# dyno



Mandrel bending machine (R)



#### The R-line is:

This hydraulic and servo-electric bending machine is developed for the accurate bending of tubes, square tubes and profiles. Driven by servo controlled length and spatial rotation axis and hydraulic controlled axes. High quality and efficient addition to your production process.

Thanks to the patented vertical clamping system complex geometries can be produced effortlessly using 3D- bending. The mandrel bending machine is proven to be a universal bending machine for both simple and complex bending assignments in the most diverse applications.

The mandrel bending machine is suitable for bending with or without mandrel, with the possibility to bend with mandrel lubrication as well.

#### Standard version:

- Hydraulic bending head rotation
- Hydraulic clamping of bend die
- Hydraulic retainer
- Hydraulic mandrel withdrawal
- Hydraulic clamping jaw holder
- Servo-driven spatial rotation clamping jaw
- Servo-driven longitudinal transport



TECHNICAL DATA*	R40	R60
Bending capacity [Ø] **	42,4	60,3
Bending angel [°]	190	190
Bending radius max [mm]	120	190
Bending direction	CW / CCW	CW / CCW
Bending speed max / bending speed at max torque [°/sec]	180	90
Feed axis speed max [mm/sec]	1000	1000
Profile rotation speed [°/sec]	450	450
Boosterforce Y-axis [kN]	4	4
Number of CNC axis [Nr]	2	2
Axis accuracy [mm]	± 0,1	± 0,1
Effective product length [m] ***	4 - 6	4 - 6

<sup>\*</sup> Other dimensions available on request

<sup>\*\*</sup> Dimensions are depending on yield strength, radius (CLR) and (wall) thickness

<sup>\*\*\*</sup> Should you require different Effective product length for your production process. Please contact us to discuss these options.

## Advantages

Servo-controlled main-axis length and spatial rotation and hydraulic main-axis bending,
 clamp and mandrelaxis.

Completely up to date with current machine standards.

Easy tool set-up.

No unnecessary loss of time on nonproduction related activities.

Great freedom around the bending head. Ideal for 3D bending.

No more concessions to your product because of shape restrictions of your bending machine.

Patented vertical clamping tooling system.

Thanks to our patented vertical clamping system and unique design, it gives great freedom around the bending head. Complex geometries can be bent easily. Bending of closed frames is possible, without disassembling tooling to remove the finished product.

Also profile-bending is possible.

Simple profiles are easy to bend with this machine.

Ergonomic, work friendly loading height for material.

Lower sick rates due to optimal work circumstances around the bending machine.

Unique machine design because of compact construction method with integrated cabinet.

Gone are the hoses and other vulnerable components, because of the compact construction method with integrated cabinet.

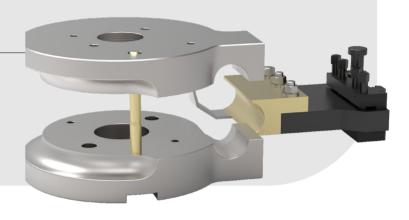
Machine with a low price.

Often this machine is already enough for the requested production.



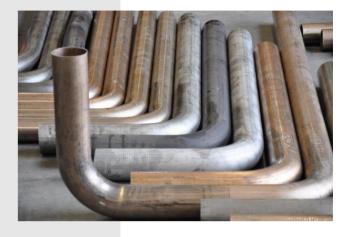
## **Bending**

Vertical clamping rotary draw bending tool with fixed bending radius. Bending



### Powerful and easy!

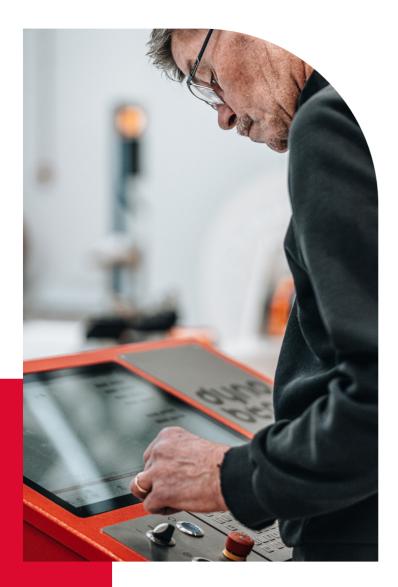
This machine will amaze you in terms of what it can handle. The mandrel bending machine (R) makes it happen. This machine can be intuitively programmed with the "Programmanager software". You can easily program the machine the way you want, with sub-programs pre-programmed by us a product can be programmed quickly and easily. The springback angles are calculated automatically. The machine does this for a wide range of materials, as steel, aluminum, copper or stainless steel or strip material. This results in exact predictions of the needed materials and a reduction of undesired markings.





#### **Great repeatability**

Even with a great variety of semi-finished products, adjustments can be made easily. All material specific and product dependent parameters are always available within the 3D program. This results in great repeatability. Even between tool changes and independent of the skills of the operator of the bending machine.



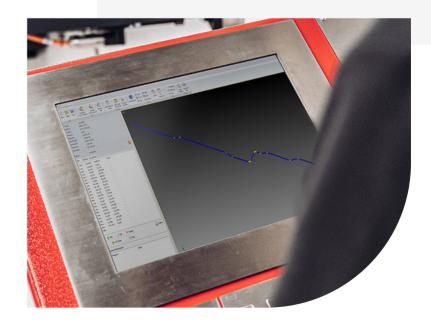
## **SOFTWARE**

- Programmable bending angles
- Programmable longitudinal displacements
- Programmable rotation angles
- Programmable mandrel withdrawal
- Programmable speeds
- PC controller with EtherCAT system
- Hard disk for the storage of bending programs
- Automatic calculation of the spring back correction and/or radius table
- Online service preparation with Team Viewer
- Network connection for Windows

#### ProgramManager

The Dynobend program manager is used to create bend and roll bending programs. The software is designed to make it easy and fast to program the standard bending operations.

This control system was designed for maximum programming freedom.







Dynobend is an international operating manufacturer of high quality CNC tube bending systems.

over 35 years of experience the specialist for innovative and professional tube bending solutions. Dynobend has offered bending solutions for the bending and free forming of tubes and profiles in almost every possible branch.

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