

# MORE FLEXIBLE AND EXQUISITE

## Precise Laser Cutting Machine-i Series



### Precise Laser Cutting Machine--i Series

The equipment meets the parts processing requirements of most industries, working accuracy is stable. Selecting the optimal force and supporting structure, the overall mechanical property of equipment is perfect. Adopting cutting-edge optical concept to improve cutting performance. High speed cutting, auxiliary loading and unloading and efficient production reduce labor costs. At present, laser cutting machines have been widely used in electronics, electrical, mechanical hardware, new energy lithium, packaging, solar, LED, automotive and other industries.

### Product parameters

Model	i5	i7
Working area	1000*1500mm	3048*1524mm
laser power	4000w/3000w/2000w/1500w/1000w	1000W 1500W 2000W 3000W
X/Y-axis positioning accuracy	0.03mm	0.03mm
X/Y-axis repositioning accuracy	0.02mm	0.02mm
Max. linkage speed	60m/min	100m/min

## NEW BLACK FULL PROTECTION DESIGN, SEALED WORKING SPACE



### New black full protection design, Sealed working space

21.5 inch HD touch screen enhances interaction experience.

Full enclosed protection and isolated work area completely isolate smoke and laser radiation. Minimized pollution will make a safer using condition.

# CAST IRON BED

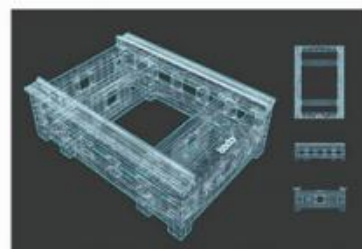
A CAST IRON BED LAST FOREVER



Material is more suitable



Technique is more suitable



Structure is more reasonable

## Clone production

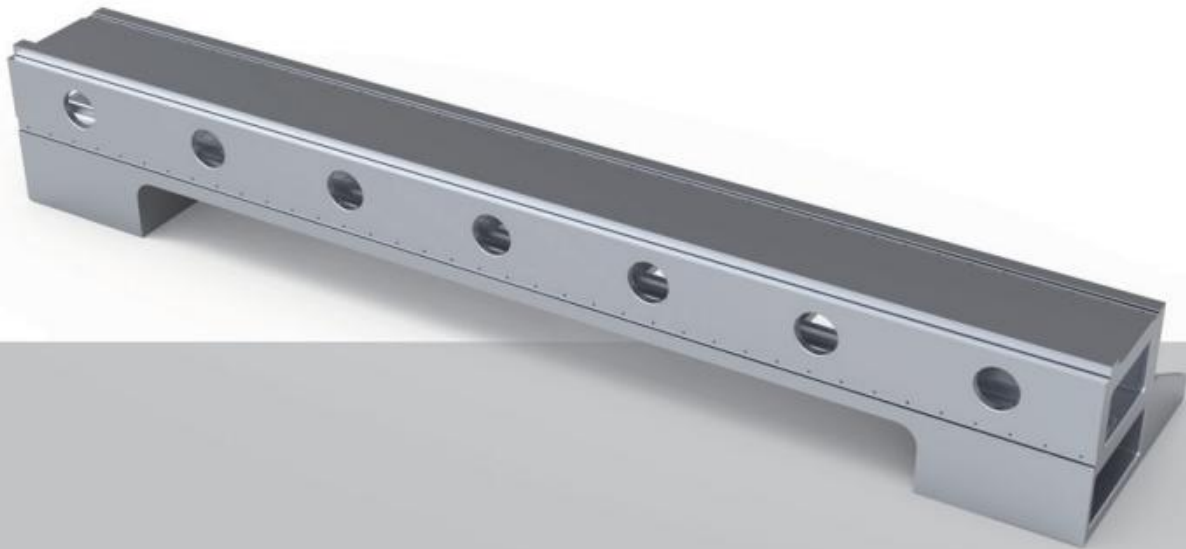
Pouring Mold, clone production; integrally formed, reject splicing

## Durable

The usage of flake graphite with the lowest tensile strength of 200MPa gives the whole equipment strong shock absorption, wear resistance, high hardness, high carbon content, high compressive strength.

