

The image features a close-up of a laser cutting machine in operation. A bright orange laser beam is focused on a metal sheet, creating a series of circular holes. The machine's head is visible at the top, and the metal sheet is positioned on a bed. The background is dark, emphasizing the bright light of the laser. On the left side, there is a stylized graphic element consisting of overlapping diagonal bands in yellow, white, and red. The Morgan Rushworth logo, a stylized 'M' in yellow, is positioned above the company name.

**MORGAN
RUSHWORTH**
SHAPING THE INDUSTRY SINCE 1872

XR FIBRE LASER

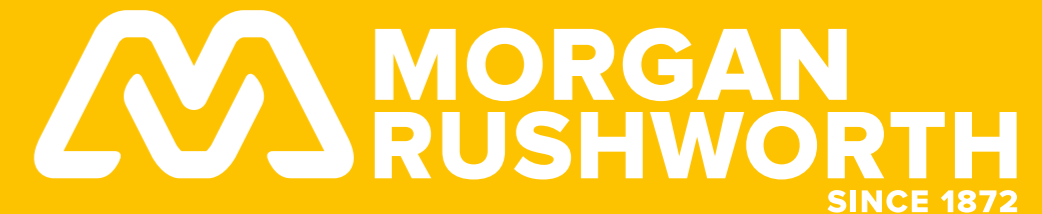
READY FOR CHANGE



MORGAN RUSHWORTH: 150 YEARS IN THE MAKING

The Morgan Rushworth brand has always stood for “Excellence” and still delivers consistently high quality machinery to discerning clients around the globe. From the very beginning to the current day, Morgan Rushworth has become known for setting new standards in the metalworking industry. We are very thankful for the continued loyalty of our customers and repay them by guaranteeing the same high standards which they have come to expect.

Morgan Rushworth started off as two separate companies, each with individual success until 1972, when they successfully merged and grew steadily to become a renowned company of today. In June 2008, the company was acquired by the UK Machinery Group with a commitment to continue in the passionate development of traditionally high quality and reliable machines that have become synonymous with the Morgan Rushworth name.



Morgan Rushworth XR Fibre Laser

Cost Efficient and Economical

01

PRODUCTIVE

High dynamism increases productivity on thin sheets (+20%) compared to conventional drive systems.

02

ACCURACY

Precise and repeatable cutting and laser head positioning, thanks to the effective CNC management. Excellent cutting quality and dynamics on all materials.



03

MODULAR

Suitable for any production needs, offering a full range of solutions for automation.

04

USER FRIENDLY

Optional automatic nozzle changer and easy-to-use programming software.

05

PROFITABLE

Low operating costs and reduced maintenance.





VERSATILE DESIGN

Large, opening front doors with side panel windows, provide great visibility of the working area inside the machine.





ADVANCED CUTTING HEAD

The Morgan Rushworth XR can cut a wide variety of materials and thickness's, which optimises the balance of excellent cutting quality at the highest possible speed.



THE LATEST GENERATION IN LASER CUTTING

The new PRECITEC ProCutter 2.0 generation impresses with it's increased performance.



MORGAN RUSHWORTH



SMART FUNCTIONS AND INDUSTRY 4.0

The Morgan Rushworth XR can be automated and is ready for Industry 4.0





ACCURACY

The welded steel frame construction of the compact Morgan Rushworth XR minimises deformation caused by high acceleration and ensures overall machine accuracy and stability.



PRODUCTIVITY

Excellent cutting quality for sheet metal from the thinnest to the thickest.



UNIQUE GANTRY

The heavy-duty gantry is stabilised with no compromises on quality and durability of the machine.



MORE CONVENIENT

The roof of the machine can be opened telescopically.



INCREASED STABILITY AND FASTER AUTOMATIC PALLET EXCHANGE

The machine minimises downtime with an integrated shuttle table system that allows one table to be loaded and unloaded whilst cutting continues on the other table.

