



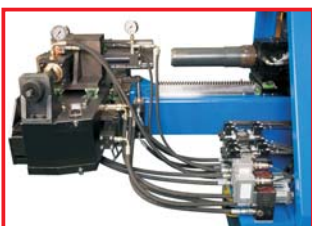
ERCOPRO 50 MANDREL BENDING MACHINE CNC4

STANDARD MODEL

Article	Description
ERCOPRO50	Mandrel bending machine - Numerical control 4 axis for fixed radius and variable radius bending.



ADVANTAGES



- ✓ Mandrel and non mandrel bending
- ✓ Machine main frame in high resistance steel
- ✓ Tunnel covering the entire carriage length, avoiding the use of the safety barriers.
- ✓ Two stack bending head. One stack is preset for variable radii bending (calendering)
- ✓ Cross movement of bend head
- ✓ Automatic carriage with tube booster function for variable radii bends.

- ✓ Bending Control Pressure Die Booster. Allows to control tube deformation, bend tight radius, and bend small wall thickness tubes
- ✓ Special vice movement inside the arm creates more space for the working area and join the former directly with the bend arm;
- ✓ Excellent stability of the former during bending avoids the use of any tie bar;
- ✓ Closed circuit control system for the numerical control of the 4 axis:

C = Former rotation axis;
 X = Linear movement of bending work head
 Y = Transverse movement of the mandrel carriage
 B = Mandrel rotation Axis



- ✓ Control panel with interactive and graphic interface (touch screen 15") for 3D bend simulations



- ✓ Prismatic ball guides for all linear movements



- ✓ Safety equipment with laser scan

- ✓ Positioning axis is powered by brushless motors; hydraulic movement of the other axis

- ✓ Bend head loads up to 42000 Kg

- ✓ Anticipated mandrel extration programmable in automatic cycle

- ✓ High performance mechanically blocked vice (approx.10 tons.)

TECHNICAL SPECIFICATIONS

Description	ERCOPRO 50
Flexion Module*	5 cm ³
Max OD tube	63.5 mm
Max tube length	3100 mm
Minimun bend radius (CLR)	20 mm
Maximum bend radius	200 mm
Bending Stacks	2
Vertical stroke of the head to facilitate tool change	70 mm
4 axis numerical control: bending arm (C) linear feed (Y) rotation (B), head position (X)	C = 25 rpm Y = 75 m/min B = 90 rpm X = 30 m/min
Accuracy of carriage linear motion (Y)	3100 mm
Accuracy of carriage rotation motion (B)	20 mm
Accuracy of bend angle (C)	220 mm
Precision of X-axis	3100 mm
Power	220 mm
Weight	3100 mm

* Fe 42 Kg/mm²

CAPACITY

Capacity max: 5 cm ³ *	Material
Ø 50 x 1.6 mm	Stainless Steel AISI 304
Ø 50 x 3 mm	Fe 42
Ø 60 x 1.5 mm	OD Tube

* Fe 42 Kg/mm²

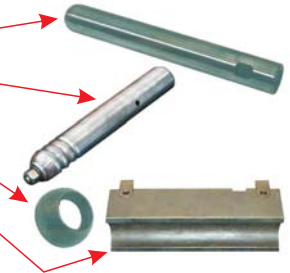
TOOLING FOR FIXED RADIUS

mm	TUBE DIAMETER							
	From 6 to 13	From 14 to 21	From 22 to 25	From 26 to 33	From 34 to 35	From 36 to 38	From 39 to 48	From 49 to 51
OD	1/2"		1"			1 1/2"		2"
GAS		1/2"			1"		1 1/2"	

FOR STEEL TUBES ST37/42 AND SIMILAR

STEEL PLUG MANDREL
STEEL FLEXIBLE MANDREL (mandrel spheres not included)
STEEL FLEXIBLE MANDREL KIT (n. 3 mandrel spheres included)
STEEL MANDREL SPHERE
TEMPERED STEEL PRESSURE DIE

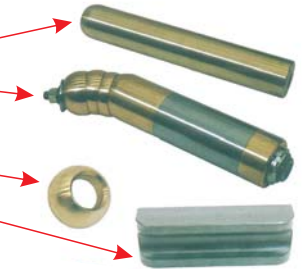
AE21R/1/1	AE21R/1/2	AE21R/1/3	AE21R/1/4	AE21R/1/5	AE21R/2/1	AE21R/2/2	AE21R/2/3
not avail.	AE21F/1/2	AE21F/1/3	AE21F/1/4	AE21F/1/5	AE21F/2/1	AE21F/2/2	AE21F/2/3
not avail.	AE21FK/1/2	AE21FK/1/3	AE21FK/1/4	AE21FK/1/5	AE21FK/2/1	AE21FK/2/2	AE21FK/2/3
not avail.	A21BS/1/2	A21BS/1/3	A21BS/1/4	A21BS/1/5	A21BS/2/1	A21BS/2/2	A21BS/2/3
A20/1	A20/2	A20/3	A20/4	A20/5	A20/1/1	A20/1/2	A20/1/3



