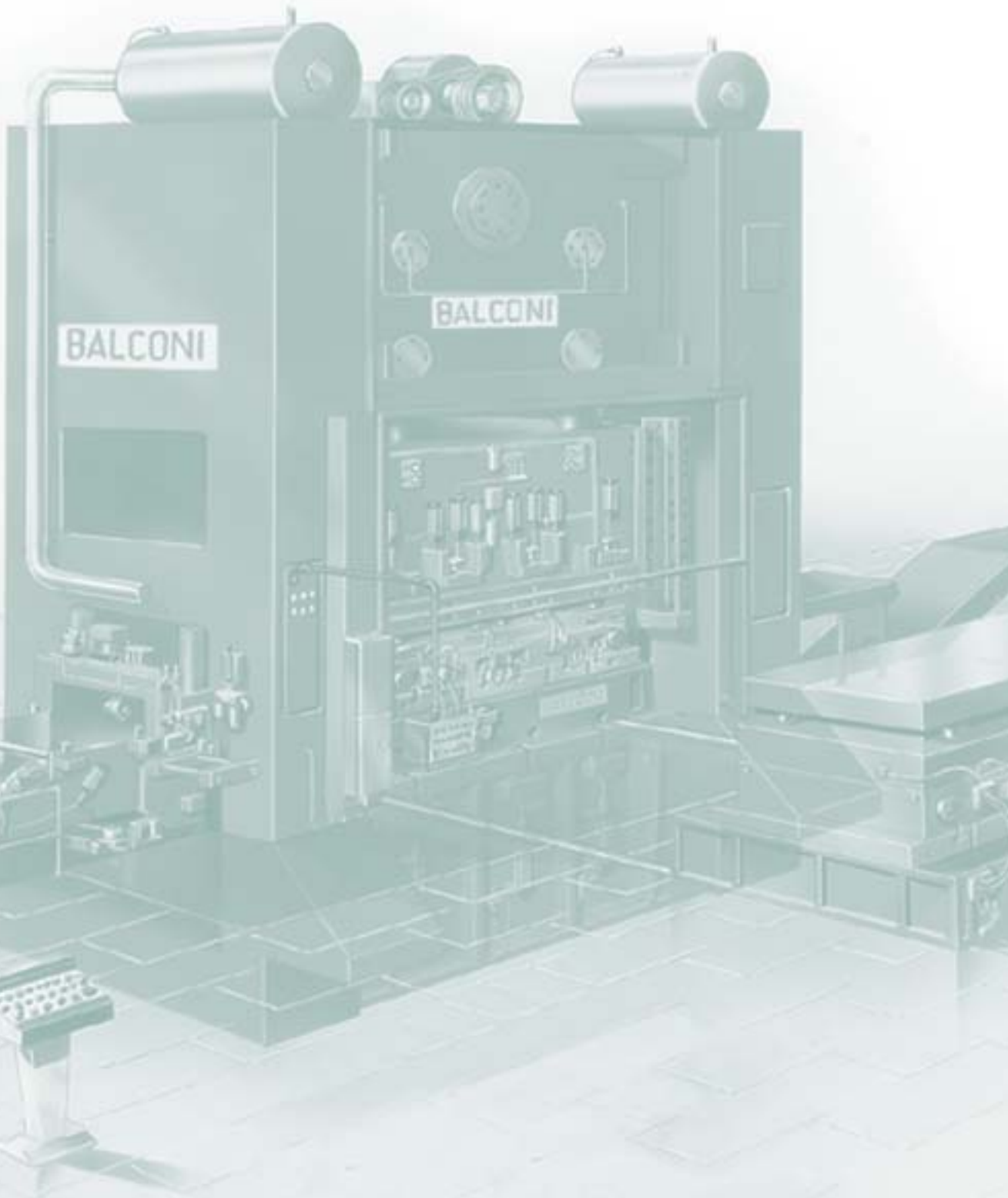


BALCONI

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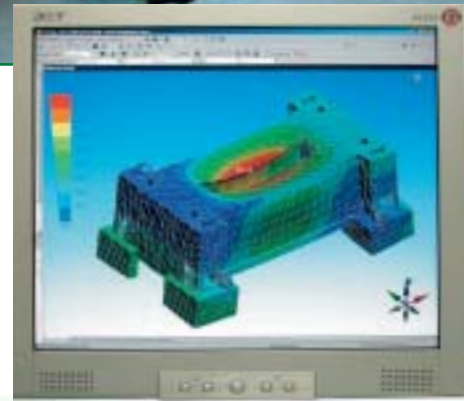


