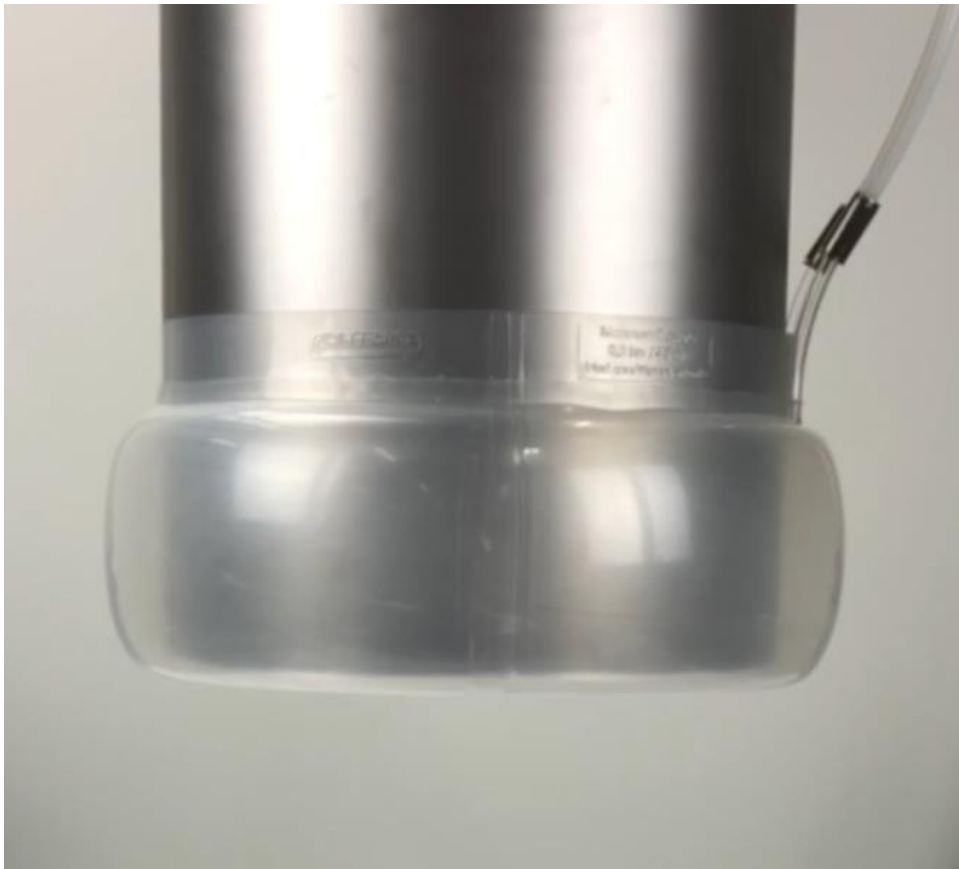


# Inflatable Bulk Bag Clamp

Pneumatic Bag Seal - Over Tube - ( PBS-OT )



- ✓ 100% sealed – no leaks
- ✓ Easy to install
- ✓ Quick to fit & remove bags
- ✓ Strong and Durable
- ✓ No pinching points
- ✓ No loose parts
- ✓ Inflates in seconds
- ✓ Deflates in seconds
- ✓ Fully Customizable
- ✓ For all sizes of Bulk Bags and bulk containers
- ✓ Fits every existing equipment
- ✓ No changes needed to existing equipment
- ✓ 1 on 1 replacement for existing inflatable seals
- ✓ For imperial and metric tubing
- ✓ Available with many types of connections

## Wide variety of connections and couplings



**Filcoflex B.V.**  
The Netherlands  
Luxemburgstraat 3  
5171 PK  
Kaatsheuvel

Website : [www.filcoflex.com](http://www.filcoflex.com)  
E-mail : [info@filcoflex.com](mailto:info@filcoflex.com)  
Telephone : +31 (0) 416 764 764  
Fax : +31 (0) 416 764 763

### Advantages

---

- No changes required to the filling head, chute or tube
- Interchangeable with existing inflatable seals and clamps
- Available with and without clamps, quick connection or even can be used without any connection.
- Inflates in seconds and provides a tight seal on the neck / spout of the bulk bag eliminating product leaks.
- Much safer for workers hands as there are no pinch points
- Can be used on bulk bags with or without plastic liners, bins or containers.
- Easy to detach in only seconds for easy cleaning
- Fully custom made diameter and length with short lead time
- Hygienic Poly Urethane material
- Explosion safety
- Food contact safety according to all big international regulations
- No parts that can loosen and be lost in the machinery or bulk container or bag
- Filcoflex Poly Urethane is non porous and easy to clean
- Filcoflex Poly Urethane does not degrade

### Can be used to fill or empty all sorts of bulk containers such as:

- Big Bag
- Plastic bag
- Paper bag
- Super sack
- FIBC
- Bin
- Vessel
- Drum
- Bags and bins with or without liners
- Bulk packaging



### Pneumatic Bag Seal – Over Tube ( PBS – OT )

PBS-OT is an Inflatable Seal that slides over a filling head, chute or tube of any Bulk filling or emptying station for all sorts of Big Bags, containers and bins.

