

### TECHNICAL INNOVATION, EFFICIENT PRECISION.



Kontaktujte nás pre technické poradenstvo, financovanie a cenové ponuky na náradie MACKMA

ant s.r.o. Potrubárske a inštalatérske náradie



Staré grunty 17/a 841 04 Bratislava 02/60 10 37 21 ant@ant.sk www.ant.sk www.mackma.sk



**MACKMA©:** is a company created to produce the innovative technology for the metal deformation.

Today Mackma© after **only 36 months** of its existence boast on its own products the worldwide patented technologies.

Mackma©today is the absolute leader in the technological innovation applied to the tube bending machinery, mandrel benders and ring rollers.

The "entourage" Mackma© is able to develop **highly innovative technologies** that can change even the simple concept of tube bending.

Mackma© is present today in the European market and is establishing the international strategic agreements that give a possibility to ensure the customer confidence and the efficiency.

Mackma© is the branch of the **MASSARO GROUP** which operates for more than 30 years in the construction industry and the metal carpentry in Italy and in all over the world.

MACKMA© – Leader of Innovative Technology!

# BENDING MACHINE **BM34** MACKMA

# Perfect bends and innovation, like a straight line.

MACKMA

Rightward and leftward bending Low energy consumption Variable speed





Tube and Pipe Bending machine BM34,





ATTENTS.



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# BENDING MACHINE BM34 MACKMA

Tube and Pipe Bending machine BM34, non mandrel, electric, semi-automatic.

The **BM34 Bending Machine** is **THE ONLY non mandrel pipe bending machine** able to bend tubes and pipes to the left or right, by means of a reversible die holder, designed and patented by us. The innovative design allows the bending of pipes up to 33,4 mm in diameter and 3,38 mm in wall thickness. With a maximum of 170 mm centre line radius it is capable of maximum performance for this size of machine, even in the most demanding markets.

The bend rotation speed [2 to 3 RPM] is monitored by a dedicated inverter, to ensure the correct bending speed according to the diameter and thickness of the tube.

The modular design of the bending shaft assembly also allows the use of most competitors tooling, reducing long term tooling costs.

The inverter-controlled motor reduces energy consumption to a minimum.

The machine is mounted on precision casters for effortless movement around busy workshops and sites Mackma uses only 100% high quality Italian components to ensure long-term reliability.

Testament to the high quality of their machines is

Mackma's standard 2 year warranty.



The image shown above is understood as a preliminary indication, MACKMA reserves the right to change form and function which are used exclusively for innovative improvements.



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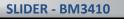
Via Volla snc 03030 Piedimonte San Germano (FR) Tel. +39 0776 404326 - 403489 Fax +39 0776 403460 info@mackma.com www.mackma.com



UITABLE FOR SECTORS, SU Industrial Tools, Tubular furniture Automotive/Motorcycle Dairy and Marine Sport and fitness, Hydraulics Factory maintenance and many	GENERATIC	
MAIN TECHNICAL DATA BM34		
Pipe Max Outer Diameter	38	mm
Max Torque	914	N/m
Diameter using FE – 42 kg/mq	33,4x3,38	mm
Diameter using FE – 35 kg/mq	38x2	mm
Diameter using AISI 304/316 - 65	kg/mq 33,4x1,5	mm
Maximum radius	170	mm
Max curvature angle	180°	
Minimum rotation speed	2	rpm
Maximum rotation speed	3	rpm
Bending direction	rightward and left	ward
Electric tension	220	V
Max installed power	0,55	KW
Weight	33	Kg
Dimensions (WxhxL)	268x310x478	mm
Operating temperature	0 - 50°	

Ed.1/2015 EN

















**REDUCTION SHAFT - BM3403A2** 













































# BENDING MACHINE **BM42** MACKMA

# Perfect bends and innovation, like a straight line.

Rightward and leftward bending Underhead curvature Variable speed Low energy consumption







machine BM42, non mandrel, electric, semi-automatic.















# BENDING MACHINE BM42 MACKMA

Tube and Pipe Bending machine BM42, non mandrel, electric, semi-automatic.

The **BM42 Bending Machine** is **THE ONLY non mandrel pipe bending machine** able to bend tubes and pipes to the left or right, by means of a reversible die holder, designed and patented by us. The innovative design allows the bending of pipes up to 42 mm in diameter and 3 mm in wall thickness. With a maximum of 260 mm centre line radius it is capable of maximum performance for this size of machine, even in the most demanding markets.

The bend rotation speed [2 to 3 RPM] is monitored by a dedicated inverter, to ensure the correct bending speed according to the diameter and thickness of the tube.

The compact "cantilever head" allows bending complex component shapes that may require the tube passing under the gearbox assembly.

The modular design of the bending shaft assembly also allows the use of most competitors tooling, reducing long term tooling costs.

The inverter-controlled motor reduces energy consumption to a minimum.

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UITABLE FOR SECTORS, SUCH A Industrial Tools, Tubular furniture Automotive/Motorcycle Dairy and Marine Sport and fitness, Hydraulics Factory maintenance and many other	NEW NERATIC	N
MAIN TECHNICAL DATA BM42		
Pipe Max Outer Diameter	48	mm
Max Torque	1800	N/m
Diameter using FE – 42 kg/mq	42x3	mm
Diameter using FE – 35 kg/mq	48x1,5	mm
Diameter using AISI 304/316 - 65 kg/m	q 42x1,5	mm
Maximum radius	260	mm
Height of the head	188	mm
Projection of the head	242	mm
Max curvature angle	180°	
Minimum rotation speed	2	rpm
Maximum rotation speed	3	rpm
Bending direction rig	htward and left	ward
Electric tension	220/400	V
Max installed power	0,75	KW
Weight	90	Kg
Dimensions (WxhxL)	347x550x655	mm
Operating temperature	0 - 50°	

Ed.1/2015 EN .adarte

### NON MANDREL ACCESSORIES & SPARE PARTS FOR BM 42 PORTABLE



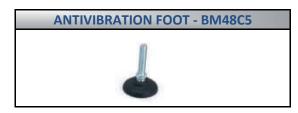




COUNTER BENDING DIE SPRING - BM4277



























### NON MANDREL ACCESSORIES & SPARE PARTS FOR BM 42 PORTABLE







PEDAL - PD01







### BENDING MACHINE BM42 A MACKMA Perfect bends and innovation, like a straight line.

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Right and left hand bending Underhead bending Integrated connection for pipe deburring tool Variable speed Low energy consumption

Tube and Pipe Bending machine BM42 A, non mandrel, electric, semi-automatic.















WARRANT

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### BENDING MACHINE BM42 A MACKMA

Tube and Pipe Bending machine BM42 A, non mandrel, electric, semi-automatic.

The **BM42 A Bending Machine** is **THE ONLY non mandrel pipe bending machine** able to bend tubes and pipes to the left or right, by means of a reversible die holder, designed and patented by us.

Other unique benefits include a connection for the installation of a useful internal/external tube deburring tool.

- The innovative design allows the bending of pipes up to 42 mm in diameter and 3 mm in wall thickness. With a maximum of 260 mm centre line radius it is capable of maximum performance for this size of machine, even in the most demanding markets.
- The bend rotation speed [2 to 3 RPM] is monitored by a dedicated inverter, to ensure the correct bending speed according to the diameter and thickness of the tube.
- The compact "cantilever head" allows bending complex component shapes that may require the tube passing under the gearbox assembly.
- The modular design of the bending shaft assembly also allows the use of most competitors tooling, reducing long term tooling costs.

The inverter-controlled motor reduces energy consumption to a minimum. The machine is mounted on precision casters for effortless movement around busy workshops and sites **Mackma** uses only 100% high quality Italian

components to ensure long-term reliability. Testament to the high quality of their machines is Mackma's standard 2 year warranty.