The DMR range

The Company

Balconi

Our Company has been manufacturing high precision mechanical presses since more than 60 years, for a variety of different applications, particularly in the automotive industry, for the production of household appliances, metal containers, electric motors, electric components, coins and precise metal parts.



Since then and through three generations we have strengthened our position in the Italian market and abroad by keeping the quality levels acknowledged to our products.

High flexibility in meeting the specific requirements of each single customer is our peculiarity, because our goal has never been to build a mass-produced press but to manufacture "the press" that our customer needs.

The Company

Flexibility and custom-made production

Thanks to modern machineries and to highly qualified staff in designing, precision machining and assembling, press installation and after-sale-service, we can keep all the production stages under control and assure the continuous quality improvement of the machines we manufacture.

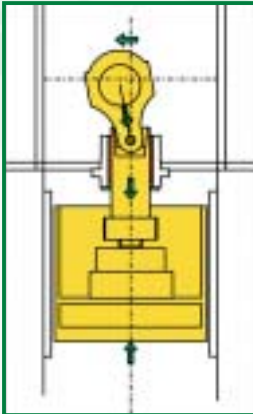


The Quality System Certification

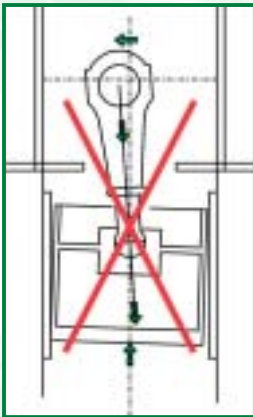


The high professionalism reached thanks to the experience acquired with more than 5000 presses installed all over the world, the continuous information technology equipment and technological updating, the use of modern means of production, have let BALCONI to be one of the first Italian machine-tool manufacturers to get the Quality System Certification.

The technical choice



BALCONI



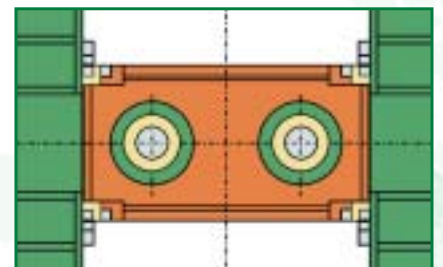
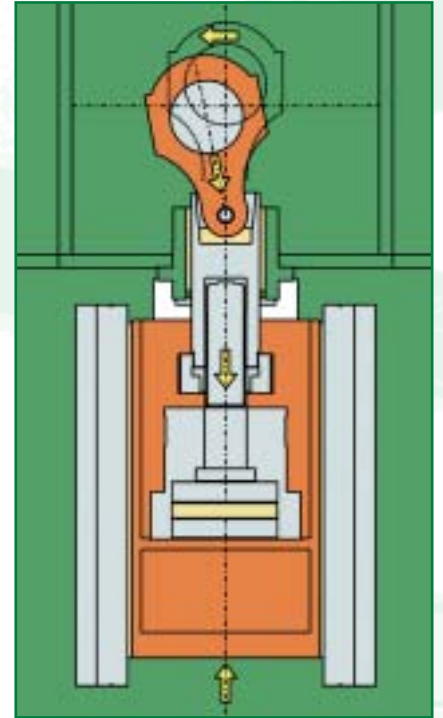
CONVENTIONAL

The Balconi Plunger system

Slide precision guiding is assured by the exclusive Balconi PLUNGER system.

This member stands the lateral thrusts of the crank mechanism, thus allowing a more accurate vertical slide guiding, a minimum wear of slide gibs and better slide to bed parallelism than with the conventional slide guiding systems.

