

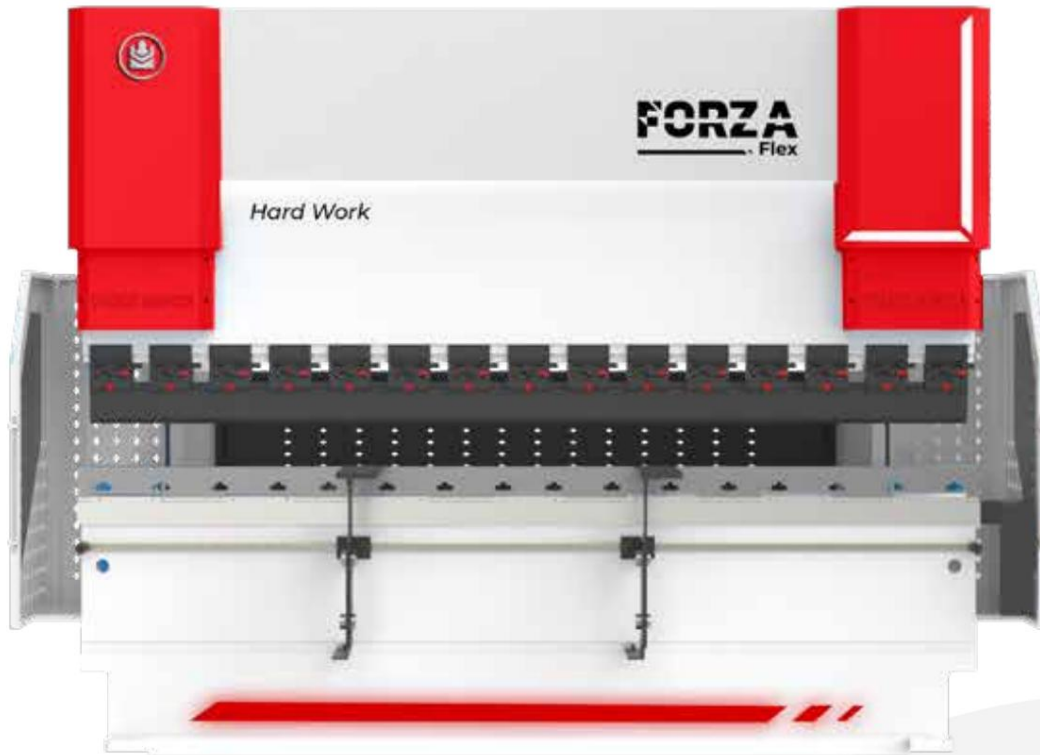


FORZA
Flex

V2502 2 5

Technical Sheet

Model FXxx Txx



FORZA
Flex

Robust NC hydraulic bending machine for metal sheets

BENT

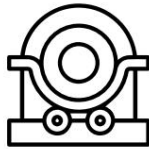
The FORZA Flex bending machine is used for bending metal sheets in a wide variety of industrial applications. It uses numerical control (NC) technology and hydraulic components, with fewer failures and low maintenance.

With this machine, bent parts can be manufactured with high precision consistency, such as components and structural and metal casings. It guarantees rigidity, strength and structural stability thanks to its robust Q235B steel construction.

We have different NC bending machine options for the capacity and dimensions required.

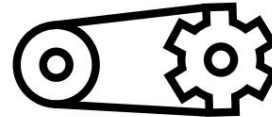
Special Features

Back-gauge system



High-precision backgauge system adopts high-precision worm and helical wheel transmission mechanism. The maximum speed of X-axis is up to 600mm/s.

Front drag module



The front support frame is supported by rollers along the linear guide rail in the Z-axis direction for manual sliding from left to right, and the height is easily adjusted by the handle.

High strength machine bed



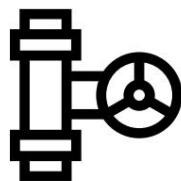
The machine is implemented in heat-treated Q235B steel plates, and all joints of the steel plates have relief grooves to ensure the strength of the whole machine.

E21 ESTUN Controller



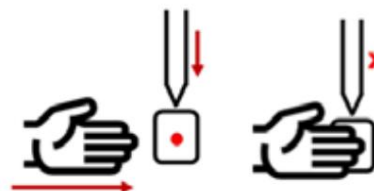
The NC control system is provided by the E21 Controller, which guarantees high precision, storage of multiple bending programs and an intuitive operation that even less experienced operators can handle the machine efficiently.

