
ONE STEP BEYOND

Reliability, precision and performance make PRCN an election model. It combines quality, performance and accuracy for company's to embrace future sustainable development.

FU- TURE IS NOW

PRCN

BENDING FOR EXCELLENCE



RICO[®]
Precision Ideas



PRCN is a range of high performance press brakes for all types of production and highest levels for accuracy and productivity.

It's versatility for multiple configuration and customization, shows that **PRCN** can be used in any company and in any kind of work, from bending of the simplest parts, up to complex mass production parts with tight tolerances. It's the ideal solution to **achieve higher levels of competitiveness, precision and safety.**

PRCN **ONE STEP BEYOND**

Using all RICO's knowledge and technology, **PRCN** models combine **quality, performance and accuracy** for those company's that wants to embrace future sustainable development.



MAK- ING FUTU RE



TABLE OF CONTENTS

	PAGE
.01 Top Features	4
.02 PRCN Range	7
.03 Standard equipment	8
.04 Optional equipment	9
.05 RICO Green	18
.06 Tandem and Robot Integration	20
.07 RICO Press brakes range	22
.08 Technical specifications	24
.09 Bending table	25



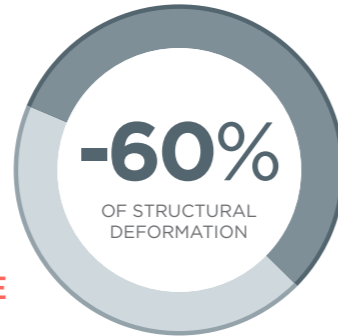
MAIN ADVANTAGES

- .01 / Very high precision and repeatability
- .02 / Exclusive structural concept
- .03 / Extremely quick cycle time
- .04 / Customizable
- .05 / Excellent dimensional characteristics
- .06 / 2 years warranty

TOP FEATURES

RICO's policy is based on an accurate selection of its components in accordance with the huge experience acquired over the years.

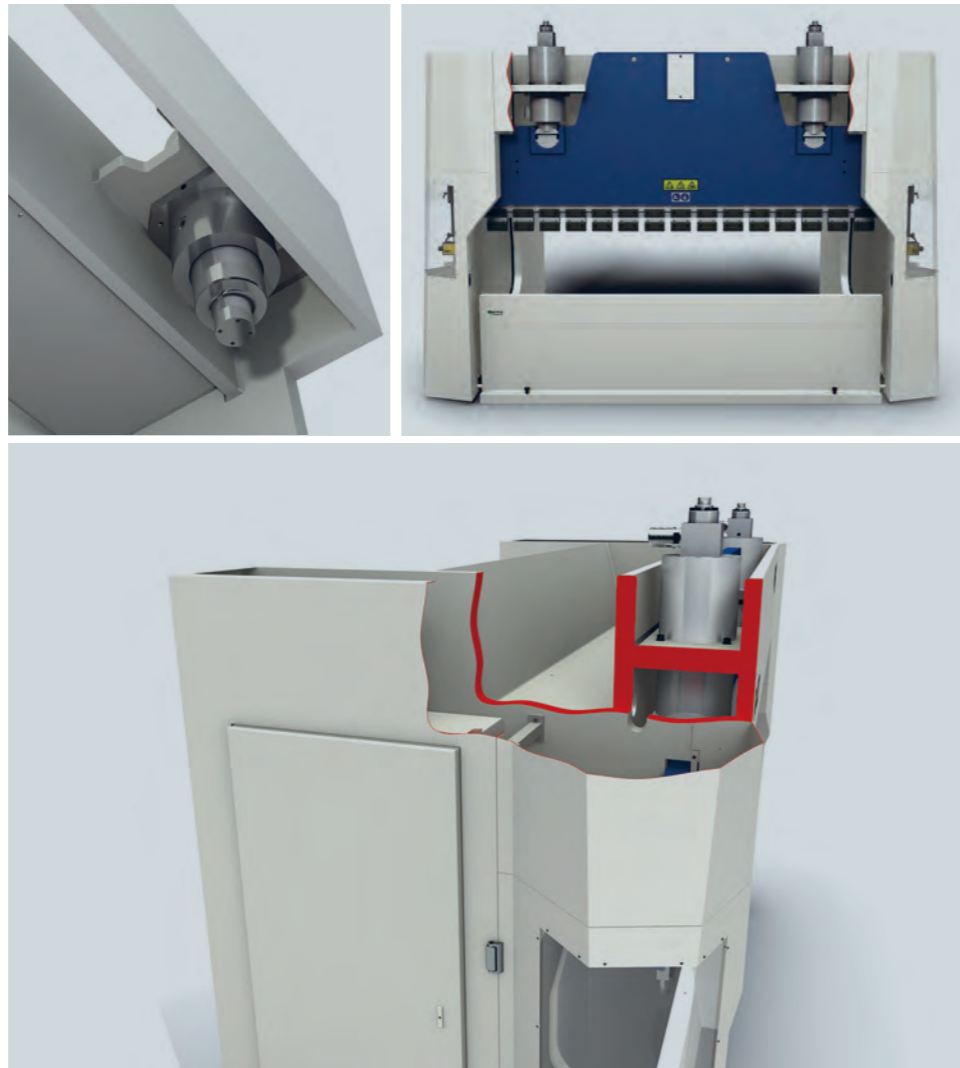
All the machine components are **certified** in accordance with **European standards**.