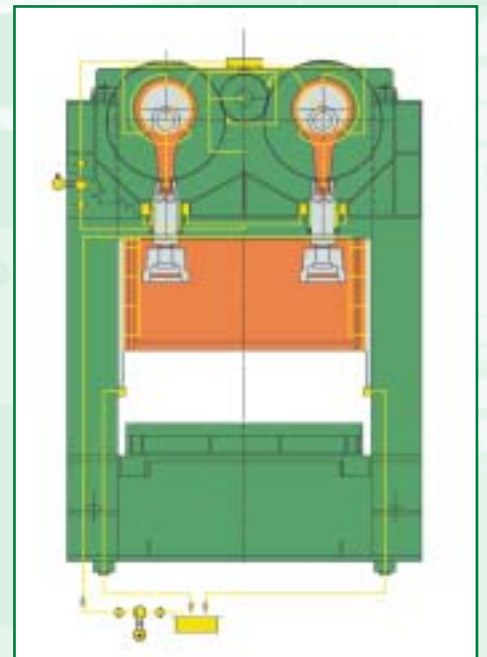
The Balconi Plunger system provides a constant and greater parts accuracy, more parts produced before die regrinding and therefore a reduction of production costs.



The lubrication

The peculiarity of the Balconi Plunger system gives the possibility to close the press crown and to use it as an oil tank, from which the oil is forced jet distributed to all the working points.

Such a system, thanks to the large quantity of oil brought to the different points, avoids overheatings of the driving members, thus assuring their long life. The slide guide lubrication is made from a separate oil tank.



The technical choice

The machine frame

The important stresses the machine is subject to, are taken up by a special enclosed-box-type frame made of welded and normalized steel.

The press is designed and proportioned considering stiffness and strength to bed and crown deflections as a priority, to reduce frame stresses, die wear and to guarantee the working precisions required.



Automation

All our presses can be supplied with a Programmable Logic Control (PLC), equipped with a graphic display or with a Personal Computer to manage all the production parameters, tool storage, press functions and teleservice to provide remote support to customer in real time.

The DMR range

The presses of this range are straight side, single or double geared drive, they are made with one, two or four connecting rods, with fixed or variable stroke and they include so many models with such dimensions, specifications and performances as to respond to all production needs, with progressive dies or with transfer systems.

According to their use these presses can be equipped with a PLC to manage all press functions, with different types of quick tool change systems, with robots to load, transfer and unload the blanks.



The driving members

Depending on the model, slide movement is obtained by means of one-piece eccentric shafts or one-piece eccentric gears with working surfaces properly treated and ground.

The reduction gears are located within the enclosed box-type crown and dipped in an oil bath. They are so proportioned as to assure their unlimited life during the time.



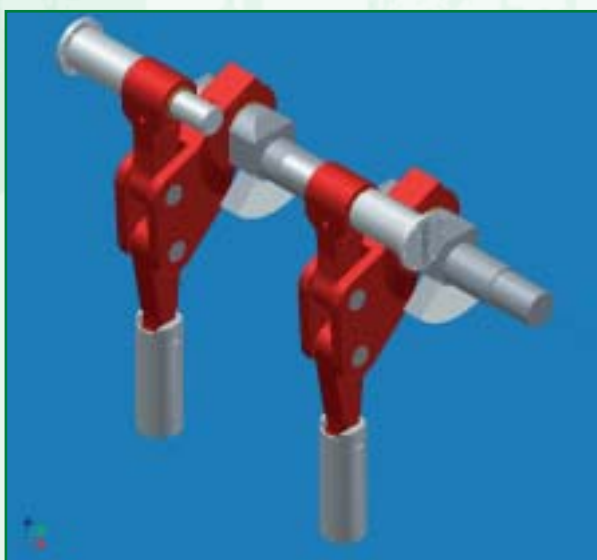
The DMR range

The hydraulic overload protection

A hydraulic overload device consisting of an oil cushion between the slide adjustment screw and the slide, limits the press force to 10% more than its nominal value and protects the press from jams and overloads, thus avoiding breakdowns to its members.

The automatic stroke change

All the models of this range, except from the 4DMRF presses, can be supplied with an automatic stroke change system, that connects the shaft/eccentric gear to the eccentric by means of a toothed ring.