Heavy-duty hydraulic system



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

Laser protection system



Safety system through laser blocking, when the machine is in the bending process, a laser sensor detects if the operator's hand enters and immediately blocks the process, ensuring the well-being of the operator and the machine.

General Specifications

The following values are for reference only, they may vary slightly depending on the version of the equipment.

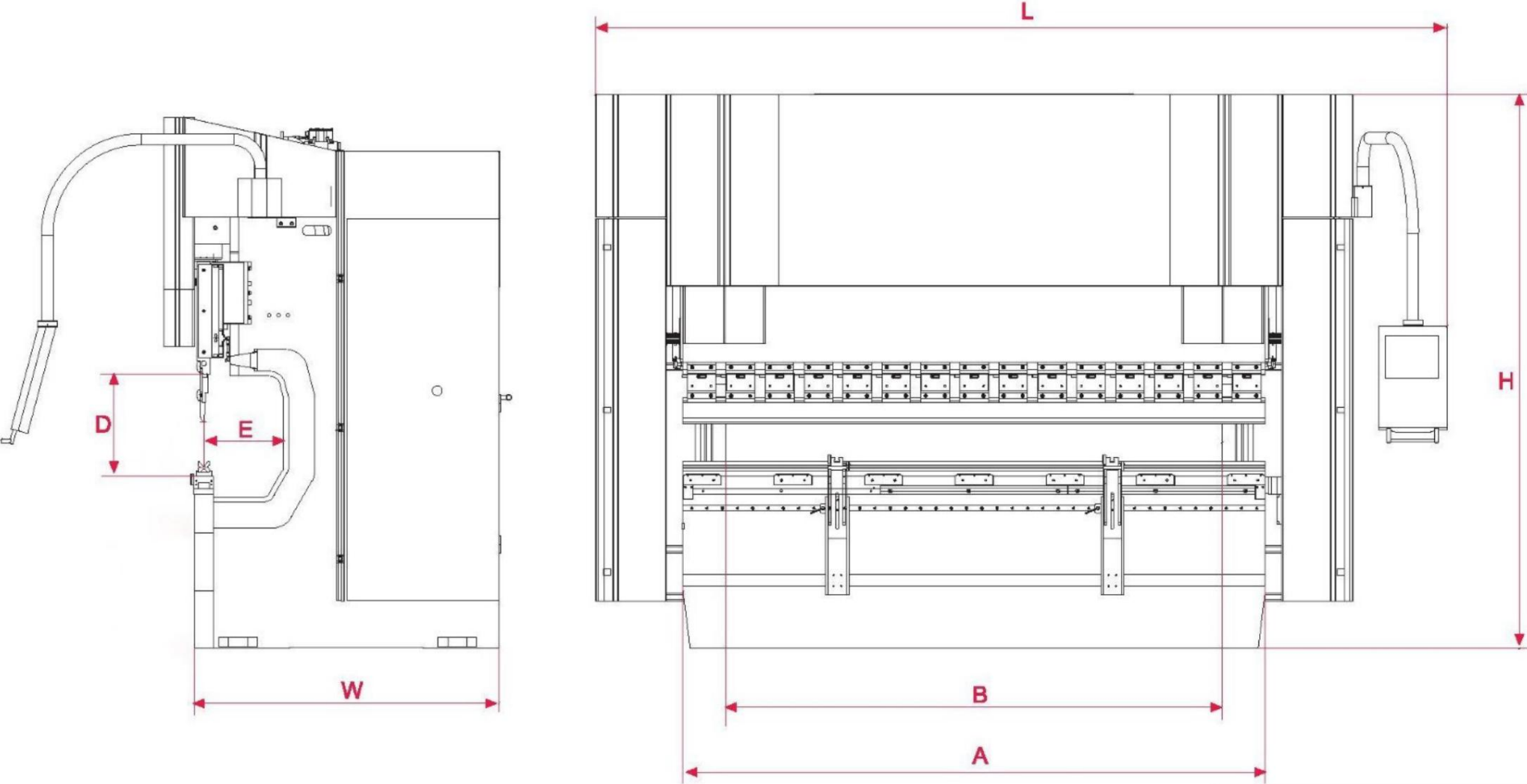
MODEL	MAXIMUM FORCE OF BENDING (kN)	VOLUME TANK OF ISO OIL (1) 46 (L)	SPEEDS (mm/s)			POWER OF THE ENGINE MAJOR (kW)	POWER BEAK (kW)	CURRENT MAXIMUM PER LINE @220V-3ph (A)	BREAKER 3ph (TO)	WIRE FOOD (2) (TW type)
			Speed of Approach	Speed of Job	Speed of Return					
FX16T40	400	120	120	10	100	4	9	26.2	30	3 x 10 AWG
FX25T40	400	200	120	10	100	4	9	26.2	30	3 x 10 AWG
FX25T60	600	200	120	10	100	5.5	9	26.2	30	3 x 10 AWG
FX32T60	600	220	120	10	100	5.5	9	26.2	30	3 x 10 AWG
FX25T80	800	200	120	10	100	5.5	9	26.2	30	3 x 10 AWG
FX32T80	800	220	120	10	100	5.5	9	26.2	30	3 x 10 AWG
FX40T80	800	290	120	10	100	5.5	9	26.2	30	3 x 10 AWG
FX25T100	1000	200	120	10	100	7.5	11	32.1	40	3 x 8 AWG
FX32T100	1000	220	120	10	100	7.5	11	32.1	40	3 x 8 AWG
FX40T100	1000	290	120	10	100	7.5	11	32.1	40	3 x 8 AWG
FX25T125	1250	200	120	10	100	7.5	11	32.1	40	3 x 8 AWG
FX32T125	1250	220	120	10	100	7.5	11	32.1	40	3 x 8 AWG
FX40T125	1250	290	120	10	100	7.5	11	32.1	40	3 x 8 AWG
FX25T160	1600	250	120	10	100	11	14	40.8	50	3 x 6 AWG
FX32T160	1600	270	120	10	100	11	14	40.8	50	3 x 6 AWG
FX40T160	1600	300	120	10	100	11	14	40.8	50	3 x 6 AWG
FX50T160	1600	330	120	10	100	11	14	40.8	50	3 x 6 AWG
FX60T160	1600	500	120	10	100	15	20	58.3	60	3 x 4 AWG