/ H-BOX FRAME

GUARANTEE OF PRECISION

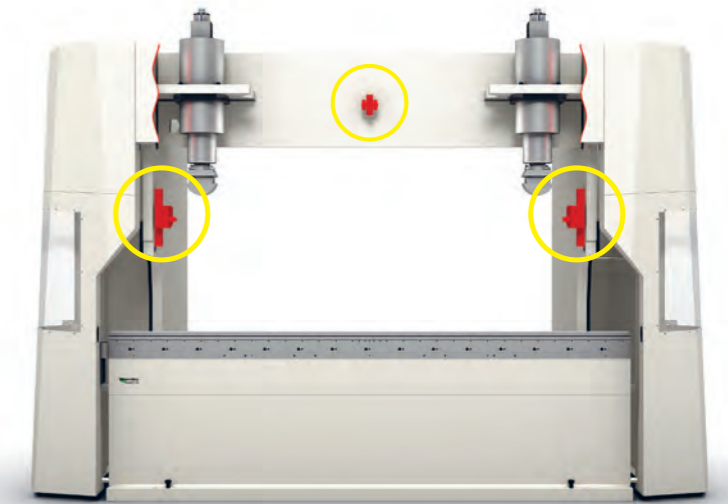
- Placing the cylinders closer fixed to an upper H shaped monoblock frame, it will be ensured 60% less structural deformation, providing greater uniformity in the distribution strain, when loaded;
- PRCN performs better when used in decentralised or multi-station bending operations.



/ TRIPLE GUIDE

DYNAMIC STABILITY

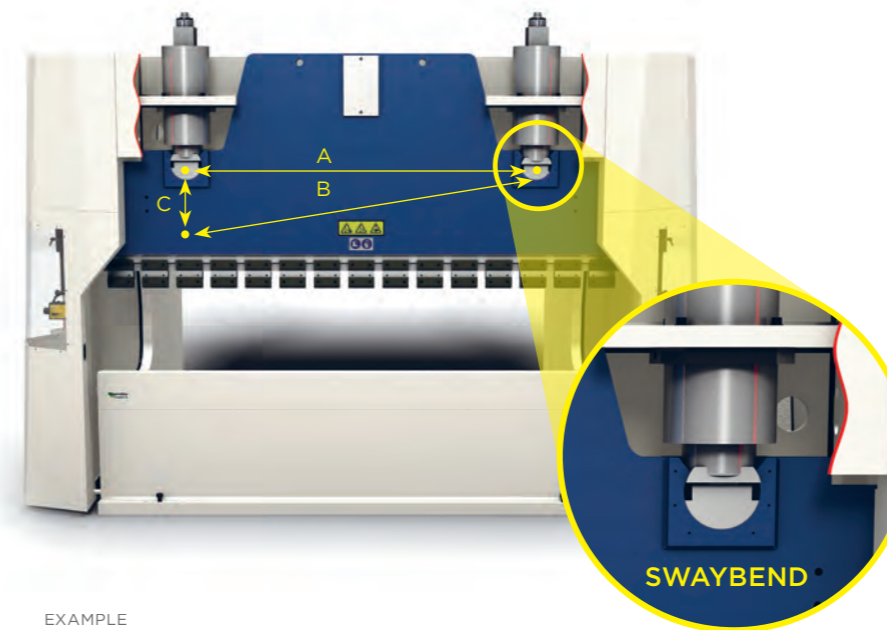
- The upper ram guiding system operates by means of a triple guide system (one central and two on the sides);
- Reduces the deformation of the ram in the transversal direction during the bending operation.



/ SWAYBEND

ADDITIONAL VERSATILITY

- The upper ram, in contact with the cylinder rods by means of special rotary joints, in addition to a triple guide system, ensure exceptional levels of inclination;
- Conical bending, usually presenting significant different angles between tips are now perfectly makeable;
- Reduce the stress on cylinder's axial load.



EXAMPLE
 A) 2000mm - Distance between cylinders on the same position;
 C) 100mm - Difference between the cylinders positioning;
 B) 2002.5mm - Distance between cylinders on different positions.

/ STANDBY FUNCTION

ENERGY EFFICIENCY

This function leads to the automatic stop of the power after 5 consecutive minutes of inactivity.





PRCN FULLY CONFIGURABLE

PRCN range is fully configurable following the customer's need. The standard range features models with capacities varying from 70 to 500 ton. Furthermore, RICO is capable of building machinery with different configurations upon customers' request.

MOST COMMON CUSTOMIZATION
STROKE, DAYLIGHT, THROAT DEPTH, SIDE FRAMES
DISTANCE.