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Industrial Tools, Tubular furniture Automotive/Motorcycle Dairy and Marine Sport and fitness, Hydraulics Factory maintenance and many others	2015 🗸	N
MAIN TECHNICAL DATA BM42 A		
Pipe Max Outer Diameter	48	mm
Max Torque	1800	N/m
Diameter using FE – 42 kg/mq	42x3	mm
Diameter using FE – 35 kg/mq	48x1,5	mm
Diameter using AISI 304/316 – 65 kg/mg	42x1,5	mm
Maximum radius	260	mm
Height of the head	188	mm
Projection of the head	242	mm
Max curvature angle	180°	
Minimum rotation speed	2	rpm
Maximum rotation speed	3	rpm
Bending direction right	ntward and left	ward
Electric tension	220/400	V
Max installed power	0,75	KW
Weight	110	Kg
Dimensions (WxhxL)	440x970x700	mm
Operating temperature	0 - 50°	

Ed.1/2015 EN



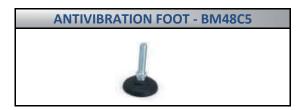
SLIDER - BM4210A



COUNTER BENDING DIE SPRING - BM4277



POSITION INDICATOR - BM4273





COUNTERBENDING DIE SCREW - VCGRM6L16









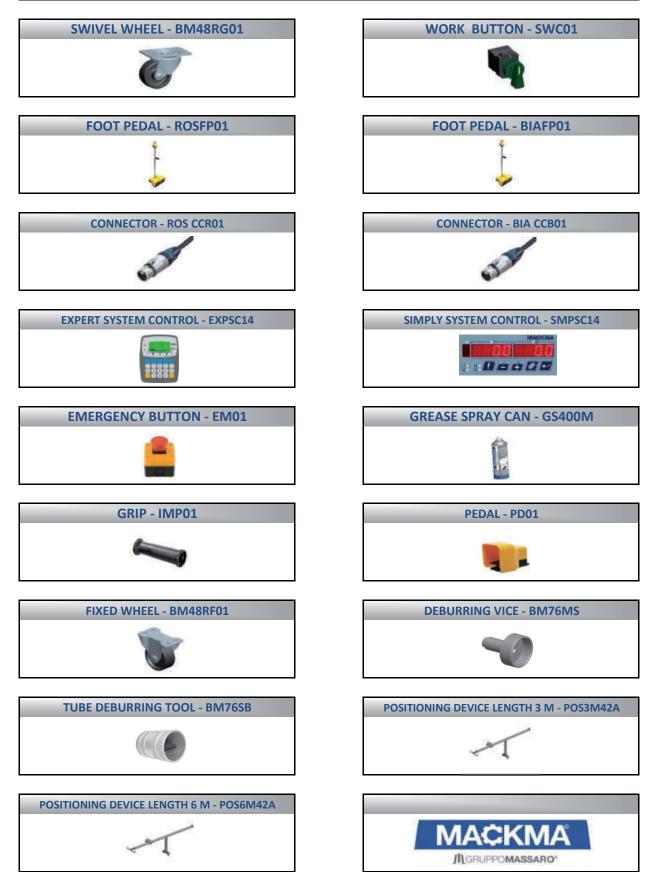












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# BENDING MACHINE **BM48** MACKMA Perfect bends and innovation, like a straight line.

Right and left hand bending Underhead bending Integrated connection for pipe deburring tool Variable speed Low energy consumption

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Tube and Pipe Bending machine BM48, non mandrel, electric, semi-automatic.















WARRANT

MACKMA

# BENDING MACHINE BM48 MACKMA

Tube and Pipe Bending machine BM48, non mandrel, electric, semi-automatic.

The **BM48 Bending Machine** is **THE ONLY non mandrel pipe bending machine** able to bend tubes and pipes to the left or right, by means of a reversible die holder, designed and patented by us.

Other unique benefits include a connection for the installation of a useful internal/external tube deburring tool. The innovative design allows the bending of pipes up to 48 mm in diameter and 3,5 mm in wall thickness. With a maximum of 260 mm centre line radius it is capable of maximum performance for this size of machine, even

in the most demanding markets.

The bend rotation speed [2 to 3 RPM] is monitored by a dedicated inverter, to ensure the correct bending speed according to the diameter and thickness of the tube.

- The compact **"cantilever head"** allows bending complex component shapes that may require the tube passing under the gearbox assembly.
- The modular design of the bending shaft assembly also allows the use of most competitors tooling, reducing long term tooling costs.
- The inverter-controlled motor reduces energy consumption to a minimum. The machine is mounted on precision casters for effortless movement around busy workshops and sites **Mackma** uses only 100% high quality

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SUITABLE FOR SECTORS, SU Industrial Tools, Tubular furniture Automotive/Motorcycle Dairy and Marine Sport and fitness, Hydraulics Factory maintenance and many	GENERATIC	
MAIN TECHNICAL DATA BM48		
Pipe Max Outer Diameter	48	mm
Max Torque	2400	N/m
Diameter using FE – 42 kg/mq	48x3,5	mm
Diameter using FE – 35 kg/mq	48x4	mm
Diameter using AISI 304/316 - 65	kg/mq 48x2	mm
Maximum radius	260	mm
Height of the head	188	mm
Projection of the head	285	mm
Max curvature angle	180°	
Minimum rotation speed	2	rpm
Maximum rotation speed	3	rpm
Bending direction rightward and leftwar		ward
Electric tension	220/400	V
Max installed power	1,1	KW
Weight	110	Kg
Dimensions (WxhxL)	440x970x700	mm
Operating temperature	0 - 50°	

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SLIDER - BM4210A



COUNTER BENDING DIE SPRING - BM4277











**REDUCTION SHAFT - BM4203A2** 











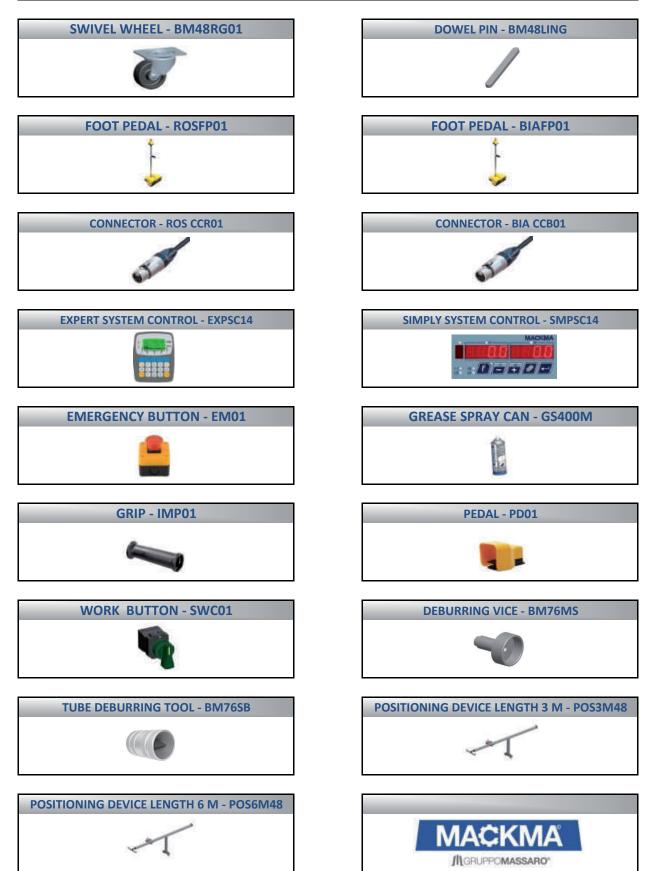






FIXED WHEEL - BM48RF01





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# BENDING Machine **BM60** Mackma Perfect bends and innovation, like a straight line.

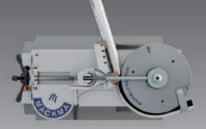
Right and left hand bending Underhead bending Integrated connection for pipe deburring tool Variable speed Low energy consumption

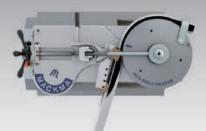
MACKMA

/ BM60 ①



Tube and Pipe Bending machine BM60, non mandrel, electric, semi-automatic.















# BENDING MACHINE BM60 MACKMA

Tube and Pipe Bending machine BM60, non mandrel, electric, semi-automatic.

The **BM60 Bending Machine** is **THE ONLY non mandrel pipe bending machine** able to bend tubes and pipes to the left or right, by means of a reversible die holder, designed and patented by us. Other unique benefits include a connection for the installation of a useful internal/external tube deburring tool.

- The innovative design allows the bending of pipes up to 60 mm in diameter and 4 mm in wall thickness. With a maximum of 380 mm centre line radius it is capable of maximum performance for this size of machine, even in the most demanding markets.
- The bend rotation speed [1 to 2 RPM] is monitored by a dedicated inverter, to ensure the correct bending speed according to the diameter and thickness of the tube.
- The compact "cantilever head" allows bending complex component shapes that may require the tube passing under the gearbox assembly.
- The modular design of the bending shaft assembly also allows the use of most competitors tooling, reducing long term tooling costs.

The inverter-controlled motor reduces energy consumption to a minimum.

The machine is mounted on precision casters for effortless movement around busy workshops and sites

Mackma uses only 100% high quality Italian components to ensure long-term reliability. Testament to the high quality of their machines is Mackma's standard 2 year warranty.



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Industrial Tools, Tubular furniture Automotive/Motorcycle Dairy and Marine Sport and fitness, Hydraulics Factory maintenance and many	2015	
MAIN TECHNICAL DATA BM60		
Pipe Max Outer Diameter	60	mm
Max Torque	8000	N/m
Diameter using FE – 42 kg/mq	60x4	mm
Diameter using FE – 35 kg/mq	64x5	mm
Diameter using AISI 304/316 - 65	kg/mq 64x3	mm
Maximum radius	380	mm
Height of the head	300	mm
Projection of the head	360	mm
Max curvature angle	180°	
Minimum rotation speed	1	rpm
Maximum rotation speed	2	rpm
Bending direction	rightward and	l leftward
Electric tension	440	V
Max installed power	1,5	KW
Weight	210	Kg
Dimensions (WxhxL)	660x1100x	1000 mm
Operating temperature	0 - 50°	

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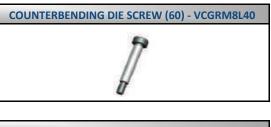






















PIN FOR COUNTERBENDING DIE SUPPORT - BM4818





























POSITIONING DEVICE LENGTH 6 M - POS6M60
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# BENDING MACHINE **BM76 MACKMA** Perfect bends and innovation, like a straight line.

