



As a total supplier for sheet metal manufacturing with almost 70 years of experience, Durma understands and recognizes the challenges, requirements and expectations of the industry. We strive to satisfy the ever higher demands of our customers by continuously improving our products and processes while researching and implementing the latest technologies

In our three production plants with a total of 150.000 m² we dedicate 1,000 employees to delivering high quality manufacturing solutions at the best performance to price ratio in the market.



PRODUCTION IS NORE EFFECTIVE NOW

From the innovations developed at our Research & Development Center to the technical support given by our worldwide distributors, we all have one common mission: to be your preferred partner.

Durmazlar offers it's machines to the world markets under the Durma brand.





High technology, modern production lines



3 High quality machines designed in R&D Centre

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Top quality components





Fiber Lasers Provide Innovative Solutions

- Perfect results on variety of material
- Efficient and precise cuts on thick and thin material
- Low investment and operating costs
- Modern and compact design
- Fast service with remote control





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Fiber Laser Technologies

Fiber lasers outshine with its fast cutting and energy efficiency abilities when especially its compared to CO2 lasers. Easy use, maintenance and service have been achieved by the high technology of Fiber Lasers. Globally recognized efficient components used in DURMA Fiber Lasers add value to your company.

DURMA Fiber Laser is unrivaled with its rigid body structure, perfect filtration system, compact design, efficiency and user - friendliness.

Rack and Pinion Motion System

Axes motion is achieved by rack and pinion design. There are not any intermediate load transmitting elements between the motor and the pinion which otherwise could cause precision losses. High precision helical racks with low clearance make it possible to achieve very high acceleration (synchronized 28 m/s2), speed (synchronized 170 m/min.) and accuracy (0,03 mm) values.





Fiber Laser Source

Resonator	4.0 kW	6.0 kW	10.0 kW	12.0 kW	15.0 kW	20.0 kW	30.0 kW
Product designation	YLS-4000	YLS-6000	YLS-10000	YLS-12000	YLS-15000	YLS-20000	YLS-30000
Available operation modes	CW, QCW, SM						
Polarization				Random			
Emission wavelength	1070 -1080nm						
Feed fiber diameter	Available in single mode, 50, 100, 200, 300µm						
Ancillary Options	Options Available: Internal coupler, Internal 1x2 beam switch, Internal 50:50 beam splitter, External 1x4 or 1x6 beam switch						
Interface	Standard: LaserNet, Digital I/O, Analog Control Additional Options: DeviceNet or Profibus						
Material (Cutting Capacity)*	YLS 4000 (4kW)	YLS 6000 (6kW)	YLS 10000 (10kW)	YLS 12000 (12kW)	YLS 15000 (15kW)	YLS 20000 (20kW)	YLS 30000 (30kW
Mildsteel (S235)	20 (22) mm	25 mm	30 mm	30 mm	35 (40) mm	40 (50) mm	50 (60) mm
Stainless Steel (304)	10 (12) mm	15 (20) mm	25 (30) mm	25 (30) mm	35 (40) mm	40 (50) mm	50 (60) mm
Aluminium (5083)	12 (15) mm	20 (25) mm	25 (30) mm	30 (40) mm	35 (40) mm	40 (50) mm	40 (50) mm
Copper (CU)	6 mm	10 mm	15 mm	15 mm	15 mm	15 mm	15 mm
Brass (CUZN39 PB3)	10 mm	12 mm	20 mm	20 mm	20 mm	20 mm	20 mm

*Standard cutting parameters.

Factors such as rust, shell formation, paint, label, pitch shifts on the surface, rolling defects, rusts on the surface of the material, affect the black sheet cutting negatively. The top and bottom surfaces of the material to be cut must be clean. The cutting quality and cutting speeds of sandblasted sheets vary.

Low Operating Costs

- Low energy consumption
- Low cost per component
- Optimised focal distance for all thickness values
- Maintenance free operation
- Compact design, fast installation
- Rigid body structure, high durability



Laser Cutting Head

The laser beam generated in the resonator is transmitted to the cutting head via the fiber cable. The cutting head focuses the beam received from the fiber cable onto the processing surface. The type of material to be cut, its thickness, and the quality of the cut are related to the structure of the optical system. With a single type of cutting head, it offers a complete solution by cutting all thicknesses within its capacity, depending on the laser power. It performs cutting at high-quality standards even in the most challenging cuts and thicker materials.

