

# WIRE BRUSHES

**LESSMANN®**  
DRAHTBÜRSTEN - WIRE BRUSHES



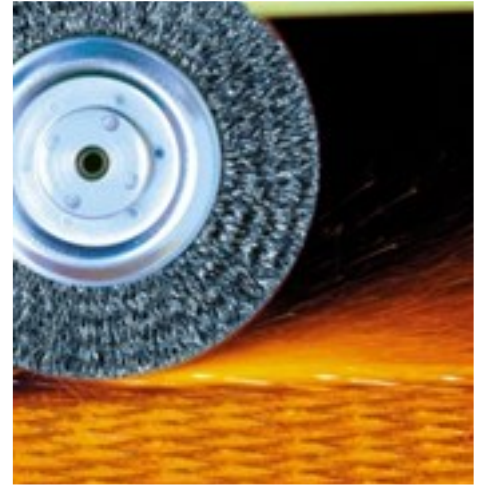
## Premium Performance Wire Brushes

Since 1948 Lessmann wire brushes have been produced in Oettingen Germany. All Lessmann brushes are designed to offer outstanding performance, service life, safety and operator comfort.

Thanks to their constant investment in the latest technologies and product innovation Lessmann wire brushes are recognized as premium quality products around the world.

### Quality guarantee:

Lessmann brushes are manufactured according to the existing standard DIN 68 347 part 1 and 2 and EN1083. All the relevant machine driven brushes are checked for occupational safety using a centrifugal force test.



### Brush Selection Chart

Type of Power Tool	Angle of Use	Type of Brush Recommended	Application
Angle Grinder	Flat Brushing	Crimped Wire Cup Brush	Light surface cleaning of large surfaces
		Twist Knot Wire Cup Brush	More aggressive brushing and cleaning
Angle Grinder	Angled Brushing	Knot Conical Brushes	Working at angles in corners, contours and other hard to reach areas
Angle Grinder	Vertical Brushing	Knot Wire Wheel Brushes	Heavy duty surface cleaning
		Pipeline/Stinger and/or Rose Bud Wire Brushes	Extremely narrow areas such as welding seams, providing maximum performance
Bench/Pedestal Grinders	Vertical Brushing	Crimped Wheel Brush	General purpose cleaning and deburring
Drill	Vertical Brushing	Crimped Wheel Brush with Shank	General purpose cleaning (rust, paint...etc)
		Twist Knotted Wheel Brush with Shank	Heavy duty applications

## Wire Brush Products

### Hub/Brush color coding



Alloyed and manganese wire which offers increased toughness, resulting in higher tensile strength and a longer service life.



Premium quality 302/304 stainless steel wire offering a long service life, also resistant against corrosion and high temperatures.

Stainless steel brushes are also well suited for use on aluminum.

### Brush performance tips

Maximize brush results:

The brush diameter and filling lengths are the most important factors to optimize brushing results. Which makes it fairly easy to eliminate the causes for poor brushing results.

#### Brush effect too weak:

- Increase the brush diameter or the operating speed (making sure to never exceed the maximum R.P.M. rating of the brush)
- Use a brush with a shorter trim length
- Use a brush with a larger wire diameter/size

#### Brush effect too powerful:

- Reduce the brush diameter or the operating speed
- Use a brush with a longer trim length
- Use a brush with a smaller wire diameter/size

#### Brush transferring burrs:

- Use a brush with a shorter trim length
- Use a brush with a wider face
- Use a brush with a larger wire diameter/size

### Straight/crimped/knotted wires explained

Wire brushes can be produced with straight, crimped or knotted wires. Knotted wires are produced using straight wires. When compared to a straight wire the knotted wire (of the same diameter) is much stronger.

Crimped wires brace themselves against each other which offer better brush stability. Brushes that use crimped wires are less aggressive than both straight and knotted wire brushes.

## Twist Knot Wire Cup Brushes

*For use on angle grinders*

Twist knot cup brushes are designed for heavy duty applications. They are ideally suited for deburring, cleaning of welded edges, removal of scale, spatter, concrete waste, heavy rust or corrosion. They are also well suited for surface preparation before painting.



