6,7
Conductive	1
Detail Cleaning	1,2,3,4,5,6
Dirt Removal	1,2,3,4,5,6,7
Dissipative	1,7
Dusting	1,2,3,4,5,6,7
Fluid Applicators	1,2,3,4,5,6
General Use	1,2,3,4,5,6,7
Gentle Cleaning	1,2,3,4,5,6
Heat Tolerant	6
Instrument Cleaning	6
Scratch Brushes	2,3,4
Scrubbing	1,2,3,4,5,6
Solder Removal	1,2,3,4,5
Static Dissipation/Removal	1
Static Eliminator	1
Vacuum	7
Vat	7

## CONVERSION TABLE

Fractional Inches to Decimal Inches and Millimeters

Inches	Decimals	mm
1/64	0.015625	0.397
1/32	0.03125	0.794
3/64	0.046875	1.191
1/16	0.0625	1.588
5/64	0.078125	1.984
3/32	0.09375	2.381
7/64	0.109375	2.778
1/8	0.125	3.175
9/64	0.140625	3.572
5/32	0.15625	3.969
11/64	0.171875	4.366
3/16	0.1875	4.763
13/64	0.203125	5.159
7/32	0.21875	5.556
15/64	0.234375	5.953
1/4	0.25	6.350
17/64	0.265625	6.747
9/32	0.28125	7.144
19/64	0.296875	7.541
5/16	0.3125	7.938
21/64	0.328125	8.334
11/32	0.34375	8.731
23/64	0.359375	9.128
3/8	0.375	9.525
25/64	0.390625	9.922
13/32	0.40625	10.319
27/64	0.421875	10.716
7/16	0.4375	11.113
29/64	0.453125	11.509
15/32	0.46875	11.906
31/64	0.484375	12.303
1/2	0.50	12.700
33/64	0.515625	13.097
17/32	0.53125	13.494
35/64	0.546875	13.891
9/16	0.5625	14.288
37/64	0.578125	14.684
19/32	0.59375	15.081
39/64	0.609375	15.478
5/8	0.625	15.875
41/64	0.640625	16.272
21/32	0.65625	16.669
43/64	0.671875	17.066
11/16	0.6875	17.463
45/64	0.703125	17.859
23/32	0.71875	18.256
47/64	0.734375	18.653
3/4	0.75	19.050
49/64	0.765625	19.447
25/32	0.78125	19.844
51/64	0.796875	20.241
13/16	0.8125	20.638
53/64	0.828125	21.034
27/32	0.84375	21.431
55/64	0.859375	21.828
7/8	0.875	22.225
57/64	0.890625	22.622
29/32	0.90625	23.019
59/64	0.921875	23.416
15/16	0.9375	23.813
61/64	0.953125	24.209
31/32	0.96875	24.606
63/64	0.984375	25.003
1	1.0	25.400



**Gordon Brush** Mfg. Co., Inc.

BIGGER BETTER BRUSH IDEAS



***Gordon Brush*** Mfg. Co., Inc.

BIGGER BETTER BRUSH IDEAS

**6247 Randolph Street  
Commerce, CA 90040-3514**

**phone (800) 950-7950  
(323)-724-7777**

**fax (323)-724-1111**

**email [SD@gordonbrush.com](mailto:SD@gordonbrush.com)**

**web [www.gordonbrush.com](http://www.gordonbrush.com)**

**ABMA** AMERICAN BRUSH  
MANUFACTURERS  
ASSOCIATION