



▶ The coolest cutting-edge technology in the world...

**SAFETY**TOOLS   
ALLMET  Cut the heat – cut the risk



## The story behind Safety Tools Allmet

Well over a decade ago, Reidar Olsen was inspecting a large tank prior to renewing its surface treatment. He discovered that the surface was riddled with minute corrosion points. The reason was simple: sparks from the grinding and welding operations that had been carried out a mere week previously had burned through the protective coating, exposing the steel underneath.

Reidar Olsen, founder and CEO of Safety Tools Allmet, was convinced he could find a better solution. After ten years' development, he introduced a radical new grinding tool – which produces neither sparks nor heat. Where the unique grinding head has removed even a quarter inch of steel, you can place your thumb; it's not even lukewarm!

That is the story behind Safety Tools Allmet. Since then a wide range of unique tools, including cutting disks, have been introduced. We would like to tell you more. What is far more interesting, however, are the new ways of working these have opened up for the company's customers ...



*“There must be a better way ...”*

# Just do it!

Imagine the next time you have to grind or cut metal in an EX Area... Wouldn't it be nice to just open the tool case, attach the required tool head, do the job and sweep up the cuttings? That's exactly what you will be able to do with Safety Tools!

There are many situations where traditional grinding and cutting tools are totally unsuitable. For instance in EX Areas, you would be putting everyone's life on the line – not to mention risking the very existence of your facility!

Habitats are one alternative, but even for minor jobs their use is time-consuming and expensive. By the time you've acquired the necessary Hot Work Permit, have the habitat in place, and have carried out the work – you would probably rather not have to total up the time spent, and all the costs incurred.

Safety Tools Allmet offers a better way. All our tools are classified as Cold Work, which allows you to do the job quickly. No shutdown or slowdown in production. No need for committee work or frustrating delays.

Just get the job done. Safely. Quickly. Cheaply.

Safety Tools are the *only* EX Certified tools of their type.



## Applications for all branches of industry

- ▶ Offshore platforms
- ▶ Oil and gas refineries
- ▶ Engineering and contracting companies
- ▶ Chemical and pharmaceutical plants
- ▶ Maritime sector
- ▶ Aircraft industry
- ▶ Railway sector
- ▶ Power companies
- ▶ Mining
- ▶ Remote sites
- ▶ Repairs to military equipment

# The full range of Safety Tools

Since the introduction of our unique grinding heads, Safety Tools Allmet has developed several categories of tools. Each category comprises a range of different heads that are eminently suited for different tasks.

For instance, our rotating files are cylindrical, conical or rounded – to grind inside pipe ends of differing diameters, round off welds on constructions, or to precisely remove on-welded parts that are no longer needed at your facility.

Similarly, each of Safety Tools' cutting and grinding disks are designed for particular challenges.

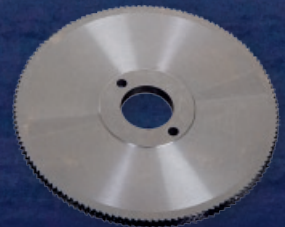
Our newest range of products is robotic systems that carry out specific precision tasks – such as removing doubling plates or cutting square manholes in metal decks.



**Grinding disks**



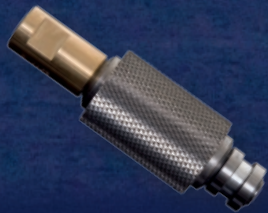
**Rotating files**



**Cutting disks**



Foto: Jan Fjellstad/Fotoarkivet.no



**“Rough Boy”**



**Doubling plate removers**



**Robotic systems**



## A selection tailored to *your* needs

The content of each aluminium case of Safety Tools is tailored to customer needs. A shipowner will for example have very different needs than a refinery or a specialist in surface protection, or a remote Antarctic base for that matter.

Our experts will be happy to advise you.



# The secret

- ▶ why our patented Safety Tools are unique

There are good reasons why Safety Tools are unmatched:

- ▶ Our tool heads consist of more than 95 % tungsten carbide. Such a pure tungsten carbide is rated higher than 9.7 on the Rockwell hardness scale – between that of an industrial diamond and a gemstone diamond. The rest is a special alloy developed by Safety Tools to provide additional tensile strength, thus extending the life of your tools.
- ▶ The “teeth” on our tool heads, which are cut by a special process in the weapons industry, are designed to remove material upon every contact – they don’t surf or slide on the surface generating heat.
- ▶ Slower rotational speeds (only 800–3000 rpm) mean that less heat is generated.
- ▶ The tungsten carbide head is welded to a brass coupling that cannot make a spark. The coupling has a special design so that it can be attached only to our machinery. This prevents use at higher rotations.

*“The noise level from Safety Tools cutting wheel is so low that I am able to carry out a normal conversation, while cutting through a 4-inch pipe.”*

Arne Veland, HSEQ Manager, Seawell Engineering



## For everyone's safety!

By cutting the heat, we eliminate the risk of fire and explosions. Safety Tools are the only ones that have received EX Certification. That means you can get on with the task at hand – and your colleagues have one worry less. We are not alone in believing that only Cold Work tools should be allowed in areas where there would otherwise be a significant fire risk.