### Brush features:

- ✓ High tensile wire guarantees a very long service life
- ✓ Extremely quick stock removal without damaging material
- ✓ Minimal effort required reduces operator fatigue and equipment wear and tear
- ✓ Threaded arbors offer quick and easy mounting
- ✓ Color coded hubs identify type of wire
- ✓ Wide variety of wire types and diameters are available

**Note:** Brushes with bridle have longer knots and the bridle braces the wire during use. Once the wire is worn down the bridle can be removed exposing an additional 3/4" (20mm) of usable wire.

Dimensions Diameter x Wire x Arbor	Vanguard Code	Max R.P.M.	Standard Packaging	
			Box	Carton
Steel Wire				
2-7/8 x .015" x 5/8-11	7548 2118	12,500	1	25
2-7/8 x .020" x M10 x 1.25	7548 2213	12,500	1	25
2-7/8 x .020" x M10 x 1.50	7548 2214	12,500	1	25
2-7/8 x .020" x M14 x 2.0	7548 2217	12,500	1	25
2-7/8 x .020" x 5/8-11	7548 2218	12,500	1	25
3 x .020" x 5/8-11	7548 3218	12,500	1	25
3-1/2 x .020" x 5/8-11	7548 5238	11,500	1	25
6 x .020" x 5/8-11	7548 8238	6,600	1	N/A
Stainless Steel Wire (Grade 302/304)				
2-7/8 x .020" x 5/8-11	7548 2818	12,500	1	25
3-1/4 x .020" x 5/8-11	7548 4818	9,000	1	N/A
4 x .020" x 5/8-11	7548 6818	9,000	1	N/A
Steel Wire with Knock Off Bridle				
3-1/4 x .020" x 5/8-11	7548 4218	9,000	1	25
4 x .020" x 5/8-11	7548 6218	9,000	1	20
5 x .020" x 5/8-11	7548 7218	7,000	1	N/A

\* Additional brush diameters, double row, wire size and types available upon request.

## Wire Brush Products

### Crimped Wire Cup Brushes

*For use on angle grinders*

Crimped wire cup brushes are designed for light surface cleaning, offering a softer impact on the material than twist knot brushes.

They are ideal for working on large surfaces when removing rust, paint, dirt, spatter and/or scale. They can also be used for polishing applications.



### Brush features:

- ✓ Premium quality wire guarantees a very long service life
- ✓ Extremely quick stock removal without damaging material
- ✓ Minimal effort required reduces operator fatigue and equipment wear and tear
- ✓ Threaded arbors offer quick and easy mounting
- ✓ Color coded hubs identify type of wire
- ✓ Wide variety of wire types and diameters are available

Dimensions Diameter x Wire x Arbor	Vanguard Code	Max R.P.M.	Standard Packaging	
			Box	Carton
Steel Wire				
2-3/8 x .014" x 5/8-11	7542 1168	12,000	1	25
3 x .014" x 5/8-11	7542 3168	12,500	1	25
3-1/4 x .014" x 5/8-11	7542 4178	8,500	1	25
4 x .014" x 5/8-11	7542 6178	9,000	1	20
5 x .014" x5/8-11	7542 7178	8,000	1	20
Stainless Steel Wire (Grade 302/304)				
2-3/8 x .012 x 5/8-11	7542 1368	12,000	1	25
3 x .012" x 5/8-11	7542 3368	12,500	1	25
3-1/4 x .012" x 5/8-11	7542 4368	8,500	1	20

\* Additional brush diameters, wire size and wire types available upon request.

## Knot Conical Brushes

*For use on angle grinders*

The special shape of the knot conical brushes enables the user to work in hard to reach places, (they have a built in working angle of 45°).