The Balconi “ESADRIVE” slow motion system

Some models are also supplied with the “ESADRIVE” system, a kinematic motion allowing to reduce the velocity of slide when approaching the Bottom Dead Center and to increase speed of slide to top of stroke. Additional benefits include reduction of vibrations and noise during press operation while maintaining the same production speed. The slide motion curve as well as the type of slide motion system (modified or conventional knuckle-joint or Link Drive) are designed and realized according to the specific Customer needs and depending on the constraints of the press feeding systems.

DMR6 - DMRV

SINGLE-GEARED DRIVE - ONE POINT SUSPENSION

Press with high energy even at low speed. It is suitable for stamping and drawing of middle thick material with progressive dies of small dimensions.

▣ Main specifications:

One-piece straight side frame – slide guided by the Plunger system and by 8 bronze gibs – hydraulic overload protection – fixed or variable stroke – automatic stroke change (option) – gears in crown dipped in oil bath

▣ Capacities and dimensions of the models manufactured (2)

Force kN	Slide Stroke mm	Speed (1) s.p.m.	Table Surface		Slide Surface		Shutheight mm	Slide Adjustment mm	Distance between Uprights mm
			L-R	F-B	L-R	F-B			
700	10 - 90	50	650 x	900	650 x	650	350	90	330
700	10 - 90	40 - 160	800 x	800	750 x	750	370	90	330
1000	10 - 90	55 - 160	650 x	800	650 x	650	360	90	330
1000	30	30 - 90	850 x	1000	800 x	700	770	90	330
1000	70	30 - 90	850 x	800	850 x	800	345	130	330
1000	10 - 140	50 - 250	800 x	800	650 x	650	212	90	330
1200	10 - 140	40 - 160	800 x	1000	800 x	740	390	90	420
1600	10 - 160	40 - 120	850 x	900	750 x	750	400	120	340
1600	10 - 160	40 - 120	900 x	1000	800 x	900	350	120	420
1600	10 - 160	50 - 180	900 x	1000	800 x	900	400	120	420
2000	10 - 180	40 - 120	1060 x	1100	1060 x	950	550	140	550
2500	10 - 220	40 - 120	1000 x	1100	900 x	950	450	170	510
2500	10 - 220	25 - 75	1100 x	1200	1000 x	1000	490	170	550
3150	10 - 280	30 - 90	1000 x	1250	900 x	1000	500	170	550
4000	20 - 280	25 - 50	1000 x	1250	900 x	1000	500	170	550
4000	100	40 - 120	1200 x	1250	1150 x	1000	500	170	550

(1) Speed depends on stroke length

(2) Subject to change without notice





DIMIR 6 - DIMIR V

2DMR6

SINGLE-GEARED DRIVE – TWO POINT SUSPENSION

Press with high energy even at low speed. It is suitable for stamping and drawing of middle thick material with progressive dies of middle dimensions.

▣ Main specifications:

One-piece straight side frame – slide guided by two Plungers and by 8 bronze gibs – hydraulic overload protection – fixed or variable stroke – automatic stroke change (option) – gears in crown dipped in oil bath – two separate lubrication circuits.

▣ Capacities and dimensions of the models manufactured (2)

Force kN	Slide Stroke mm	Speed (1) s.p.m.	Table Surface		Slide Surface		Shutheight mm	Slide Adjustment mm	Distance between Uprights mm
			L-R	F-B	L-R	F-B			
1000	120	25 - 75	1250 x 1000		1150 x 800		400	75	560
1000	8 - 120	50 - 150	1250 x 900		1150 x 800		360	120	560
1200	80	40 - 120	1250 x 1000		1150 x 800		400	100	420
1200	8 - 120	40 - 120	1200 x 1000		1180 x 800		400	75	560
1600	120	35 - 105	1250 x 1000		1250 x 860		500	120	750
1600	10 - 120	40 - 120	1250 x 1000		1150 x 860		540	120	510
1600	80	40 - 120	1500 x 1000		1500 x 1000		500	120	330
1600	120	35 - 105	1500 x 1000		1500 x 1000		540	120	510
2000	100	35 - 100	1400 x 1100		1300 x 900		750	150	510
2000	120	30 - 90	1500 x 1100		1400 x 900		500	75	330
2000	10 - 120	35 - 100	1400 x 1100		1300 x 900		750	150	510
2500	20 - 200	40 - 120	2000 x 1200		2000 x 1100		440	150	600
3150	120	30 - 90	1700 x 1200		1600 x 1100		550	150	520
3150	30 - 200	30 - 90	1700 x 1200		1600 x 1100		570	150	530
3150	30 - 200	30 - 100	2000 x 1200		1830 x 1100		460	150	520
3150	110	30 - 90	2150 x 1200		2100 x 1100		520	150	520

