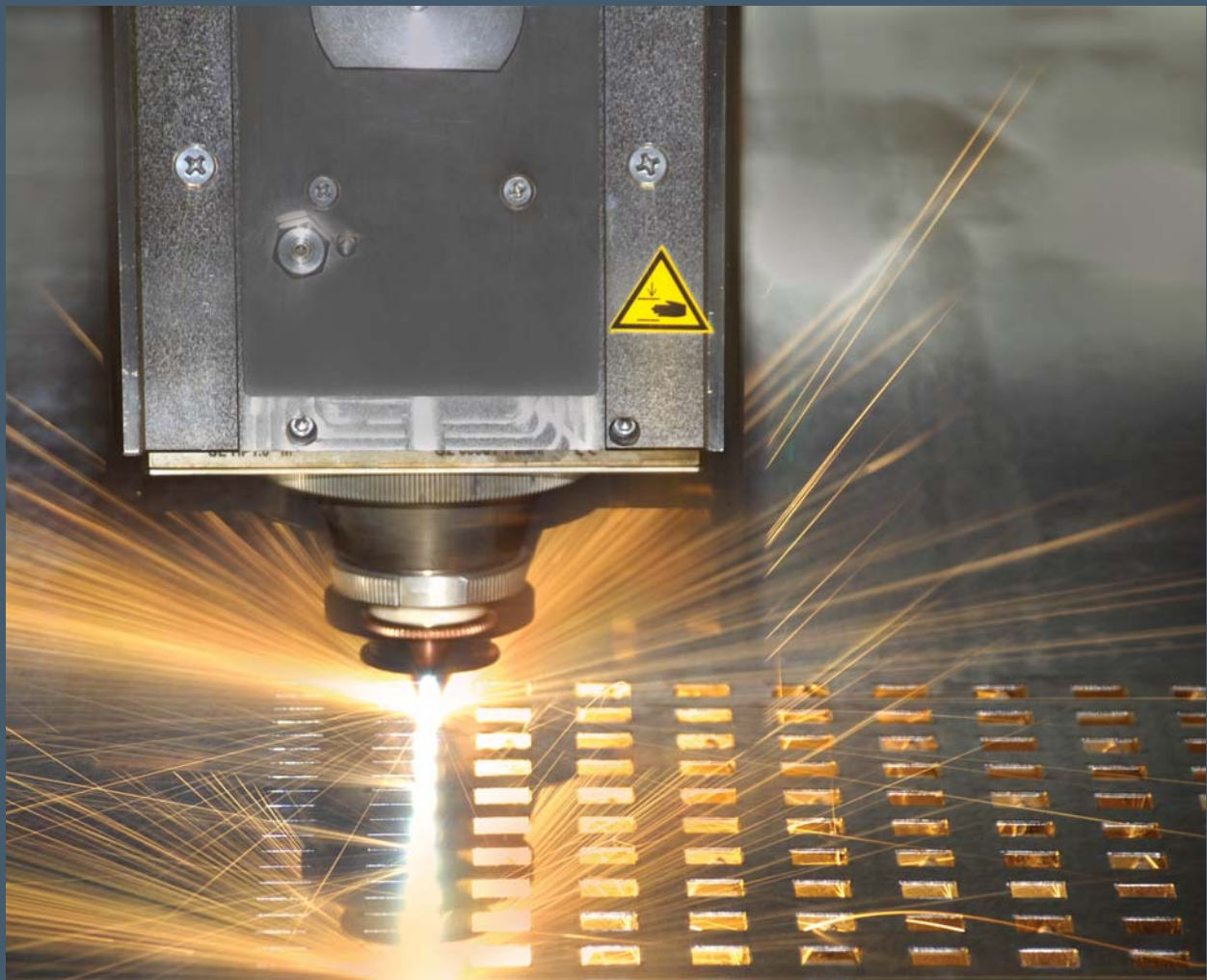


DURMA

LASER CUTTING MACHINES HD SERIES





Durmazlar Headquarter & Ataevler Plant

DURMAZLAR

Durmazlar machinery, founded in 1956, was the first sheet metal working machines manufacturer in Turkey.

The first production of Durmazlar was a manual sheet cutting machine. Nowadays Durmazlar is proudly offering a wide range of products in sheet metal working industry.

Durmazlar with its annually 6000 machine production capacity in its 150.000 square meter area, is the biggest sheet metal working machine producer company worldwide.

Durmazlar is offering its products with the brand name DURMA.

Main technologies offered in Durmazlar are as follows.

- Laser cutting technology
- Punch and forming technology
- Plasma cutting technology
- Bending technology
- Cutting technology
- Combined shearing technology
- Programming systems
- Automation technology
- Plate roll bending
- Profile bending
- Bandsaw

Durmazlar is working and continuously investing for its employee and production in order to achieve better success, better technology and better environment with its 1000 employee,. The company is aiming to be effective on its customer's future improvements and to share big ideas by offering the latest technologies under the most competitive circumstances and forecasting their future requirements.

DURMA is world class brand name which is serving the world technology to its customers in 82 countries and growing together with them.

YOUR LASER, TODAY, TOMORROW, FOREVER.

- Various type of material and thickness cut in any shape you desire by laser independency. No tooling requirement, and cutting is not a function of material strength.
Able to cut smaller diameter than sheet thickness
- Precise and high quality cutting and no need of second operation for smoothing and cleaning
- Speedy cutting
- Silent and clean working environment
- Low operating costs

DURMA HD, high speed 2D laser cutting machine works on the principle of Flying optics :
The raw sheet rests on the cutting table and the laser head moves in X and Y directions.