### Brush features:

- ✓ Premium quality wire guarantees a very long service life
- ✓ Extremely quick stock removal without damaging material
- ✓ Minimal effort required reduces operator fatigue and equipment wear and tear
- ✓ Threaded arbors offer quick and easy mounting
- ✓ Color coded hubs identify type of wire
- ✓ Left hand twisted to increase brush stability
- ✓ Wide variety of wire types and diameters are available

Dimensions Dia. x Width x Wire x Arbor	Vanguard Code	Max R.P.M.	Standard Packaging	
			Box	Carton
Steel Wire				
4 x 1/2 x .020" x 5/8-11	7547 1258	12,500	1	25
4-1/2 x 1/2 x .020" x 5/8-11	7547 2258	15,000	1	25
5 x 1/2 x .020" x 5/8-11	7547 3258	15,000	1	25
Stainless Steel Wire (Grade 302/304)				
4 x 1/2 x .014" x 5/8-11	7547 1758	12,500	1	25
4-1/2 x 1/2 x .014" x 5/8-11	7547 2858	15,000	1	25
5 x 1/2 x .014" x 5/8-11	7547 3758	15,000	1	20

\* Additional brush diameters, wire size and wire types available upon request.

\*\* Crimped wire brushes are also available as a special order product.

## Wire Brush Products

### Knot Wire Wheels

*For use on angle grinders and stationary machines*

Knot wheel brushes are used in the preparation and reworking of bolt fillets and butt welds.

They are well suited for the removal of scale, rust, paint, slag, rubber residue and can be used for deburring



### Brush features:

- ✓ High tensile wire guarantees a very long service life
- ✓ Extremely quick stock removal without damaging material
- ✓ Minimal effort required reduces operator fatigue and equipment wear and tear
- ✓ Threaded arbors offer quick and easy mounting
- ✓ Color coded hubs identify type of wire
- ✓ Left hand twisted to increase brush stability
- ✓ Wide variety of wire types and diameters are available

Dimensions Dia. x Width x Wire x Arbor	Vanguard Code	Max R.P.M.	Standard Packaging	
			Box	Carton
Steel Wire				
4 x 1/2 x .020" x 5/8-11	7547 1218	12,500	1	25
4-1/2 x 1/2 x .020" x 5/8-11	7547 2218	12,500	1	25
5 x 1/2 x .020" x 5/8-11	7547 3218	12,500	1	N/A
6 x 1/2 x .020" x 5/8-11	7547 4218	12,500	1	N/A
Stainless Steel Wire (Grade 302/304)				
4 x 1/2 x .020" x 5/8-11	7547 1818	12,500	1	25
4-1/2 x 1/2 x .020" x 5/8-11	7547 2818	12,500	1	25
5 x 1/2 x .020" x 5/8-11	7547 3818	12,500	1	N/A
6 x 1/2 x .020" x 5/8-11	7547 4818	12,500	1	N/A

\* Additional brush diameters, wire size and wire types available upon request.



## Pipeline/Stringer Bead Wire Brushes

*For use on angle grinders*

Lessmann pipeline brushes have been specially developed for professional use on U and V-welds.

These brushes are extremely narrow making them the perfect tool for cleaning all welds at tube connections.



### Brush features:

- ✓ Very long service life and quiet running
- ✓ Extremely quick stock removal without damaging material
- ✓ Minimal effort required reduces operator fatigue and equipment wear and tear
- ✓ Threaded arbors offer quick and easy mounting
- ✓ Color coded hubs identify type of wire
- ✓ Wide variety of wire types, diameters and knot counts are available

Dimensions Dia. x Width x Wire x Arbor	Vanguard Code	Max R.P.M.	Standard Packaging	
			Box	Carton
Steel Wire				
4 x 1/4 x .020" x 5/8-11	7547 1208 28	20,000	1	5
4-1/2 x 1/4 x .020" x 5/8-11	7547 2208 32	15,000	1	5
5 x 1/4 x .020" x 5/8-11	7547 3208 40	12,500	1	5
6 x 1/4 x .020" x 5/8-11	7547 4208 48	12,500	1	5
7 x 1/4 x .020" x 5/8-11	7547 5208 48	12,500	1	5

\* Additional brush diameters, wire size, wire types and knot counts available upon request.



