# ABRASIVE B R U S H E S



# **Disc Brushes**



TYPES

















COMPOSITE

SHELL MILL





TEARDROP

PATTERNS

DENSE



# **Wheel Brushes**



**TYPES** 



NARROW FACE





**FILAMENT OPTIONS** 









**Alumina Silicate** 

Diamond

To order a brush, visit www.tanisbrush.com/request-quote or call Customer Service at (262) 646-9000.



# **Brush Usage Recommendations**

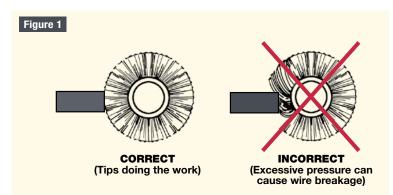
**Safety Information:** Many Brush Manufacturers mark some safety warnings, recommendations and usage restrictions directly to the product. It is not always practical to include even the most limited safety information on the brush itself. Therefore, the operator must read, study, understand and comply to all instructions supplied in or on the product container as well as those marked on the product itself prior to brush use. The operator should also refer to the safety and operating information printed in the brush or power tool manufacturer's catalog, instruction manual and other literature.

**Pressure:** Avoid excessive pressure when using a power brush. Excessive pressure causes over-bending of the filaments and heat buildup resulting in filament breakage, rapid dulling and reduced brush life. Instead of greater pressure on a brush, it is suggested that you try:

- 1. A brush with a more aggressive cutting action (increased wire size, decreased filament length, change to a different brush type, i.e. knot type instead of crimped wire type), or
- 2. Higher speed (increased R.P.M., increased brush diameter)

Important Note: Never exceed the recommended MAXIMUM SAFE FREE SPEED R.P.M. (MSFS) rating of the brush. (See Figure 1)

**Warning:** In normal power brushing operations, the material being removed, such as burrs, scale, dirt, weld slag or other residue, will fly off the brush with considerable force along with brush filaments which break off due to fatigue.



**The POTENTIAL OF SERIOUS INJURY EXISTS** for both the brush operator and others in the work area (possible 50 feet or more feet from the brush). To protect against this hazard before rotating the brush, during rotation, and until rotation stops, operators and others in the area must wear safety goggles, full face shields and use protective clothing and equipment.

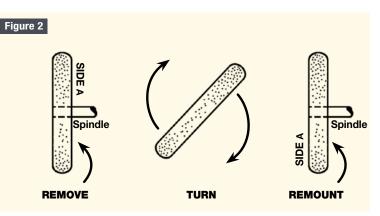
You must follow all operator and safety instructions, as well as all common safety practices which reduce the likelihood or severity of physical injury.

**Inspection and Storage:** Upon receipt, inspect brushes for damage, rust and deterioration. Store in original containers in a clean, dry location. Do not allow distortion of brush filaments/components or foreign matter to become lodged in brush face.

Brushing Problems: DO NOT ALLOW UNSAFE

**OPERATIONS TO CONTINUE.** Occasionally, due to worn bearings, a bent spindle, an unusual application, operator abuse or inappropriate use, a brush may fail. Do not continue to use a failed brush or one which is functioning improperly (i.e., throwing filaments, out of balance, etc.), as this increases the possibility for further brush failure and hazard of injury. The cause of the failure should be evaluated and corrected immediately.

**Self-Sharpening:** When using wire wheel brushes, periodically reverse the direction of rotation to take advantage of the self-sharpening action that will result. This may be accomplished by removing the brush from the spindle and turning it side-for-side and remounting securely. (See Figure 2)





#### IMPORTANT:

A Safety Slip is included with each shipping package for power brushes. All operators should read and understand safety information thoroughly and completely before using the brush. Keep the safety slip with the brush. **All operators must read it.** 



# **ABRASIVE AND POWER BRUSH SAFETY REQUIREMENTS SUMMARY**





**Protective Equipment:** Appropriate protective equipment (such as full face shields, respirator, etc.) must be used where a possibility of injury exists that can be prevented by such equipment.



**Safety Goggles:** Safety Goggles and Full Face Shields **MUST BE WORN** by all operators **AND OTHERS IN THE AREA** of power brush operations. Persons within 50 or more feet may be with in danger zone. Comply with the requirements of ANSI B165.1 "Safety Requirements–Power Brushes." Also see ANSI B7.1 "Safety Requirements—For the Use, Care and Protection of Abrasive Wheels."



**Safety Gloves and Protective Clothing:** Appropriate protective clothing must be used where there is a possibility of injury that can be prevented by such clothing. The use of safety gloves is recommended.



Guards: Keep all machine guards in place at all times.



**Speeds:** Observe all speed restrictions indicated on the brushes, containers, labels or printed in pertinent literature. "MSFS" or "MAX.SFS" means Maximum Safe Free Speed (R.P.M.)-spinning free with no work applied: For reasons of safety, the "MSFS/MAX.SFS" should not be exceeded under any circumstances (see ANSI 3.1.8 for more information).



Dust and Fumes: Wear respiratory protection to avoid this hazard (see ANSI Z88.2).



**Before Starting Brush:** Use eye protection and safety equipment. Inspect brush for rust, damage, speed limit, etc. If no-load speed marked on the power tool is higher than the brush speed limit, do not mount brush. Inspect and jog machine to assure the brush is mounted properly and securely, machine guards are in place, no vibration, etc. Run machine at operating speed for at least one minute before applying work—**DO NOT STAND IN FRONT OF OR IN LINE WITH BRUSH.** 



**Safety Standard:** Comply with the Safety Standards of the American National Standards Institute, ANSI B165.1 and ANSI B165.2 "Safety Requirements-Power Brushes".



Availability of ANSI Standards:

Contact: ANSI, 1430 Broadway, New York, NY 10018 or www.ansi.org

This information for users is provided solely as a public service. Contact Tanis Inc. for regulatory information. These recommendations are not necessarily complete for any particular application—you should follow common sense safety considerations. Federal, state or local laws or regulations must be strictly obeyed and control over these recommendations.

# CeramiX<sup>®</sup> Abrasive Brushes with 3M<sup>™</sup> Abrasive Grain 321

#### A superior ceramic abrasive grain creates a superior abrasive brush

The technology dates back to 1981, when 3M<sup>™</sup> Company (St. Paul, MN) introduced the first commercial application of sol gel abrasive grain. The advantages of this grain stem from how it's manufactured and is evident in the grain's microstructure.

The production of conventional fused abrasive grain (such as aluminum oxide or silicon carbide), is a process in which the raw materials are fused or melted together, cooled and then crushed. This process results in crystal structures that are usually quite large.

In comparison, sol gel abrasive grain is the product of a chemical process in which an alumina precursor is prepared, gelled, dried, crushed into particles and then sintered to form abrasive grains. These ceramic abrasive grains may be embedded in a nylon polymer and the combination extruded into abrasive nylon filaments. The ceramic abrasive particles produced through sol gel processes have a finer crystalline structure than their conventional counterparts. Individual fused aluminum oxide abrasive grains typically comprise one to three alumina crystals; sol gel abrasive grains consist of many multitudes of alumina crystals.



Fractured 321 Grain (Courtesy of 3M<sup>™</sup>)

#### **Crystalline Structure**

The benefit of this crystalline structure is that as the outermost crystals in the abrasive grain become worn during use they are expelled in very small fragments, leaving a greater amount of grain in the filament to continue abrading the part surface. The nylon filaments containing this special ceramic abrasive grain deliver improved productivity.



Sol Gel Abrasive Grains



3M<sup>™</sup> Ceramic Abrasive Grains with Platelets

#### **Two-Phase Microstructure**

The  $3M^{\text{TM}}$  ceramic abrasive grain 321 also has a unique two-phase microstructure, a combination of fine crystals and a platelet phase. The platelets serve to reinforce the abrasive grains to withstand greater abrasion forces. The random orientation of the platelets also deflects fractures into multiple directions, creating a jagged irregular surface after the grain fractures. This continuous self-sharpening and jagged grain surface provide superior abrasion for filaments containing 321 ceramic abrasive grains.

Nylon Filament with 3M<sup>™</sup> Abrasive Grain 321

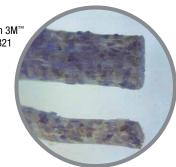
#### **Three Key Benefits**

TANIS

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in the USA

Three key traits which contribute to its elevated status: **fracture toughness, hardness, and self-sharpening qualities**. These features equate to increased productivity for CeramiX<sup>®</sup> abrasive nylon brushes, made with proprietary 3M<sup>™</sup> 321 ceramic abrasive grain embedded throughout the filament.



#### **CeramiX® Brushes**

CeramiX<sup>®</sup> nylon abrasive brushes are made by Tanis, Inc. in

Delafield, Wisconsin. CeramiX® nylon abrasive brushes are used as

flexible filing tools in deburring and surface conditioning applications. Their flexibility allows these brushes to conform to irregular surface shapes. Brush designs have been developed for use in power tools, robotic cells and CNC applications to eliminate the need for time-consuming and inconsistent hand deburring operations. *Custom sizes available upon request.* 

Tanis' abrasive nylon brushes are available in multiple configurations: tube or burr brushes (also known as twisted-in-wire), strip brushes and composite formed disc, mini-disc and radial wheels. CeramiX<sup>®</sup> high-performance brushes cut 3 to 5 times faster on ferrous metal surfaces due to the properties of the 321 ceramic abrasive grain and CeramiX<sup>®</sup> performs well under high stress and heat conditions.

CeramiX<sup>®</sup> abrasive nylon filament is available in 320, 220, 180, 120, 80 and 46 grit sizes, in a variety of filament diameters including a heavy-duty rectangular shape. Tanis regularly designs and manufactures custom brushes in CeramiX<sup>®</sup> and other filaments to suit customers' specific applications.

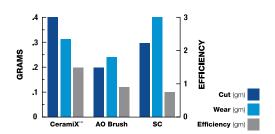
3M<sup>™</sup> is a registered trademark of the 3M company. CeramiX<sup>®</sup> is a registered trademark of Tanis, Inc.

# CeramiX<sup>®</sup> Performance with 3M<sup>™</sup> Abrasive Grain 321

## **Cutting Action**

CeramiX® proprietary abrasive brushes provide enhanced cutting action up to 3 to 5 times faster than traditional abrasive filaments.

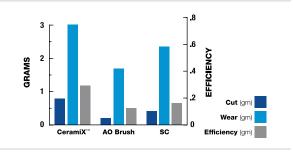
> ALUMINUM PLATE T6 Aluminum Plate, 1750 RPM



#### **Brush Life**

The mineral grain in CeramiX® brushes wears away in smaller pieces, leaving more mineral to work on the part surface.

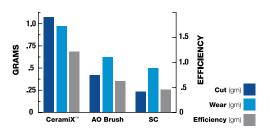
> PERFORATED CRS Perforated CRS A366 Plate, 1750 RPM



#### **Increased Throughput**

CeramiX<sup>®</sup> abrasive brushes reduce cycle times, enabling you to increase throughput. The controlled surface abrading action provides a consistent surface finish.

> CRS STEEL PLATE 1008 CRS Plate, 1750 RPM





3M<sup>™</sup> Grain 321 used in CeramiX® Brushes

cuts 3 to 5 times faster on ferrous metal surfaces compared to traditional abrasive nylons. The mineral grain in CeramiX® brushes wears away in smaller chunks leaving more mineral available to continuously work on the part surface.



R

**Aluminum Oxide** is more impact resistant compared to silicon carbide and less likely to fracture. AO is preferred for finishing soft metals or other materials where a smooth finish is required.



**Silicon Carbide** is harder, sharper and more aggressive than aluminum oxide and is preferred for finishing ferrous metals.



**Alumina Silicate** is a hard ceramic with low thermal expansion. This fine grain abrasive filament is well-suited for fine finishing and cleaning.