Right and left hand bending Underhead bending Integrated connection for pipe deburring tool Variable speed WARRANTY Low energy consumption VFA

MACKMA

// BM76 •)





MACKMA

Pipes Bending machine BM76 Guideless, electric, semi-automatic and manual.











# BENDING MACHINE BM76 MACKMA

Tube and Pipe Bending machine BM76, non mandrel, electric, semi-automatic.

The **BM76 Bending Machine** is **THE ONLY non mandrel pipe bending machine** able to bend tubes and pipes to the left or right, by means of a reversible die holder, designed and patented by us. Other unique benefits include a connection for the installation of a useful internal/external tube deburring tool.

- The innovative design allows the bending of pipes up to 76 mm in diameter and 3 mm in wall thickness. With a maximum of 380 mm centre line radius it is capable of maximum performance for this size of machine, even in the most demanding markets.
- The bend rotation speed [1 to 2 RPM] is monitored by a dedicated inverter, to ensure the correct bending speed according to the diameter and thickness of the tube.
- The compact "cantilever head" allows bending complex component shapes that may require the tube passing under the gearbox assembly.
- The modular design of the bending shaft assembly also allows the use of most competitors tooling, reducing long term tooling costs. The inverter-controlled motor reduces energy consumption to a minimum.
- The machine is mounted on precision casters for effortless movement around busy workshops and sites Mackma uses only 100% high quality Italian components to ensure long-term reliability.

Testament to the high quality of their machines is

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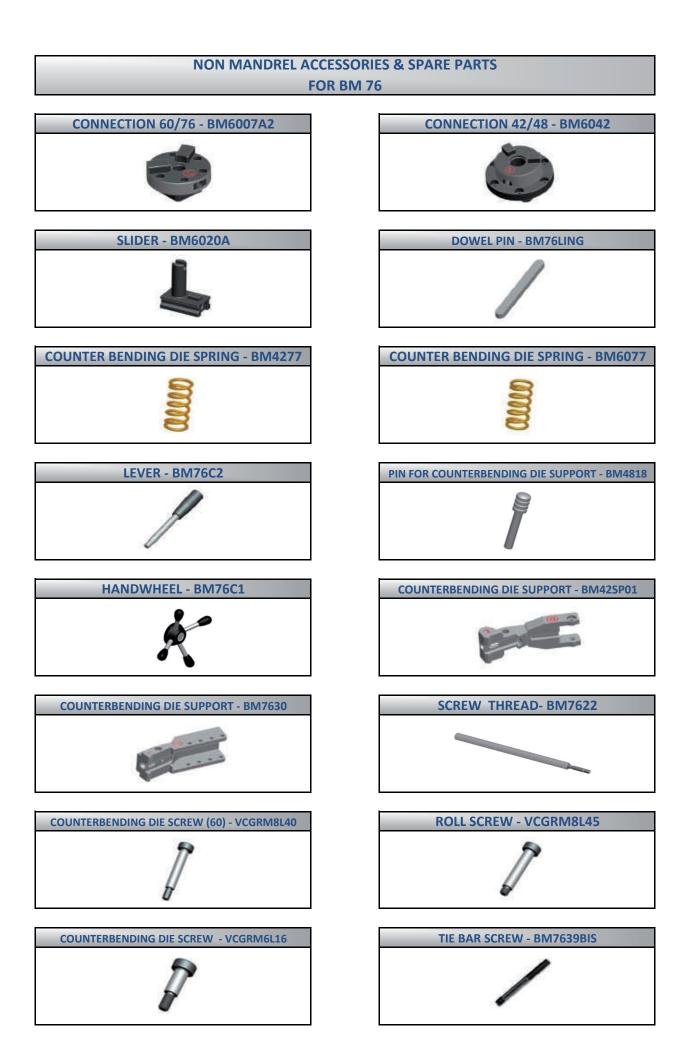


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POSITIONING DEVICE LENGTH 3 M - POS3M76





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### BENDING MACHINE **BM100** MACKMA Perfect bends and Tube and Pipe Bending innovation, like a straight line. machine BM100, non mandrel, electric, semi-automatic

Right and left hand bending Variable speed Low energy consumption

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# BENDING MACHINE BM100 MACKMA

Tube and Pipe Bending machine BM100, non mandrel, electric, semi-automatic

The **BM100 Bending Machine** is **THE ONLY non mandrel pipe bending machine** able to bend tubes and pipes to the left or right, by means of a reversible die holder, designed and patented by us.

- The innovative design allows the bending of pipes up to 101,6 mm in diameter and 5,74 mm in wall thickness. With a maximum of 600 mm centre line radius it is capable of maximum performance for this size of machine, even in the most demanding markets.
- The bend rotation speed [max 1,2 RPM] is monitored by a dedicated inverter, to ensure the correct bending speed according to the diameter and thickness of the tube.
- The modular design of the bending shaft assembly also allows the use of most competitors tooling, reducing long term tooling costs.

The inverter-controlled motor reduces energy consumption to a minimum.

The machine is mounted on precision casters for effortless movement around busy workshops and sites Mackma uses only 100% high quality Italian components to ensure long-term reliability.

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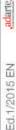
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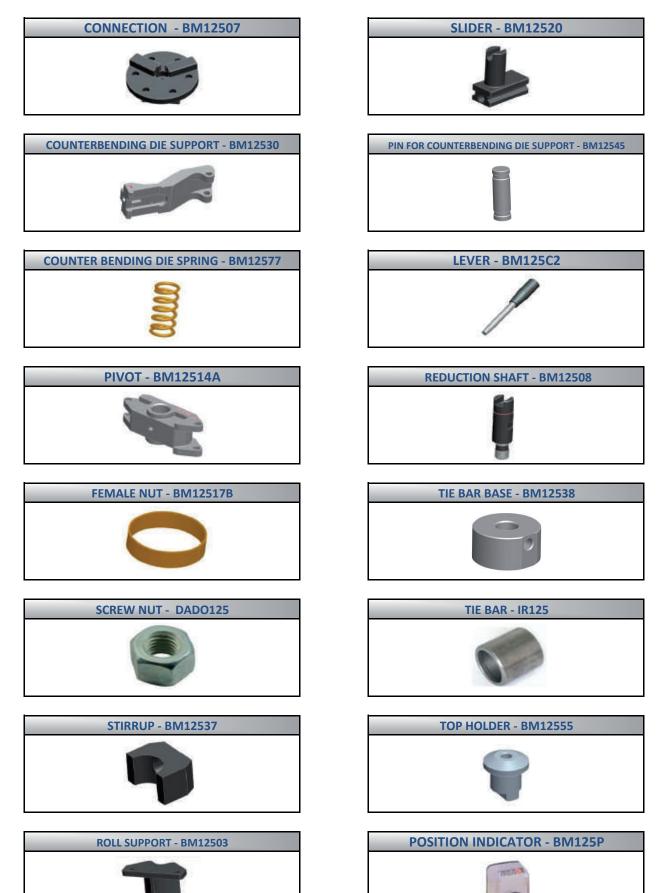
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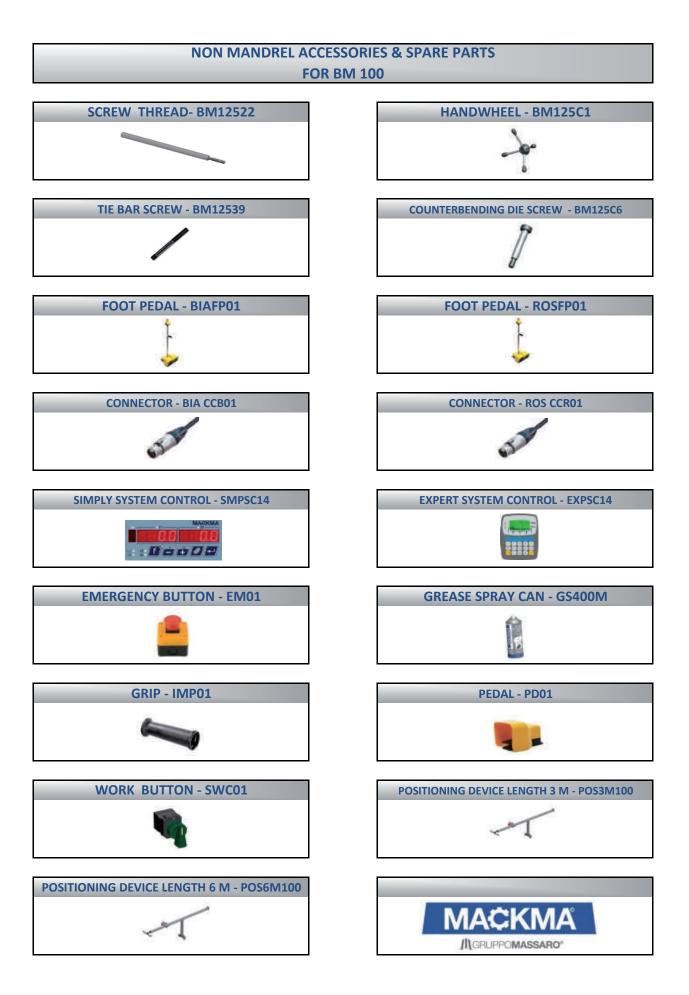


