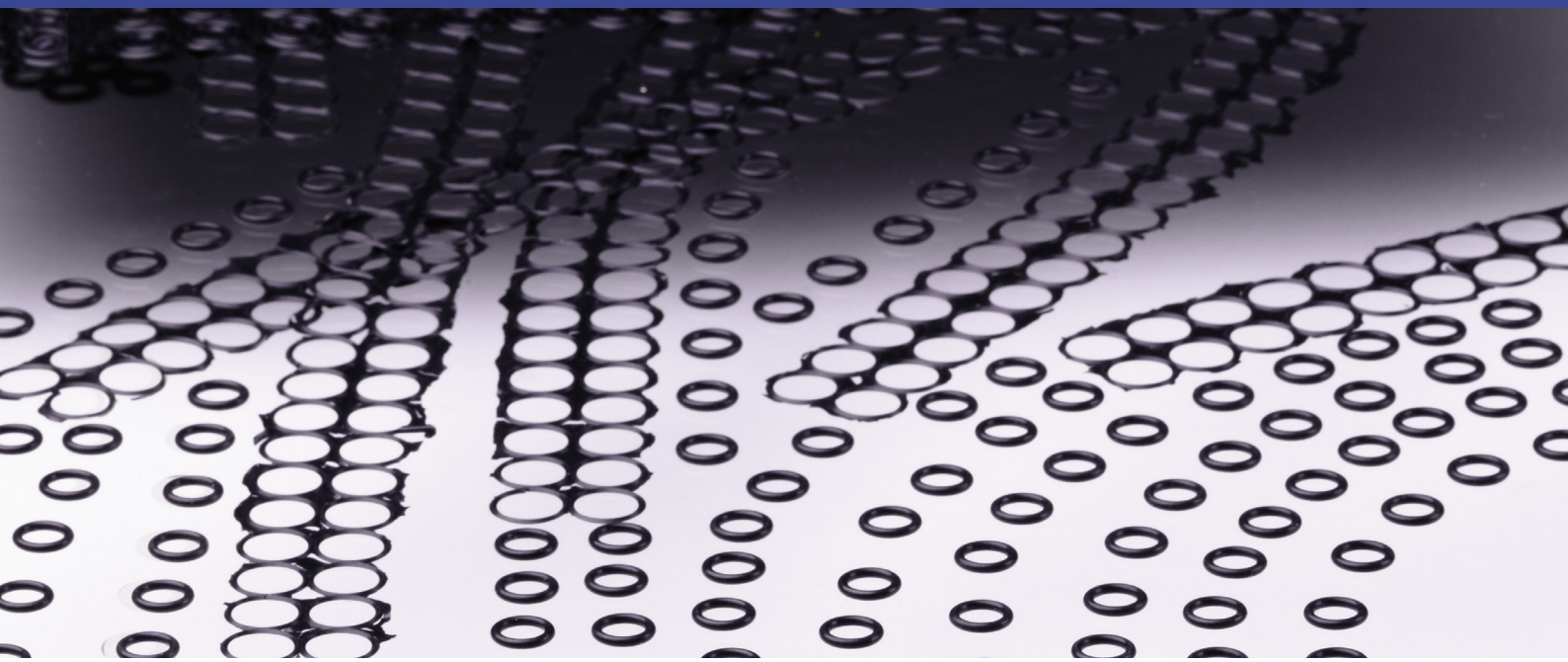
Spin Trim Deflashing Machine

Automated small batch rubber deflashing





barwell



Automated Rubber Deflashing

The Barwell Spin Trim provides automated deflashing for small batch production of rubber products. It is a simple and cost-effective method, and can be used as a single process operation or as a cost reducing first stage before cryogenic deflashing for excessive flash.

