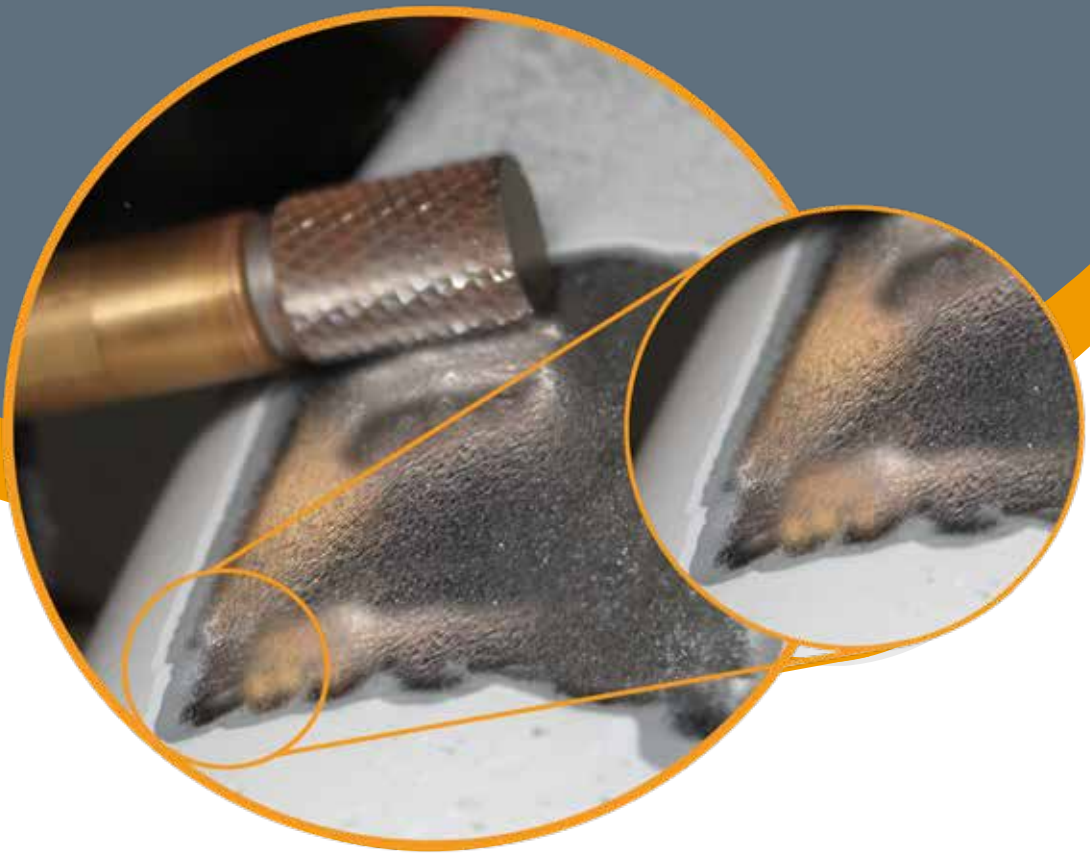


SAFETYTOOLS
allmet



Cut the heat – Cut the risk

The “Coolest” EX Certified
Surface Preparation Tools



SPOT REPAIR



www.safetytools.no

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BENEFITS

SPOT CORROSION CALCULATOR



We have created a Spot Calculator to calculate prices per spot 5*5 cm

Example 1:

Buying for the first time you need Rotating file + Air tool (operating engine).

$$\text{Per spot} = \frac{\text{Rotating file + air tool}}{\text{Numbers of spot rotating file repairs}}$$

e.g. File A-0005 Round Boy costs 675 USD and air tool A-0107 costs 1740 USD
A-0005 Round Boy can repair 9600 damaged points of 5 * 5 cm corroded surface.
(675 USD + 1740 USD) / 9600 spots = 0.25 USD per spot



Corroded surface before and after treatment

Example 2:

Buying only the rotating file A-0005 as operating engine already is in hand.

$$\text{Per spot} = \frac{\text{Tool cost}}{\text{Numbers of spot tool repair}}$$

675 USD / 9600 spots = 0.07 USD per spot

Big Savings

Example:

- ◆ A-0052 Wrap Suitcase kit. 13.574 USD
- ◆ A-0052 can repair 100800 spots
- ◆ 13.574 USD/100800 spots = 0.13 USD per spot



GRINDING TOOLS



ROTATING FILES AND DISCS

A-0001 SLIM

A-0001 can repair 8000
Corrosion spots of 5*5cm.

