

LESSMANN[®]
THE GERMAN BRUSH COMPANY




BRUSHES FOR

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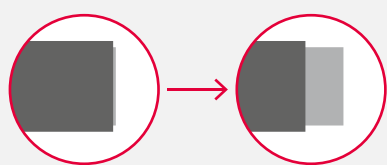
PIPELINE

PROCESSING

 **QUALITY MADE IN GERMANY**



Removal of pipe coatings (cut back)



Removal of pipe coatings

As protection against corrosion, abrasion and temperature, pipes are coated during manufacturing. This coating must then be removed at the ends to be able to join the individual sections of pipe together.

To be able to remove the coating mechanically with brushes, several cutback brush rings are usually used together. This results in one large and powerful brush.

The diameter, wire thickness and other requirements for the brush are determined by the diameter of the pipe, the material of the coatings and the cutback machine used.



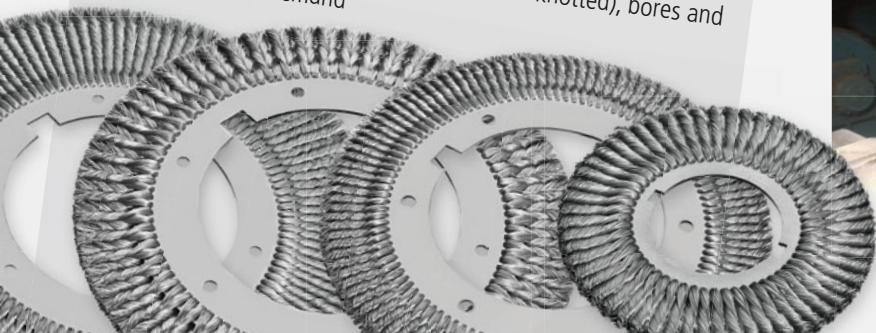
A cutback brush in action



Multiple individual rings make a powerful brush

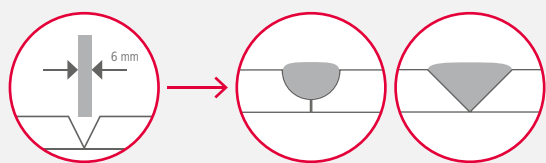


- Our standard range includes:
- Wheel brushes from 250–465 mm diameter
 - Steel wire or stainless wire with open knot
 - Other diameters, knot types (also right-left knotted), bores and embossings on demand





Pipeline brushes for weld seam cleaning



The narrow design is ideal for U and V welds

LESSMANN pipeline brushes are specially developed for the professional processing of U- and V-welds in pipeline construction. The pipeline brushes are particularly narrow and are therefore suitable for cleaning all weld seams on pipe joints.

With excellent service lives and pleasant smooth running, the user benefits noticeably from the specific quality of these premium special tools.



Precise work requires high quality tools

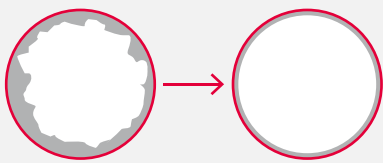


Perfect welds thanks to good preparation

- Our standard range includes:
- Wheel brushes from 100–178 mm diameter with steel wire or stainless wire
 - Each with 22.2 bore, M14 thread or 5/8" thread
 - Other diameters and special shapes on demand



Pipeline Service



Removal of debris and impurities

Pipelines require regular inspection, maintenance and cleaning to maintain consistent quality, reliability and throughput over their long service life.

Pigs are used to remove debris and impurities that reduce diameter, throughput and thus performance. They are equipped with different rings made of plastics, rubber and our high quality LESSMANN brushes and are pushed through the pipes under pressure to remove all contamination from the surface.



Even single knots can be used in the highly specialized custom products



A cleaning pig with several installed roller brushes



More Information

Suitable products from our extensive standard range and inquiry forms for your very special offer can be found in our catalog or on our website at www.lessmann.com.



