



SURFACE TREATMENT TECHNOLOGIES

1

WEAR AND CORROSION RESISTANT NANOCOMPOSITE COATINGS

Application: surface protection in hazard environments

2

NANOSTRUCTURED TRIBOLOGICAL COATINGS

***Application: friction reduction and reliability increasing
for machine components***

3

PLASMA DIFFUSION TREATMENT

***Application: surface hardening, wear and
corrosion protection***

SURFACE TREATMENT TECHNOLOGIES

Wear and corrosion resistant decorative coatings

APPLICATION: consumer goods.



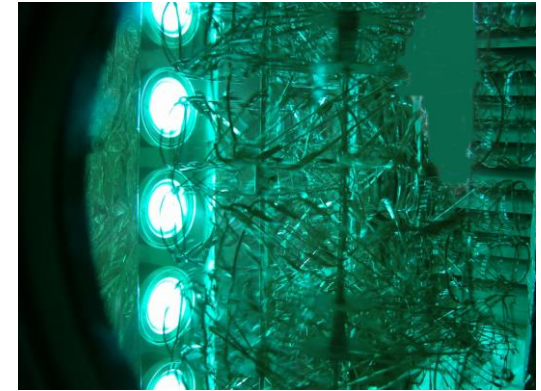
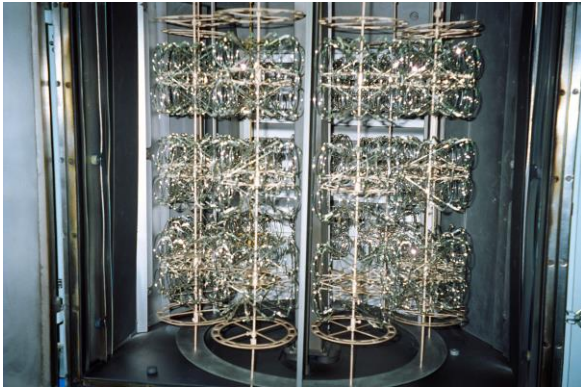
Nanocomposite coatings for:

- ❖ Door locks (brass, zamak alloy, steel).
- ❖ Spectacle frames (monel, nickel silver, titanium, steel).
- ❖ Watch case (brass, steel, titanium)
- ❖ Automotive components (plastic, brass, aluminium).



SURFACE TREATMENT TECHNOLOGIES

Wear and corrosion resistant decorative coatings



Technology advantages

- *Multilayer nanocomposite coating has very good corrosion resistance in hazard environment, especially in the salt spray and artificial sweet tests*
- *Hard top layer for wear resistance and different colors*

SURFACE TREATMENT TECHNOLOGIES

15 years of successful coating deposition:

APPLICATION: wear and corrosion resistant coatings on spectacle frames

DexTroN
RESEARCH



Liu Lewant

3 vacuum coating systems works 6 batches/day 5d/week
since 2003

SURFACE TREATMENT TECHNOLOGIES

15 years of successful coating deposition:

APPLICATION: wear and corrosion resistant coatings on spectacle frames

DexTroN
RESEARCH



Liw LewDant

3 vacuum coating systems works 6 batches/day 5d/week
since 2003

SURFACE TREATMENT TECHNOLOGIES

10 years of successful coating deposition:

APPLICATION: wear and corrosion resistant coatings on the brass watch cases

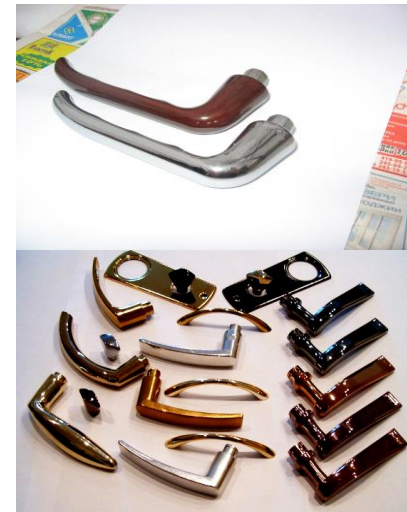


2 vacuum coating systems works 5 batches/day 5d/week
(2001-2011)

SURFACE TREATMENT TECHNOLOGIES

8 years of successful coating deposition:

APPLICATION: decorative coatings on the door lock handles



2 vacuum coating systems works 7 batches/day 5d/week
since 2010

SURFACE TREATMENT TECHNOLOGIES

18 years of successful coating deposition:

APPLICATION: decorative coatings on the plastic



5 vacuum coating systems works 7 batches/day 5d/week
since 2000

SURFACE TREATMENT TECHNOLOGIES

1

Metalworking tools:

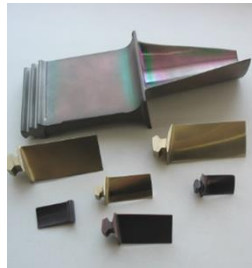
mills, drills, punches.



2

Wear and corrosion protection:

turbine blades, automotive components, hydraulic components, etc



3

Friction and wear reduction:

ball bearings, journal bearings, automotive components, etc



SURFACE TREATMENT TECHNOLOGIES

Low friction coatings

APPLICATION: automotive components



Bearings, piston pins,
piston rings, valves,
etc.



Titanium valve development is highly advanced in countries that we might not associate strongly with motorsport. These valves are from Russia (Courtesy of Compdvig)

VACUUM COATING SYSTEMS



QUADRA 400 Lab vacuum coating system for R&D and small scale production.
Loading space in the vacuum chamber
Ø 200×200 mm



QUADRA 900 vacuum coating system for industrial coating deposition production.
Loading space in the vacuum chamber
Ø 600×700 mm



IMPLAZ 900 vacuum system for pulse plasma diffusion process.
Loading space in the vacuum chamber
Ø 600×700 mm

We've sold 60 vacuum coating systems in Russia since 2000



Thank you!