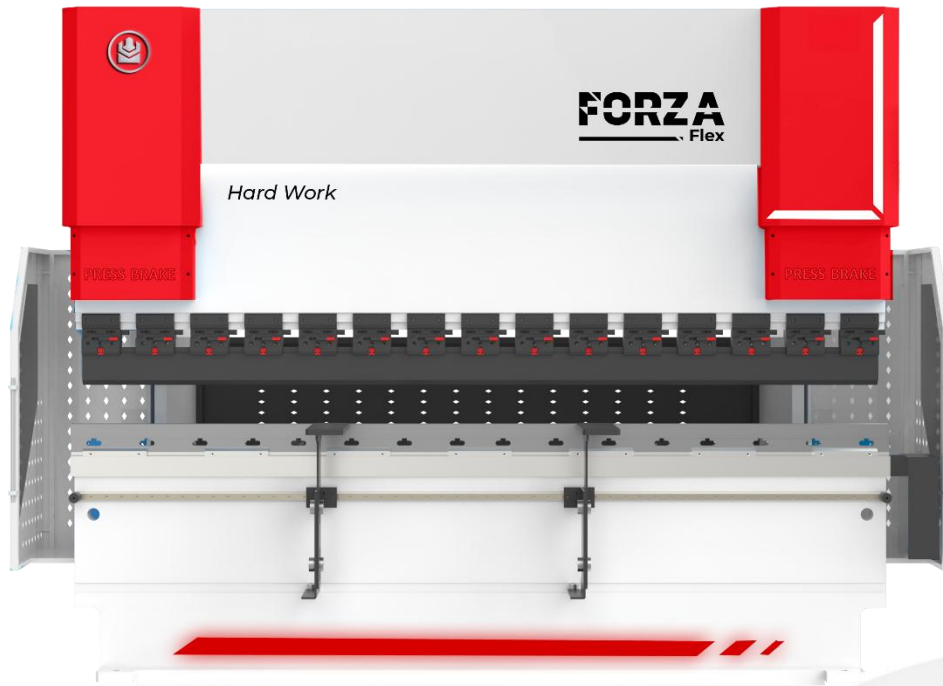




V250828

Datasheet
Model FXXXTXX



FORZA
Flex

Robust press brake for bending applications

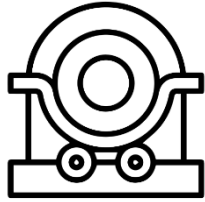
BENDING

The FORZA Flex press brake is engineered for sheet metal bending operations, delivering efficiency and reliability with its Numerical Control (NC) technology.

It allows for repetitive bends with good precision and low maintenance. Ideal for manufacturing housings, brackets, and metal structures, this machine is an effective solution for the standard production of metal parts with moderate precision requirements. Its robust structure, made of Q235B steel, ensures stability during operation and a long service life.

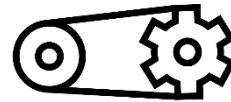
Special Features

Back-guage system



The high-precision rear back-gauge system utilizes a worm and worm gear transmission mechanism. The maximum speed of the X-axis is up to 600mm/s.

Front drag module



The front support frame is supported by rollers along a linear guide rail, allowing it to be manually slid from left to right, and the height is easily adjusted with a handle.

High strength machine bed



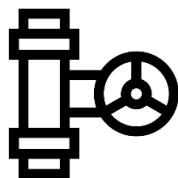
The machine is constructed from heat-treated Q235B steel plates, and all steel plate joints have relief grooves to ensure the strength of the entire machine.

E21 ESTUN Controller



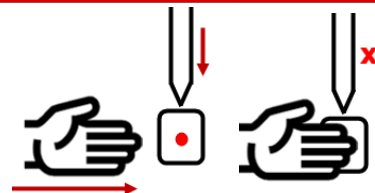
The NC control system is managed by the E21 controller, which ensures precision, storage of bending programs, and an intuitive operation that allows even less experienced operators to handle the machine efficiently.

Heavy-duty hydraulic system



Premium hydraulic components guarantee machine operation under demanding conditions (18 MPa) and reduced maintenance throughout the machine's life cycle.

Laser protection system



A safety system featuring a laser interlock. When the machine is in the bending process, a laser sensor detects if the operator's hand enters the area and immediately stops the process, ensuring the well-being of the operator and the machine.