The valuable optics such as lenses and collimators inside the high-pressure resistant automatic cutting head are protected from particles generated during the cutting process by a low-cost protective glass. The solid and dustproof body ensures a long service life.

Efficient

• Motorized automatic focus position adjustment for faster piercing, piercing thick plates, and cutting materials of different thicknesses.

- Precise distance measurement and quick response.
- Status monitoring with LED indicators.

Flexible

- Single focus lens for cutting both thin and thick materials
- Design compatible with high Z-axis dynamics
- Automatic focus position adjustment
- Efficient cutting gas flow

User Friendly & Safe

- Thanks to the protective glasses, a dustproof beam path
- LED status indicators
- Collision protection with ceramic part



Filter

It provides a healthy work environment by absorbing smoke, dust and small particles generated during cutting. The filter output can be delivered directly to the factory atmosphere. Businesses remain clean, healthy workspaces are provided for operators. The vibrating dust collection filter is fully automatic. It starts automatically when cutting starts. It is a compact unit with filter cartridges, integrated fan motor assembly and jet-pulse cleaning system. The dirt status of the filter can be easily seen on the panel. Cartridges make the blasting process automatically according to its dirt status.



Chiller

It is a device that provides cooling for the resonator and the optics in the cutting head. It features a water-based cooling system. Thanks to the dual-chamber system, cooling water at different temperatures is delivered to the optics and the laser power supply according to their needs.



Higher Acceleration on Z-Axis

Lighter and strongly rigid bridge does not allow it to vibrate at high speed and obtain high accurate cutting geometry.

During the construction of the bridge all kind of deformations analyzed and prevented.



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Shuttle Table

Servo controlled shuttle table system applied to HD-F 3015 (Standard) and HD-F 4020 (Option) series machines reduces the changeover times by 40%.

The shuttle table is fully automatic and maintenance free on all machines. Hydraulic oil is not used and changing the table is fast, soft and has low energy cost.



Multi Chambers High Efficient Suction System

With the multi chambers high efficient system offers the ability to make an equal amount of suction during the cutting operation of the whole machine cutting area.



Scrap Conveyor

In the 3015 model, a conveyor running along the machine that carries scrap parts to a scrap box located at the back of the machine is standard. As an option, there is a horizontal conveyor system available instead of this scrap box. In this system, scraps coming from the large conveyor are transferred to a smaller scrap box via a short conveyor.

This ensures the quickest removal of scrap parts from the working area without stopping the cutting process. The conveyor running along the 3015 machine prevents potential part jams with its jam detection and reverse winding features.





3015 Option

Automatic Nozzle Changer (Option)

Automatic nozzle change feature consists of 26 stations. Before starting cutting, the cutting head replaces the existing nozzle with the one that is suitable for cutting, cleans and calibrates and starts cutting. It also monitors nozzle life.

Durma Auto Nozzle Centering (Option)

Durma Auto Nozzle Centering is the process of bringing the laser beam to the nozzle center in order to obtain smooth and quality cuts. For this purpose, a camera is placed on the machine. With this camera, the real time position of the laser beam is detected. If the beam is not on the nozzle center then it is automatically adjusted to the center with the 'Durma Auto Nozzle Centering' application.







Bevel Head ± 45 ° (Option)

Bevel Head for vertical and bevel cuts from 0 $^{\circ}$ to 45 $^{\circ}$. Optimal results provided through the combination of 5 axis interpolation and software . Positive and negative bevel angles in one part.



D-MIX GAS (O2-N2) (Option)

Cutting mildsteel metal is typically done using high-power lasers with a mix gas. This process is performed using a gas mixture consisting of nitrogen and oxygen.

Using a mix gas offers several advantages

- Better cutting results
- Reduction of burrs by 40-70% in medium and thicker mildsteel



Control Panel

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

- Sinumerik 840 D SL
- IFP1900 19" Touch Screen
- IPC427 E Intel İ5-6442EQ
- 8GB SD Ram DDR3WIN10/SSD 240 GB Ethernetx3
- USBx4
- PCI x1
- CF Card
- DPP

Durma Cloud

Durma Cloud ensures that machines are accessible and inspectable. It stores machine data and allows for its reuse. Advantages include preventive maintenance, calculation of operating vs. downtime and efficiency, real-time status of your machine, remote monitoring without having to visit the machine, generating reports on cut parts, obtaining historical reports by date range, and reviewing error messages and causes. An additional optional feature is cloud file transfer, allowing users to send nested cutting files directly to the machine via the internet. The operator only needs to select the program and press start.

CAD/CAM Software

These are CAD/CAM software specifically designed to automate CNC programming for sheet metal laser cutting machines. They create the most efficient nestings for sheet processing and prepare cutting programs.

- Advanced optimizations
- Fastest cutting and idle motion path calculations to protect the cutting head ceramic parts and prevent sheet deformation
- Real font styles: Fonts supported by the operating system can be directly applied to the material being cut.
- Cutting direction can be clockwise or counterclockwise.
- Advanced corner applications provide perfect corners and high-quality cuts.
- Common Cutting: This feature is especially useful for thick plates and reduces the need for piercing during cutting.







D-WISE / LANTEK









	3015	4020	6020	6025	
X Axis	3100	4100	6100	6100	mm
Y Axis	1525	2070	2070	2570	mm
Z Axis	160	185	185	185	mm
Max. Sheet Size	3048 x 1524	4064 x 2032	6096 x 2032	6096 x 2540	mm
Max. Sheet Weight (Single Table)	320	320	320	240	kg/m ²
		HD-F	3015		
Max. Speed X Axis		12	20		m/min.
Max. Speed Y Axis	Max. Speed Y Axis 120				m/min.
Max.Synchronized Speed (X-Y) 170				m/min.	
Max. Synchronized Acceleration 28				m/s²	
Positioning Tolerance	Positioning Tolerance ±0,03				mm
Repeatability		±0,	.03		mm

DURMA







- Effective Price and Performance
- Suitable for Increasing Competition
- Laser power up to 20 kW
- High Sensitivity
- Easy to Use and User Friendly
- Easy to Programmable
- Low Operating Cost

			(Single Table)	
	3015	4020	6020	
X Axis	3100	4100	6100	mm
Y Axis	1525	2070	2070	mm
Z Axis	125 (270)	125 (270)	125 (270)	mm
Max. Sheet Size	3048 x 1524	4064 x 2032	6096 x 2032	mm
Max. Sheet Weight (Single Table)	240 / 400	240 / 400	240 / 400	kg/m ²
		HD-FN 3015		
Max. Speed X Axis		100		m/min.
Max. Speed Y Axis		100		m/min.
Max.Synchronized Speed (X-Y) 141				m/min.
Max. Synchronized Acce	leration	14		m/s2
Positioning Tolerance		±0,05		mm
Repeatability		±0,05		mm



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HD-FO FIBER LASER





SPECIFICALLY DESIGNED ACCORDING TO LAYOUT



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HD-FO FIBER LASER

HD-FO Technical Data				
			_	
Cutting Axes				
X Axes	1530		mm	
YAxes	3060		mm	
Z Axes	140		mm	
Max. Sheet Dimensions	3.048 x 1.524		mm	
Max. Sheet Weight	730		kg	
Dynamics				
Max. Speed X Axis	90		m/dak.	
Max. Speed Y Axis	90		m/dak.	
Max. Speed Z Axis	30	m/dak.		
Max. Synch (X-Y)	127	m/dak		
Max. Synch Acceleration	14		m/s ²	
Positioning Tolerance	±0,05		mm	
Repeatability	±0,05		mm	
Control Unit				
CNC		BOSCH REXROTH		
Screen		18.5" Touch Screen		
Laser Cutting Head				
Туре		Durma		
Focal Distance (mm)		150		
Focal Type		Automatic		
Material Cutting Thichness (m	m)			
Material	3000 (3kW)	4000 (4kW)	6000 (6kW)	
Mildsteel (S235)	16	20	20	
Stainless Steel (304)	8	10	15	
Aluminium (5083)	8	12	20	
Copper (CU)	5	6	10	
Brass (CUZN39 PB3)	8	10	12	

MANUAL CUTTING TABLE

The machine is designed especially for customers who have layout problems. Sheet loading and unloading is extremely easy in cases where no shuttle table is needed.



COMPACT, MODERN AND ERGONOMIC LAYOUT

Helping of the compact layout of the machine, sheet loading, cutting and unloading operations are performed by using less space and less operations.



PNEUMATIC SHUTTLE TABLE (Option)

As standard there is a manual cutting table. Optionally, with your 1 or 2 KW power source order, you can get a pneumatic shuttle table.



EASY ACCES TO CUTTING AREA WITH BACK DOOR

Rear door for use when cutting is required. This rear door is also used during machine maintenance



HD-FA 5 AXIS LASER





THE 5 AXIS FIBER LASER SYSTEM FOR AUTOMOTIVE AND AEROSPACE INDUSTRY

DURMA 5 axis fiber laser system will be your best partner for automotive and any other high-sense and 3D complex part production. +%25 increased processing space due to same concept machines. For gratify cutting performance, strong machine frame and rotary table provide best quality.







HD-FA TECHNICAL SPECIFICATION	S				
X Axis Stroke	3.000 mm				
Y Axis Stroke	1.500 mm				
Z Axis Stroke	650 mm				
B Axis	±135°				
C Axis	±360°xn				
Max. Synchronous Speed	173 m/min.				
Max. Synchronous Accelaration	1,73 G				
Positional Accuracy	±0.08 mm				
Repeatability	±0.08 mm				
MACHINE SIZES					
Machine Size	6168 mm x 3936	mm h= 3700 mm			
Working Area	9.000 mm x 10.00	0 mm (Secure Are	a)		
Rotary Table's Door Length	4.000 mm				
Machine Weight	16.000 kg				
CUTTING THICKNESS (mm)					
Power	2 kW	3 kW	4 kW		
Mild Steel (mm)	12	16	20		
Stainless (mm)	6 8 10				
Aluminum (AIMg3) (mm)	6	8	12		
Brass (mm)	6	8	10		
Copper (mm)	3 5 6				
CUTTING HEAD					
Туре	3D				
Focus	Automatic				
CONTROL UNIT					
CNC	SIEMENS SINUMERIK 840D SL				
Screen	19" Touch Panel				
FILTER					
Capacity	2.500 m³⁄h - 4∣	kW			
CHILLER					
Chiller for 2 kW	IPG LG 71				
Obillar far 0 LM	IPG I G 170				
Chiller for 3 kW	IPG LG 170 IPG LG 171				





SPECIAL APPLICATIONS Turkey's Biggest and Fastest Laser



HD-F 20030

Cutting Length 20.000 mm Cutting Width 3.000 mm Power 20 kW

Bevel +/- 45° Cutting Option

01108

BURIN

HD-F 20030

	HD-F 20030 Tech	nical Data
Axis165 mmlax. sheet size20090 x 3048 mmAxis max. speed60 m/min.Axis max. speed60 m/min.Axis max. speed30 m/minY Axes synch. speed85 m/minY Axes synch. accelaration14 m/s²ositioning tolerance0.05 mm	Axis	20100 mm
tax. sheet size 20090 x 3048 mm Axis max. speed 60 m/min. Axis max. speed 60 m/min. Axis max. speed 30 m/min. -Y Axes synch. accelaration 14 m/s ² ositioning tolerance 0.05 mm	Axis	3070 mm
Axis max. speed60 m/min.Axis max. speed30 m/min.Axis max. speed85 m/minY Axes synch. accelaration14 m/s²ositioning tolerance0.05 mm	Axis	165 mm
' Axis max. speed 60 m/min. 2: Axis max. speed 30 m/min. 3: C-Y Axes synch. speed 85 m/min. C-Y Axes synch. accelaration 14 m/s ² Positioning tolerance 0.05 mm	lax. sheet size	20090 x 3048 mm
Z Axis max. speed 30 m/min. K-Y Axes synch. accelaration 14 m/s ² Positioning tolerance 0.05 mm	KAxis max. speed	60 m/min.
K-Y Axes synch. speed 85 m/min. K-Y Axes synch. accelaration 14 m/s ² Positioning tolerance 0.05 mm	/ Axis max. speed	60 m/min.
A-Y Axes synch. accelaration Positioning tolerance	Z Axis max. speed	30 m/min.
Positioning tolerance 0.05 mm	K-Y Axes synch. speed	85 m/min.
	X-Y Axes synch. accelaration	14 m/s ²
	Positioning tolerance	0.05 mm

Automatic Loading – Unloading Units Solutions For Your Process

- Manual loading-unloading systems
 Semi automatic loading-unloading systems
- Automatic loading-unloading systems



M-LOADER 3015 / 4020		
Technical Data	3015	4020
Sheet Length (Max.)	3000 mm	500 - 4000 mm
Sheet Width (Max.)	1500 mm	500 - 2000 mm
Sheet Thickness	10 mm	6 mm
Max. Loading Capacity	360 kg	450 kg
Vacuum Pad Qty.	6 sec.	8 pcs.
Rotation angle (Max.)	260°	260°
CONSUMPTION VALUES		
Electricity	0.5 kW	0.5 kW
Compressed Air	3 m³/sa - 7 bar	3 m³/sa - 7 bar

Technical Data 3015 4020 Sheet Length (Max.) 500 - 3000 mm 500 - 4000 mm Sheet Width (Max.) 500 - 1500 mm 500 - 2000 mm Sheet Thickness 0,5 - 25 mm 0,5 - 25 mm Max. Loading Capacity 900 kg 1600 kg Vacuum Pad Qty. 12 pcs. 18 pcs. Total Cycle Time 60-75 sn. (depends on loading height) 60-85 sn.(depends on loading height) Working Area 4200 x 4100 mm h=2260 mm 5500 x 5400 mm h=2720 mm Rotation angle (Max.) 90° 90° Electricity 3 kW 4 kW	D-LOADER 3015 / 4020		
Sheet Width (Max.)500 - 1500 mm500 - 2000 mmSheet Thickness0,5 - 25 mm0,5 - 25 mmMax. Loading Capacity900 kg1600 kgVacuum Pad Qty.12 pcs.18 pcs.Total Cycle Time60-75 sn. (depends on loading height)60-85 sn. (depends on loading height)Working Area4200 x 4100 mm h=2260 mm5500 x 5400 mm h=2720 mmRotation angle (Max.)90°90°Shetticity3 kW4 kW	Technical Data	3015	4020
Sheet Thickness0,5 - 25 mm0,5 - 25 mmMax. Loading Capacity900 kg1600 kgVacuum Pad Qty.12 pcs.18 pcs.Total Cycle Time60-75 sn. (depends on loading height)60-85 sn.(depends on loading height)Working Area4200 x 4100 mm h=2260 mm5500 x 5400 mm h=2720 mmRotation angle (Max.)90°90°Liectricity3 kW4 kW	Sheet Length (Max.)	500 - 3000 mm	500 - 4000 mm
And the constructionConstructionConstructionMax. Loading Capacity900 kg1600 kgVacuum Pad Qty.12 pcs.18 pcs.Total Cycle Time60-75 sn. (depends on loading height)60-85 sn.(depends on loading height)Working Area4200 x 4100 mm h=2260 mm5500 x 5400 mm h=2720 mmRotation angle (Max.)90°90°Electricity3 kW4 kW	Sheet Width (Max.)	500 - 1500 mm	500 - 2000 mm
Vacuum Pad Qty.12 pcs.18 pcs.Total Cycle Time60-75 sn. (depends on loading height)60-85 sn.(depends on loading height)Working Area4200 x 4100 mm h=2260 mm5500 x 5400 mm h=2720 mmRotation angle (Max.)90°90°Electricity3 kW4 kW	Sheet Thickness	0,5 - 25 mm	0,5 - 25 mm
Total Cycle Time60-75 sn. (depends on loading height)60-85 sn.(depends on loading height)Working Area4200 x 4100 mm h=2260 mm5500 x 5400 mm h=2720 mmRotation angle (Max.)90°90°Electricity3 kW4 kW	Max. Loading Capacity	900 kg	1600 kg
Working Area 4200 x 4100 mm h=2260 mm 5500 x 5400 mm h=2720 mm Rotation angle (Max.) 90° 90° Electricity 3 kW 4 kW	Vacuum Pad Qty.	12 pcs.	18 pcs.
Rotation angle (Max.)90°90°Electricity3 kW4 kW	Total Cycle Time	60-75 sn. (depends on loading height)	60-85 sn.(depends on loading height)
Electricity 3 kW 4 kW	Working Area	4200 x 4100 mm h=2260 mm	5500 x 5400 mm h=2720 mm
	Rotation angle (Max.)	90°	90°
Compressed Air 6 m³/sa7 bar 10 m³/sa7 bar	Electricity	3 kW	4 kW
	Compressed Air	6 m³/sa7 bar	10 m³/sa7 bar



