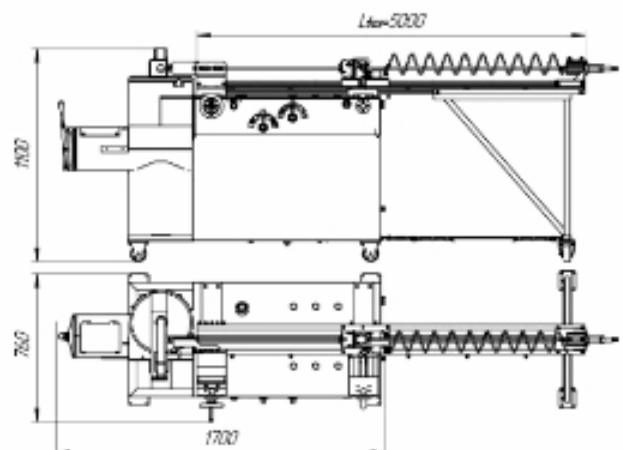
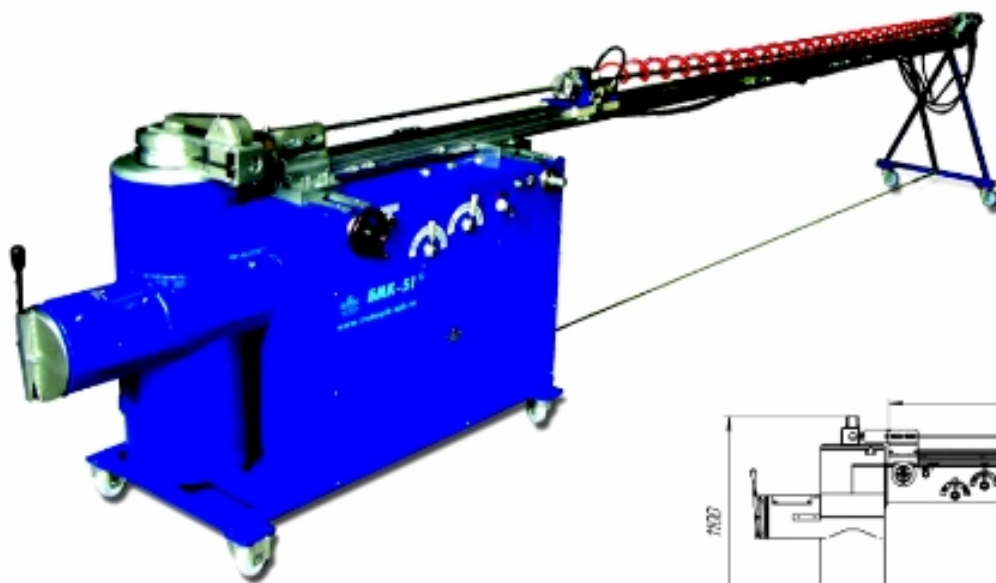


Model - 51

Universal pneumatic bending machine



Oriented:

- Mandrel and without mandrel bending of tubes



and profiles



High quality bends in 3 axes by coiling method

Abilities

- 3 axes control (A;L;R)
- Saves form of tube section in place of bend

Positioning Device

Clamps of tube end by lathe chuck



Allows to change bending plate (Tube rotation in space, axis R) and exactly fix straight piece size between bends (axis L)

Tooling

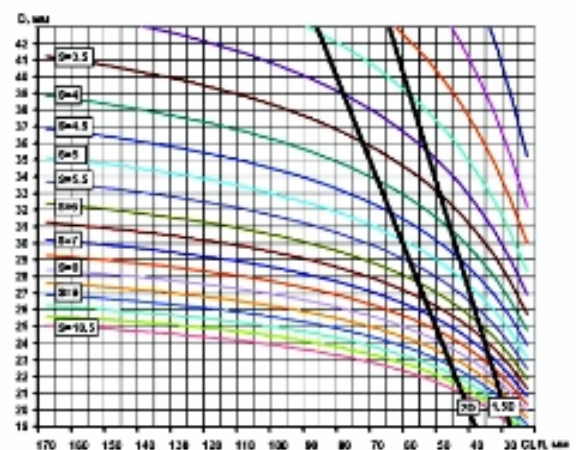
For mandrel bending by coiling method



Consists of 4 elements:

- Former
- Clamp
- Counterbending die
- Mandrel

Bending radiuses (CLR) depending on external tube diameter and walls thickness (For steel)



Bending machine allows to make bend in range of bending radiuses values, located under line of wall thickness of tube (S)

Notation conventions:
 D - external tube diameter, mm
 S - tube wall thickness, mm
 CLR - bending radius



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Model - 51

Universal pneumatic
bending machine



Technical data

Maximum tube diameter, mm	
Steel	40
Aluminium, brass, copper	60
CLR, mm	27-170
CLR, min.	1,5 D
Bending angel, degrees	0-180
Accuracy	
Bending angel (A), degrees	0,5
Tube advance (L), mm	0,5
Tube space rotation angle (R), degrees	2,5
Probability of parts repetition, %	99
Time of one bend, sec.	4-10
Space tube rotation (R)	Semiautomatic
Advance up to next bend (L)	Semiautomatic
Clamp	Automatic
Position table synchronization in bending axis	Automatic
Mandrel moving	Automatic
Return to bend starting position	Automatic
Mandrel lubrication	Automatic
Program by rests (single memory size) in axes	
A	6
L (per running meter)	10
R	6
Productivity, bends / hour	
Work with whole tube	100-150
Work with billet	200 or more
Energy source - compressed air, kg/ sm ²	6-8
LxHxB, mm	1700x1100x760
Weight, kg	450

Base set

- Bending machine
- Automatic tube clamp
- Mandrel lubrication system
- Mandrel moving system
- Position table 5 m
- Packing
- Operating manual
- Training to Customer's personnel

Advanced options

- Modification (decrease or extension) of position table length
- Delivery of tooling
- Delivery of compressor 500 litres / min, receiver 200 litres
- Machine and tooling modification for bending without straight pieces between bends
- Bending of M- type parts
- Extension of quantity of mechanical memory rests
- Setting of mechanism for bending tubes by rolling method machine adaptation for production of specific parts (more freedom for bend tube movement)
- Setting of cutting device



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