

Brayband® Installation & Maintenance

The
Technical
Textiles
Specialist



Arville

Your guide to installing and maintaining Brayband® rotary moulder belts



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Specialist endless woven belts for rotary moulder machines

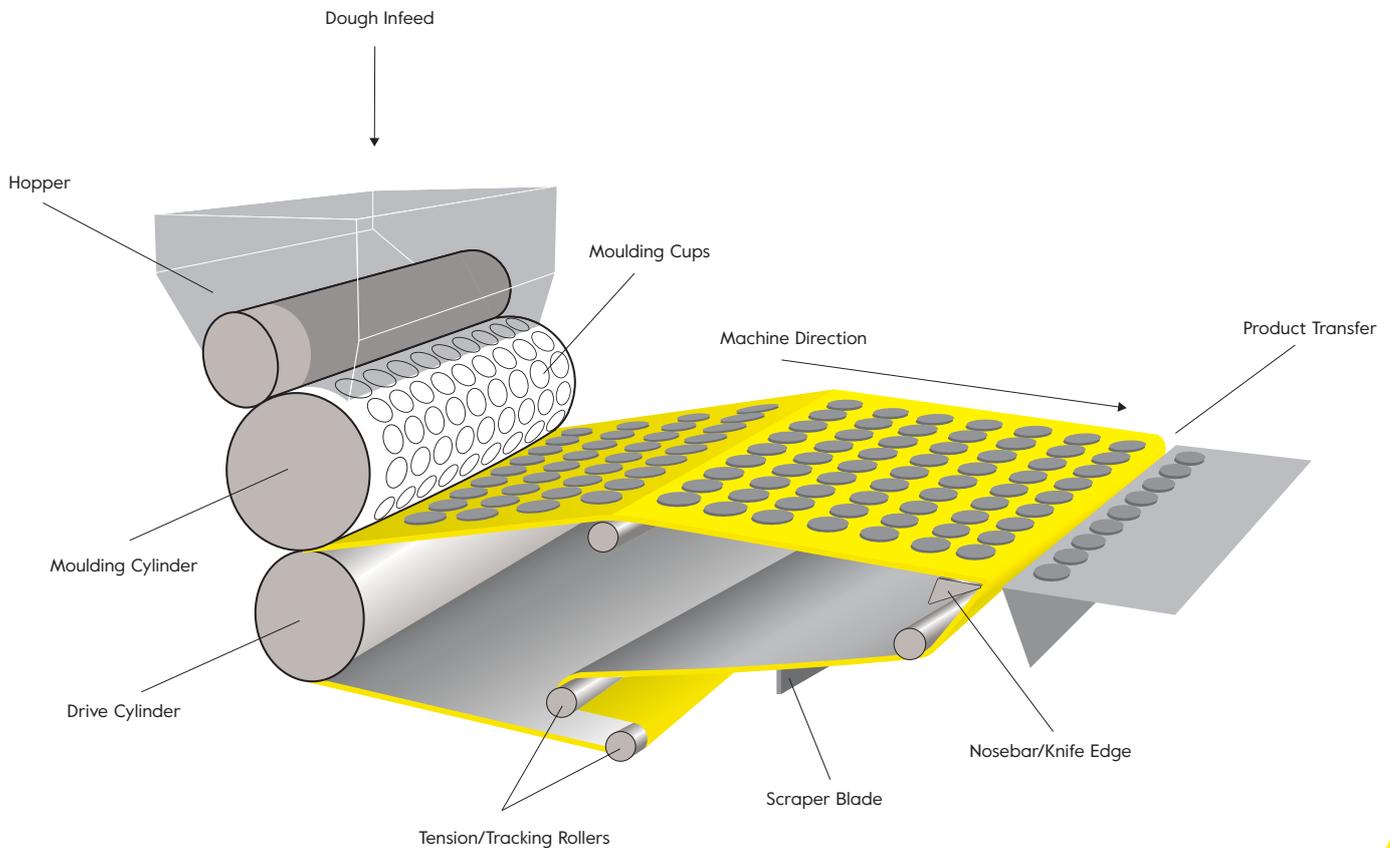


1.

