



DUAL SERVO HYBRID

Why Dual Servo Makes The Difference

Hose-Free Hydraulic Design

Gizelis machines feature a dedicated servo pump unit on each cylinder. This design eliminates hoses, fittings, couplings, and O-rings, as well as the friction points associated with hydraulic oil flow. In contrast, single-servo machines rely on long hydraulic hoses and multiple connections, increasing friction, wear, and energy losses.

Fewer Spare Parts, Faster Service

With significantly fewer hydraulic components, Gizelis machines require fewer spare parts. This results in:

- Lower maintenance costs
- Faster service interventions
- Quicker fault diagnosis and problem resolution

Real-Time Control of Y1 & Y2

Each cylinder in a Gizelis machine is independently controlled and monitored in real time. This allows immediate correction of each side without hydraulic delays caused by long hose systems, ensuring superior accuracy and repeatability.



Lower Operating Temperature

The absence of long hoses dramatically reduces thermal stress. Less friction means lower oil temperature, improved energy efficiency, and extended component lifetime.

Faster System Response

Each cylinder in a Gizelis machine is independently controlled and monitored in real time. This allows immediate correction of each side without hydraulic delays caused by long hose systems, ensuring superior accuracy and repeatability.

Do it the Hybrid way. Make the right choice!

Reduced Maintenance

With substantially fewer hydraulic components and connections, maintenance complexity is significantly reduced, while the risk of hydraulic leaks and other system-related issues is minimized. Constant oil temperature is maintained, as there is no oil flow through pressure regulators or servo valves, eliminating the risk of oil overheating. The system is more compact and easier to service, allowing faster maintenance operations and simpler problem identification.

Flexibility

Dual Servo press brakes offer a wide range of bending lengths and tonnage capacities, ranging from 40 to 660 tons. This versatility makes them suitable for a broad variety of bending applications and materials. Companies processing diverse materials and thicknesses will find Dual Servo press brakes highly advantageous for their operations.

ECO Friendly

Reduced carbon dioxide emissions, resulting in a controlled and compliant carbon footprint in accordance with EC regulations. Minimal use of hydraulic oil: each cylinder is equipped with a separate hydraulic unit, featuring its own dedicated servo pump and compact oil tank. The total hydraulic oil volume is approximately 80% lower compared to conventional hydraulic press brakes. Reduced oil volume leads to fewer leakage incidents and lower oil disposal requirements, contributing to safer and more sustainable operation.



Noise Reduction

Average noise emissions are reduced by up to 20 dB(A). The motor operates only while the upper beam is in motion, significantly reducing unnecessary noise. Servo technology enables smoother operation and superior acceleration control, without flow throttling through regulating valves. Reducing noise emissions is critical for operator safety and compliance with EU regulations. Additionally, lower noise levels contribute to reduced health-related costs and decreased requirements for protective equipment.

High Speed & Precision

With the Gizelis Dual Servo Series, the punch consistently reaches the same Lower Dead Point (LDP) with extreme precision throughout the entire bending operation. Exceptional motion and position control are maintained during the complete bending cycle.

Energy Saving

Up to 60% reduction in energy consumption compared to standard press brakes. Energy is consumed only when required, with no power usage during idle operation. No energy is wasted through safety valves. The motor draws only the power required for each movement. High-volume production facilities benefit significantly from substantial energy savings when using a Dual Servo press brake.

		G-BEND 1580 Hybrid	G-BEND 2080 Hybrid	G-BEND 3080 Hybrid	G-BEND 3140 Hybrid	G-BEND 3175 Hybrid	G-BEND 3210 Hybrid	G-BEND 3290 Hybrid	G-BEND 3320 Hybrid
Bending Force	[tons]	80	80	80	140	175	210	290	320
Working length	[mm]	1550	2100	3100	3100	3100	3100	3100	3100
Distance between uprights	[mm]	1200	1550	2550	2550	2550	2550	2550	2550
Throat depth	[mm]	400	400	400	400	400	400	400	400
Daylight	[mm]	515	515	515	515	515	515	515	515
Punch stroke	[mm]	280	280	280	280	280	280	280	280
Table width	[mm]	84	84	84	84	118	118	118	118
Fast speed	[mm/sec]	0 - 180	0 - 180	0 - 180	0 - 180	0 - 160	0 - 160	0 - 150	0 - 120
Working speed *	[mm/sec]	0 - 20	0 - 20	0 - 20	0 - 20	0 - 20	0 - 20	0 - 15	0 - 10
Return speed	[mm/sec]	0 - 160	0 - 160	0 - 160	0 - 160	0 - 140	0 - 130	0 - 120	0 - 100
Main motor	[kW]	2 x 6.5	2 x 6.5	2 x 6.5	2 x 6.5	2 x 11	2 x 11	2 x 11	2 x 11
Length	[mm]	2500	3000	4000	4000	4000	4000	4000	4000
Width	[mm]	1700	1700	1800	1800	1850	1900	1950	2100
Height	[mm]	2900	2900	3000	3000	3200	3200	3400	3400
Weight	[kg]	5500	6000	8500	10000	11200	13200	14900	16900

