
PREDICTING FUTURE

PRCE press brakes **combines high performance and precision at low power consumption.** Ideal for large productions with great demand, providing an effective reduction of cycle time.

FUTURE- TUTURE IS NOW

PRCE

SERVO-ELECTRIC SYNCHRONIZATION



RICO[®]
Precision Ideas

WEL

The synchro servo-electric system offers an effective profitability increase, more user-friendly, precision and comfort.

This system developed by RICO includes two ball screws, driven by two servo-motors and planetary gear units. The transmission components are high quality and suitable for high loads. So, it is possible to guarantee better performance and durability, reducing unwanted effects caused by inertia compared to other similar systems.

PRCE

SERVO-ELECTRIC SYNCHRONIZATION

RICO PRCE model is fully electric.

It uses the **SYNCHRO technology** to control two servo-electric axes in bending control, thus being able to compensate Y1 and Y2 axes independently.



MAK- ING FUTU RE

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MAIN ADVANTAGES

- .01 / Short cycle time
- .02 / Lower energy consumption
- .03 / Low maintenance
- .04 / Low noise



BALLS SCREWS
 - High performance
 - Low noise
 - Grease retention



“GREENER” COMPETITIVENESS

/ PERFORMANCE

PRECISION

The beam synchronization is **ensured by the control of two independent servo-electric axes**. The reading positioning is obtained by two high precision optical linear encoders.

SHORT CICLE TIME

The servo-electric system **provides an effective reduction of the transition time** compared to hydraulic systems. Using unique and high quality components the speeds in PRCE model are higher compared to other electric press brakes.

/ SAVINGS

LOWER ENERGY CONSUMPTION

The importance of energy consumption in the competitiveness of businesses and the economy is increasingly a decisive factor. Energy is one of the main pillars of sustainable development and a major strategic segment for global industry. The **development of eco-design products** enables a **significant reduction of environmental impacts and energy savings**, which results in cost savings at the same time. The PRCE model **aims optimizing environmental performance**, and ensuring the same technical results.

LOW MAINTENANCE

Being an electric model, it does not require regular maintenance, used in hydraulic models. The automatic lubrication system is standard on PRCE.

/ CONFORT

LOW NOISE

PRCE allows up to 70% less noise than other machines. In Europe it is estimated that more than one third of workers are exposed to potentially harmful noise levels for at least a quarter of their working time. The reduction of the noise level is therefore a great benefit for workers and for environment impact.

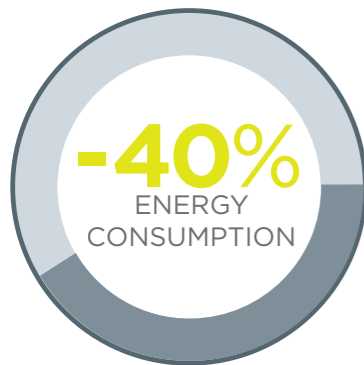


PLANETARY GEAR
 SP+ High Speed



MECHANICAL QUALITY

The components used in the mechanical transmission, ensures high durability while maintaining accuracy over time.

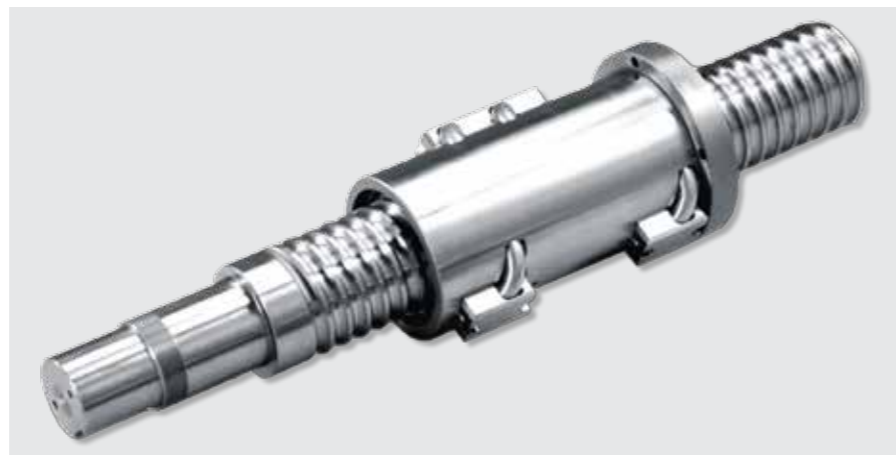




BALL SCREWS

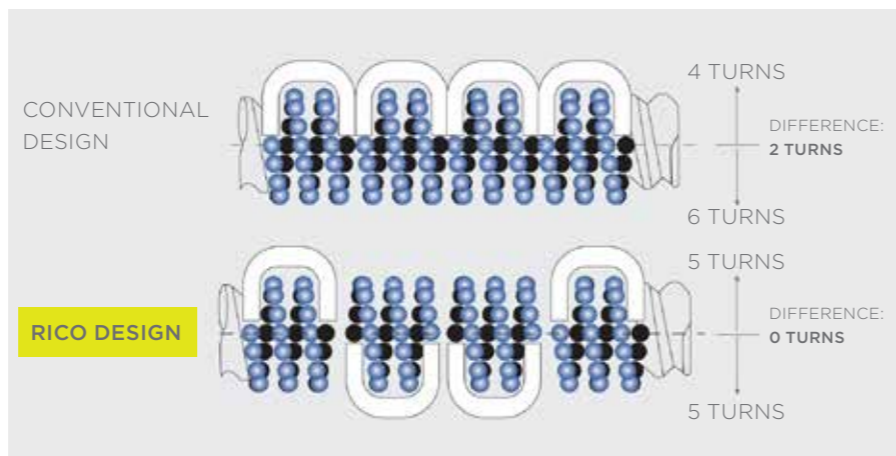
/ HIGH PERFORMANCE

The high capacity balls screws has larger spheres diameter in higher quantity. The recirculation pipes are located at 180° ensuring a better load distribution.