FOR STAINLESS STEEL TUBES AND SIMILAR

PLUG MANDREL IN AMPCO BRONZO
FLEXIBLE MANDREL IN AMPCO BRONZO (mandrel spheres not included)
FLEXIBLE MANDREL KIT IN BRONZO AMPCO (n. 3 mandrel spheres included)
MANDREL SPHERE IN AMPCO BRONZO
PLASTIC PRESSURE DIE

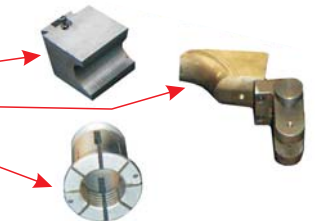
AE21R/3/1	AE21R/3/2	AE21R/3/3	AE21R/3/4	AE21R/3/5	AE21R/4/1	AE21R/4/2	AE21R/4/3
not avail.	AE21F/3/2	AE21F/3/3	AE21F/3/4	AE21F/3/5	AE21F/4/1	AE21F/4/2	AE21F/4/3
not avail.	AE21FK/3/2	AE21FK/3/3	AE21FK/3/4	AE21FK/3/5	AE21FK/4/1	AE21FK/4/2	AE21FK/4/3
not avail.	A21BS/3/2	A21BS/3/3	A21BS/3/4	A21BS/3/5	A21BS/4/1	A21BS/4/2	A21BS/4/3
A20P/1	A20P/2	A20P/3	A20P/4	A20P/5	A20-1P/1	A20-1P/2	A20-1P/3



FOR ALL TYPES OF MATERIAL

CLAMP DIE
WIPER DIE IN BRASS
CHUCK JAW FOR TUBE LOCKING ON MANDREL CARRIAGE (specify ERCOBENDER model)

A22/1	A22/2	A22/3	A22/4	A22/5	A22/1/1	A22/1/2	A22/1/3
A24/1	A24/2	A24/3	A24/4	A24/5	A24/1/1	A24/1/2	A24/1/3
EB-068	EB-068	EB-068	EB-068	EB-068	EB-068	EB-068	EB-068



RADIUS		FORMERSI						
FROM	TO							
10	19	AR19						
20	32	AR32	AR32					
33	43	AR43	AR43	AR43				
44	53	AR53	AR53	AR53	AR53	AR53		
54	67		AR67	AR67	AR67	AR67	AR67	
68	84		AR84	AR84	AR84	AR84	AR84	AR84
85	100			AR100	AR100	AR100	AR100	AR100
101	110			AR110	AR110	AR110	AR110	AR110
111	121				AR121	AR121	AR121	AR121
122	133				AR133	AR133	AR133	AR133
134	151					AR151	AR151	AR151
152	178						AR178	AR178
179	200						AR200	AR200
201	230							
231	300							
301	450							



IMPORTANTE: The components formers, clamp die and steel pressure die have undergone hardening tempered treatment.

TOOLING FOR VARIABLE RADIUS BENDING

	TUBE DIAMETER							
mm	da 6 a 13	da 14 a 21	da 22 a 25	da 26 a 33	da 34 a 35	da 36 a 38	da 39 a 48	da 49 a 51
OD	1/2"		1"			1 1/2"		2"
GAS		1/2"			1"		1 1/2"	

FOR STEEL TUBES ST37/42 AND SIMILAR

TEMPERED STEEL PRESSURE DIE

A20/1	A20/2	A20/3	A20/4	A20/5	A20/1/1	A20/1/2	A20/1/3
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FOR STAINLESS STEEL TUBES AND SIMILAR

PLASTIC PRESSURE DIE

A20P/1	A20P/2	A20P/3	A20P/4	A20P/5	A20-1P/1	A20-1P/2	A20-1P/3
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FOR ALL TYPE MATERIAL

CLAMP DIE
CHUCK JAW FOR TUBE LOCKING ON MANDREL CARRIAGE
(specify ERCOBENDER model)

A22/1	A22/2	A22/3	A22/4	A22/5	A22/1/1	A22/1/2	A22/1/3
EB-068	EB-068	EB-068	EB-068	EB-068	EB-068	EB-068	EB-068



RADIUS		FORMERS							
From	To								
10	19	AR19							
20	32	AR32	AR32						
33	43	AR43	AR43	AR43					
44	53	AR53	AR53	AR53	AR53	AR53			
54	67		AR67	AR67	AR67	AR67	AR67		
68	84		AR84	AR84	AR84	AR84	AR84	AR84	AR84
85	100			AR100	AR100	AR100	AR100	AR100	AR100
101	110			AR110	AR110	AR110	AR110	AR110	AR110
111	121				AR121	AR121	AR121	AR121	AR121
122	133				AR133	AR133	AR133	AR133	AR133
134	151					AR151	AR151	AR151	AR151
152	178							AR178	AR178
179	200							AR200	AR200
201	230								
231	300								
301	450								



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