SUITABLE FOR SECTORS, SU Industrial Tools, Tubular furniture Automotive/Motorcycle Dairy and Marine Sport and fitness, Hydraulics Factory maintenance and many	GENERATION
MAIN TECHNICAL DATA BM100	)

Pipe Max Outer Diameter	114,3 (4")	mm
Max Torque	22.000	N/m
Diameter using FE – 42 kg/mq	101,6x5,74	mm
Diameter using FE – 35 kg/mq	114,3x4,78	mm
Diameter using AISI 304/316 - 65 kg/m	ng 88,9x4,78	mm
Maximum radius	600	mm
Max curvature angle	180°	
Maximum rotation speed	1,2	rpm
Bending direction right	ghtward and let	ftward
Electric tension	380/550	V ac
Max installed power	3	KW
Weight	900	Kg
Dimensions (WxhxL)	800x1100x1300 mm	
Operating temperature	0 - 50° C	







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# BENDING MACHINE **BM125** MACKMA Perfect bends and innovation, like a straight line.

Right and left hand bending Variable speed Low energy consumption





Tube and Pipe Bending machine BM125, non mandrel, electric, semi-automatic















### BENDING MACHINE BM125 MACKMA Tube and Pipe Bending machine

Tube and Pipe Bending machine BM125, non mandrel, electric, semi-automatic

The **BM125 Bending Machine** is **THE ONLY non mandrel pipe bending machine** able to bend tubes and pipes to the left or right, by means of a reversible die holder, designed and patented by us.

- The innovative design allows the bending of pipes up to 114,3 mm in diameter and 8,56 mm in wall thickness. With a maximum of 700 mm centre line radius it is capable of maximum performance for this size of machine, even in the most demanding markets.
- The bend rotation speed [max 0,98 RPM] is monitored by a dedicated inverter, to ensure the correct bending speed according to the diameter and thickness of the tube.
- The modular design of the bending shaft assembly also allows the use of most competitors tooling, reducing long term tooling costs.

The inverter-controlled motor reduces energy consumption to a minimum.

The machine is mounted on precision casters for effortless movement around busy workshops and sites Mackma uses only 100% high quality Italian components to ensure long-term reliability.

Testament to the high quality of their machines is Mackma's standard 2 year warranty.



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S	SUITABLE FOR SECTORS, SUCH AS: Industrial Tools, Tubular furniture Automotive/Motorcycle Dairy and Marine Sport and fitness, Hydraulics Factory maintenance and many others
	MAIN TECHNICAL DATA BM125
	Sport and fitness, Hydraulics Factory maintenance and many others

Pipe Max Outer Diameter	141,3 (5")	mm
Max Torque	37.000	N/m
Diameter using FE – 42 kg/mq	114,3x8,56	mm
Diameter using FE – 35 kg/mq	141,3x6,55	mm
Diameter using AISI 304/316 - 65 kg/mg	114,3x4,78	mm
Maximum radius	700	mm
Max curvature angle	180°	
Maximum rotation speed	0,98	rpm
Bending direction right	ntward and lef	tward
Electric tension	380/550	V ac
Max installed power	4	KW
Weight	1200	Kg
Dimensions (WxhxL)	800x1200x1400 mm	
Operating temperature	0 - 50° C	

### NON MANDREL ACCESSORIES & SPARE PARTS FOR BM 125

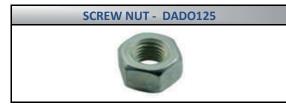














ROLL SUPPORT - BM12503











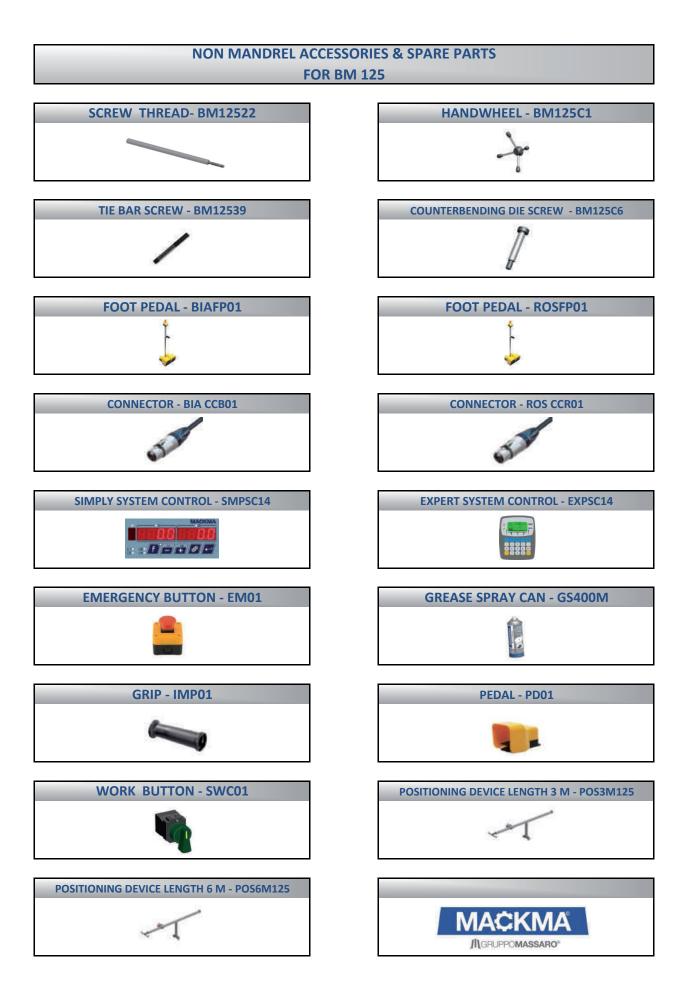






**POSITION INDICATOR - BM125P** 





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# BENDING MACHINE **BM150** MACKMA Perfect bends and innovation, like a straight line.

Right and left hand bending Variable speed Low energy consumption

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Tube and Pipe Bending machine BM150, non mandrel, electric, semi-automatic











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### BENDING MACHINE BM150 MACKMA

Tube and Pipe Bending machine BM150, non mandrel, electric, semi-automatic

The **BM150 Bending Machine** is **THE ONLY non mandrel pipe bending machine** able to bend tubes and pipes to the left or right, by means of a reversible die holder, designed and patented by us.

- The innovative design allows the bending of pipes up to 141,3 mm in diameter and 9,52 mm in wall thickness. With a maximum of 850 mm centre line radius it is capable of maximum performance for this size of machine, even in the most demanding markets.
- The bend rotation speed [max 1 RPM] is monitored by a dedicated inverter, to ensure the correct bending speed according to the diameter and thickness of the tube.
- The modular design of the bending shaft assembly also allows the use of most competitors tooling, reducing long term tooling costs.

The inverter-controlled motor reduces energy consumption to a minimum.

The machine is mounted on precision casters for effortless movement around busy workshops and sites Mackma uses only 100% high quality Italian components to ensure long-term reliability.

Testament to the high quality of their machines is Mackma's standard 2 year warranty.



