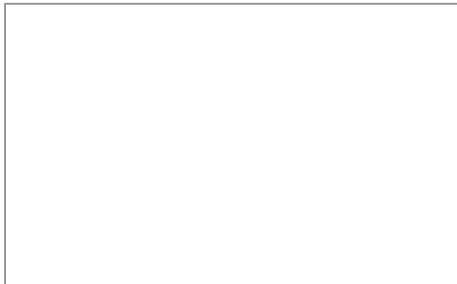
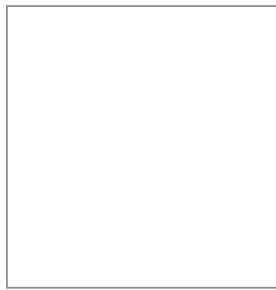




Biko®
BENDING ROLLS

SHAPING THE FUTURE



For over 20 years BIKO has been synonymous with quality.

The BIKO line of bending rolls, introduced 20 years ago, rapidly became the choice for hundreds of manufacturers producing Boilers, Heat Exchangers, Tanks, Silos, Wind Towers, Heating and Ventilation Equipment. The long list of satisfied customers is the best guarantee for the machine performance and reliability.

BIKO: **Made in Italy, Quality, Style e Customer Care.**

BIKO rolls are meticulously designed using modern 3D-CAD systems; they are built using state-of-the-art production technologies. The result is a range of machinery that is strong, highly productive, reliable, and simple to operate.

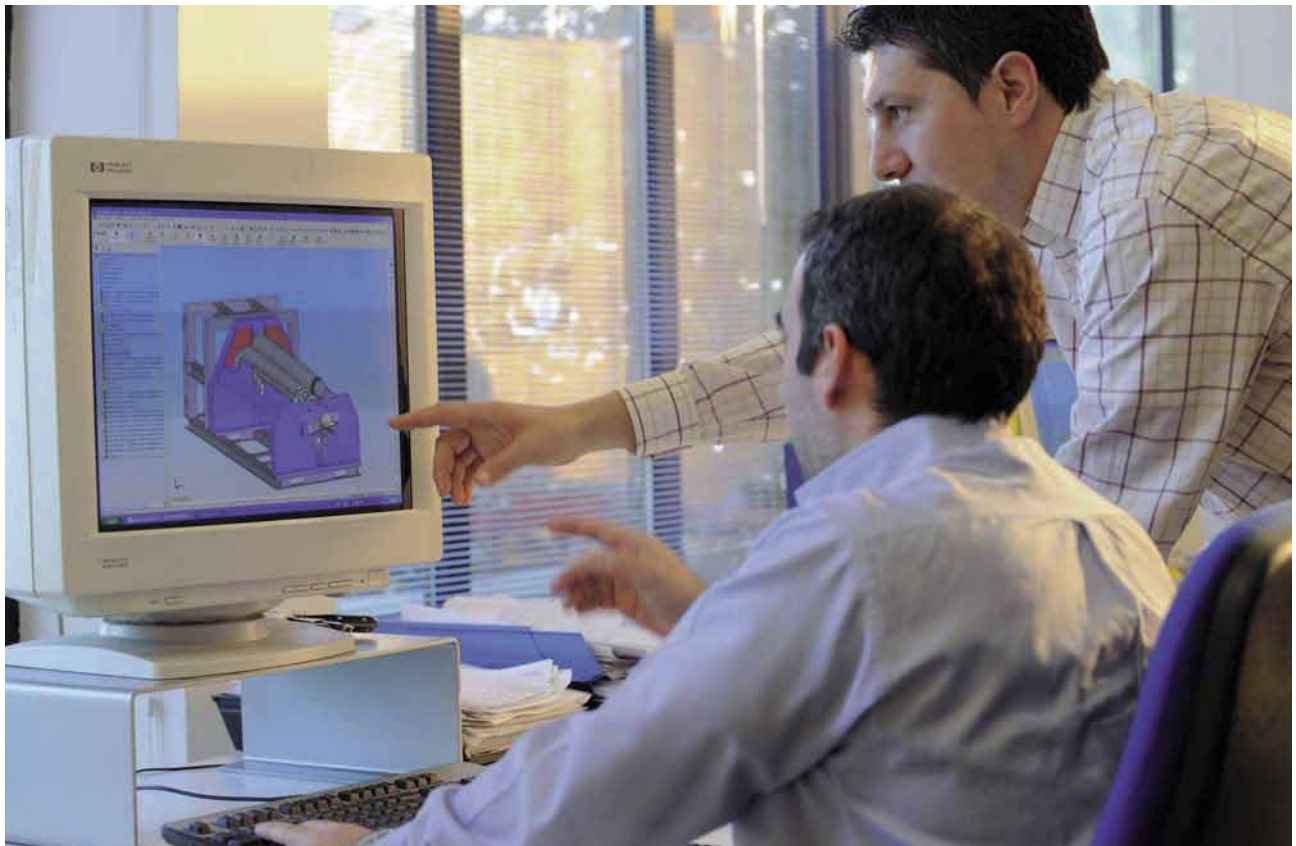
Company policy is oriented to customer care since the initial stage of the evaluation of investment as years of experience in the field make of BIKO the preferred consultant for any investment in plates and profiles rolling equipment.