Low notch sensitivity and thermal sensitivity of cast iron bed reduces the loss of equipment in using, keeps the precision of cutting unchanged permanently and no deformation in its life cycle.

# CAST ALUMINUM CROSSBEAM



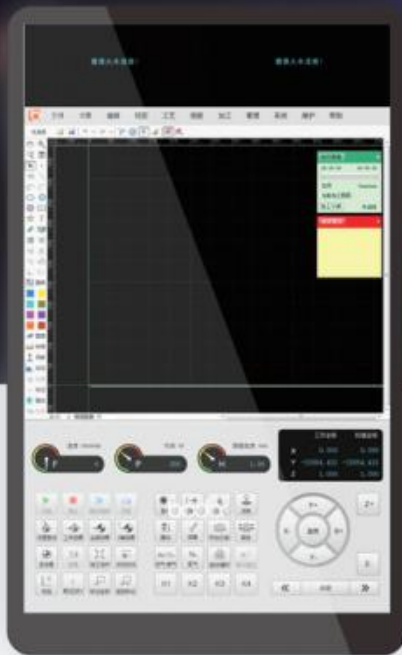
## Cast aluminum crossbeam

Integral Pressure Casting by Steel Mold Makes It Light, Flexible and Efficient

Solution treatment and fine finishing give the crossbeam desirable integrity, rigidity, surface quality as well as toughness and ductility. The light weight and strong rigidity of aluminum alloy are suitable for high speed movement during processing, and the high flexibility is beneficial to high-speed cutting of various graphics if the cutting accuracy is ensured. Light crossbeam offers high operation speed, improving efficiency and ensuring quality.



# Bodor Pro 2.0



## Bodor Pro 2.0

Independent R&D operating system offers simple interface and operation method, supports input of multiple types of graphics, automatically optimizes cutting orders, intelligently searches edges, and has automatic positioning function.



## Appearance design

Elegant curves and compact design make the operation easier

New black fully enclosed cover design and powerful exhaust system achieve zero pollution to the environment. Bigger laser protective glasses make sure there is no harm to human eye. The striking bar-type warning system reminds machining status of the machine at any time. The operation is safer and more efficient. Meet the CE, ETL certification standards.



# Auxiliary Gas Low Pressure Alarm Function

## Auxiliary Gas Low Pressure Alarm Function

Providing real-time pressure detection and reporting abnormal information ensure cutting effect  
• precision and timely replace gas

# FUNCTIONS

The heavy bed makes the equipment more stable in working, the light crossbeam makes it work faster; perfect industrial design is more in line with man-machine engineering; high quality electrical software control system gives equipment higher cutting precision. The machine owns more comfortable operation, more stable performance, more durable quality, higher cutting efficiency and wider application scope.

## More convenient for connecting electricity

Single-phase power supply can ensure the normal operation of equipment. This function makes machine connecting the power more convenient, and the machine could work in various places.

## Intelligent travel protection

Automatically monitor operation range of crossbeam and cutting parts, keeping operation within machining range. Double guarantees of fixed limitation greatly improve equipment and personal safety, minimizing the using risks.

## Automatic lubrication system

Automatic lubrication system provides timing and ration lubricating oil for equipment to ensure its normal and high speed operation, and owns functions of abnormal alarm and liquid level alarm. The system greatly enhances cutting accuracy and effectively extends service life of transmission mechanism.

## A new generation of safety following module

Laser head keeping distance with work piece in cutting process can reduce collision risks. It will stop cutting when colliding plate. The safety following module reduces accident rate and improves cutting performance.

## Intelligent alarm system

The system will start full abnormal alarm and push it to the interface through control center when equipment is abnormal.