Bending Capacity

MODEL	MAXIMUM BENDING FORCE	MAXIMUM BENDING LENGTH		BENDING THICKNESS FOR FULL LENGTH ⁽¹⁾								
				CARBON STEEL			STAINLESS STEEL			ALUMINUM		
				mm	in	Gauge	mm	in	Gauge	mm	in	Gauge
FX16T40	40	1600	5.25	4.25	5/32	8	3.75	5/32	10	5	3/16	6
FX16T80	80	1600	5.25	5.75	7/32	4	5.25	3/16	6	6.75	1/4	3
FX25T80	80	2500	8.0	4.75	3/16	7	4.25	5/32	8	5.5	7/32	5
FX25T130	130	2500	8.2	5.75	7/32	4	5.25	3/16	6	7	9/32	3
FX32T130	130	3200	10.5	5.25	3/16	6	4.75	3/16	7	6.25	1/4	3

1. The maximum thickness corresponds to a sheet with the full bending length. For shorter lengths, greater thicknesses can be used. For more information, consult the following bending force calculator: <https://support.forzalaaser.com/calculadora-fuerza-de-doblado/>

Specific Features

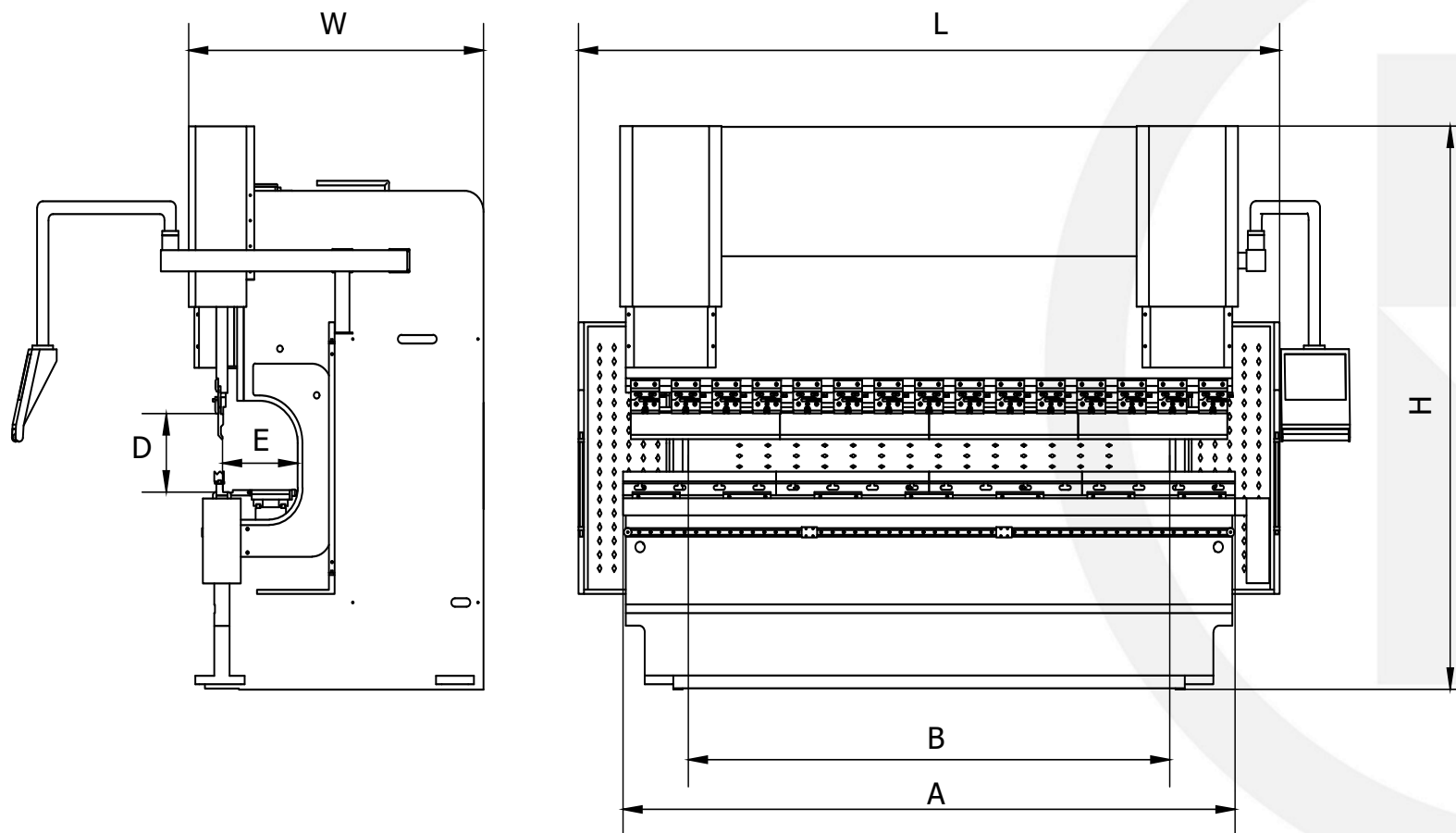
FEATURES	DETAIL
Application	Bending of metal sheets
Control Axes ⁽²⁾	X – Y
Control Software	ESTUN E21
Bending Angle Precision ⁽³⁾	±1°~2°
Punch Positioning Precision (Y)	±0.02in 0.5 mm
Back Gauge Positioning Precision (X)	±0.004in 0.1 mm