As a consequence of the success of the BIKO bending rolls line, in 2008 the production of this well engineered range has moved into our new purpose built manufacturing facility, in Northern, Italy where all components of the machines are made. This move has resulted in increasing the number of machines available per year and reduced delivery times for a target market of customers requiring a more cost effective method for rolling.



The particular care paid during the manufacturing process results in the Reliability and Precision of the BIKO range.

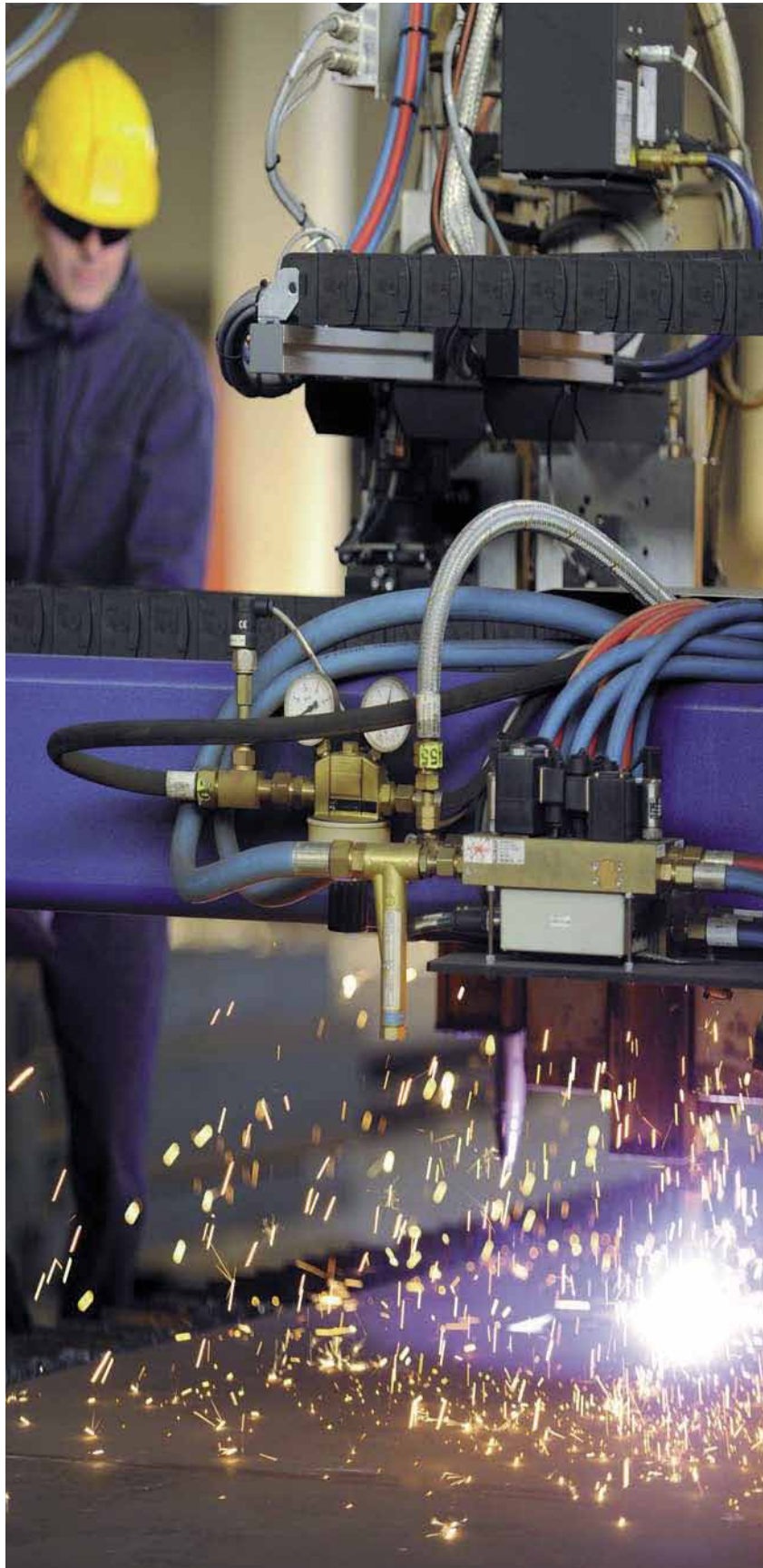
BIKO rolls are meticulously designed by our team of world class engineers using modern 3D-CAD systems.