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Industrial Tools, Tubular furniture	
Automotive/Motorcycle	
Dairy and Marine	
Sport and fitness, Hydraulics	
Factory maintenance and many	others

#### MAIN TECHNICAL DATA BM150

Pipe Max Outer Diameter	168,3 (6")	mm
Max Torque	70.000	N/m
Diameter using FE – 42 kg/mq	141,3x9,52	mm
Diameter using FE – 35 kg/mq	168,3x7,11	mm
Diameter using AISI 304/316 - 65 kg/mq	141,3x6,55	mm
Maximum radius	850	mm
Max curvature angle	180°	
Maximum rotation speed	1	rpm
Bending direction righ	ntward and lef	tward
Electric tension	380/550	V ac
Max installed power	7,5	KW
Weight	1500	Kg
Dimensions (WxhxL) 10	000x1200x160	0 mm
Operating temperature	0 - 50° C	

adarte

### NON MANDREL ACCESSORIES & SPARE PARTS FOR BM 150

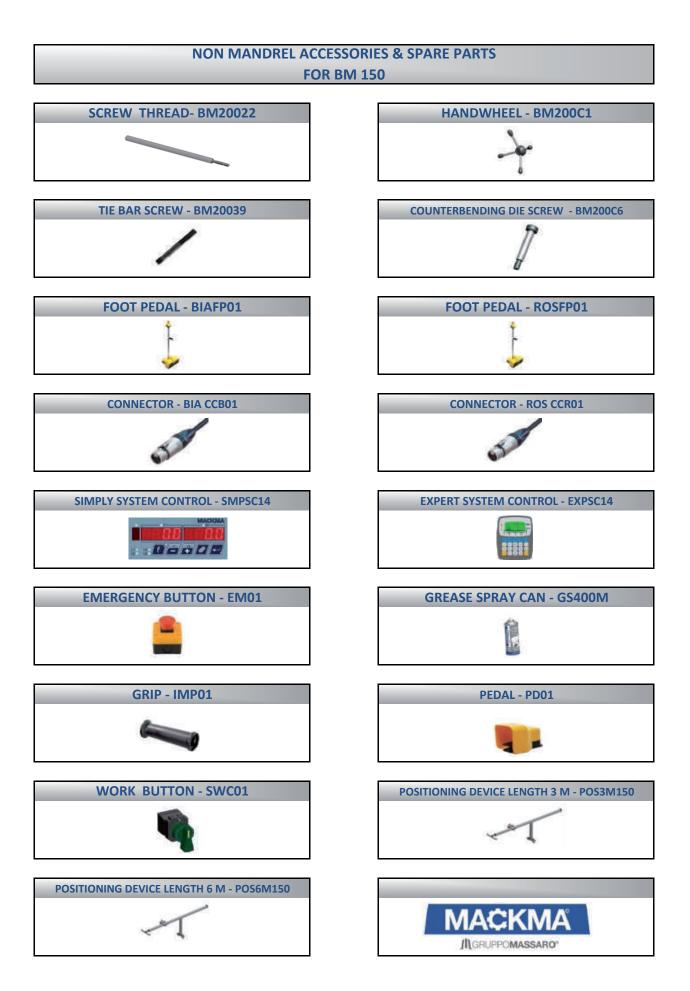












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# BENDING MACHINE **BM200** MACKMA

### Perfect bends and innovation, like a straight line.

Right and left hand bending Variable speed Low energy consumption





Tube and Pipe Bending machine BM200. non mandrel, electric, semi-automatic

















### BENDING MACHINE BM200 MACKMA

Tube and Pipe Bending machine BM200, non mandrel, electric, semi-automatic

The **BM200 Bending Machine** is **THE ONLY non mandrel pipe bending machine** able to bend tubes and pipes to the left or right, by means of a reversible die holder, designed and patented by us.

- The innovative design allows the bending of pipes up to 168,3 mm in diameter and 10,97 mm in wall thickness. With a maximum of 1100 mm centre line radius it is capable of maximum performance for this size of machine, even in the most demanding markets.
- The bend rotation speed [max 0,8 RPM] is monitored by a dedicated inverter, to ensure the correct bending speed according to the diameter and thickness of the tube.
- The modular design of the bending shaft assembly also allows the use of most competitors tooling, reducing long term tooling costs.

The inverter-controlled motor reduces energy consumption to a minimum.

The machine is mounted on precision casters for effortless movement around busy workshops and sites Mackma uses only 100% high quality Italian components to ensure long-term reliability.

Testament to the high quality of their machines is Mackma's standard 2 year warranty.



The image shown above is understood as a preliminary indication. MACKMA reserves the right to change form and function which are used exclusively for innovative improvements.



/ GRUPPOMASSARO

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SUITABLE FOR SECTORS, SUCH Industrial Tools, Tubular furniture Automotive/Motorcycle Dairy and Marine Sport and fitness, Hydraulics Factory maintenance and many other	NEW SENERATION
MAIN TECHNICAL DATA BM200	

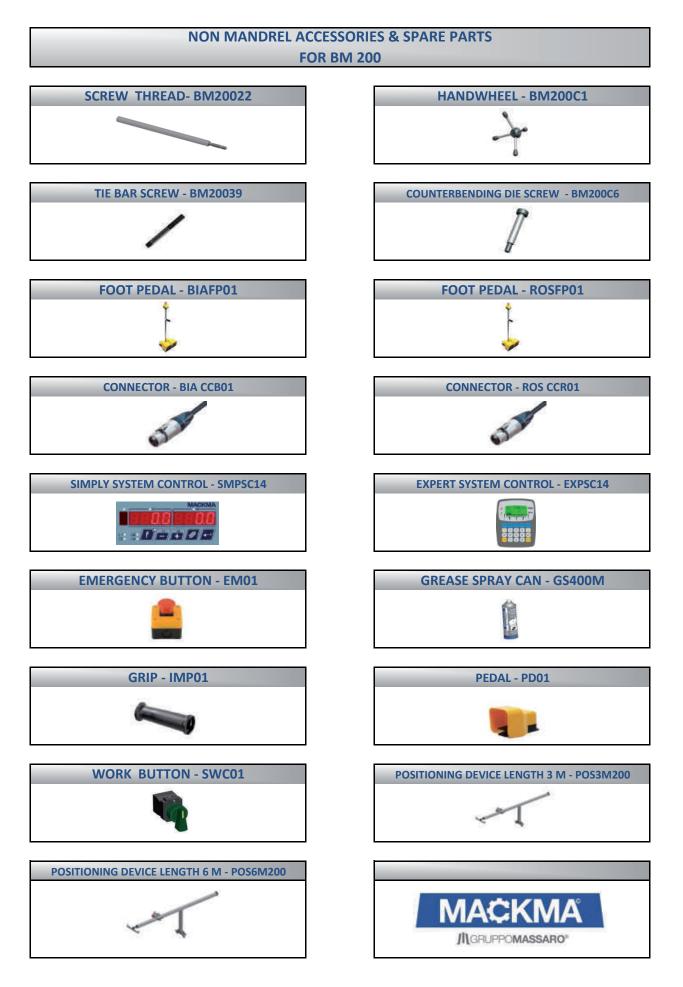
Pipe Max Outer Diameter	219,3 (8")	mm
Max Torque	115.000	N/m
Diameter using FE – 42 kg/mq	168,3x10,97	7 mm
Diameter using FE – 35 kg/mq	219,1x6,35 (8	3") mm
Diameter using AISI 304/316 - 65 kg/r	ng 168,3x7,11	mm
Maximum radius	1100	mm
Max curvature angle	180°	
Maximum rotation speed	0,8	rpm
Bending direction r	ightward and le	ftward
Electric tension	380/550	V ac
Max installed power	11	KW
Weight	2200	Kg
Dimensions (WxhxL)	1200x1350x18	50 mm
Operating temperature	0 - 50° C	

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### NON MANDREL ACCESSORIES & SPARE PARTS FOR BM 200







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### BENDING MACHINE BM250 Perfect bends and innovation, like a straight line.

Right and left hand bending Variable speed Low energy consumption

BM250

MACKMA

APPPPPPPPPP

















### BENDING MACHINE BM250 MACKMA

Tube and Pipe Bending machine BM250, non mandrel, electric, semi-automatic

The **BM250 Bending Machine** is **THE ONLY non mandrel pipe bending machine** able to bend tubes and pipes to the left or right, by means of a reversible die holder, designed and patented by us.

- The innovative design allows the bending of pipes up to 219,1 mm in diameter and 12,7 mm in wall thickness. With a maximum of 1400 mm centre line radius it is capable of maximum performance for this size of machine, even in the most demanding markets.
- The bend rotation speed [max 0,6 RPM] is monitored by a dedicated inverter, to ensure the correct bending speed according to the diameter and thickness of the tube.
- The modular design of the bending shaft assembly also allows the use of most competitors tooling, reducing long term tooling costs.

The inverter-controlled motor reduces energy consumption to a minimum.

The machine is mounted on precision casters for effortless movement around busy workshops and sites Mackma uses only 100% high quality Italian components to ensure long-term reliability.

Testament to the high quality of their machines is Mackma's standard 2 year warranty.