Introduction

Brayband® rotary moulder belts are a truly endless woven belt specifically developed for the efficient extraction of dough forms from rotary moulding machines.

A variety of weave patterns and component yarns allow Brayband® belts to give long-life service, efficiently extracting all dough types whilst readily discharging the product onto the next process belt.



Brayband® endless rotary moulder belts are suitable for extracting every type of dough product

2. Belt Construction

Brayband® endless woven rotary moulder belts are made from a solid woven construction which gives high longitudinal flexibility for the easy negotiation of knife edges. Strong flax (linen) yarns in the weft direction ensure lateral stability and offer good absorbency characteristics.

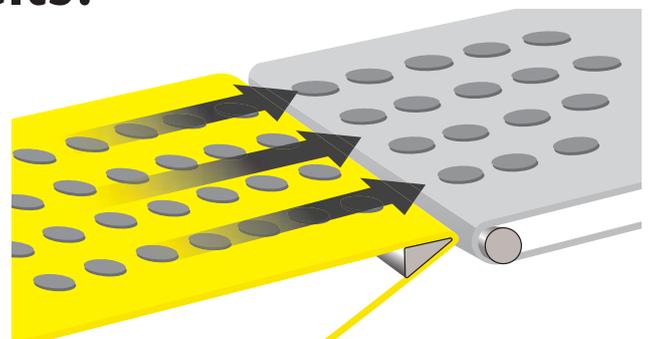
The reverse, non-contact side is impregnated with a food-grade polyurethane (PU) to help maintain the belt shape and prevent narrowing. All belts have a woven selvedge to help protect from mechanical wear, making the belts truly endless in both the warp (machine) and weft (transverse) directions.

3. Why Endless Woven Belts?

The main benefit from using a totally endless woven belt is that there are no weak points or changes in the structure over the entire belt length since there is no splice or seam.

The absence of a splice also means a reduced risk of damage or wear from the scraper blade and it allows the belt to pass smoothly over the knife edge transfer point.

As the belt is an endless loop you can be assured that it is highly efficient, with 100% of its entire surface continuously working at extracting from the moulder and transferring the product to the next process belt.



4. Storage Instructions

After receipt the belt should always be stored in a clean, dry environment unless being installed immediately.

Unfavourable storage conditions or improper handling can result in changes to the physical characteristics of the belts. Such changes can, among other things, shorten the service life of the belt. The belts should be protected against damage, contamination, moisture, extreme temperatures and UV light. Arville™ belts should preferably be stored in their original packaging.



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5. Installation

The belt should be properly fitted by trained personnel who are familiar with operating the machinery.

Before Installation

Ensure all rollers, knife edges and scraper blades are clean and aligned correctly. Please ensure that all rollers (drive, turn-round and tension) are parallel.

Since the conveyor belt is following the alignment of the structure and components on which it is operating, it is essential that the conveying installation itself is accurately aligned.

Belt Alignment

When fitting a new belt it must be mounted with equal tension at each edge in order to avoid distortion of the fabric during the run-in period. The moulding roller should be mounted and adjusted parallel to the belt.

At first, run the conveyor belt only slowly or intermittently with frequent stops and starts, so that any run-off tendency can be detected quickly and rectified before any damage occurs.

Make the first corrections at locations where potential for damaging the belt is greatest.

Carry out adjustments in small steps, working on only one pulley/roller at a time.

After each adjustment allow the belt to rotate a few times to position itself to the new alignment before making any further corrections.

Bear in mind that each tracking adjustment may result in further adjustments being necessary elsewhere on the installation.