- **EFFICIENCY** by Diffusion cooled, Slab Geometry Laser Source
- **STABLE** Machine Frame & Gantry contributes to **PRECISION** and **SPEED**
- **CLEAN** and **TIME SAVER** Conveyor System
- **LOW PREPERATION TIMES** by Shuttle Tables
- **ENERGY SAVING** Beam guidance
- **INTELLIGENT** Cutting Head
- **WORLD FASTEST** Control Unit Siemens 840 D
- **USER FRIENDLY** CAD/CAM Software
- **MINIMUM** Gas Consumption
- **REDUCED** Maintenance
- **LOWER** Energy Costs
- Rugged Optics
- No External Laser Gas Supply
- Remote Diagnostic



Laser Plant

Laser Assembly Line



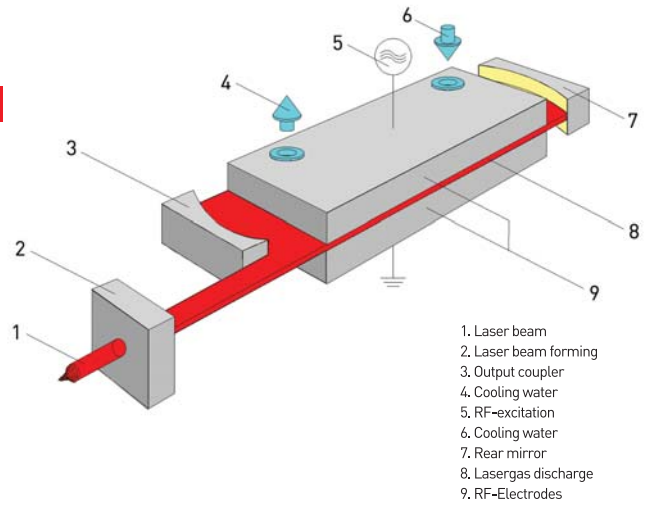
EFFICIENCY by DIFFUSION COOLED,SLAB GEOMETRY Laser Source

Minimum Gas Consumption

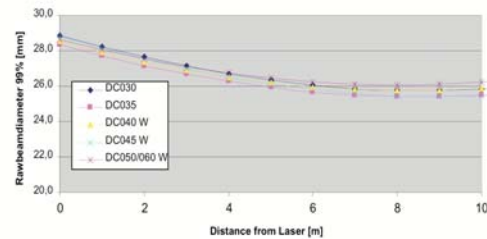
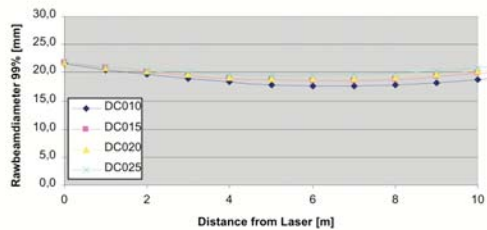
No external gas supply necessary for laser generation, it brings low operating costs and saves area from the workplace.

Due to the diffusion-cooled CO₂ Slab laser principle the gas consumption is reduced to a minimum. A 10l pre-mix gas cylinder for laser operation is integrated in the resonator.

Long lasting laser gas lifetime, even for three-shift operation due to gas utilization once in 72 hours. Due to the diffusion cooled CO₂ slab laser principle, the gas consumption is reduced to a minimum level (0,15 nL/hour = 1 bottle a year/one shift)



Beam Propagation



Improved Performance

The excellent beam quality achieved with the CO₂ Slab laser results in higher cutting speeds with significantly improved cut edge quality. In addition, the excellent beam quality also makes this laser ideally suited to a wide range of cutting applications, providing optimum cutting speeds with minimum heat affected zones.

Laser beam diameter does not vary by 12 meter distance; thanks to Slab Laser technology which the machine does not need for any U axis to adjust beam diameter and short-lived adaptive mirrors. This contributes to LOW MAINTAINCE COSTS (Low consumable parts quantity) and MACHINE RELIABILITY (less components reduce the risk of machine breakdowns)

Substantially Improved Beam Quality

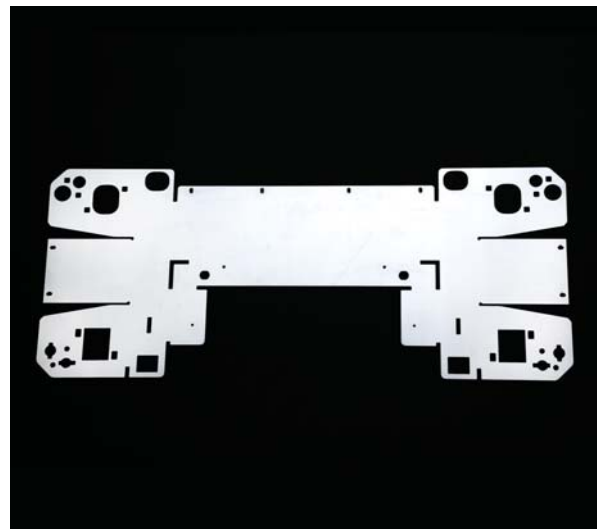
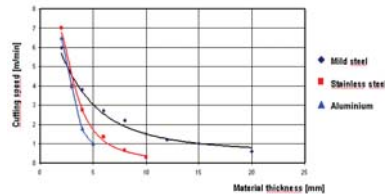
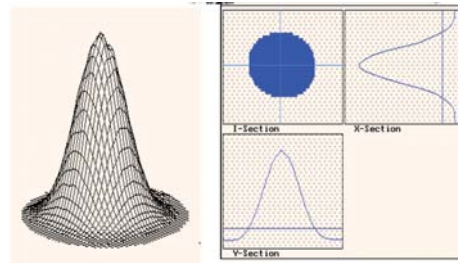
With a K factor $\geq 0,9$ (equivalent to an m^2 of less than 1.11) the CO₂ Slab laser provides one of the best quality beams at these output powers. The high beam quality makes the best cutting results possible, especially at high speed and precision requirements.

No "Warm-up" Period, ready to use just after switching on, you can save 15 minutes from each start-up of the machine.

Low maintenance and very good degree of efficiency. (Till 6000 hours no need of subcomponent change)

Operator can reach the correct cutting by less amount of parameter adjustment and manages the system safe, comfortable, fast and user friendly. 64 types of different program options each of PWM (Power modulation, duty cycle, Frequency) parameters can be optimised related to the thickness and type of the material to be cut in order to obtain a precise cutting.