General Specifications

MODEL	OIL TANK VOLUME ISO 46 ⁽¹⁾		SPEEDS						MAIN MOTOR POWER	MAXIMUM EQUIPMEN T POWER	MAXIMUM CURRENT PER LINE 220V-3ph	THERMO- MAGNETIC SWITCH (MCCB) @220V-3ph	REQUIRED CONDUCTOR GAUGE UP TO MCCB @220V-3ph ⁽²⁾	
			APPROACH		WORKING		RETURN							
	L	gal	mm/s	in/s	mm/s	in/s	mm/s	in/s					kW	kW
FX16T40	120	32	120	4.72	0-10	0-0.4	100	3.93	4	9	26.2	30	3 x 10AWG + 1 x 10AWG(PE)	3 x 12AWG + 1 x 10AWG(PE)
FX16T80	200	53	120	4.72	0-10	0-0.4	100	3.93	5.5	11	32.1	35	3 x 8AWG + 1 x 10AWG(PE)	3 x 10AWG + 1 x 10AWG(PE)
FX25T80	200	53	120	4.72	0-10	0-0.1	100	3.93	5.5	12.5	36.5	40	3 X 8AWG + 1 X 10AWG(PE)	3 x 10AWG + 1 x 10AWG(PE)
FX25T130	200	53	120	4.72	0-10	0-0.4	100	3.93	7.5	13	37.9	40	3 x 8AWG + 1 x 10AWG(PE)	3 x 10AWG + 1 x 10AWG(PE)
FX32T130	220	58.5	120	4.72	0-10	0-0.4	100	3.93	7.5	13	37.9	40	3 x 8AWG + 1 x 10AWG(PE)	3 x 10AWG + 1 x 10AWG(PE)

1. This value corresponds to 100% of the tank capacity. However, it is recommended to fill the oil tank to between 70-80% of its total capacity.
2. The wire gauge sizing was performed based on Table 310-15(b) (16) of NOM-001-SEDE for maximum conductor temperatures of 60°C and 90°C respectively, considering an installation in conduit. In case of an open-air cable installation, a smaller gauge than the one shown in this document could be used, subject to prior consultation with the FORZA Laser technical department.