## Wire Brush Products

### Rosebud Stringer Bead Wire Brushes

*For use on angle grinders*

Rosebud stringer bead brushes get their name from the unique twisting process of the knots. This process, exclusive to Lessmann, has increased the brush service life by as much as 25% versus traditional pipeline brushes.

This unique process removes one of the manufacturing steps used for stringer bead productions making Rosebud brushes more economical to produce without sacrificing quality, safety or performance.



#### Brush features:

- ✓ Increased service life and quiet running
- ✓ Extremely quick stock removal without damaging material
- ✓ Minimal effort required reduces operator fatigue and equipment wear and tear
- ✓ Threaded arbors offer quick and easy mounting
- ✓ Color coded hubs identify type of wire
- ✓ Wide variety of wire types, diameters and knot counts are available

Dimensions Dia. x Width x Wire x Arbor	Vanguard Code	Max R.P.M.	Standard Packaging	
			Box	Carton
Steel Wire				
4 x 1/4 x .020" x 5/8-11	7547 12B8 28	20,000	1	5
4-1/2 x 1/4 x .020" x 5/8-11	7547 22B8 32	15,000	1	5
5 x 1/4 x .020" x 5/8-11	7547 32B8 40	15,000	1	5
6 x 1/4 x .020" x 5/8-11	7547 42B8 40	12,500	1	5
7 x 1/4 x .020" x 5/8-11	7547 52B8 56	12,500	1	5
Stainless Steel Wire (Grade 302/304)				
4 x 1/4 x .020" x 5/8-11	7547 18B8 28	20,000	1	5
4-1/2 x 1/4 x .020" x 5/8-11	7547 28B8 32	15,000	1	5
5 x 1/4 x .020" x 5/8-11	7547 38B8 40	12,500	1	5
6 x 1/4 x .020" x 5/8-11	7547 48B8 48	12,500	1	5
7 x 1/4 x .020" x 5/8-11	7547 58B8 76	12,500	1	5

\* Additional brush diameters, wire size, wire types and knot counts available upon request.

## **Crimped Wheel Brushes**

*For use on Pedestal Grinders*

Lessmann crimped wheel brushes are designed to obtain different surface finishing. They are commonly used to remove rust, paint, dirt, for roughening, deburring, stripping or polishing.



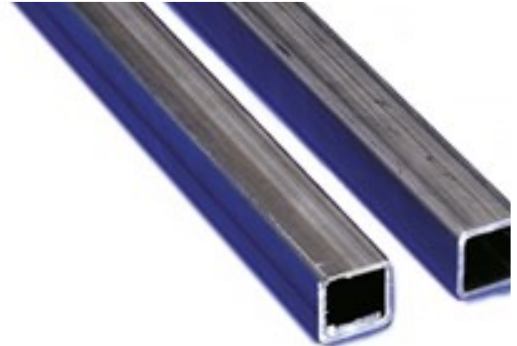
### **What size of brush should I use?**

The decisive factors for choosing the right brush is the wire and tube diameter. Brushes with a wider tube diameter (centre plate height) are filled with more wire. They are more aggressive and offer a longer service life.

### **What wire type and size do I need?**

Selecting the correct wire type is determined by the material that you are working on and the finish/results that you wish to achieve.

For more information please see the brush filling materials section found in the Lessmann technical catalogue.



### **What about the bore size?**

Our standard bore size for crimped wheel brushes is 2" (50mm) and we supply the #3 multi bore adaptor set which allows the brush to be used on machines with a variety of bore sizes (2, 1-1/4, 1, 7/8, 3/4, 5/8 and 1/2") right out of the box.