PRCN RANGE

LENGTH (mm) CAPACITY	2100	2600	3100	3600	4100
70 TON	▣	▣	▣		
100 TON		▣	▣	▣	▣
135 TON			▣	▣	▣
160 TON			▣	▣	▣
200 TON			▣	▣	▣
250 TON			●	●	●
300 TON			●	●	●
400 TON				●	●
450 TON				●	●
500 TON				●	●

▣ I-Line ● C-Line

NOTES: - All models allow its integration in robotic cells.
- All models may be used in Tandem or Tridem system.
- All customized models are C-Line design.

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.



EQUIPMENT

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

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.

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

STANDARD ^S

TYPE	ITEM	I-LINE C-LINE		PAGE
Special systems	H-Box frame	●	●	4
	Swaybend system	●	●	5
	Triple-guide	●	●	5
	Standby function	●	●	5
Control panel	Delem DA-66T control	●	●	10
Automatic axes	4 automatic axes: Y1+Y2+X+R	●	●	11
Back gauge	BGR back gauge	●	-	11
	BGRH back gauge	-	●	
Front safety	LASER AKAS II-F	●	●	10
Rear safety	Safety barriers (Level IV)	●	●	-
Supports	SFS front support	●	●	12
Top clamping	Manual clamping	●	●	14
Bottom clamping	Manual clamping	●	●	14
Offline software	Profile TL	●	●	17
Others	Hanging swivel in control panel	-	●	-
	Mobile vehicle in control panel	●	○	-
	Machine LED status	●	●	8
	Hex key set	●	●	-
Design	Design I-line	●	-	-
	Design C-line	○	●	-

● Standard ○ Optional

^S Machine LED status







OPTIONAL

TYPE	ITEM			PAGE			
Control panel	DELEM	CYBELEC		10			
	DA-69T	Modeva 19T					
		Modeva RA Premium					
Automatic axes	Z1+Z2	X5		11			
Back gauge	BGT with 6 automatic axes			11			
Safety lasers	AKAS II-M	AKAS 3P	Iris	10			
Angle measurers	React	Iris Plus	eyeV	15			
Front supports	SFA	SFH		12			
Rear supports	SPA			13			
Follower supports	ACFA	ACF1	ACF2	13			
Top clamping	MANUAL	PNEUMATIC	HYDRAULIC	14			
	Speed Grip M	Speed Grip P					
	FR-M	FR-P					
	Wila M	Wila PN	Wila HYD				
Bottom clamping	CROWNING		CLAMPING		14		
		CNC	MANUAL	MANUAL		PNEUMATIC	HYDRAULIC
	RICO	○	○	ROL2 M		ROL2 PN	ROL2 HYD
	WILA	○	○	○	○	○	
LED tool locator	RICO LedBar	Wila Smart Tool Locator		15			
Tool identification	WILA TIPS			15			
Tool cabinet	ARM1	ARM2	ARM1A	17			
Offline software	Delem Profile T2D	Delem Profile T3D	RICOBend	17			
Others	S-Boost			16			

EQUIPMENT

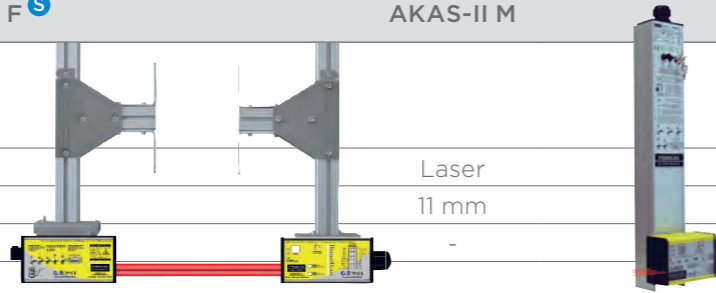
. CONTROLS

	DELEM		CYBELEC	
	DA-66T ^S	DA-69T	ModEva 19T	ModEva RA PREMIUM
				
Axes	8	8	8	8
Screen	17"	17"	19"	15"
2D graphic view	●	●	●	●
3D graphic view	●	●	-	●
3D programming	-	●	-	●
Auto tooling selection	●	●	-	●
Touch screen	●	●	●	●
USB ports	2	2	1	1
2D DXF import	○	●	-	●
3D IGES/STEP offline import	-	●	-	●
3D offline import	○	●	-	●
Export DXF 2D FP	-	-	●	●
Offline software	Profile TL	Profile T3D	PC-Modeva	PC RA Premium