**Polycrystalline Diamond** is a hard ceramic with low thermal expansion. This fine grain abrasive filament is well-suited for fine finishing and cleaning.

6

(See page 103 for more information on Diamond.) » Round Crimped: Optimizes brush conformability » Round Level: Maximizes brush density (Diamond Only) » Rectangular: Maximum contact with part surface FILAMENT Point of Contact Solid Line Contact ROUND RECTANGULAR FILAMENT FILAMENT TANISBRUSH.COM

					6	RITS	SIZE						
ABRASIVE FILAME	NT	46	80	120	180	220	240	320	400	500	600	1000	1800
CeramiX®	suo	.065 x .080	.040, .055	.028, .040	.035	.022							
	Options	.068 x .090	.045 x .090										
Silicon Carbide	Diameter (inches)	.060, .045	.040, .050	.022, .040	.035		.030	.022		.018			
		.070	.045 x .090										
Aluminum Oxide	Filament				.035		.030	.022		.018	.012	.010	
Diamond	Fila			.040		.024	.040		.020		.012	.010	.012

# **Abrasive Nylon Disc Brushes**

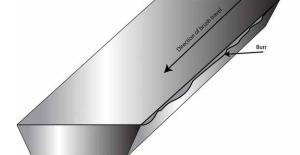
DISC DIAMETER	DRY APPLICATION STARTING RPM	RECOMMENDED MOTOR SIZE (BASED ON A 1" BRUSH FACE)	DISC DIAMETER	FEED RATE STAINLESS STEEL / ALLOY STEELS	FEED RATE MILD STEEL / CAST IRON	FEED RATE Aluminum / Non-Ferrous
2"	1,750 - 2,500	1/4 HP	2"	12 - 18" /min	25 - 30" /min	35 - 50" /min
3"	1,750 - 2,500	1/4 HP	3"	12 - 18" /min	25 - 30" /min	35 - 50" /min
4"	1,750 - 2,500	1/4 HP	4"	12 - 18" /min	25 - 30" /min	35 - 50" /min
5"	1,500 - 1,750	1/4 HP	5"	12 - 18" /min	25 - 30" /min	35 - 50" /min
6"	1,250 - 1,750	1/2 HP	6"	12 - 18" /min	25 - 30" /min	35 - 50" /min
8"	800 - 1,200	3/4 HP	8"	12 - 18" /min	25 - 30" /min	35 - 50" /min
10"	700 - 800	1 HP	10"	12 - 18" /min	25 - 30" /min	35 - 50" /min
12"	600 - 700	1 HP	12"	12 - 18" /min	25 - 30" /min	35 - 50" /min
14"	500 - 600	1 HP	14"	12 - 18" /min	25 - 30" /min	35 - 50" /min

Abrasive nylon disc brushes work best at speeds allowing fairly deep penetration of the work piece into the brush filaments. Faster speeds do not typically work as well as slower speeds, since the maximum RPM listed on the brush is not the optimum working speed. A good rule of thumb is to stay below 2,500 SFPM in dry applications and 3,500 SFPM with coolant.

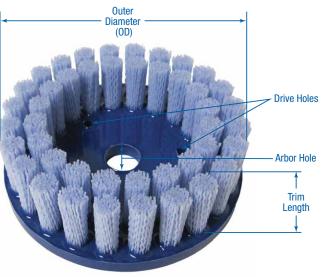
#### ROTATIONAL DIRECTION

On the initial pass of the brush, rotation should be in the opposite direction of the cutting tool that created the burr. Brush should overlap edge of working piece by 1" minimum.



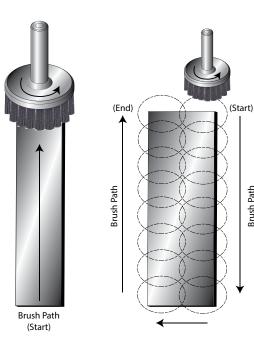


#### **Disc Brush Terminology**



#### BRUSH PATH

The ideal brush path is in the opposite direction of travel from the cutting tool that created the burr. The brush path should also be longer than the cutting tool path, to a point where the trailing edge of the brush is effective on the end of the part. Lastly, to maximize the amount of filament that is striking the part, the center line of the brush should be offset from the center of the part.



Brush Path

#### PENETRATION (POINT OF CONTACT)

The abrasive action occurs when the sides of the brush filament slide across the part surface or edge of the part. When the correct balance between speed (RPM), penetration, dwell time and abrasive grit size are achieved, then optimum life and cut can be obtained.

Recommended penetration rates for abrasive nylon disc brushes are from .075"-.100". This will allow long brush life with aggressive abrasive action.



CORRECT **Point of Contact** 



INCORRECT **Point of Contact** 

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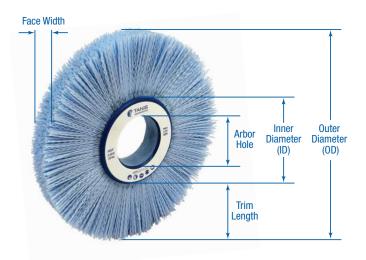
# **Abrasive Nylon Wheel Brushes**

WHEEL DIAMETER	DRY APPLICATION STARTING RPM	RECOMMENDED MOTOR SIZE (BASED ON A 1" BRUSH FACE)
4"	2,000 - 3,000	1/4 HP
5"	2,000 - 3,000	1/4 HP
6"	1,500 - 2,000	1/2 HP
8"	1,200 - 1,500	3/4 HP
10"	1,000 - 1,200	1 HP
12"	800 - 1,000	1 HP
14"	800 - 900	1 HP

Abrasive nylon wheel brushes work best at speeds allowing fairly deep penetration of the work piece into the brush filaments. Faster speeds do not typically work as well as slower speeds, since the maximum RPM listed on the brush is not the optimum working speed. A good rule of thumb is to stay below 2,500 SFPM in dry applications and 3,500 SFPM with coolant. When operating multiple wheel brushes on a common shaft, multiply the HP requirements listed above times the number of brushes in use.

	SURFACE SI	PEED (PERIP	HERAL SPEE	D IN FEET PE	R MINUTE)	
RPM	4" DIA	6" DIA	8" DIA	10" DIA	12" DIA	14" DIA
900	950	1,400	1,900	2,350	2,800	3,350
1,150	1,200	1,800	2,400	3,000	3,600	4,200
1,200	1,250	1,900	2,500	3,200	3,800	4,400
1,500	1,550	2,350	3,150	3,900	4,700	5,500
1,750	1,800	2,750	3,650	4,550	5,500	6,400
2,000	2,100	3,100	4,200	5,200	6,300	7,300
2,400	2,500	3,800	5,000	6,100	7,500	8,800
2,800	2,900	4,400	5,850	7,300	8,800	10,200
3,000	3,100	4,700	6,300	7,800	9,400	11,000
3,200	3,350	5,000	6,700	8,400	10,200	11,700
3,450	3,600	5,400	7,200	9,000	11,000	12,600
3,750	3,900	5,900	7,800	9,800	11,800	13,700
4,000	4,200	6,300	8,400	10,500	12,500	N/A
4,500	4,700	7,200	9,400	11,900	14,100	N/A
5,000	5,200	7,800	10,500	13,100	π Dia (inches	s) X RPM /12
5,400	5,600	8,500	11,300	N/A	π Dia (inches	s) X RPM /12
6,000	6,300	9,400	12,500	N/A	π Dia (inches	s) X RPM /12

#### **Wheel Brush Terminology**



#### PENETRATION (POINT OF CONTACT)

The abrasive action occurs when the sides of the brush filament slides across the part surface or edge of the part. When the correct balance between speed (RPM), penetration, dwell time and abrasive grit size are achieved, then optimum life and cut can be obtained.

Recommended penetration rates for abrasive nylon wheel brushes are maximized up to 10% of trim length. This will allow long brush life with aggressive abrasive action.



CORRECT Point of Contact



INCORRECT Point of Contact

#### **Considerations when Selecting Filament for a Tanis Abrasive Nylon Brush**

#### GRIT SIZE

120 grit is our recommended starting point for most applications. From there you can move either down or up in grit size, for a more aggressive cutting action or more of a polishing action. The chart on page 73 shows our abrasive nylon filament/grit size options.

#### TRIM LENGTH AND BRUSH DENSITY

A brush with a short trim length is rigid and used for high speed cutting. Longer trim lengths are more flexible and used for conforming to irregular surfaces. Likewise, a brush with a lower fill density has greater flexibility and ability to conform, as well as increased resiliency. High fill density brushes are used for deburring and when high speed cutting is required.



Long Trim, Low Density



Short Trim, High Density

#### **Twisted Brush Stem Construction**





Filament is twisted between two stem wires

Single Stem/Single Spiral (SS/SS)

with a single layer of filament.

anna 🗧

**Double Stem/Double Spiral (DS/DS)** Filament is twisted between four stem wires with two layers of bristles. Each layer is perpendicular to the other with a single stem wire in each quadrant. The highest brush density and highest strength twisted wire brush available.

#### **Brush Tip Styles**

SARRAN MARCON

Continuous End

Cut Off End

#### **Operating Recommendations**

When mounting a twisted brush in a collet or chuck, it is recommended to minimize the overhang of the stem to under an inch. This is particularly true with power tube brushes, and it is important to avoid any load conditions and operating speeds that can cause stem deflections and destructive bending. A safe operating speed from 100-500 RPM is recommended for most twisted brushes.

To reach into deeper holes we recommend the use of collet-ready shank mounted brushes or drill extension rods rather than increasing stem overhang.

## **Before Starting the Twist Brush Rotation**

- Secure the brush in the chuck.
- Ensure clockwise brush rotation—counter clockwise rotation can cause the brush to come apart and release the filament.
- Securely clamp the workpiece. Make sure all machine guards are in position.
- Align the brush with the workpiece to ensure the brush rotates on its true center line and avoid stem deflection.
- Guide the brush into the hole before starting the brush rotation.
- · Always wear eye protection and protective clothing!

#### **Other Considerations:**

#### Wire Options

- Coated
- Galvanized
- Stainless Steel

#### **Filament Options**

- Abrasive Nylon
- CeramiX<sup>®</sup>
- Brass
- Carbon Steel
- Horse Hair
- Nylon
- Stainless Steel
- · Crimped, Level or Color Options

#### Gauge

• Stem Diameter

#### Other

- Shank Type
- Tubing
- Coupling
- Loop
- No Loop

#### **Twist Brush Terminology**

# Brush Diameter



#### **Brush too aggressive**

- Reduce filament diameter and/or grit size
- Reduce surface speed by reducing RPM
- Increase trim length and decrease fill density
- Increase feed rate
- Use a smaller diameter brush

#### **Brush not aggressive enough**

- Increase filament density and/or grit size
- Increase surface speed by increasing RPM
- Decrease trim length
- Reduce feed rate
- Use a larger diameter brush

#### Brush not conforming enough to part

- Increase trim length
- Reduce filament density
- Use a smaller diameter brush
- Reduce surface speed by reducing RPM
- Reduce feed rate

#### **Final finish too rough**

- Increase surface speed by increasing RPM
- Use a larger diameter brush
- Use a finer abrasive filament
- Use a coolant or cutting oil
- Use a buffing compound

#### **Final finish too smooth**

- Reduce surface speed by reducing RPM
- Use a smaller diameter brush
- Increase filament density and/or grit size

#### **Filament smearing/melting**

- Reduce surface speed by reducing RPM
- Decrease brush diameter
- Use a coolant or lubricant

#### More action needed on edges parallel to brush axis

- Reduce surface speed by reducing RPM
- Reduce feed rate
- Keep longer brush contact on problem area

# More action needed on edges perpendicular to brush axis

- Reduce surface speed by reducing RPM
- Increase feed rate
- Oscillate brush on problem area

#### **Brush action not uniform enough**

- Increase trim length
- Reduce filament density
- Use automated equipment for brush motion

#### Short brush life

- Increase filament density
- Reduce pressure/depth of interference

#### SUGGESTIONS FOR MAXIMIZING BRUSH PERFORMANCE



 Diai	meter	Increasing outside diameter at a constant RPM increases surface speed: SFPM (Surface Feet Per Minute). Increasing surface speed increases work results.	Assuming constant RPM, a decrease in tool diameter decreases surface speed.
RPN	N	Increasing RPM at a constant outside diameter increases surface speed.	Assuming same diameter brush, decreasing RPM decreases surface speed.
Trin Len		Allows the filament to be more flexible and to conform more readily to irregular surfaces.	Stiffens filament action, thereby increasing work accomplished.
Fila Size	<b>ment</b> e	Provides faster cutting action and thereby increases work accomplished. <i>NOTE: Coarser filament/grit sizes work faster than finer filament/grit sizes, with faster wear.</i>	Provides superior surface finish and maximize tool life. <b>NOTE:</b> For best results, choose minimum diameter and increase as needed.
Grit Size		Provides faster cutting action and thereby increases work accomplished. <i>NOTE:</i> Coarser filament/grit sizes work faster than finer filament/grit sizes, with faster wear.	Provides superior surface finish and maximize tool life. For best results, choose minimum grit size and increase as needed.
	<b>ment</b> isity	Provides more filament to do work, thereby increasing work accomplished.	Provides greater brush flexibility; leaving more room for individual filaments to conform to irregular workpiece shapes.