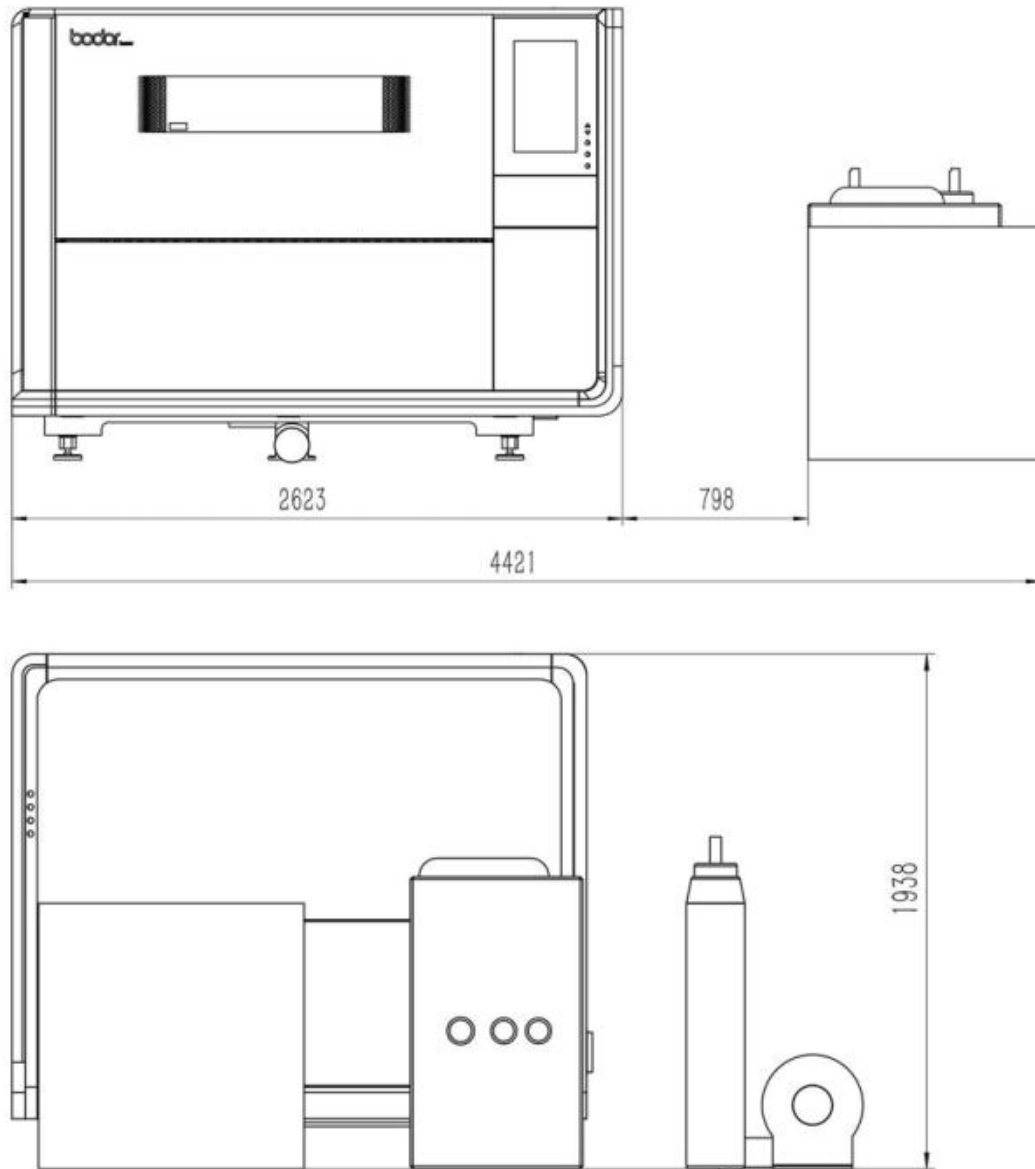
Finding equipment abnormal in advance and reducing hidden dangers can multiply improve the equipment troubleshooting efficiency.