- Ideal for the effective deflashing of small to medium size rubber parts
- Deflashes parts using high-speed spinning
- Ideal for rubber parts with tear trim
- Exceptionally easy to maintain
- Single size machine for small batch operation
- Safe, affordable and automated
- Quick, simple and effective, reducing operational costs

FEATURES

- Capacity 14 L (usable volume 4 L)
- For loads of a maximum of 1 kg
- Up to 7000 rpm spin speed
- Adjustable cycle time
- High-quality Omron PLC and inverter
- Incorporated water spray system
- Supplied with 7 vacuum screening plates providing process flexibility
- Omron NB5 HMI with storage capability of 500 set ups
- Insulated for sound reduction

OMRON

OPTIONS

- Optional time-saving take-off waste separator sorts out the good parts from the waste material

info@barwell.com

BENEFITS

The Spin Trim offers a quick and cost-effective solution to separate the sprue and/or the unwanted flash surrounding the part.

It is able to do this in a very short period of time (usually between one to two minutes). It offers considerable advantages to processors over manual methods of deflashing:

- Reduction in production time
- Reduction in labour costs
- Increases production capacity
- Enhanced part quality
- Improved operator safety
- Additional factory space
- Automated production

barwell *Spin* Trim
Rubber deflashing machine

APPLICATIONS

Typical products that can be deflashed on a Barwell Spin Trim include:

- 'O' Rings
- Grommets
- Seals and gaskets
- Caps
- Other small rubber parts

The Barwell Spin Trim is ideal for use in the automotive, oil and gas, aerospace, medical, electronics, and general rubber sectors.

HOW DOES THE SPIN TRIM WORK?

The process is quick, requiring minimal operator skills.

1. A vacuum screening plate is selected and fitted dependent on the size and type of product.
2. Parts are then placed into the three-compartment safety chamber - allowing for the next batch of parts to be deflashed immediately after the first.
3. The chamber should only be filled to about one-third full of its capacity for effective spinning. Once secured in the spin chamber and the cycle settings have been made, an internal mechanically propelled disc spins the rubber parts at high speed, resulting in the excess flash and sprue/connections being removed.
4. The small flash is sucked away by an integral vacuum and the deflashed parts and larger flash (including sprue), exit via a chute into a dump bin (or a waste separator unit).

SPIN TRIM WASTE SEPARATOR

This simple to operate and compact optional extra will reduce sorting out the flash and good parts from hours down to minutes, providing huge time and labour cost savings as a result.

It is supplied with 14 perforated sheets of differing hole sizes (6-32mm) to suit the product to be deflashed.

The upper perforated sheet allows the good parts and small flash to fall through and the lower perforated sheet then allows this flash to fall to the bottom, leaving the deflashed parts in the middle of the separator.

Boxes at the end collect the parts and flash. The large flash is manually removed from the upper sheet by hand or vacuum.

WHAT IS FLASH?

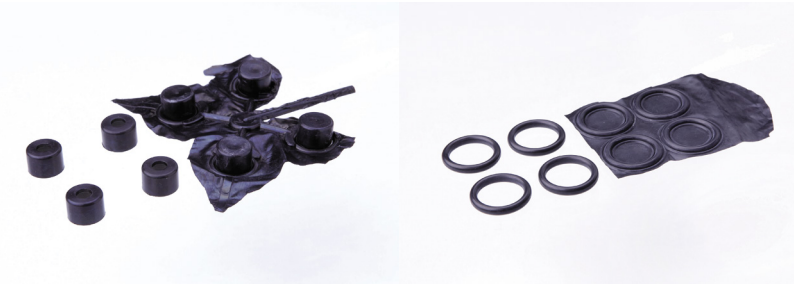
During the production of a rubber product, layers or flaps of unwanted material are created due to material overflow from within the mould cavity. This excess material is commonly known as ‘flash’.

Rubber flash has two elements to it - the film of rubber projecting from the part along the mould’s parting line (flash line) and the thickness of the flash.

The excess material (or flash) almost always needs to be effectively removed before the product is deemed to be in an aesthetically acceptable or ‘fit for purpose’ condition.

HOW IS ‘FLASH’ REMOVED?

Many factories still use manual methods to deflash their products, such as hand or mechanically assisted trimming, buffing or grinding. Some companies will also use more hazardous options like chemicals for this process.



