

### GEM Prewound Bobbin Product Information





GEM Prewound Bobbin is a special type of prewound bobbin for machine embroidery that does not have any core or sides. In contrast to manually wound bobbins or other types of prewound bobbin, GEM Prewound Bobbin is manufactured with a unique Coreless Technology which offers superior quality, consistency & cost-effectiveness.

- Compatible with all embroidery machines: ZSK, Tajima, Barudan, Richpeace, Ricoma, SWF, Brother, Melco & other brands
- Tried & used by world-leading embroidery factories with instant productivity gains of up to as high as 20%







## Benefits of GEM Prewound Bobbin





### Factory Management Benefits

-  Saves time & cost of having to manually wind bobbins, including labour, electricity & machinery investment
-  Optimizes storage space, stock control, stock forecasting & production cost calculation
-  Eliminates unseen & easily avoided wastage from unequal length bobbin winding
-  Significant productivity gains as a result of equal length bobbins which lead to a reduction in machinery stoppage time

### Production Benefits

-  Reduces unnecessary damage to bobbin case as a result of professional bobbin winding
-  Extends embroidery needle life due to elimination of contact with metal bobbin
-  Convenient for personnel in terms of production usage & production management
-  Reduces need for frequent cleaning of bobbin case due to hairless bobbin yarn

### Consumer Benefits




-  Increased garment comfort & reduced skin irritation from embroidery as a result of hairless bobbin yarn
-  Naturally more flexible embroidery that is not excessively rigid & uncomfortable
-  Higher quality standardization of products, leading to higher customer satisfaction
-  Higher quality embroidery due to high quality bobbin thread

## Production Lead Time

Quantity / Item	GEM Prewound Bobbin	GEM Prewound Bobbin (Custom Colour, Size or OEM)
< 5,000 packets	Ready stock	Upon discussion
5,001 – 10,000 packets	10 – 14 days	Upon discussion
> 10,001 packets	14 – 21 days	Upon discussion



**Remarks:** The above production times serve only as an estimation & guideline. Actual production may vary depending on production schedule, order forecast & complexity of special specifications among other factors.

Technical Information

Information / Item	 GEM Prewound Bobbin 75/2 polyester yarn 1.2 L Size	 GEM Prewound Bobbin 75/2 polyester yarn 1.6 L Size	 GEM Prewound Bobbin 75/2 polyester yarn Jumbo M Size
Yarn Length / Bobbin	140 m	170 m	230 m
Bobbin Runtime	110 minutes	130 minutes	180 minutes
Bobbin Dimension	2.0 cm x 1.0 cm	2.2 cm x 1.0 cm	2.5 cm x 1.0 cm
Bobbins / Packet	144 bobbins	144 bobbins	144 bobbins
Packet Dimension	31 cm x 12 cm x 2.4 cm	31 cm x 12 cm x 2.4 cm	16 cm x 16 cm x 4.4 cm
Packet Gross Weight	425 g	485 g	630 g
Packets / Carton	40 packets	40 packets	30 packets
Carton Dimension	47 cm x 31 cm x 25 cm	47 cm x 31 cm x 25 cm	48 cm x 34 cm x 23 cm
Carton Gross Weight	17.5 kg	19.8 g	19.1 kg
Packets / CBM	925 packets	925 packets	800 packets
Packets / 20' Container	28,000 packets	28,000 packets	24,000 packets
Packets / 40' Container	56,000 packets	56,000 packets	48,000 packets
Packets / 40' HC Container	71,000 packets	71,000 packets	61,000 packets

**Remarks:** Actual packaging information, such as net weight & gross weight, may vary slightly from the above information within tolerable range due to various production factors. Bobbin runtime is only an estimation.

**Productivity Gains of Using GEM Prewound Bobbin**

	 <b>GEM Prewound Bobbin</b>	 <b>Manually Wound Spun Polyester Bobbin</b>
<b>Bobbin Length</b>	140m (Consistent Length)	45 – 70m (Inconsistent Length)
<b>Bobbin Runtime</b>	110 minutes	35 – 55 minutes
<b>Bobbin Changing Time / 20-head Embroidery Machine</b>	9 minutes	9 minutes
<b>Bobbin Runtime + Bobbin Changing Time / Round</b>	119 minutes	64 minutes (Assuming longest runtime)
<b>Bobbin Changes / Shift (8 Hours)</b>	4.03 times	7.5 times
<b>Difference in Amount of Bobbin Changes / Shift (8 Hours)</b>	- 3.47 times	+ 3.47 times

**Work Gained Per Shift from using GEM Prewound Bobbin** = Difference in Amount of Bobbin Changes Per Shift x Bobbin Changing Time Per 20-head Embroidery Machine x No. of Machines

Work Gained Per Shift for a 20 Machine Factory = **3.47 x 9 x 20**

Work Gained Per Shift for a 20 Machine Factory = 624.6 minutes = **10.41 hours**

Work Gained Per 24 Hours for a 20 Machine Factory = 1,873.8 minutes = **31.23 hours**

**Remarks:** The above productivity comparison serves as a guideline only. Actual productivity differences may vary depending on type of production, embroidery speed & other factors.

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## Frequently Asked Questions

**Q Can I use GEM Prewound Bobbin on all types of embroidery machine?**

**A** Yes. Provided your embroidery machine uses 1.2 or 1.6 L size, or Jumbo M size bobbins, you can use GEM Prewound Bobbin for both industrial & home use machines.