Beam Quality

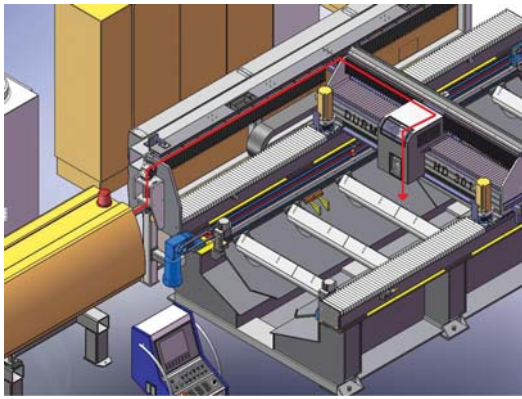


- Compact and modern design
- Very low optical losses, high reflective internal mirrors efficiency is high and needs less for cooling. Energy consumption is kept minimum level and laser power utilized effectively.
- Very high thermal stability

Lower Energy Costs

Due to elimination of the gas flow components, the power consumption is a function of discharge on time only.

Minimum energy consumption during "no cut" period. Whenever the cutting operation is paused, the laser switches to the standby mode, helping to save energy. (e.g. 2,5 kW Stand by consumption for DC 025)



ENERGY SAVING Beam guidance

The laser beam is completely encapsulated through its journey from resonator exit to the laser head. Slight overpressure in the beam guidance prevents the penetration of dirt particles into the system in order to keep the high-reflective mirrors clean.

The mirrors are selected with property of transferring the beam power to the cutting head with minimum energy loss and cooled by water. This ensures consistent beam quality and longer service life for the optical parts.





INTELLIGENT Cutting Head (HP1.5" EG8010C, EG805C, Full diagnostic electronic Control)

- The cutting head is equipped with a capacitive distance sensor which keeps the head distance to the material constant and guarantees a consistent focusing position automatically. System regulates continuously the distance between the nozzle and the workpiece and controlling the Z-axis course accordingly. Distance sensor is calibrated at 16 points which makes measurement precisely. Water cooling which benefits the stability of the capacitive distance sensor.
- Focal adjustment for different operations made by head integrated AC Step Motor automatically. Operator does not need for focal adjustment and system benefits to short set-up times. System also compensates any possible focal point requirements automatically.
- Cartridge replacement system allows to change focal length (5" and 7,5" Lenses) in a few seconds and does not require any adjustment.
- Plasma sensor detects possible plasma creations and stops the machine and warns the operator accordingly. Contributes to machine cutting quality and minimize the production losses. Prevents also harms on the consumable parts.
- Lens cartridge temperature sensors protect lenses from possible breakage that cause environment health (lens breakage can cause radiation) and costs.
- Head overall temperature is measured and head is protected from overheat.
- Real pressure of assist gas is measured at the cutting area which controls difference between set and actual gas pressure values.
- Detection of which cartridge is inserted where. Warns in case of any mis-assembly of cartridge
- Piercing sensor detects the completion of piercing and starts cutting right after without waiting period
- Fault sensors on the head protect itself from possible damages (Nozzle lost, Nozzle touched to the workpiece, Body touched to workpiece, Distance sensor Temperature exceed, Cable cut, Cartridge error)
- NitroCut: Hi-pressure cutting head ease of thick stainless steel and aluminium. Cutting head is resistant to 25 bar pressure.
- ControlCut , raw sheet is measured as deviations in terms of sheet sizes, corners and angular positioning on the table.





CONTROL UNIT Siemens 840 D

Sinumerik 840D Powerline combines CNC, PLC and communication tasks on a single NCU (Numeric Control Unit that controls the axis movements). NCU 573.5 is the fastest in the world which provides maximum dynamics (speed & acceleration & precision) on axis movements and ; fast I/O communication for laser processes that requires data processing in microseconds.

840D Powerline offers open architecture (program flexibility to different sheet metal processes and machine fulfills exact needs of different customer needs)

The controller has Durma operator interface and a complete cutting library for all standard cutting applications. The database includes the cutting parameters for standard materials (steel, stainless steel, aluminium) for common thickness ranges. Based on these reference values the operator can easily improve the cutting quality for different types of materials.

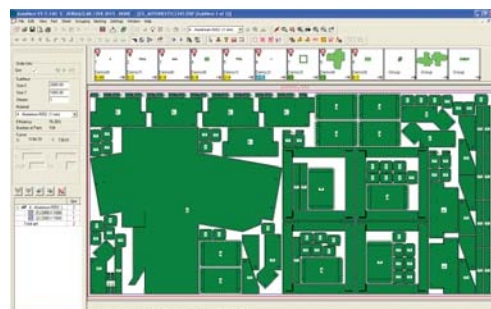
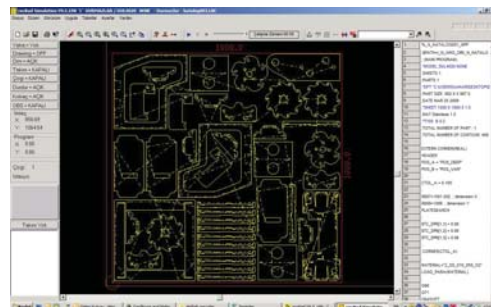
- Laser Power Control : Laser power is adjusted by axis speeds
- Machine can start from cutting interruption point after power lost.
- User-friendly operator control, monitoring thanks on 15" color display
- Easy operation thanks to integral keyboard and mouse
- USB stick fully supported
- Ethernet (100 Mbit/sec) allows connections to the corporate network and ease of program loading from offices
- Remote Diagnostic ,Remote Service
- 40 GB replaceable hard disk

Operator can interrupt the cutting operation any time required

Fly Cut : While axes moves with constant speed; cutting is realised by means of laser beam interruption.While axes are not slowing down during the operation, workpiece cycle time is reduced.