● Standard ○ Optional

. SAFETY LASERS

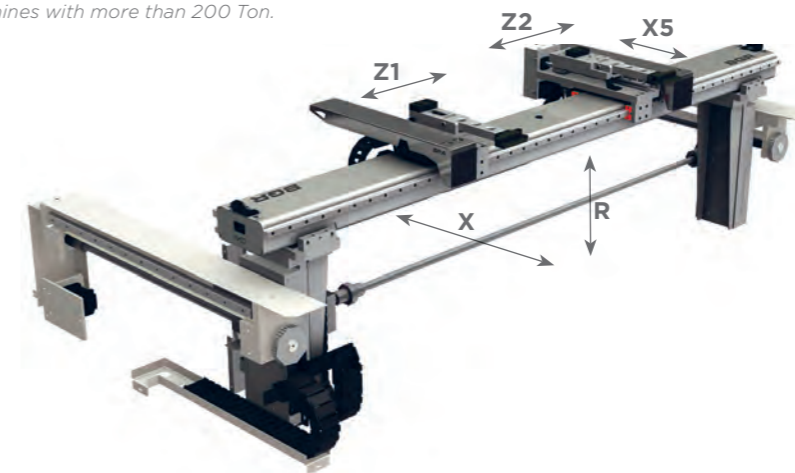
FISSLER	AKAS-II F ^S	AKAS-II M	AKAS 3P
Type	Laser	Laser	Laser
Min. muting point distance	11 mm	11 mm	0,5 mm
Automatic "Y" adjustment	-	-	●



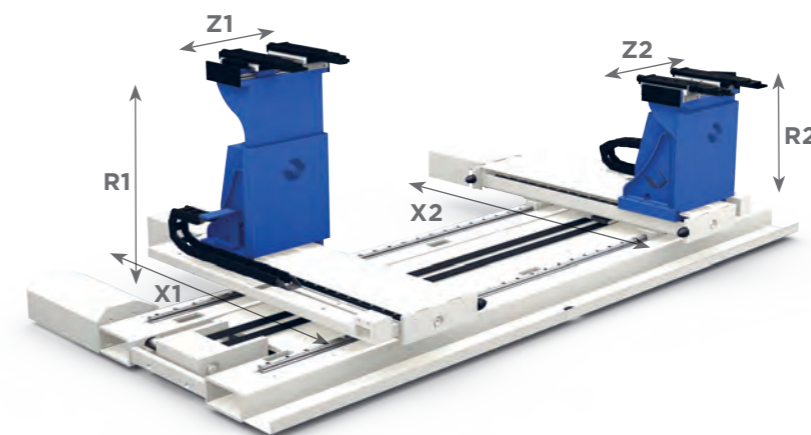
. BACK GAUGES

BGR ^S	X ^S	R ^S	Z1	Z2	X5
Stroke (mm)	750 (1120)	200 / 250*	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

* For machines with more than 200 Ton.



BGT	X1	X2	R1	R2	Z1	Z2
Stroke (mm)	800	800	200	200	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	RACK	RACK	RACK	RACK	RACK	RACK



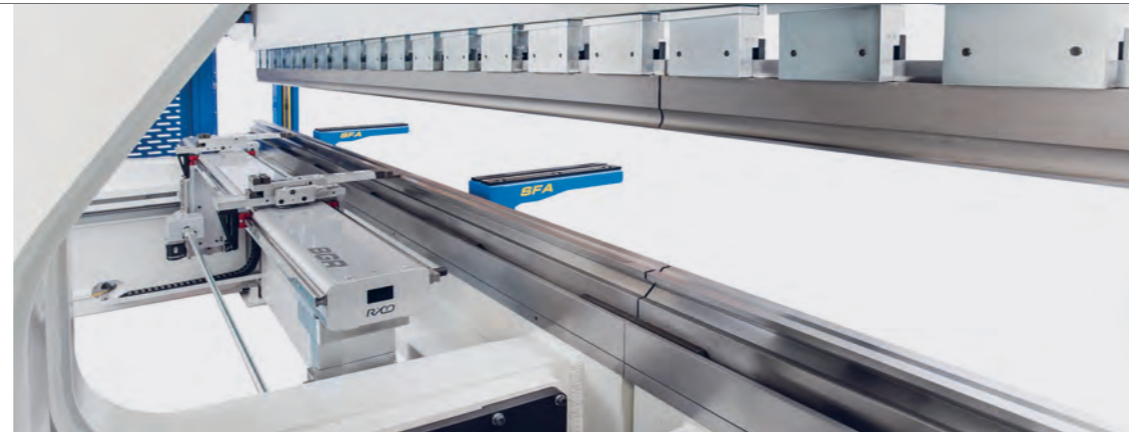
SUPPORTS

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.



The plate supports **can be customized** according to the customer needs.

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.

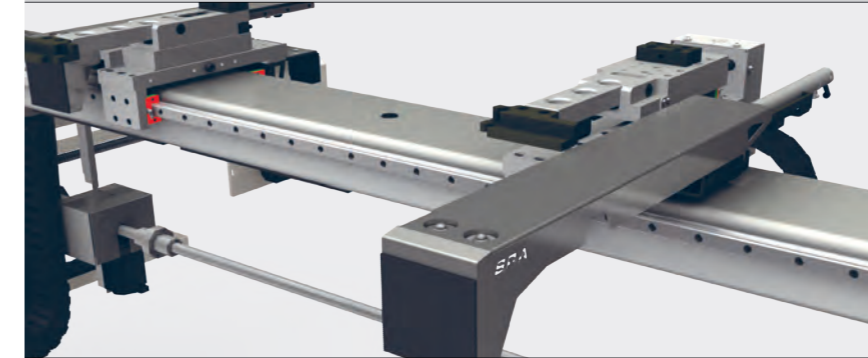
SFH



- . Supported on sliding guides;
- . Continuous manual height regulation;
- . Millimetric scale;
- . Ball transfer units to facilitate handling parts;
- . Adjustable plate stop;
- . Load capacity – 2000 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/support.