## Various intelligent sensor modules

Various intelligent sensor modules to improve safety and device protection



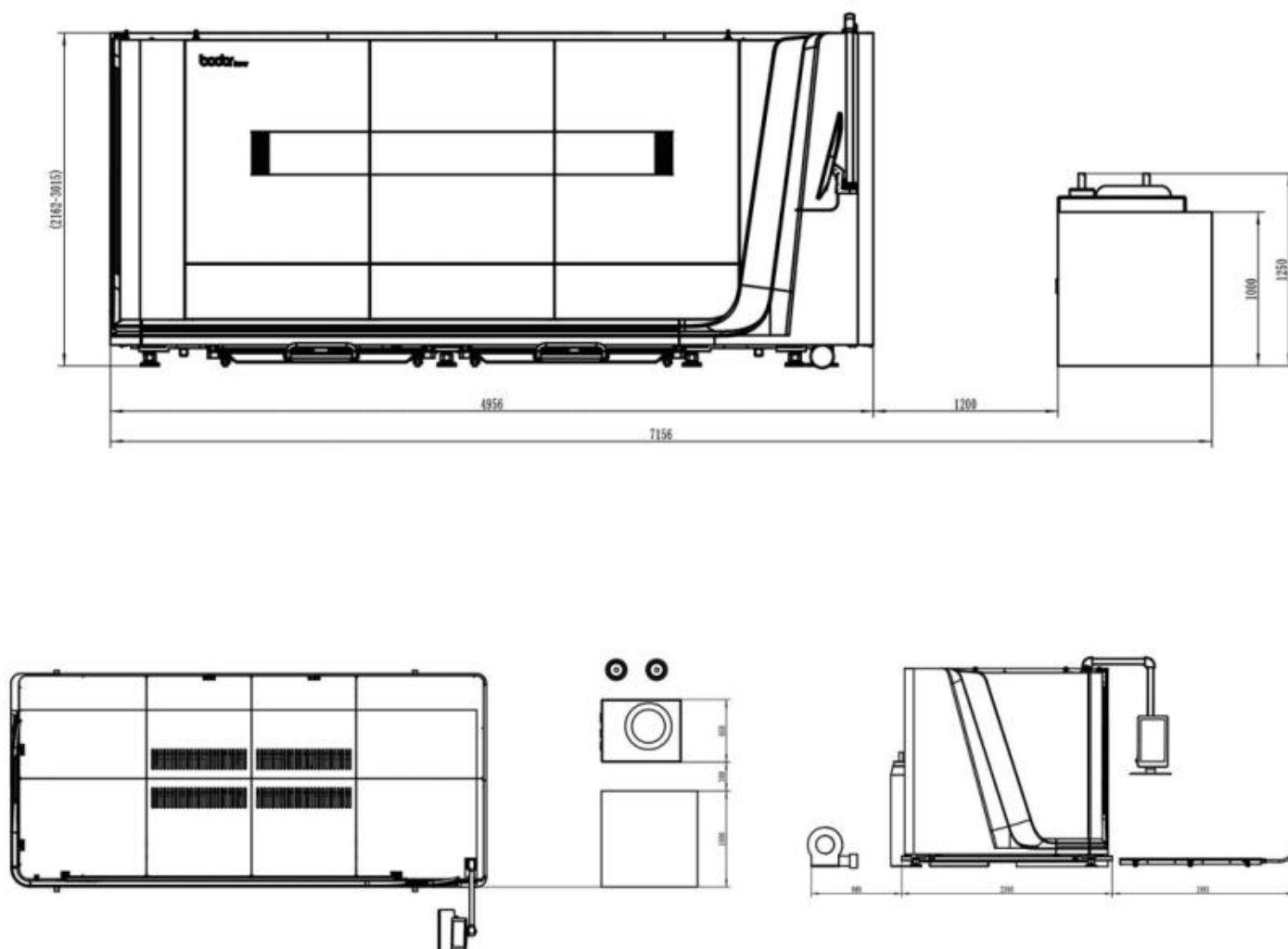
## i5 • FLOOR PLAN



## PLACING REQUIREMENT

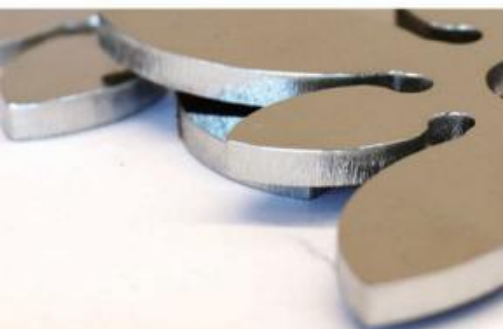
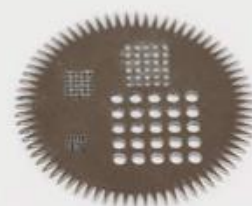
1. The whole machine should keep away from obstacles at least 1m.
2. The whole machine should be far away from the hypocenter.
3. The planeness of placing field should be less than 5mm.
4. Voltage fluctuation of the whole machine should be kept in  $\pm 5\%$ .