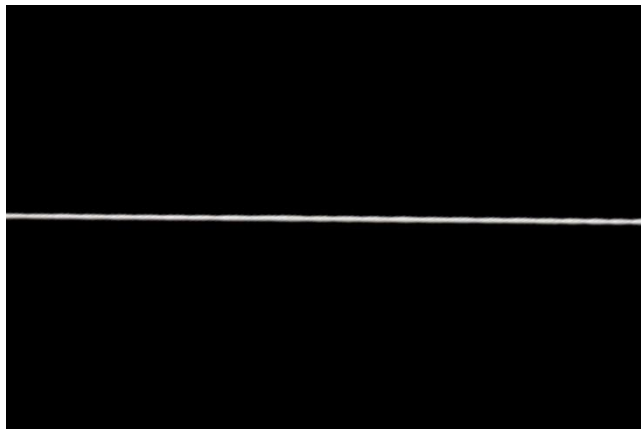
**Q Can I use GEM Prewound Bobbin with all kinds of embroidery thread?**

**A** Yes. However, as with any other bobbin or production, you should always make sure to correctly adjust your bobbin case to best suit the type of work you are embroidering in order to ensure best results. Improper adjustments can lead to looping of embroidery & bobbin thread, excessive thread breakage, as well as other problems.

**Q How is GEM Prewound Bobbin better than manually winding spun polyester?**

**A** GEM Prewound Bobbin offers more than double the length of thread than manually winding spun polyester. This means that you can run your embroidery for longer without any loss of efficiency. GEM Prewound Bobbin is also made from finer yarn, which will enhance the quality of your embroidery. In addition, you will also save cost on winding labour, machinery & electricity as well as reduce unseen bobbin yarn wastage.

### Comparison of GEM Prewound Bobbin yarn (left) & normal spun polyester yarn (right)



GEM Prewound Bobbin Yarn (Smooth)



Manually Wound Spun Polyester Yarn (Rough)

**Q How is GEM Prewound Bobbin better than other types of prewound bobbin?**

**A** The process which is used to produce GEM Prewound Bobbin is very different than that used to wind other types of prewound bobbin. For that reason, our bobbins have highly consistent length & tension which means better quality & efficiency for your embroidery. In addition, there is no plastic core or any other extra parts which may cause damage to your bobbin case & equipment.

**Q Why do I have to use GEM Prewound Bobbin & how is it going to save my factory money?**

**A** If you are winding your own bobbins, you will know that the length per bobbin is unequal. Embroidery machines running on these bobbins will either stop frequently, resulting in inefficient production, or embroidery machine operators will have to stop the entire machine when the first bobbin finishes. When this happens, the embroidery machine operator will throw away leftover thread from all bobbins. This is unseen wastage that factory management cannot see. GEM Prewound Bobbin eliminates both these problems, helping the factory gain more productivity while reducing wastage, both of which contribute to cost-savings. Additionally, you will also no longer have to pay for labour, machinery, electricity & other costs associated with winding your own bobbins.

**Q Is pretesting required before using GEM Prewound Bobbin?**

**A** Yes. As with any textile material, we highly recommend pretesting GEM Prewound Bobbin before using in your actual production. If your machines are running on spun polyester bobbins or other prewound bobbins, you may need to adjust your bobbin case tension to ensure our bobbins run smoothly. Common noticeable signs of improper or inadequate bobbin case adjustments are looping threads & excessive thread breakage.

**Q What is the best way to test the efficiency of GEM Prewound Bobbin?**

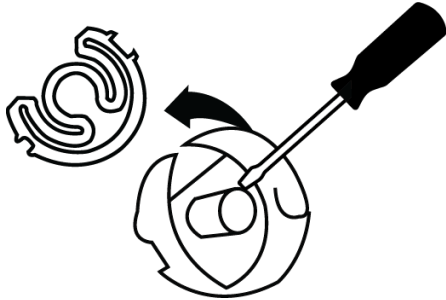
**A** For single head embroidery machine owners, a full week of testing will be able to show you the efficiency benefits of using GEM Prewound Bobbin. For large embroidery factories, we recommend running our bobbins on 1 – 5 machines for at least 3 shifts to see the efficiency benefits. In plants where embroidery machines are placed in pairs, we usually recommend running machines on one side with our GEM Prewound Bobbin and machines on the other side with the original bobbins to be able to clearly see the difference.

**Q Are there instances where GEM Prewound Bobbin cannot be used?**

**A** In general, our bobbins work in most circumstances. However, GEM Prewound Bobbin may not be compatible with certain types of additional embroidery machine devices such as automatic bobbin changers. If you are unsure, it is best to consult your embroidery machine provider.

**Q Are there any special tips to make sure GEM Prewound Bobbin runs smoothly?**

**A** For best performance, we highly recommend removing bobbin case springs (and storing them safely) before running your embroidery machines on GEM Prewound Bobbin. You can refer to the illustration below on how to do so. For good embroidery quality, always keep your bobbin cases clean & maintain your embroidery machines as advised by your embroidery machine provider.



How to remove bobbin case spring

**Q Since there are no bobbin core or sides, how does GEM Prewound Bobbin work?**

**A** GEM Prewound Bobbin is innovated with a highly advanced manufacturing technique. Through our production facility, we process the yarn in such a way that it forms a consistent & self-adhering structure. Even under extreme circumstances, there is no need to worry that the bobbin thread will slip or that the bobbins will break.

**Q Since the bobbin has no core, can the full bobbin length be utilized till the end?**

**A** You can use GEM Prewound Bobbin till the very end of the intended length. After you have finished the bobbin, you will notice a very thin layer of thread in the center. This thread is additional to the yarn length that is claimed & is processed to form a self-locking mechanism for the bobbin.

**If you have any other questions or inquiries, feel free to send them to [info@gem-thread.com](mailto:info@gem-thread.com). We will be more than happy to assist you with further information. We thank you for your interest in our products!**