## Wire Brush Products

### Crimped Wheel Brushes

For use on Pedestal Grinders



#### Brush features:

- ✓ Crimped wires offer greater brush stability and ensure a long service life
- ✓ Extremely quick stock removal without damaging material
- ✓ Minimal effort required reduces operator fatigue and equipment wear and tear
- ✓ Color coded hubs identify type of wire
- ✓ Wide variety of wire types and diameters are available

Dimensions Dia. x Width x Wire x Bore	Vanguard Code	Max R.P.M.	Standard Packaging	
			Box	Carton
Steel Wire				
6 x 1 x .012 x 2"	7534 5162	6,000	1	N/A
6 x 1-1/4 x .012 x 2"	7534 5163	6,000	1	N/A
7 x 1 x .012 x 2"	7535 5162	6,000	1	N/A
7 x 1-1/2 x .012 x 2"	7535 5163	6,000	1	N/A
8 x 3/4 x .008 x 2"	7536 0141	6,000	1	N/A
8 x 1 x .006 x 2"	7536 5132	6,000	1	N/A
8 x 1 x .008 x 2"	7536 5142	6,000	1	N/A
8 x 2 x .012 x 2"	7536 6163	4,500	1	N/A

Description	Vanguard Code	Standard Packaging
Multi Bore Adaptor Set		
Set #3 (2, 1-1/4, 1, 7/8, 3/4, 5/8 and 1/2")	7583 8866 50	1 Set (2pcs)

\* Additional brush diameters, wire size and wire types available upon request.

### Band Saw Brushes



These brushes are designed to clean band saw blades while the saw is running extending the blade service life and improving blade cutting performance.

Dimensions Dia. x Width x Bore x Wire	Vanguard Code	Max R.P.M.	Standard Packaging
3-1/4 x 3/4 x 1/4 x .010" Crimped Cord Wire	7531 0702 06	15,000	1
4 x 1/2 x 1/2 x .020" Crimped Polyamide	7532 0001	8,000	1
4 x 1/2 x 1/2 x .014" Crimped Steel	7532 0161 12	6,000	1

## Shaft Mounted Knotted Wire Brushes

*For use on die grinders*

Lessmann shaft mounted knotted wheel brushes are the perfect tool for removing under seal, rust, deburring, roughening etc.



Dimensions Dia. x Width x Wire x Shaft	Vanguard Code	Max R.P.M.	Standard Packaging	
			Box	Carton
Steel Wire				
3 x 1/2 x .014 x 1/4"	7541 7168	25,000	10	100

## Shaft Mounted Crimped Wire Brushes

*For use on die grinders*

Lessmann shaft mounted crimped wire brushes have a tight filling wire and offer balanced running making them an excellent brush for most applications.



Dimensions Dia. x Width x Wire x Shaft	Vanguard Code	Max R.P.M.	Standard Packaging	
			Box	Carton
Steel Wire				
1-1/2 x 3/8 x .008 x 1/4"	7541 4142	18,000	10	100
2 x 3/8 x .012 x 1/4"	7541 5162	15,000	10	100
Stainless Steel Wire (Grade 302/304)				
2 x 3/8 x .012 x 1/4"	7541 5362	15,000	10	100
Brass Wire				
1-3/8 x .012 x 1/4"	7541 4562	18,000	10	100
2-3/4 x .012 x 1/4"	7541 7562	15,000	10	100

\* Shaft Mount brushes are sold in full box quantities only

\*\* Additional brush diameters, wire size and wire types available upon request.

## Wire Brush Products

### Mini Scratch Brushes – Crimped Wire

Mini scratch brushes are ideal when very fine brush work is required. The fine wire diameters make them the perfect tool for all products.

The crimped wire ensures full area coverage and prevents marking of the material during use.



Description	Wire Details	Vanguard Code	Standard Packaging
3 Row – Wooden Handle	.006" Stainless Steel - Crimped	7512 5231	12
4 Row – Wooden Handle	.006" Brass - Crimped	7512 5211	12

### Manual Scratch Brushes – Straight Wire

Hand brushes are used in all aspects of the metal and construction industry. They are typically used for preparation and clean up.

The ergonomically designed handle of the Lessmann brushes makes them easier to hold without causing operator fatigue. The end is tapered making it much easier to use in tight places such as corners.