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6. First-time Tensioning

Because of their woven construction and the fibre types used in their makeup, the dimensions of the belt may change during use - this is perfectly natural and is to be expected. The belts may be subject to some variations in their crimp levels (the level of inherent elasticity) due to the manufacturing process used in their weaving.

Once installed some natural acclimatisation may occur which could require adjustments to the settings on the machine.

In the early stages you may experience a stretching of the web. Excessive belt tension and moulding roller pressure will reduce the belt life. Care must be taken not to over-tighten the belt, especially during the running-in phase in the first few hours/days of operation as this may lead to irreversible distortion.

Only minimal tension is required for extraction purposes.



Brayband® is the leading name in truly endless belts for rotary moulders



7. Pre-conditioning of the Web

Before first use the belt should be conditioned with edible fats or oils to allow for effective extraction. Pre-conditioning the web helps to create suitable surface tension conditions required for extraction and release of the dough. The belt should only be conditioned when fitted on the machine.

Each end-user will have their own preference for pre-treatment, some of the more common practices we are aware of involve the application of a fat/oil based product into the web (e.g. shortening), inching the belt round until its whole surface is covered. Any excess will be removed by the scraper blade.

Do not use water to wet or condition the belt as this will adversely affect the natural fibres within the belt, causing it to shrink or swell and subsequently shorten the running life of the belt.



8. Run-in Period

A periodic check of the belt tension is recommended, particularly where operating conditions are harsh e.g. frequent stop/starts. If the tension is too low, re-tension the belt until it works again properly. Do not exceed the maximum admissible elongation of the belt.

The maximum admissible elongation varies according to the fibre types and weave construction of the belt. For further information please refer to our technical data sheet relating to your specific belt type (this can be obtained by contacting our sales team).

Please note that exceeding the maximum elongation of the belt can lead to irreversible distortion and reduced service life.

Please release tension when the belt is not in use for any period of time to help the web relax. When re-starting the machine after a long standstill it is advised to re-condition the belt to help prevent fibre damage.



9. Belt Tracking

Conveyor belts are frequently blamed for belt tracking problems and in most cases this is often unjustified. The failure cause is usually to be found in the installation itself and may be the result of poorly adjusted pulleys and rollers, incorrect application of belt tracking measures or faulty design.

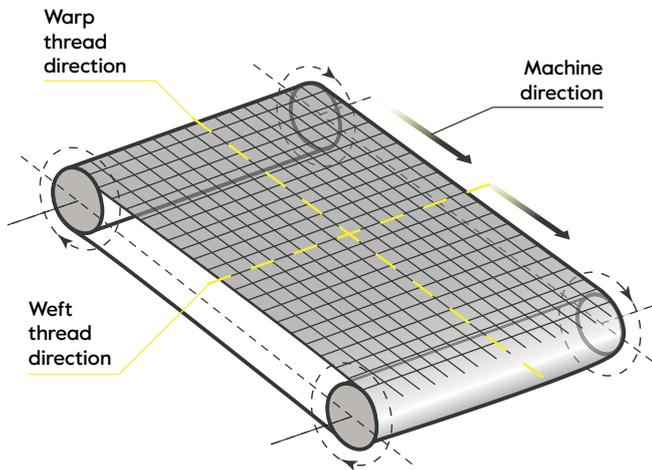
The following conditions are essential for problem-free belt tracking:

All pulleys and rollers must be fitted at right angles to the belt running axis.

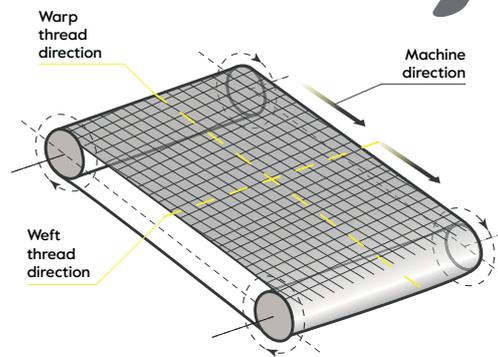
Adjustable pulleys and rollers are only to be adjusted after the belt has been properly run in.