# **CeramiX<sup>®</sup> Abrasive Nylon Wheel Brushes**

Tanis abrasive nylon wheel brushes are made with CeramiX<sup>®</sup> filament molded into a urethane-based composite hub construction. The proprietary grain mineral in CeramiX<sup>®</sup> brushes is exclusive to Tanis and was developed with 3M<sup>™</sup>. CeramiX<sup>®</sup> provides enhanced cutting action up to 3 to 5 times faster than traditional abrasive filaments. The mineral wears away in smaller pieces, consistently leaving more mineral in the filament to work on the part surface.



#### **APPLICATIONS**

- Machine Part
   Deburring
- Turbine Blade
   Surface Finishing
- Light Duty
   Cleaning/Finishing
- Edge Radiusing
   Improving Surface Finish
- Post Coat Polish of Flutes on Carbide Drills
- Hone Drill Point Lip Edge on Carbide Drills

TANIS Part no.	BRUSH DIAMETER	GRIT	FILAMENT DIAMETER	ARBOR Hole	FACE WIDTH	TRIM LENGTH	MAX. RPM
30130	6"	80	.040	2"	1"	1-1/4"	3,600
30132	6"	80	.055	2"	1"	1-1/4"	3,600
30140	6"	120	.028	2"	1"	1-1/4"	3,600
30145	6"	120	.040	2"	1"	1-1/4"	3,600
30150	6"	180	.035	2"	1"	1-1/4"	3,600
30155	6"	220	.022	2"	1"	1-1/4"	3,600
30160	8"	80	.040	2"	1"	1-1/4"	3,600
30162	8"	80	.055	2"	1"	1-1/4"	3,600
30170	8"	120	.028	2"	1"	1-1/4"	3,600
30175	8"	120	.040	2"	1"	1-1/4"	3,600
30180	8"	180	.035	2"	1"	1-1/4"	3,600
30185	8"	220	.022	2"	1"	1-1/4"	3,600
30190	8"	80	.040	2"	1"	2-1/4"	3,600
30200	8"	120	.040	2"	1"	2-1/4"	3,600
30210	8"	220	.022	2"	1"	2-1/4"	3,600
30215	10"	80	.040	2"	1"	1-1/2"	3,600
30217	10"	80	.055	2"	1"	1-1/2"	3,600
30225	10"	120	.028	2"	1"	1-1/2"	3,600
30230	10"	120	.040	2"	1"	1-1/2"	3,600
30235	10"	180	.035	2"	1"	1-1/2"	3,600
30245	10"	80	.040	2"	1"	3-1/4"	3,600
30246	10"	80	.055	2"	1"	3-1/4"	3,600
30255	10"	120	.040	2"	1"	3-1/4"	3,600
30272	12"	80	.055	4-1/4"	1"	1-1/2"	1,800
30280	12"	120	.028	4-1/4"	1"	1-1/2"	1,800
30285	12"	120	.040	4-1/4"	1"	1-1/2"	1,800
30300	12"	80	.040	4-1/4"	1"	3"	1,800
30310	12"	120	.040	4-1/4"	1"	3"	1,800
30325	14"	80	.040	5-1/4"	1"	1-1/2"	1,800
30327	14"	80	.055	5-1/4"	1"	1-1/2"	1,800
30335	14"	120	.028	5-1/4"	1"	1-1/2"	1,800
30340	14"	120	.040	5-1/4"	1"	1-1/2"	1,800
30357	14"	80	.055	5-1/4"	1"	3-1/2"	1,800
30363	14"	120	.028	5-1/4"	1"	3-1/2"	1,800
30365	14"	120	.040	5-1/4"	1"	3-1/2"	1,800





# **Silicon Carbide Abrasive Nylon Wheel Brushes**

Tanis silicon carbide abrasive nylon wheel brushes are made using nylon filament impregnated with a traditional grit. Silicon carbide is known for its durability and preferred for finishing ferrous metals. It provides a consistent finish with controlled surface abrading action and has less filament breakage than wire brushes.

TANIS PART NO.	BRUSH DIAMETER	GRIT	FILAMENT DIAMETER	ARBOR HOLE	FACE WIDTH	TRIM LENGTH	MAX. RPM
30410	6"	80	.040	2"	1"	1-1/4"	3,600
30420	6"	120	.022	2"	1"	1-1/4"	3,600
30425	6"	120	.040	2"	1"	1-1/4"	3,600
30430	6"	180	.035	2"	1"	1-1/4"	3,600
30435	6"	320	.022	2"	1"	1-1/4"	3,600
30440	6"	500	.018	2"	1"	1-1/4"	3,600
30445	8"	80	.040	2"	1"	1-1/4"	3,600
30455	8"	120	.022	2"	1"	1-1/4"	3,600
30460	8"	120	.040	2"	1"	1-1/4"	3,600
30465	8"	180	.035	2"	1"	1-1/4"	3,600
30475	8"	80	.040	2"	1"	2-1/4"	3,600
30485	8"	120	.040	2"	1"	2-1/4"	3,600
30490	8"	180	.035	2"	1"	2-1/4"	3,600
30495	8"	320	.022	2"	1"	2-1/4"	3,600
30500	10"	80	.040	2"	1"	1-1/2"	3,600
30510	10"	120	.022	2"	1"	1-1/2"	3,600
30515	10"	120	.040	2"	1"	1-1/2"	3,600
30525	10"	320	.022	2"	1"	1-1/2"	3,600
30530	10"	80	.040	2"	1"	3-1/4"	3,600
30540	10"	120	.040	2"	1"	3-1/4"	3,600
30545	10"	180	.035	2"	1"	3-1/4"	3,600
30550	10"	320	.022	2"	1"	3-1/4"	3,600
30585	12"	80	.040	4-1/4"	1"	3"	1,800
30595	12"	120	.040	4-1/4"	1"	3"	1,800
30600	12"	180	.035	4-1/4"	1"	3"	1,800
30605	12"	320	.022	4-1/4"	1"	3"	1,800
30640	14"	80	.040	5-1/4"	1"	3-1/2"	1,800
30645	14"	80	.045 x .090	5-1/4"	1"	3-1/2"	1,800
30650	14"	120	.040	5-1/4"	1"	3-1/2"	1,800
30655	14"	180	.035	5-1/4"	1"	3-1/2"	1,800



30500

Additional diameters and grits available upon request.



# Available on page 101.



## Metal Hub Double Wide Brushes with CeramiX<sup>®</sup> Abrasive Filament

Metal Hub Double Wide wheel brushes are made with our CeramiX<sup>®</sup> abrasive filament. The benefits of this type of construction are consistency in the manufacturing process, high quality, low-cost, and the metal hub allows for higher temperature use than other types of construction. These brushes are often used for machining, casting, metal finishing and in machining centers and manual operations.

TANIS Part no.	BRUSH DIAMETER	GRIT	FILAMENT DIAMETER	FILAMENT TYPE	ARBOR HOLE	HUB MATERIAL	FACE WIDTH	TRIM LENGTH	MAX RPM
30962	10"	80	.055"	CeramiX®	2"	Galvanized Steel	2"	2-1/2"	3,600
30964	10"	120	.040"	CeramiX®	2"	Galvanized Steel	2"	2-1/2"	3,600
30966	10"	320	.022"	CeramiX®	2"	Galvanized Steel	2"	2-1/2"	3,600







TANIS Part no.	BRUSH DIAMETER	GRIT	FILAMENT DIAMETER	FILAMENT TYPE	ARBOR HOLE	HUB MATERIAL	FACE WIDTH	TRIM LENGTH	MAX RPM
30956	8"	80	.055"	CeramiX®	2"	Galvanized Steel	2"	2"	3,600
30958	8"	120	.040"	CeramiX®	2"	Galvanized Steel	2"	2"	3,600
30960	8"	320	.022"	CeramiX®	2"	Galvanized Steel	2"	2"	3,600



TANIS PART NO.	BRUSH DIAMETER	GRIT	FILAMENT DIAMETER	FILAMENT TYPE	ARBOR HOLE	HUB MATERIAL	FACE WIDTH	TRIM LENGTH	MAX RPM
30948	6"	80	.040"	CeramiX®	2"	Galvanized Steel	2"	1"	3,600
30950	6"	80	.055"	CeramiX®	2"	Galvanized Steel	2"	1"	3,600
30952	6"	120	.040"	CeramiX®	2"	Galvanized Steel	2"	1"	3,600
30954	6"	320	.022"	CeramiX®	2"	Galvanized Steel	2"	1"	3,600

#### INDUSTRIES

- Machining
- Casting
- Metal Finishing
- Machining Centers
- Manual Operations

#### APPLICATIONS

- Deburring Keyways, Slots and Machine Grooves in Parts
- Deburring Gear Splines
- Honing and Finishing of Cylindrical Bores
- Edge Radiusing
- Deburring Seal Grooves in Turbine Engine Cases and Small Aerospace Parts

BENEFITS

**Consistency in Manufacturing Process** 

Metal Hub Allows for High Temperature Use

**High Quality and Low Cost** 

Manual Operations



Drive arbors are available for collet mounting applications.



# Metal Hub Brushes with CeramiX<sup>®</sup> Abrasive Filament

The metal hub abrasive wheel brushes feature an innovative 3M abrasive grain mineral that provides enhanced cutting action up to 3 to 5 times faster than traditional abrasive filaments. This filament has a tough, hard and self-sharpening abrasive grain with a crystalline structure, which increases the life of the brush.

TANIS PART NUMBER	BRUSH DIAMETER	GRIT	FILAMENT DIAMETER	FILAMENT TYPE	ARBOR HOLE	HUB MATERIAL	FACE WIDTH	TRIM	MAX RPM
30002	3"	80	.040"	CeramiX®	1/2"-5/8"	Galvanized Steel	.375"	.625"	4,500
30006	3"	120	.028"	CeramiX®	1/2"-5/8"	Galvanized Steel	.375"	.625"	4,500
30008	3"	120	.040"	CeramiX®	1/2"-5/8"	Galvanized Steel	.375"	.625"	4,500
30012	4"	80	.040"	CeramiX®	1/2"-5/8"	Galvanized Steel	.500"	.850"	4,500
30016	4"	120	.028"	CeramiX®	1/2"-5/8"	Galvanized Steel	.500"	.850"	4,500
30018	4"	120	.040"	CeramiX®	1/2"-5/8"	Galvanized Steel	.500"	.850"	4,500
30022	6"	80	.040"	CeramiX®	1/2"-5/8"	Galvanized Steel	.500"	1-3/16"	3,600
30026	6"	120	.028"	CeramiX®	1/2"-5/8"	Galvanized Steel	.500"	1-3/16"	3,600
30028	6"	120	.040"	CeramiX®	1/2"-5/8"	Galvanized Steel	.500"	1-3/16"	3,600
30032	6"	80	.040"	CeramiX®	2"	Galvanized Steel	1.00"	1.00"	3,600
30034	6"	80	.055"	CeramiX®	2"	Galvanized Steel	1.00"	1.00"	3,600
30036	6"	120	.028"	CeramiX®	2"	Galvanized Steel	1.00"	1.00"	3,600
30038	6"	120	.040"	CeramiX®	2"	Galvanized Steel	1.00"	1.00"	3,600



30034

# **Metal Hub Brushes with Silicon Carbide Filament**

The metal hub brushes also come in silicon carbide which is an abrasive grain that is widely used in industrial applications and preferred for finishing ferrous metals.

