

# LEADING SOLUTIONS BEHIND WINNING DESIGNS

PIONEERING STRIP STEEL FOR COMPRESSOR VALVES





# YOUR EXPERTS + OUR EXPERTS = NEW INDUSTRY STANDARDS

When experts partner with experts, possibilities skyrocket. Today, that's exactly what's needed to win the race for developing compressors that are more energy-efficient and use environmentally friendly refrigerants. Your expertise in compressor design deserves nothing less than the world's leading experts in materials technology for valves – pioneering solutions for you.

#### R&D PARTNERSHIP AMPLIFIES YOUR POSSIBILITIES

With over 150 years of metallurgical R&D, we know the intricacies of what advanced steels can do. And therefore what you can do with them. By enabling advanced design possibilities, our steels allow you to find the perfect balance between optimized performance and manufacturing costs.

Whatever seemingly impossible requirements are put on you, we'll work side-by-side with you in real-case simulations and experiments to find how our materials knowledge can help meet them.

Knowing the full extent of our valve steel's capabilities will support you in designing compressors that surpass anything known on the market today. Smaller, lighter, more efficient, less noisy, environmentally friendly, cost-effective – true next-generation compressors that will change the game.

## TODAY'S MATERIALS FOR TOMORROW'S COMPRESSORS

Explore your possibilities with our materials expertise and a portfolio covering a full range of specifications.

#### SANDVIK HIFLEX™

High-fatigue resistance stainless chromium steel enabling you to push the boundaries of design for valves in high-frequency and high-pressure compressors.

Outperforming all other compressor valve steels, Sandvik Hiflex enables higher valve lift for increased compressor efficiency, reduced valve length with maintained lift for valve miniaturization, and a long list of other benefits.



#### SANDVIK 7C27MO2

Martensitic stainless chromium steel alloyed with molybdenum offering exceptionally high fatigue strength under bending and impact stress.



#### SANDVIK 20C

Carbon steel with 1% carbon, offering high fatigue strength as well as good wear resistance, dimensional tolerances and flatness.



"In our joint tests, we confirmed an increase from 120 to 180 Hz – equivalent to energy savings of 50% – in a compressor half the size of previous models!"

DAVID LIANG, SANDVIK GLOBAL SENIOR APPLICATIONS SPECIALIST CASE: GMCC, CHINA

### MEETING A VARIETY OF NEEDS WITH CONSISTENT QUALITY

Millions of compressor valves are produced each year with our advanced steels. And we take responsibility for the quality of our materials in each one of those millions. With our own metallurgy and strip production, we control the whole production chain from steel melt to finished product, adhering to ISO standards.

#### APPLICATION AREAS

- Air conditioning equipment
- Brake systems
- Heat pumps
- Industrial air compressors
- Refrigerators and freezers
- Vacuum pumps

#### OUR PEOPLE SERVING YOUR PEOPLE GLOBALLY

Sandvik's presence in over 150 countries gives us a team with knowledge of the specific conditions in your region. Plus, a globally connected and locally present logistical network to run real collaborations that make practical business sense for you. We're thrilled to play a part in customer success stories in every corner of the world.

Learn more about our customers' successes, as well as our materials specifications and possibilities online at smt.sandvik.com/strip-steel

Then contact us to discuss how we can help you in creating your own success story.





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