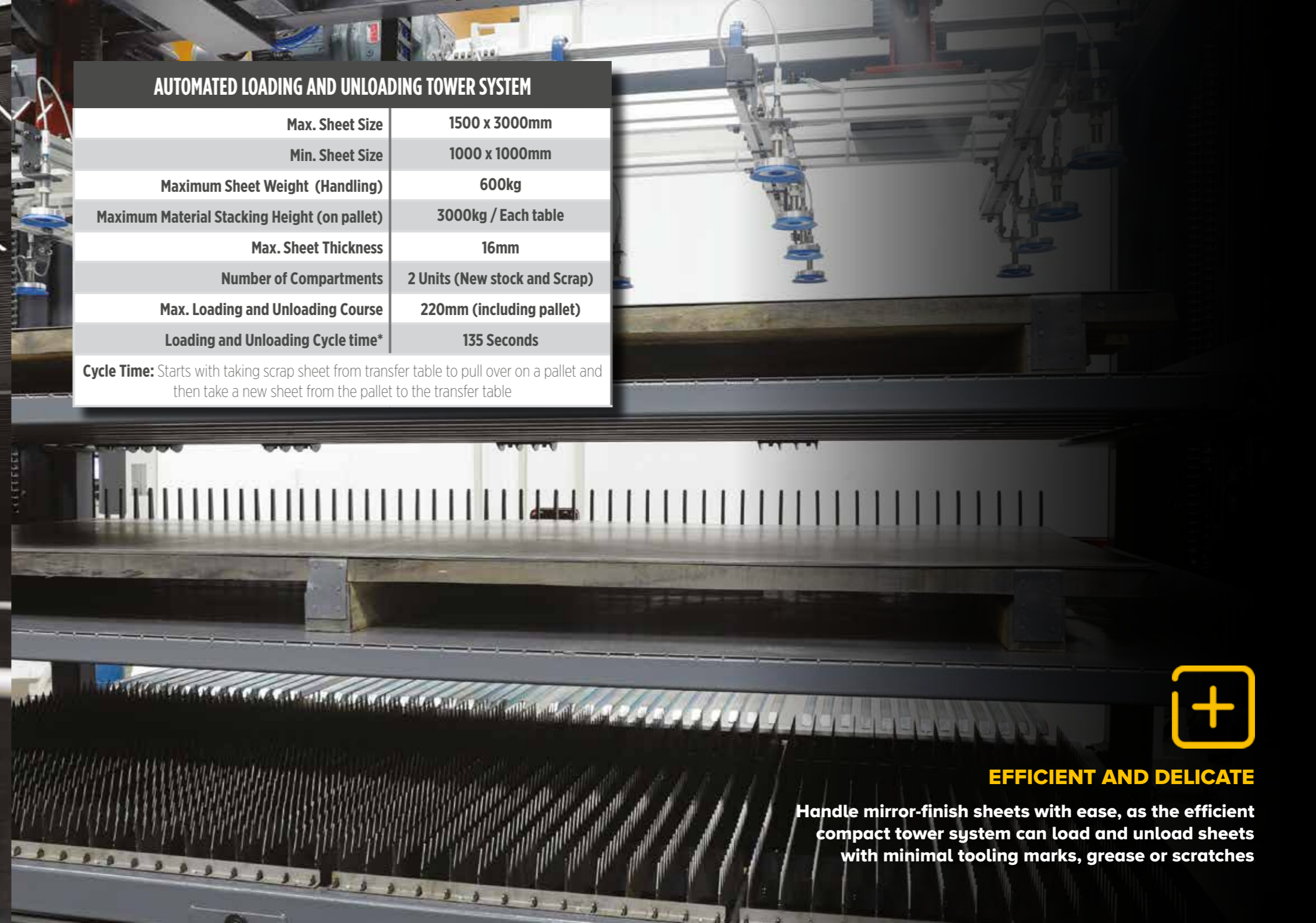


MORGAN RUSHWORTH AUTOMATION

Compact Tower - Automatic pallet loading and unloading for the XR:
3,000 kg load capacity | 2,000 kg lift capacity