Problems with these methods

In most instances, these traditional methods are tedious, time-consuming, labour-intensive or even dangerous, and are not always effective in producing a high quality finished part with all the flash sufficiently removed.

The Spin Trim offers a quick, automated and cost-effective solution to separate the sprue and/or the unwanted flash surrounding the part.

It provides processors with significant cost, time and quality and safety advantages over hand-cutting, grinding, chemical or tumbling methods of deflashing.

WHEN SHOULD I USE THE SPIN TRIM?

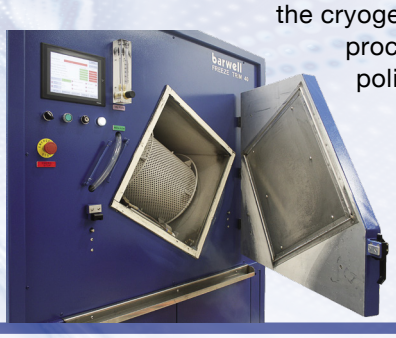
The Spin Trim is ideal for the deflashing of small to medium size moulded rubber parts - up to approx. 75mm dia. or equivalent, in different cross-sections, that do not have excessive flash, or for more excessively flashed product when the application does not require a pristine finish.

Use in conjunction with the Barwell Freeze Trim

It can also be used as a cost-effective first stage process for the deflashing of more complex parts or those with excessive flash before using a Barwell Freeze Trim Cryogenic Deflashing machine.

The benefit of having a two-stage process is that it reduces the time taken during cryogenic deflashing, including the amount of liquid nitrogen used, reducing operational costs. It can remove up to 90% of waste rubber, meaning you can then put more product into the Freeze Trim and also reduce cycle times by up to 50%.

It also means that a higher quality part is produced as the cryogenic and media blasting process can concentrate on polishing and fine trimming.



barwell FreezeTrim
Cryogenic deflashing

SAFETY

Health and safety is a primary concern for those responsible for machine maintenance and operator safety.

Barwell machines are manufactured to comply with international safety standards and are supplied with a number of features to ensure safe operation.

The Spin Trim is CE compliant with many special built-in safety features.

CE

SUPPORT

Barwell has always taken the approach that a customer needs to be supported for the lifetime of the machine.

- Training and servicing packages available
- Genuine spare parts
- Technical support

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Advice | Spares | Service

Technical Data

Machine Information - Spin Trim Deflashing Machine	
Dimensions (mm)	Length: 1700 Width: 550 Height: 1100
Weight (Kg)	310
Power Supply	380V-440V 3 phase, neutral and earth. Total maximum connected load 5kW. 220V single phase for the vacuum machine
Air Supply	1/4” BSP maximum permissible pressure of 5.5 bar (85 psi)
Capacity Size (Litres)	14 L (maximum chamber fill 4 L)
Maximum rpm	7000

Machine Information - Spin Trim Waste Separator	
Length (mm)	132
Width (mm)	54.5
Height (mm)	42
Weight (kg)	95 (including perforated sheets)
Power Supply	220V single phase
Motor (W)	120 (variable speed)

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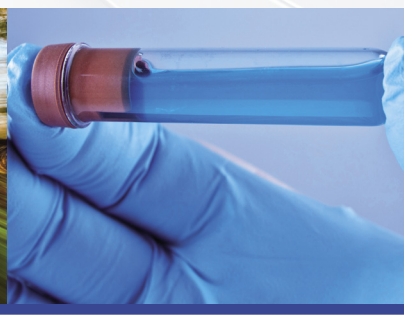

Barwell Global Ltd.
Unit 1, 9 Burrel Road, St. Ives,
Cambridgeshire, PE27 3LE United Kingdom

info@barwell.com
+44 (0) 1480 832 860
www.barwell.com

Barwell Global USA
2868 Westway Drive, Unit E,
Brunswick, Ohio 44212-5661 USA

info@barwellusa.com
+1 330 225 9557
www.barwellusa.com

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