



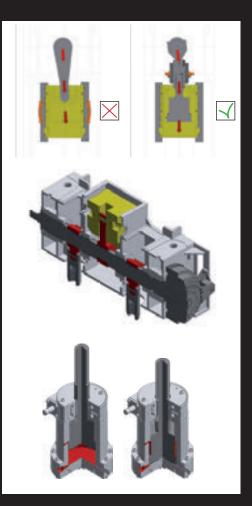
# **HIGH-SPEED** PRESSES FOR ELECTRIC MOTOR LAMINATIONS





#### **Key features**

- Specifically designed to meet customer requirements
- Dynamic balancing system of the inertia forces generated by the driving mechanism, consisting in a counter-weight placed in the press crown which also allows the installation of the press directly on the workshop floor on four elastic pads, without foundation.
- Balconi Plunger System to assure a high precision, constant vertical ram guiding
- Quick lift system
- Rigid press frame
- Very low bed and ram deflection
- Combined pneumatic clutch and brake unit
- Press lubrication by continuous recirculating oil system
- Elastic balancing cylinders to close the gap of the vertical moving masses
- AC variable speed motor controlled by inverter
- Lubrication with thermal stabilization
- Shock-absorbers
- Latest generation Siemens PLC+TIA Portal
- Flexibility and performances to ensure high productivity
- Fully comply with Industry 4.0



### Balconi Plunger System

Ram guiding is assured by Balconi Plunger System. This part supports lateral thrusts of crank mechanism allowing more accurate and constant vertical ram guiding, minimum wear of slide gibs and better slide to bed parallelism than with conventional ram guiding systems.

# Dynamic balancing of the moving parts with counter-weights

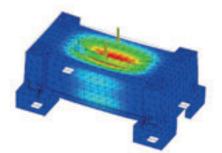
Dynamic balancing system reduces the effects of the inertia forces due to moving parts: connecting rods, ram and upper part of the die.

This system allows the press to work at higher speed at low level of vibrations.

#### Quick lift system

Ram can be moved 100 mm upward by means of an hydraulic cylinder (one for each suspension point) to allow fast tool inspection and press release as well.







### Elastic balancing cylinders

Elastic balancing cylinders take up all the clearances of vertical moving masses.

#### **Rigid press frame**

High press frame stiffness assures minimum bed deflections under total load giving better press running, longer tool life and better accuracy of the blanked parts.

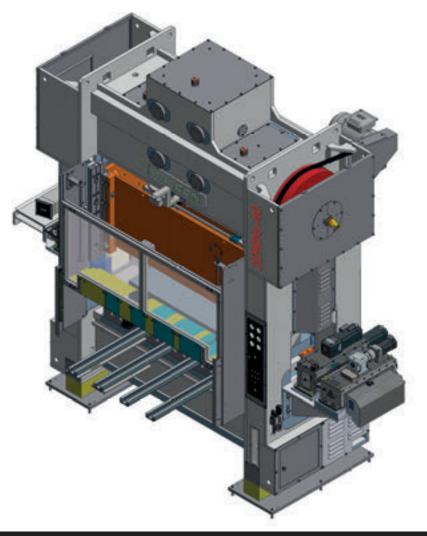
## Recirculating lubrication system with oil conditioning

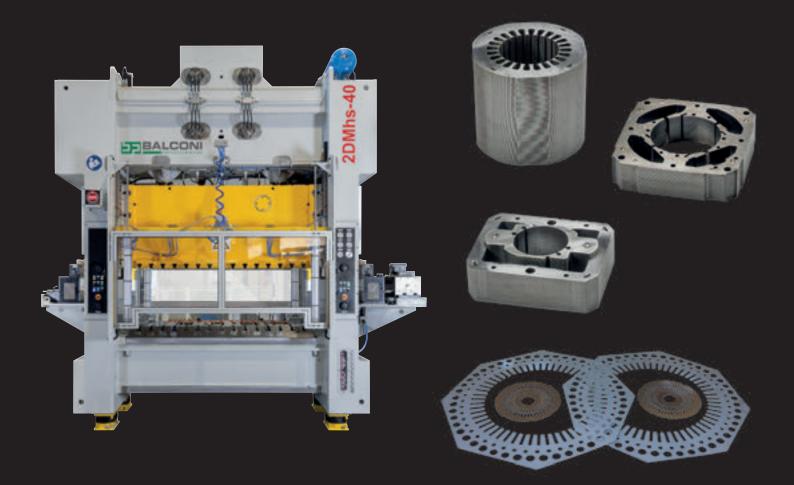
Lubrication of all working points is assured by recirculating oil system with total recovery of the lubricant.