/ LOW NOISE

By gently absorbing the balls in the tangent direction of the spindle axis, the impact of this collision with other components is strongly reduced. Compared to conventional pipe type, **noise reduces more than 6dB.**

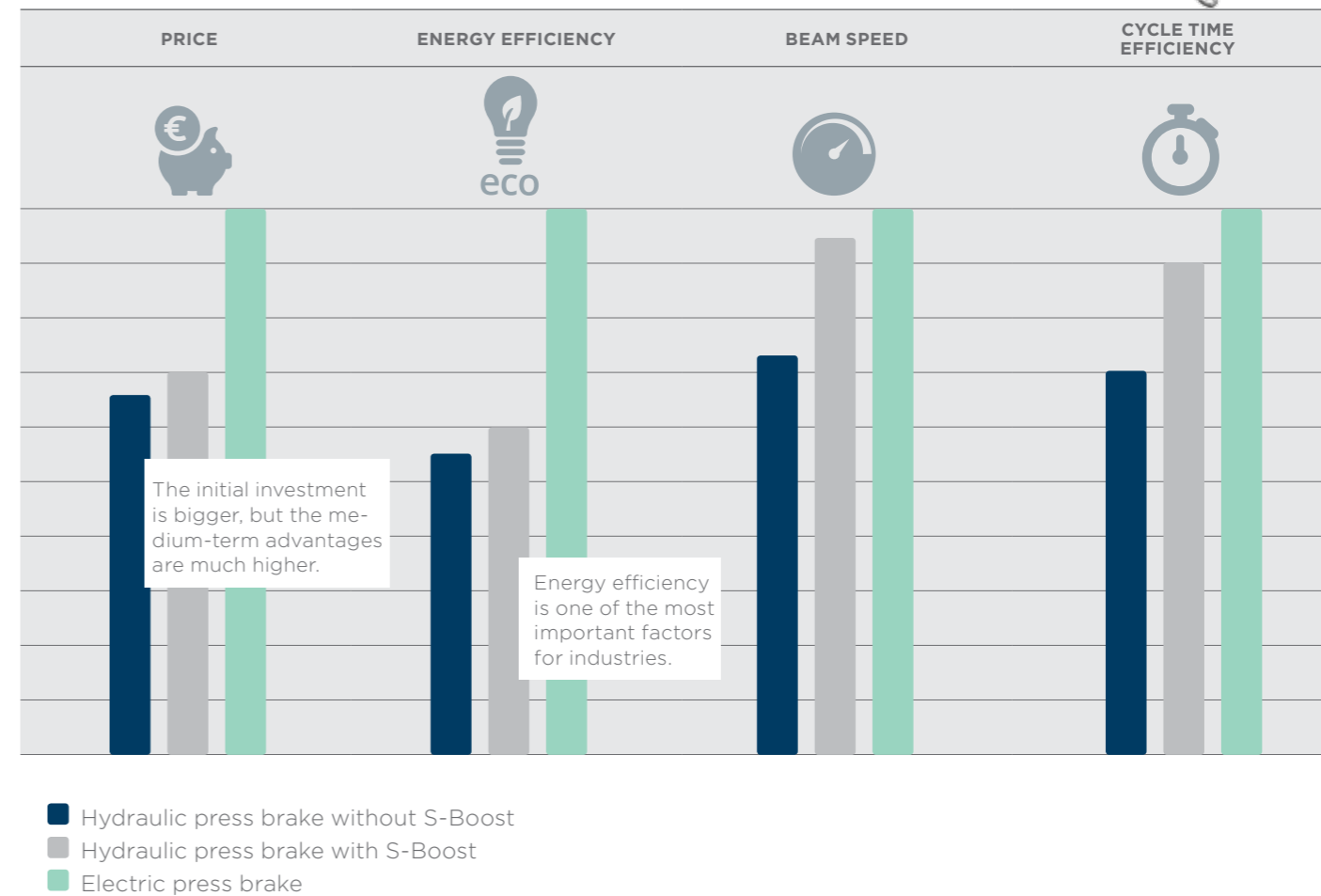


/ GREASE RETENTION

Thanks to the special profile of the spherical cavity of the screw, and together with the grease retaining seal A1, the grease retention characteristics improved greatly compared to conventional plastic seals.