TANIS PART NUMBER	BRUSH DIAMETER	GRIT	FILAMENT DIAMETER	FILAMENT TYPE	ARBOR HOLE	HUB MATERIAL	FACE WIDTH	TRIM	MAX RPM
30052	3"	80	.040"	Silicon Carbide	1/2"-5/8"	Galvanized Steel	375"	.625"	4,500
30054	3"	180	.035"	Silicon Carbide	1/2"-5/8"	Galvanized Steel	375"	.625"	4,500
30058	3"	120	.040"	Silicon Carbide	1/2"-5/8"	Galvanized Steel	375"	.625"	4,500
30060	3"	320	.022"	Silicon Carbide	1/2"-5/8"	Galvanized Steel	375"	.625"	4,500
30062	4"	80	.040"	Silicon Carbide	1/2"-5/8"	Galvanized Steel	.500"	.850"	4,500
30064	4"	180	.035"	Silicon Carbide	1/2"-5/8"	Galvanized Steel	.500"	.850"	4,500
30068	4"	120	.040"	Silicon Carbide	1/2"-5/8"	Galvanized Steel	.500"	.850"	4,500
30070	4"	320	.022"	Silicon Carbide	1/2"-5/8"	Galvanized Steel	.500"	.850"	4,500
30072	6"	80	.040"	Silicon Carbide	1/2"-5/8"	Galvanized Steel	.500"	1-3/16"	3,600
30074	6"	180	.035"	Silicon Carbide	1/2"-5/8"	Galvanized Steel	.500"	1-3/16"	3,600
30076	6"	120	.022"	Silicon Carbide	1/2"-5/8"	Galvanized Steel	.500"	1-3/16"	3,600
30078	6"	120	.040"	Silicon Carbide	1/2"-5/8"	Galvanized Steel	.500"	1-3/16"	3,600
30080	6"	320	.022"	Silicon Carbide	1/2"-5/8"	Galvanized Steel	.500"	1-3/16"	3,600
30082	6"	80	.040"	Silicon Carbide	2"	Galvanized Steel	1.00"	1.00"	3,600
30084	6"	180	.035"	Silicon Carbide	2"	Galvanized Steel	1.00"	1.00"	3,600
30086	6"	120	.022"	Silicon Carbide	2"	Galvanized Steel	1.00"	1.00"	3,600
30088	6"	120	.040"	Silicon Carbide	2"	Galvanized Steel	1.00"	1.00"	3,600
30090	6"	320	.022"	Silicon Carbide	2"	Galvanized Steel	1.00"	1.00"	3,600



30068



# See shanks on page 102.

# **Miniature Wheel Brushes**

Tanis miniature wheel brushes are used for surface conditioning, edge contouring, fine deburring, cleaning and polishing. Applications include but are not limited to aerospace, molds, hydraulics, tool & dies, Swiss machines and medical parts.



TANIS PART NO.	BRUSH DIAMETER	GRIT	FILAMENT DIAMETER	TRIM LENGTH	SHANK DIAMETER	MAX. RPM	FILL MATERIAL
11800	3/4"	600	.012	3/16"	1/8"	6,000	Aluminum Oxide
11801	1"	600	.012	5/16"	1/8"	6,000	Aluminum Oxide
11805	3/4"	500	.018	3/16"	1/8"	6,000	Silicon Carbide
11806	1"	500	.018	5/16"	1/8"	6,000	Silicon Carbide
11810	3/4"	800	.010	3/16"	1/8"	6,000	Diamond
11811	1"	800	.010	5/16"	1/8"	6,000	Diamond



# **CeramiX<sup>®</sup> Bore Brushes**

The cross hole bore brush is designed for automated use to remove burrs from internal edges and finishing bores. CeramiX<sup>®</sup> contains 3M<sup>™</sup> Company 321 mineral grain that provides enhanced cutting action 3 to 5 times greater than traditional abrasive filaments.

TANIS PART NO.	BRUSH DIAMETER	GRIT	FILAMENT DIAMETER	FACE WIDTH	TRIM LENGTH	SHAFT LENGTH	MAX. RPM
35652	1"	120	.028	1"	7/32"	4-3/4"	8,000
35654	1-1/4"	120	.028	1"	11/32"	4-3/4"	8,000
35656	1-1/2"	120	.028	1"	1/4"	4-3/4"	8,000
35657	1-1/2"	120	.028	1"	1/2"	4-3/4"	8,000
35658	2"	120	.028	1"	1/2"	4-3/4"	6,000
35660	2"	180	.035	1"	1/2"	4-3/4"	6,000
35662	2"	80	.040	1"	1/2"	4-3/4"	6,000
35664	2-1/2"	120	.028	1"	3/4"	4-3/4"	6,000
35666	2-1/2"	80	.040	1"	3/4"	4-3/4"	6,000
35668	3"	120	.028	1"	.560"	4-3/4"	6,000
35670	3"	120	.040	1"	.560"	4-3/4"	6,000
35672	3"	80	.040	1"	.560"	4-3/4"	6,000
35686	4"	120	.028	1"	1"	4-3/4"	6,000
35688	4"	120	.040	1"	1"	4-3/4"	6,000
35689	4"	80	.040	1"	1"	4-3/4"	6,000
35690	4"	80	.055	1"	1"	4-3/4"	6,000



#### APPLICATIONS

- Bore Finishing
- Remove Burrs from Internal Edges

Shaft diameter is 3/8" for all bore brushes. Flare may impact face width.

Set screw to securely mount drive arbor is not included. Additional diameters and grits available upon request.



# **CeramiX<sup>®</sup> Heavy-Duty Copper Center Wheels**

CeramiX<sup>®</sup> small profile wheels for cleaning, polishing and deburring recessed areas such as small openings, slots, machined grooves, fine deburring on medical instruments and gear splines.

TANIS PART NO.	BRUSH DIAMETER	GRIT	FILAMENT DIAMETER	ARBOR HOLE	FACE WIDTH	TRIM LENGTH	MAX RPM
35558	3"	120	0.028	5/8"	1/2"	1/2"	10,000
35559	3"	120	0.040	5/8"	1/2"	1/2"	10,000
35560	3"	80	0.040	5/8"	1/2"	1/2"	10,000
35564	4"	120	0.028	5/8"	5/8"	1"	10,000
35566	4"	120	0.040	5/8"	5/8"	1"	10,000
35567	4"	80	0.040	5/8"	5/8"	1"	10,000
35568	4"	80	0.055	5/8"	5/8"	1"	10,000

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# **CeramiX<sup>®</sup> Copper Center Wheel Brushes**

CeramiX<sup>®</sup> small profile wheels for cleaning, polishing and deburring recessed areas such as small openings, slots, machined grooves, fine deburring on medical instruments and gear splines. CeramiX<sup>®</sup> contains 3M<sup>™</sup> Company 321 mineral grain that provides enhanced cutting action up to 3 to 5 times greater than traditional abrasive filaments. CeramiX<sup>®</sup> brushes fracture in sharper, jagged surfaces for superior abrasion providing minimum cycle times, increased productivity and maximizes abrasive media on part.



TANIS Part no.	BRUSH DIAMETER	GRIT	FILAMENT DIAMETER	ARBOR HOLE	FACE WIDTH	TRIM LENGTH	MAX. RPM
35502	1"	120	.028	1/4"	1/4"	7/32"	10,000
35503	1-1/4"	120	.028	1/4"	1/4"	11/32"	10,000
35512	1-1/2"	120	.028	1/4"	1/4"	1/2"	10,000
35505	1-1/2"	120	.028	1/2"	1/4"	1/4"	10,000
35510	2"	120	.028	1/2"	5/16"	1/2"	10,000
35515	2"	180	.035	1/2"	5/16"	1/2"	10,000
35520	2"	80	.040	1/2"	5/16"	1/2"	10,000
35525	2-1/2"	120	.028	5/8"	5/16"	3/4"	10,000
35530	2-1/2"	80	.040	5/8"	5/16"	3/4"	10,000
35535	3"	120	.028	1/2"	3/8"	1"	10,000
35545	3"	120	.040	1/2"	3/8"	1"	10,000
35550	3"	80	.040	1/2"	3/8"	1"	10,000
35551	3"	80	.055	1/2"	3/8"	1"	10,000

Additional diameters and grits available upon request.

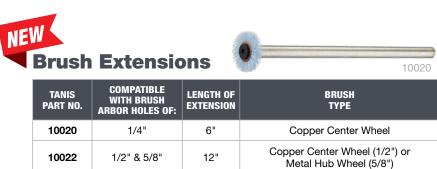
# **Silicon Carbide Copper Center Wheel Brushes**

Silicon Carbide small profile wheels are known for durability and preferred for finishing ferrous metals.



TANIS Part no.	BRUSH DIAMETER	GRIT	FILAMENT DIAMETER	ARBOR HOLE	FACE WIDTH	TRIM LENGTH	MAX. RPM
35570	1-1/2"	180	.035	1/2"	1/4"	1/4"	10,000
35575	1-1/2"	120	.022	1/2"	1/4"	1/4"	10,000
35580	2"	500	.018	1/2"	5/16"	1/2"	10,000
35585	2"	120	.022	1/2"	5/16"	1/2"	10,000
35590	2"	120	.040	1/2"	5/16"	1/2"	10,000
35595	2-1/2"	320	.022	5/8"	5/16"	3/4"	10,000
35600	2-1/2"	180	.035	5/8"	5/16"	3/4"	10,000
35605	2-1/2"	120	.022	5/8"	5/16"	3/4"	10,000
35610	3"	320	.022	1/2"	3/8"	1"	10,000
35615	3"	180	.035	1/2"	3/8"	1"	10,000
35620	3"	120	.022	1/2"	3/8"	1"	10,000
35625	3"	120	.040	1/2"	3/8"	1"	10,000

Additional diameters and grits available upon request.





Each part number comes with 1 extension and 3 shoulder bolts. Capable of holding up to 3 wheels. Brushes sold separately.

# **Pattern Descriptions**

Disc brushes can be easily mounted into automated machinery, custom-designed equipment, CNC machining centers and robotic centers. There are numerous applications where these brushes perform brilliantly including deburring, surface preparation and finishing, rust and scale removal, sand and texturing, blending surface marks and edge radiusing. See below to view the various filament patterns available for disc brushes and select the pattern that will work best for your application.

# **Tufted Pattern**

Use the Tufted Brush on contoured areas that need light to moderate surface finish. The bristle spacing allows for filament movement ideal for flat and varied surfaces.







Use on contoured areas that require moderate to aggressive abrasive performance. The exceptionally dynamic teardrop brush offers the flexibility needed to reach contoured areas, the bristle density to finish tough jobs and an innovative design for superior coolant flow.

# **Turbo Pattern**

Use on small contoured surfaces. Like the teardrop, but on a smaller scale. The turbo design allows filament to move over flat or contoured areas and provides sufficient density for light to moderate abrasive performance. Coolant will flow out of the brush.