Safety Tools introduces a completely new chapter HSE chapter for your company. "Anyone" can operate these easy-to-use tools. You must, of course, use safety goggles and other protective gear.

Allmet offers onsite instruction in correct usage of our Safety Tools. Please note that before selling you our unique cutting blades, which run at a 800 rpm, we demand that operators pass our safety course.



## HSE advantages

- ▶ No sparks – eliminates danger of explosion
- ▶ Creates no heat: < 70°C
- ▶ No Hot Work Permits required for offshore
- ▶ Low noise: < 85 dBA. Ordinary grinding is rated 110–125 DB.
- ▶ Low vibration (max 3.1 ms<sup>-1</sup>) – can be used for extended periods
- ▶ Increased safety, reduced time, reduced operational costs
- ▶ Minimal dust – metal debris is large and dense
- ▶ No sharp splinters – virtually eliminating secondary damage
- ▶ Particles are concentrated in the work area, not spread to the nearby environment
- ▶ No toxic gases released when grinding through polyurethane coatings
- ▶ No release of hydrocarbon gases



# Cut the heat – cut the costs!

Time is money – and when you have to do hot work in explosive zones, time runs with a vengeance. Just filling out the paperwork is a major headache, albeit a necessary one.

A lot of precautions must be taken. Your safety-conscious company doesn't allow for any shortcuts; there is simply too much at stake. Cold cutting and grinding is the only 100 % safe alternative for personnel, the immediate environment and materials.

It's also a cost saver, which is true of all Safety Tools solutions. When you can eliminate the need to construct a closed habitat, the savings are obvious – savings on transportation of bulky freight, no riggers necessary, no stoppages of other operations to accommodate rigging operations. Just get the cutter, do the job and that's it.

You wouldn't dare ask your people to use ordinary, spark-generating grinding tools when suspended in a harness from nylon ropes, high above the deck of an oil platform. Safety Tools solutions are the only safe alternative in such situations. Scores of maintenance workers use our tools while working with Rope Access Techniques.

Our tools are also ideal when working in confined spaces, for deburring sharp edges in situ, and so forth. Remember: no heat, low noise, no sharp splinters, minimum waste. And not least – a happy workforce.





## Simplified operations, every day

Seen from one perspective, the very best reason for having Safety Tools at hand is that it gives you a trouble-free workday. Every day. When a grinding or cutting job needs doing, the first key step is to be very clear about why, and exactly how. Naturally that also entails discussing it with the supervisor and getting a “go”.

The second step is to open the Safety Tools suitcase, mount the suitable tool head on our power grinder. Now make sure you have a clear work area – and do the job. Quickly and easily.

When you’re done, it may take you a couple of minutes to sweep or vacuum up the shavings, all concentrated within a few feet. And it may take you another minute to detach the tool head and pack away the suitcase.

And the third step? Well, there isn’t any third step ...

*“In my 20 years’ experience, I have never before seen a new tool that has shown such promise, radically improving the HSE situation at offshore facilities. Personally I think it should be mandatory.”*

Halvor Erikstein, Occupational Hygienist and Organization Secretary  
SAFE (Norwegian Union of Energy Workers)

## What you save – at a glance

- ▶ No need for production shutdown or slowdown!
- ▶ No need for time-consuming risk evaluations
- ▶ No need for Hot Work Permits
- ▶ No need for habitats with a controlled atmosphere
- ▶ No need for fire guards
- ▶ No delays, no waiting, no duplication of effort
- ▶ Less replacement of tool heads  
– Safety Tools are amazingly durable
- ▶ NB. Safety Tools also hires out equipment  
– quickly delivered.



# Certificates and awards

Safety Tools Allmet is the first company ever to attain ATEX Approval for grinding tools and drive motors.

- ▶ All Safety Tools are EX Certified.
- ▶ Specifically, all our grinding tools are Ex II2Gc certified.
- ▶ Use of Safety Tools is classified as Cold Work by Det Norske Veritas.
- ▶ Safety Tools received the Prix de l'Innovation at the 2007 Préventica Exhibition in Lyon, France.
- ▶ DNV-2005-OSL-ATEX-0119
- ▶ Ex II2GcT3 and Ex II2GcT4

*"The Safety Tools grinding disks were tested under anticipated worst case conditions – operation within explosive mixtures of propane and acetylene. It was not found possible to provoke ignition of the explosive mixtures during any of the tests performed."*

Geir H. Pedersen, Department Manager  
Process and Safety, GexCon





# Thoroughly tested

## References

- ▶ Safety Tools are used extensively at Statoil Hydro's offshore facilities in the North Sea, as well as at their onshore refineries.
- ▶ BP/Amoco, ConocoPhillips, Shell, Exxon Mobil and PGS
- ▶ Engineering contractors include: Aker Maritime, Seadrill, Maersk, Fabricon and Aibel
- ▶ Shipowners such as Bergesen d.y., Billabong/Grieg, K.G. Jebsen, Maersk, DOF and Trico Supply