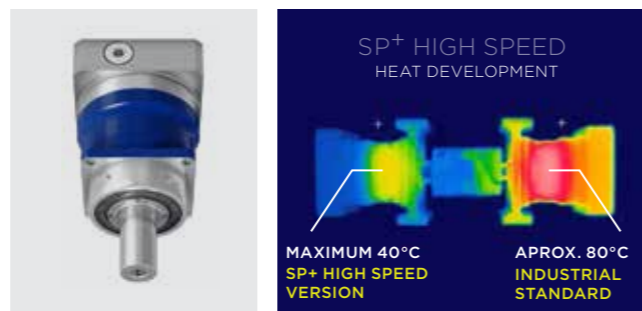
/ COMPARISON



PLANETARY GEAR

/ PLANETARY GEAR - SP+ HIGH SPEED

The high speed version is suitable for high accuracy positioning and highly dynamic cyclic operation. The **SP + HIGH SPEED** reducer is particularly effective for applications with maximum speeds during continuous operations. This gear doesn't requires maintenance because it has lifetime lubrication.



PRCE

FUTURE FORWARD

The PRCE electric press brake provides greater profit the higher is the machine occupancy rate.



PRCE ECO-FRIENDLY

The PRCE range does not use hydraulic systems, so it **eliminates all possible oil leaks and the need for periodic maintenance.**



PRCE RANGE

		LENGTH	
		1100 mm	2100 mm
CAPACITY	40 TON	PRCE 1040	PRCE 2040

AFTER SALES SERVICE

RICO enriches its service by means of quality and proximity to the customer. The competence and experience acquired as manufacturer are key factors for the solutions provided and results achieved.

Being RICO's customer is to have a service of excellence on previous and after-sale counseling and support. We believe that technical assistance is vital to the best equipment performance and, as such, we decided to **provide free lifelong training to all our customer's since 2007.**

We guarantee immediate intervention for

all emergencies, both regarding mechanical failure as well as training or clarification of doubts. We employ highly skilled and experienced technicians to provide customer's with the best advice, searching for the best metal plate cutting and shaping solutions.

We provide our customer's with qualified technical service, always working with the following goals:

- PROBLEMS SOLUTION AT THE FIRST CONTACT;
- QUICK ANSWER;
- ASSURED QUALITY.



The goal is to have the highest return on investment at each option.



EQUIPMENT

The right machine configuration is essential to achieve maximum efficiency taking into account the type of intended use.

We make proposals with **detailed configuration** and based on **customer requirements**

STANDARD ^S

TYPE	ITEM	PAGE
Control panel	Delem DA-53T control	12
Automatic axes	4 automatic axes: Y1+Y2+X+R	13
Back gauge	BGR back gauge	13
Front safety	LASER AKAS II-F	15
Rear safety	Safety barriers (Level IV)	-
Supports	SFS front support	14
Top clamping	Manual clamping	16
Bottom clamping	Manual clamping	16
Offline software	Profile TL	19
Others	Hanging swivel in control panel	-
	Machine LED status	10
	Hex key set	-
	Automatic lubrication	-

● Standard ○ Optional

^S Machine LED status

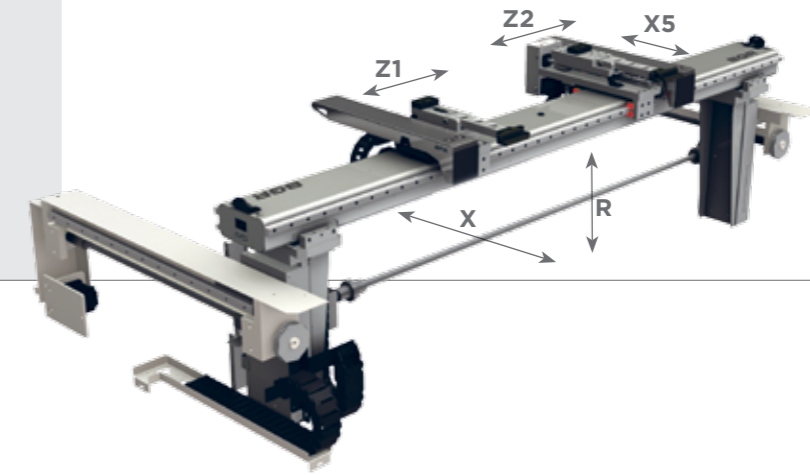


CHOOSING IS IMPORTANT

The purpose of each option is to **get the return that is higher than its cost**. For this, it's important to evaluate the return that will be obtained taking into account the work that is intended to accomplish in the future.

OPTIONAL

TYPE	ITEM	PAGE					
Control panel	DELEM	ESA					
	DA-58T	S 630					
	DA-66T	S 650					
	DA-69T	S 650W S 660W					
Automatic axes	Z1+Z2	X5					
Back gauge	BGTL with 6 automatic axes	13					
Safety lasers	AKAS II-M	AKAS 3P	Iris	15			
Angle measurers	React	Iris Plus	eyeV	17			
Front supports	SFA			14			
Rear supports	SPA			14			
Top clamping	MANUAL	PNEUMATIC	HYDRAULIC				
	Speed Grip M	Speed Grip P					
	FR-M	FR-P		16			
	Wila M	Wila PN	Wila HYD				
Bottom clamping	CROWNING		CLAMPING				
		CNC	MANUAL	MANUAL	PNEUMATIC	HYDRAULIC	
	RICO	○	○	ROL2 M	ROL2 PN	ROL2 HYD	16
	WILA	○	○	○	○	○	16
LED tool locator	RICO LedBar	Wila Smart Tool Locator				17	
Tool identification	WILA TIPS					17	
Tool cabinet	ARM1	ARM2		ARM1A		19	
Offline software	Delem Profile T2D	Delem Profile T3D		RICOBend		19	