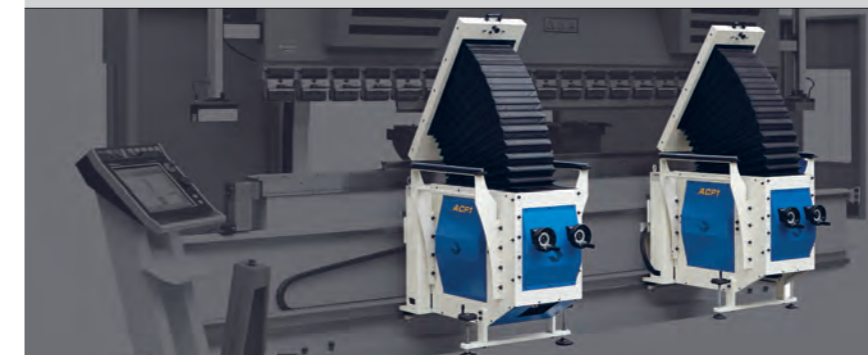
FOLLOWER SUPPORTS

ACFA



- . Automatic bending follower supports;
- . Controlled by CNC;
- . Recommended for heavy parts or large thin plate;
- . Supported on longitudinal sliding rails;
- . X and Y position adjustment;
- . Load capacity – 180 kg per support.

ACF1 / ACF2



- . Automatic bending follower supports;
- . Controlled by CNC;
- . Recommended for heavy parts or large thin plate;
- . Supported on longitudinal sliding rails;
- . X and Y position adjustment;
- . Load capacity:
 - ACF1: 160 kg per support
 - ACF2: 400 kg per support.

. 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		NSCL-II-MC PREMIUM	NSCL-II-HC PREMIUM	
					
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.



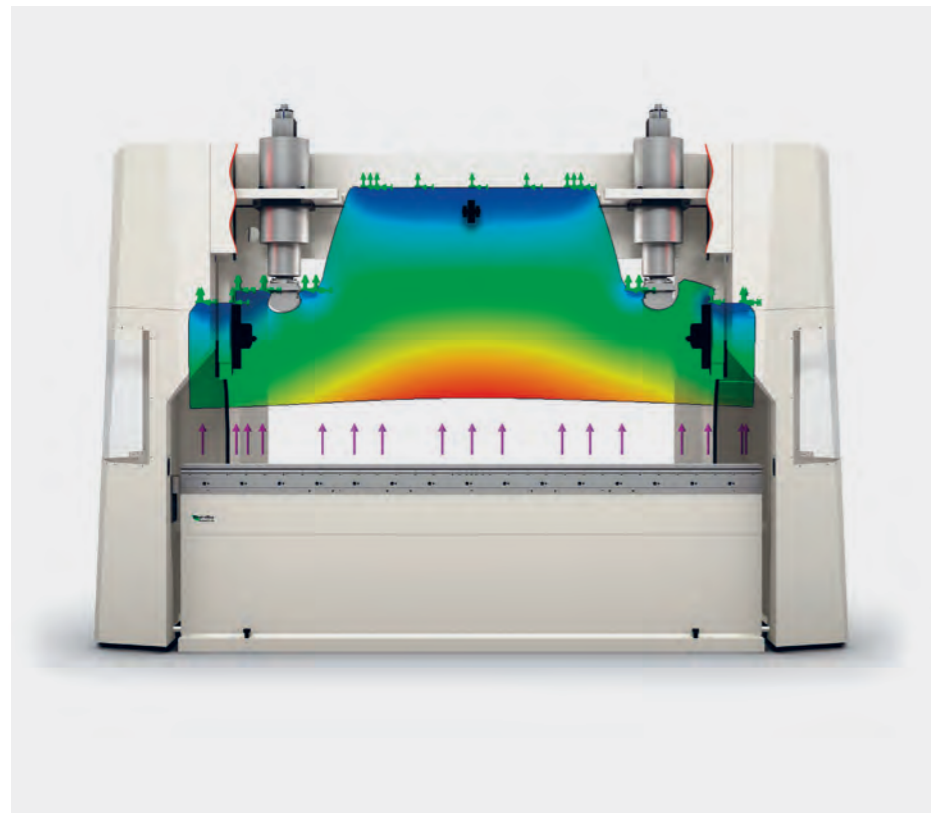
. ANGLE MEASURERS

MODEL	REACT	IRIS PLUS	LASERCHECK (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

