



ŠLECHTA®

The BEST for your Moulds

slechta
.com



Joint-stock
company
Šlechta a.s.

- ▶ **First-class services** in the field of mirror and technical polishing, laser engraving or welding and surfacing
- ▶ More than **20 years** on the market
- ▶ More than **50 employees**
- ▶ Registered seat: Jindřichův Hradec – South Bohemia
- ▶ We are a member of the committee of the Uniplast Brno association - professional conferences and seminars

What we DO?

▶ **POLISHING**

- Mirror polishing
- Technical polishing

▶ **COATING**

- PVD and PPD coating

▶ **ENGRAVING**

- Laser engraving

▶ **WELDING**

- Laser welding

▶ **OTHER SERVICES**

- Spotting press
- 3D coordinate measurement
- Mould service
- Training of polishers and operators
- Consulting of the mould development, trips to customers

Polishing



Polishing

Technical polishing

- ▶ **We polish demanding surfaces of various shapes and moulds according to customer needs, cavities of moulds for releasing and chemical etching.**

OUR TECHNOLOGY

- Moulds up to 25 tons
- Bigger and heavier parts are polished on site at customers facilities

USE:

- Preparation of surface for other finishing techniques (chemical etching, PVD coating, etc.)
- Final surface treatment for surface refinement for easy ejection of parts from moulds
- Treatment of copper and graphite electrodes for EDM finishing operations
- For moulds made from tool steel, aluminum, stainless steel and copper

Polishing

Mirror polishing

- ▶ **Surface treatment performed by hand-polishing of moulds form tool steel, aluminum, stainless steel and AMPCO alloys**
- ▶ **Emphasizes on minimal roughness and highly decoration look**

OUR TECHNOLOGY

- From coarsest to finest surface treatment
- Different types of abrasive materials
- Diamond pastes of different grain size
- Planar polishing and lapping
- Moulds up to 25 tons
- Bigger and heavier parts are polished on site at customers facilities

USE:

- Automotive industry (headlights, instrument cluster, radiator grilles, etc.)
- Cosmetic industry
- Food industry
- Packaging industry
- Healthcare (optics polishing)