EQUIPMENT

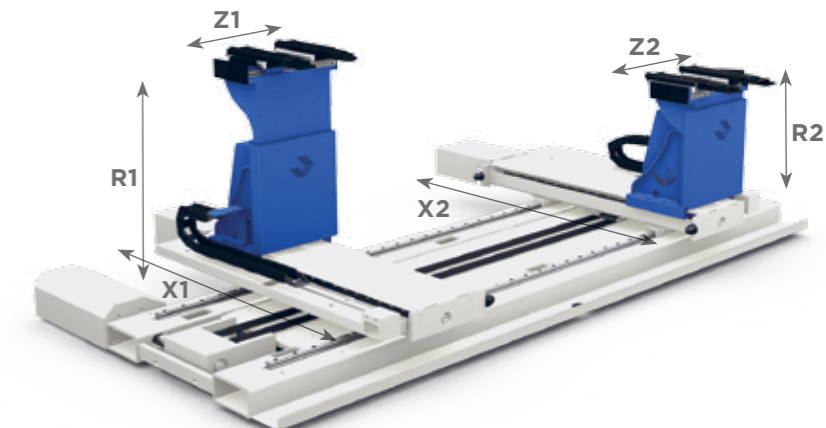
. CONTROLS

DELEM								
	DA-53T ^S	DA-58T	DA-66T	DA-69T	DA-66T	DA-69T	DA-66T	DA-69T
Axes	4	4	4	8	8	8	8	8
Screen	10"	10"	15"	15"	17"	15"	17"	19"
2D graphic view	-	○	●	●	●	●	●	●
3D graphic view	-	-	-	-	●	○	●	●
3D programming	-	-	-	-	-	○	●	●
Auto tooling selection	-	-	-	-	●	-	●	●
Touch screen	●	●	●	●	●	●	●	●
USB ports	1	2	1	2	2	1	2	2
2D DXF import	-	-	-	-	○	●	●	●
3D IGES/STEP import	-	-	-	-	-	-	●	●
3D offline import	-	-	-	-	●	-	●	●
Export DXF 2D FP	-	-	-	-	-	-	●	●
Offline software	Profile TL	-	Profile TL	Esabend	Profile TL	Esabend	Profile T3D	Esabend
	S 630	S 650	S 650 W	S 660 W	S 650 W	S 650 W	S 660 W	S 660 W
ESA								

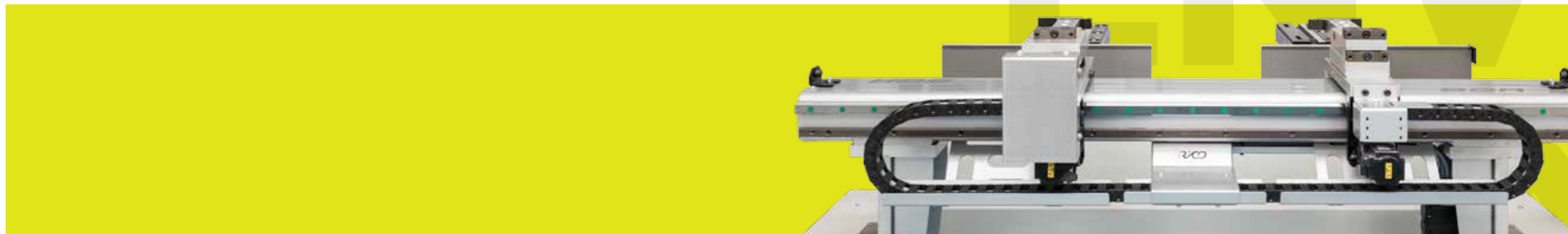
● Standard ○ Optional

. BACK GAUGE

BGR ^S	X ^S	R ^S	Z1	Z2	X5	
Stroke (mm)	PRCE 1040 PRCE 2040	500 (870) 600 (970)	200	UNDER REQUEST	UNDER REQUEST	200
Speed (mm/s)		500	170	2000	2000	300
Precision (mm)		± 0,02	± 0,10	± 0,10	± 0,10	± 0,02
Type of motor		BRUSHLESS	BRUSHLESS	BRUSHLESS	BRUSHLESS	BRUSHLESS
Mechanical system		BALL SCREW	RACK	RACK	RACK	BALL SCREW



BGTL	X1	X2	R1	R2	Z1	Z2
Stroke (mm)	420	420	150	150	UNDER REQUEST	UNDER REQUEST
Speed (mm/s)	600	600	200	200	550	550
Precision (mm)	± 0,05	± 0,05	± 0,05	± 0,05	± 0,10	± 0,10
Type of motor	BRUSHLESS	BRUSHLESS	BRUSHLESS	BRUSHLESS	BRUSHLESS	BRUSHLESS
Mechanical system	BALL SCREW	BALL SCREW	RACK	RACK	RACK	RACK



. SUPORTS

Sheet supports are auxiliary bending accessories. They must be chosen according to the dimensions and weight of the pieces.

- Front supports:** Support the plate during the front feed;
- Back supports:** Support the plate in the approach to the back gauge;
- Follower supports:** Support the movement of the plate during the bending.

FRONTAL SUPPORTS

SFS



- Supported on any position of the clamps;
- Manual height regulation;
- Device for approaching to the die;
- Load capacity:
 - < 200 Ton: 75 kg per support
 - ≥ 200 Ton: 150 kg per support.