(1) Speed depends on stroke length

(2) Subject to change without notice





2D MIR 6

2DMRV

SINGLE-GEARED DRIVE – TWO POINT SUSPENSION – HIGH PERFORMANCES

Press with high energy and high speed. It is suitable for quick stamping and drawing of middle thick material with progressive dies.

▣ Main specifications:

One-piece or multiple-piece pre-stressed frame – slide guided by two Plungers and by 8 bronze gibs – hydraulic overload protection – fixed or variable stroke – automatic stroke change (option) – gears in crown dipped in oil bath – two separate lubrication circuits.

▣ Capacities and dimensions of the models manufactured (2)

Force kN	Slide Stroke mm	Speed (1) s.p.m.	Table Surface		Slide Surface		Shutheight mm	Slide Adjustment mm	Distance between Uprights mm
			L-R	F-B	L-R	F-B			
1000	74	50 - 220	1250 x	900	1150 x	800	420	75	330
1000	10 - 120	50 - 250	1250 x	900	1150 x	800	400	75	450
1200	10 - 120	50 - 250	1250 x	900	1150 x	800	400	75	330
1200	10 - 120	50 - 250	1300 x	900	1200 x	800	490	75	750
1600	120	50 - 180	1160 x	1000	1100 x	860	375	75	330
1600	120	45 - 180	1250 x	1000	1200 x	860	400	75	450
1600	10 - 120	50 - 200	1250 x	1000	1200 x	860	375	120	330
1600	10 - 120	50 - 180	1500 x	1000	1500 x	860	425	120	330
2000	100	40 - 160	1650 x	1100	1650 x	1000	530	100	330
2000	120	40 - 160	1650 x	1100	1600 x	1000	520	100	330
2000	10 - 200	40 - 160	1700 x	1100	1630 x	1100	500	150	530
2000	10 - 120	35 - 150	1850 x	1100	1800 x	1100	500	150	500
2500	30 - 200	40 - 160	1600 x	1100	1600 x	1100	500	150	530
2500	100	40 - 160	1650 x	1100	1650 x	1000	530	100	330
3150	70	45 - 180	1200 x	1000	1200 x	900	550	100	330
3150	10 - 200	40 - 160	1700 x	1200	1700 x	1200	550	150	530
3150	10 - 200	40 - 150	2150 x	1200	2150 x	1200	500	150	530

(1) Speed depends on stroke length



(2) Subject to change without notice





2D MIRA V

2DMRF6

SINGLE-GEARED DRIVE – TWO POINT SUSPENSION

Press with high energy even at low speed. It is suitable for stamping and drawing of middle thick material with progressive dies of large dimensions.

▣ Main specifications:

Multiple-piece pre-stressed frame – front-to-back crankshafts – slide guided by two Plungers and by 8 bronze gibs – hydraulic overload protection – fixed or variable stroke – automatic stroke change (option) – gears in crown dipped in oil bath – two separate lubrication circuits.

▣ Capacities and dimensions of the models manufactured (2)