CAD/CAM Software

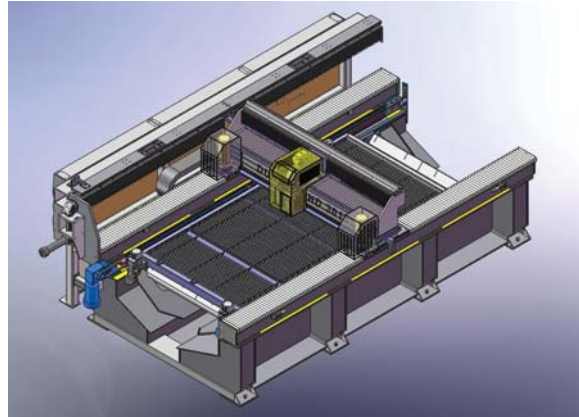
- Full-automatic cutting. (Any CAD drawings can be imported to create NC Codes which are loaded to the controller via network or memory stick)
- Common Cut (common border of parts commonised and cut once) reduces cycle times and material disposals.
- Sprint Cut chooses the shortest path of head from one to another contours
- Fast head path collision protection prevents damage possibly caused by deformed material. (In-part path travel short stroke, Inter-part path travel long stroke)
- Entry and exit profiles can be selected flexibly. Automatic entry point (Cutting entry from exit direction)
- Cutting direction clockwise or anti-clockwise supported
- Advanced corner applications provides perfect corners and soft cutting.
- Real font styles are supported to cut or mark.
- Pre-piercing initially finishes all piercings prior to contours. This property is selectable and especially useful for thick plates and reduces the need for making holes during cutting. As well as contributes to lens and nozzle lifetime.
- Sheet Cut ; processed sheet is separated from the un-used site to eliminate the second operations to reduce scraps.



STABLE Machine Frame & Gantry contributes to PRECISION and SPEED

Frame and the gantry are welded construction and those are subjected to stress relieving treatment to eliminate the deviations in machine geometry and stresses that may result during welding.

Construction designed & manufactured to allow extremely high acceleration values in conjunction with a direct encoder measuring system and maximum precision of the component geometry. Moving axes are driven by dynamic low moment of inertia and high performance and maintenance free AC Servo motors. Precise helical rack-pinion gears warranty silent and non-vibrating axes.

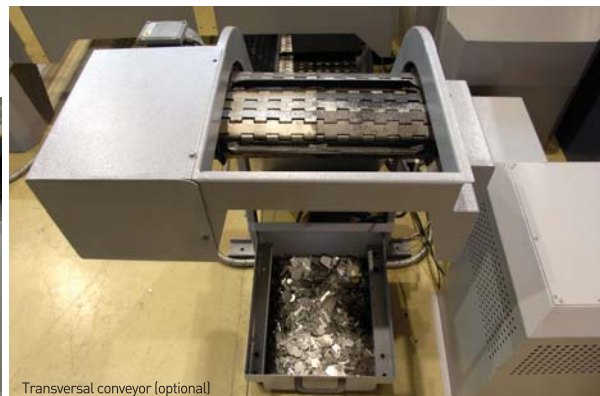
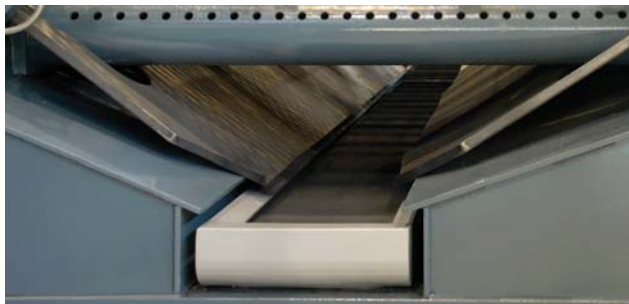


LOW PREPERATION TIMES by Shuttle Tables

The shuttle tables is designed to increase the productivity and minimize the material preparation times. The table allows loading of raw sheets or unloading of finished parts onto one table while the other table is on duty.

CLEAN and TIME SAVER Conveyor System

Conveyor system has been integrated to the machine to carry out the scrap particles to the scrap bin during cutting. It saves times for cleaning.



Transversal conveyor (optional)

Linear Motors (optional)

- High force density and energy-efficiency
- High level of dynamics and precision as well as great controllability
- Low thermal expansion and high degree of robustness due to large air gap

Enables highly dynamic applications with long traverse distances to be implemented. Furthermore, the magnet-free secondary section ensures that the highly dynamic linear motor can be used in environmental conditions in which the usage of magnetic secondary parts is not normally desired.



CHILLER

Professional chiller to cool resonator, mirrors and head for laser applications

- Allows machine work 7/24 by continuous cooling
- Limitation of power consumption by the use of energy-saving techniques
- Closed-circuit system, no possibility of calcium deposits
- Reduction of water costs to zero
- Vibration-free, low noise, high efficiency by scroll compressors

FILTERING (option)

Dust particles that come out during the operations are vacuumed by embedded filter channels inside the table. A clean working environment is created and machine maintenance requirements are reduced.

- Self-cleaning (system cleans itself and dusts are transferred to the disposal bin)
- Easy disposal
- Free contacts for external controls (does not consume electricity while no-cut period)
- Siemens CPU and PTFE membrane filter cartridges



STANDARDS

- **SINUMERIK 840D / 500 MB**
- Logbook function laser
- USB 2.0
- TFT colour screen
- RJ45 network connection
- Network connection incl. installation
- **Sheet – Check in terms of 3 parameters :**
- Angle
- Dimension
- Zero point

- Simple user interface parameter page (Power-speed-pressure combination)
- Laser power control
- Workshop programming
- Remote diagnostic with WebCam