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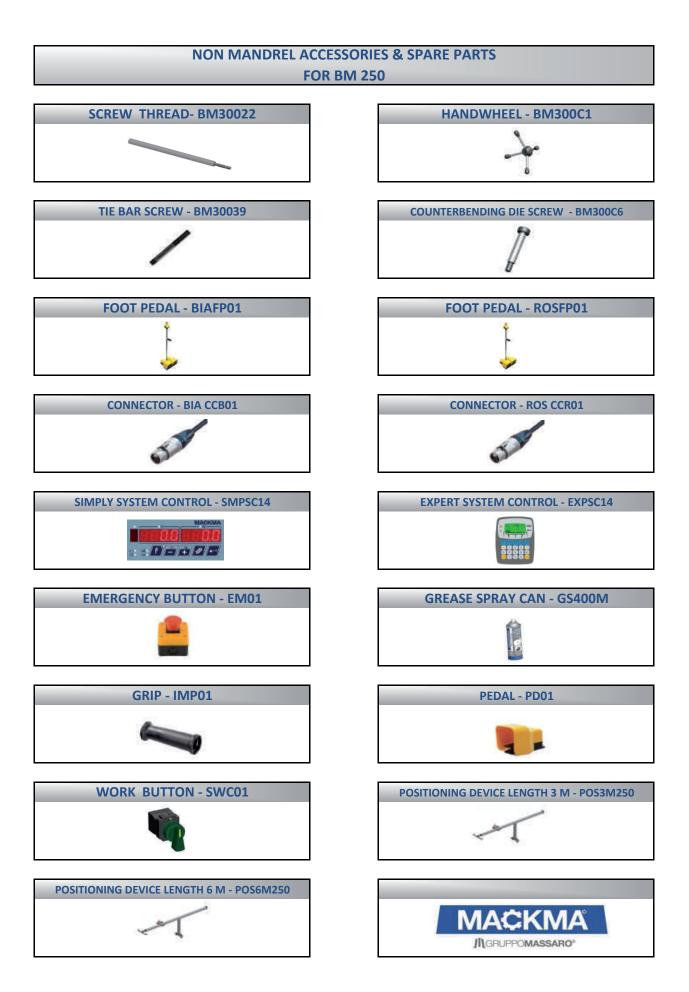


SUITABLE FOR SECTORS, SU Industrial Tools, Tubular furniture Automotive/Motorcycle Dairy and Marine Sport and fitness, Hydraulics Factory maintenance and many	GENERATION
MAIN TECHNICAL DATA BM250	)

Pipe Max Outer Diameter	273 (10")	mm
Max Torque	230.000	N/m
Diameter using FE – 42 kg/mq	219,1x12,7	mm
Diameter using FE – 35 kg/mq	273x7,8 (10")	mm
Diameter using AISI 304/316 - 65 kg/mc	219,1x8,18	mm
Maximum radius	1400	mm
Max curvature angle	180°	
Maximum rotation speed	0,6	rpm
Bending direction rigl	ntward and left	ward
Electric tension	380/550	V ac
Max installed power	22	KW
Weight	3800	Kg
Dimensions (WxhxL) 1	400x1500x2150	) mm
Operating temperature	0 - 50° C	

### NON MANDREL ACCESSORIES & SPARE PARTS FOR BM 250





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### BENDING MACHINE BM300 Perfect bends and innovation, like a straight line.

Right and left hand bending Variable speed Low energy consumption

3

BM300

MACKMA

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### BENDING MACHINE BM300 MACKMA

Tube and Pipe Bending machine BM300, non mandrel, electric, semi-automatic

The **BM300 Bending Machine** is **THE ONLY non mandrel pipe bending machine** able to bend tubes and pipes to the left or right, by means of a reversible die holder, designed and patented by us.

- The innovative design allows the bending of pipes up to 273 mm in diameter and 18,26 mm in wall thickness. With a maximum of 1700 mm centre line radius it is capable of maximum performance for this size of machine, even in the most demanding markets.
- The bend rotation speed [max 0,4 RPM] is monitored by a dedicated inverter, to ensure the correct bending speed according to the diameter and thickness of the tube.
- The modular design of the bending shaft assembly also allows the use of most competitors tooling, reducing long term tooling costs.

The inverter-controlled motor reduces energy consumption to a minimum.

The machine is mounted on precision casters for effortless movement around busy workshops and sites Mackma uses only 100% high quality Italian components to ensure long-term reliability.

Testament to the high quality of their machines is Mackma's standard 2 year warranty.



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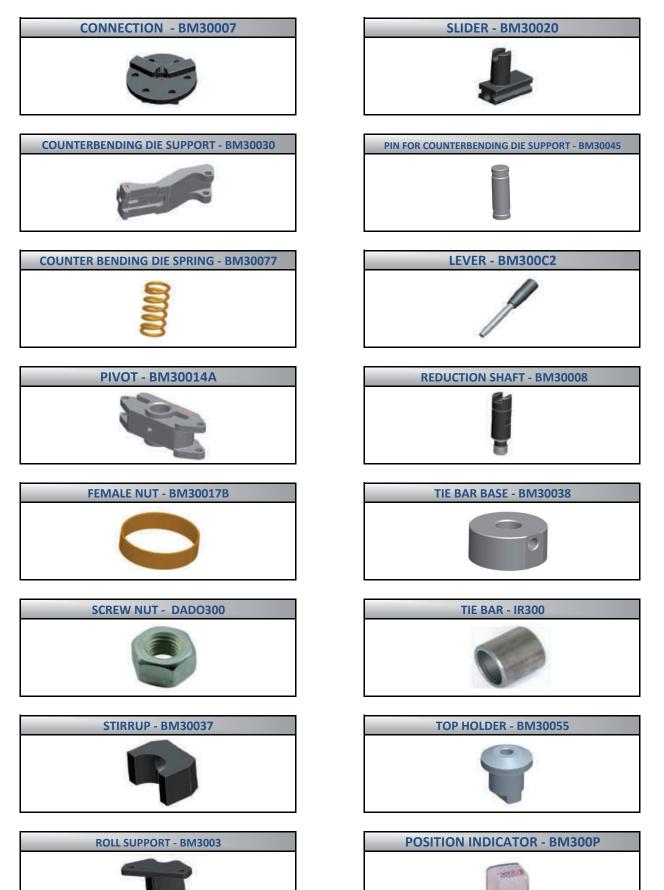


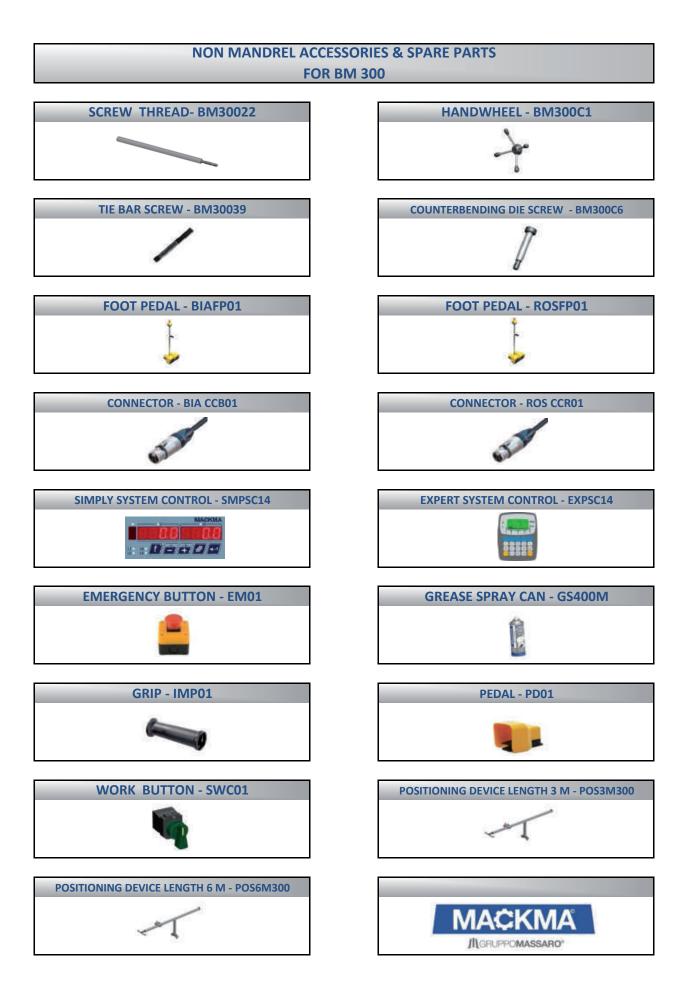
SUITABLE FOR SECTORS, SUC Industrial Tools, Tubular furniture Automotive/Motorcycle Dairy and Marine Sport and fitness, Hydraulics Factory maintenance and many o	GENERATION
MAIN TECHNICAL DATA BM300	

Pipe Max Outer Diameter	323,9 (12")	mm
Max Torque	500.000	N/m
Diameter using FE – 42 kg/mq	273x18,26	mm
Diameter using FE – 35 kg/mq	323,9x17,47	mm
Diameter using AISI 304/316 - 65 kg/mc	273x12,7	mm
Maximum radius	1700	mm
Max curvature angle	180°	
Maximum rotation speed	0,4	rpm
Bending direction rigi	ntward and lef	tward
Electric tension	380/550	V ac
Max installed power	50	KW
Weight	6500	Kg
Dimensions (WxhxL) 1	700x1800x350	0 mm
Operating temperature	0 - 50° C	

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### NON MANDREL ACCESSORIES & SPARE PARTS FOR BM 300





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### NC - S CONTROL SIMPLY



#### FUNCTIONAL SPECIFICATIONS

NC-S means Computerized Numerical Control Simple. Thanks to its small size, modern technology and cost, it was possible to obtain a reliable, powerful and economical product . The non mandrel bending machine MACKMA is equipped with this control and allows to realize any geometric curve both to Right and Left bends (Mackma Patent).