AUTOMATED LOADING AND UNLOADING TOWER SYSTEM	
Max. Sheet Size	1500 x 3000mm
Min. Sheet Size	1000 x 1000mm
Maximum Sheet Weight (Handling)	600kg
Maximum Material Stacking Height (on pallet)	3000kg / Each table
Max. Sheet Thickness	16mm
Number of Compartments	2 Units (New stock and Scrap)
Max. Loading and Unloading Course	220mm (including pallet)
Loading and Unloading Cycle time*	135 Seconds

Cycle Time: Starts with taking scrap sheet from transfer table to pull over on a pallet and then take a new sheet from the pallet to the transfer table



EFFICIENT AND DELICATE

Handle mirror-finish sheets with ease, as the efficient compact tower system can load and unload sheets with minimal tooling marks, grease or scratches



USEFUL FUNCTIONS

- Auto Nozzle Cleaning
- Auto Nozzle Changer (Optional)
- Auto Nozzle Centring (Optional)



NEW GENERATION CONTROL UNIT

- New generation, user friendly
- BECKHOFF CNC with 18.5" LCD multi-touch screen.



EASY OPERATION WITH BUILT-IN CUTTING DATA

Built-in cutting data for all material types and thicknesses are pre-uploaded onto the control, which makes the operation quicker and easier.



MR HMI: THE MOST ADVANCED - VERY EASY TO USE

The Morgan Rushworth designed interface makes your work easier and ensures you get the best results.





ENHANCED SAFETY

The sliding front opening door is equipped with a magnetic safety lock.



HI-DESIGN SAFETY PROTECTION COVER BOX

The XR has a cabin structure designed in accordance with CE standards.

**GAN
WORTH**
SINCE 1872



BECKHOFF



OPTIMUM PERFORMANCE

Equipped with high torque
BECKHOFF servo motors and
high precision reducers.



MADE IN
GERMANY



OPERATOR CUTTING VISUALS

Interior cameras provides an excellent
overview of the entire working area – and
maximises safety (2 standard, 4 optional).



MORGAN
RUSHWORTH
SINCE 1973



MANUAL SCRAP / SMALL PART COLLECTORS

The XR Fibre Laser has sturdy scrap collectors that are removable on roller units, which allows for quick and easy scrap / small part removal.



SAFER

The XR turns maximum protection into maximum productivity.



nLight Power Source

nLIGHT alta™ compact fibre lasers are the next generation of high power fibre lasers. Designed to meet the performance and reliability requirements for industrial applications, nLIGHT alta™ compact is the highest power, smallest footprint fibre laser.

Improved Cutting and Welding Performance: nLIGHT alta™ is capable of delivering a modulation rate up to 100 kHz and rise and fall time of less than 5 μs. Enabled by next generation electronics, these capabilities allow faster piercing, faster processing of fine features, and smaller heat affected zones.

Back Reflection Isolation: nLIGHT's novel back reflection isolation technology allows uninterrupted full power processing of highly reflective materials.

The nLIGHT alta™ fiber laser platform is designed and manufactured in the U.S., leveraging nLIGHT's vertically integrated high brightness laser diode and fibre technology, and is supported through a global network of sales and service staff.



CUTTING CAPACITY TABLE											
MATERIAL	GAS	500 W	700 W	1 KW	1.2 KW	1.5 KW	2 KW	2.5 KW	3 KW	4 KW	6 KW
Mild Steel - Cutting Limit	O ₂	8	10	12	14	14	16	20	22	25	25
		Clean Cut	6	8	10	12	12	14	18	20	20
Stainless Steel - Cutting Limit	N ₂	3	4	5	6	6	8	10	12	12	20
		Clean Cut	2	3	4	5	5	6	12	10	10
Aluminium - Cutting Limit	Air	2	3	4	5	5	6	8	10	12	16
		Clean Cut	1	2	3	3	4	5	6	8	10
Brass - Cutting Limit	N ₂	2	3	4	4	5	6	8	8	12	14
		Clean Cut	1	2	3	3	4	5	6	8	10
Copper - Cutting Limit	O ₂	0.8	2	3	3	4	4	6	6	6	10
		Clean Cut	0.5	1	2	2	3	3	4	5	5
Galvanised - Cutting Limit	N ₂	2	3	3	4	6	6	6	8	10	14
		Clean Cut	1	2	2	3	5	5	5	6	8