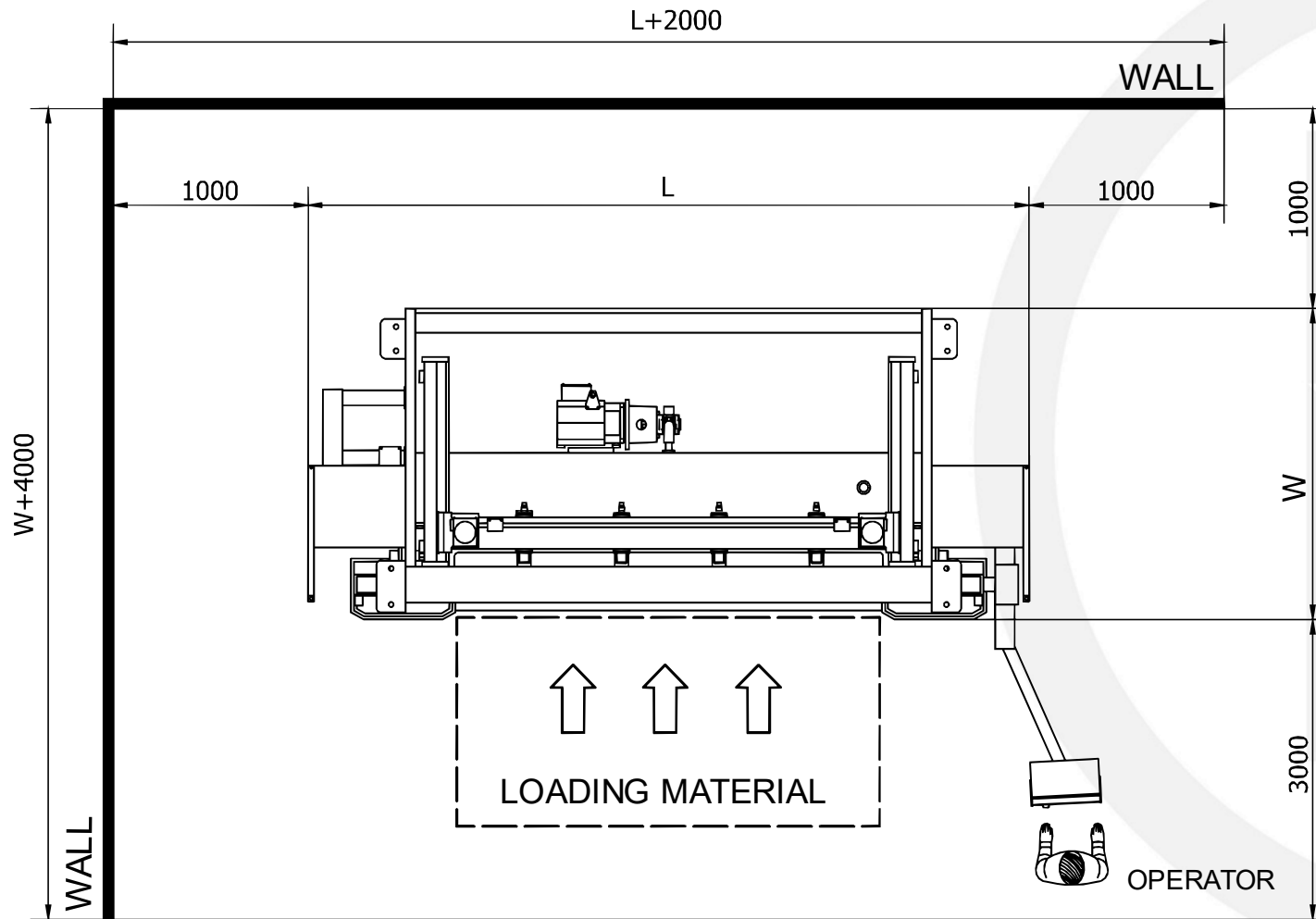
Machine Dimensions



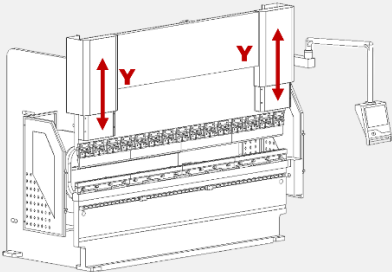
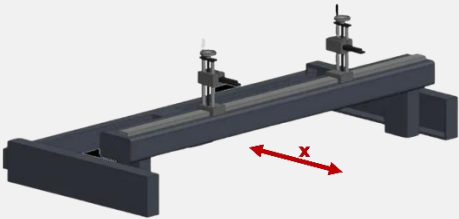
The following values are for reference; they may vary slightly depending on the equipment version