Oil temperature is kept under constant control by a oil-air heat exchanger. Upon request machine can also be equipped with thermo-chiller (to heat the oil when the temperature is low and to cool it when it is hot). With such a system a better lubrication is assured and unequal frame dilatations are avoided for better and more accurate running.

## 2DMhs-40

High-Speed press for the production of the EV drive motor cores.







Balconi was founded in Milan in 1939 where it started the production of precision fly presses. In 1962 Balconi moved to its current headquarters in Varedo (10 km north of Milan).

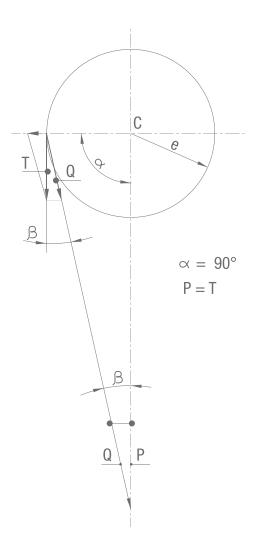
At the beginning of the 80's Balconi began the production of high speed automatic blanking presses specifically designed for the production of stator and rotor lamination for electric motors.

Balconi is well known for its flexibility and capacity of designing and manufacturing presses to meet the needs of every single customer and to customize its machines to satisfy any specific production requirement to ensure low operational costs and top-quality products.

In any field requiring high-level of precision, reliability, productivity and flexibility with reduced management costs, Balconi is able to design and to propose efficient machines with innovative technological solutions to fulfil the highest production standards.

Thanks to the designing, fully internally developed with modern IT equipment, to the continuous investments in new generation working machines, to first-rate materials, highly-skilled personnel, technological know-how and a long consolidated experience of over 80 years, Balconi can keep all the supply chain under control assuring continuous quality improvement of the manufactured machines.

Model	Force kN	Ram- stroke mm	Speed s.p.m.	Table size L-R F-B mm	Ram size L-R F-B mm	Shutheight mm	Ram adjustment mm	Distance between uprights mm
2DMhs-40	400	25	80 ÷ 300	2000 x 800	2000 x 800	500	60	630
2DMhs-80	800	25	120 ÷ 800	1000 x 780	1000 x 650	350	60	330
2DMhs-125	1250	30 25	120 ÷ 650 120 ÷ 700	1160 x 830 1400 x 1000	1100 x 600 1400 x 700	360 400	60 75	330
2DMhs-160	1600	30	120 ÷ 600	1250 x 1000 1600 x 1000	1200 x 730 1600 x 790	375 450	75 100	330
2DMhs-200	2000	30	120 ÷ 550	1800 x 1200	1800 x 840	450	100	420
2DMhs-250	2500	30	120 ÷ 500	2000 x 1200	2000 x 840	450	130	530
2DMhs-315	3150	30	100 ÷ 480	2300 x 1200	2200 x 980	450	100	700
2DMhs-400	4000	38 35	75 ÷ 400 100 ÷ 400	2500 x 1400 2800 x 1200	2500 x 980 2800x1000	450 700	100 150	620 700
2DMhs-500	5000	35	100 ÷ 400	3000 x 1500	3000 x 1400	560	180	1050
2DMhs-630	6300	35	80 ÷ 320	3200 x 1500	3000 x 1400	600	150	1050



# Perfection guides us



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