



Lasersysteme Accessories

Mai 2021



VA Konstruktion GmbH & Co. KG

COLUMN LASER

Welding

The COLUMN LASER combines flexibility and stability in servicing and repairing small precision components for the aerospace industry as well as large diecasting molds that are, for example, required for the manufacturing of automobile bumpers. The mobile laser system can easily be moved and fixed in a stable position by means of the brakes.

The movement of the axes permits a very long traverse range, which is accomplished via the joystick. Optionally the system can be supplied with either an analogue joystick or digital joystick both equipped with Teach-in control. The welding position can be determined at a precision of 0.1 mm. The ideal solution for big or recessed workpieces.



Nd:YAG

	100 W	160 W	200 W
Laser type	Nd: YAG	Nd: YAG	Nd: YAG
Max. mean power	100 W	160 W	200 W
Pulse peak power	3,5 kW	7,5 kW	9 kW
Max. pulse energy	60 J	80 J	100 J
Pulse duration	0,4 - 20 ms	0,4 - 20 ms	0,4 - 20 ms
Pulse frequency	0,5 - 20 Hz	1 - 20 Hz	1 - 20 Hz
Focus diameter	0,2 - 2,0 mm	0,2 - 2,0 mm	0,2 - 2,0 mm
Line voltage (V/Ph/Hz)	400/3/50		

Technical features

System and controller

- Motor traverse in x/y/z and r-axis
- Controller system for setting all relevant laser parameters
- High quality rail system

Processing optics

- Variable beam expansion
- LCD anti-glare
- Binoculars 10x

Operating features

- One-hand operation via joystick
- Teach-in function
- Shield gas supply

Traverse range (x, y, z)	700, 400, 570 mm
Axis speed	0,5 - 15 mm/sek
Focal length	100 - 300 mm
Dimensions (w x h x l)	950 x 1550 x 1250 mm
Weight	370 kg

TITAN LASER

Welding

This laser welding system technology is for individual needs and especially for start-ups. In addition to our own practical experience, we also implemented suggestions from our customers. The practically oriented operation of the laser welding system offers sufficient user comfort for efficient laser welding.

It is small and compact, can be quickly readied for use, and is extremely precise in order to satisfy rising user requirements. This includes the custom manufacturing involved in professional tool- and die-making.



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Line voltage (V/Ph/Hz)	240 / 1 / 50 - 60	400 / 3 / 50 - 60	400/3/50

Technical features

System and controller

- Motor traverse in x/y/z and r-axis
- Controller system for setting all relevant laser parameters
- High quality rail system

Processing optics

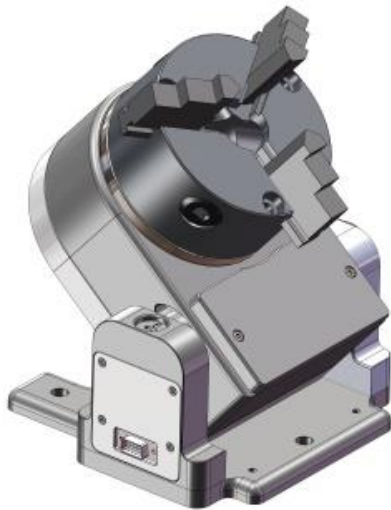
- Variable beam expansion
- LCD anti-glare
- Binoculars 10x

Operating features

- One-hand operation via joystick
- Teach-in function
- Shield gas supply

Traverse range (x, y, z)	200, 100, 300 mm
Axis speed	0,5 - 15 mm/sek
Size working table	400 x 250 mm
Load capacity	150 kg
Focal length	100 - 300 mm
Dimensions (w x h x l)	472 x 1270 x 1160 mm
Weight	190 kg

Mechanical components



Rotating device

- Rotating device with fully adjustable 3-jaw chuck, 90° tilting and 360° swivel makes work on tools quick and easy!
- An easy adaptation to available equipment
- Also as a motor execution!

Part-No.: VA-2021-0450

motorized



Magnetic disk

- The ideal accessory for simple handling of you welding parts

Part-No.: VA-2021-0449

work area 100 mm

Optical parts

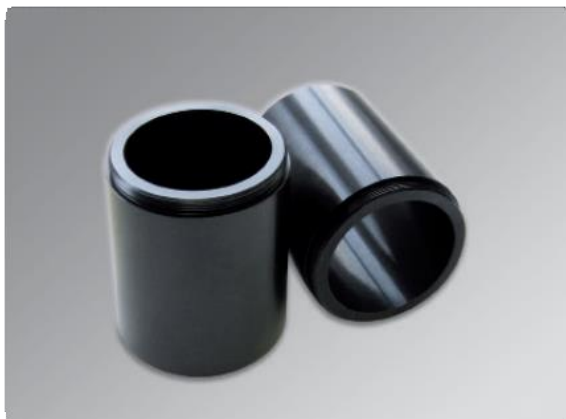


Binocular

- The high-quality binoculars allow precision work to be conducted with the smallest detail.
- Ergonomic 45° down-grade