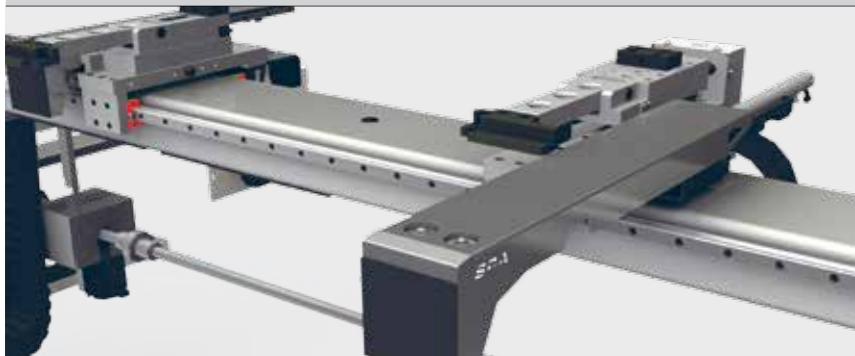
SFA



- Supported on sliding guides;
- Can be placed at any point along the length;
- Manual height regulation;
- Millimetric scale;
- Ball transfer units to facilitate handling parts;
- Adjustable plate stop;
- Device for approaching to the die;
- Removable supports;
- Load capacity:
 - < 200 Ton: 100 kg per support
 - ≥ 200 Ton: 150 kg per support.

REAR SUPPORTS

SPA



SPA supports are installed in the fingers of the back gauge. They can be activated in pre-defined bending and enable the plate to slide until it lies adjacent to the back gauge.

Load capacity – 30 kg per support.

. SAFETY LASERS

FISSLER	AKAS-II F	AKAS-II M	AKAS 3P
Type	Laser	Laser	Laser
Min. muting point distance	11 mm	11 mm	0,5 mm
Automatic "Y" adjustment	-	-	-



. QUICK CLAMPING

When there are frequent tooling changes, punches or dies can be changed over in a short time by using the quick clamps. **The time saved will be higher as more often will be necessary to change tools.**

In all top clamping the punches can be removed directly from the front, so it is not necessary to slide it on one side. This operation compared to conventional **allows a reduction of times greater than 8x.**

TOP QUICK CLAMPING	PROMECAM SYSTEM			WILA SYSTEM	
	CLAMP			CLAMP	
	Manual	Pneumatic		Manual	Hydraulic/Pneumatic*
					
	FR-M	FR-P		NSCL-I-MC PRO	NSCL-I-HC PRO
					
SPEED GRIP			SPEED GRIP PN		
					
BOTTOM QUICK CLAMPING	PROMECAM SYSTEM			WILA SYSTEM	
	CLAMP			CLAMP	
	Manual	Pneumatic	Hydraulic	Manual	Hydraulic/Pneumatic*
					
	ROL2	ROL PN	ROL HYD	NSCR-I-MC PRO	NSCR-I-HC PRO
					
			NSCR-II-MC PREMIUM	NSCR-II-HC PREMIUM	
					

* Under request.



. LED TOOL LOCATOR

LedBar is a bending aid that helps the operator to position the tools and parts during the bending process.

RICO LedBar



WILA Smart Tool Locator



. WILA TOOL IDENTIFICATION AND POSITIONING SYSTEM (TIPS)

The **WILA TIPS** system is an integrated part of the press brake control system that helps to identify tools and to continuously read their position. The tools are localized and identified irrespective of whether they are located in the upper clamping, lower clamping or storage system.



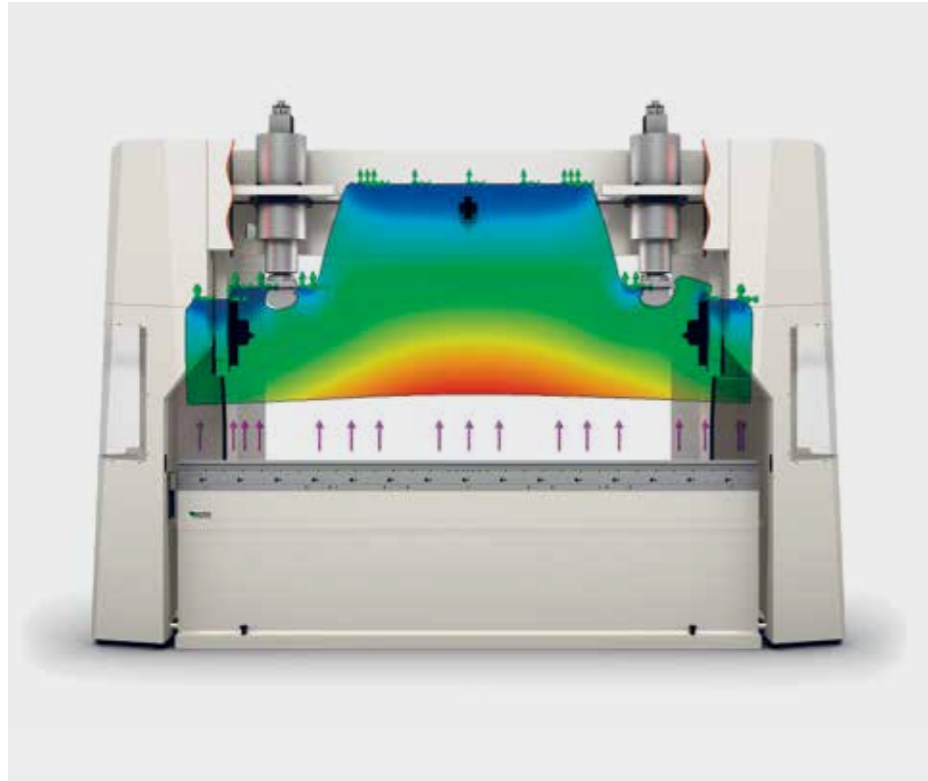
. ANGLE MEASURERS

MODEL	REACT	IRIS PLUS	eyeV (10 / 11 / 12)
Type	Protractor	Camera	Laser
Active correction	-	●	●
Accuracy	± 0,1°	up to 0,25°	± 0,1°
Max. V die	-	35 mm	200 mm