*"Statoil Hydro has purchased 50 tool cases to date. I believe the introduction of EX-certified tools that are classified as Cold Work by DNV is a major step forward – for safety, the environment, and the health of all personnel using this class of tools."*

Arvid Skines, Main Safety Delegate for the Statfjord Field

Safety Tools are not only EX Certified; they are some of the most thoroughly tested of any specialty tools on the market. The statements here give an indication of how impressed others have been – for instance when a tent was filled with a highly explosive mixture, and our grinding disks continued to operate safely!

- ▶ EX Certified by Det norske Veritas "for use in hazardous areas, zones 1 and 2
- ▶ Explosion tests by GexCon, Christian Michelsen Research
- ▶ Noise tests by Multiconsult
- ▶ Vibration tests by PCT
- ▶ Adhesion tests for coatings by Jotun and Det norske Veritas
- ▶ Rigorously tested in the field – under the most demanding conditions!

Ask us for the details. We will be happy to provide you with a complete set of the various and sundry test results. Mind you, that's rather comprehensive! So please let us know if you have a particular area of concern – and we'll give you the proven facts.

# Cold grinding warms customer relations

Taking the heat out of grinding and cutting results in warmer relationships with your customers. And much more.

Our *EX Certified* grinding and cutting tools will also cut your budgets – not only for equipment but also for labour costs, shipping costs and ancillary costs such as special environment measures.

As mentioned, the secret is in more than ten years of research by specialists.

You probably won't believe us when we say that we can cut a steel pipe or grind an iron surface and you can put your hand on the worked area one second after we lift the tool from the surface, *without* getting burned. After you've watched the enclosed DVD, you will.

Our system is cool in all senses of the word.

Cool because it enables cold grinding and cutting – without a shower of molten metal. Cool because if you do it in the dark the only indication that work is being done will be the noise - which is at a decibel rate low enough to enable a metal worker to complete an 8 or 12 hour shift without suffering from noise-related physical or mental stress. Cool because the tools can be used in-situ in just about any situation imaginable. No need to build a habitat. Imagine the savings. Cool because you only need to transport the tools – and it's always cool to make savings wherever you can. Cool because you save time – your time, your client's time and your employee's time. That translates as cost savings. Cool.

*When you've watched the DVD, please feel free to call us. We'd really appreciate the opportunity to arrange a live demonstration at your convenience – that would be cool.*



A handwritten signature in dark ink, appearing to read 'Reidar Olsen', written in a cursive style.

Reidar Olsen  
CEO, Safety Tools Allmet

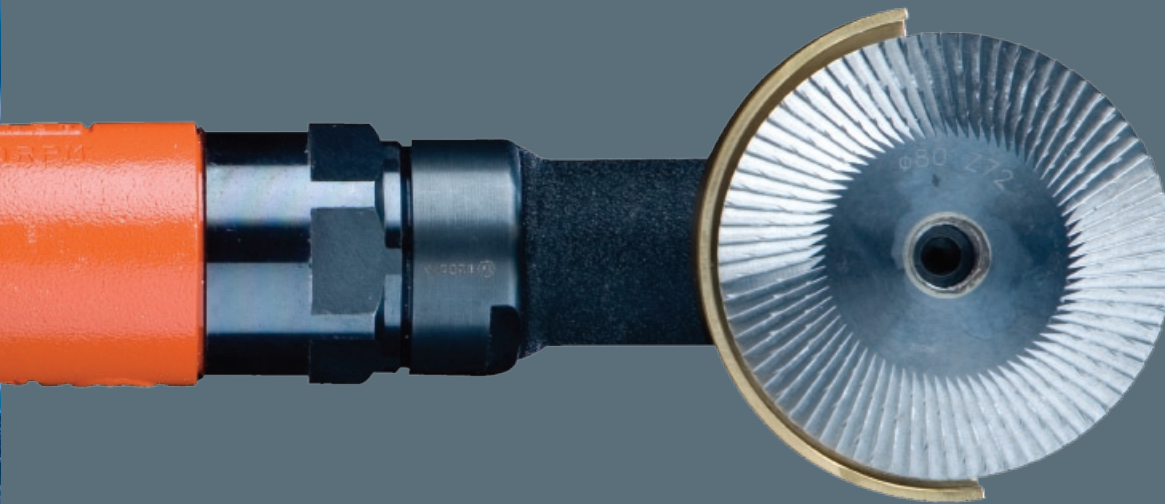


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[www.safety-tools.net](http://www.safety-tools.net)

To request a demonstration of our unique Safety Tools – [demo@safety-tools.net](mailto:demo@safety-tools.net)  
For queries and additional information – [cool@safety-tools.net](mailto:cool@safety-tools.net)

Cut your costs cold...



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