General Specifications

MODEL	MAXIMUM FORCE OF BENDING (kN)	VOLUME TANK OF ISO OIL 46 (L) ⁽¹⁾	SPEEDS (mm/s)			POWER OF THE ENGINE MAJOR (kW)	POWER BEAK (kW)	CURRENT MAXIMUM PER LINE @220V-3ph (A)	BREAKER 3ph (TO)	WIRE FOOD (2) (TW type)
			Speed of Approach	Speed of Job	Speed of Return					
FX25T200	2000	380	100	10	80	15	20	58.3	60	3 x 4 AWG
FX32T200	2000	400	100	10	80	15	20	58.3	60	3 x 4 AWG
FX40T200	2000	470	100	10	80	15	20	58.3	60	3 x 4 AWG
FX50T200	2000	550	100	10	80	15	20	58.3	60	3 x 4 AWG
FX60T200	2000	670	90	8	70	18.5	25	72.9	80	3 x 3 AWG
FX32T250	2500	440	90	8	70	18.5	25	72.9	80	3 x 3 AWG
FX40T250	2500	470	90	8	70	18.5	25	72.9	80	3 x 3 AWG
FX50T250	2500	550	90	8	70	18.5	25	72.9	80	3 x 3 AWG
FX60T250	2500	650	90	8	70	22	28	81.6	90	3 x 2 AWG
FX32T300	3000	440	90	8	70	22	28	81.6	90	3 x 2 AWG
FX40T300	3000	520	90	8	70	22	28	81.6	90	3 x 2 AWG
FX50T300	3000	580	90	8	70	22	28	81.6	90	3 x 2 AWG
FX60T300	3000	650	90	8	70	22	28	81.6	90	3 x 2 AWG

1. This value corresponds to 100% of the tank. However, it is recommended to fill the oil tank between 70% - 80% of its total capacity.
2. Additionally, a 8 or 10 AWG grounding cable is included depending on the maximum current of the equipment.