Force kN	Slide Stroke mm	Speed (1) s.p.m.	Table Surface		Slide Surface		Shutheight mm	Slide Adjustment mm	Distance between Uprights mm
			L-R	F-B	L-R	F-B			
2500	200	30 - 90	1800 x	1100	1800 x	1100	500	150	700
2500	160	30 - 90	2000 x	1100	2000 x	1100	650	150	930
3150	280	8 - 40	1800 x	1300	1800 x	1300	590	100	1000
3150	160	20 - 60	2000 x	1200	1850 x	1200	570	150	720
3150	250	30 - 80	2000 x	1200	1850 x	1200	670	150	720
3150	20 - 200	30 - 100	2000 x	1200	1850 x	1200	695	150	720
3150	280	15 - 40	2150 x	1400	2150 x	1400	650	100	840
3150	280	25 - 60	2750 x	1400	2750 x	1200	650	150	840
3500	280	25 - 70	2150 x	1400	2150 x	1400	750	150	840
4000	160	30 - 90	1700 x	1200	1700 x	1200	800	200	700
4000	30 - 200	30 - 120	1850 x	1200	1800 x	1100	550	150	530
4000	210	25 - 75	2500 x	1400	2500 x	1200	720	300	850
4000	30 - 200	25 - 75	2500 x	1400	2500 x	1200	650	200	850
4000	60 - 200	25 - 75	2750 x	1400	2750 x	1200	750	200	850
4000	250	25 - 75	2750 x	1400	2750 x	1200	750	200	850
4000	300	25 - 75	2750 x	1400	2750 x	1200	850	200	1300
5000	30 - 200	30 - 75	2050 x	1200	2000 x	1100	650	200	520
5000	30 - 200	25 - 75	2150 x	1200	2150 x	1100	650	200	600
5000	280	25 - 60	2500 x	1400	2500 x	1400	700	150	1050
5000	300	25 - 60	2500 x	1400	2500 x	1400	800	150	1000
5000	30 - 200	25 - 75	2750 x	1400	2750 x	1200	750	200	850
5000	30 - 200	25 - 60	3000 x	1400	3000 x	1400	750	200	850
6300	280	20 - 60	2150 x	1400	2150 x	1400	700	200	1050
6300	160	25 - 60	2500 x	1400	2500 x	1400	800	200	900
6300	20 - 200	25 - 60	2500 x	1400	2500 x	1400	700	200	1050
6300	300	25 - 60	2500 x	1400	2500 x	1400	800	150	1050
6300	60 - 300	25 - 75	3200 x	1400	3200 x	1400	800	200	1050
8000	20 - 200	25 - 55	3000 x	1400	3000 x	1400	700	200	1050

(1) Speed depends on stroke length



(2) Subject to change without notice





2D WIRTE 6

2DMRF12

DOUBLE-GEARED DRIVE – TWO POINT SUSPENSION

Press of large dimensions with long stroke and high energy even at low speed. It is suitable for stamping and drawing of thick material with progressive dies of large dimensions.

▣ Main specifications:

Multiple-piece pre-stressed frame – front-to-back crankshafts – slide guided by two Plungers and by 8 bronze gibs – hydraulic overload protection – gears in crown dipped in oil bath – two separate lubrication circuits.

▣ Capacities and dimensions of the models manufactured (2)

Force kN	Slide Stroke mm	Speed (1) s.p.m.	Table Surface L-R F-B mm	Slide Surface L-R F-B mm	Shutheight mm	Slide Adjustment mm	Distance between Uprights mm
3150	400	15 – 30	3000 x 1500	3000 x 1400	800	250	1000
4000	508	10 – 25	3000 x 1500	3000 x 1500	700	300	1200
5000	450	15 – 30	3000 x 1400	3000 x 1400	800	250	1050
6300	508	10 – 30	4000 x 1500	4000 x 1300	1200	250	1600
8000	350	15 – 45	2500 x 1400	2500 x 1400	800	300	1050
8000	300	20 – 55	3000 x 1800	3000 x 1800	850	200	1820
8000	400	15 – 45	3000 x 1800	3000 x 1800	900	300	1820
8000	400	20 – 40	4000 x 1800	4000 x 1800	850	200	1820
10000	400	10 – 40	4000 x 1800	4000 x 1800	850	200	1820
10000	600	10 – 30	4200 x 1600	4200 x 1600	1000	200	1820
12000	400	15 – 30	4000 x 1800	4000 x 1800	850	200	1820

(2) Subject to change without notice





2D MRF 1 2

4DMRF12

DOUBLE-GEARED DRIVE – FOUR POINT SUSPENSION

Press of large dimensions with long stroke and high energy even at low speed. Wide moving bolsters. It is suitable to combine automatic stamping and drawing lines equipped with robots and transfers.

