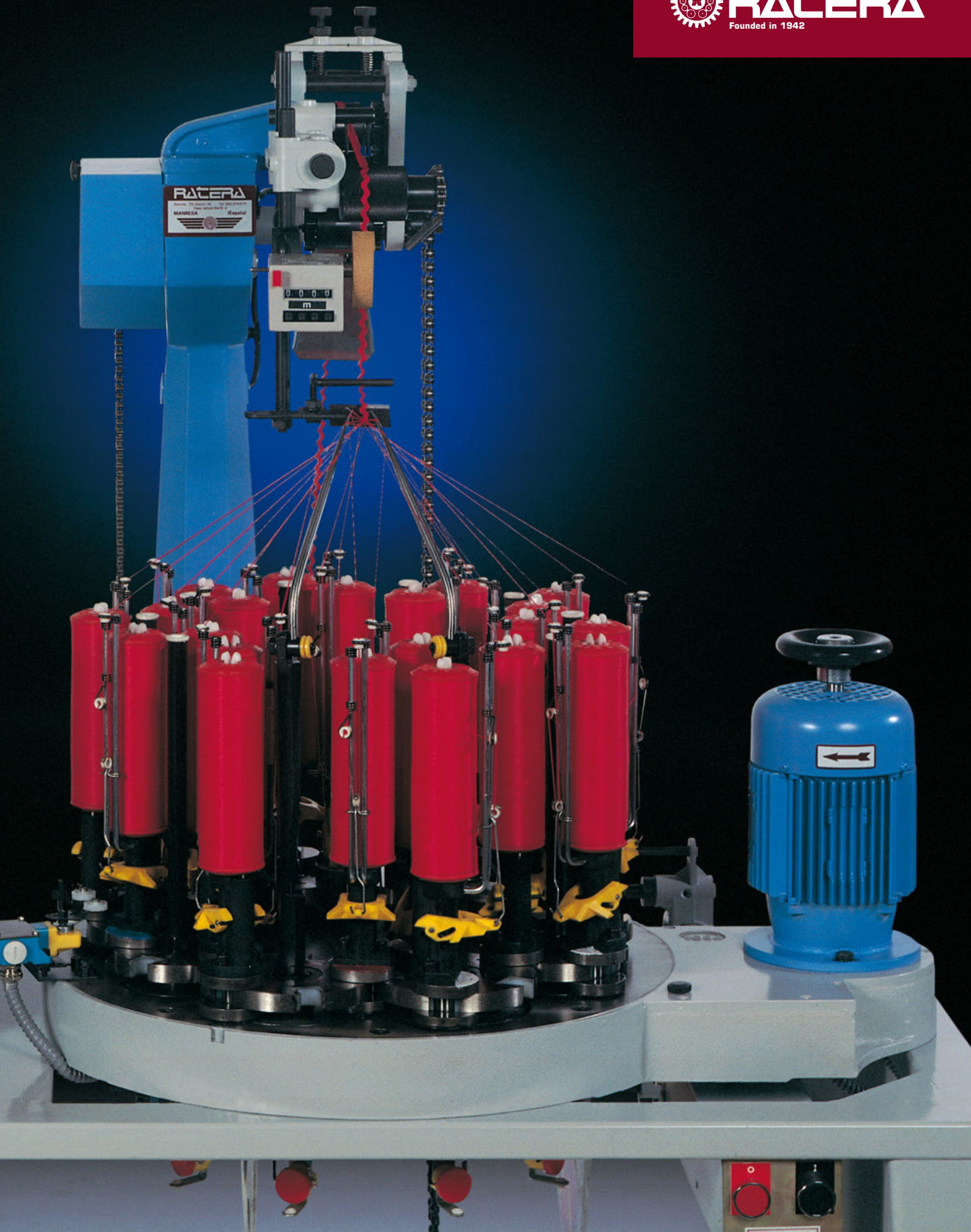


Braiding machines Gauge 104



RATERA®
Founded in 1942



Braiding machines Gauge 104

Gauge 104 has been developed by Ratera in order to cover a clear need in the market:

A braiding machine with a bigger bobbin capacity than the offered one Gauge 80 and to a lower price than other braiders belonging to a bigger Gauge.

Because of this, Ratera has developed Gauge 104: It has got the same quality than Gauge 80 but with the versatility and the productivity of Gauge 115.

Gauge 104, as well as all the other Ratera products has been made with high quality products. Its construction concept of (Oil bath in upper & lower housing) guarantees a long productivity life.

The range of Gauge 104 starts at 8 carriers and is able to reach 64, scaling up in sets of 4, corresponding naturally to the number of odd carriers to the machines intended for the manufacturing of rigid or elastic flat braids, whereas even ones are engaged in the manufacturing of all types of round braids as well as flat tubular/hollow (for special models, please check with our commercial department).

Classic and 83L Systems: Fight against wear

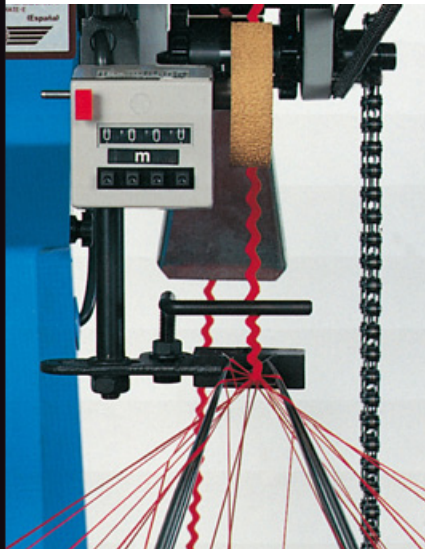
The Gauge 104 mm. is manufactured in two different systems: Classic System and 83L. System.