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Throughout the manufacturing process, from the cutting of plates and profiles to the machining of the welded structure, each operation is completed using the most modern and precise equipment guaranteeing strict tolerances.

Every component is controlled in accordance with ISO 9000 standards before reaching the assembly bays where machines up to 100 Tons can be mounted and tested before delivery.



The BIKO commitments towards customers is highlighted by the quality levels of the after sales services.



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A skilled team of engineers with modern communication tools and software are always available to assist the bending rolls operator in solving any problem immediately and efficiently.

Our facilities are located in the beautiful region of the Garda Lake in the Centre-North of Italy within easy access from both Verona and Brescia airports. Why not take the opportunity to visit BIKO to understand why we are the preferred choice for bending rolls.



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BIP

SINGLE INITIAL PINCH PLATE ROLLS

The BIP version of plate roll guarantees superior quality of bending thanks to the asymmetric geometry of the roll movement.

Optimal plate drive is guaranteed by the two powered pinch rolls and is ideal for preventing any slipping even on very thin plate.

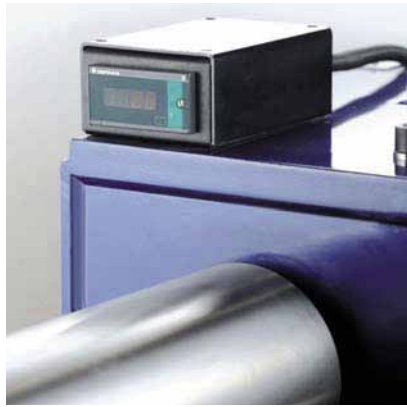
The side roll bends the material very near to the asymmetric clamping point resulting in a prebending quality superior to the one achievable with the more expensive 4 roll design.

A convenient foot pedal control allows a one man operation for plate loading and prebending operations.

Rolling of profiles is possible as a result of the extended roll shafts, provided as standard on all models, so it is possible to mount either standard profiles of pipe dies.

The BIP series of plate rolls is surely the most convenient way to roll your shells consistently with a minimum investment.



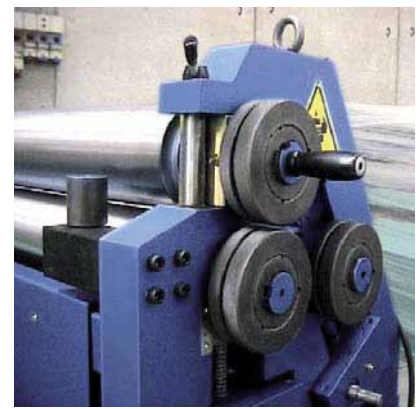


DIGITAL READOUTS (recommended)

To assist the operator to achieve quick repeatability it is normal that digital readouts are mounted the machine. These accurately monitor the roll position.