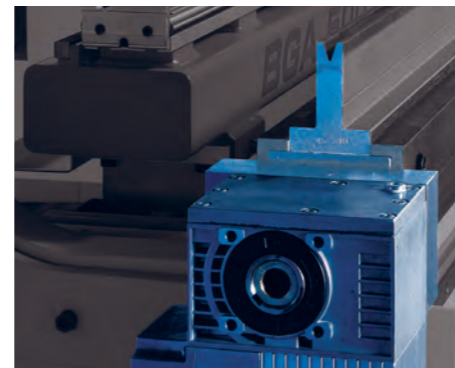
. CROWING TABLE

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 ^S	●	-
Profile T2D	●	-
Profile T3D	●	●
PC Modeva	●	●
PC RA Premium	●	●
Radbend	●	●



. S-BOOST

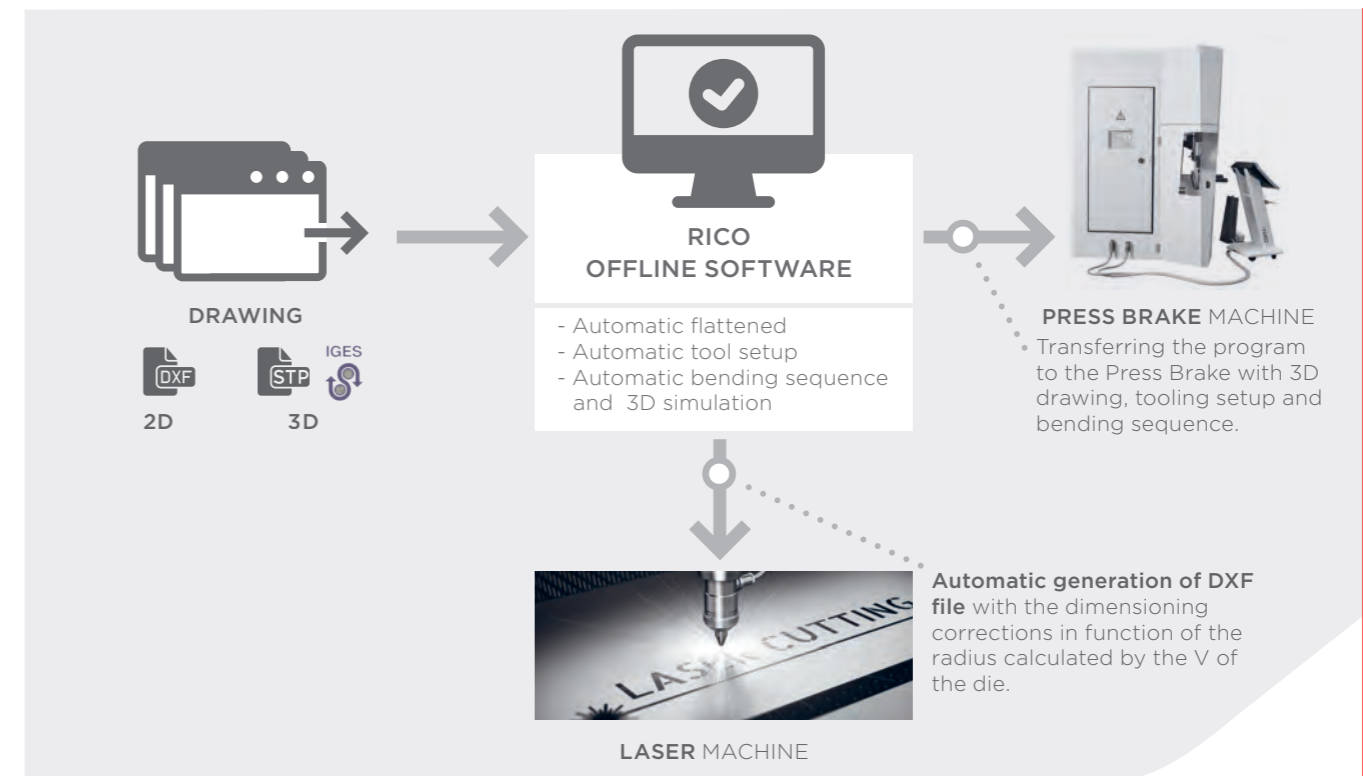
Increased productivity is a major goal of today's enterprises. S-Boost is a system that offers a greater fast speed up and down.

