

The ultimate problem solvers

ASSAB SOLUTIONS FOR POWDER COMPACTING





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Keep on going!

The life of your tool is crucial in powder compacting processes. With ASSAB steel for Powder Compacting, you can increase the life span of your tools. They often last twice as long or even longer than tools made of conventional tool steel or high speed steel.

Galling, adhesive wear and high friction are serious problems in many cold forming operations. After many years of analysing tooling problems, ASSAB can now offer the best solutions to them. New production processes at Uddeholm make this possible. Vancron SuperClean has an internal surface coating that vastly reduces friction. This means that you do not need to surface coat any tools made of Vancron SuperClean and that you can keep on producing long after your competitors have given up.

ASSAB Steel for Powder Compacting will solve any of the common tooling related problems that might occur during the powder compacting process. Furthermore, they are all easy to heat treat and have excellent dimensional stability. Keep on going with ASSAB solutions for Powder Compacting!



GET IT ALL FROM ASSAB

ASSAB steel for Powder Compacting are great problem solvers. By using various combinations you can achieve superior results in your process. ASSAB offers a complete programme of steel with properties that will improve your powder compacting business. This in turn will improve your economy, shorten your lead time and make it easier for you to keep your promises. You can get all the tool steel you need from ASSAB.



Tool Steel Recommendation	Cold Welding / Wear	Chipping / Wear	Total Breakage
Problem Areas	<ul style="list-style-type: none"> • Less lubricants • Abrasive powders • Stainless powders • Higher density 	<ul style="list-style-type: none"> • Large production volumes • High pressures • Complicated geometries • Abrasive powders 	<ul style="list-style-type: none"> • Long core pins • Thin walls • Tight radii
Best Solutions	VANCRON SUPERCLEAN / VANADIS 8 SUPERCLEAN	VANADIS 4 EXTRA SUPERCLEAN / VANADIS 8 SUPERCLEAN	UNIMAX
Alternative Solutions	VANADIS 4 EXTRA SUPERCLEAN	CALDIE	CALDIE VANADIS 4 EXTRA SUPERCLEAN



**Vancron SUPERCLEAN— A REAL INNOVATION
IN THE WORLD OF TOOLING!**

Vancron SuperClean is the most modern powder metallurgical tool steel available in the market. In 2007, it received the EPMA award of merit because of its unique properties. With remarkable surface properties, Vancron SuperClean introduces a completely new approach to anti-galling solutions and is an improved alternative to coatings and brittle cemented carbide. This means you can reduce the amount of lubrication in your powder to be pressed and attain higher densities and better properties. All in all this steel vastly improves the quality of the finished part and reduces the ejection force.

VANADIS 4 EXTRA SUPERCLEAN — REDUCE DOWNTIME

Vanadis 4 Extra SuperClean is a third generation high alloy metallurgical tool steel. This makes it possible to combine a good chipping and cracking resistance with very good wear resistance, for complicated tooling and long runs. It is a highly robust material and you will experience fewer stoppages as well as improved total economy. Vanadis 4 Extra SuperClean plays an important role as a universal problem solver in tooling for powder compacting.



VANADIS 8 SUPERCLEAN — THE LONG RUN SOLUTION

Vanadis 8 SuperClean is our latest innovation and especially suitable for very long run tooling where abrasive wear is the dominating problem. Its extremely high wear resistance and good cracking resistance make Vanadis 8 SuperClean very suitable for demanding powder compacting applications.



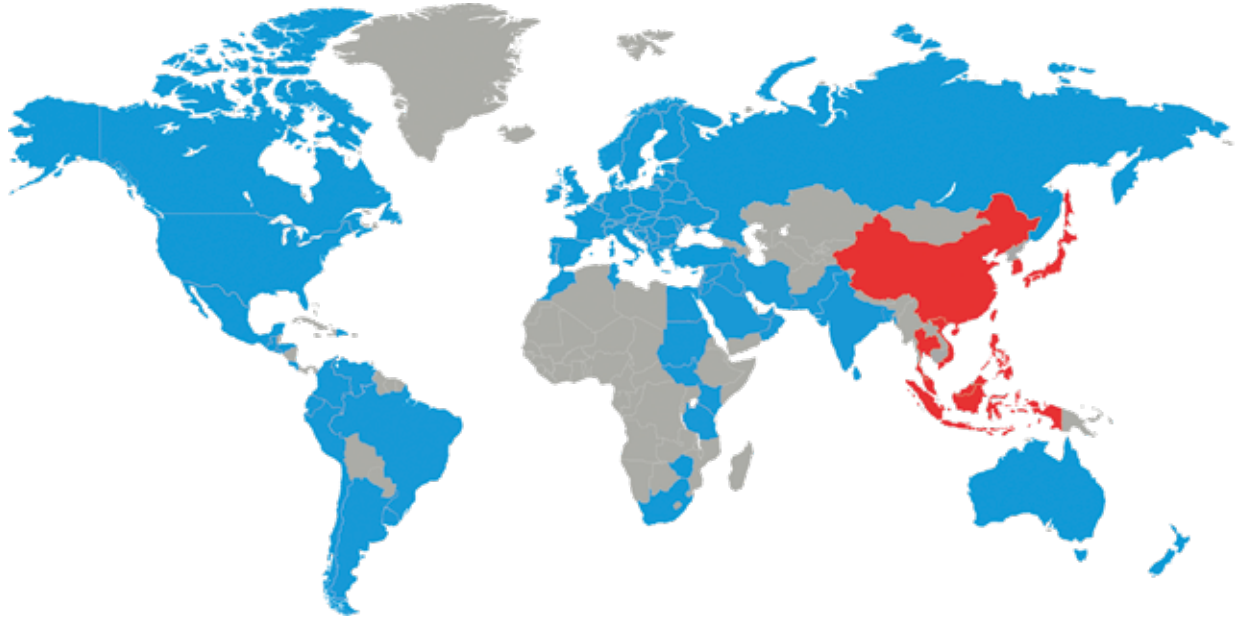
CALDIE — TO AVOID CRACKING

Caldie is an Electro Slag Remelted (ESR) matrix type cold work tool steel. It can be hardened to 62 HRC, giving it a very good combination of chipping and cracking resistance, as well as a high compressive strength. This means it is very useful for powder compacting where higher densities are wanted, or when problems with plastic deformation of the tooling occur. The high compressive strength also makes Caldie a perfect substrate material for surface coated tools.

UNIMAX — SOLVES EXCESSIVE CHIPPING

Unimax is an Electro Slag Remelted (ESR) matrix type cold work tool steel. An extremely high ductility makes Unimax the best problem solver in the event of premature tool failures caused by excessive chipping and cracking. It is a particularly good choice for tools of sensitive geometries (tight radii, bends, teeth, etc.).





Choosing the right steel is of vital importance. ASSAB engineers and metallurgists are always ready to assist you in your choice of the optimum steel grade and the best treatment for each application. ASSAB not only supplies steel products with superior quality, we offer state-of-the-art machining, heat treatment and surface treatment services to enhance steel properties to meet your requirement in the shortest lead time. Using a holistic approach as a one-stop solution provider, we are more than just another tool steel supplier.

ASSAB and Uddeholm are present on every continent. This ensures you that high quality tool steel and local support are available wherever you are. Together we secure our position as the world's leading supplier of tooling materials.

For more information, please visit
www.assab.com