Description	Wire Details	Vanguard Code	Standard Packaging
3 Row – Wooden Handle	.014" Steel - Straight	7510 0031	12
4 Row – Wooden Handle	.014" Steel - Straight	7510 0041	12
3 Row – Wooden Handle	.014" Stainless Steel - Straight	7510 3731	12
4 Row – Wooden Handle	.014" Stainless Steel - Straight	7510 3741	12
4 Row – Plastic Handle	.014" Stainless Steel - Straight	7518 5441	12
4 Row – Plastic Handle	.014" Brass Wire - Straight	7518 5641	12
3 Row Rivet Brush Wooden Handle	.014" Steel - Straight	7512 0801	12

\* Manual scratch brushes are sold in full box quantities only

\*\* Additional wire and handle types available upon request.



## Universal Hand Brushes

These general purpose range of brushes are well suited for both industrial and residential applications. The contoured handle provides operator comfort and the narrow profile enables access in tight areas.

The brush handles are color coded for easier wire recognition.



Description	Handle Colour	Vanguard Code	Standard Packaging
.014" Steel Wire - Crimped	Blue	7505 6301	24
.012" Stainless Steel Wire - Crimped	Green	7505 6501	24
.014" Brass Wire - Crimped	Red	7505 6701	24

## "Roki" Brake Caliper Brushes

The "Roki" brake caliper brush is the latest development with regards to brush ergonomics and quality.

The handle design offers unmatched grip comfort and control which makes it much easier to clean vehicle brake calipers.



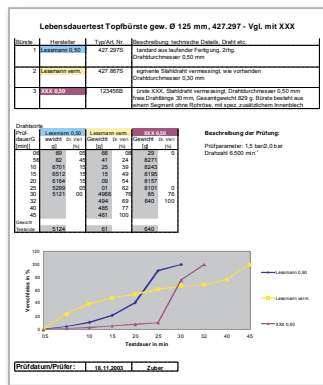
Description	Wire Details	Handle Colour	Vanguard Code	Standard Packaging
Roki Component Handle	.014" Steel - Straight	Red	7518 2401	12
Roki Component Handle	.014" Stainless Steel - Straight	Green	7518 2421	12
Roki Component Handle	.014" Brass Wire - Crimped	Red	7518 2451	12

## Technical Information

Lessmann's production of nearly all components of their standard program of brushes, of more than 10,000 products, and their development of special articles enables us to have an excellent knowledge in both manufacturing quality and safety testing.

### Creating Innovation, Exceeding Safety Standards, Maintaining Top Quality

With this motivation they make complex development and product tests an essential part of our work.



**Quality is our feature!**

Accredited with  
DIN EN ISO 9001



Registriernummer TGA-ZQ-007/94-00  
Registriernummer TGA-ZM-43-96-60



### Material Tests

These are the first steps of their quality management: All deliveries of raw material are tested according to and above specification details. All wires are tested for their tensile strength and for their reverse bending strength by a fatigue measuring process.

Beside the quality of the material it is important that its attributes are suitable as possible for their intended use.

### Imbalance Test

An unbalanced machine driven brush is not pleasant and is dangerous for the health of persons working at the machine.

Although it is not necessary under the DIN or the EN Norms, Lessmann produces brushes according to their own standards for minimum imbalance. By doing so their customers take advantage of smooth running fatigue reducing brushes. Lessmann employees ensure that these high quality aspects are maintained.



### Safety Tests:

According to European safety norms all brushes have to withstand 1.5 times of the mentioned maximum RPM. Naturally when developing a brush, they test every brush type for this safety aspect. Only if all tests are satisfactory, can the article be produced. During production many samples are taken of the brushes in order to check the required safety speed. Should a model or a raw material be changed they begin the tests again. For this very reason every customer can rely on a high quality and safe tool.

