

NPC Ruspromremont



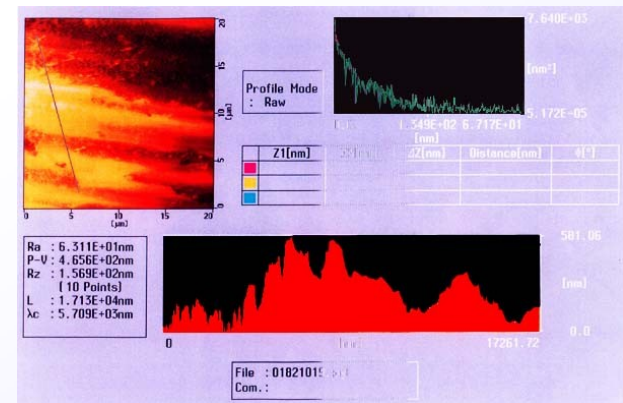
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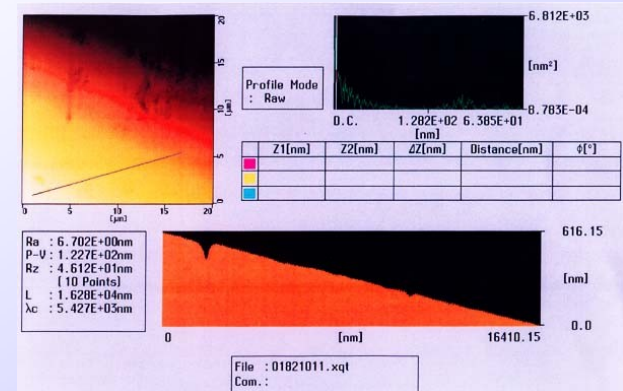
WHAT IS RVS TECHNOLOGY?

- ❑ RVS Technology® is a new unique method for protection and restoration of mechanical wear.
- ❑ The method basis on an atom exchange reaction activated by the friction and movement energy of the mechanism and activators in the RVS -compound.

Before RVS treatment



After RVS treatment

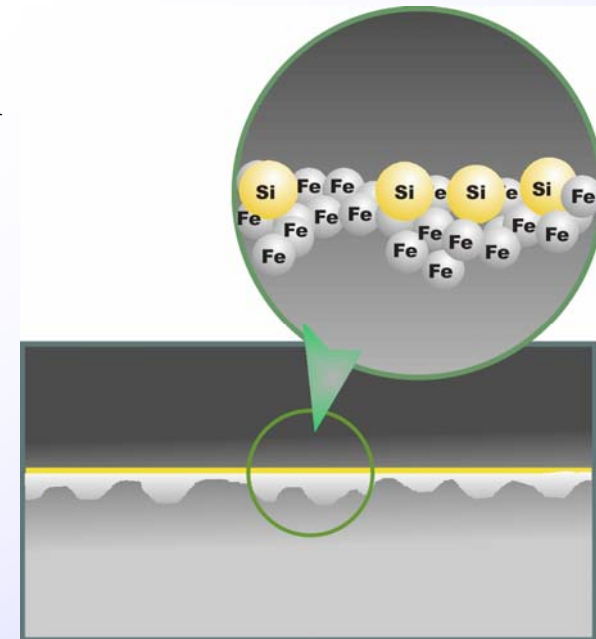


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WHAT IS RVS TECHNOLOGY?

- ❑ The reaction produces new molecules which create a new metal ceramic surface structure on ferrous friction contact zones.
- ❑ The born structure is totally integrated into the rest of the metal. The thickness of the structure depends on the wear rate.
- ❑ The new surface becomes very even, hard and resistable against wear and it's friction coefficient drops to fractions of the original.



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ECONOMICAL & ECOLOGICAL BENEFITS!

- ❑ RVS Technology provides significant economical and ecological benefits to the owners and endusers of various mechanical devices:**
 - ❑ It is widely applicaple** in industry and transportation.
 - ❑ Savings will be achieved** by improved reliability, prolonged life cycle and maintenance periods and by reduced consupction of energy and lubricants.
 - ❑ The cost efficiency improves and the environmental strain reduces.**

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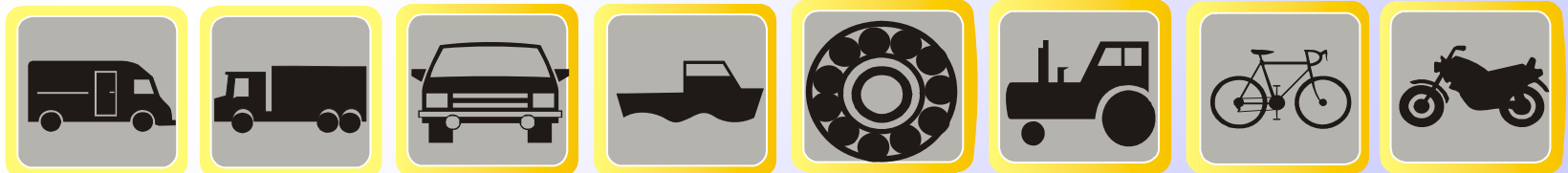
WIDELY APPLICABLE!

□ RVS Technology is applicable for the following mechanical components and devices and much more:

□ gears(transmissions)

□ bearings of all kind

□ piston and cylinder groups (combustion engines, hydraulics, compressors etc.)