## i7 • FLOOR PLAN



## PLACING REQUIREMENT

1. The whole machine should keep away from obstacles at least 1 m.
2. The whole machine should be far away from the hypocenter.
3. The planeness of placing field should be less than 5mm.
4. Voltage fluctuation of the whole machine should be kept in  $\pm 5\%$ .



## Metal Samples

It is suitable for cutting carbon steel, stainless steel, aluminum, copper and alloy metal materials.

For more information, please go to the website : [www.bodor.com](http://www.bodor.com)

## Cutting Capacity



Above data is only for reference



## Fiber Laser Cutting Process Parameters

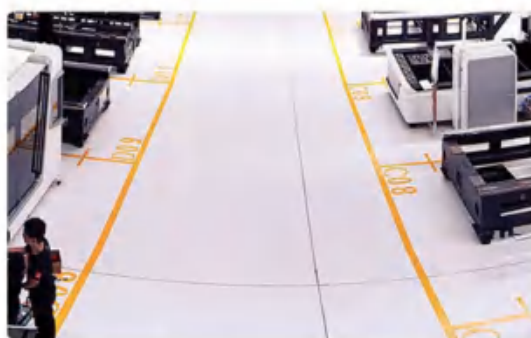
		1000W	MAX-1000W(25um)	1500W	2000W	MAX-2000W(50)	YLR-2000W	3000W	MAX-3000W(50)	4000W	MAX-4000W(50)	IPG 6000W
Material	Thickness	speed m/min	speed m/min	speed m/min	speed m/min	speed m/min	speed m/min	speed m/min	speed m/min	speed m/min	speed m/min	speed m/min
Carbon steel (Q235A) O2	1	8.0~10	8.0~10	8.0~10	8.0~10	8.0~10	8.0~10	8.0~10	8.0~10	8~10	8~10	
	2	4.0~6.5	4.5~7.0	4.5~6.5	4.7~6.5	4.7~6.5	4.7~6.5	4.8~7.5	4.8~7.5	5~7.5	5~7.5	
	3	2.4~3.0	2.4~3.0	2.6~4.0	3.0~4.8	3.0~4.8	3.0~4.8	3.3~5.0	3.3~5.0	3.5~5.0	3.5~5.0	
	4	2.0~2.4	2.0~2.4	2.5~3.0	2.8~3.5	2.8~3.5	2.8~3.5	3.0~4.2	3.0~4.2	3.0~4.0	3.0~4.0	
	5	1.5~2.0	1.5~2.0	2.0~2.5	2.2~3.0	2.2~3.0	2.2~3.0	2.6~3.5	2.6~3.5	2.7~3.6	2.7~3.6	
	6	1.4~1.6	1.4~1.6	1.6~2.2	1.8~2.6	1.8~2.6	1.8~2.6	2.3~3.2	2.3~3.2	2.5~3.4	2.5~3.4	
	8	0.8~1.2	0.8~1.2	1.0~1.4	1.2~1.8	1.2~1.8	1.2~1.8	1.8~2.6	1.8~2.6	2.0~3.0	2.0~3.0	
	10	0.6~1.0	0.6~1.0	0.8~1.1	1.1~1.3	1.1~1.3	1.1~1.3	1.2~2.0	1.2~2.0	1.5~2.4	1.5~2.4	
	12	0.5~0.8	0.5~0.8	0.7~1.0	0.9~1.2	0.9~1.2	0.9~1.2	1.0~1.6	1.0~1.6	1.2~1.8	1.2~1.8	
	14			0.5~0.7	0.7~0.8	0.7~0.9	0.8~1.0	0.9~1.2	0.9~1.2	0.9~1.2	0.9~1.2	
	16				0.6~0.7	0.6~0.8	0.6~0.8	0.7~1.0	0.7~1.0	0.8~1.0	0.8~1.0	
	18				0.4~0.6	0.5~0.7	0.5~0.7	0.6~0.8	0.6~0.8	0.6~0.9	0.6~0.9	
	20							0.5~0.8	0.5~0.7	0.5~0.8	0.5~0.8	
	22							0.3~0.7	0.3~0.7	0.4~0.8	0.4~0.8	
	25											
