

# Induction bending



## Engineered solutions for induction bending

- 
- A global offer
  - All types of pipe bends and associated services for oil & gas, and nuclear market

With its Piping Solutions offer, Fives has been perfecting its know-how in hot bending for carbon and stainless steels over 40 years - continuously improving its performance and technical abilities

Fives' Piping Solutions businessline has worldwide experience in piping prefabrication and erection, HP, MP, LP pipes for the chemical-petrochemical industry, thermal or nuclear power plants, offshore installations, paper and agrifood industries. Induction bending is one of the essential operations.

With its complete control of processes covering all grades of carbon steel, alloy steel or stainless steel, Fives has developed its expertise in hot bending, constantly improving its performance and technicity.

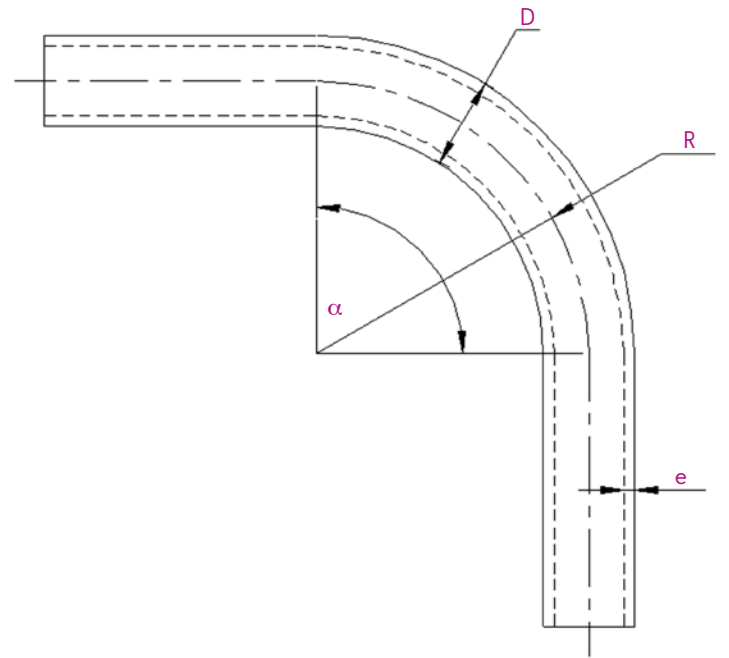
#### CAPACITIES OF THE COJAFEX PB 1000 BENDING MACHINE EQUIPPED WITH THE "START-STOP" SYSTEM

The method provides the possibility of bending welded tubes or seamless tubes, HEB-U profiles or others with all types of crosssections, tubes, squares, etc...

The method applies to the following materials:

- Carbon steel (API 5L X42-52-60-65-70, P265GH, P295GH...)
- Stainless steel (ASTM A 312 TP 304, 309, 316...), Duplex, SuperDuplex
- Alloy steel (ASTM A 335 Gr P11, P22, P5, P9, P9.1, P9.2, X20, 15CD205, 15Mo3, 15NiCuMo)
- Inconel 625, Incolloy 600H
- Clad line pipe

An integrated control unit
Inspecting tubes on reception
Mechanical testing on qualification bends and production test bend
Metallurgical testing
Dimensional examination on a surface plate
Magnetic particle or dye penetrant inspection
Ultrasound inspection
X-ray examination
Hydraulic testing to 10 000 bar
Spectroscopy...



Capacity	Minimum	Maximum
Outer diameter (D)	88,9 mm (3")	1016 mm (40")
Thickness (e)	5,5 mm (1/4")	100 mm (4")
Bending angle (α)	0°	180°
Bending radius (R)	250 mm (10")	5100 mm (17")
Length of tube		12500 mm (41")

Other services
Supply of mother tubes
Coating, painting
Sandblasting, polishing
Picking, passivation
Heat treatments (solution annealing, stabilizing, tempering...)
Bevelling, boring
Packing and shipment of finished products



#### CONTACT US

Fives Nordon - Products Units  
 78, Avenue du XX<sup>e</sup> Corps - CS 90 404 - 54001 Nancy Cedex - FRANCE  
 Tel.: +33 (0)3 83 39 54 00  
 E-mail: [fivesnordon@fivesgroup.com](mailto:fivesnordon@fivesgroup.com) - Website: [www.fivesgroup.com](http://www.fivesgroup.com)