Machine measurements

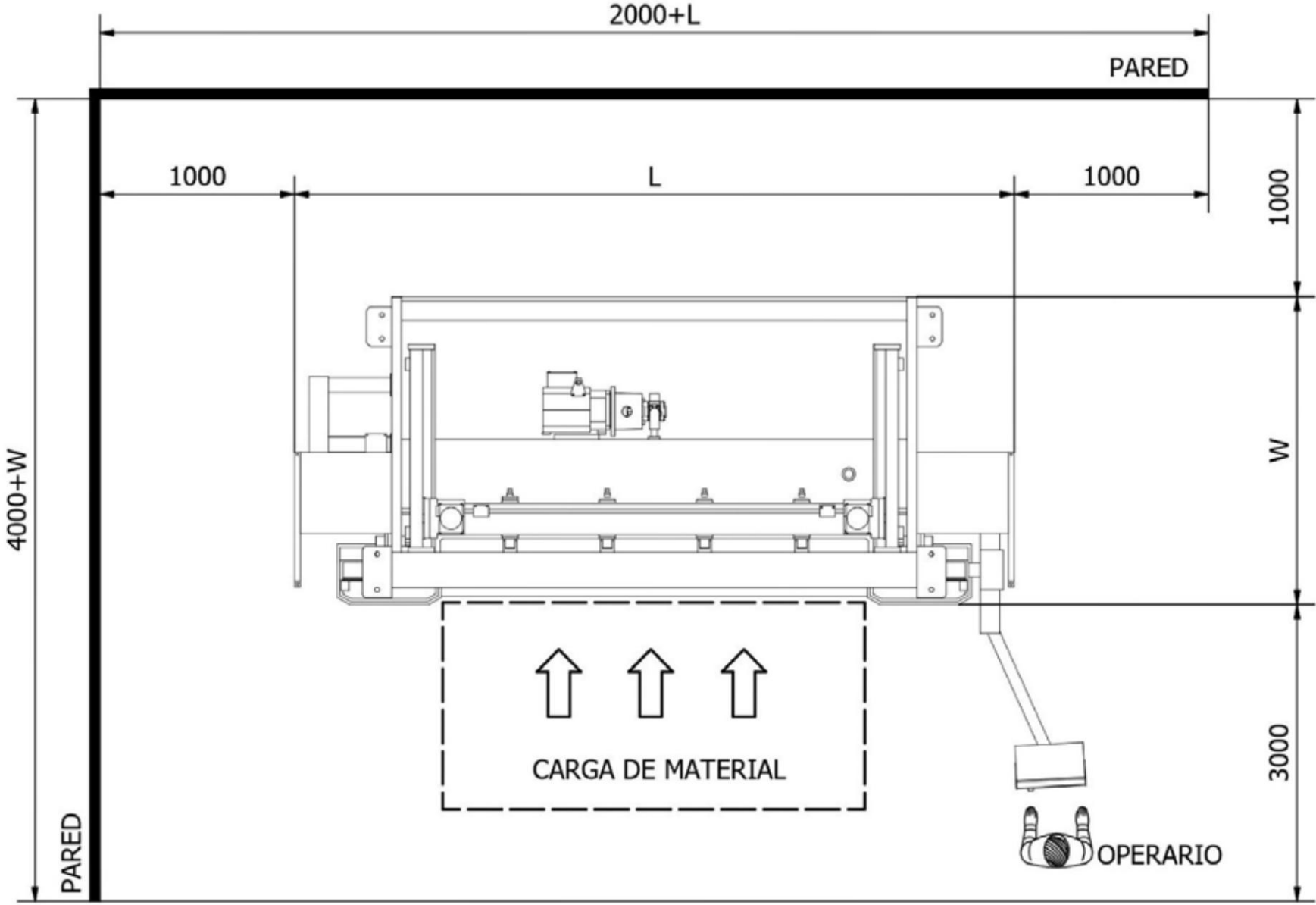


The following values are for reference only, they may vary slightly depending on the version of the equipment.