S-boost 1 up to 200 Ton

S-boost 2 from 200 to 300 Ton

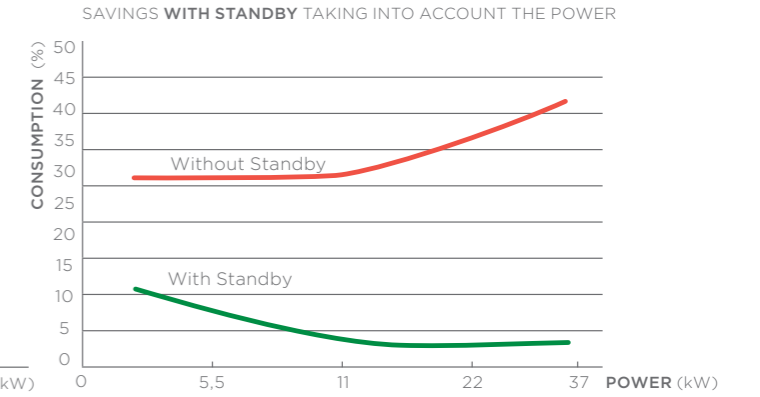
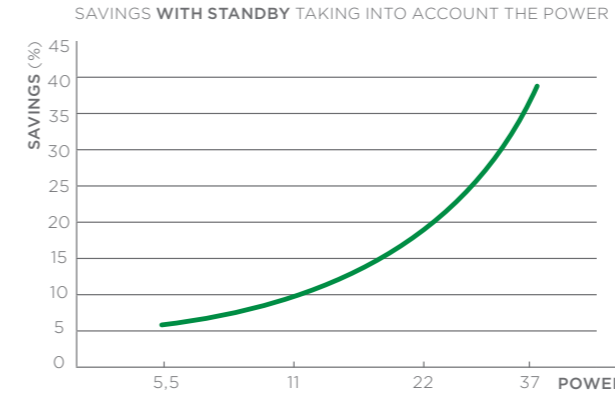


NOTE: Speed values with S-Boost are described on page 24.



RICO GREEN

RICO promotes a friendly environmental policy, and, as such, all our equipment features the Standby Function. This function leads to the **automatically stop of the power after 5 consecutive minutes of inactivity.** Standby Function ensures an effective economy of energy on an automatic basis.



**Standby
FUNCTION**

75%
IDLE SAVING

20%
EFFECTIVE SAVINGS

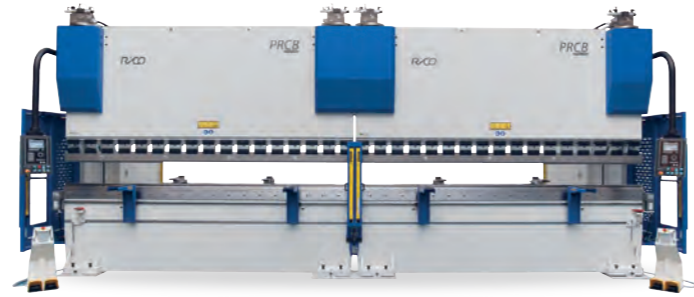
RICO GREEN INTEGRATED NATURE

Developing in line with sustainability and environmental concern.

TANDEM INTEGRATION

Two press brakes may be used in tandem when bending large lengths. This system enables the user to synchronise the two machines to guarantee the same speed and precision.

The Tandem system enables the two machines to be operated in **simultaneous** or **stand-alone mode**.

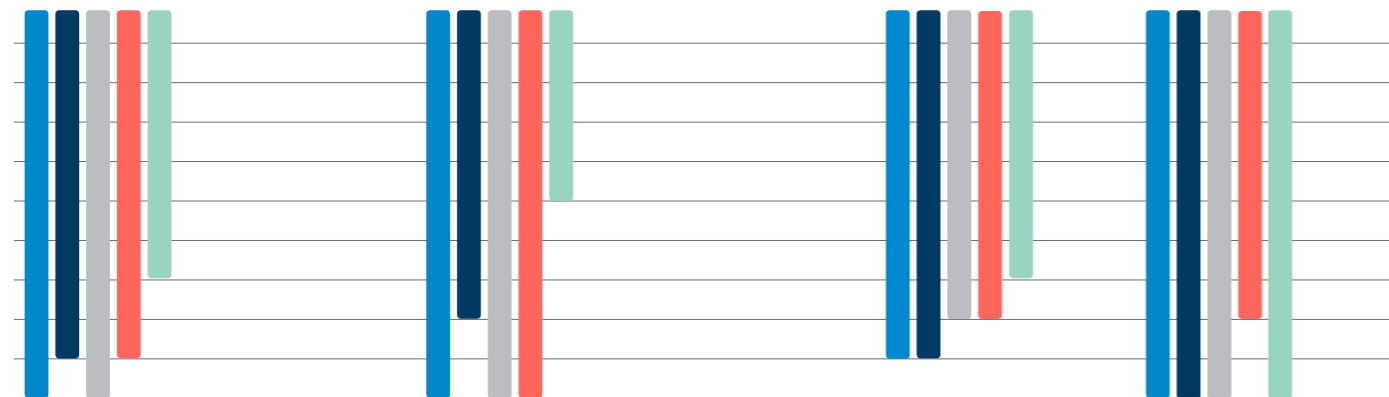


RICO INTEGRATED CELLS

The PRCN press brake is designed to allow for the introduction of robotic cells developed in accordance with the needs of each project.