Part-No.: VA-2021-0468	Binocular 45°
Part-No.: VA-2021-15206	Eyepiece 16 x 16 mm
Part-No.: VA-2021-0469	Wearer of glasses 10 x 23
Part-No.: VA-2021-0470	Eyepiece 25 x 19,5 B
Part-No.: VA-2021-0471	Eyepiece 10 x 21 B
Part-No.: VA-2021-15211	Crosshair graticule
Part-No.: VA-2021-0473	Crosshair graticule 12 mm

Optical parts



Mechanical focus extension

- Lengthening of the focus position around up to 700 mm
- Height: 100 mm
- Combinable with focussing optic 200 or 300 mm

Part-No.: VA-2021-14029

Optical parts

2 x 360° swivel

- 360° swivel optics makes welding easy in inaccessible places of heavy and awkward components
- 2 X 360° vertical and horizontal
- The image will mirrored

Extractible telescope option also available

Part-No.: VA-2021-0363

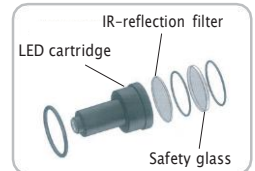


Optical parts



Coldlight source diode with light guide

- Diode illumination (cold light) for perfect illumination of workpieces



Part-No.: VA-2021-14503
 Part-No.: VA-2021-15200
 Part-No.: VA-2021-1520
 Part-No.: VA-2021-15202
 Part-No.: VA-2021-0467
 Part-No.: VA-2021-15205

Coldlight source diode
 LED cartridge
 IR-reflection filter
 Safety glass
 Magneticfoot
 Power supply

Optical parts



Safety glass for focussing optic

Focussing optic

- Focussing optic with different focal lengths: 100 mm, 160 mm, 200 mm

Part-No.: VA-2021-0424	100 mm
Part-No.: VA-2021-0423	160 mm
Part-No.: VA-2021-0425	200 mm
Part-No.: VA-2021-0426	300 mm

Safety glass for focussing optic

- Protects your focus lens against sweat splashes

Part-No.: VA-2021-13940 100 – 200 W

Optical parts



ND laser lamp

- This low pressure laser flashbulb is suitable for all systems of OR Laser
- Durability up to 3 millionen shots!

Part-No.: VA-2021-14502

100W/160W

Part-No.: VA-2021-14481

200W

Safety parts



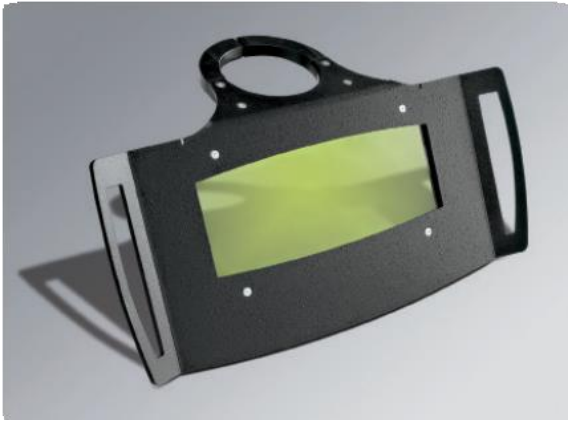
Laser safety glasses

- Laser safety goggles specified to DIN EN 207
- Spectable frame exist from polyamid
- D L5 & IR L7

Part-No.: VA-2021-0466

Plastic L7 (wearer of glasses)

Safety parts



Laser safety shield

- The protection shield protects against reflected laser beam and warm rays

Part-No.: VA-2021-0386



Safety set

- The security lamp is appropriated with the door contacted to the outside door to protect your employees against the laser radiation. With the entrance of the space the security set switches off the laser system.

Part-No.: VA-2021-0463

Safety parts



Laser safety curtain

- Mobile laser protection curtain from robust material
- Dimensions: 2 x 2 m (6,56 x 6,56 inch)
- DIN 12254 norm

Part-No.: **VA-2021-0464**



Wearing part sets 100/160/200 W

- For servicing and cleaning of your laser system
- Pump lamp, safety glass kit for LED lighting diodes, Pipette for methanol, filter set IR reflection, optics paper, Rubber Dust Blower, Lens protection glass, LED plug-in module Tweezers, telescopic mirror, filter element for F20.

CONTENTS VARY ACCORDING TO THE POWER PUMP LIGHT!

Part-No.: **VA-2021-0455**

100/160 W

Part-No.: **VA-2021-0462**

200 W

Special parts



Pressure reducer

- For protective regulation of gas pressure
 - Optimum setting for the required gas amount
- Adjustable up to 0.1 to 1.5 l / min.

Part-No.: VA-2021-0465



Protection gas nozzle

- For the exact positioning of the gas supply

Part is inserted into the holder

Part-No.: VA-2021-15145



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