Raytools Cutting Head

Dual Water Cooling Circuits:

Protective Glass:
2 Glass Covers (top and bottom) to protect collimation & focus lens

Auto focus:
Reduces human intervention and improves piercing and cutting efficiency



High Speed Piercing:
Pre-piercing of 20 mm carbon steel in less than 3 seconds for greater efficiency

IP65:
Dust-proof level IP65, fully enclosed beam path, free of lens contamination

Modular Design:
The modular design aids efficiency with easy maintenance



FAST & EFFICIENT

The Raytools cutting head is supplied as standard for all laser sources up to 3kW

LightCutter 2.0



FLEXIBLE

The LightCutter 2.0 is the ideal solution for all laser cutting applications in the medium power range up to 6kW. Thanks to its wide range of variants - you will always be able to find the most efficient and economical configuration for your application. It is characterized by achieving high cutting quality for all metals up to 25 mm sheet thickness - especially for laser cutting of mild steel, stainless steel, and aluminium.

ProCutter 2.0



Focal Length Adjustment:

Manual or motorised via machine control

Focusing Lens:

High quality optics | X/Y adjustment | no repositioning | additional protective glass below focusing lens



Protective Glass Cartridge:

Protecting the optics against dirt and fume | monitoring of attendance and contamination | tool free, easy change

LED Bar :

For immediate display of the current system state (pressure, temperature, drive, contamination)



Distance Measurement :

Fast, exact, drift free distance measurement at any operating temperatures, even at high accelerations

External Interface:

Output of all sensor data as an analogue value, readout the values via Bluetooth set of thresholds

Protective Glass of Collimation Unit



Cut Monitoring:

Monitoring of piercing process and detection of cut interruption

Mounting of the head:

Easily accessibility from the front

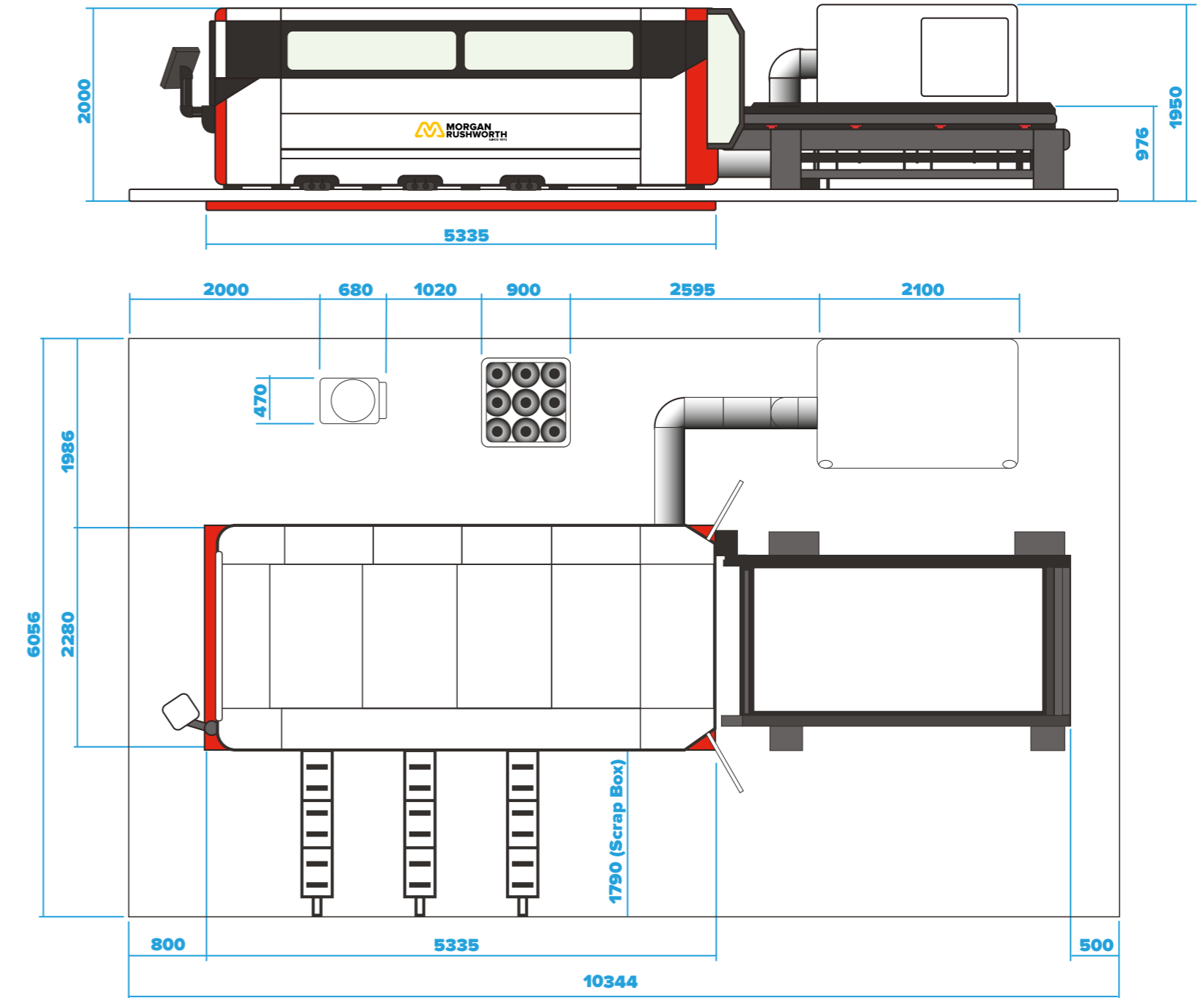


MADE IN GERMANY



TECHNICAL SPECIFICATIONS

MODEL		XR1530	XR2040	XR2060
Working Area	mm	1524 x 3048	2032 x 4064	2032 x 6096
Laser Power	kW	1 - 6		
Cutting Head		Raytools Cutting Head (Auto Focus - 1 - 3kW) / Precitec LightCutter (Auto Focus - 3kW+) / Precitec Procutter (Optional)		
Focusing Lenses	mm	150		
CNC Control Unit		Beckhoff CNC (18.5" TFT - Windows 10)		
Servo Motors / Drivers		Beckhoff		
Rapid Traverse	m/min	95	115	115
Vector Speed	m/min	135	145	145
Acceleration	G (m/s ²)	1.5 (15)	1.5 (18)	1.8 (18)
Absolute Positioning Accuracy	mm	±0.03		
Repeatability	mm	±0.05		
Feed Rate	m/min	Programmable up to 50m / min		
Transfer Table Motorised		Motorised - Automatic Exchange		
Max. Load Capacity	kg	1250 (per table)	2500 (per table)	3500 (per table)
Nesting Software		LANTEK Expert Cut II		
Nozzle Cleaning and Calibration		Automatic		
Fume Extractor		Optional 2500 m ³ /hour		



Dimensions for XR1530 configuration



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*Scan this QR Code
to see the Morgan
Rushworth XR Fibre
Laser in action on our
YouTube Channel*



“With today’s ever evolving technology and the automation of so many manufacturing processes, we strive to constantly improve and develop machines that will exceed your needs and stand the test of time”

SELMACHTM
MACHINERY



For more information, pricing, and availability, please contact the sales team at Selmach Machinery:

E: sales@selmach.com
T: 01432 346 580
W: www.selmach.com

