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Cleaning Solutions for  
Industrial Distributors of Welding Equipment





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# Osborn Welding Matrix – Product Recommendations

Depending on the welding method, contamination or other non-metallic debris can become embedded in the surface of the weld seam. Non-metallic debris may not adhere to the welding seam as well as other materials. If the welded component is subsequently coated, defects or corrosion may occur at this point. Independent of the welding method and the position of the layer (root, fill or cap), Osborn can supply the right cleaning tool. Please refer to our welding matrix to find the correct tool for every application.

SLAG



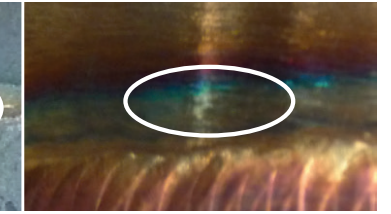
SPATTER



SILICATES



BLUE COLOUR



Most common contaminations occurring in a welding process.

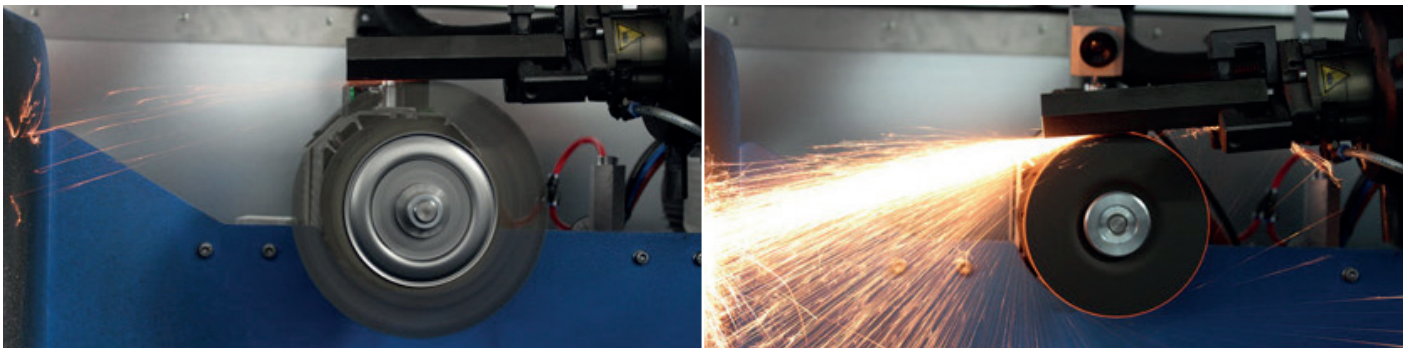
Welding Method	Debris Type	Weld Position / Application	Feature	Grinder Size	Brush / Disc Type	Osborn Item No.	Product Features	Material	Filament
MMA	slag	root	up to 15 mm wall thickness up to 30 mm wall thickness	model 125 model 180		9802-921 873 9802-921 875	D 125x6 mm, PB knotted regular – longlife D 178x6 mm, PB knotted regular – longlife	steel wire steel wire	0.50 mm 0.50 mm
		fill layer	up to 15 mm wall thickness up to 30 mm wall thickness	model 125 model 180		9502-626 251 9906-026 051	D 125x6 mm, knotted wire D 178x6 mm, knotted wire	steel wire steel wire	0.50 mm 0.50 mm
		cap layer	up to 15 mm wall thickness up to 30 mm wall thickness	model 125 model 180		1212-631 151 1202-653 151	D 125x13 mm, clock/anti-clockwise D 178x13 mm, clock/anti-clockwise	steel wire steel wire	0.50 mm 0.50 mm
		welding zone	weld preparation	model 125 model 180		0002-608 151 0002-608 154	D 65 mm, knotted wire D 100 mm, knotted wire	steel wire steel wire	0.50 mm 0.50 mm
	spatter	root	up to 15 mm wall thickness up to 30 mm wall thickness	model 125 model 180		4913-230 000 4943-230 000	D 125x4 mm, depressed center D 180x4 mm, depressed center		
		fill layer	up to 15 mm wall thickness up to 30 mm wall thickness	model 125 model 180		4923-230 000 4933-230 000	D 125x6 mm, depressed center D 180x6 mm, depressed center		
		cap layer	stock removal, grinding	model 125 model 180		3703-003 124 3703-003 174	D 125 mm, bevelled D 178 mm, bevelled	Zirconium Zirconium	grit 40 grit 40
		welding zone	stock removal, grinding	model 125 model 180		3703-003 124 3703-003 174	D 125 mm, bevelled D 178 mm, bevelled	Zirconium Zirconium	grit 40 grit 40
	silicates	root	up to 15 mm wall thickness up to 30 mm wall thickness	model 125 model 180		4102-921 051 0002-921 875	D 125x5 mm, crimped wire plastic bonded D 178x5 mm, crimped wire plastic bonded	steel wire steel wire	0.35 mm 0.35 mm
		fill layer	up to 15 mm wall thickness up to 30 mm wall thickness	model 125 model 180		9502-626 311 4602-626131	D 125x6 mm, knotted wire D 178x6 mm, knotted wire	steel wire steel wire	0.35 mm 0.35 mm
		cap layer	up to 15 mm wall thickness up to 30 mm wall thickness	model 125 model 180		1212-631 131 1202-653 131	D 125x13 mm, clock/anti-clockwise D 178x13 mm, clock/anti-clockwise	steel wire steel wire	0.35 mm 0.35 mm
		welding zone	weld preparation	model 125 model 180		3912-613 163 3902-613 164	"Longlife" D 75 mm, corded wire "Longlife" D 100 mm, corded wire	steel, corded steel, corded	0.30 mm 0.30 mm
	blue colour	root	up to 15 mm wall thickness up to 30 mm wall thickness	model 125 model 180		4602-626 331 4612-626 331	D 125x6 mm, knotted wire D 178x6 mm, knotted wire	stainless wire stainless wire	0.35 mm 0.35 mm
		fill layer	up to 15 mm wall thickness up to 30 mm wall thickness	model 125 model 180		2202-631 331 0002-653 351	D 125x13 mm, knotted wire D 178x13 mm, knotted wire	stainless wire stainless wire	0.35 mm 0.50 mm
		cap layer	heavy duty	model 125 model 180		0002-608 331 0002-608 354	D 65 mm, knotted wire D 100 mm, knotted wire	stainless wire stainless wire	0.35 mm 0.50 mm
		welding zone	material sensitive	model 125 model 180		0002-613 362 0002-613 364	D 75 mm, crimped wire D 100 mm, crimped wire	stainless wire stainless wire	0.35 mm 0.35 mm
Manual cleaning	various	surface	hard wires, pointed			0003-162 133 0003-162 333	Welder's hand brush, 3 rows pointed Welder's hand brush, 3 rows pointed	steel wire stainless wire	0.35 mm 0.35 mm
			soft wires, crimped			0008-462 291 0008-462 391	All purpose hand brush, red handle All purpose hand brush, green handle	steel wire stainless wire	0.30 mm 0.30 mm
			very soft wire, crimped			0008-462 591	All purpose hand brush, yellow handle	brass wire	0.30 mm