MODEL	WEIGHT		A: BENDING LENGTH		B: DISTANCE BETWEEN SUPPORTS		E: THROAT DEPTH		D: OPENING HEIGHT		CYLINDER STROKE		GENERAL DIMENSIONS					
													L: LENGTH		W: WIDTH		H: HEIGHT	
	kg	lb	mm	ft	mm	ft	mm	ft	mm	ft	mm	ft	mm	ft	mm	ft	mm	ft
FX16T40	3000	6615	1600	5.25	1200	3.95	250	0.82	430	1.4	120	0.4	2300	7.6	1400	4.6	2400	7.9
FX16T80	5500	12125	1600	5.25	1200	3.95	350	1.15	430	1.4	120	0.4	2300	7.6	1400	4.6	2630	8.6
FX25T80	5500	12125	2500	8.2	2000	6.55	350	1.15	430	1.4	120	0.4	3200	7.6	1400	4.6	2630	8.6
FX25T130	6400	14110	2500	8.2	2000	6.55	400	1.3	460	1.5	150	0.5	3200	10.5	1515	5	2630	8.6
FX32T130	6800	14990	3200	10.5	2500	8.2	400	1.3	460	1.5	150	0.5	3900	12.8	1515	5	2630	8.6

Required Space

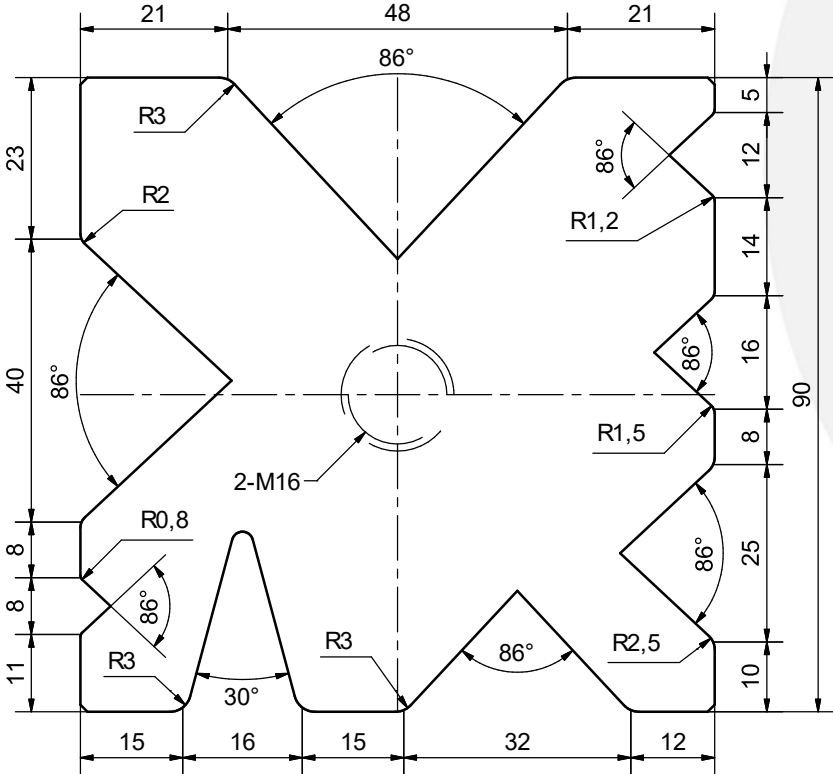


Control Axes

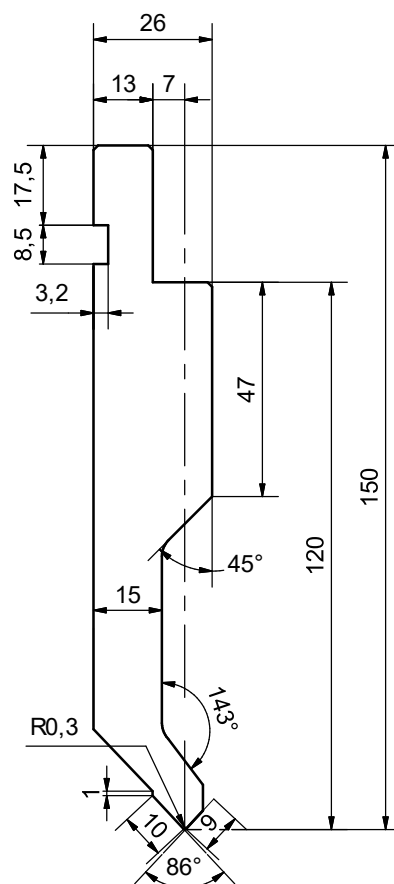
AXES		
AXIS	FUNCTION	DIAGRAM
Y	Controls the vertical positioning of the punch	
X	Controls the longitudinal positioning of the back gauge	