▣ **Main specifications:**

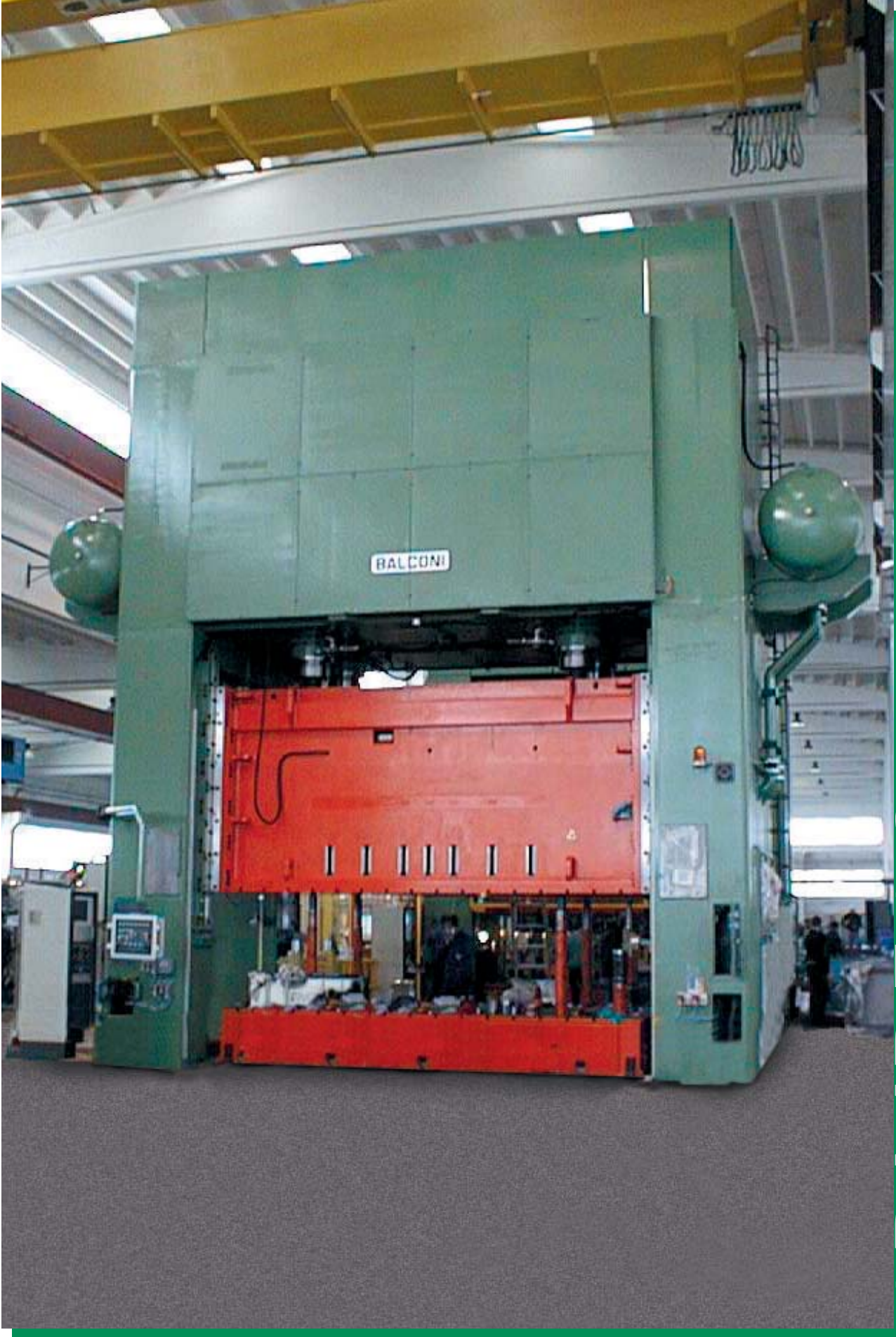
Multiple-piece pre-stressed frame – front-to-back crankshafts – slide guided by four Plungers and by 8 bronze gibs – hydraulic overload protection – gears in crown dipped in oil bath – two separate lubrication circuits.