Thanks to NC-S Control the machine perform in semiautomatic way any program, simply by setting radius and degrees and tenth of degree, of each bend of project to be realized.

The internal memory can realize up to 9 (Nine) bends programmable to both direction Right and Left. The NC-S has also a variable speed of +/- 20% for the rotation of bend axis.

This control is designed and programmed thanks to specifications of MACKMAS Technical, to meet the needs of all workers who use repetitive the same bend radius. The SIMPLY as it name implies, is the easiest control to use, even for novices.

#### **TECHNICAL FEATURES**

The NC-S is made of 32-bit microprocessor. All input and output signals are isolated and protected by disturbances from cable or wireless.

The keyboard is a multi-function keys, with INTUITIVE symbology, and does not need Multilingual translation. All buttons are mechanical and protected by a single polycarbonate membrane, suitable to work in any industria environment .

The display of setted and visible running values is possible through a liquid crystal display (LCD) backlight, which allows a good reading from any angle and with any type of light. The NC-S (Simply) has 9 (nine) program lines, the operator can choose which program line to use, as from standards there are already preset values, starting from the 15° and from 15° to 15° until you get to the line # 9 with 135° setted, but each program line can be changed as operator required.

### NC-S

Numerical control For Mackma Bending Machine

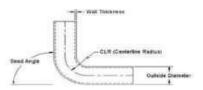
Presetting of bending radius

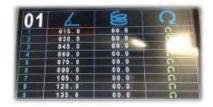
Internal Memory for programs saving











### NC - E CONTROL EXPERT



#### FUNCTIONAL SPECIFICATIONS

NC-E means Computerized Numerical Control EXPERT. Thanks to its small size, modern technology and cost, it was possible to obtain a reliable, powerful and economical product . The non mandrel bending machine MACKMA is equipped with this control and allows to realize any geometric curve both to Right and Left bends (Mackma patent)

Thanks to NC-E Control the machine perform in semiautomatic way any program, simply by setting radius and degrees and tenth of degree, of each bend of project to be realized.

The internal memory can realize up to 9 (nine) bends programmable to both direction Right and Left per 99 pages. The NC-E Control has also a variable speed of +/- 20% for the rotation of bend axis.

This control is designed and programmed thanks to specifications of MACKMAS Technical, to meet the needs of all workers who use repetitive the same bending radius.

The EXPERT as it name implies, is the most completly control, even for the specialist of those sector

### NC-E

Numerical control For Mackma Bending Machine

Presetting of bending radius

Internal Memory for programs saving

Internal Memory for programs saving of **891 progarams** 







# Bend Arge







#### TECHNICAL FEATURES

The NC-E is made of 32-bit microprocessor.

All input and output signals are isolated and protected by disturbances from cable or wireless. The keyboard is a multi-function keys, with INTUITIVE symbology, and does not need Multilingual translation. All buttons are mechanical and protected by a single polycarbonate membrane, suitable to work in any industria environment. The display of setted and running values and is possible through a liquid crystal display (LCD) backlight, which allows a good reading from any angle and with any type of light.

The NC-S (Simply) has 9 (nine) program lines, the operator can choose which line to use the program, as standards are already preset values, starting from the 15th degrees and continue from 15° to 15° until you get to the line # 9 with 135° setted, but each program line can be changed as operator required. There are 99 pages at all and 891 bends inside memory. You can also set the bending direction - Right or Left according to the needs of the piece to be realized.

Each control can be connected to the foot pedal (optional) those electric circuit is already wired and can be accept without further technical interventions. (Plug and Play)

Any MACKMA bending machine is subjected to be tested before shipment. This operation is considered very important to give the Customer the highest satisfaction and a reliable product of high quality.

Our technicians are at your disposal to advise the most suitable model. Various accessories are available to make the machine more suitable to your needs and the types of profile you need to work. Do not forget to comunicate always, the bending size of

tube, the type of material and the bending radius. All bending machines of "MACKMA" conform to the provisions of "Equipment".

### RING ROLLER WITH TWO MOTORIZED ROLLERS RB30m

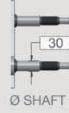
# MACKMA

#### MANUAL RING ROLLER

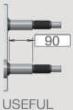
Central Roll Force3 Ton.Distance Between Shafts200 mmShaft Diameter30 mmUseful Shaft Length90 mmRoll Diameter180 mmCentre Roller Stroke120 mmChaft Speed9 rpmMotor in Kw2x0,55Operating Voltage380/400Operating PositionVert./Horiz.Posit.Centre RollManual with SpindleAntitwist Side-RollersManualDisplayDigitalNumber of Programs1ActivationWith SelectorNoise Level<70 dbDimensions800x1200x1600hWeight90 Kg		
Shaft Diameter30 mmUseful Shaft Length90 mmRoll Diameter180 mmCentre Roller Stroke120 mmShaft Speed9 rpmMotor in Kw2x0,55Operating Voltage380/400Operating PositionVert./Horiz.Posit.Centre RollManual with SpindleAntitwist Side-RollersManualDisplayDigitalNumber of Programs1ActivationWith SelectorNoise Level<70 db	Central Roll Force	3 Ton.
Useful Shaft Length90 mmRoll Diameter180 mmCentre Roller Stroke120 mmShaft Speed9 rpmMotor in Kw2x0,55Operating Voltage380/400Operating PositionVert./Horiz.Posit.Centre RollManual with SpindleAntitwist Side-RollersManualDisplayDigitalNumber of Programs1ActivationWith SelectorNoise Level<70 db	Distance Between Sha	afts 200 mm
Roll Diameter180 mmCentre Roller Stroke120 mmShaft Speed9 rpmMotor in Kw2x0,55Operating Voltage380/400Operating PositionVert./Horiz.Posit.Centre RollManual with SpindleAntitwist Side-RollersManualDisplayDigitalNumber of Programs1ActivationWith SelectorNoise Level<70 db	Shaft Diameter	30 mm
Centre Roller Stroke120 mmShaft Speed9 rpmMotor in Kw2x0,55Operating Voltage380/400Operating PositionVert./Horiz.Posit.Centre RollManual with SpindleAntitwist Side-RollersManualDisplayDigitalNumber of Programs1ActivationWith SelectorNoise Level<70 db	Useful Shaft Length	90 mm
Shaft Speed9 rpmMotor in Kw2x0,55Operating Voltage380/400Operating PositionVert./Horiz.Posit.Centre RollManual with SpindleAntitwist Side-RollersManualDisplayDigitalNumber of Programs1ActivationWith SelectorNoise Level<70 db	Roll Diameter	180 mm
Motor in Kw2x0,55Operating Voltage380/400Operating PositionVert./Horiz.Posit.Centre RollManual with SpindleAntitwist Side-RollersManualDisplayDigitalNumber of Programs1ActivationWith SelectorNoise Level<70 db	Centre Roller Stroke	120 mm
Operating Voltage380/400Operating PositionVert./Horiz.Posit.Centre RollManual with SpindleAntitwist Side-RollersManualDisplayDigitalNumber of Programs1ActivationWith SelectorNoise Level<70 db	Shaft Speed	9 rpm
Operating PositionVert./Horiz.Posit.Centre RollManual with SpindleAntitwist Side-RollersManualDisplayDigitalNumber of Programs1ActivationWith SelectorNoise Level<70 db	Motor in Kw	2x0,55
Posit.Centre RollManual with SpindleAntitwist Side-RollersManualDisplayDigitalNumber of Programs1ActivationWith SelectorNoise Level<70 db	Operating Voltage	380/400
Antitwist Side-RollersManualDisplayDigitalNumber of Programs1ActivationWith SelectorNoise Level<70 db	Operating Position	Vert./Horiz.
DisplayDigitalNumber of Programs1ActivationWith SelectorNoise Level<70 db	Posit.Centre Roll	Manual with Spindle
Number of Programs1ActivationWith SelectorNoise Level<70 db	Antitwist Side-Rollers	Manual
ActivationWith SelectorNoise Level<70 db	Display	Digital
Noise Level<70 dbDimensions800x1200x1600h	Number of Programs	1
Dimensions 800x1200x1600h	Activation	With Selector
	Noise Level	<70 db
Weight 90 Kg	Dimensions	800x1200x1600h
	Weight	90 Kg