# Brushes as non-stock removing solution providers

Machining is often necessary to remove debris from a welded surface. It is accepted that during this process non-contaminated and debris-free parts of the weld seam will also be removed. This is sometimes more than 30% of the material. Unlike grinding discs, technical brushes are non-stock removing tools. They can remove contamination and debris, leaving the rest of the welded surface intact.

## The use of technical brushes for weld cleaning offers many advantages:

- Brushes are non-stock removing tools. They clean contamination and debris, leaving the original surface of the welded material intact.
- Brushes produce more than 95% fewer sparks than grinding discs.
- When compared to grinding tools, brushes are on average 6-8 dB (A) less noisy. A +/- 3 dB (A) increase (or decrease) means that the intensity of a sound is doubled (or halved).
- Brushes generate less heat during usage and therefore do not alter the molecular surface of the welded material.
- Brushes have a longer service-life than grinding tools.
- For more information please visit: <http://weldcleaning.osborn.com>



A brush (left) produces more than 95% fewer sparks than a grinding disc (right).

## New: The Best of Both Worlds

Longlife filaments combine the high performance of a knotted cup brush with the material friendliness of a soft, crimped wire brush for a fine, satinised surface finish.

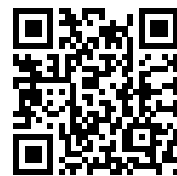


### New **LOGLIFE** Filament:

- Min 5-times less wire breakage and wear through less flaring
- Material friendly and non-stock removing
- For cleaning and descaling jobs
- Available in D 60, 75, 80, 100 and 125 mm
- Safety-Certified by German TÜV-Süd (production monitored, type tested)



**You Tube** More information and a product video here:



<http://youtu.be/TXwjEKyvTko>



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**Osborn International GmbH**

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Your dealer: