

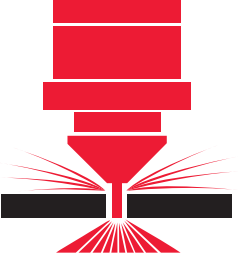
AVRASYA

Metal Cutting & Bending Solution



www.avrasyaexport.com

R-2404-TR

 **FIBER LASER**



TASARIM AVANTAJLARI

Design advantage

Fiber Lazer Makinesi, optik teknolojisi sayesinde 2 boyutlu sac keserken yüksek hızlı performans elde edebilmektedir. Çeşitli kesme modları ve iyi bilinen fiber lazer kaynağı ile donatılmıştır. Kullanıcı dostu bir ekipmanla donatılmış bir makine ile kolay taşıma ve kurulum sağlayan iyi düşünülmüş bir tasarım. X, Y ve Z eksenlerinde elde edilen hız önemli ölçüde artırılmıştır. Kesim hassasiyeti ile birlikte hızlı bir yatırım getirisi sağlar.

Through optic technology, Fiber Laser Machine is able to achieve High Speed performance while cutting 2 D sheet metal. Equipped with various cutting mode and well know fiber laser source, Fiber laser can easily cut challenging parts. A well thought design that allows easy transport and installation with a machine equipped with a user friendly equipment. Speed achieved on X, Y, and Z axis are significantly satisfying and allow a fast return on investment combined with cutting preciseness.

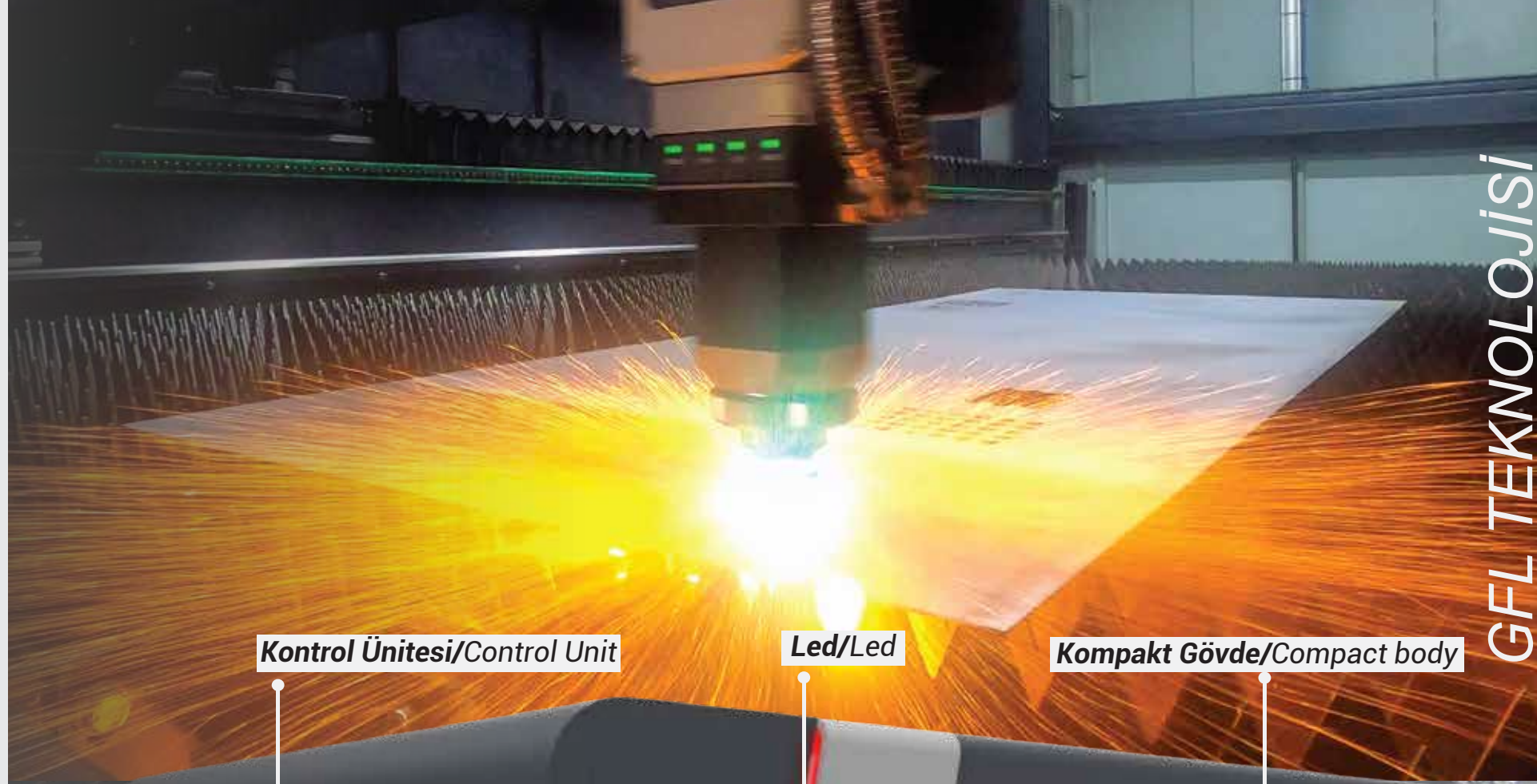
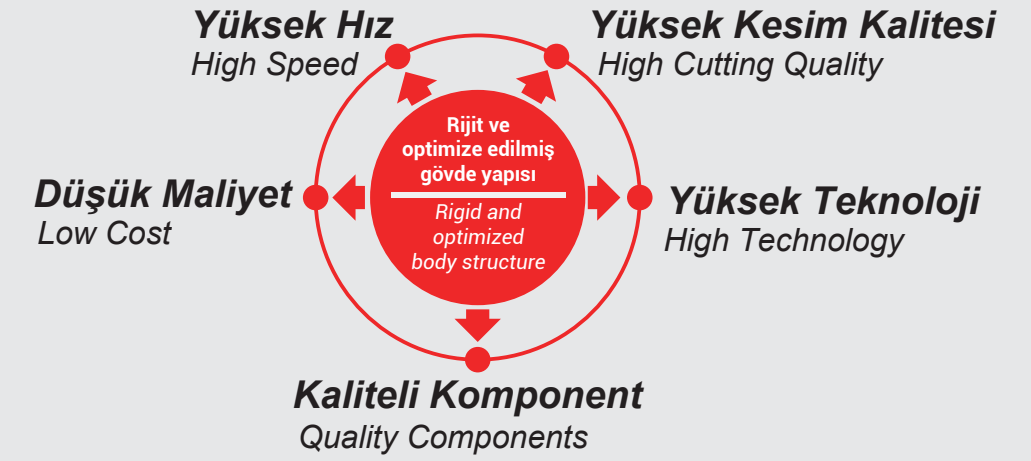
Gövde yapısı kullanıcı ihtiyaçları göz önünde bulundurularak tasarlanmış ve üretilmiştir. Gerilim azaltıcı sağlam gövde yapısı ve uzay geometrisi ile tasarlanmış köprü ile makine yüksek ivmelenmektedir. Kesim sonucu oluşan kirli dumanın emilmesini kolaylaştırmak için altı adet aspirasyonlu pnömomatik bölme bu modelde de mevcuttur.

Body frame was deigned and manufactured regarding user need. With a stress relief robust body structure and a bridge designed with space geometry, the machine is ready to encounter high acceleration.

Kesme işlemi sırasında düşen küçük parçalar, çıkarılması kolay uygun tekerlekler üzerine monte edilmiş altı adet cüruf çekmecesinden çıkarılabilmektedir. Makine, kesme işleminden kaynaklanan tüm dumanı toplayabilen bir aspirasyon sistemi ile çalışacak şekilde uyarlanmıştır.

Six aspiration pneumatic compartment are also available on this model to facilitate the suctions of polluted fume resulting from cutting. Small part that fall during the cutting process can be found in one of the six scrap boxes mounted on suitable wheels that are easy to remove. The machine is adapted to work with an aspiration system that can collect all the fume resulting from

FİBER LAZER AVANTAJLARI



Kontrol Ünitesi/Control Unit

Led/Led

Kompakt Gövde/Compact body

FSCUT CNC KONTROLÖR Control unit FSCUT



FSCUT, 1.5-60 KW güç kesimi için geçerli olan uygun maliyetli bir lazer kontrol sistemidir. Hareket kontrolü, lazer kontrolü ve gaz kontrolünü entegre eden EtherCAT'e dayalı olarak, metal levha için yaygın olarak uygulanır.

FSCUT is a cost-effective laser control system applies to 1.5-60 KW power cutting. Based on EtherCAT, integrating motion control, laser control, and gas control, it widely applies to metal sheet.

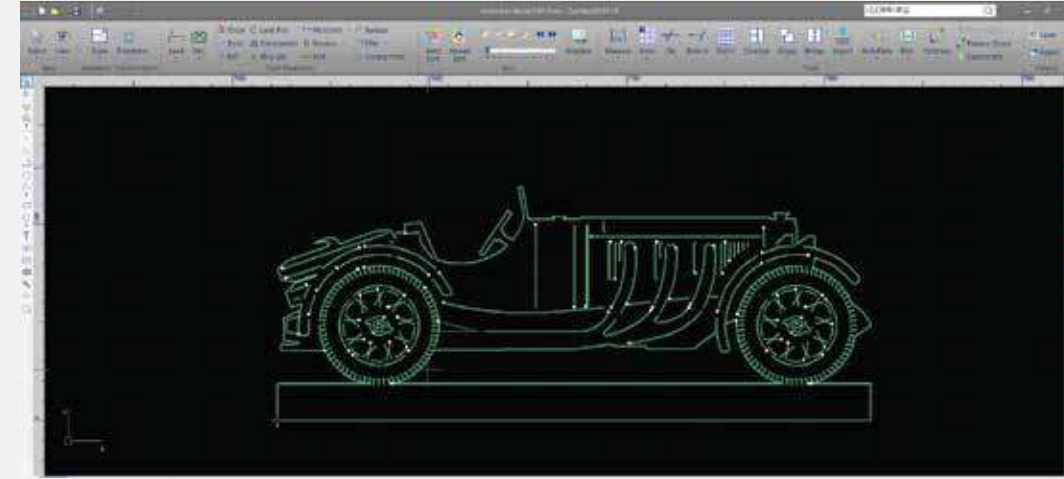


■ Manuel CNC el kumandası / Remote control
Manuel el çarkı, işi operatör için daha kolay hale getirir.
Manual handwheel makes work easier for the operator.

Avantajlar Advantages

- **Gelişmiş Donanım, Sınıfının En İyisi**
Advanced Hardware, Best in Class
- **Yüksek Hız, Yüksek Hassasiyet ve Üstün İşleme Teknolojileri**
High Speed, High Precision and Superior Processing Technologies
- **Gelişmiş Uzaktan Erişim ve Kontrol Kolaylığı**
Advanced Remote Access and Ease of Control
- **Yüksek Güvenlik ve Kolay Bakım İmkânı**
High Security and Easy Maintenance
- **Windows Tabanlı İşletim Sistemi ile Kullanım Kolaylığı**
Ease of Use with Windows Based Operating System
- **Basınçlı Hava ile Kesim: Hız ve Maliyet Avantajı**
Cutting with Compressed Air: Speed and Cost Advantage

YAZILIM/Software Cypnest





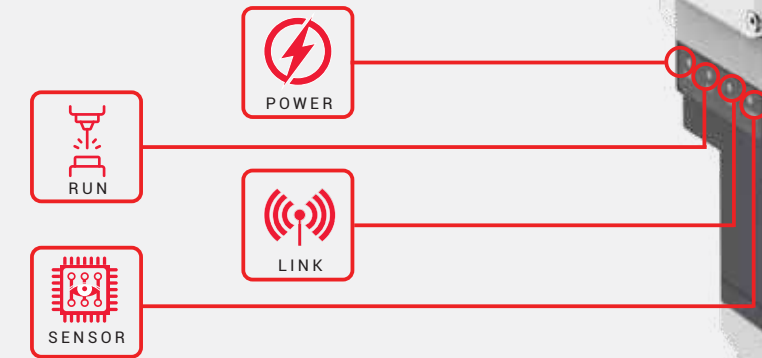
Stabil ve Verimli Kesim İşlemi Stable and Efficient Cutting Process

LED GÖSTERGELER

Lazer kafa üzerindeki ledler; iletişimin, sensörlerin, gücün doğru çalıştığının bilgisini bize vermektedir.

LED INDICATORS

LEDs on the laser head; communication, The sensors provide information that the power is working correctly.



İleri teknoloji ile donatılmış, yüksek performansı uygun maliyetle birleştiren bir kesim çözümü sunuyor.

EKİPMANLAR/EQUIPMENT



LAZER REZONATÖR

Yüksek elektro - optik dönüşüm verimliliği, iyi ışın kalitesi, yüksek enerji yoğunluğu, geniş modülasyon frekansı, güçlü güvenilirlik, uzun ömür ve bakım gerektirmeyen çalışma avantajlarına sahiptir

It has the advantages of high electro-optical conversion efficiency, good beam quality, high energy density, wide modulation frequency, strong reliability, long life, and maintenance-free operation



CHILLER

CNC kontrol ünitesi ile sürekli haberleşen chiller, lazer ve kesim kafası için en uygun çalışma ısısını sağlamaktadır.

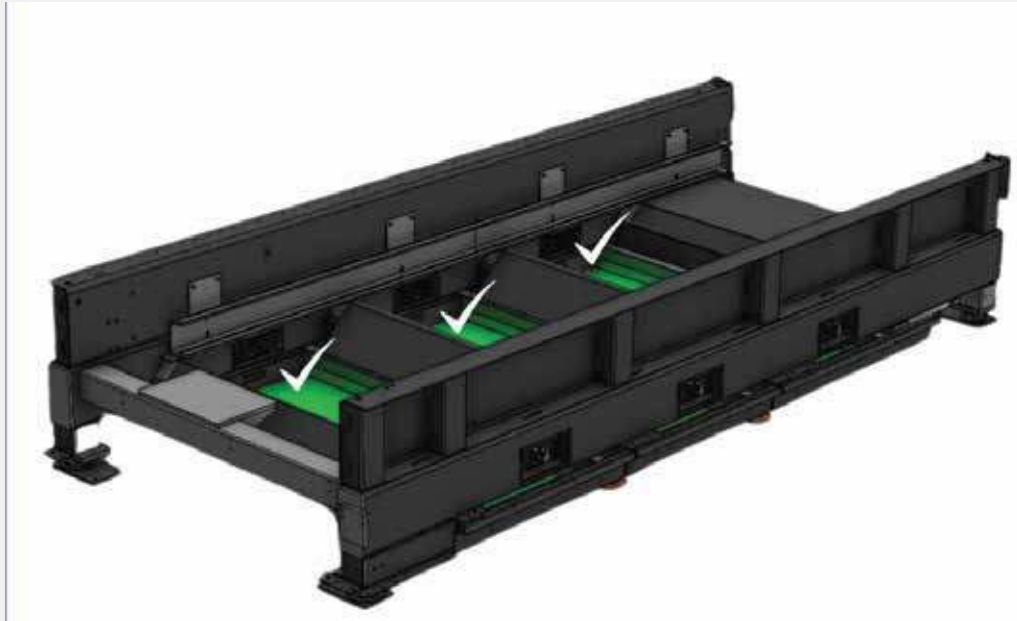
The chiller, which continuously communicates with the CNC control unit, ensures the



Performanslı Z eksenini/Performant Z axis

Ganty fiber lazer Z eksenini, 1 G hızına ulaşacak şekilde tasarlanmış ve yapılandırılmıştır. Z eksenini, kesim hassasiyetini korurken yüksek ivmeyi de rahatlıkla kaldırabilir. Rakiplerinin önünde olan GFL modelindeki Z eksenini, 350 mm strok uzunluğuna sahiptir.

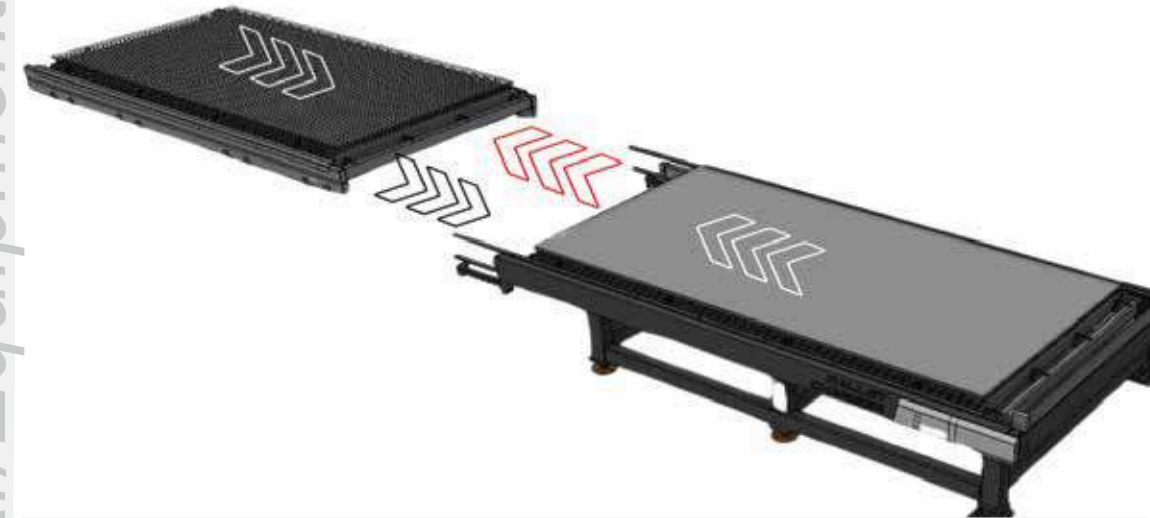
The fiber laser Z axis is designed and configured to reach a speed of 1 G. The Z axis can handle high acceleration while maintaining cutting accuracy. Ahead of its competitors, the Z axis on the GFL model has a stroke length of 350 mm.



Kompakt Kaynaklı Çerçeve/Compact Welded Frame

Yüksek kaliteli çelik seçiminin ardından kaynak sanatı ile çerçeve gerilim giderme işleminden geçer. Kalan parçaların işlenmesi çok hassas 5 eksenli portal freze delme makinesinde yapılır. Elde edilen nihai çerçeve rijit, ergonomik ve köprünün yüksek hızlı yer değiştirmelerine karşı oldukça dayanıklıdır.

From choosing high quality steel, followed by a welding art, The frame passes through stress relief process. The remaining machining of the parts is made on very precise 5 axis portal milling boring machine. The obtained final frame is rigid, ergonomic and highly resistant to high speed displacements of the bridge.



VERİMLİLİK/PRODUCTIVITY

DÜŞÜK ENERJİ TÜKETİMİ/LOW ENERGY CONSUMPTION

Tasarımından gelen avantajlar sayesinde emsallerine göre %35'e varan enerji tasarrufu sağlanmaktadır.

Thanks to the advantages of the GFL design, it provides up to 35% energy savings compared to its peers.

LED AYDINLATMA /LED LIGHTING

Makinada sürekli açık olan iç ve dış aydınlatmalar düşük tüketimli ve uzun ömürlü ledlerle yapılmaktadır.

The internal and external lightings that are constantly on in the machine are made with low-consumption and long-lasting LEDs.

EKO MOD İLE GAZ TASARRUFU/GAS SAVING WITH ECONOMIC MODE

Programda ekonomik ve fast mod olmak üzere iki ayrı mod bulunmaktadır. Fast mod en kısa kesim zamanına odaklanmakta ekonomik modda ise boştaki hareketlerden kaçınır.

There are two separate modes in the program: economic and fast mode. Fast mode focuses on the shortest cutting time, while economic mode avoids idle movements.

ZAMANDAN TASARRUF/TIME SAVING

Makine kullanımı toplu komut kullanım seçenekleriyle kolaylaştırılmış, bu da program üzerinde geçirilen süreyi oldukça kısaltmaktadır. Programı bir çok dile uyarlamak ve bunlar arasında geçiş yapmak oldukça kolaydır.

Machine use is facilitated with batch command usage options, which significantly shortens the time spent on the program. It is quite easy to adapt

NOTES

FIBER LASER		GFL-3015		GFL-4020		GFL-6020							
Assist Gases Destek Gazları		Oxygen, Nitrogen, Compressed Air											
Resonator Power		w	3000	6000	8000	12000	15000 20000						
Fiber Core Diameter Lazer Core Çapı		µm	75	75	100	100	100 100						
Maximum Cutting* Thicknesses Maksimum Kesim* Kalınlıkları	Mild Steel Siyah Saç (O2)	mm	16	25	25	30	35-40 35-40						
		mm	8	15	20	25	30-35 30-35						
	Aluminium Alüminyum (N2)	mm	8	15	20	25-30	30-35 30-35						
	Copper Bakır (O2)	mm	4	8	12	15	15-20 15-20						
	Brass Pirinç (N2)	mm	5	10-12	10-15	15-20	20 20						
Net Cutting Net Kesim Ebatları		mm	1530x3050	2040x4050	2040x6050								
X,Y Axis Drive System X,Y Eksen Konumlandırma Sistemi		Rack and Pinion		Kremayer ve Pinyon									
Z Axis Drive System Z Eksen Konumlandırma Sistemi		Direct Drive Ball Screw		Vidalı Milli Sürücü									
Z Axis Drive Stroke Z Eksen Tahrik Stroku		mm	350										
Maximum Simultaneous X,Y Axis Maksimum Eşzamanlı X,Y Eksenleri Hızı		m/dk	140										

PIPE PROFILE LASER CUTTING MACHINE



PIPE PROFILE LASER CUTTING MACHINE

DESIGN ADVANTAGES

- Precise Cutting and Compression*
- Energy Savings*
- User friendly*
- Economic*
- Flawless*



Pipe Profile Laser Cutting Machine

The FTL and E-FTL are specifically designed for metal pipe processing. Their semi-automatic loading system reduces operator workload and increases production efficiency. The optional bevel cutting option allows for precise cuts at various angles. The machine is capable of fast and precise cutting on metal pipes of varying diameters and lengths. Its operator-friendly interface and safe operating system optimize production processes.



Laser Cutting Head BOCI

The Boci Pipe Cutting Laser Head is a high-performance laser head specifically developed for pipe and profile cutting applications. It is capable of precise and fast cutting of round, square, rectangular, and special-section profiles. Its compact and rigid body design ensures stable operation even at high speeds. Its auto-focus system allows for quick switching to different wall thicknesses and cross-sections. Its advanced dust protection structure, optimized gas flow channels, and high-temperature optical components ensure long-lasting and stable performance. These features ensure high precision, cutting quality, and production efficiency.



INOVANCE Motor and Drive



Inovance's servo motor and motor driver stand out with their high precision and fast response time. The servo motor provides the precise movements required for pipe cutting and ensures maximum accuracy in repetitive positioning. The motor driver optimizes motor performance, precisely manages speed control, and increases energy efficiency. This combination ensures consistency and reliability in production processes.

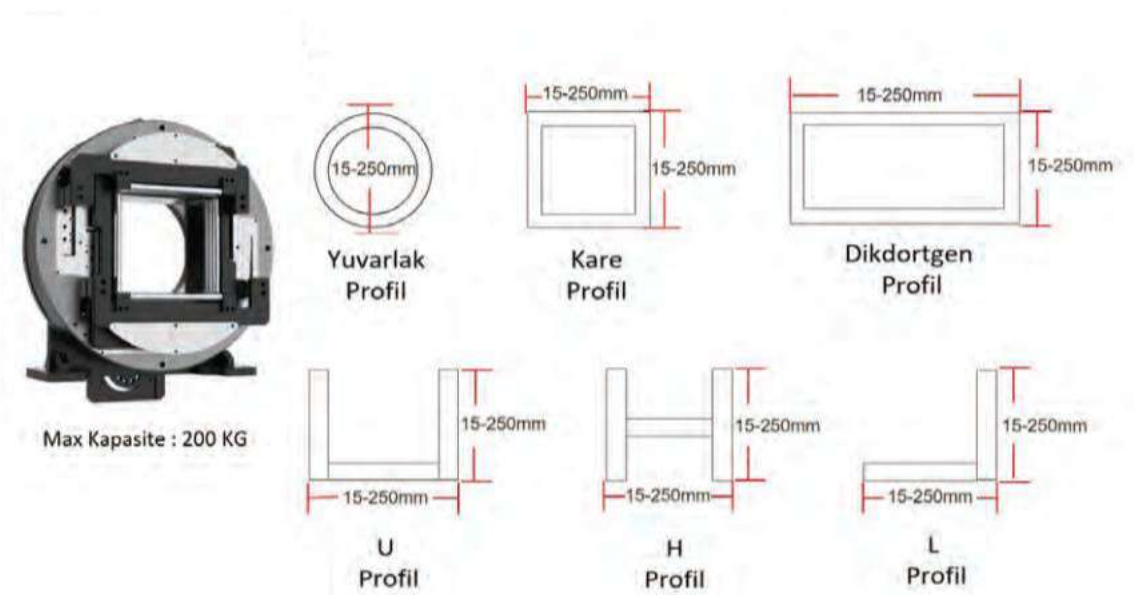


FSCUT Control Unit

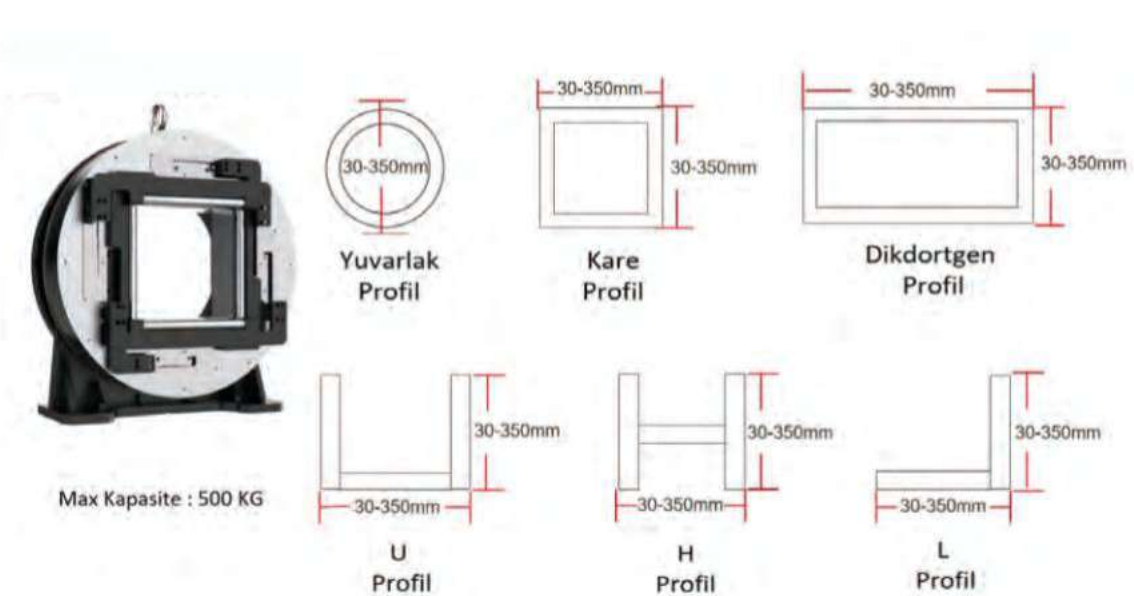


Pipe Profile Laser Cutting Machine Cutting Dimensions

CUTTING SIZE (250 mm)



CUTTING SIZE (350 mm)