DURMA RAPID SERVER 3015 / 4020 (H	Н Туре)		
Technical Specifications	3015	4020	6020
Min. Sheet Size	1000 - 1000 mm	1000 - 1000 mm	1000 - 1000 mm
Length	1000, 1500, 2000, 2500, 3000 mm	1000, 1500, 2000, 2500, 3000, 3500, 4000 mm	1000, 1500, 2000, 2500, 3000, 3500, 4000, 6000 mm
Width	1000, 1250, 1500 mm	1000, 1250, 1500, 2000 mm	1000, 1250, 1500, 2000 mm
Thickness	0,5 - 25 mm	0,5 - 25 mm	0,5 - 25 mm
Max. Sheet Size	3050 x 1525 mm	4064 x 2032 mm	6096 x 2032 mm
Max. Loadable Sheet Loading Weight	5000 kg	6000 kg	9000 kg
Max. Sheet Loading Height	250 mm	250 mm	250 mm
Cycle Time	50 sec.	60 sec.	80 sec.
Dual Sheet Sensor	yes	yes	yes
Sheet Separation System	yes	yes	yes
		TTTTTTTTTTTT	



DURMA RAPID TOWER 3015 / 40	020 / 6020 (H Type)		
Technical Specifications	3015	4020	6020
Min. Sheet Size	1000 - 1000 mm	1000 - 1000 mm	1000 - 1000 mm
Length	1000, 1500, 2000, 2500, 3000 mm	1000, 1500, 2000, 2500, 3000,3500, 4000 mm	1000, 1500, 2000, 2500, 3000,3500, 4000, 6000 mm
Width	1000, 1250, 1500 mm	1000, 1250, 1500, 2000 mm	1000, 1250, 1500, 2000 mm
Thickness	0,5 - 25 mm	0,5 - 25 mm	0,5 - 25 mm
Max. Sheet Size	3050 x 1525 mm	4064 x 2032 mm	6096 x 2032 mm
Max. Sheet Metal Loading Weight That Can Be Loaded On The Pallet	3000 kg	4000 kg	5000 kg
Pallet Numbers	10	10	10
Total Loadable Sheet Weight	30000 kg	40000 kg	50000 kg
Max. Sheet Loading Height	85 mm	85 mm	85 mm
Cycle Time	50 sec	60 sec	80 sec
Dual Sheet Sensor	yes	yes	yes
Sheet Separation System	yes	yes	yes
Electric Power	23 kW	38 kW	40 kW
Compressed Air	1.400 lt/dk - 7 bar	1.400 lt/dk - 7 bar	1.400 lt/dk - 7 bar



SPECIAL APPLICATIONS



Industrial Machines









FAST ON SERVICE AND SPARE PARTS

DURMA provides the best level of service and spare parts with qualified personnel and spare parts in stock. Our experienced and professional service personnel are always ready at your service. Our professional training and application enriched courses will give you an advantage to use our machinery.



Product Groups

































- **Durma International**
- durmainternational
- durmaint



durmamachines Durmazlar





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