▣ Capacities and dimensions of the models manufactured (2)

Force kN	Slide Stroke mm	Speed (1) s.p.m.	Table Surface L-R F-B mm	Slide Surface L-R F-B mm	Shutheight mm	Slide Adjustment mm	Distance between Uprights mm
4000	400	15 - 35	3000 x 1800	3000 x 1800	950	300	1700
8000	200	15 - 75	2800 x 1800	2800 x 1800	900	200	1520
10000	800	10 - 20	5000 x 2500	5000 x 2500	1300	500	2760
16000	600	10 - 25	5000 x 2500	5000 x 2500	1200	300	2100

(2) Subject to change without notice





4D MIR F 12

2DMR/TR

TRANSFER PRESSES

Press specifically designed to be used with 2 or 3-axis transfer systems to transfer the part through the forming stations.

▣ Main specifications:

One-piece or multiple-piece pre-stressed frame, with or without outside blanking station – slide guided by two Plungers and by 8 bronze gibs – hydraulic overload protection – gears in crown dipped in oil bath – two separate lubrication circuits – mechanical or electronic transfer system.

▣ Capacities and dimensions of the models manufactured (2)

I = Inside Slide E= Outside Slide

Force kN	Slide Stroke mm	Speed (1) s.p.m.	Table Surface		Slide Surface		Shutheight mm	Slide Adjustment mm	No. of stations and pitch mm
			L-R	F-B	L-R	F-B			
I 1600	160	20 – 60	1680 x 1020		1550 x 1000		700	150	6 x 250
E 600	100		1000 x 550		440 x 440		320	90	
I 4000	750	10 – 20	3800 x 1400		3800 x 1400		1100	250	6 x 600
E 1200	450		900 x 800		900 x 800		1100	60	
I 4000	450	15 – 35	3800 x 1400		3800 x 1400		750	250	6 x 600
E 1200	450		900 x 800		900 x 800		650	60	
1000	120	30 – 90	1250 x 1000		1180 x 800		550	75	6 x 200
1600	120	35 – 105	1250 x 1000		1250 x 860		500	120	8 x 150
4000	250	25 – 50	2500 x 1100		2500 x 1100		800	-	15 x 150
5000	450	15 – 30	3000 x 1400		3000 x 1400		800	-	7 x 400
6300	508	10 – 30	4000 x 1500		4000 x 1300		1200	250	700
8000	400	15 – 35	3100 x 1400		3100 x 1400		870	300	8 x 380
10000	600	10 – 30	4200 x 1600		4200 x 1600		1000	200	7 x 600

(2) Subject to change without notice





2D MİR/1R

Coil feeding lines

Balconi designs and manufactures its own automatic coil feeding lines for band width from 800 through 1800 mm for material thickness up to 6 mm thus offering the customer the advantage of having one supplier for a complete production system who is able to reply to all his specific production needs.

The Balconi feeding lines include a coil truck for one or two coils, a coil elevator, a single spindle decoiler with pressure arm, a straightener, a loop control system, an electronic feeder. When required, a hydraulic shear placed between the uprights of the press can be supplied, to shear the first part of the band before entering the die.

All the line is controlled by a PLC to manage all the functions of both press and feeding line and this enables to change production in a few minutes.

▣ Capacities and dimensions of the models manufactured (2)

Model	Band Width mm	Band Thickness mm	Inside Diameter of coil mm	Outside Diameter of coil mm	Coil weight tons
LFS 800	100 - 800	0,3 - 3	508	800 - 1500	8
LFS 1000	100 - 1000	0,3 - 3	508	800 - 1500	12
LFS 1250	100 - 1250	0,5 - 3	508 - 610	700 - 1500	15
LFS 1500	500 - 1500	0,8 - 4	508 - 610	900 - 1800	20
LFS 1800	500 - 1800	0,8 - 5	508 - 610	1000 - 1800	25

(2) Subject to change without notice







BALCONI pressecentriche s.p.a.

Via Circonvallazione, 195
20039 VAREDO (MI) ITALY
Tel. +39 0362 5361 - 554323
Fax +39 0362 544122
E-mail: commerciale@balconi.it
www.balconi.it