Pipe Profile Laser Cutting Machine Cutting Dimensions

	E-FTL						FTL								
	6012	6018	6025	6035	9025	9035	6018	6025	6035	9025	9035	12025 12035	12050 12064		
Angled Cut	Option	Option	Option	Option	Option	Option	Option	Option	Option	Option	Option	Option	Standard	Standard	Standard
Auto and Semi-automatic loading system	Semi-automatic loading system and fully automatic loading system can be purchased as options.		A semi-automatic loading system can be purchased as an option.				A semi-automatic loading system can be purchased as an option.								
Laser Power	1.5kw-6kw		3kw-12kw				3kw-20kw						6kw-20kw		
Jaw Size	120	180	250	350	250	350	180	250	350	250	350	250	350	500	640
Maximum cut length and weight	7000mm, 240kg	7000mm, 240kg	7000mm, 300kg	7000mm, 600kg	9300mm, 440kg	9300mm, 1200kg	6200mm, 300kg	6200mm, 300kg	6200mm, 600kg	9300mm, 1200kg	9300mm, 1200kg	12300mm, 1200kg	12300mm, 1400kg	12300mm, 2100kg	12300mm, 2600kg
Acceleration	1.2G		1G												



R-2310-ER-YL-02-EN



CNC HYDRAULIC

PRESSBRAKE





* Some optional equipment was used on the machine photo.

puma.xl

Forming Challenges
Simplified Solution.



PUMA XL

PUMA XL	1560	2060	2660	26100	30100	30135	30175	30220	30320		36175	36220	36320	40175	40220	40320	40400	40500	40600	60220	60320	60400	60600
Bending Length (mm) (A)	1550	2050	2600	2600	3020	3020	3020	3020	3020		3650	3650	3650	4050	4050	4050	4050	4050	4050	6050	6050	6050	6050
Bending Capacity (ton)	60	60	60	100	100	135	175	220	320		175	220	320	175	220	320	400	500	600	220	320	400	600
Approaching Speed (mm/sn)	180	180	180	160	160	160	150	140	125		150	140	125	150	140	125	80	80	60	100			

SMART XL

SMART XL	1560	2060	2660	26100	30100	30135	30175	30220	30320		36175	36220	36320	40175	40220	40320	40400	40500	40600	60220	60320	60400	60600
Bending Length (mm) (A)	1550	2050	2600	2600	3020	3020	3020	3020	3020		3650	3650	3650	4050	4050	4050	4050	4050	4050	6050	6050	6050	6050
Bending Capacity (ton)	60	60	60	100	100	135	175	220	320		175	220	320	175	220	320	400	500	600	220	320	400	600
Approaching Speed (mm/sn)	180	180	180	160	160	160	150	140	125		150	140	125	150	140	125	80	80	60	100	80	60	



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CNC ELECTRIC **SERVO BRAKE**





* Some Optional equipments used on the machine photos

MODEL	BENDING CAPACITY (t)	BENDING LENGHT (mm)
DDM-4015	40	1530
DDM-5020	50	2040
DDM-6525	65	2550
DDM-8025	80	2550
DDM-10030	100	3050
DDM-13030	130	3050
DDM-15030	150	3050
DDM-17535	175	3570
DDM-20040	200	4080

Pays
you
back.

SERVO ELECTRIC PRESS BRAKE

Servo Electric Press Brakes are no-hydraulic, flexible, reliable and advance bending machines. This next generation machine idea combines green-eco firendly machines with productivity, accuracy, flexibility and reliability. The new concept offers low power consupcion, less maintenance, no hydraulic oil for operation.

Electric Press Brakes come with an advance CNC controller, fast and accurate punch and die clamping, and a multi axis back gauge system. Operators easily make perfect sheet metal parts with very low cost.

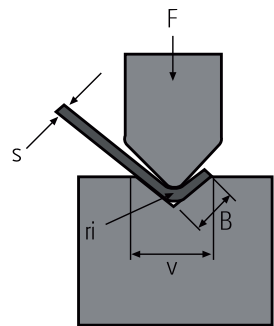
AIR BENDING TONNAGE CHART

Required press force at 90° air bending, force in t/m.

The charts below give the appropriate tonnage to air bend mild steel.

Bending force for other metals:

- Soft aluminum : Tons per unit length x 50%
- Aluminum alloys heat treated : Tons per unit length x 100%
- Stainless : Tons per unit length x 150%
- Bottoming : Tonnage requirements are three to five times greater than for air bending.



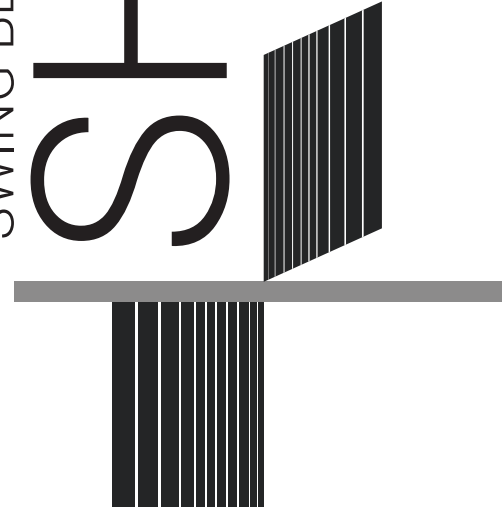
F = Tons per meter of workpiece
s = Material thickness
ri = Inside radius of formed part
v = V-die opening
B = Minimum flange

Metric																
V (mm)	4	6	8	10	12	16	20	24	30	40	50	60	80	100	120	160
V (inch)	0.157"	0.236"	0.315"	0.394"	0.472"</											