Product Nr.	A-0001
Total length	65 mm
Teeth	27 mm
Weight (g)	76 g



A-0001 Surface.
Average 76 μm

A-0002 BOW CONE

A-0002 can repair 9600
Corrosion spots of 5*5cm.

Product Nr.	A-0002
Total length	70 mm
Teeth	31 mm
Weight (g)	114 g

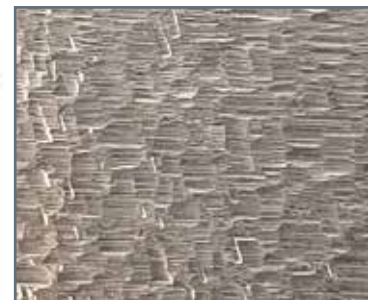


A-0002 Surface.
Average 43 μm

A-0003 STRAIGHT CONE

A-0003 can repair 9600
Corrosion spots of 5*5cm.

Product Nr.	A-0003
Total length	70 mm
Teeth	31 mm
Weight (g)	110 g



A-0003 Surface.
Average 44 μm

GRINDING TOOLS



ROTATING FILES AND DISCS

A-0004 LITTLE PAPA

A-0004 can repair 12000
Corrosion spots of 5*5cm.

Product Nr.	A-0004
Total length	65 mm
Teeth	27 mm
Weight (g)	182 g



A-0004 Surface.
Average 83 μm

A-0005 ROUND BOY

A-0005 can repair 9600
Corrosion spots of 5*5cm.

Product Nr.	A-0005
Total length	65 mm
Teeth	27 mm
Weight (g)	168 g

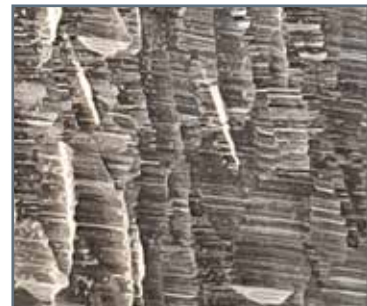


A-0005 Surface.
Average 53 μm

A-0006 AL-TI-CHAR

A-0006 can repair 6000
Corrosion spots of 5*5cm.

Product Nr.	A-0006
Total length	65 mm
Teeth	26 mm
Weight (g)	78 g



A-0006 Surface.
Average 44 μm

GRINDING TOOLS



ROTATING FILES AND DISCS

A-0007 SHORTY

A-0007 can repair 16000
Corrosion spots of 5*5cm.

Product Nr.	A-0007
Total length	57 mm
Teeth	17mm
Weight (g)	194 g



A-0007 Surface.
Average 56 µm

A-0008 BIG PAPA

A-0008 can repair 16000
Corrosion spots of 5*5cm.

Product Nr.	A-0008
Total length	72 mm
Teeth	32 mm
Weight (g)	282 g



A-0008 Surface.
Average 72 µm

A-0009 BIG BOY

A-0009 can repair 24000
Corrosion spots of 5*5cm.

Product Nr.	A-0009
Total length	95 mm
Teeth	32 mm
Weight (g)	340 g



A-0009 Surface.
Average 63 µm

GRINDING TOOLS



ROTATING FILES AND DISCS

A-0010 ROUGH BOY

A-0010 can repair 32000
Corrosion spots of 5*5cm.

Product Nr.	A-0010
Total length	118 mm
Teeth	51 mm
Weight (g)	826 g



A-0010 Surface.
Average 45 µm

A-0500 GRINDING DISC

A-0500 can repair 32000
Corrosion spots of 5*5cm.