MODEL	WEIGHT (kg)	A: LENGTH OF BENDING (mm)	B: DISTANCE BETWEEN SUPPORTS (mm)	E: DEPTH FROM THROAT (mm)	D: HEIGHT OF OPENING (mm)	RACE OF THE CYLINDER (mm)	GENERAL MEASURES		
							L: LENGTH (mm) W:	WIDTH (mm)	H: HEIGHT (mm)
FX16T40	3000	1600	1200	250	430	120	2300	1400	2400
FX25T40	3500	2500	2000	350	430	120	3200	1400	2450
FX25T60	4300	2500	2000	350	430	120	3200	1400	2450
FX32T60	4800	3200	2500	350	430	120	3900	1400	2450
FX25T80	5500	2500	2000	350	430	120	3200	1400	2630
FX32T80	6000	3200	2500	350	430	120	3900	1400	2570
FX40T80	7700	4000	3100	350	430	120	4900	1400	2710
FX25T100	6300	2500	2000	400	430	120	3200	1505	2630
FX32T100	6600	3200	2500	400	430	120	3900	1505	2630
FX40T100	8300	4000	3100	400	430	120	4900	1505	2710
FX25T125	6400	2500	2000	400	460	150	3200	1515	2630
FX32T125	6800	3200	2500	400	460	150	3900	1515	2630
FX40T125	8500	4000	3100	400	460	150	4900	1515	2700
FX25T160	7800	2500	2000	400	460	200	3200	1670	2680
FX32T160	8200	3200	2500	400	480	200	3900	1670	2680
FX40T160	9800	4000	3100	400	480	200	4900	1670	2730
FX50T160	14800	5000	4000	400	480	200	5700	1720	2990
FX60T160	18000	6000	5000	400	480	200	6700	1720	3050

MODEL	WEIGHT (kg)	A: LENGTH OF BENDING (mm)	B: DISTANCE BETWEEN SUPPORTS (mm)	E: DEPTH FROM THROAT (mm)	D: HEIGHT OF OPENING (mm)	RACE OF THE CYLINDER (mm)	GENERAL MEASURES		
							L: LENGTH (mm) W: WIDTH (mm) H: HEIGHT (mm)		
FX25T200	9350	2500	2000	400	480	200	3200	1730	2725
FX32T200	9350	3200	2500	400	480	200	3900	1730	2725
FX40T200	11500	4000	3100	400	480	200	4900	1730	2760
FX50T200	16500	5000	4000	400	480	200	5700	1760	3080
FX60T200	18500	6000	5000	400	480	200	6700	1760	3290
FX32T250	10300	3200	2500	400	500	250	3900	1730	2800
FX40T250	12500	4000	3100	400	500	250	4900	1730	2820
FX50T250	17800	5000	4000	400	500	250	5700	1810	3350
FX60T250	20500	6000	5000	400	500	250	6700	1910	3520
FX32T300	14800	3200	2500	400	500	250	3900	1990	3200
FX40T300	18000	4000	3100	400	500	250	4900	1990	3200
FX50T300	21500	5000	4000	400	500	250	5700	1990	3525
FX60T300	26500	6000	4800	400	500	250	6700	2050	3620

Space required



Bending Capacity

The following values are for reference only, they may vary slightly depending on the version of the equipment.

MODEL	LENGTH MAXIMUM OF BENDING (mm)	MAXIMUM STRENGTH OF BENDING (kN)	BENDING THICKNESSES (mm)		
			AL STEEL CARBON	STEEL STAINLESS	ALUMINUM
FX16T40	1600	400	3	1.5	4
FX25T40	2500	400	1.5	1	2.5
FX25T60	2500	600	3	2	5
FX32T60	3200	600	2	1.5	3.5
FX25T80	2500	800	4	2.5	6
FX32T80	3200	800	3	2	4.5
FX40T80	4000	800	1.5	2	2.5
FX25T100	2500	1000	4.5	3	6
FX32T100	3200	1000	3.5	2.5	5
FX40T100	4000	1000	2.5	1.5	4
FX25T125	2500	1250	5	3	7.5
FX32T125	3200	1250	4.5	3	6.5
FX40T125	4000	1250	3	2	4.5
FX25T160	2500	1600	6	4	9
FX32T160	3200	1600	5.5	3.5	8
FX40T160	4000	1600	4	2.5	6
FX50T160	5000	1600	3.5	2	5.5
FX60T160	6000	1600	2.5	2	4.5
FX25T200	2500	2000	8	4.5	11
FX32T200	3200	2000	7	4.5	10
FX40T200	4000	2000	6	4	8
FX50T200	5000	2000	4.5	3	6
FX60T200	6000	2000	3.5	2.5	6
FX32T250	3200	2500	8	5.5	14
FX40T250	4000	2500	7	4.5	10
FX50T250	5000	2500	5.5	3.5	8
FX60T250	6000	2500	4.5	3	7
FX32T300	3200	3000	9	6.5	15
FX40T300	4000	3000	8	4.5	11
FX50T300	5000	3000	7	4.5	9.5
FX60T300	6000	3000	5.5	3.5	7.5