SWING BEAM - GUILLOTINE

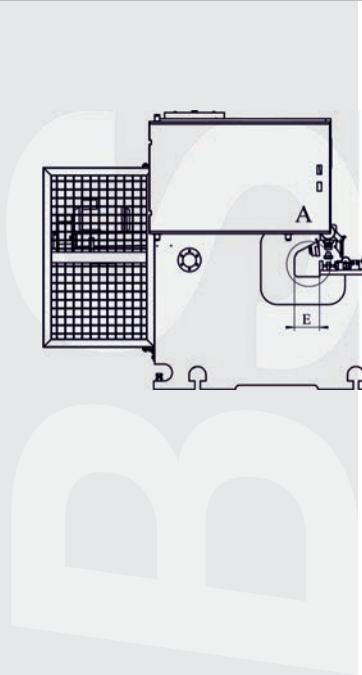
SHEARING



HYDRAULIC
SHEARING

AS SERIES CNC
GUILLOTINE SHEAR

		AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS	AS
		3006	3016	3013	3016	3020	4006	4010	4013	4016	4020	6006	6010	6013	6016	6020
Cutting Length	(mm)	3035	3040	3040	3060	3060	4065	4065	4065	4065	4065	6125	6125	6125	6160	6125
Cutting Capacity (Mild Steel)	(mm)	6	10	13	16	20	6	10	13	16	20	6	10	13	16	20
Cutting Angle	degree	0,5-3	0,5-3	0,5-3	0,5-3	0,5-3	0,5-3	0,5-3	0,5-3	0,5-3	0,5-3	0,5-2,5	0,5-2,5	0,5-2,5	0,5-2,5	0,5-2,5
Hold Down Pad Number	pcs	15	17	16	16	16	23</									

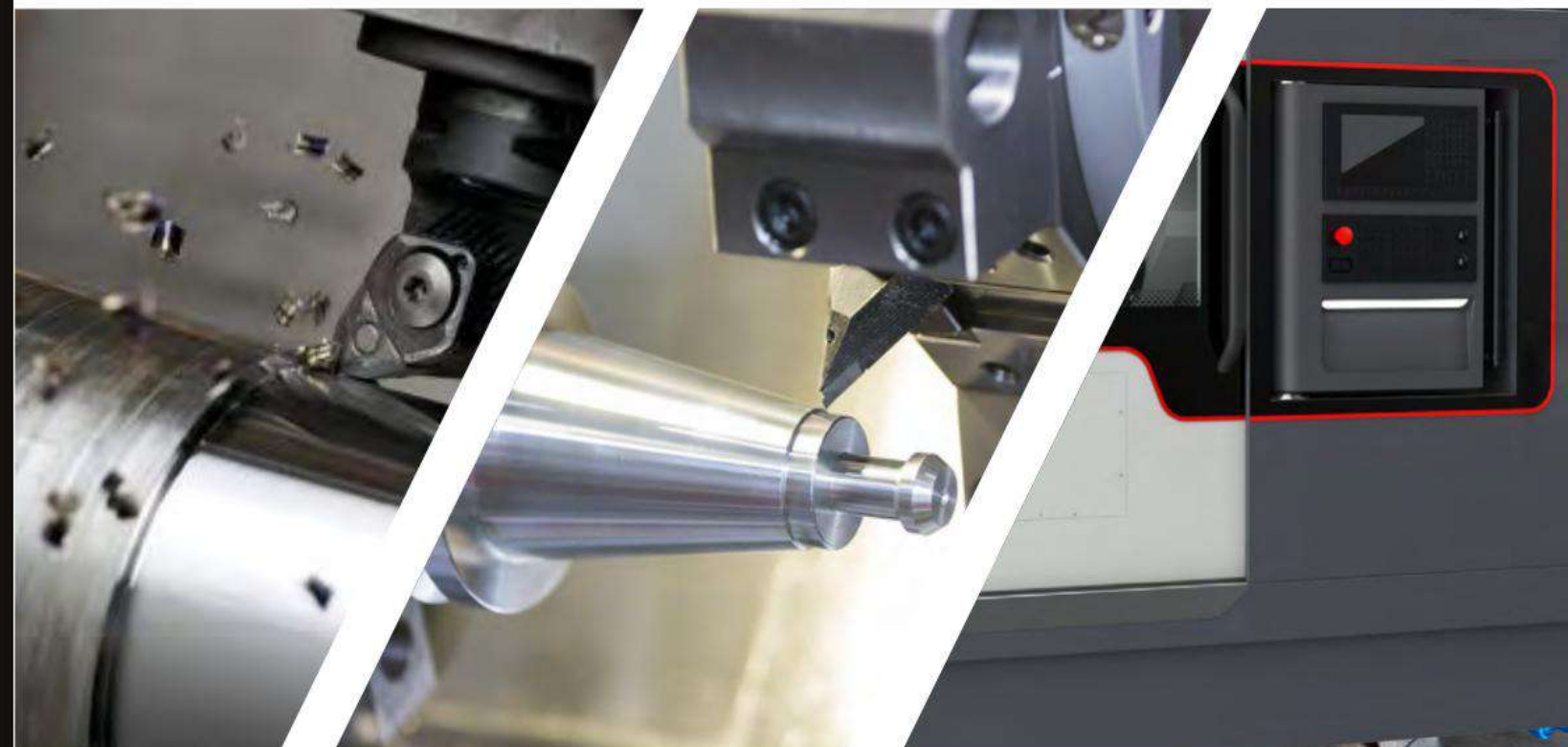


BS SERIES NC SWING BEAM SHEAR

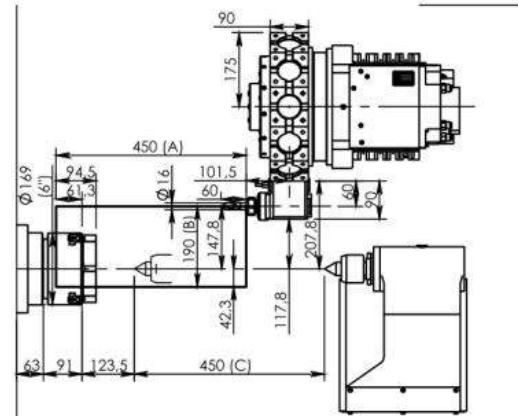
		BSY	BS	BS	BS	BS										
		3006	3010	3013	3016	3020	4006	4010	4013	4016	4020	6006	6010	6013	6016	6020
Cutting Length	(mm)	3120	3120	3120	3120	3120	4160	4160	4160	4160	4160	6240	6240	6240	6240	6240
Cutting Capacity (Mild Steel)	(mm)	6	10	13	16	20	6	10	13	16	20	6	10	13	16	20
Cutting Angle	degree	1,39	2	2,5	2,5	2,5	1,33	2	2	2	2	1,33	1,5	1		