Standard Tooling

DIE	
Integral heat treatment	Hardness HRC47±2°
Dimensional tolerance	±0.02mm
Flatness tolerance	±0.02mm
Total length	Depends on the length of the equipment model



PUNCH	
Integral heat treatment	Hardness HRC47±2°
Dimensional tolerance	±0.02mm
Flatness tolerance	±0.02mm
Total length	Formed by sections according to the equipment length



Packing List

- ❑ 1 x FORZA Flex Machine 
- ❑ 1 x Control Pedals with Emergency Stop 
- ❑ 4 x Leveling Plates 
- ❑ 4 x Leveling Bolts 
- ❑ 4 x J-Type Anchor Bolts with Nuts 
- ❑ 1 x ESTUN E21 Controller 
- ❑ 1 x Laser Protection System for Operators (DSP) 
- ❑ 1 x Hydraulic Pump 
- ❑ 1 x Pressure Gauge with Connection Hose 
- ❑ 1 x Support Structure for Work Plates 

- TOOLBOX -

- ❑ 1 x Plastic Toolbox 
- ❑ 1 x Manual Oil Can 
- ❑ 1 x Metric ALLEN Wrench Set 
- ❑ 1 x Open-End Wrench 11-13mm 
- ❑ 1 x Grease Gun 
- ❑ 1 x Phillips Screwdriver 
- ❑ 1 x Adjustable Wrench 
- ❑ 1 x Set of O-rings 

- LICENSES -

- ❑ 1 x ESTUN Software License
- ❑ 1 x 1-Year FORZA Vectors License
- ❑ 1 x 1-Year Full FORZA Academy License
- ❑ 1 x 4-Year Super 7 SUPPORT License

- CONSUMABLES -

- ❑ 1 x Set of Dies 
- ❑ 1 x Set of Punches 

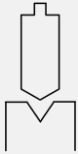
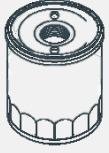
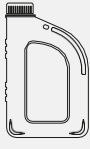
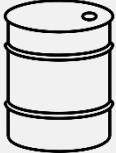
- POWER CABLES AND CONDUIT -

- ❑ 10 m x Metal Conduit 
- ❑ 10mx Cable 3x__ AWG + 1x__AWG, B-M (T:Ring-Tip) @220v3ph 
- ❑ 10mx Cable 3x__ AWG + 1x__AWG, B- M (T:Ring-Tip) @250v3ph 
- ❑ 10mx Cable 3x__ AWG + 1x__AWG, B- M (T:Ring-Tip) @380v3ph 
- ❑ 10mx Cable 3x__ AWG + 1x__AWG, B- M (T:Ring-Tip) @440v3ph 
- ❑ 10mx Cable 3x__ AWG + 1x__AWG, B- M (T:Ring-Tip) @480v3ph 

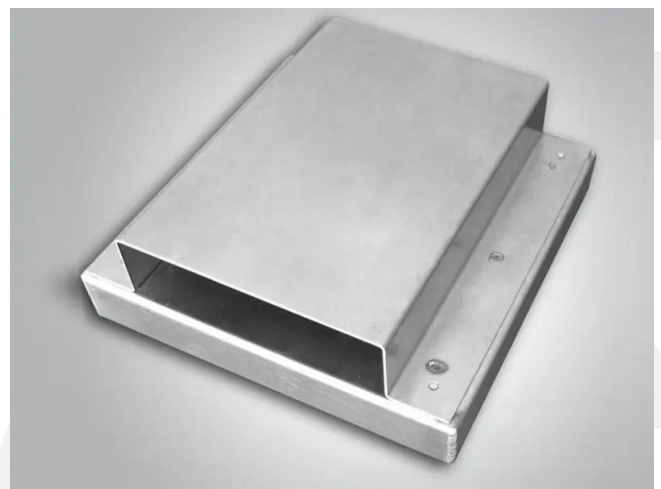
* Reference cables are TW-type insulation