# **Dense Pattern**

Apply on large flat surfaces that require tough aggressive performance. The great bristle density creates more deburring and finishing pressure.





# **CeramiX<sup>®</sup> Abrasive Nylon Disc Brushes**

The composite molded construction of Tanis disc brushes creates a tough, high-productivity brush tool. Higher fill densities allow for a more aggressive brush, making this brush capable of maximized productivity. Alternative filament patterns are available for applications requiring maximum density (teardrop pattern) or lighter filament density (tufted pattern).



Tufted Pattern



Teardrop Pattern

TUFTED PART NO.	BRUSH DIAMETER	GRIT	FILAMENT DIAMETER	ARBOR HOLE	TRIM LENGTH	MAX. RPM	ARBOR PART NO.
33760	4"	80	.040	7/8"	1-1/2"	2,500	35050
33775	4"	120	.040	7/8"	1-1/2"	2,500	35050
33790	5"	80	.040	7/8"	1-1/2"	2,500	35050
33805	5"	120	.040	7/8"	1-1/2"	2,500	35050
33820	6"	80	.040	7/8"	1-1/2"	2,000	35050
33830	6"	120	.028	7/8"	1-1/2"	2,000	35050
33835	6"	120	.040	7/8"	1-1/2"	2,000	35050
33840	6"	180	.035	7/8"	1-1/2"	2,000	35050
33850	8"	80	.040	7/8"	1-1/2"	2,000	35065
33865	8"	120	.040	7/8"	1-1/2"	2,000	35065
33880	10"	80	.040	7/8"	1-1/2"	1,750	35070
33895	10"	120	.040	7/8"	1-1/2"	1,750	35070

TEARDROP Part No.	BRUSH DIAMETER	GRIT	FILAMENT DIAMETER	ARBOR HOLE	TRIM LENGTH	MAX. RPM	ARBOR PART NO.
33280	4"	80	.040	7/8"	1-1/2"	2,500	35050
33295	4"	120	.040	7/8"	1-1/2"	2,500	35050
33300	4"	180	.035	7/8"	1-1/2"	2,500	35050
33305	4"	220	.022	7/8"	1-1/2"	2,500	35050
33310	5"	80	.040	7/8"	1-1/2"	2,500	35050
33325	5"	120	.040	7/8"	1-1/2"	2,500	35050
33340	6"	80	.040	7/8"	1-1/2"	2,000	35060
33350	6"	120	.028	7/8"	1-1/2"	2,000	35060
33355	6"	120	.040	7/8"	1-1/2"	2,000	35060
33370	8"	80	.040	7/8"	1-1/2"	2,000	35065
33385	8"	120	.040	7/8"	1-1/2"	2,000	35065
33400	10"	80	.040	7/8"	1-1/2"	1,750	35070
33415	10"	120	.040	7/8"	1-1/2"	1,750	35070

Additional diameters and grits available upon request.

#### APPLICATIONS

- Cast Part Deburring
- Airframe Components
- Deburring Face-Milled Parts
- Blending Grinding Marks
- Improving Surface Finish



Drive arbors can be found on page 100.

# **Silicon Carbide Abrasive Nylon Disc Brushes**

Our exclusive teardrop-shaped filament configuration provides the best of both world—heavy duty abrasive action with sufficient room for air or coolant flow. Tufted configuration is designed for light-to-medium abrasive action applications. Custom engineered disc brushes can also be produced to suit your application, in a variety of abrasive nylon filament choices.

TUFTED PART NO.	BRUSH DIAMETER	GRIT	FILAMENT DIAMETER	ARBOR HOLE	TRIM LENGTH	MAX. RPM	ARBOR PART NO.
33520	4"	80	.040	7/8"	1-1/2"	2,500	35050
33525	4"	80	.045 x .090	7/8"	1-1/2"	2,500	35050
33535	4"	120	.040	7/8"	1-1/2"	2,500	35050
33540	4"	180	.035	7/8"	1-1/2"	2,500	35050
33545	4"	320	.022	7/8"	1-1/2"	2,500	35050
33550	5"	80	.040	7/8"	1-1/2"	2,500	35050
33570	5"	180	.035	7/8"	1-1/2"	2,500	35050
33580	6"	80	.040	7/8"	1-1/2"	2,000	35050
33595	6"	120	.040	7/8"	1-1/2"	2,000	35050
33600	6"	180	.035	7/8"	1-1/2"	2,000	35050
33610	8"	80	.040	7/8"	1-1/2"	2,000	35065
33625	8"	120	.040	7/8"	1-1/2"	2,000	35065
33630	8"	180	.035	7/8"	1-1/2"	2,000	35065
33640	10"	80	.040	7/8"	1-1/2"	1,750	35070
33655	10"	120	.040	7/8"	1-1/2"	1,750	35070



Tufted Pattern

Additional diameters and grits available upon request.

TEARDROP PART NO.	BRUSH DIAMETER	GRIT	FILAMENT DIAMETER	ARBOR HOLE	TRIM LENGTH	MAX. RPM	ARBOR Part no.
33045	4"	80	.045 x .090	7/8"	1-1/2"	2,500	35050
33075	5"	80	.045 x .090	7/8"	1-1/2"	2,500	35050
33105	6"	80	.045 x .090	7/8"	1-1/2"	2,000	35060
33135	8"	80	.045 x .090	7/8"	1-1/2"	2,000	35065
33165	10"	80	.045 x .090	7/8"	1-1/2"	1,750	35070



Additional diameters and grits available upon request.

Teardrop Pattern



Drive arbors can be found on page 100.

#### APPLICATIONS

- Cast Part Deburring
- Airframe Components
- Deburring Face-Milled Parts
- Blending Grinding Marks
- Improving Surface Finish

# **CeramiX<sup>®</sup> Shell Mill Holder Disc Brushes**

CeramiX<sup>®</sup> Shell Mill Disc Brushes provide a consistent, flat brush for superior dimensional precision. CeramiX<sup>®</sup> filament provides exceptional abrasive action in deburring applications on flat surfaces, improving metal finish on milled and machined surfaces as well as blending rough edges on machined parts. Shell mill disc brush has built-in keyway to mount directly to a standard shell mill holder for use in CNC machining centers.



Dense Pattern



Tufted Pattern



DENSE PART NO.	BRUSH DIAMETER	GRIT	FILAMENT DIAMETER	ARBOR HOLE	TRIM LENGTH	MAX. RPM
36132	2"	120	.040	3/4"	1-1/2"	2,500
36136	2"	80	.055	3/4"	1-1/2"	2,500
36142	3"	120	.040	3/4"	1-1/2"	2,500
36146	3"	80	.055	3/4"	1-1/2"	2,500
36148	3"	80	.045 x .090	3/4"	1-1/2"	2,500
36150	4"	120	.028	1-1/4"	1-1/2"	2,500
36152	4"	120	.040	1-1/4"	1-1/2"	2,500
36154	4"	80	.040	1-1/4"	1-1/2"	2,500
36156	4"	80	.055	1-1/4"	1-1/2"	2,500
36158	4"	80	.045 x .090	1-1/4"	1-1/2"	2,500
36160	6"	120	.028	1-1/4"	1-1/2"	2,500
36166	6"	80	.055	1-1/4"	1-1/2"	2,500
36168	6"	80	.045 x .090	1-1/4"	1-1/2"	2,500
36176	8"	80	.055	1-1/4"	1-1/2"	2,000
36178	8"	80	.045 x .090	1-1/4"	1-1/2"	2,000
36186	10"	80	.055	1-1/4"	1-1/2"	2,000
36188	10"	80	.045 x .090	1-1/4"	1-1/2"	2,000

TUFTED Part No.	BRUSH DIAMETER	GRIT	FILAMENT DIAMETER	ARBOR HOLE	TRIM LENGTH	MAX. RPM
36030	4"	120	.028	1-1/4"	1-1/2"	2,500
36032	4"	120	.040	1-1/4"	1-1/2"	2,500
36040	6"	120	.028	1-1/4"	1-1/2"	2,500
36042	6"	120	.040	1-1/4"	1-1/2"	2,500
36050	8"	120	.028	1-1/4"	1-1/2"	2,000
36052	8"	120	.040	1-1/4"	1-1/2"	2,000
36060	10"	120	.028	1-1/4"	1-1/2"	2,000
36062	10"	120	.040	1-1/4"	1-1/2"	2,000

Additional diameters and grits available upon request.

#### APPLICATIONS

- Cast Part Deburring
- Aircraft Components
- Deburring Face-Milled Parts
- Blending Grinding Marks
- Improving Surface Finish



Both brush patterns feature shell mill mount-fits standard shell mill holders. (Holders are not included.)

# **CeramiX<sup>®</sup> Mini Disc Brushes**

Ideal for deburring or improving surface finish, these small-diameter disc brushes have a composite hub and feature a very high filament density. CeramiX<sup>®</sup> contains 3M<sup>™</sup> Company 321 mineral grain which provides enhanced cutting action up to 3 to 5 times greater than traditional abrasive filaments. CeramiX<sup>®</sup> fractures in sharper, jagged surfaces for superior abrasion providing minimum cycle times, increased productivity and maximizes abrasive media on part.

TANIS Part no.	BRUSH DIAMETER	GRIT	FILAMENT DIAMETER	ARBOR HOLE	TRIM LENGTH	MAX. RPM	ARBOR PART NO.
34580	2"	120	.028	3/8"	1-1/4"	4,500	35048
34585	2"	80	.040	3/8"	1-1/4"	4,500	35048
34590	2"	120	.040	3/8"	1-1/4"	4,500	35048
34592	2"	80	.055	3/8"	1-1/4"	4,500	35048
34595	2"	80	.045 x .090	3/8"	1-1/4"	4,500	35048
34605	3"	120	.028	3/8"	1-1/4"	4,500	35048
34610	3"	80	.040	3/8"	1-1/4"	4,500	35048
34615	3"	120	.040	3/8"	1-1/4"	4,500	35048
34617	3"	80	.055	3/8"	1-1/4"	4,500	35048
34620	3"	80	.045 x .090	3/8"	1-1/4"	4,500	35048



Set screw included to securely mount drive arbor.

Additional diameters and grits available upon request.

# Silicon Carbide Mini Disc Brushes

Ideal for deburring or improving surface finish, these small-diameter disc brushes have a composite hub and feature a very high filament density. Silicon carbide in the .045 x .090 rectangular shape is shown in the photo below.

TANIS PART NO.	BRUSH DIAMETER	GRIT	FILAMENT DIAMETER	ARBOR HOLE	TRIM LENGTH	MAX. RPM	ARBOR PART NO.
34630	2"	120	.022	3/8"	1-1/4"	4,500	35048
34635	2"	80	.040	3/8"	1-1/4"	4,500	35048
34640	2"	120	.040	3/8"	1-1/4"	4,500	35048
34645	2"	80	.045 x .090	3/8"	1-1/4"	4,500	35048
34655	3"	80	.040	3/8"	1-1/4"	4,500	35048
34660	3"	120	.040	3/8"	1-1/4"	4,500	35048
34665	3"	80	.045 x .090	3/8"	1-1/4"	4,500	35048



Set screw included to securely mount drive arbor.

Additional diameters and grits available upon request.



# Mini disc arbor available on page 100.

# **Fine Blanking Disc Brushes**

Designed for stationary finishing machines, Tanis abrasive nylon fine-blanking disc brushes fit European machines including Volbhag, Niederberger and Peter Wolters. Fine-blanking disc brushes are ideal for deburring and edge radiusing on fine-blanked parts and polishing machined surfaces.