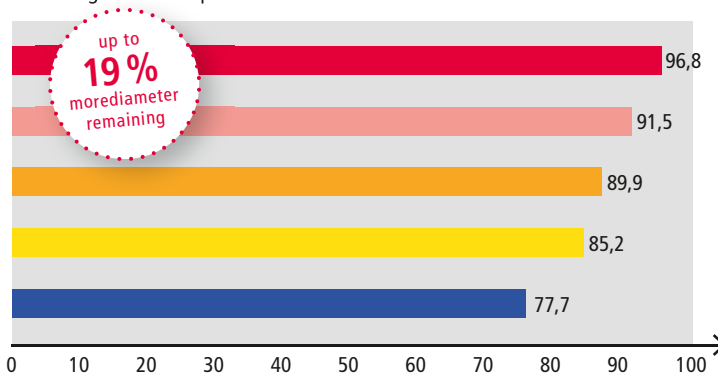
Jump directly to our wheel brush range

QUALITY
FAIRNESS
RELIABILITY
SUSTAINABILITY
INDEPENDENCE

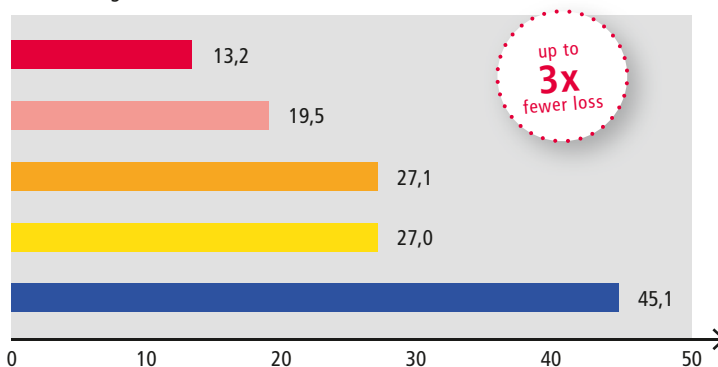
for more than 70 years, the name LESSMANN stands for a medium-size family business with high-quality surface finishing tools "Made in Germany". Seven decades of experience enable us to supply you with first-class products. Because we manufacture almost all products in our comprehensive standard program ourselves, the quality of the raw materials alone plays an important role. Intensive material tests and controls during production are two important pillars of the reliable LESSMANN quality.

Proven quality

Remaining diameter in percent after 60 minutes of use



Wire loss in grams after 60 minutes of use



Comparative tests with competitor products repeatedly prove the outstanding quality of our brushes.

In the test shown here, we have pitted two of our LESSMANN pipe-line brushes from the standard range against comparable products from three well-known competitors.

Tested products

- **Lessmann 471.208.32**
101,2 mm diameter, 19,4 mm trim height, 32 knots with 25 steel wires, left knotted
- **Lessmann 471.208.28**
101,8 mm diameter, 19,6 mm trim height, 28 knots with 25 steel wires, left knotted
- **Competitor 1**
101,6 mm diameter, 20,4 mm trim height, 32 knots with 26 steel wires, right knotted
- **Competitor 2**
104,2 mm diameter, 22,6 mm trim height, 30 knots with 22 steel wires, right knotted
- **Competitor 3**
102,3 mm diameter, 23,9 mm trim height, 30 knots with 25 steel wires, right knotted

Test conditions:

Rotational speed: 9500 min⁻¹, pressure: A=0,1 / B=0,15 MPa, pressure interval: 5 / 5 sek., angle of attack: 6°, pendulum: 2°, test piece: carbide with sharp edge, test duration: 60 min. each.



Advantages over grinding wheels

In comparative tests between brushes and grinding wheels, the use of brushes showed positive effects on the **technical properties** of the weld:

- In contrast to abrasive grinding media, **no erosion of the weld seam**.
- **Normalization** of the weld joint due to the redistribution of residual stresses.
- **No abrasive grain inclusions or voids** in the weld, therefore no defect spots and stress peaks.

In practice, **economic advantages** have emerged in the use of the brushes:

- **Welding time reduced** by about one third.
- Optimum visual inspection enables defects in the weld seam to be rectified without delay. Cumbersome reworking is eliminated, thus **saving additional costs**.
- Reduced dust generation ensures **better health** at work.

MORE THAN 10.000 SOLUTIONS...

Due to our own engineering, tool and equipment design and our modern, also flexible, production facilities, we are able to produce special brushes in small and large batches.



**CERTIFIED ACCORDING TO
DIN EN ISO 9001:2015**

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