# dyno



Free Form bending machine (V)



#### The V-line is:

Fully servo-controlled CNC bending machine for rolling tubes and profiles. This bending machine is mainly used to bend free forms such as spirals. The three-dimensionally controlled rolling arm determines the shape of your products correctly and quickly. You think of the shape and we build the solution.

Unlimited possibilities in free form bending with this electric free form bending machine. If you choose a free form bending machine from Dynobend, your options consist of several standard types, depending on the maximum diameter of the pipe, tube or profile you choose the V40 or the V60.

We also build customized solutions. You think of the shape and we build the optimal free form machine for you.

#### Standard version:

- Servo-controlled rollers
- Servo-controlled length transport using ball screws
- Servo-controlled arm in x.y.z. directions
- Servo-driven spatial rotation clamping jaw
- Servo-driven clamping jaw holder
- Freestanding mobile operating console with color touch screen



TECHNICAL DATA*	V40	V60
Bending capacity [Ø] **	42,4	60,3
Bending angel [°]	-	-
Bending radius [mm] **	2,5D - ∞	2,5D - ∞
Bending direction	CW and CCW	CW and CCW
Bending speed max / bending speed at max torque [°/sec]	-	-
Feed axis speed max [mm/sec]	1000	800
Profile rotation speed [°/sec]	450	300
Boosterforce Y-axis [kN]	22	70
Number of CNC axis [Nr]	6	6
Axis accuracy [mm]	± 0,05	± 0,05
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

Completely servo-controlled up to the latest standard.

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.

Left and right rolling.

Thanks to our bending arm it is possible to switch easily from right to left and back. And there is extreme great freedom around the bending head. Complex geometries can be bend easily.

Rolling possible with mandrel

It is also possible to rollbend with mandrel from 2.5xD!

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.



### Rolling

Rolling

Depending on the application, different rolling heads are available for the V machine



## The best machine to produce spirals for heat exchangers!

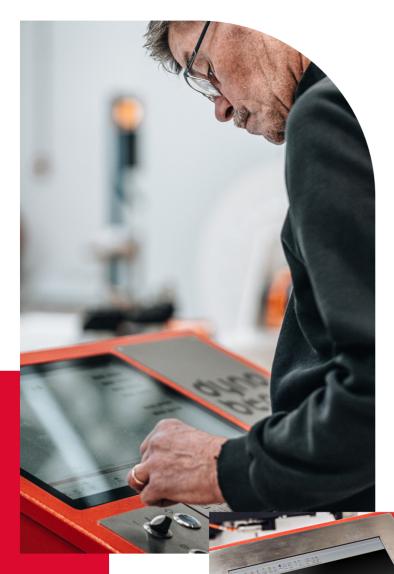
This machine will amaze you in terms of what it can handle. The free form bending machine (V) machine makes it happen. This machine can be intuitively programmed with the "Programmanager software". You can easily program the machine the way you want, with sub-programs pre-programmed by us a product can be programmed quickly and easily. The different radii 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 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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