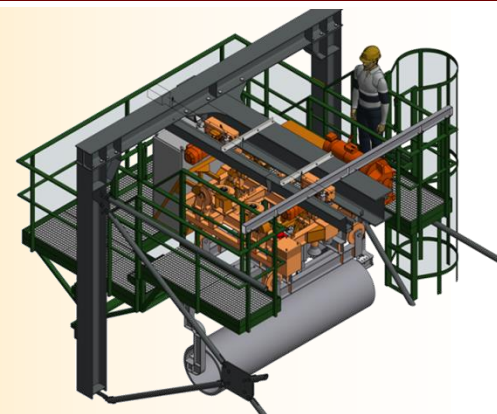




- DEVELOPMENT AND DESIGN, MAINLY FOR METALLURGY AND ENGINEERING
- 3D SIMULATION
- FEASIBILITY STUDIES
- DIGITALIZATION, DETAIL ENGINEERING
- DESIGN STRENGTH
- DOKUMENTATION FOR BUILDING MANAGEMENT
- REPROGRAPHIC SERVICES



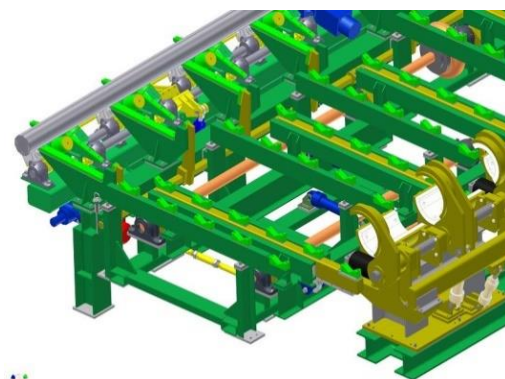
We offer you **services of Design & Development Department of our company**, which has long-term tradition and experiences with development, drawing and detailed technical drawings processing especially in the field of engineering devices for maintenance of our maternity company Třinecké železářny, repairs and modernization of technological lines, machines and devices. Our long-term experiences are applied to detailed technical drawings processing for realization of road and railway bridge structures and foot bridges too.

Strojírny a stavby Třinec, a.s. develops and designs special single-purpose engineering machines and equipment, technological lines and modernized devices incl. the installation and operating instructions and maintenance guides, risk analysis and setting in operation intra own development programme. We have co-operated with other Design and Development companies with processing of Basic Engineering into detailed technical drawings for manufacturing of technological units and particular machines and devices if need be too.

We offer you manufacturing of designed equipment and devices incl. the assembly and services too.

Software:

- Autodesk Inventor 2020
- AutoCAD Mechanical 2020
- WiselImage 2016
- ANSYS 18.2
- EPLAN 2.8
- Tekla Structures 2019
- SCIA Engineer 19.0





We offer:

Development, design of technological devices, single-purpose engineering appliances incl. the detailed technical drawings (two dimensional and space fully simulation):

- **Machine devices of metalurgy production – Steelworks** (ladles, cast-iron slag ladles, tundishes, scrap-iron runners and baskets, handling and pig-iron cars, revolving platforms, air pumps etc.)
- **Continuous Casting Plant devices** (arch for slab continuous casting, roll segments, oscillatory tables, excenter seatings, inlets for crystalizers, dummy bars etc.)
- **Blast Furnace devices** (blast heaters - stoves, blast furnace fittings, blast furnace grates, cooling staves etc.)
- **Rolling Mill and Wire Mill devices** (roller, scraper, screw and belt conveyers; cooling grates, block and billet shears, inlet and outlet tables, entering and outlet guides, heat exchangers, roll stands, rolls replacement equipment etc.)
- **Devices of finishing plants of rolling mills, steelworks, annealing plant, final finishing plants** (straightening, blasting, packing and peeling lines; lines for measuring of product ovality, crack detector lines; inlet and outlet conveyers for heating furnaces, etc.)
- **Coking Plant devices** (coal grinding devices, charging cars, belt conveying, feeders, ramming machines, guide and coke-quenching cars and devices, coke pushers, changing winches, gas uptakes, connecting boxes, glueing machines for sintering of guide seal straps to ramming process devices etc.)
- **Sintering Plants devices** (sintering belts, cooling belts, structures of dust separators, sintering cars, overhead travelling cranes, material transport nozzles, rope grabs etc.)
- **Devices of Waste Bank Processes** (slag and ferrous metal sow separation lines, belt conveying, screening of grounded material – vibrating screens, feeders, mud pumps for transport of fluid with slag and other abrasive part mixtures etc.)
- **Industrial cranes incl. reconstructions, handling and lifting devices, crane runways, travelling crabs, etc.**
- **Single-purpose engineering devices incl. the hydraulic and pneumatic parts** (saw and grinding machines for refractory materials, demolition manipulators for destroying of ladle linings of type ROMAN, pointing line of rod ends, grinding machine for billets and slabs, rail benders etc.)
- **Machine and spare parts** (important machine parts of metallurgical units, straightening rollers etc.)
- **Repairs, modernization of devices** (device of steel-transforming industry after long product incl. the tubes, stands, rolling mill, titling devices, straightening and peeling lines, grinding machines and saws, exchange devices etc.)
- **Technical drawings of hydraulic, pneumatic and oil machine distribution systems**
- **Electrical documentation**

Detailed Engineering –processing of detailed manufacturing technical drawings – assembly drawings, sub-assembly drawings, detailed technical drawings:

- **Steel bridge structures, structures and weldments under detailed technical documentation**
- **Processing and draw up of Basic Engineering of technological devices into detailed technical drawings**
- **Spare parts** (especially for maintenance of metallurgical industry)
- **Processing of delivered technical drawings for manufacturing in our company**

Engineering and steel structure strenght calculations:

- **Solving of wide linear and nonlinear problem solutions** (with physics and geometry aspects) **by FEM**

Covering documents of engineering devices and appliances:

- **Installation and operating instructions and maintenance guide, risk analysis and setting in operation incl. the complex tests. spare parts lists**

Technical drawing digitization, space fully dimensional simulation, feasibility studies, reprographic services – scanning, digital colour and black-white printing, copying, 3D printing