

Braiding machines Gauge 140 & 154



RATERA[®]
Founded in 1942



Models **Gauge 140** and **154** developed by Ratera have been elaborated in order to cover a clear need in the market of the medium size rope. Braiding machines with a bobbin capacity in order to braid certain minimum rope lengths, with no joints and no defects and at the same time without slowing down braider speed and with the possibility to get a very attractive productivity.



To secure a maximum robustness

The climbing and sailing braided ropes generate, in some cases, big tensions and weights which is necessary to have a braider of the maximum robustness possible. Because of that, both models have been prepared with:

- Carriers ready to support the heavy yarn weight which is located in the bobbin and at the same time to support a lot of tension which the yarns are submitted.
- An overdimensioned tower in order to support the braided rope tension.
- A bench strong enough in order to support a take up system.
- An electrical system which allows to operate the braider running forward and reverse or inching if it is required to fix a braided default or simply to be able to exchange the bobbins in an easier way. For this reason and thanks to an advance design and to an optimum construction (Alower and upper oil bath system) is guaranteed a long productivity life.

Maximum precision (E140) Maximum robustness (E154)

Though both models, as well as other Ratera products are built with high quality materials, exist certain concept differences in between Gauges 140 & 154:

- *Maximum precision.* Gauge 140 main feature is to obtain a bigger precision in the braid. We must not forget that most of the sailing and climbing ropes are constantly in touch with the hands so they are very colorful which means that the braid must be perfect.
- *Maximum strength.* Gauge 154, its main feature is to braid everything which all the other braiders in the market can not produce due to the strength or to the low quality yarn used, for example split film, sisal or any other hard vegetable fibres which are not treated.

The 83L System: Fights against wear

Both models are built with the worldwide known **System 83L**. The 83L system (patented) original Ratera, consists that all the pieces which are subject to likely wear and tear 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 avoids an impact by performing a gentle turn.

On the other hand, in the horngear, specially in the slot where the carriers' 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.

The lower housing gears are made with high quality, resistant materials cut with helicoidal tooth, which increases the rolling area thus obtaining a longer durability.

32B - E140

Climbing rope



Thecnologically most advanced Carriers

The most important part on a Braider is, with no doubt, the carrier. Thus, Ratera has concentrated his efforts to develop a carrier on a fifth generation that in the model Gauge 140 has got the following features:

The upper part is provided with a rotating bush that avoids friction and, therefore, the wear and tear between carrier and bobbin.

- It also has an easy-to-open fastening gadget/top holder which gives the set consistency and robustness.

- In its lower part a reversed cogged bobbin-holder disc prevents yarn dirt from getting inside thus avoiding a likely interference of the yarn's right exit.

- On the carrier's frame base a built-in steel cap/bush facilitates the bobbin-holder disc its sliding and in turn avoids its likely wear.

Making reference to Carrier gauge 154 which offers the following technical advantages:

- Top holder in the upper part.
- A break system by gripping devices, similar to the used ones

in the automovile industrie, avoiding the impact plunger on the bobbin-holder disc obtaining a longer durability.

- In the lower part, under the bobbin-holder disc, there is an axial bearing which performs which softens, precises and help to support the enormous weight weight of the bobbin filled of yarn.

Higher capacity bobbins

Braiders belonging to Gauge 140 mm. can be equipped with two different bobbin size:

- ϕ 74x250 mm, and a capacity of 962'11 cm³.
- ϕ 78x280 mm, and a capacity of 1.211'27 cm³.

There are two different bobbin size for Gauge 154:

- ϕ 85x200 mm. and a capacity of 1.070 cm³.
- ϕ 85x300 mm. and a capacity of 1.461 cm³.

Also available are different types of springs with different tensions to be applied depending



on each product (see table herein).

E140

For bobbin ϕ 74x250 and ϕ 78x280 mm

Colour	Tension
White	300 - 320 grams
Yellow	480 - 500 grams
Green	580 - 600 grams
Red	800 - 850 grams
Black	1000 - 1100 grams
Blue	1250 - 1300 grams

E154

For bobbin ϕ 85x220 mm

Colour	Tension
White	500 grams
Yellow	650 grams
Red	750 grams

24B - E140



24B - E154

Sailing rope



Elastic rope

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 are:

- Different type of gatherers at the braiding point with or without detector.
- Different take off systems depending on the rope diameter to be produced.
- Different take up systems of the braided product either on a crosswinding spool with no flanges or on a parallel one with flanges and different sizes.

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.

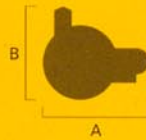
In this way, Ratera offers you the right machinery including all the necessary accessories in order to elaborate the required products.

E 104

Number of carriers per head	Motor power (HP)	RPM horngear	Measurements Ax B individual bench (mm)
12	0'75	235	780 x 670
16	0'75	235	860 x 730
20	1	235	900 x 840
24	1	220	930 x 1070
28	1	220	1050 x 1150
32	1'5	220	1160 x 1250
36	1'5	220	1300 x 1400
40	2	210	1450 x 1600
48	3	210	1620 x 1700

E 154

Number of carriers per head	Motor power (HP)	RPM horngear	Measurements Ax B individual bench (mm)
12	1	220	760 x 860
16	1	220	840 x 900
20	1	210	950 x 960
24	1'5	195	1080 x 1060
28	1'5	195	1140 x 1140
32	2	195	1200 x 1300



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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