#### **Silicon Carbide**

TANIS PART NO.	BRUSH DIAMETER	GRIT	FILAMENT DIAMETER	TRIM LENGTH (MM)	ARBOR HOLE (MM)	BLOCK THICKNESS	MAX. RPM
32010	6"	46	.060	25	25	1"	3,000
32020	6"	60	.045	25	25	1"	3,000
32030	6"	60	.045	36	25	1"	3,000
32040	6"	80	.050	25	25	1"	3,000
32050	6"	80	.050	36	25	1"	3,000
32060	6"	120	.040	25	25	1"	3,000
32070	6"	120	.040	36	25	1"	3,000
32080	6"	180	.035	25	25	1"	3,000
32090	6"	180	.035	36	25	1"	3,000
32100	6"	320	.022	25	25	1"	3,000
32110	6"	320	.022	36	25	1"	3,000



# **CeramiX<sup>®</sup> End Brushes with Bridles**

CeramiX<sup>®</sup> End Brushes with Bridles feature an integrated stem that allows mounting in a collet or tool holder for CNC machine or robotic use. End brushes can also be used in portable air or electric tools. End brushes are a great choice for deburring slots, small recessed areas and internal part features. CeramiX<sup>®</sup> End Brushes are able to deliver a targeted brushing action to small areas on machined parts to blend end-mill tool marks, deburr and blend rough edges and provide ideal surface finish. Now including bridles to prevent flaring and for increased aggressive performance.

TANIS PART NO.	BRUSH DIAMETER	GRIT	FILAMENT DIAMETER	TRIM LENGTH	OVERALL LENGTH	SHANK DIAMETER	MAX. RPM
35697	3/8"	120	.040	1"	2-3/4"	1/4"	10,000
35698	3/8"	180	.035	1"	2-3/4"	1/4"	10,000
35699	3/8"	220	.022	1"	2-3/4"	1/4"	10,000
35700	1/2"	120	.040	1"	2-3/4"	1/4"	10,000
35705	1/2"	180	.035	1"	2-3/4"	1/4"	10,000
35710	1/2"	220	.022	1"	2-3/4"	1/4"	10,000
35712	3/4"	80	.055	1"	2-3/4"	1/4"	10,000
35715	3/4"	120	.040	1"	2-3/4"	1/4"	10,000
35720	3/4"	180	.035	1"	2-3/4"	1/4"	10,000
35725	3/4"	220	.022	1"	2-3/4"	1/4"	10,000
35728	1"	80	.055	1"	2-3/4"	1/4"	10,000
35730	1"	120	.040	1"	2-3/4"	1/4"	10,000
35735	1"	180	.035	1"	2-3/4"	1/4"	10,000
35740	1"	220	.022	1"	2-3/4"	1/4"	10,000



Additional diameters and grits available upon request.

# **Silicon Carbide End Brushes with Bridles**

Silicon Carbide End Brushes with Bridles feature an integrated stem that allows mounting in a collet or tool holder for CNC machine or robotic use. End brushes can also be used in portable air or electric tools. End brushes are a great choice for deburring slots, small recessed areas and internal part features. Includes bridles to prevent flaring.

TANIS Part no.	BRUSH DIAMETER	GRIT	FILAMENT DIAMETER	TRIM LENGTH	OVERALL LENGTH	SHANK DIAMETER	MAX. RPM
35745	1/2"	120	.040	1"	2-3/4"	1/4"	10,000
35750	1/2"	180	.035	1"	2-3/4"	1/4"	10,000
35755	1/2"	320	.022	1"	2-3/4"	1/4"	10,000
35760	3/4"	120	.040	1"	2-3/4"	1/4"	10,000
35765	3/4"	180	.035	1"	2-3/4"	1/4"	10,000
35770	3/4"	320	.022	1"	2-3/4"	1/4"	10,000
35775	1"	120	.040	1"	2-3/4"	1/4"	10,000
35780	1"	180	.035	1"	2-3/4"	1/4"	10,000





# **CeramiX<sup>®</sup> Stem Mounted End Brushes**

The integrated stem allows for convenient mounting in a collet or tool holder. These smaller diameter disc brushes are a great choice for deburring slots or small recessed areas, as well as reaching into internal part features. For more information see pages 70 through 77 in the CeramiX<sup>®</sup> Technical Section.



TANIS Part no.	BRUSH DIAMETER	GRIT	FILAMENT DIAMETER	SHANK DIAMETER	TRIM LENGTH	MAX. RPM
*32285	1-1/2"	80	.040	1/4"	1-3/8"	4,500
*32287	1-1/2"	80	.055	1/4"	1-3/8"	4,500
*32295	1-1/2"	120	.040	1/4"	1-3/8"	4,500
*32300	1-1/2"	120	.028	1/4"	1-3/8"	4,500
*32305	1-1/2"	220	.022	1/4"	1-3/8"	4,500
32310	2"	80	.040	1/4"	1-3/8"	4,500
32312	2"	80	.055	1/4"	1-3/8"	4,500
32320	2"	120	.040	1/4"	1-3/8"	4,500
32325	2"	120	.028	1/4"	1-3/8"	4,500
32330	2"	220	.022	1/4"	1-3/8"	4,500
32335	2-1/2"	80	.040	1/4"	1-3/8"	4,500
32337	2-1/2"	80	.055	1/4"	1-3/8"	4,500
32345	2-1/2"	120	.040	1/4"	1-3/8"	4,500
32350	2-1/2"	120	.028	1/4"	1-3/8"	4,500
32355	2-1/2"	220	.022	1/4"	1-3/8"	4,500

\*Dense pattern.



# **Abrasive Nylon Collet Ready Brushes**

Ideal for internal deburring and finishing applications, tubular component parts and drilled and tapered holes. These power tube brushes are fitted with a solid galvanized steel shank for ease of use in CNC machine tools, drill presses and manual machine tools.

TANIS Part no.	BRUSH DIAMETER	GRIT	FILAMENT DIAMETER	BRUSH LENGTH	OVERALL LENGTH	SHANK DIAMETER
34820	1/4"	180	.035	2"	8"	3/16"
34825	1/4"	120	.028	2"	8"	3/16"
34827	5/16"	180	.035	2"	8"	3/16"
34829	5/16"	120	.028	2"	8"	3/16"
34830	3/8"	180	.035	2"	8"	1/4"
34835	3/8"	120	.028	2"	8"	1/4"
34840	1/2"	180	.035	2"	8"	1/4"
34845	1/2"	120	.040	2"	8"	1/4"
34855	5/8"	120	.040	2"	8"	1/4"
34865	3/4"	120	.040	2"	8"	1/4"
34869	7/8"	120	.040	2"	8"	1/4"
34870	1"	120	.040	2"	8"	1/4"
34875	1"	80	.040	2"	8"	1/4"
34880	1-1/4"	120	.040	2"	8"	1/4"
34885	1-1/4"	80	.040	2"	8"	1/4"

**CeramiX**<sup>®</sup> (Single stem, single spiral; continuous end.)

Additional diameters and grits available upon request.



# **Abrasive Nylon Micro Twisted Brushes**

Micro-abrasive tube brushes are ideal for ultra-fine deburring of internal holes produced by small diameter drilling. Light deburring and cleaning will not alter bore dimensions or surface finishes. Micro-abrasive tube brushes are used in power tools to create a side-wiping action, or used manually.

TANIS	BRUSH	GRIT	FILAMENT	BRUSH	OVERALL	STEM	FOR	FOR HOLE DIAMETERS			
PART NO.	DIAMETER	GULL	DIAMETER	LENGTH	LENGTH	DIAMETER	INCH	FRACT.	мм		
31040	.050"	500	.018	1/2"	4"	.022"	.047"	3/64	1.190		
31045	.075"	500	.018	3/4"	4"	.033"	.063"	1/16	1.600		
31050	.090"	500	.018	3/4"	4"	.041"	.078"	5/64	1.984		
31055	.105"	500	.018	1"	4"	.041"	.094"	3/32	2.381		
31060	.125"	500	.018	1"	4"	.064"	.109"	7/64	2.778		
31065	.135"	500	.018	1"	4"	.075"	.125"	1/8	3.175		
31070	.150"	500	.018	1"	4"	.075"	.141	9/64	3.572		

#### Silicon Carbide (Single stem, single spiral; cut off end.)

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<b>Silicon Carbide</b> (Single stem, single spiral; continuous end.)
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TANIS	BRUSH	ODIT	FILAMENT	BRUSH	OVERALL	STEM	FOR	HOLE DIAME	TERS
PART NO.	DIAMETER	GRIT	DIAMETER	LENGTH	LENGTH	DIAMETER	INCH	FRACT.	мм
31075	.165"	500	.018	1"	5"	.087"	.156"	5/32	3.969
31085	.190"	500	.018	1"	5"	.087"	.188"	3/16	4.736
31090	.215"	500	.018	1"	5"	.087"	.203"	13/64	5.159
31095	.230"	500	.018	1"	5"	.087"	.219"	7/32	5.556
31100	.245"	500	.018	1"	5"	.115"	.234"	15/64	5.953
31105	.260"	500	.018	1"	5"	.115"	.250"	1/4	6.35
31110	.325"	500	.018	1"	5"	.115"	.313"	5/16	7.938
31115	.385"	500	.018	1"	5"	.147"	.375"	3/8	9.525
31010	.515"	320	.022	1"	5"	.168"	.500"	1/2	12.70
31120	.515"	500	.018	1"	5"	.168"	.500"	1/2	12.70
31015	.640"	320	.022	1"	5"	.168"	.625"	5/8	15.87
31125	.640"	500	.018	1"	5"	.168"	.625"	5/8	15.87
31020	.765"	320	.022	1"	5"	.221"	.750"	3/4	19.05
31130	.765"	500	.018	1"	5"	.221"	.750"	3/4	19.05
31025	.890"	320	.022	1"	5"	.221"	.875"	7/8	22.225
31135	.890"	500	.018	1"	5"	.221"	.875"	7/8	22.225
31030	1.015"	320	.022	1"	5"	.248"	1"	1	25.40
31035	1.015"	500	.018	1"	5"	.248"	1"	1	25.40

31120

# **Abrasive Nylon Micro Twisted Brushes**

Micro-abrasive tube brushes are ideal for ultra-fine deburring of internal holes produced by small diameter drilling. Light deburring and cleaning will not alter bore dimensions or surface finishes. Micro-abrasive tube brushes are used in power tools to create a side-wiping action, or used manually.

TANIS	BRUSH	GRIT	FILAMENT	BRUSH	OVERALL	STEM	FOR	HOLE DIAME	TERS
PART NO.	DIAMETER	GULL	DIAMETER	LENGTH	LENGTH	DIAMETER	INCH	FRACT.	мм
31210	.030"	1000	.008	1/2"	4"	.015"	.031"	1/32	.794
31215	.050"	1000	.008	1/2"	4"	.022"	.047"	3/64	1.191
31220	.075"	1000	.008	3/4"	4"	.033"	.063"	1/16	1.588
31225	.090"	1000	.008	3/4"	4"	.041"	.078"	5/64	1.984
31230	.105"	1000	.008	1"	4"	.041"	.094"	3/32	2.381
31235	.125"	1000	.008	1"	4"	.064"	.109"	7/64	2.778
31240	.135"	1000	.008	1"	4"	.075"	.125"	1/8	3.175
31260	.190"	1000	.008	1"	5"	.087"	.188"	3/16	4.736
31265	.215"	1000	.008	1"	5"	.087"	.203"	13/64	5.159
31275	.245"	1000	.008	1"	5"	.115"	.234"	15/64	5.953

#### Alumina Silicate (Single stem, single spiral; cut off end.)

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Aluminum Oxide (Single stem, single spiral; continuous end.)

