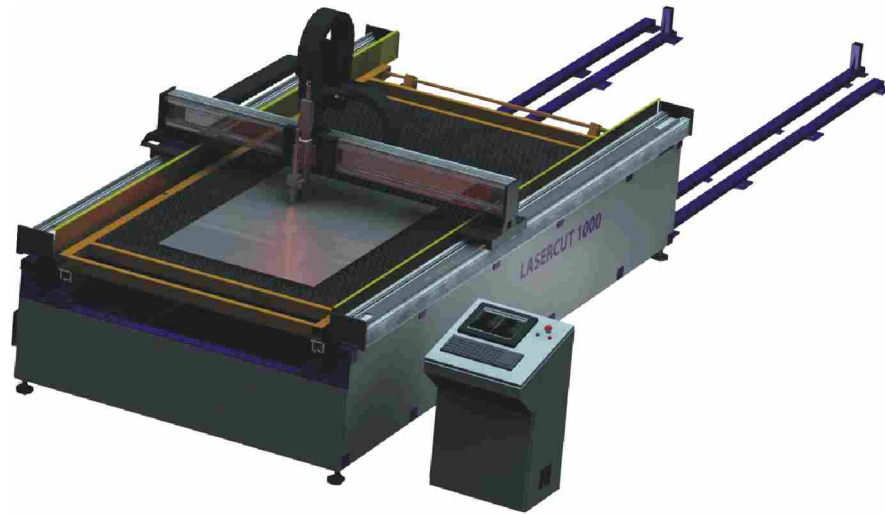


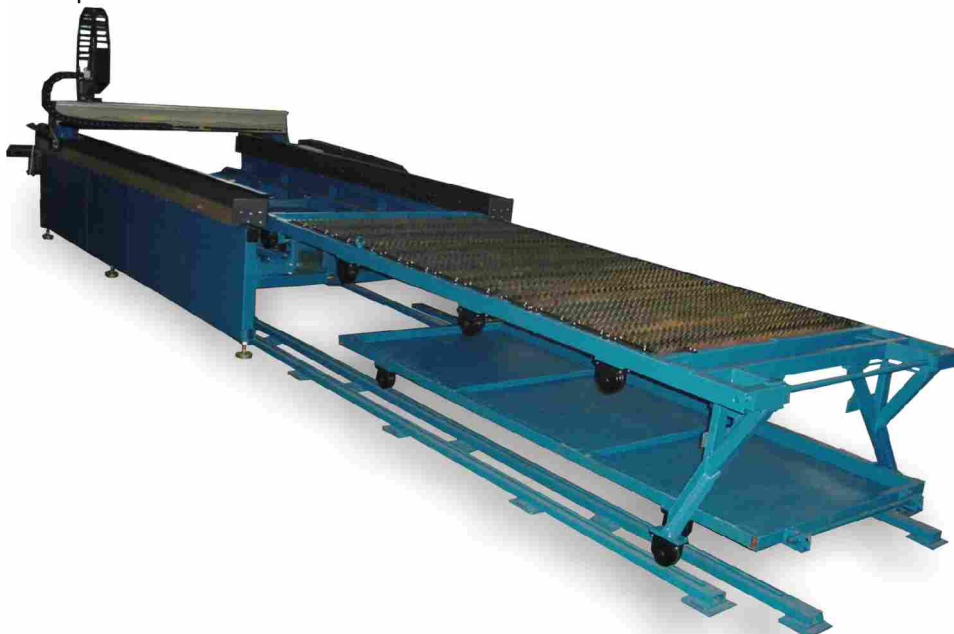
LASERCUT-1000 based on direct drives and fiber laser



Laser cutting machine **LaserCut-1000** is intended for a cutting of wide range of materials: constructional and stainless steel, aluminium and its alloys, copper alloys. It personifies the best technological solutions: direct drive based on the linear servomotors of Ruchservomotor Ltd, IPG Group fiber lasers, section cutting table with sliding palette, system of air filtration with self-cleaning of cartridges. Thanks to it's this machine provides optimum productivity, precision processing, high quality cutting and profitability of operation.

Main advantages

- Maximum productivity in the range of metal width 0,5..14mm;
- High reliability of the machine thanks to the using the direct drive technology;
- Electric power economy as a result of high efficiency factor of the fiber ytterbium laser(up to 25%);
- High accuracy, repeatability and durability, backlash absence, high feeding speed and acceleration
- thanks to the employment of direct drive technology;
- Palette mechanism for loading of sheets (fast sheet loading and ease of the positioner work);
- Low operational cost.



Brief technical description:

LaserCUT-1000 in its basic assembly consists of gantry system 3x1.5m, Z-axis, controller, one palette table for workpiece loading and a sensor for tracking the sheet surface. Options: ytterbium fibre laser with power from 0,4kW to 1,5kW, cooled optical head with collimator and exchangeable nozzles for supplying cutting gas.

In the capacity of feeding devices linear synchronous servomotors made by "Ruchservomotor Ltd." are used. The motors are built in aluminium profile with linear feedback sensors and precision linear guideways, which are protected from sparks and drops of smelt by heat-resistant bellows. High peak force of linear drive and rigidity ensures required accelerations, which are necessary for improvement of the productivity of the machine during the cutting parts with small bending radius and acute angles.

The used software, CNC and controllers manufactured are characterized by completely digital control a drive, compatibility with widespread programs CAD-CAM of optimization sheet cutting, interpretation of standard formats of commands of moving in a G-code, and also the spline-interpolation, allowing to carry out cutting any curvilinear trajectories without a time-lapse stop, that essentially raises productivity of the machine tool.

The absence of reducers and mechanical gears, which are typical for direct drive, prevents runout and backlash appearance, simplifies maintenance, ensures saving of high accuracy during the whole operation life.

While in service laser machine LaserCUT made by Ruchservomotor have proved as the exact, high-efficiency and reliable equipment completely corresponding to requirements of modern manufacture.

Technical specification

Maximal travel X, m	3
Maximal travel Y, m	1,5
Maximal travel Z, mm	75
Repeatability*, mm	±0.01
Resolution, mm	0.001
Maximum speed, m/min	60
Maximum acceleration, m/s ²	6
Recommended laser power, kW	0.4-1,5
Maximal thickness of steel/stainless steel, mm	14/7
Laser wave length, micron	1.065
Maximum weight of processing details, kg	800
Overall dimensions of machine, mm	8000 x 2500 x 2200
Support industry standard codes DIN/ISO-6983	

* The accuracy of the details depends on the material properties and degree of its heating. Measurements accordingly to VDI/DGQ 3441 standards, measurement length 1m.

Suggested options:

1. Laser cutting system based on the LK-x ytterbium laser with power 0,6..2 kW and IPG optical head;
2. Surface tracking system;
3. cnckAD software for cutting (importing *.dxf, *.dwg files, auto-nesting);
4. Protecting cabin;
5. Screw compressor DBK10-15-500D(15 Bar, 700l/min, 500l);
6. Cleaning system FILTERCUBE-2N-3500;
7. Voltage stabilizer.