PROFILE DIES

Profile dies can be mounted on to the machined extended roll shafts outside the drop end bearing. These can be adjusted according to the profile shape (T U Flat)



Model	Rolling Capacity	Prebend Capacity	Prebend Capacity	Rolls Diameter	Power HP	Weight Tons	Dimensions Metres
BIP	5xD	5xD	1,3xD	(D)			
1013	7	6	5	130	5,0	1,2	2,1x0,75x1,1
1513	6	5	4	130	5,0	1,4	2,6x0,75x1,1
2013	4	3	3	130	5,0	1,6	3,1x0,75x1,1
2513	3	2	2	130	2,0	1,8	3,6x0,75x1,1
1515	7	6	5	150	6,0	1,9	2,8x0,8x1,2
2015	5	4	3	150	6,0	2,2	3,3x0,8x1,2
2515	4	3	2	150	6,0	2,5	3,8x0,8x1,2
3015	3	2	2	150	6,0	2,8	4,3x0,8x1,2
1517	9	8	5	170	7,0	2,1	2,8x0,8x1,2
2017	7	6	5	170	7,0	2,4	3,3x0,8x1,2
2517	6	4	3	170	7,0	2,8	3,8x0,8x1,2
3017	5	3	2	170	7,0	3,1	4,3x0,8x1,2

Larger, Smaller and Intermediate Sizes available on request.

HARDENED ROLLS (recommended)

A hardened surface may grant resistance up to 190 kg/mm², preventing the excessive wear of the rolls, above all when rolling cones or when rolling stainless steel, flame cut steel and other hard materials.

Accessories available on this machine:

- Induction surface hardened rolls;
- Cone rolling package;
- Profile bending dies;
- Digital displays.



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B3

3 ROLL DOUBLE INITIAL PINCH

Capacities ranging from 1.5 metre to 3 metre and 3mm to 70mm. The Biko B3 three roll double initial pinch machines, are manufactured with capacities ranging from 1.5m to 3m and 3 mm to 70mm, and have been designed to achieve the most versatility in a traditional industry.

With all three rolls independently driven by independent motors and gearboxes, two powerful hydraulic cylinders to each roll and a hydraulically operated drop end bearing for the removal of completed cylinders,

the machine has the capabilities to produce high quality rolled parts and as a result of its low competitive cost is the preferred machine of the general fabricator, who needs the assurance of a strong and user friendly machine. General fabricators are the main users of this product.

Within our range the Biko B3 offers the maximum rolling power with the minimum investment cost.





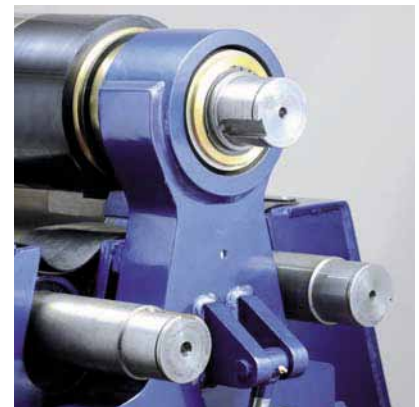
TOP/CENTRAL SUPPORT:

When rolling thinner material to larger diameters, the rolled part has little inherent strength and has a tendency to collapse, the result an 'egg' shaped cylinder.

It is normal workshop practice to support the work piece with either a fork truck or overhead crane, which ties up valuable equipment and could create a 'bottleneck' in production.

PROFILE DIES

Profile dies can be mounted on to the machined extended roll shafts outside the drop end bearing. These can be adjusted according to the profile shape (T U Flat)



Model	Rolling Capacity	Prebend Capacity	Prebend Capacity	Rolls Diameter	Power HP	Weight Tons	Dimensions Metres
B3	5xD	5xD	1,3xD	(D)			
1615	9	7	6	155/160	5,0	2	3,1x1,0x1,2
1621	15	12	9	215/195	10,0	3,4	3,1x1,2x1,2
2015	7	6	4	155/150	5,0	2	3,6x1,0x1,2
2021	13	9	7	215/195	10,0	3,8	3,6x1,2x1,2
2028	23	18	13	285/265	20,0	6	4,5x1,2x1,7
2621	9	7	5	215/195	10,0	4,2	4,1x1,2x1,2
2628	19	15	11	285/265	20,0	7	5x1,2x1,7
2635	23	19	15	350/320	30,0	11	4,6x1,7x1,8
3121	7	5	3	215/195	10,0	4,6	4,6x1,2x1,2
3128	15	12	9	285/265	20,0	8	5,3x1,2x1,7
3135	20	15	12	350/320	25,0	12	5,2x1,7x1,8
3138	25	20	15	380/350	30,0	15	5,3x1,9x2,0
3141	32	25	20	410/380	35,0	18	5,3x2,0x2,0
3146	40	32	26	460/420	40,0	24	6,2x2,3x2,5
3154	50	40	30	540/500	50,0	34	6,3x2,6x2,8
3158	60	50	40	580/540	75,0	41	6,2x2,8x3,0
3162	70	60	50	620/570	100,0	52	7,2x2,7x2,8