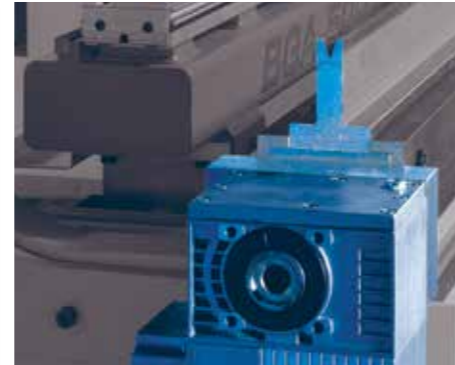
. CROWING TABLE

This system **enables the user to offset deformations of the beam while bending.** By this, the angle remains constant throughout the length. The compensating arc is accurately calculated taking into account the design of the machine and its

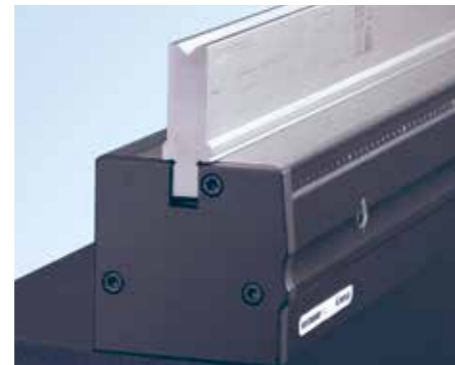
deformations under load. The process is automatic and the calculation takes into account the thickness of the sheet, type of material, opening of the V and length.



PROMECAM



WILA



. TOOL CABINET

	Shelves	Sliding shelves
Arm1	4	-
Arm2	8	-
Arm1A	4	●

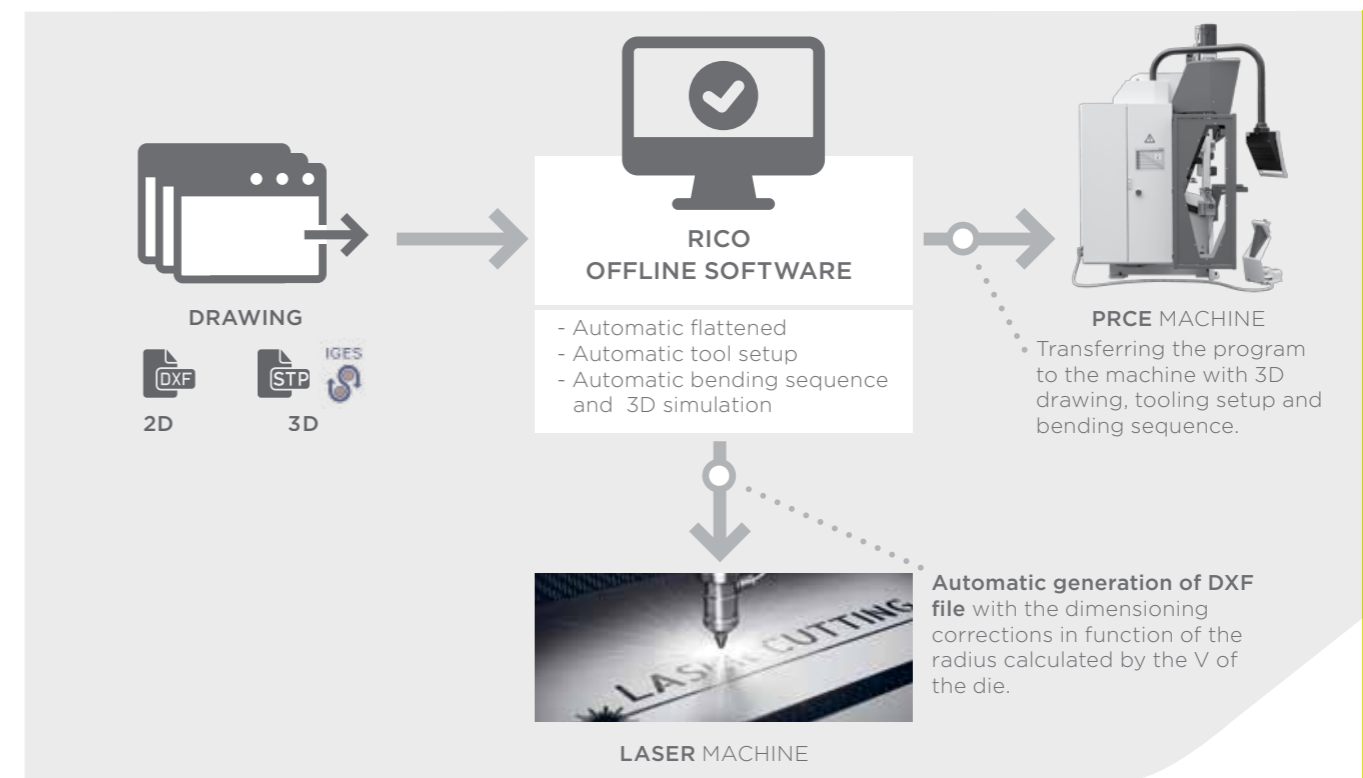


. OFFLINE SOFTWARE

Offline software is an indispensable tool to increase the profitability of a machine. **All RICO machines have offline software included** depending on the machine control.