* Working speed is limited to 10mm/sec for CE countries

		G-BEND 4140 Hybrid	G-BEND 4175 Hybrid	G-BEND 4210 Hybrid	G-BEND 4290 Hybrid	G-BEND 4320 Hybrid	G-BEND 6175 Hybrid	G-BEND 6210 Hybrid	G-BEND 6290 Hybrid	G-BEND 6320 Hybrid
Bending Force	[tons]	140	175	210	290	320	175	210	290	320
Working length	[mm]	4100	4100	4100	4100	4100	6100	6100	6100	6100
Distance between uprights	[mm]	3550	3550	3550	3550	3550	5050	5050	5050	5050
Throat depth	[mm]	400	400	400	400	400	400	400	400	400
Daylight	[mm]	515	515	515	515	515	515	515	515	515
Punch stroke	[mm]	280	280	280	280	280	280	280	280	280
Table width	[mm]	118	118	118	118	118	118	118	118	118
Fast speed	[mm/sec]	0 - 180	0 - 160	0 - 160	0 - 150	0 - 120	0 - 160	0 - 160	0 - 160	0 - 120
Working speed *	[mm/sec]	0 - 15	0 - 15	0 - 15	0 - 10	0 - 8	0 - 10	0 - 10	0 - 10	0 - 7
Return speed	[mm/sec]	0 - 160	0 - 140	0 - 130	0 - 120	0 - 90	0 - 130	0 - 130	0 - 120	0 - 90
Main motor	[kW]	2 x 11	2 x 11	2 x 11	2 x 11	2 x 11	2 x 11	2 x 11	2 x 11	2 x 11
Length	[mm]	5000	5000	5000	5000	5000	7400	7400	7400	7400
Width	[mm]	1850	1900	1900	1950	2100	1800	1950	2000	2400
Height	[mm]	3350	3400	3400	3700	3700	3700	3900	4200	4300
Weight	[kg]	12400	14500	16000	19800	22000	23000	24000	28000	30000

* Working speed is limited to 10mm/sec for CE countries

		G-BEND PLUS 3080 Hybrid	G-BEND PLUS 3140 Hybrid	G-BEND PLUS 3175 Hybrid	G-BEND PLUS 3210 Hybrid	G-BEND PLUS 3290 Hybrid	G-BEND PLUS 3320 Hybrid
Bending Force	[tons]	80	140	175	210	290	3320
Working length	[mm]	3400	3400	3400	3400	3400	3400
Distance between uprights	[mm]	3050	3050	3050	3050	3050	3050
Throat depth	[mm]	400	400	400	400	400	400
Daylight	[mm]	515	515	515	515	515	515
Punch stroke	[mm]	280	280	280	280	280	280
Table width	[mm]	84	84	118	118	118	118
Fast speed	[mm/sec]	0 - 180	0 - 180	0 - 160	0 - 160	0 - 150	0 - 120
Working speed *	[mm/sec]	0 - 20	0 - 20	0 - 20	0 - 20	0 - 15	0 - 10
Return speed	[mm/sec]	0 - 160	0 - 160	0 - 140	0 - 130	0 - 120	0 - 100
Main motor	[kW]	2 x 6.5	2 x 6.5	2 x 11	2 x 11	2 x 11	2 x 11
Length	[mm]	4400	4400	4400	4400	4400	4400
Width	[mm]	1700	1700	1800	1950	1950	2100
Height	[mm]	3000	3050	3250	3300	3400	3400
Weight	[kg]	8500	11000	12500	14500	16200	18800

* Working speed is limited to 10mm/sec for CE countries

		G-BEND PLUS 4140 Hybrid	G-BEND PLUS 4175 Hybrid	G-BEND PLUS 4210 Hybrid	G-BEND PLUS 4290 Hybrid	G-BEND PLUS 4320 Hybrid
Bending Force	[tons]	140	175	210	290	320
Working length	[mm]	4400	4400	4400	4400	4400
Distance between uprights	[mm]	4050	4050	4050	4050	4050
Throat depth	[mm]	400	400	400	400	400
Daylight	[mm]	515	515	515	515	515
Punch stroke	[mm]	280	280	280	280	280
Table width	[mm]	118	118	118	118	118
Fast speed	[mm/sec]	0 - 180	0 - 160	0 - 160	0 - 150	0 - 120
Working speed *	[mm/sec]	0 - 15	0 - 15	0 - 15	0 - 10	0 - 8
Return speed	[mm/sec]	0 - 160	0 - 140	0 - 130	0 - 120	0 - 90
Main motor	[kW]	2 x 11	2 x 11	2 x 11	2 x 11	2 x 11
Length	[mm]	5400	5400	5400	5400	5400
Width	[mm]	1800	1800	1950	1950	2100
Height	[mm]	3400	3450	3500	3700	3750
Weight	[kg]	13600	15600	18000	22000	24000

* Working speed is limited to 10mm/sec for CE countries

THE PROBLEM What you design in not what you produce!