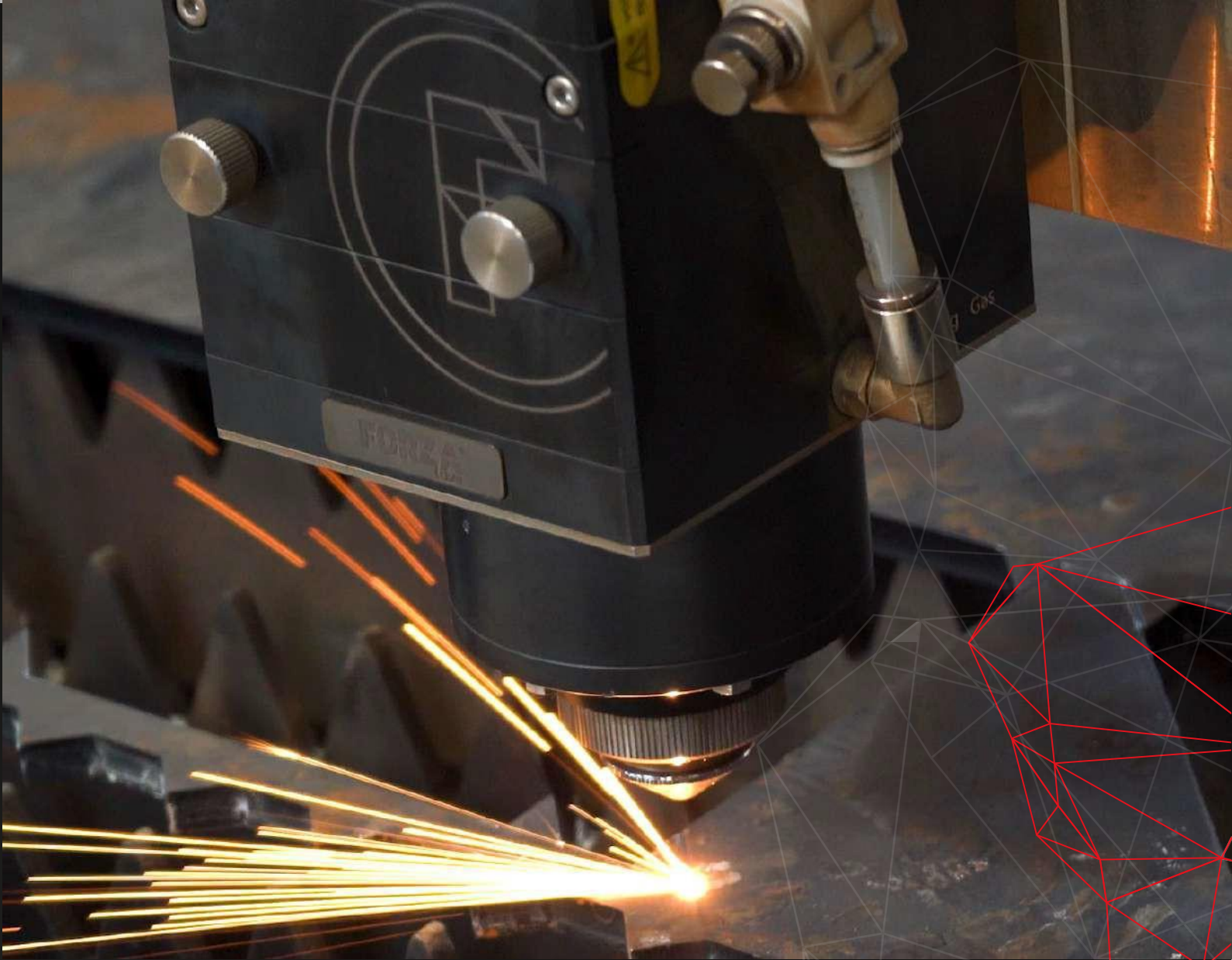
Transport symbols:  (Package),  (Inside the package),  (Installed on the machine).

Consumables

IMAGE	ITEM	DESCRIPTION	LIFESPAN
	Die and Punch	Made of ultra-resistant 42CrMo material, they need to be resharpened or replaced after several years of use.	Not specified
	Oil Filter	Needs to be replaced to ensure the purity of the oil in the hydraulic system.	2000 – 4000 hours
	Blue Lithium Grease	For lubricating specific points such as bearings and guide rails.	100 – 500 hours
	Lubrication Oil, ISO 68	For moving parts and transmission systems.	100 – 500 hours
	Anti-Wear Mineral Hydraulic Oil, ISO 46	Replacement or refilling of the tank depending on the level and quality of the oil.	2000 – 4000 hours

Manufactured Parts





At FORZA Laser, laser specialists, our team has everything you need to take your business to the next level.

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