### Lifetime and Power

For the measurement of the lifetime and power of technical brushes there are neither norms nor standard procedures. After long developing processes and many tests they have found testing methods that simulate testing in real working conditions. On self built machines they are able to test the abrasion and thus the lifetime and power of machine driven brushes. Beside the quality aspect these tests are helpful in optimizing materials used, as well as component parts and the construction of brushes. Even if in comparison tests with competitor brushes such testing has shown and proved the high quality of our products:

**They keep on testing to guarantee customer satisfaction.**





### LESSMANN Quality is Safe

They guarantee the best quality and long lifetime for their products. Their brushes are manufactured according to the existing standard DIN 68 347 part 1 and 2 and EN 1083. All the relevant machine driven brushes are checked for occupational safety using a centrifugal force test.

### Safety Information

All machine driven brushes require as with other rotary tools, that the required safety precautions are kept:

### Safety for Your Body

All operators and other personnel in areas where rotary brushes are being used must wear safety goggles or face shields and protective clothing.

### For your own safety: Wear Eye Protection!



### Brush Check

The brushes should be checked for damage before using. A correct mounting is imperative.

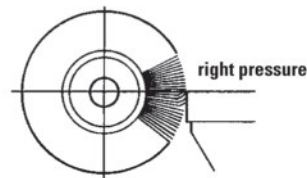
### Peripheral Speed

The max. RPM indicated in the catalogue are safety figures by which the brushes can be used without danger. Please do not exceed these figures under any circumstances! In most cases a lower RPM is sufficient to gain an optimal result.

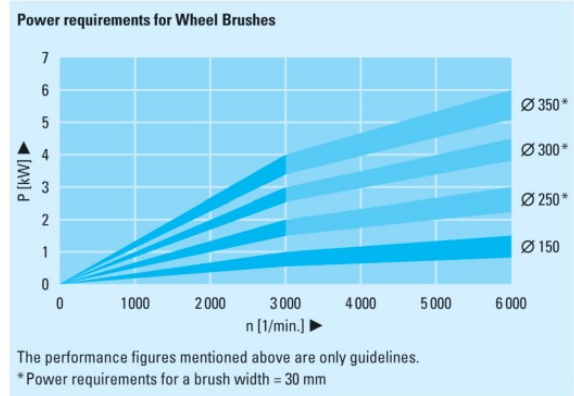
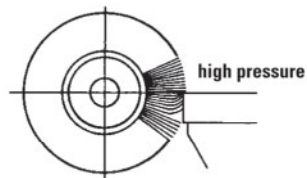
### Correct Pressure

The schedule shows the necessary motor drive power for different brush diameters. The brushes need only a light pressure while brushing because only the wire points are effective (please look at the schedule). A higher pressure does not improve the brushing effect. In fact the brush lifetime is reduced and greater power is needed. The indicated curves inform you about the expected power. The power ratings refer to a brush with 30 mm width.

Correct

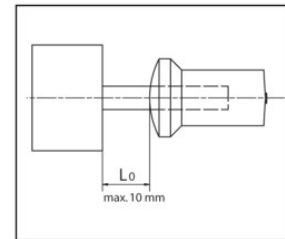


Incorrect



### Working with Shank Brushes

When working with shank brushes please note that the shank has to be inserted fully into the tool. This is especially necessary when working with high RPM, for example on straight grinders and pneumatic tools. Generally it is best if the shank sticks out only 10 mm when the brush is mounted.



minimum bore size for  
wheel brushes according to  
DIN EN 1083

diameter of the brush in mm	minimum diameter of bore in mm
50	4.6
75	6.5
100	10
150	13
200	16
250	20
300	20
350	32

### Recommended use of brushes on angle grinders – the right combination

Common idle speed of angle grinders (AG)	Brush diameter	60	65	75	80	90	100	115	125	150	178	200
Ø 115 11,000 RPM = AG 1	Knot Wheel Brush						AG 1	AG 1	AG 2	AG 3	AG 4	AG 5
Ø 125 11,000 RPM = AG 2	Cup Brush, Crimped Wire	AG 2		AG 2	AG 3		AG 3		AG 5	AG 5		
Ø 150 9,000 RPM = AG 3	Knot Cup Brush without Bridle		AG 1	AG 2	AG 2	AG 2	AG 3/4		AG 5			
Ø 180 8,500 RPM = AG 4	Knot Cup Brush with Bridle				AG 3/4		AG 3/4		AG 5			
Ø 230 6,500 RPM = AG 5	Bevel Brush, Crimped Wire						AG 1					
	Knot Bevel Brush						AG 1	AG 1				

**Warning:** Before each operation please compare the idle speed of the angle grinder with the max. peripheral speed of the brush!