In the case of 3D software's allow the import of the 2D / 3D files automatically realizing the programming of the bending and creating a file for the cut.

	2D	3D
Profile TL [®]	●	-
Profile T2D	●	-
Profile T3D	●	●
EsaBend	●	●
Radbend	●	●



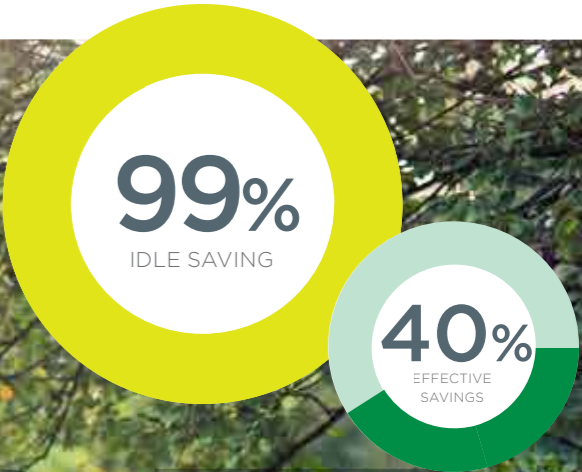
RICO GREEN

RICO promotes a friendly environmental policy incorporating in all its models functions that drive sustainability.

As PRCE model is a totally electric machine, it uses the **START/STOP function** that stops automatic after the bending cycle. This unique system allows a **considerable reduction in the effective saving of energy.**



roda tem que ter menos 1%



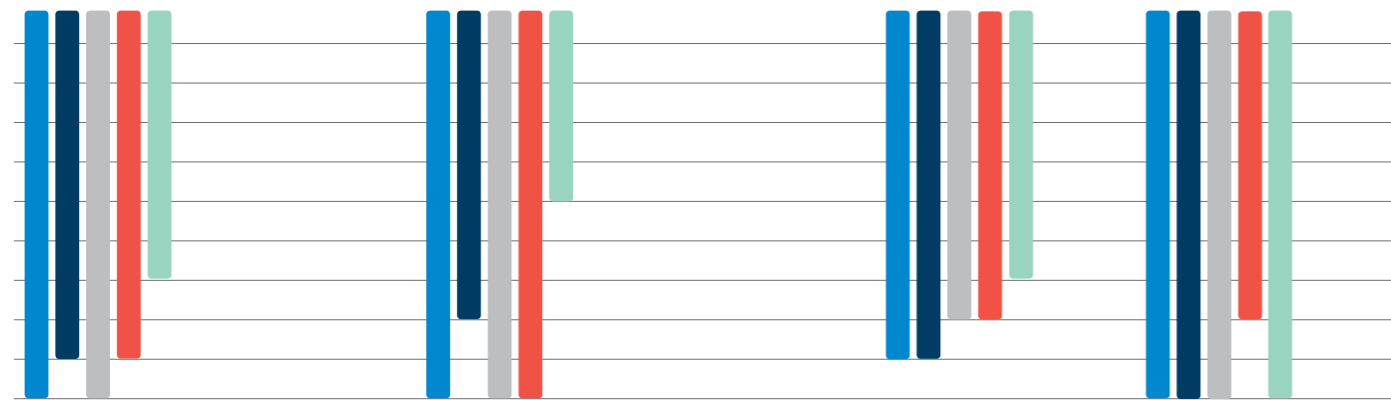
BEE DAR OF

RICO GREEN INTEGRATED NATURE

Developing in line with sustainability and environmental concern.

RICO PRESS BRAKE RANGE

RICO offers 4 models of Press Brakes with different configuration but with a common characteristic: **high quality**. The choice of the model must take into account the purpose and the advantage of its use.



- Accuracy
- General speed's
- Structural Performance
- Stroke range
- Energy efficiency

OTHER ELEMENTS

	STANDARD CONTROL	STANDARD AXES	SWAYBEND	H-BOX FRAME	TRIPLE GUIDE
PRCB	Delem DA-53T	3	-	-	-
PRCN I-LINE	Delem DA-66T	4	●	●	●
PRCN C-LINE	Delem DA-66T	4	●	●	●
PRCE	Delem DA-53T	4	-	-	-



RICO
MORE INNOVATION
 RICO strategy purpose is **sustainable growth** to ensure a constant investment in innovation, resulting in added value for us and for our customers.

FUTURE FORWARD

Embrace future challenges, and give our contribution to help industries getting prepared to the next step, is RICO's main commitment.

Day-to-day operations are important, but long-term business strategy will determine the ongoing and further success. Building a reliable board of principles will help to ensure that our **vision for the future will be carried forward.**

KNOW-HOW

Nearly 50 years of expertise in the manufacture of press brakes and guillotines machines give us the security that is needed for future challenges.