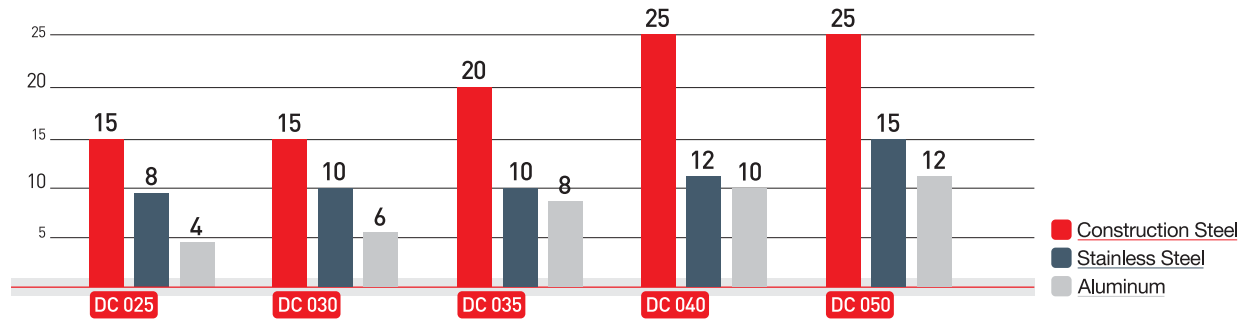
- **Cutting head Precitec HP 1.5" Can Bus with Full diagnostic,**
- Motorized lens control unit SC805C ,
- Full diagnostic Head controller EG8010C,
- Integrated piercing sensor,
- Integrated plasma detection sensor,
- Integrated 3 temperature sensor,
- Integrated Lens Break sensor,
- Integrated pressure sensor for detect real cutting pressure,
- Quickchange device for cutting head
- Exchangeable cartridge system for different focal lengths (dia 1,5" lens)
- 5" & 7,5" lens cartridges
- Lens set. 1 piece 5" , 1 piece 7,5"
- Nozzle set of 3 pieces from each 1.0 - 1.2- 1.5 - 1.8 - 2.0 - 2.5 - 3.0 mm
- Optical mirror 1 Set (5 pieces)
- Ceramic part set. 2 pieces

- Positioning laser diode
- Spray device
- Shuttle tables (Automatic palette change system)
- Conveyor belt (Scrap remover)
- Slag car under pallet changer
- Central lubrication
- Illumination for working area
- External Cad/Cam Software with Autonesting
- Nitro-Cut (High pressure cutting)
- Sprint-Cut (Optimisation of cutting-line)
- Air cutting
- O2 Cutting (Low pressure cutting)
- PierceLine
- Progr. Cutting gas selection/pressure setting
- Programmable power cycles
- SmallHole-Cut
- Sharp corner overheat protection (Speed-Power modulation)
- Fast follow property of the head for high precision
- FlyCut
- PowerLost protection (Continue from the same point even after electricity lost)
- Machine up to 43°C ambient temperature
- Multi chamber exhaust system
- Safety devices
- Beam tube ventilation
- Pilot lamp
- Installation of the machine (1 week)
- Operation, programming training
- Maintenance training

SELECTABLES

- 2500W Laser source - Rofin DC 025 Slab laser+CHILLER KLC-S 38-N-DRS
- 3000W Laser source - Rofin DC 030 Slab laser+CHILLER KLC-S 38-T-DRS
- 3500W Laser source - Rofin DC 035 Slab laser+CHILLER KLC-S 38-T-DRS
- 4000W Laser source - Rofin DC 040 Slab laser+CHILLER KLC 50 T-DRS
- 5000W Laser source - Rofin DC 050 Slab laser+CHILLER KLC 63 T-DRS
- Premix laser gas
- Linear Drive for X1,X2,Y1,Y2 axes
- Add.Laser cutting head
- Add. External Software Dongle
- Clamps (5 pcs.) (not with auxiliary pallets)
- Transverse conveyor belt
- Compact dust extractor (Filter) - 2500m³/h (≤12mm MildSteel)
- Compact dust extractor (Filter) - 4000m³/h (>12 mm MildSteel)
- Exhaust air fitting at compact dust extractor
- Tankheating cooling device Laser (if ambient temp≤17°C)
- Laser Service Set
- Transformer 220,440,575V
- Special paint for machine

RESONATORS' MAX CUTTING CAPACITIES
 (RECOMMENDED FOR HIGH QUALITY RESULTS)

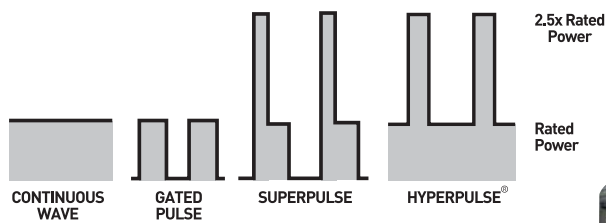


		LASER SOURCES				
		ROFIN CO ₂ SLAB RESONATORS				
		DC 025	DC 030	DC 035	DC 040	DC 050
OUTPUT POWER	Watt	2500	3000	3500	4000	5000
OUTPUT RANGE	Watt	250-2500	300-3000	350-3500	400-4000	500-5000
EXCITATION		RF	RF	RF	RF	RF
WAVELENGTH	_m	10,6	10,6	10,6	10,6	10,6
PULSE FREQUENCY	kHz	5	5	5	5	5
LASER SOURCE GAS TYPES		Premix Gas	Premix Gas	Premix Gas	Premix Gas	Premix Gas
GAS CONSUMPTION	NI/h	<0,15	<0,18	<0,21	<0,25	<0,3
LASER GAS EXCHANGE INTERVAL	h	72	72	72	72	72
COMPRESSED AIR (RESONATOR)	Bar	Min. 5	Min. 5	Min. 5	Min. 5	Min. 5
ASSIST GASES		N ₂ , O ₂ , Air	N ₂ , O ₂ , Air	N ₂ , O ₂ , Air	N ₂ , O ₂ , Air	N ₂ , O ₂ , Air
BEAM DIAMETER (UP TO 10 MT)	mm	≥20<25	≥20<25	≥20<25	≥20<25	≥20<25
BEAM QUALITY FACTOR K		>0,9	>0,9	>0,9	>0,9	>0,9
OUTPUT POWER STABILITY	%	± 2	± 2	± 2	± 2	± 2
POINTING STABILITY	mrad	≤ 0,15	≤ 0,15	≤ 0,15	≤ 0,15	≤ 0,15
POLARISATION		Linear, 45° Hor	Linear, 45° Hor	Linear, 45° Hor	Linear, 45° Hor	Linear, 45° Hor
CONNECT LOAD (RESONATOR ONLY)	Kva	40	45	50	61	75
Construction Steel Max.	mm	15	15	20	25	25
Stainless Steel Max.	mm	8	10	10	12	15
Aluminum Max. (AlMg3)	mm	4	6	8	10	12
KKT KRAUS		KLC-S 38-N-DRS	KLC-S 38-T-DRS	KLC-S 38-T-DRS	KLC-S 38-T-DRS	KLC 63 T-DRS
COOLING CAPACITY AT 40 °C	Kw	40	40	40	60	72
ELECTRIC INPUT	Kw	38	38	38	47	59
FLOWRATE	l/h	5800	5800	5800	5800	7500
COLD WATER OUTLET	°C	20	20	20	20	20