## Technical Information

### Optimize Brush Results

The brush diameter and filling length are most important for the perfect brushing result. It is therefore very easy to eliminate almost all bad brushing results:

### Brushing effect too weak:

- Increase the peripheral speed by increasing the brush diameter or the operating speed, but never exceed the maximum RPM rating.
- Use a brush with shorter trim length.
- Use a brush with larger wire diameter.

### Brushing effect too powerful:

- Reduce the peripheral speed by reducing the brush diameter or the operating speed.
- Use a brush with longer trim length.
- Use a brush with smaller wire diameter.

### Brush transfers burr:

- Use a brush with shorter trim length.
- Examine brush and work piece position.
- Use a brush with wider face.
- Use a brush with thicker wire diameter.

#### Peripheral Speed v in m/sec.

n [1/min] (RPM)	Brush diameter d in mm/inches						
	50 2"	80 3"	100 4"	125 5"	150 6"	200 8"	250 10"
1,000	4.2	5.2	6.5	7.9	10.5	13.1	
1,500	3.9	6.3	7.9	9.8	11.8	15.7	19.6
2,000	5.2	8.4	10.5	13.1	15.7	20.9	26.2
2,500	6.5	10.5	13.1	16.4	19.6	26.2	32.7
3,000	7.9	12.6	15.7	19.6	23.6	31.4	39.3
3,500	9.2	14.7	18.3	22.9	27.5	36.7	45.8
4,000	10.5	16.8	20.9	26.2	31.4	41.9	52.4
5,000	13.1	20.9	26.2	32.7	39.3	52.4	65.4
6,000	15.7	25.1	31.4	39.3	47.1	62.8	78.5
8,000	20.9	33.5	41.9	52.4	62.8	83.8	
10,000	26.2	41.9	52.4	65.4	78.5		
12,500	32.7	52.4	65.4	81.8			
15,000	39.3	62.8	78.5				
20,000	52.4	83.8					
25,000	65.4						

$$v = \frac{\text{Brush diameter (d)} \times \pi \times \text{Peripheral Speed (n)}}{1,000 \times 60}$$

#### Conversion mm in Inches and I.S.W.G.

Brush diameter		Wire diameter		
Millimeter	Inches	Millimeter	Inches	I.S.W.G.
25	1"	0.08	0.0031	44
50	2"	0.10	0.0039	42
75	3"	0.12	0.0047	40
100	4"	0.15	0.0059	38
125	5"	0.20	0.0079	36
150	6"	0.25	0.0098	33
180	7"	0.30	0.0118	31
200	8"	0.35	0.0138	29
250	10"	0.40	0.0157	27
300	12"	0.50	0.0197	25
350	14"	0.80	0.0315	21

#### Conversion m/sec. in ft./min.

1 m/sec. = 197 ft./min.

1,000 ft./min. = 5.08 m/sec.

#### Recommended Peripheral Speed for Brushing Application

Application	Peripheral Speed in m/s					
	15	20	25	30	35	40
Removing Burrs			25	35		
Cleaning Welds				35	45	
Removing Scale				35	45	
Polishing				30	40	
Working on Plastic	15	20				

#### Recommended Peripheral Speed for Brushing with Abrasive Filaments

Dry conditions: 16–18 m/s  
Wet conditions: 25–30 m/s

Since the upcoming heat on wet applications is conducted, the peripheral speed can be set much higher than on dry applications. For working in wet condition we recommend PA 6.12 as base. Please state on your order.