Product Nr.	A-0500
Speed	1000 rpm
Dim	80 mm
Weight (g)	410 g



A-0500 Surface.
Average 72 µm



Custom made teeth on Safety
Tools Allmet grinding tools removes
material upon every contact.

<https://safetytools.no/en/videos/>

GRINDING TOOLS



AIR TOOLS

Safety Tools Allmet is powered by pneumatic tools which Safety Tools Allmet developed in partnership with Fuji. Our air tools can only be purchased from Safety Tools Allmet or one of our distributor's worldwide.

Safety Tools Allmet air tools are specially designed to use with our files & discs in hazardous work areas. They are designated safe to handle in Ex dust and gas zones 1 and 2 and are EX certified by the DNV.

A-0107 ANGLE GRINDER 3000



Product Nr.	FG-2VX-50
Speed	3000 rpm
Weight	894 g
Air Inlet	1/4" NPT

A-0108 ANGLE GRINDER 2000-8



Product Nr.	FAS-1X-50
Speed	2000 rpm
Weight	842 g
Air Inlet	1/4" NPT

A-0105 ANGLE GRINDER 1000-5



Product Nr.	FCD-10X-52
Speed	1000 rpm
Weight	2400 g
Air Inlet	1/4" NPT

A-0104 ANGLE GRINDER 2000-4



Product Nr.	FCD-6X-51 2000
Speed	2000 rpm
Weight	1700 g
Air Inlet	1/4" NPT

GRINDING TOOLS



ROTATING FILES AND DISCS

Safety Tools Allmet files and discs are made of tungsten carbide. The hardness and the design of the teeth increases the lifetime of files and discs significantly. The fragments produced after grinding with Safety Tools Allmet are easy to clean, large and blunt. This offers many safety and operational benefits compared to conventional tools.



IMPORTANT NOTE:

When using Safety Tools Allmet tools, the surface temperature will increase with a maximum of 60°C. While repairing coating with tools from Safety Tools Allmet, you are not damaging the surrounding surface. Nor will equipment nearby be in danger of being damaged., due to the low heat, slow RPM, and design of the teeth producing non-hazardous waste. Contrary to what will happen if conventional tools are used.



Grinding Disk A-0500

TREATMENT



The “coolest” EX certified surface treatment tool in the world



A-0500 Surface
7 x zoom



**A-0500
Grinding Disc**



- ◆ Surface roughness from 40 to 80 μm (Rz)
- ◆ ATEX approved for use in zone 1 and 2
- ◆ Easy waste disposal
- ◆ Ideal for spot-repair

By reducing heat, noise and vibration you automatically create a safer working environment

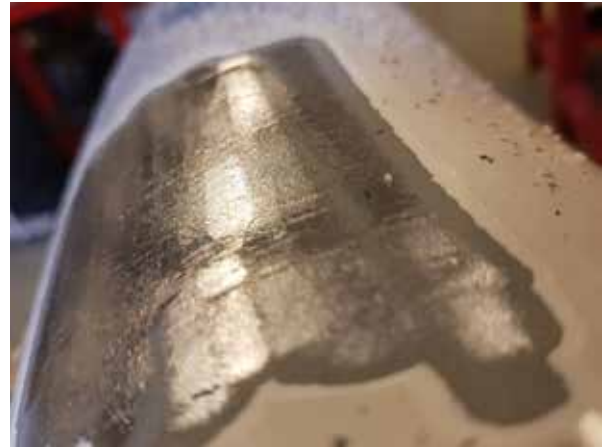


SURFACE TREATMENT



Surface preparation with Safety Tools Allmet equipment

Grinding tools from Safety Tools Allmet are used for mechanical surface treatment and gives a surface cleaning standard of SSPC SP 11.



When using Safety Tools Allmet products, you do not produce any sparks that will cause damage to surrounding equipment. There will be no airborne dust that can damage sensitive equipment. The noise level will be considerably lower than other similar products.