TANIS	BRUSH	ODIT	FILAMENT	BRUSH	OVERALL	STEM	FOR	HOLE DIAME	TERS
PART NO.	DIAMETER	GRIT	DIAMETER	LENGTH	LENGTH	DIAMETER	INCH	FRACT.	мм
31140	.165"	600	.012	1"	5"	.087"	.156"	5/32	3.969
31150	.190"	600	.012	1"	5"	.087"	.188"	3/16	4.736
31155	.215"	600	.012	1"	5"	.087"	.203"	13/64	5.159
31170	.260"	600	.012	1"	5"	.115"	.250"	1/4	6.350
31175	.325"	600	.012	1"	5"	.115"	.313"	5/16	7.938
31180	.385"	600	.012	1"	5"	.147"	.375"	3/8	9.525
31185	.515"	600	.012	1"	5"	.168"	.500"	1/2	12.70
31190	.640"	600	.012	1"	5"	.168"	.625"	5/8	15.87
31195	.765"	600	.012	1"	5"	.221"	.750"	3/4	19.05
31200	.890"	600	.012	1"	5"	.221"	.875"	7/8	22.225
31205	1.015"	600	.012	1"	5"	.248"	1"	1	25.40

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# **Abrasive Nylon Tube Brushes**

Abrasive nylon tube brushes are used in tubular component parts and drilled and tapered holes. Applications include internal deburring and finishing. Use in CNC machine tools, drill presses and manual machine tools.



#### Silicon Carbide (Double stem, single spiral; cut off end. Galvanized stem wire.)

TANIS Part no.	BRUSH DIAMETER	GRIT	FILAMENT DIAMETER	BRUSH LENGTH	OVERALL LENGTH	STEM DIAMETER
31490	1/4"	320	.022	2"	4"	1/8"
31505	3/8"	320	.022	2"	5"	1/8"
31520	1/2"	320	.022	2"	5"	5/32"
31530	1/2"	80	.040	2"	5"	5/32"
31540	5/8"	320	.022	2"	5"	7/32"
31550	5/8"	80	.040	2"	5"	7/32"
31565	3/4"	320	.022	2-1/2"	5-1/2"	1/4"
31575	3/4"	80	.040	2-1/2"	5-1/2"	1/4"
31585	1"	320	.022	2-1/2"	5-1/2"	1/4"
31595	1"	80	.040	2-1/2"	5-1/2"	1/4"
31625	1-1/4"	320	.022	2-1/2"	5-1/2"	1/4"
31630	1-1/4"	120	.040	2-1/2"	5-1/2"	1/4"
31635	1-1/4"	80	.040	2-1/2"	5-1/2"	1/4"
31645	1-1/2"	320	.022	2-1/2"	5-1/2"	1/4"
31650	1-1/2"	120	.040	2-1/2"	5-1/2"	1/4"
31655	1-1/2"	80	.040	2-1/2"	5-1/2"	1/4"
31670	1-3/4"	120	.040	2-1/2"	5-1/2"	1/4"
31675	1-3/4"	80	.040	2-1/2"	5-1/2"	1/4"
31685	2"	320	.022	2-1/2"	5-1/2"	1/4"
31695	2"	80	.040	2-1/2"	5-1/2"	1/4"

# **Abrasive Nylon Burr Brushes**

Abrasive burr brushes provide a high filament concentration for heavy burr removal. Burr brushes can be used in wet or dry applications and are ideal for reducing cycle times in cross-hole deburring, cleaning threads, debris removal from blocks or machined blocks, crankshaft bores and general deburring.

TANIS Part no.	BRUSH DIAMETER	GRIT	FILAMENT DIAMETER	BRUSH Length	OVERALL LENGTH	STEM DIAMETER
31290	1/4"	120	.022	1"	3-1/2"	1/8"
31295	1/4"	180	.035	1"	3-1/2"	1/8"
31297	5/16"	120	.022	1"	3-1/2"	1/8"
31300	3/8"	120	.022	1"	3-1/2"	3/16"
31305	3/8"	180	.035	1"	3-1/2"	3/16"
31310	1/2"	120	.022	1"	3-1/2"	3/16"
31315	1/2"	120	.040	1"	3-1/2"	3/16"
31320	5/8"	120	.022	1"	3-1/2"	3/16"
31325	5/8"	120	.040	1"	3-1/2"	3/16"
31330	3/4"	120	.022	1"	3-1/2"	3/16"
31335	3/4"	120	.040	1"	3-1/2"	3/16"
31337	7/8"	120	.040	1"	3-1/2"	3/16"
31340	1"	120	.022	1"	3-1/2"	1/4"
31345	1"	120	.040	1"	3-1/2"	1/4"
31347	1-1/8"	120	.040	1"	3-1/2"	1/4"

Silicon Carbide (Single stem, single spiral; continuous end.)

Additional diameters and grits available upon request.

#### Large Stem Wire with Increased Filament Density. Silicon Carbide.

(Single stem, single spiral; continuous end.)

TANIS PART NO.	BRUSH DIAMETER	GRIT	FILAMENT DIAMETER	BRUSH Length	OVERALL LENGTH	STEM DIAMETER
08481	1/4"	120	.022	1-1/2"	4"	1/8"
08482	5/16"	120	.022	1-1/2"	4"	1/8"
08484	3/8"	120	.022	1-1/2"	4"	1/8"
08486	1/2"	120	.022	2"	5"	3/16"
08488	5/8"	120	.040	2"	5"	1/4"
08490	3/4"	120	.040	2-1/2"	5-1/2"	1/4"
08492	7/8"	120	.040	2-1/2"	5-1/2"	1/4"
08494	1"	120	.040	2-1/2"	5-1/2"	1/4"
08496	1-1/8"	120	.040	2-1/2"	5-1/2"	1/4"
08498	1-1/4"	120	.040	2-1/2"	5-1/2"	1/4"





# **Bore-Hone<sup>™</sup> Brushes**

# Standard-Duty Bore-Hone<sup>™</sup> Brushes

Silicon Carbide Bore-Hone<sup>™</sup> Brushes are used for manual or automated solutions. Bore-Hone<sup>™</sup> Brushes improve surface finish of internal bores and cylinders. Ideal for internal deburring of machined bores and inside diameters of castings.

120 GRIT Tanis Part no.	180 GRIT Tanis Part No.	240 GRIT Tanis Part no.	320 GRIT Tanis Part no.	FOR HOLE Sizes In inches	FOR HOLE SIZES IN MM	BRUSH DIA. IN MM	BRUSH LENGTH	OVERALL LENGTH	STEM DIAMETER	MAX. RPM
-	61000	62000	63000	0.177"	4.5 mm	5 mm	3/4"	6"	.083"	1,000
-	61002	62002	63002	0.188"	4.75 mm	5.3 mm	3/4"	6"	.083"	1,000
-	61004	62004	63004	0.197"	5 mm	5.6 mm	1-1/2"	8"	.083"	1,000
-	61006	62006	63006	0.217"	5.5 mm	6.1 mm	1-1/2"	8"	.083"	1,000
-	61008	62008	63008	0.236"	6 mm	6.7 mm	1-1/2"	8"	.098"	1,000
60010	61010	62010	63010	0.25"	6.35 mm	7.1 mm	1-1/2"	8"	.098"	1,000
60012	61012	62012	63012	0.276"	7 mm	7.8 mm	2"	8"	.098"	900
60014	61014	62014	63014	0.315"	8 mm	9 mm	2"	8"	.110"	900
60016	61016	62016	63016	0.354"	9 mm	10 mm	2"	8"	.125"	900
60018	61018	62018	63018	0.375"	9.5 mm	10.6 mm	2"	8"	.125"	900
60020	61020	62020	63020	0.394"	10 mm	11.2 mm	2"	8"	.125"	900
60022	61022	62022	63022	0.433"	11 mm	12.3 mm	2"	8"	.125"	900
60024	61024	62024	63024	0.472"	12 mm	13.5 mm	2"	8"	.142"	900
60026	61026	62026	63026	0.50"	12.7 mm	14.2 mm	2"	8"	.142"	900
60028	61028	62028	63028	0.552"	14 mm	15.7 mm	2"	8"	.142"	900
60030	61030	62030	63030	0.625"	16 mm	18 mm	2"	8"	.157"	900
60032	61032	62032	63032	0.709"	18 mm	20.2 mm	2"	8"	.157"	900
60034	61034	62034	63034	0.75"	19 mm	21.3 mm	2"	8"	.177"	900
60036	61036	62036	63036	0.787"	20 mm	22.5 mm	2"	8"	.177"	900
60038	61038	62038	63038	0.875"	22 mm	24.5 mm	2"	8"	.177"	900
60040	61040	62040	63040	0.9375"	23.8 mm	26.5 mm	3"	8"	.197"	900
60042	61042	62042	63042	1"	25.4 mm	28.5 mm	3"	8"	.213"	900
60044	61044	62044	63044	1.125"	29 mm	32.5 mm	3"	8"	.213"	800
60046	61046	62046	63046	1.25"	31.8 mm	35.6 mm	3"	8"	.224"	800
60048	61048	62048	63048	1.375"	35 mm	39.2 mm	3"	8"	.224"	800
60050	61050	62050	63050	1.50"	38 mm	42.5 mm	3"	8"	.224"	800
60052	61052	62052	63052	1.625"	41 mm	46 mm	3"	8"	.224"	800
60054	61054	62054	63054	1.75"	45 mm	50.4 mm	3"	8"	.256"	800
60056	61056	62056	63056	1.875"	47.60	54 mm	3"	8"	.256"	800
60058	61058	62058	63058	2"	51 mm	57 mm	3"	8"	.256"	700
60060	61060	62060	63060	2.125"	54 mm	60.5 mm	3"	8"	.283"	700
60062	61062	62062	63062	2.25"	57 mm	64 mm	3"	8"	.283"	700
60064	61064	62064	63064	2.375"	60 mm	67 mm	3"	8"	.283"	700
60066	61066	62066	63066	2.50"	64 mm	71.5 mm	3"	8"	.283"	700
60068	61068	62068	63068	2.625"	67 mm	75 mm	3"	8"	.283"	700
60070	61070	62070	63070	2.75"	70 mm	78 mm	3"	8"	.283"	700
60072	61072	62072	63072	2.875"	73 mm	81.5 mm	3"	8"	.322"	700
60074	61074	62074	63074	3"	76 mm	85 mm	3"	8"	.322"	700

These brushes are always to be used with a lubricant. Some common choices are water-soluble oils, mineral oils, motor oils, cutting and tapping fluids.

#### Heavy-Duty Bore-Hone<sup>™</sup> Brushes

Silicon Carbide Bore-Hone<sup>™</sup> Brushes for heavy-duty applications. Ideal for cross hatching larger engine cylinders, combustion chambers and power generation cylinders.

120 GRIT Tanis Part no.	180 GRIT TANIS PART NO.	240 GRIT Tanis Part no.	320 GRIT Tanis Part no.	FOR HOLE SIZES IN INCHES	FOR HOLE SIZES IN MM	BRUSH DIA. IN MM	BRUSH LENGTH	OVERALL LENGTH	STEM DIAMETER	MAX. RPM
64000	65000	66000	67000	3"	76 mm	85 mm	5-1/2"	13-1/2"	.299"	700
64002	65002	66002	67002	3-1/4"	83 mm	93 mm	5-1/2"	13-1/2"	.299"	700
64004	65004	66004	67004	3-1/2"	89 mm	99.5 mm	5-1/2"	13-1/2"	.315"	700
64006	65006	66006	67006	3-3/4"	95 mm	106.5 mm	5-1/2"	13-1/2"	.315"	700
64008	65008	66008	67008	4"	101 mm	113 mm	5-1/2"	13-1/2"	.346"	600
64010	65010	66010	67010	4-1/4"	108 mm	121 mm	5-1/2"	13-1/2"	.346"	600
64012	65012	66012	67012	4-1/2"	114 mm	127.5 mm	5-1/2"	13-1/2"	.346"	600
64014	65014	66014	67014	5"	127 mm	142 mm	6-1/2"	18"	.346"	600
64016	65016	66016	67016	5-1/2"	140 mm	157 mm	6-1/2"	18"	.402"	600
64018	65018	66018	67018	6"	152 mm	170 mm	6-1/2"	18"	.402"	600
64020	65020	66020	67020	6-1/2"	165 mm	184.5 mm	6-1/2"	18"	.402"	600
64022	65022	66022	67022	7"	178 mm	199.5 mm	6-1/2"	18"	.402"	600
64024	65024	66024	67024	7-1/2"	190 mm	213 mm	6-1/2"	18"	.402"	600
64026	65026	66026	67026	8"	203 mm	227.5 mm	6-1/2"	18"	.402"	600

These brushes are always to be used with a lubricant. Some common choices are water-soluble oils, mineral oils, motor oils, cutting and tapping fluids.