WHY? Because, the unfolding and cutting process does not take under consideration bending parameters (e.g. available tools, tools radius, etc.).

THE SOLUTION BG-soft combines the BG-soft Cut and BG-soft Bend in one unified environment. In this way every aspect of the manufacturing process (bending and cutting) is calculated, thus.

WHAT YOU DESIGN.... ...IS WHAT YOU GET!!

BG-soft bend is an application for programming and simulating Boschert Gizelis press brakes, used for maximizing production resources. BG-soft bend enables off-line generation of bend sequences and tooling setups, with dynamic 3D simulation for checking collisions of the part with tools, fingers and machine components.

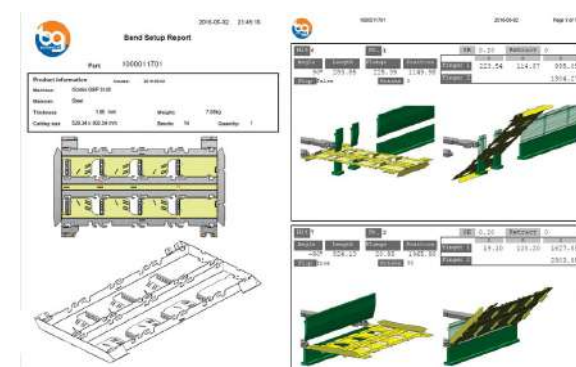
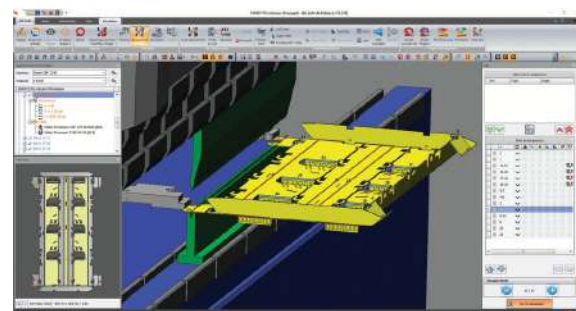
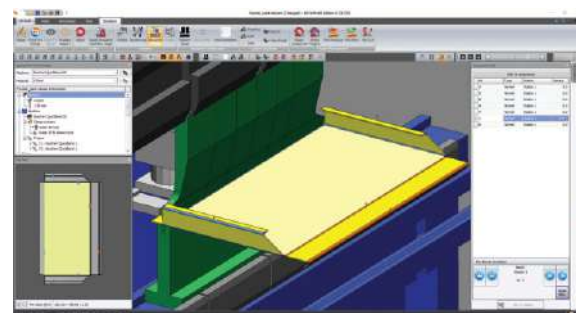
Features

- Direct part transfer from SolidWorks, Solid Edge and Inventor
- Importing and unfolding of IGES and STEP 3D parts
- Automatic and manual tool selection based on material, machine and tool properties
- Automatic and manual bend sequencing with collision detection
- Automatic and manual fingerstop positioning with graphic control of all axes
- Automatic retraction calculation
- 3D simulation of the bending process with collision detection
- Native NC generation enables direct loading of programs to the machine control
- Comprehensive Setup Reports for the machine operator including bend sequence, tooling and bend-by-bend graphics

Advantages

- BG-soft bend enhances your productivity with:
- Faster design-to-production times with automated features
- Offline programming means minimal machine down-time
- Collision-less bend sequences mean reduced stock wastage
- BG-soft bend tool library is compatible to available tooling resulting in production-ready
- Setup Reports

3D Simulation and Collision Detection
Efficient Tool Selection
Bend Sequence Selection
Fingerstops Positionin



SETUP REPORTS

Comprehensive Setup Reports include:

- Bend sequence instructions
- Tool setup details
- Product handling
- Bend-by-bend graphics

Boschert-Gizelis offers a complete range of solutions for the sheet metal processing industry, including:

- Press Brakes
- Shearing Machines
- Punching Machines
- Notching Machines
- Combined Punching & Shearing Machines
- Fiber Laser Cutting Systems
- Plasma & Oxy-Fuel Cutting Machines
- Automation & Robotic Solutions

In addition to its standard product range, Boschert-Gizelis designs and manufactures special-purpose machines and customized automation solutions, helping customers optimize production efficiency and gain a competitive advantage.

Bending



Robobend



Shearing

CombiLaser - Punching



Copper bar punching



Electroline - Bending



Electroline - Shearing



BOSCHERT GIZELIS.co

BOSCHERT GIZELIS.co

| GIZELIS S.A. |

Schimatari Viotias, 32009,
Kormatzini Area, Greece
T: +30 22620 58675, F: +30 22620 57185,
www.gizelis.com, info@gizelis.gr

| BOSCHERT GmbH & Co. KG |

Mattenstr. 1, 79541 Loerrach,
Postfach 7042, Deutschland,
T: +49 7621 9593-0, F: +49 7621 55184,
www.boschert.de, info@boschert.de