MACHINE TYPE		HD 3015	HD 4020	HD 6020
CUTTING AXES				
X Axis	mm	3000	4000	6000
Y Axis	mm	1500	2000	2000
Z Axis	mm	105	105	105
Max. Sheet Size	mm	3000x1500	4000x2000	6000x2000
Max. Sheet Weight	kg	1250	1500	2400
DYNAMICS				
X Axis	m/min	85	85	85
Y Axis	m/min	100	100	100
Synchronous	m/min	131	131	131
Acceleration	m/s ²	10	10	10
Positional Accuracy	mm	± 0,05	± 0,05	± 0,05
Repeatability	mm	± 0,05	± 0,05	± 0,05
CONTROL UNIT				
CNC		840D,NCU573,5	840D,NCU573,5	840D,NCU573,5
Memory		6MB User RAM Memory	6MB User RAM Memory	6MB User RAM Memory
PC: PCU50.3		PCU50.3, Win XP pro, 2.0GHz Intel Processor, 40 GB HD	PCU50.3, Win XP pro, 2.0GHz Intel Processor, 40 GB HD	PCU50.3, Win XP pro, 2.0GHz Intel Processor, 40 GB HD
Port		2x Ethernet;4xUSB; 1x Profibus	2x Ethernet;4xUSB; 1x Profibus	2x Ethernet;4xUSB; 1x Profibus
Expansion Slots		2xPCI ; 1xCF Card	2xPCI ; 1xCF Card	2xPCI ; 1xCF Card
Screen		15" TFT Colorful Monitor	15" TFT Colorful Monitor	15" TFT Colorful Monitor
LASER CUTTING HEAD				
Type				
Laser Cutting Lenses		1,5" Lens (Kartridge system)	1,5" Lens (Kartridge system)	1,5" Lens (Kartridge system)
Focal Lengths		5" , 7,5" (Optional 10")	5" , 7,5" (Optional 10")	5" , 7,5" (Optional 10")
FILTER				
Type		KEMPER	KEMPER	KEMPER
Capacity	m ³ /h	2500	2500	2500
Pressure	Pa	2500	2500	2500
Filter Efficiency	%	>99,98	>99,98	>99,98
Filter Medium		PTFE Membrane	PTFE Membrane	PTFE Membrane
DIMENSIONS				
Working Area	mm	11000 x 6000	13000 x 6500	16000 x 6500
Machine Width	mm	3700	4200	4200
Machine Height	mm	2000	2000	2000
Total Length	mm	10400	12400	15000
Colors (Protection Sheets)		Ral 7040	Ral 7040	Ral 7040
Colors (Body)		Durma Special	Durma Special	Durma Special

COMPACT LASER

- Cost oriented & Intelligent solutions to todays laser cutting needs
- 2,5 KW CO2 Tribune Laser resonator for High performance & low operating and maintenance cost
- Small footprint
- Quick setup, high performance automatic cutting
- Stres relieved O frame rigid monoblock body
- Parameter interference even during cutting
- No fundamental requirement



- Single enclosure design allowing for ease of integration
- Patented TURBOFLOW ' compressor and lifelong electrodes give laser unprecented internal optic life and provide virtually maintenance free operations
- Superior pulsing characteristics with four distinct pulse modes. Pulsing capabilities allow for fast rise time and up to 2.5 x peak power enhancement for quicker, more consistent Pierce times when cutting
- And industry leading 2 year & Unlimited hour warranty



CONTROL UNIT
Siemens Sinumerik 840D

THE sinumerik 840D Powerline combines CNC, PLC and communication tasks on one NCU module. The NCU 573.5 provides maximum dynamics and accuracy on axis movements and I/O communication for laser machining.

The 840D powerline offers open architecture. This means machine is programmable flexibly according to customer needs.

- Pendant
- 15" TFT Color Display, 1024 x 768 pixels
- 40 GB HDD
- 1 GB SD RAM
- USB Interface for data transmission
- Ethernet interface
- Worldwide 2 years warranty
- Multilanguage user screens
- Laser interface
- Easy load, save, edit, create all cutting parameters
- Automatic cutting parameter loading according to material type and sheet thickness by the program
- Online parameter change even during cutting operation
- Speed-Power modulation in order to get Sharp edges
- Fast-follow , Head follows the sheet with high speed and precision
- Simple user interface parameter page , Power-Speed-Pressure combination
- Special laser cutting options
- Cutting possibility with air

ACCUFOCUS CUTTING HEAD

Non Contact Capacitive Sensor

Accufocus operates as an independent, closed loop control system. The system maintains optical focal point control with "Non Contact capacitive sensor" which allows the tip to accurately follow the contours of the workpiece and cut as quickly and efficiently.

Crash Protection

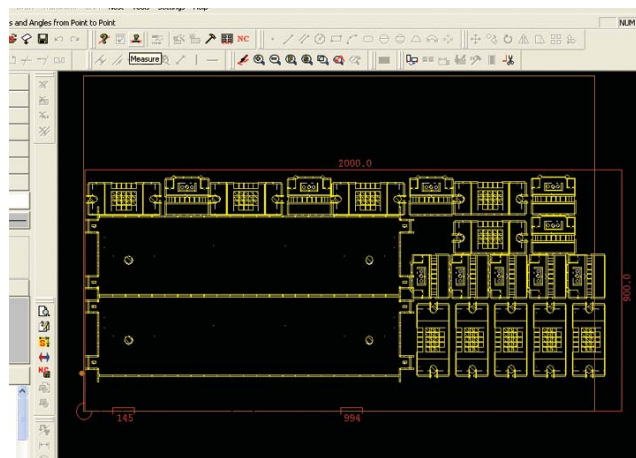
In case of a crash or interference to the head, it is designed with magnetic breakaway and a limit switch shuts down the system.