TRUST + RELIABILITY

High standards of quality and a team with the best training and knowledge are a major condition for our success. Our products are the result of a continued focus on improving internal processes underpinned by high quality levels, that result in the recognition of RICO's machines as quality guarantee equipment.

SUSTAINABLE GROWTH

The purpose of RICO strategy is sustainable growth that can ensure a constant investment in innovation, which results in added value for the customer, to create good conditions for its employees and respects the environment.

TECHNICAL SPECIFICATIONS

	Bending length	Tonnage	Throat depth	Beam stroke	Daylight	Y axis speed			Back gauge stroke	Motor power	Dimensions					Aprox. weight
						Fast	Bending	Return (RS)			Total length (A)	Total height (B)	Total width (C)	Distance between frames	Heigth under the floor	
	mm	Ton	mm	mm	mm	mm/s			mm	kW	mm					Kg
PRCE 1040	1100	40	300	270	470	220	0-10/20*		220	6,5	1950	3050	1905	1200	0	3500
PRCE 2040	2100						600	6,5								

* Optional

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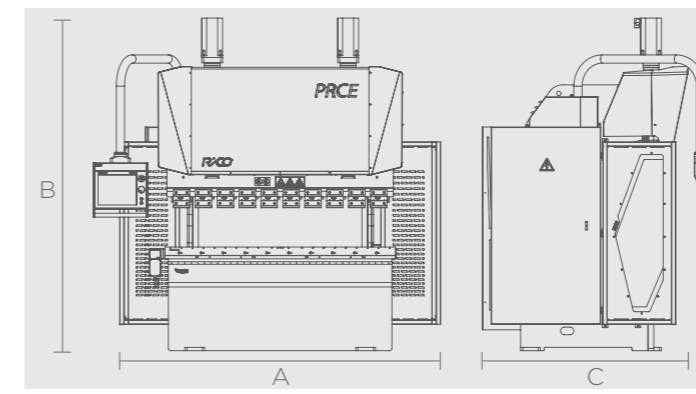
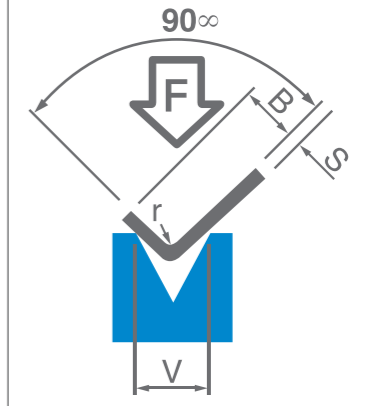


BENDING TABLE

Required bending power (Ton/m)
 $R_m = 420 \text{ N/mm}^2$ - $R_m = 700 \text{ N/mm}^2$

S (mm)

R	B	V	0,5	0,6	0,8	1	1,2	1,5	2	2,5	3	4	5	6	8	10	12	15	20	25	30
0,5	3	4	4 ₇	6 ₁₀	12 ₂₀																
0,7	3,5	5	3 ₅	5 ₈	9 ₁₅	15 ₂₅															
0,8	4	6	2 ₄	3 ₆	7 ₁₂	11 ₁₉	18 ₃₀														
1	5,5	8		2 ₄	5 ₈	8 ₁₃	12 ₂₁	21 ₃₅													
1,3	6,5	10			4 ₆	6 ₁₀	9 ₁₅	15 ₂₆	30 ₅₀												
1,5	8	12				5 ₈	7 ₁₂	12 ₂₀	23 ₃₈	39 ₆₆											
2	10,5	16					5 ₈	8 ₁₃	16 ₂₆	27 ₄₅	44 ₇₁										
2,5	13	20						6 ₁₀	12 ₁₉	20 ₃₃	31 ₅₂	60 ₁₀₁									
3,2	16,5	25							9 ₁₅	14 ₂₄	23 ₃₈	44 ₇₃	76 ₁₂₆								
4,4	21	32								11 ₁₈	16 ₂₇	32 ₅₃	54 ₉₀	85 ₁₄₂							
5	26	40									12 ₂₁	23 ₃₈	39 ₆₆	62 ₁₀₃	121 ₂₀₂						
6,5	32,5	50										18 ₃₀	29 ₄₈	45 ₇₆	88 ₁₄₇	151 ₂₅₂					
8	41	63											22 ₃₇	33 ₅₅	70 ₁₁₇	109 ₁₈₂	173 ₂₈₈				
10	52	80												25 ₄₂	46 ₇₇	79 ₁₃₁	124 ₂₀₇	213 ₃₅₄			
12	65	100													35 ₅₉	58 ₉₆	91 ₁₅₁	155 ₂₅₈	302 ₅₀₄		
15	81,5	125														44 ₇₄	66 ₁₁₀	113 ₁₈₉	220 ₃₆₇	378 ₆₃₀	
20	104	160															50 ₈₃	81 ₁₃₅	158 ₂₆₃	269 ₄₄₈	425 ₇₀₉
25	130	200																62 ₁₀₄	115 ₁₉₂	197 ₃₂₈	310 ₅₁₇
37	163	250																	89 ₁₄₈	144 ₂₄₀	227 ₃₇₈
45	195	300																		120 ₂₀₀	173 ₂₈₈



i ALL DIMENSIONS CAN BE DIFFERENT ON CUSTOMIZED MACHINES. THE DIMENSIONS FOR TRANSPORT CAN BE DIFFERENT.

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