Polishing Realisation



Mirror polishing of tiny cavities



Mirror polishing of headlight mould

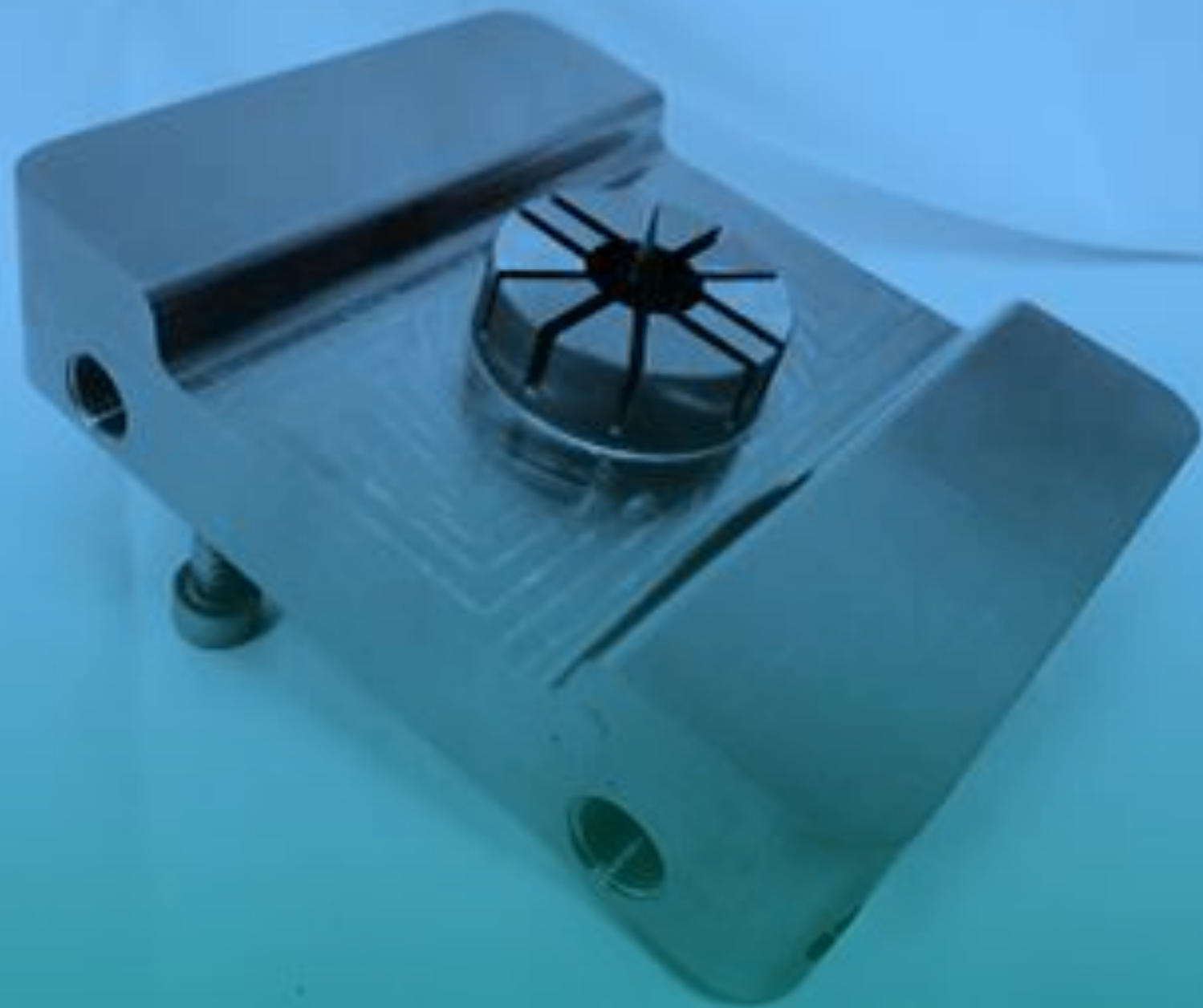


Mirror polishing of mould insert



Input quality control

PVD coating



PVD coating

- ▶ **PVD coating is surface treatment of various metal tools and components with coating of thickness 1 – 10 micrometers**

OUR TECHNOLOGY

- Pulsed magnetron sputtering for finest surface quality of tools and components
- Parts weight up to 250 kg and 450 mm in diameter
- Coating temperature from 180°C

USE:

- **DLC coating** – to reduce friction on machine components, sliding parts and tools
- **PVD coating** – to increase abrasion and adhesion resistance of tools and components
- **Diffusion processes** – to increase tool steel hardness up to 1600 HV

Applied coatings

Name	Composition	Structure	Thickness [µm]	Deposition temperature	Typical use
Nobilis DLC-W	a-C:H:W	CrN+ a-C:H:W	3±1	180°C	Low friction, excellent toughness, works well with lubricants
Nobilis DLC-T	a-C:H	CrN+ a-C:H	3±1	180°C	Low friction, abrasion protection
Nobilis DLC-C	a-C:H	CrN+ a-C:H	3±1	180°C	Very low friction, low abrasive protection
Nobilis DLC-TiSi	a-C:H:Ti:Si	AlTiN+AlTiSiN + a-C:Ti:Si	4±1	450°C	Forming, bending and stamping tools
Nobilis AlTiN	AlTiN	AlTiN	3±1	450°C	Cutting tools, abrasion protection
Nobilis AlTiSiN	AlTiSiN	AlTiN+TiSiN+ AlTiSiN	3±1	450°C	Cutting tools for hardened steels
Nobilis CrAlTiN	CrAlTiN	mAlTiN+mAlCrN	3±1	450°C	High cutting speed tools, glass forming
Nobilis CrON	CrON	CrN+CrON	3±1	180°C/450°C	Antisticking for plastics
Nobilis TiN	TiN	TiN	3±1	180°C/450°C	Basic forming tools
Nobilis SiO	SiO	SiO ₂	1±0,3	180°C	Protection of aluminum against oxidation
Nobilis CrN	CrN	CrN	3±1	180°C/450°C	Universal forming tools, corrosion protection, antisticking coating

We can strip all the coatings.

We offer partial coating of tools and components.

We are able to coat CrN a AlTiN up to 20 µm thick layer..



Our advantage

▶ **CAPACITY**

We allocate up to 10 polishers for 1 contract

▶ **WORK AT CUSTOMER FACILITY**

Possibility of travel for polishing/welding/serving

▶ **EMERGENCY**

Capacity and emergency 24/7

We will take care of your steel gladly!

Martin Daněk

Coating Manager

Šlechta a.s.

tel.: +420 605 512 060

e-mail: danek@slechta.com



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