Classic System. Basically it consists in that both the horngears and the carriers' feet are made of perlitic iron melting, average hardness of 210 Brinell (± 20 points). It is the most economical system.

83L System (patented). Original by Ratera, it consists in that all those parts subject to wear are made of hardened and rectified steel, with an average hardness of 610 Brinell (± 20 points). The carriers' feet are made of three pieces; one of them is a slip-bushing that when runs into the horngear which transports the carriers avoid an impact by performing a gentle turn.

On the other hand, in the horngear, specifically in the slot where the carrier's foot is to fit, there is a plastic alloy insert, based on nylon, which softens the contact with the above mentioned carrier-foot slip bushing. These characteristics of the 83L System lead to three important results:

- An increase in speed (production) between 18% and 25% –according to models and materials.
- Zero expense in maintenance (spare parts) in the mid or in the long run.
- A significant decrease in the acoustic level –variable depending on models.



21B - E104
Flat elastic braid and Ric-Rac



Higher capacity bobbins

Due to the market requirements, Ratera has increased the bobbin capacity but keeping the same horn gear speed. Braiders belonging to Gauge 104 mm can be equipped with two different bobbin size:

- Ø 54x130 mm, with a capacity of 260 cm³.
- Ø 53x152 mm, with a capacity of 289 cm³.
- Ø 55x170 mm, with a capacity of 350 cm³.

The carriers can be supplied in different versions; with or without bobbin-holder. Guides and yarn tensors with either open hooks or open/round ceramics or porcelains (according to material). However we recommend to choose bobbin-holder because of its precision as well as ceramics because they last longer. Also available are different types of springs with different tensions to be applied depending on each product (seetable herein).

With bobbin-holder and bobbin Ø 54x130 mm

Colour	Tension
White	125 grams
Yellow	175 grams
Red	225 grams
Black	400 grams
Blue	450 grams

Without bobbin-holder and bobbin Ø 54x130 mm

Colour	Tension
White	225 grams
Yellow	300 grams
Red	400 grams
Black	500 grams
Blue	600 grams

For carriers with bobbins Ø 53x152 mm

Colour	Tension
White	160 grams
Yellow	250 grams
Red	425 grams
Black	500 grams

A world of accessories

Depending on the yarn used or the product to be braided, Ratera may supply different useful and necessary accessories so that the final desired product can actually be obtained. Some instances of those accessories are:

- Different types of gatherers at the braiding point.
- Different needle lengths and shapes in order to obtain perfect flat ribbon rims.
- Single releases or with tensors to control the standards.
- For the elastic braid, a tension-regulating device of the elastics called "Ratex" which, by means of an optimum combination of pinions, supplies the right tension to the elastic.
- For the round braids with or without core and for the hollow/tubular ones, we have got different take up systems of the braided product either on a cross winding spool with no flanges or on a parallel one with

flanges and different sizes and on reels.

- Different take off systems, for instance flat calander assembly for flat braids and capstan for hollow glass-fiber etc.



8B - E104

Flat elastic braid



8B - E104 Doble 1 motor

Jackard

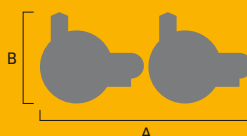
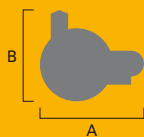


A service adapted to all your requirements

Ratera has an answer to all his customers' requirements: Regarding the sample received of the product that the customer needs to braid, our technical department will suggest to you the suitable braider as well as a calculation of the production (rentability). Even when the customer does not have a sample, will be informed of what it needs to be done.

In this way, Ratera offers you the right machinery including all the necessary accessories in order to elaborate the required products.

Number of carriers per head	Motor power (HP)	Horn gear RPM		Measurements A x B (mm)	
		Classic System	83 L System	Individual bench	Double bench
8	0,25	254	285	560 x 505	1115 x 505
12	0,33	254	285	610 x 505	1220 x 505
13	0,33	238	254	680 x 540	1360 x 540
16	0,33	254	285	700 x 610	1400 x 610
17	0,33	238	254	700 x 610	1400 x 610
20	0,50	254	285	785 x 660	1570 x 660
21	0,50	238	280	785 x 660	1570 x 660
24	0,50	254	285	860 x 660	1720 x 740
25	0,50	238	280	860 x 660	1720 x 740
28	0,50	254	285	870 x 870	-
29	0,50	238/	280	870 x 870	-
32	0,75	254	285	950 x 945	-
33	0,75	238	280	950 x 945	-
36	0,75	238	270	915 x 1070	-
37	0,75	222	265	915 x 1070	-
40	0,75	238	270	980 x 1140	-
41	0,75	222	265	980 x 1140	-
44	1	222	254	1000 x 1140	-
45	1	222	260	1000 x 1140	-
48	1,5	222	254	1110 x 1240	-
49	1,5	222	260	1110 x 1240	-
72	4 x 0,50	-	170	1900 x 2100	-
88	4 x 0,50	-	170	2000 x 2150	-
96	4 x 0,50	-	170	2150 x 2300	-
100	4 x 0,50	-	170	2200 x 2300	-
120	4 x 0,50	-	170	2500 x 3000	-



NOTE: According to machinery directive 83/392 about safety for the European market, machines must be protected. However, in order to allow for a better display some of this catalog's illustrations have been made without the mandatory protections.

The company reserves the right to modify and improve the characteristics of its products without notice.



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