All parts of the installation that come into contact with the belt are to be protected from dirt and soiling and to be cleaned if necessary.

Correctly fitted



Incorrectly fitted

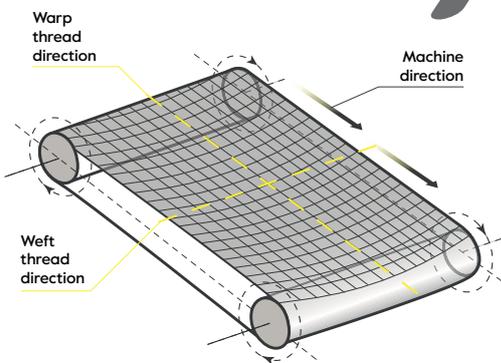


Problem: Warp yarn adopts an incorrect position.

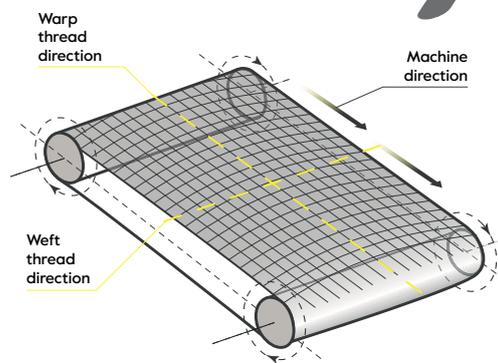
Cause: Belt misaligned on rollers, uneven tension.

Corrective action: Stop belt immediately in order to prevent further distortion of fabric. Re-align tracking roller, re-tension and check belt whilst running.

Incorrectly fitted



Incorrectly fitted



Problem: Warp yarn adopts an incorrect position.

Cause:

Belt tension is too high.

Dough contamination on rollers.

Wear on scraper and/or knife edge.

Deflection on reversing rollers.

Corrective action:

Release adjusting roller and re-tension.

Clean and re-align rollers.

Replace when possible.

Reduce load on belt.



We've spent 100 years perfecting the process to weave truly endless belts for dough extraction

10. Cleaning & Maintenance

We do not recommend that the belts are washed or cleaned down with water, detergent or cleaning fluids as this is likely to encourage shrinkage and may shorten the working lifespan of the belt.

Do not immerse the belts in water or other fluids. This can result in irreversible dimensional changes (shrinkage), camber, colour changes or degradation of the materials.

If cleaning is required, we recommend letting the dough dry and brushing the belt surface with a soft brush to remove the excess.

Machinery components coming into direct contact with the belt should be kept as clean as possible. Oil, grease, moisture, rust, dirt, etc. may cause operational and belt performance problems and may shorten belt service life. Ensure regular clean-down of rollers and moving parts to keep the belt moving freely and prevent wear damage.

11. Wear & Replacement

We would recommend that the belt is replaced whenever there are any visible signs of mechanical wear or damage which may adversely affect its tracking or function on the machine.

Ideally a program of preventative maintenance should be in place, changing the belt at regular intervals to maintain optimum performance.

For any further information regarding the use of our belting products please contact our sales team directly:

T: +44 (0) 1937 582735 E: sales@rotarymoulderbelts.com www.rotarymoulderbelts.com

Product liability, application and considerations

All information and indications are recommendations only and believed to be reliable but no representations, guarantees or warranties of any kind are made as to their accuracy or suitability for particular applications in industrial use.

Because conditions of use are outside our control we cannot assume any liability concerning the suitability and process ability of the products mentioned herein. This also applies to process results/output/manufacturing goals as well as to possible defects, damages, consequential damages and far-reaching consequences.

N.B. The information within is intended as a guideline only and does not necessarily take into account variations between different types of machines. If in doubt please contact your OEM provider for instructions regarding specific procedures for the replacement and installation of belts.





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