Stainless steel (201) N2	1	18~25	24~36	20~27	24~30	24~50	24~50	30~35	30~58	32~45	40~72	No support
	2	5~7.5	6~10	8.0~12	9.0~12	9.0~14	9.0~15	13~21	13~39	16~28	24~45	
	3	1.8~2.5	2.2~3.5	3.0~5.0	4.0~6.5	4.0~7.0	4.8~7.5	6.0~10	6~14	7.0~15	7.0~18	
	4	1.2~1.3	1.2~1.6	1.5~2.4	3.0~4.2	3.2~4.5	3.2~4.5	4.0~6.0	4.0~7.0	5.0~8.0	6.0~10.0	
	5	0.6~0.7	0.6~0.75	0.7~1.3	1.8~2.5	2.0~2.8	2.0~2.8	3.0~5.0	3.0~5.0	3.5~5.0	4.0~5.0	
	6			0.7~1.0	1.2~1.8	1.2~2.0	1.2~2.0	2.0~4.0	2.0~4.0	2.5~4.5	3.0~4.5	
	8				0.7~1.0	0.7~1.0	0.7~1.0	1.5~2.0	1.5~2.0	1.6~2.0	1.6~2.0	
	10							0.6~0.8	0.6~0.8	0.8~1.2	0.8~1.2	
	12							0.4~0.6	0.4~0.6	0.5~0.8	0.5~0.8	
	14									0.4~0.6	0.4~0.6	
	16											
	18											
	20											
	25											
Aluminum N2	1	6.0~10	6.0~10	10~20	15~25	15~25	20~30	25~38	25~40	35~45	35~45	
	2	2.8~3.6	2.8~3.6	5.0~7.0	7~10	7~10	10~15	10~18	13~20	13~24	13~24	
	3	0.7~1.5	0.7~1.5	2.0~4.0	4.0~6.0	4.0~6.0	5.0~7.0	6.5~8.0	6.5~8.0	7.0~13	7.0~13	
	4			1.0~1.5	2.0~3.0	3.5~4.0	3.5~5.0	3.5~5.0	3.5~5.0	4.0~5.5	4.0~5.5	
	5			0.7~1.0	1.2~1.8	1.2~1.8	1.8~2.5	2.5~3.5	2.5~3.5	3.0~4.5	3.0~4.5	
	6				0.7~1.0	1.0~1.5	1.0~1.5	1.5~2.5	1.5~2.5	2.0~3.5	2.0~3.5	
	8				0.6~0.8		0.6~0.8	0.7~1.0	0.7~1.0	0.9~1.6	0.9~1.6	
	10							0.4~0.7		0.6~1.2	0.6~1.2	
	12							0.3~0.45		0.4~0.6		
	16									0.3~0.4		
	20											
	25											
Brass N2	1	6.0~10	6.0~10	8.0~13	10~16	10~16	12~18	20~35	20~35	25~35	25~35	
	2	2.8~3.6	2.8~3.6	3.0~4.5	4.5~7.5	5.0~6.0	6.0~8.5	6.0~10	6.0~10	8.0~12	8.0~12	
	3	0.5~1.0	0.5~1.0	1.5~2.5	2.5~4.0	2.5~4.0	2.5~4.0	4.0~6.0	4.0~6.0	5.0~8.0	5.0~8.0	
	4			1.0~1.6	1.5~2.0	2.0~3.0	2.0~3.0	3.0~5.0	3.0~5.0	3.2~5.5	3.2~5.5	
	5			0.5~0.7	0.9~1.2		0.9~1.2	1.5~2.0	1.5~2.0	2.0~3.0	2.0~3.0	
	6				0.4~0.7		0.4~0.9	1.0~1.8	1.0~1.8	1.4~2.0	1.4~2.0	
	8							0.5~0.7		0.7~1.2		
	10									0.2~0.5		
	12											



## OFFICE

For more information, please go to the website : [www.bodor.com](http://www.bodor.com)





# WORKSHOP

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