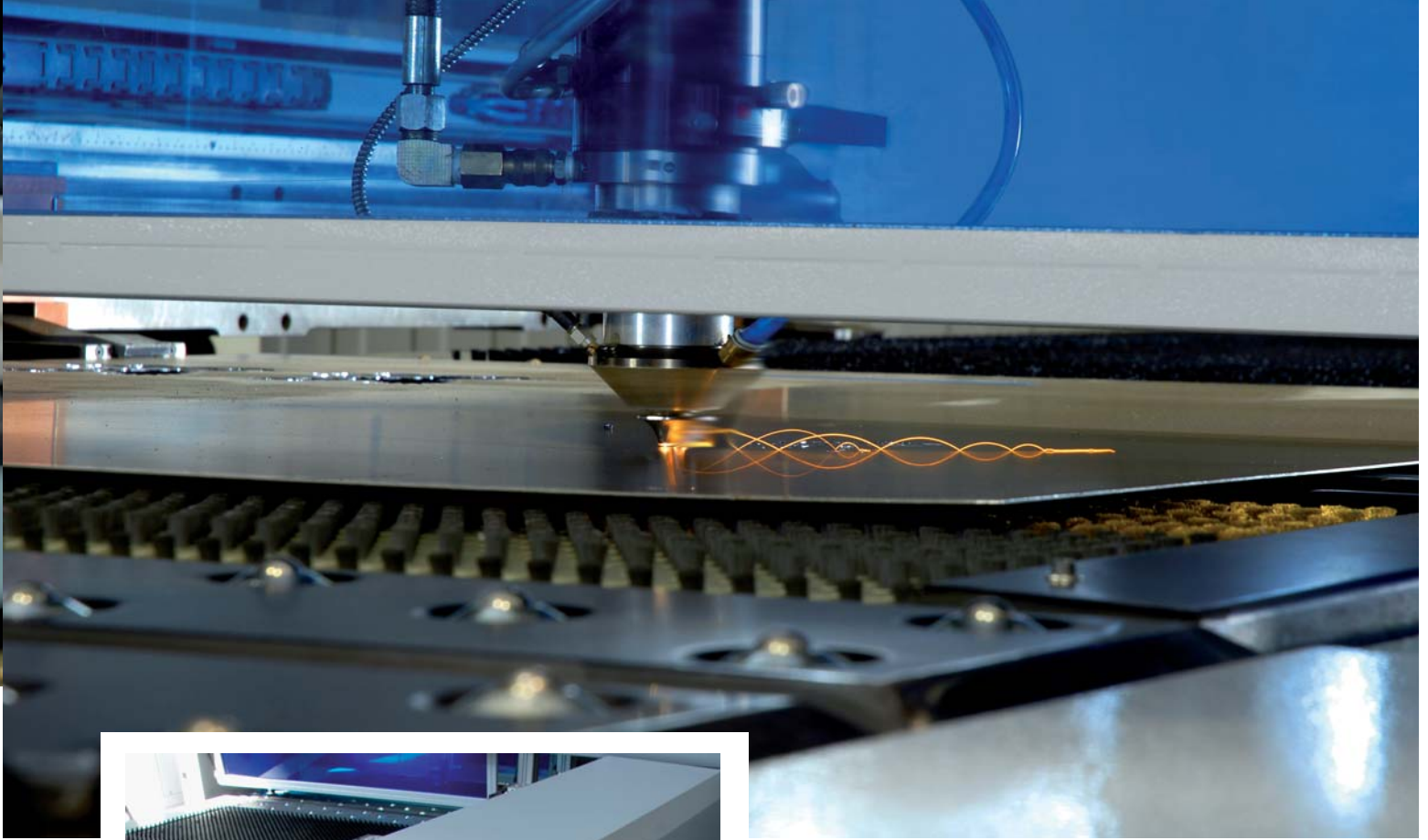


CAD/CAM SOFTWARE

cncKAD offers entire Design to Production cycle covering the complete cycle of CNC operation including

- Drafting
- Processing
- Parametric Programming
- Extensive Application Program Interface
- Auto Nesting
- Interactivity
- Grouping
- Multiple material nests
- Hole filling
- Multiple sheets





TABLE

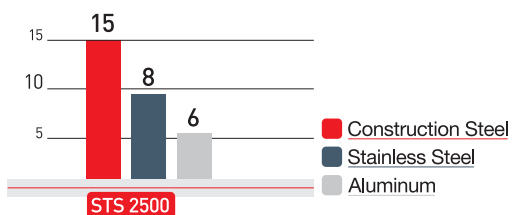
- Brush & ball table
- Temperature resist brass brushes at cutting zone
- Powerful, 3 pieces clamping
- Automatic Clamping system positions on the sheet according to program
- Reposition allows to process sheets longer than machine