STROKE



MACKMA

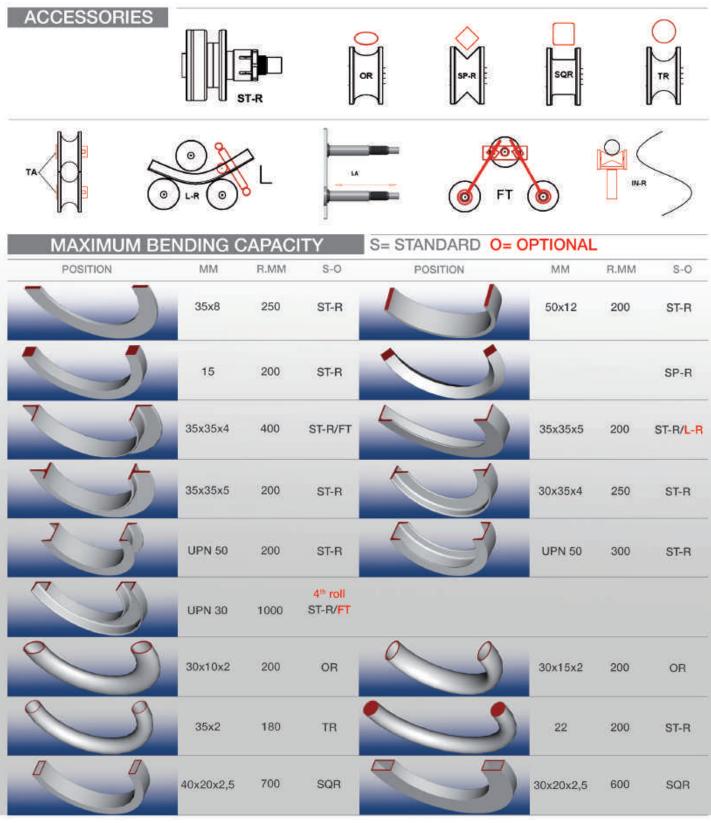


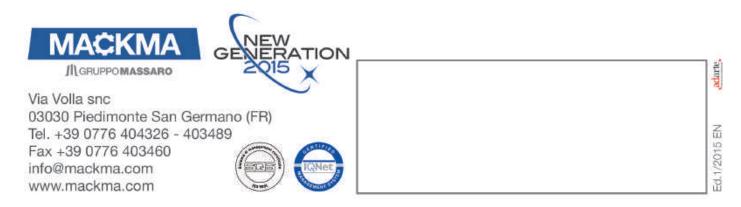
SPEED



CENTRE DISTANCE

RING ROLLER WITH TWO MOTORIZED ROLLERS RB30m





# RING ROLLER WITH TWO MOTORIZED ROLLERS **RB40i**



# MACKMA

#### **RING ROLLER ELECTRO-HYDRAULIC**

Central Roll Force	6 Ton.
Distance Between Shafts	s 300 mm
Shaft Diameter	40 mm
Useful Shaft Length	120 mm
Roll Diameter	180 mm
Centre Roller Stroke	120 mm
Shaft Speed	9 rpm
Motor in Kw	3x0,55
Operating Voltage	380/400
Operating Position	Vert./Horiz.
Antitwist Side-Rollers	Manual
Display	Digital
Number of Programs	1
Activation	With footpedal
Noise Level	<70 db
Dimensions	800x1200x1600h
Weight	290 Kg

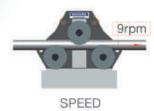


120 STROKE



120

USEFUL





CENTRE DISTANCE

RING ROLLER WITH TWO MOTORIZED ROLLERS RB40i



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### RING ROLLER WITH THREE MOTORIZED ROLLERS RB60e

# MACKMA

#### RING ROLLER ELECTRICAL WITHOUT HYDRAULIC

Central Roll Force	10 Ton.
Distance Between Sl	hafts 360 mm
Shaft Diameter	50 mm
Useful Shaft Length	150 mm
Roll Diameter	180 mm
Centre Roller Stroke	220 mm
Shaft Speed	9 rpm
Motor in Kw	3x0,55
Voltage	380/400
Operating Position	Vert./Horiz.
Pos.Centre Roll	Mechanical with prec.
Antitwist Side-Rollers	s Manual
Display	Digital programmable
Number of Programs	; 99
Activation	With footpedal
Noise Level	<70 db
Dimensions	800x1200x1600h
Weight	395 Kg









USEFUL

SPEED

OPOIB



RING ROLLER WITH THREE MOTORIZED ROLLERS RB60e

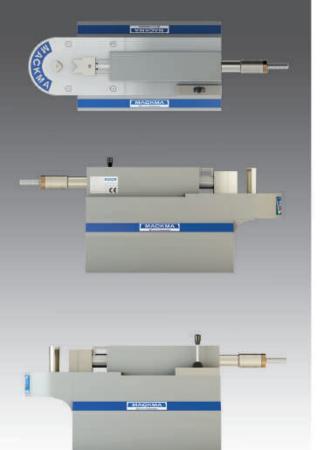




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### **MACKMA** HORIZONTAL PRESSPR10T

A compact 10 Ton, Bench Top Horizontal Press, powered by an efficient, high quality hydraulic pack.

A precision, chromed piston ensures accuracy, with a simple mechanical adjustment of the end stop.

Simple manual control with return spring to the start position.

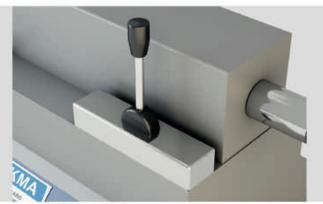
With a single phase electrical supply, the machine is also a very handy machine for use on site.







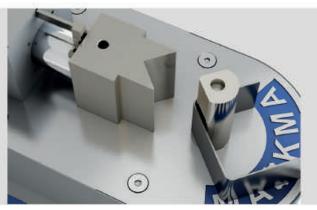
# **TECHNICAL FEATURES**



Manual lever control



Simple mechanical locking screw for bend stop position



Typical example of a square shaped component





Processing examples

The image shown above is understood as a preliminary indication. MACKMA reserves the right to change form and function which are used exclusively for innovative improvements.



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SPECIFICATION	
Machine dimensions (cm)	100x24,5x29
Weight (Kgs)	85
Bending force in Tons	10
Tool height in mm.	100
Capacity (Mild Steel Plate)	100x10 (with V width: 110mm)
Electrical supply	220V, 1ph, 50Hz
Motor power (Kw)	0,75

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### **MACKMA** HORIZONTAL PRESSPR20T

A compact 20 Ton, Bench Top Horizontal Press, powered by an efficient, high quality hydraulic pack.

A precision, chromed piston ensures accuracy, with a simple mechanical adjustment of the end stop.

Simple manual control with return spring to the start position.

With a single phase electrical supply, the machine is also a very handy machine for use on site.

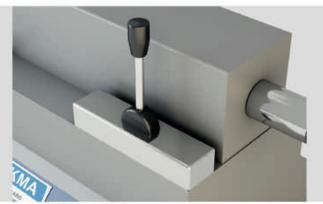
MACKM







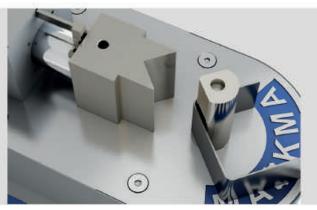
# **TECHNICAL FEATURES**



Manual lever control



Simple mechanical locking screw for bend stop position



Typical example of a square shaped component





Processing examples

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SPECIFICATION		
Machine dimensions (cm)	100x24,5x29	
Weight (Kgs)	100	
Bending force in Tons	20	
Tool height in mm.	100	
Capacity (Mild Steel Plate)	100x20 (with V width: 150mm)	
Electrical supply	220V, 1ph, 50Hz	
Motor power (Kw)	0,75	

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### **MACKMA** HORIZONTAL PRESSPR30T

A compact 30 Ton, Bench Top Horizontal Press, powered by an efficient, high quality hydraulic pack.

A precision, chromed piston ensures accuracy, with a simple mechanical adjustment of the end stop.

Simple manual control with return spring to the start position.

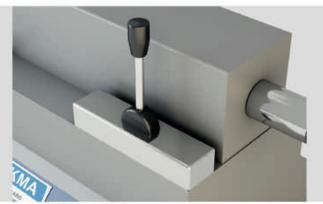
With a single phase electrical supply, the machine is also a very handy machine for use on site.







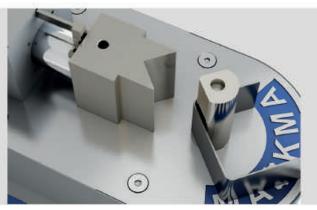
# **TECHNICAL FEATURES**



Manual lever control



Simple mechanical locking screw for bend stop position



Typical example of a square shaped component





Processing examples

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SPECIFICATION	
Machine dimensions (cm)	100x24,5x29
Weight (Kgs)	120
Bending force in Tons	30
Tool height in mm.	100
Capacity (Mild Steel Plate)	100x30 (with V width: 200mm)
Electrical supply	220V, 1ph, 50Hz
Motor power (Kw)	0,75



# MACKMA CNC PLASMA CUTTING MACHINE**PL10**

Cutting area able to take sheet size from 1000x1000 mm Robust steel frame Able to cut metal up to a thickness of 20 mm Accuracy +/- 0,3 mm Laptop included Operating System included







INERMAL DYNAMICS

## **TECHNICAL FEATURES**



Compatibility with all types of generators

Safty emergency stop button on X-axis



Typical example of plasma shapes

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550X550mm
1050X1050mm
1550X1550mm
1550X2050mm
1550X3050mm

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