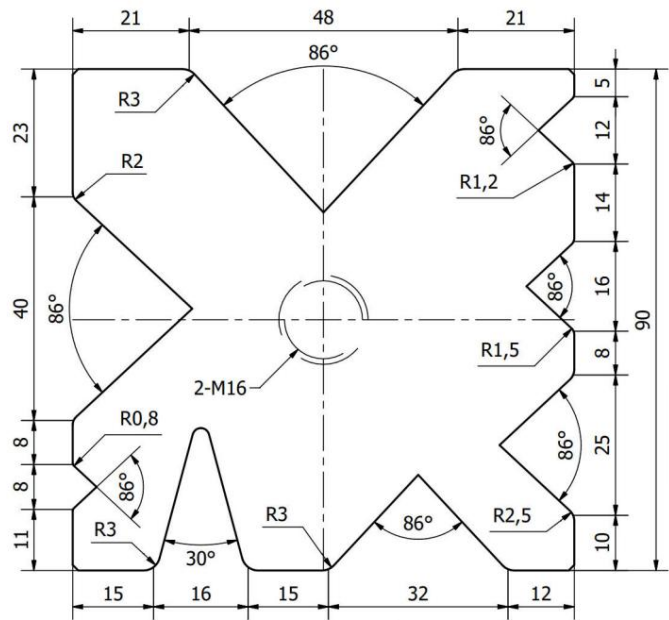
Consumables:

Image	Article	Description
	Die and punch	Made of ultra-resistant 42Crmo material, they need to be resharpened or replaced after a few years of use.
	Oil filter	It needs to be replaced to ensure the purity of the oil in the hydraulic system.
	Fat	Used to lubricate specific points such as bearings and guide rails.
	Hydraulic oil anti-wear mineral ISO 46	Replacement or refill depending on oil level and quality.
	Lubricating oil ISO 68	Used for moving parts and transmission systems.

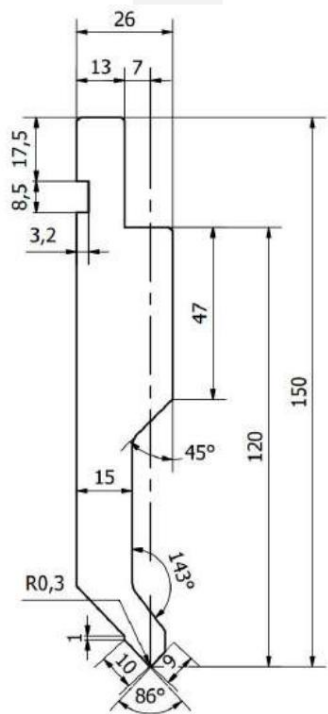
Standard tools

The following tools are for reference only and may vary slightly depending on the version of the equipment.

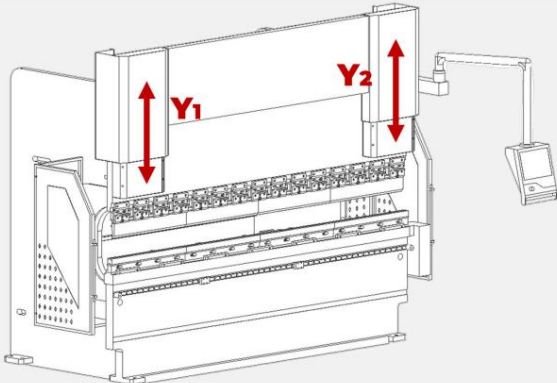
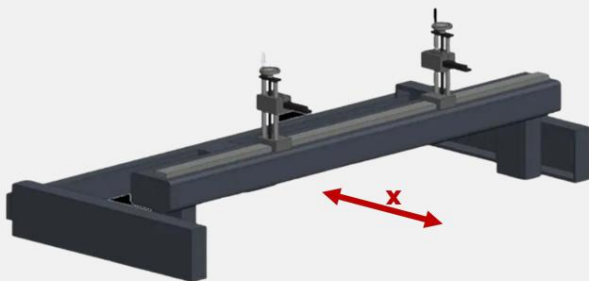
MATRIX	
Comprehensive heat treatment	Hardness HRC47 ±2°
Dimensional tolerance	±0.02mm
Flatness tolerance	±0.03mm
Total length	It depends on the length of the equipment model.