#### STANDARD-DUTY & HEAVY-DUTY

#### APPLICATIONS

- Cross Hole Deburring
- Deburring Internal Bores and Cylinders
- Surface Finishing
- Deglazing Cylinder Walls

#### INDUSTRIES

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- Automotive
- Aerospace
- Marine
- Oil and Gas
  - Tube, Pump and Valve Production
- Military
- Firearms

#### BENEFITS

- Improves Oil Retention by Creating Cross-hatch Patterns
- Better Part Efficiency
- The Flexible Nylon Stems Help the Brush Distribute Pressure Evenly; Creating the Perfect Hone
- Improve Internal Surface Finish with Resilient, Flexible Bore-Hone<sup>™</sup>

# **Disc Brush Drive Arbors**

Used to securely mount disc brushes for use in any type of milling or CNC machine. Drive arbor shaft is 3/4" diameter for use in any live tool holder. Drive arbor includes bolt and washer, part no. 35075.



DRIVE ARBOR PART NO.	FOR BRUSH DIAMETER	SHAFT DIAMETER	NUMBER OF LOCATOR PINS
35050	3", 4", 5"	3/4"	2
35055	6"	3/4"	2
*35060	6"	3/4"	3
35065	8"	3/4"	4
35070	10", 12", 14"	3/4"	4

\*Use with 6" teardrop pattern disc brushes.

REPLACEMENT	FOR BRUSH
BOLT/WASHER KIT	DIAMETER
35075	ALL

#### **Disc Brush Bands**

Apply to disc or end brushes to prevent flare and enhance aggressive action. To use, insert bands on disc where filament meets composite material.



TANIS Part no.	FOR BRUSH DIAMETER	RING ID	RING OD	RING WIDTH
35080	1-1/2"	1-1/8"	1-1/2"	.210"
35082	2"	1-1/2"	1-7/8"	.210"
35083	2-1/2"	2"	2-3/8"	.210"
35084	3"	2-1/2"	2-7/8"	.210"
35086	4"	3-1/4"	3-5/8"	.210"
35088	5"	4-3/8"	4-3/4"	.210"
35090	6"	5-1/8"	5-5/8"	.275"
35092	8"	7"	7-1/2"	.275"
35094	10"	9"	9-1/2"	.275"
35096	12"	11"	11-1/2"	.275"
35098	14"	13"	13-1/2"	.275"

Package quantity: 3 per pack.

#### **Mini Disc Brush Drive Arbor**

Used to securely mount mini disc brushes for use in any type of milling or CNC machine. Drive arbor shaft is 1/2" diameter for use in any live tool holder. Set screw included in each brush to secure brush to drive arbor.



TANIS	BRUSH	SHAFT	MAX.
Part no.	DIAMETER	DIAMETER	RPM
35048	2", 3"	1/2"	4,500

# **Wheel Brush Adapter Plates**

These slip-fit metal adapters are used for mounting nylon abrasive wheel brushes onto smaller shafts. Sold in pairs. Available for 4-1/4" and 5-1/4" brush ID wheels and 2" brush ID wheels.

TANIS PART NO.	ADAPTER FITS ARBOR HOLE	ADAPTER ID	KEYWAY SIZE	FITS WHEEL BRUSH DIAMETER SIZE
35040	4-1/4"	2"	1/2 x 1/4 (2)	12"
35045	5-1/4"	2"	1/2 x 1/4 (2)	14"

TANIS PART NO.	ADAPTER FITS ARBOR HOLE	ADAPTER ID	FITS WHEEL BRUSH DIAMETER SIZE
35005	2"	1/2"	6", 8", 10"
35010	2"	5/8"	6", 8", 10"
35015	2"	3/4"	6", 8", 10"
35020	2"	7/8"	6", 8", 10"
35025	2"	1"	6", 8", 10"
35030	2"	1-1/4"	6", 8", 10"
35035	2"	1-1/2"	6", 8", 10"



# **Wheel Brush Adapter Plates for CNC Machine Shell Mill Holders**

Tanis' Wheel Brush Adapter, designed by our engineering team to support automated deburring, allows simple attachment of wheel brushes to CNC machines. No hassle coupling is accomplished by placing the adapter plates on both sides of the wheel brush and securing the device with a bolt to the shell mill holder. Set screws prevent the brush from rotating.

TANIS Part no.	FACE WIDTH	BRUSH ID	PILOT	FITS WHEEL BRUSH DIAMETER SIZE
35900	Standard	3/4"	3/4"	4", 5", 6" with 3/4" Arbor Hole
35902	Thin	2"	3/4"	6", 8", 10"
35905	Standard	2"	3/4"	6", 8", 10"
35907	Standard	2"	1-1/4"	6", 8", 10"
35910	Standard	4-1/4"	1-1/4"	12"
35915	Standard	5-1/4"	1-1/4"	14"+
35920	Double	2"	1-1/4"	6", 8", 10"
35925	Double	4-1/4"	1-1/4"	12"
35930	Double	5-1/4"	1-1/4"	14"+



# **CNC Wheel Brush Adapter Steps**



**ABRASIVE** BRUSHES





TANIS PART NO.	COMPATIBLE WITH BRUSH ARBOR HOLES OF:	LENGTH OF Extension	BRUSH TYPE
10020	1/4"	6"	Copper Center Wheel
10022	1/2" & 5/8"	12"	Copper Center Wheel (1/2") or Metal Hub Wheel (5/8")

Each part number comes with 1 extension and 3 shoulder bolts. Capable of holding up to 3 wheels. Brushes sold separately.

#### **Air Motor Shanks**

For air motors and flexible shafts. Accepts single or multiple brushes.



TANIS Part no.	SHANK DIAMETER	ARBOR HOLE	FOR ARBOR WIDTH UP TO	OVERALL LENGTH
10030	1/4"	1/2"	3/8"	1-7/8"
10031	1/4"	3/8"	3/8"	1-5/8"
10032	3/16"	1/4"	3/4"	1-3/4"
10033	1/4"	5/8"	3/8"	1-7/8"

## **Drill Press Shanks**

For use in portable tools and drill presses with 1/4" chuck adaptability.



TANIS Part no.	SHANK DIAMETER	ARBOR HOLE	FOR ARBOR WIDTH UP TO	OVERALL LENGTH
10025	1/4"	1/4"	5/8"	2-1/2"
10026	1/4"	3/8"	7/8"	2-1/2"
10027	1/4"	1/2"	3/8"	2-1/2"

## **Plastic Bushings**

Plastic bushings are designed for economical, one-time use to match the brush inside diameter with your mounting shaft. Available in a range of inner and outer diameters. For safety, use only one per brush. Flange eliminates side movement.



TANIS Part no.	OUTSIDE DIAMETER	INSIDE DIAMETER
10035	3/8"	1/4"
10036	1/2"	1/4"
10037	1/2"	3/8"
10038	5/8"	1/2"

# **Diamond Grit Abrasive Brushes**

Tanis Incorporated is introducing diamond grit abrasive brush products. Diamond brushes are most effective on super hard materials such as tungsten carbide, ceramics, diamond and glass. Diamond wheel brush tools are also effective on drill honing, polishing and honing indexable cutting tool inserts.

# **CUSTOMIZED TO FIT YOUR SPECIFICATIONS!**

Please Contact Tanis Brush<sup>™</sup> Technical Sales for More Information About Our Diamond Grit Brushes.

#### Various Brush Diameters, Face Widths and Trim Lengths Available

DIAMOND							
GRIT	120	220	240	400	600	800	1000
FILAMENT DIAMETER	.040	.024	.040	.020	.020	.010	.010

#### APPLICATIONS

- Post Coat Polish of Flutes on Carbide Drills
- Edge Honing Drill Point Lip Edge on Carbide Drills
- Edge Honing Indexable Cutting Tools Inserts



Max



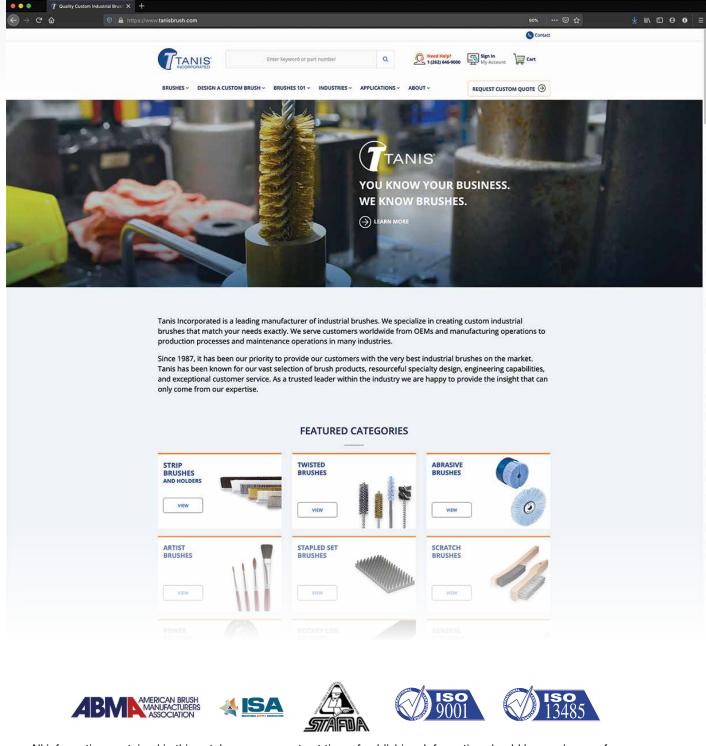
# **OUR DESIGN & ENGINEERING TEAM CAN HELP!**

**Our commitment to you:** To design and build brushes that can help fix an on-going problem with your operation or process. We've literally designed and built thousands of full custom and modified standard brushes for our customers, which include dozens of large and small OEMs to end users in the food service industry. This service is what separates us from other brush companies. Using the latest technologies, newest materials and our team of experienced engineers, we can design and make a brush that meets your expectations. Ranging from oversize to micro-size, industry specific colors, temperature performance, durability requirements or problem solving design, we've got you covered!



# **Contact us today for a free estimate.** (262) 646-9000 | tanisbrush.com

# Visit www.tanisbrush.com to purchase online or complete RFQ forms.



All information contained in this catalog was accurate at time of publishing. Information should be used as a reference. Tanis Incorporated reserves the right to change product specifications without notice. Contact Tanis for the latest product information.

#### Always follow safety guidelines when using brush products.

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# **Terms of Purchase**

Payment:	Net 30 days credit to approved customers. Credit cards accepted:				
	VISA MasterCard AMERICAN DISCOVER				
Freight:	Shipments are made F.O.B. Delafield, Wisconsin or Fond du Lac, Wisconsin based on inventory availability.				
Ordering:	Minimum order is \$100 net or subject to process and handling charge. Special brushes are quoted per order.				
Discounts:	Quantity pricing will be quoted separately.				
Prices:	All pricing subject to change without notice.				
Tax:	Orders subject to sales tax.				
<b>Availability</b> :	Items highlighted are normally carried in stock for prompt shipment. Items are subject to availability.				
Returns:	Returns will not be accepted without a Return Goods Authorization issued from Tanis, Inc.				
	Return goods handling charges will be applied to product ordered in error or no longer needed by the customer:				
	<ul> <li>10% with a replacement order of equal value.</li> </ul>				
	<ul> <li>25% without a replacement order.</li> </ul>				
5	3660 Kettle Court East Delafield, WI 53018				



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Engineering Innovation Customer Care

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