Larger, Smaller and Intermediate Sizes available on request.

SIDE SUPPORTS:

Primarily used when rolling larger diameter open shapes, the side support is used to prevent the weight of the material re-opening the rolled diameter as the material traverses through the rolls.

Accessories available on this machine:

- Induction surface hardened rolls;
- Cone rolling package;
- Profile bending dies;
- Digital displays;
- Top supports;
- Side supports.



B4

4 ROLL DOUBLE INITIAL PINCH

The Biko B4, with capacities ranging from 2 m to 3 m and 2 mm to 70 mm, this four roll plate bending rolls are recognised worldwide as the fastest, safest, most precise and easy to use plate roll available in the Biko range.

After aligning the plate in the roll and using the back roll as a reference point, the material is accurately, squarely and securely clamped between the top roll and pinch roll, preventing the plate slipping resulting in the best possible results, even taking into consideration inexperienced operators. As with all



Biko machines the structure consists of a heavy duty steel frame resulting in the strength, rigidity and reliability expected from this quality manufacturer.

The benefits of the 4 roll design, including one man operation, reduced reliability on handling equipment due to the possible use of feed tables, possible one pass rolling which also reduces workshop floor space, this range of machine is usually sought after by manufactures who would possibly have a product, i.e. boiler manufacturers, pressure vessels, wind towers etc.



NUMERICAL CONTROLS

Various types of automated controls are available for the bending sequence, from the basic NC with simple NC to the full graphic CNC with auto calculation of the bending programmes.



Model	Rolling Capacity	Prebend Capacity	Prebend Capacity	Rolls Rulli (D)	Power HP	Weight Ton.	Dimensions Metri
	5xD	5xD	1,3xD	(D)			
2014	4	3	2	145/130/130	5,0	3	2,9x0,9x1
2020	8	6	4	205/180/160	7,5	4	3,2x1x1,1
2514	3	2	2	145/130/130	5,0	4	3,4x0,9x1
2520	6	4	3	205/180/160	7,5	5	3,7x1x1,1
2528	12	10	7	285/260/200	12,5	7	4,7x1,2x1,1
2530	22	16	12	300/280/225	15,0	9	4,5x1,6x1,5
3128	10	8	6	285/260/200	12,5	8	5,1x1,2x1,1
3130	15	12	10	300/280/220	15,0	10	5,1x1,6x1,5
3135	20	15	12	350/330/255	20,0	14	5,3x2,0x1,8
3138	25	20	15	380/360/295	25,0	17	5,5x2,3x2,0
3141	32	25	20	410/390/300	30,0	19	5,5x2,3x2,1
3146	40	32	26	460/420/370	40,0	27	6,1x2,6x2,5
3153	50	40	30	230/500/440	50,0	37	6,1x2,8x2,9
3158	60	50	40	580/540/480	75,0	45	7,3x2,8x2,7
3163	70	60	50	630/570/500	100,0	58	6,8x3,3x3,6

Larger, Smaller and Intermediate Sizes available on request.

Data may be changed without prior notice.

CONE ROLLING ATTACHMENT:

Should you need the capability to roll tapered cones, it is necessary to be able to tilt the rolls to suit, and mount an attachment on the end of the machine. It is really standard practice to invest in this feature.

Accessories available on this machine:

- Induction surface hardened rolls;
- Cone rolling package;
- Digital displays;
- Top supports;
- Side supports;
- Numerical controls;
- Feeding tables;
- Automatic loaders;
- Automatic ejectors.



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