AWL	
Comprehensive heat treatment	Hardness HRC47 ±2°
Dimensional tolerance	±0.02mm
Flatness tolerance	±0.02mm
Total length	Made up of sections according to the length of the equipment.
Surface treatment	Black phosphate and thermal etching



Standard control axes

XY AXES		
AXIS	FUNCTION	SCHEME
Y1	Controls the race of the hydraulic cylinder	
Y2		
X	Longitudinal stop control rear	

Packing List:

- ☐ 1 x FORZA FLEX (NC) machine. 
- ☐ 1 x Control pedals with emergency stop. 
- ☐ 4 x Leveling plates 
- ☐ 4 x J-type anchor bolts with nut 
- ☐ 1 x ESTUN E21 Controller 
- ☐ 1 x Laser Operator Protection System (DSP) 
- ☐ 1 x Hydraulic pump 
- ☐ 1 x Pressure gauge with its connecting hose 
- ☐ 1 x Worktop support frame 

-POWER CABLES and DUCT-

- ☐ 10m x Power cable 3 x ____ AWG + 1 x ____AWG, BM 
- ☐ 1 x Set of hoses for the hydraulic circuit 

-CONSUMABLES-

- ☐ 1 x Punch and die set. 

-TOOL BOX-

- ☐ 1 x Plastic tool box. 
- ☐ 1 x Manual oiler 
- ☐ 1 x Metric Allen Key Set 
- ☐ 1 x Open End Wrench 11mm-13mm 
- ☐ 1 x Grease injector 
- ☐ 1 x Phillips screwdriver 
- ☐ 1 x Adjustable or parrot beak wrench 
- ☐ 1 x O-ring set 

B:Breaker, M:Machine, G:Ground

Transport symbols:



(Bulk).



(Inside a package).

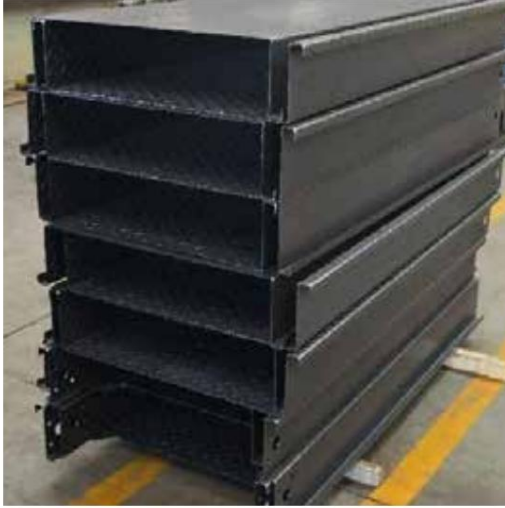


(Installed on the computer)

**The reference cables are with TW type coating*

Manufactured Parts:

Carbon Steel Bent



Sheet metal cabinet components



Aluminum bending



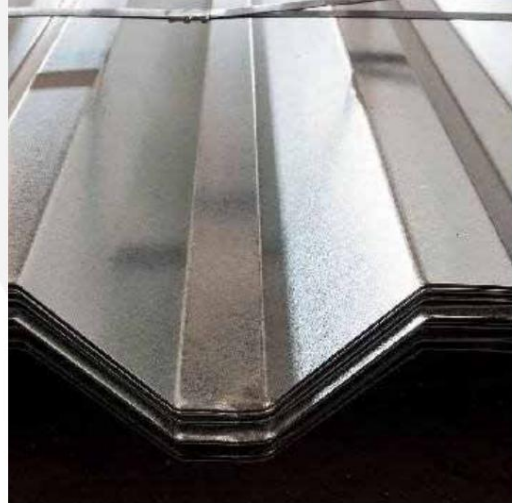
Bending in Fluor-Aluminum-Zinc alloy

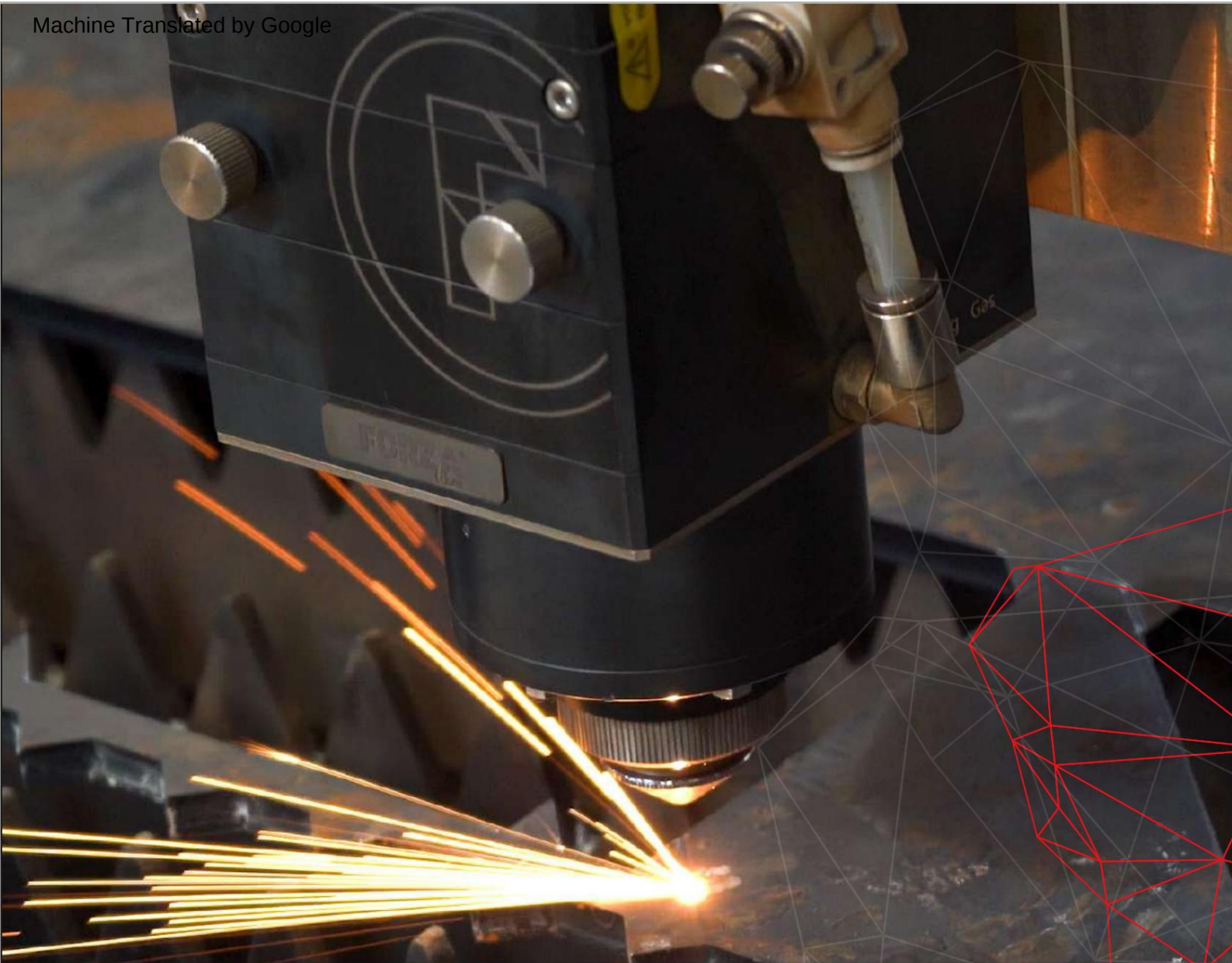


Brass Bent



Bent in Stainless Steel





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