Workchute

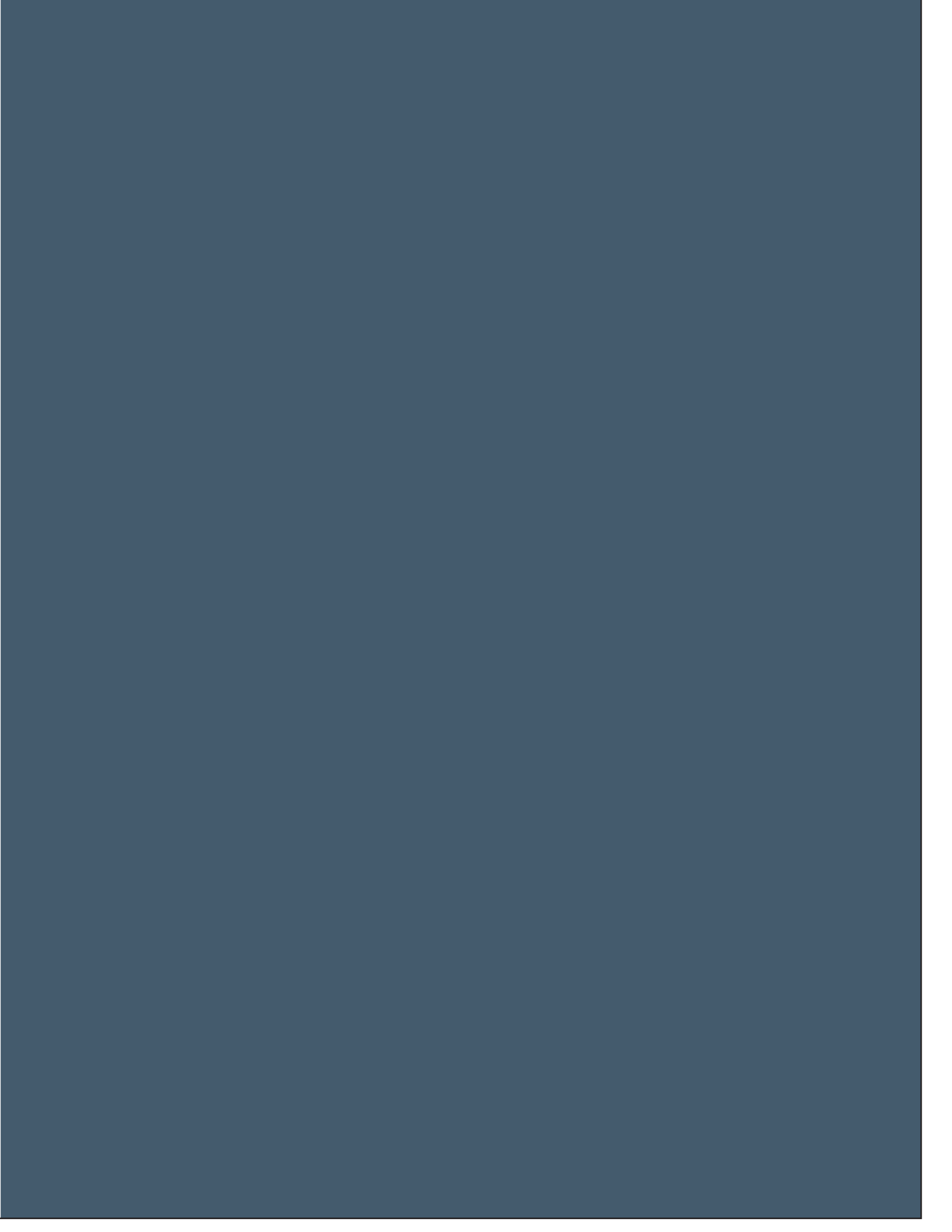
- 50x50 mm to 1250x500 parts can be ejected automatically
- Eliminates non-slipping risk on the table
- The machine configuration and software algorithm allow several parts to be unloaded simultaneously

		PRC LASER AXIAL FLOW RESONATORS
		STS 2500
OUTPUT POWER	Watt	2500
OUTPUT RANGE	Watt	0-2500
EXCITATION		
WAVELENGTH	_m	10,6
PULSE FREQUENCY	kHz	5
LASER SOURCE GAS TYPES		N ₂ ,He,CO ₂
GAS CONSUMPTION	NI/h	25
LASER GAS EXCHANGE INTERVAL	h	
COMPRESSED AIR (RESONATOR)	Bar	Min. 5
ASSIST GASES		N ₂ , O ₂ , Air
BEAM DIAMETER (UP TO 10 MT)	mm	≥20<25
BEAM QUALITY FACTOR K		>0,8
OUTPUT POWER STABILITY	%	± 0,5
POINTING STABILITY	mrad	≤ 0,15
POLARISATION		45° or Ver
CONNECT LOAD (RESONATOR ONLY)	Kva	29.6
Construction Steel Max.	mm	15
Stainless Steel Max.	mm	8
Aluminum Max. (AlMg3)	mm	6
KKT KRAUS		KLC-S 38-N-DRS
COOLING CAPACITY AT 40 °C	Kw	40
ELECTRIC INPUT	Kw	38
FLOWRATE	l/h	5800
COLD WATER OUTLET	°C	20

**RESONATOR'S MAX CUTTING CAPACITIES
(RECOMMENDED FOR HIGH QUALITY RESULTS)**



		HD-C 2512 Compact Laser
CUTTING AXES		
X Axis	mm	2500
Y Axis	mm	1250
Z Axis	mm	180
Max. Sheet Size	mm	2500x1250
Max. Sheet Weight	kg	300
DYNAMICS		
X Axis	m/min	100
Y Axis	m/min	120
Synchronous	m/min	150
Acceleration	m/s ²	10
Positional Accuracy	mm	± 0,1
Repeatability	mm	± 0,05
CONTROL UNIT		
CNC		840D,NCU573,5
Memory		6MB User RAM Memory
PC: PCU50,3		PCU50,3, Win XP pro, 2.0GHz Intel Processor, 40 GB HD
Port		2x Ethernet;4xUSB; 1x Profibus
Expansion Slots		2xPCI ; 1xCF Card
Screen		15" TFT Colorful Monitor
LASER CUTTING HEAD		
Type		Lasermech
Laser Cutting Lenses		1,5" Lens (Kartridge system)
Focal Lengths		5" , 7,5" (Optional 10")
FILTER		
Type		KEMPER
Capacity	m ³ /h	2500
Pressure	Pa	2500
Filter Efficiency	%	>99,98
Filter Medium		PTFE Membrane
DIMENSIONS		
Working Area	mm	6900 x 8000
Machine Width	mm	6160
Machine Height	mm	2100
Total Length	mm	6020
Colors (Protection Sheets)		Ral 7040
Colors (Body)		Durma Special



DURMA

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