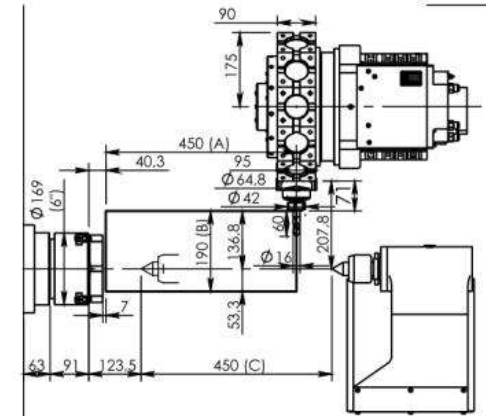
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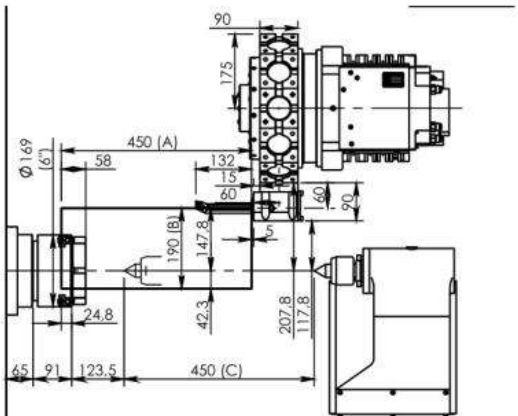
CNC LATHE

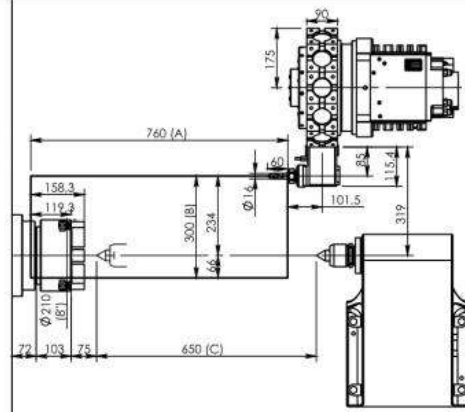


TTC 6 C Opt. Angular Milling Holder

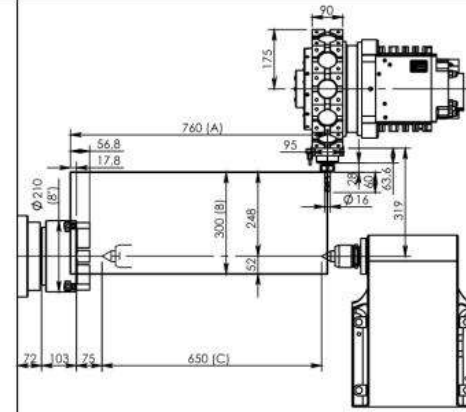


TTC 6 C Opt. Straight Milling Holder

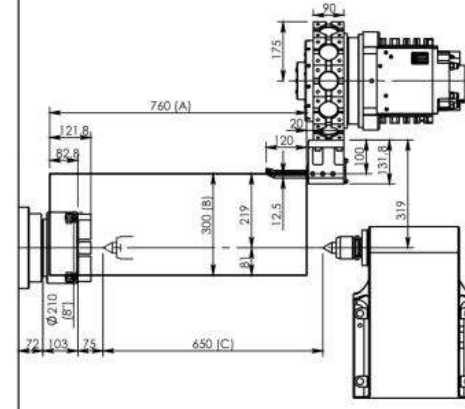


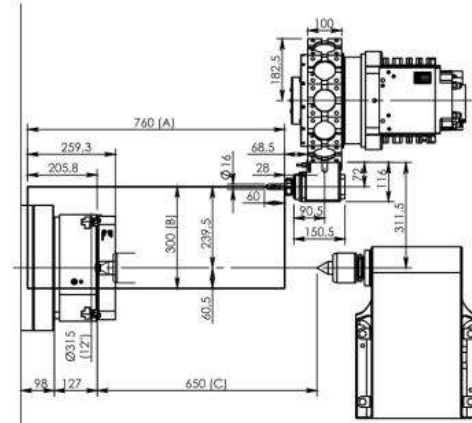


TTH 8 C Opt. Angular Milling Holder

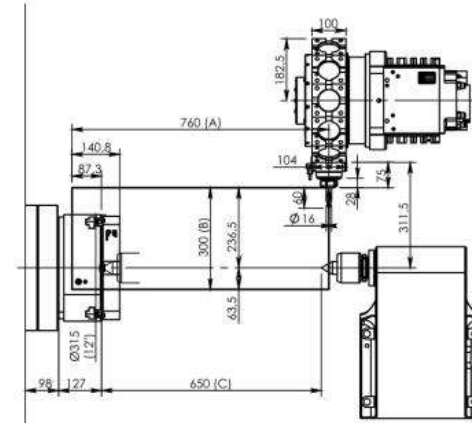


TTH 8 C Opt. Straight Milling Holder





TTH 12 C Opt. Angular Milling Holder



TTH 12 C Opt. Straight Milling Holder