For spot repair you also get the benefits of a smooth even transition between the old coating and the fresh metal.

EX CERTIFIED TOOLS



Grinding tools for use in atex gas zones:



Rotating files and discs

Safety Tools Allmet files & discs are composed mainly of tungsten carbide.

Air Tools

Safety Tools Allmet grinders are powered by pneumatic tools.

Accessories

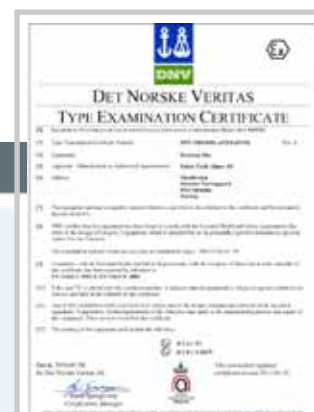
Our grinding kits comes with specially designed accessories that contribute to optimal safety and convenience.

ATEX/ EX certificate

All our discs, rotating files and air tools are certified as cold work by DNV for use in Atex gas zones 1 and 2.

Our tools have been tested by Gexcon/CMR to meet the high standards of DNV.

Please contact us at www.safetytools.no were you can find all information about our tools.



DNV GRINDING TOOLS CERTIFICATE

<p>EX Logo equipment group</p>	<p>For use in zones 1-2</p>	<p>Tested for misuse</p>	<p>Gass Max Temp. 200°C</p>	<p>EX Logo equipment group</p>	<p>Tested for misuse</p>	<p>Dust Max Temp. 185°C</p>
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GRINDING TOOLS PERFORMANCE



Performance and surface profile:

Grinding tools from Safety Tools Allmet produce a level of cleanliness and surface roughness that are equivalent to SSPC SP 11.

Corrosion, mill scale, and coating removal

Surface to near white visual standard (SSPC-SP-11).

Surface texture / Anchor profile

Roughness capability from 40 to 85 μm

Eco-friendly

Tools from Safety Tools Allmet are eco-friendly surface treatment equipment and do not add hazardous materials when removing rust and paint.

No heat generation

It is an EX certified product.
Surfaces avoid of thermal damage/heat marking.

Simple and economic

No need for complex and costly abrasive blast equipment



Spot repaired surface on deck



Spot repaired surface on pipeline



AREAS OF APPLICATION



Safety Tools Allmet equipment can be used instead of conventional blasting methods.

Our "Cool" technology is used in many sectors, including the oil and gas industry, the petrochemical industry, steel construction, and shipbuilding. As well as during maintenance work on bridges, offshore installations, and wind turbines.

- Corrective maintenance on the platforms
- Corrosion maintenance on ships
- Drilling deck
- Ducts/Trunks
- Engine room surface maintenance
- Flange separation preparation
- Gasket removal
- Grinding & removing reinforced chartek fiber coatings
- Grinding and surface preparation on live fixed pipelines
- Grinding small radius holes
- In between narrow openings (Grating)
- Inside ballast tanks
- Inside cargo tanks
- Inside pump room
- NDT - Non Destructive test (stress/cracks)
- Pin Hole corrosion
- Remove corrosion from valves
- Remove corrosion on small stuck bolts
- Inside H Beams corrosion maintenance & paint removal
- Remove or smooth edges
- Removing corrosion on grating
- Topside corrosion maintenance
- Weld removal





Use of Safety Tools Allmet equipment gives you **BENEFITS:**

- **EX certified by DNV**
- **No need for hot work permit**
- **No demanding risk evaluations**
- **No job delay**
- **No need for habitats**
- **No need for fire guards**
- **No hot sparks**
- **No dangerous sharp splinters**
- **No emission of isocyanates**
- **Low heat (30–60°C average)**
- **Low vibration – (2.5 m/s average)**
- **Low noise (80–85 dB average)**
- **Roughness profile 40–80 micron's**
- **Discs and files are harder than an industrial diamond – last longer**



Note:

Lifetime of discs and rotating files may vary from user to user.

Different material will have different impact on the lifetime of rotating files and discs.



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