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	Daylight 2 *	Fast	Bending	Return (RS)	RS S-Boost *	Oil capacity	Back gauge stroke	Motor Power	Total length (A)	Total height (B)	Total width (C)	Distance between frames	Height under the floor	Aprox. weight
mm	Ton	mm	mm	mm	mm	mm/s	Lts	mm	kW	mm							Kg	

I-LINE

PRCN 2070	2100												3080			1600		6030	
PRCN 2570	2600	70	300	300	500	540	210	0-10/18*	145	220	120	750	7,5	3580	2790	2030	2100	0	6620
PRCN 3070	3100												4080			2600		7640	
PRCN 25100	2600												3600			2100		8060	
PRCN 30100	3100												4100			2600		9230	
PRCN 35100	3600	100	400	300	500	540	200	0-10/18*	145	220	180	750	11	4600	2890	2090	3100	0	10670
PRCN 40100	4100												5100			3600		12050	
PRCN 30135	3100												4120			2600		10910	
PRCN 35135	3600	135	400	300	500	540	200	0-10/17*	135	200	230	750	11	4620	2905	2160	3100	0	12590
PRCN 40135	4100												5120			3600		14080	
PRCN 30160	3100												4120			2600		12220	
PRCN 35160	3600	160	400	300	500	540	200	0-10/17*	155	205	230	750	15	4620	2965	2220	3100	0	14250
PRCN 40160	4100												5120			3600		15980	
PRCN 30200	3100												4100			2600		15140	
PRCN 35200	3600	200	400	300	500	540	200	0-10/17*	130	200	290	750	15	4600	3015	2030	3100	0	16410
PRCN 40200	4100												5100			3600		20200	

C-LINE

PRCN 30250	3100												3940			2600		18080	
PRCN 35250	3600	250	400	350	570	610	180	0-10/17*	130	205	390	750	19	4440	3440	2020	3100	0	19720
PRCN 40250	4100												4940			3100		20310	
PRCN 30300	3100												3960			2600		19130	
PRCN 35300	3600	300	400	350	570	610	180	0-10/17*	130	205	470	750	30	4460	3440	2020	3100	0	20730
PRCN 40300	4100												4960			3100		21410	
PRCN 35400	3600												4480			3100		25980	
PRCN 40400	4100	400	400	400	620	660	170	0-10	120	-	380	750	30	4980	3755	2395	3100	0	26900
PRCN 35450	3600												4480			3100		27000	
PRCN 40450	4100	450	400	400	620	660	150	0-10	105	-	380	750	30	4980	3735	2395	3100	0	27670
PRCN 35500	3600												4500			3100		28320	
PRCN 40500	4100	500	400	400	620	660	140	0-10	105	-	380	750	30	5000	3735	2395	3100	0	29310

* Optional

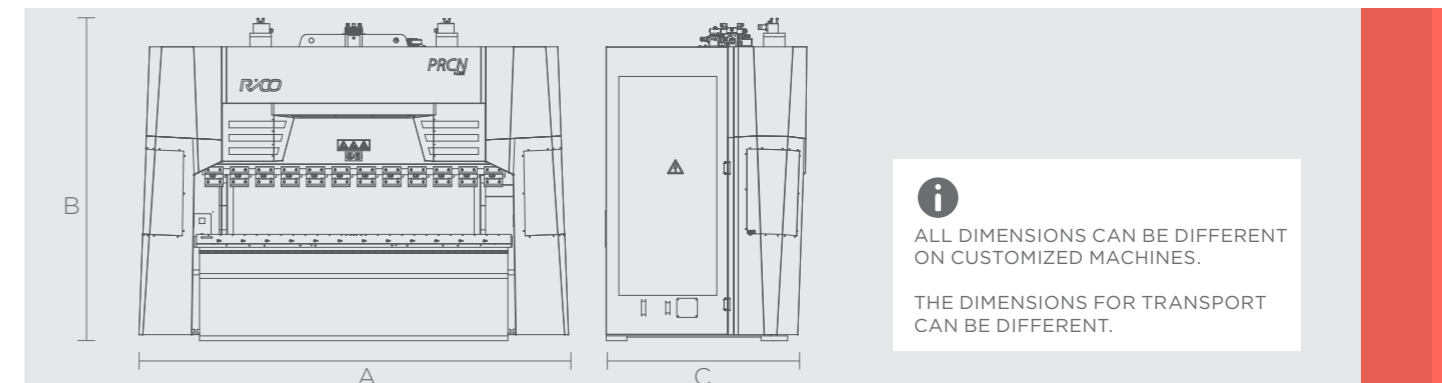
Content subject to change without notice. V4.02

BENDING TABLE

Required bending power (Ton/m)
Rm=420 N/mm² - Rm=700 N/mm²

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



AGENT\



V. 031712

TOMÁS CASTRO SILVA, LDA.
GONDOMAR | PORTUGAL

Rua de Cerquido - Zebreiros
4515-118 | Foz do Sousa
Portugal

T | +351 224 540 370
F | +351 224 541 424
E | geral@rico.pt

RICO.PT