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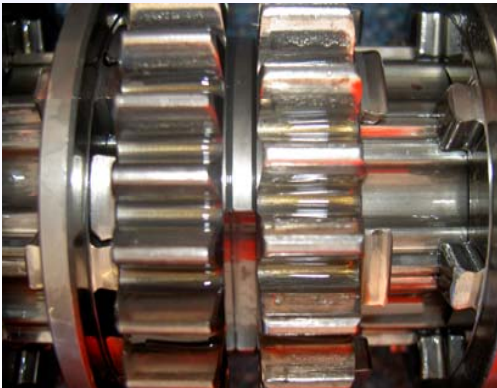
Motor racing, whole range



Cars, trucks, busses, wheel loaders, agriculture equipments etc.



Motorbikes, mopeds, grass clippers etc



Industry maintenance and services; gears, bearings, pumps, kompressors etc.



Ships, power plants, wind mills etc.



Boat engines, drift gears, clutches etc.

BENEFITS TO CLIENTS

- Prolonged life cycle of components (30-70%)**
- Reduced replacement demand of costly spareparts as wear process almost stops**
- Reduced number of expensive down times and maintenance hours / days**
- Improved predictability of mechanism function**



BENEFITS TO CLIENTS

- Reduced energy & fuel consumption (5-20%)**
- Reduced emissions - Reduced environmental strain (10-50%)**
- Reduced vibration & noise level (10-50%)**
- Reduced need/Prolonged life cycle of lubricants (30-50%)**

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BENEFITS TO CLIENTS

- Possibility to use less expensive lubricants with less additives**
- Less corrosion problems**
- Survival of the mechanism in case of accidental lubricant loss!**
- These are all significant competition elements for the Transportation and Industry!**

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PROVEN & TESTED

RVS Technology has been proved and tested with excellent results in hundreds of different kind of mechanisms in industry, transportation and other technological segments:

- ❑ Fraunhofer Institute, Stuttgart, Germany, Dec 2003.** Fraunhofer is the leading accredited R & D Center in Germany (Vehicle test).
- ❑ Swedish Polytechnic, Vaasa, Finland, Spring 2002.** (Vehicle test financed by the Foundation of Finnish Innovations).
- ❑ Rautaruukki Steel, Raahе, Finland, Autumn 1999.** Rautaruukki is the leading steel company in Finland (Transmission test).

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TEST RESULTS

FRAUNHOFER TEST:

- ❑ Average Metal Ceramic material growth in cylinder walls(restoration) **5 microns**
- ❑ Roughness of the Cylinder Walls after treatment 1,2 Ra (6,6 Ra) = **1/5,5**
- ❑ Average Cylinder Compression increase in TUV test **12 %**
- ❑ Engine Function without engine oil (smooth, normal temp) at least **1 hour**

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TEST RESULTS

SWEDISH POLYTECHNIC:

<input type="checkbox"/> Compression improvement	5,8 – 10,2 %
<input type="checkbox"/> Compression loss decrease	4,8 – 6,6 %
<input type="checkbox"/> Average Power loss improvement	17,9 %
<input type="checkbox"/> Engine Power improvement (maximum)	4,0 %
<input type="checkbox"/> Drive Wheel Force improvement max/average	10,2 / 9,0 %
<input type="checkbox"/> Traction Force improvement (maximum)	10,3 %

TEST RESULTS

RAUTARUUKKI STEEL (Transmission test)

<input type="checkbox"/> Energy Consumption decrease	6,25 %
<input type="checkbox"/> Total Vibration decrease	37,1 %
<input type="checkbox"/> Total Acceleration change (increase)	50,0 %
<input type="checkbox"/> Total Envelope change (decrease)	55,0 %

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MEDIA TESTS & ARTICLES

- ❑ **Sixteen articles in Technical and Commercial Magazines of which 3 tests**
 - ❑ **VM Magazine, the leading motor sport magazine in Finland.** Test in a Suzuki rally car. Power increase 3,6 %.
 - ❑ **Mobilisti, the leading magazine in the Classic Car segment.** Empiric test, very good results.
 - ❑ **Kaliber Magazine, the leading magazine in Shooting&Gun segment.** A test done by the Chairman of the Finnish Gunsmith Association. Fantastic results and a good article.

- ❑ **One test program on the Finnish TV Channel 2 (non commercial channel)**
 - ❑ **160 km drive without engine oil** in a test controlled by the TV stuff, Camera and the sealed engine.

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ONGOING and COMING TESTS & TRIALS

ABB + SKF + RVS, Helsinki, Finland

- ❑ Axle – Bearing test on a Generator, November 2004 – October 2005
- ❑ Goal: Study RVS protection and restoration of electrocorrosion caused by residual current going through the Axles and Bearings

YAMAHA MARINE ENGINES, Japan

- ❑ Starts in October, 2005

HELSINKI CITY TRAMWAYS

- ❑ Treatment of Tramway Rails, since 07.09.2005
- ❑ Goal: 1) To overcome noise emissions in the curves, 2) To reduce the annual amount of grease used from 4500 kg to 1500 kg, 3) To reduce the wear of rails and tramwheels.

TRANSPORTATION REFERENCES

- Helsinki City Transport
- Helsinki City Tramways
- Helsinki Airport Taxi
- Tampere City Transport (the second City in Finland)
- China Railways
- Chita (St. Petersburg) Railways
- Singapore Bus Service (SBSTransit)

PRODUCT LIABILITY

- The Manufacturer warrants that the quality of the Products meet with the following technical specifications and documents**
 - Technical Conditions “Repairing and Restoration Compound, in form of gel, Technical Conditions, TU 0257-001-74760882-2004 (RU)”**
 - Safety Data Sheet for RVS Technology Gel**
- Product Liability Insurance**
 - Annual coveridge 1,6 Million Euros**