The name PBS OT stands for Pneumatic Bag Seal – Over Tube.

Over Tube meaning this version slides over the existing chute, filling head or tube without making any changes to the metal works, no special ferule or flange is required.

PBS-OT is an inflatable bag clamp interchangeable with existing rubber or silicone inflatable seals improving the hygiene and durability without making any changes to existing equipment.

PBS-OT is made to any custom diameter or length with a short delivery time

Poly Urethane is a more hygienic material because it does not deteriorate, crack and does not turn brittle. The surface of Poly Urethane on both sides is gloss and non-porous, making it easy to clean.

Poly Urethane has been tested safe to use for repetitive contact with foods with the most common international food contact regulations.



### Construction of the product

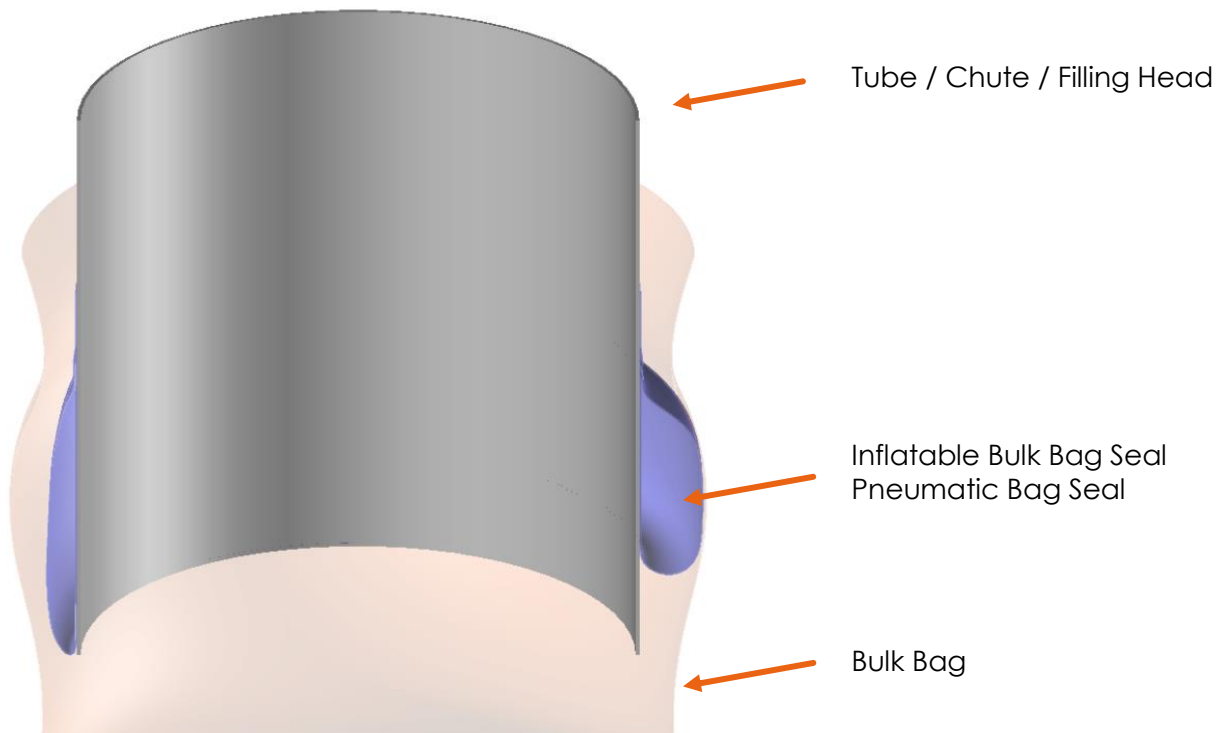
PBS-OT is 100% sealed bladder made out of Poly Urethane film of 1.0mm thickness.

The Bladder can be inflated through the welded in TPU Ø8x5,5mm air hoses.

When it is inflated it clamps the Bulk Bag firmly and seals the opening of the bag preventing any dust or powder leakage.

PBS-OT slides over any existing tube or filling head without having to weld any special adapter or ferules.

PBS-OT stays in place with or without any additional connecting accessories.



- When inflated the outer Poly Urethane Bladder will securely hold the bag neck up and open for clean, efficient filling.
- There are no pinch points to endanger operator's hands when fitting the bag.
- Can be used with or without plastic liners.

### Connecting method

---

PBS-OT is fitted by being mounted on the outside of the tube or filling head.

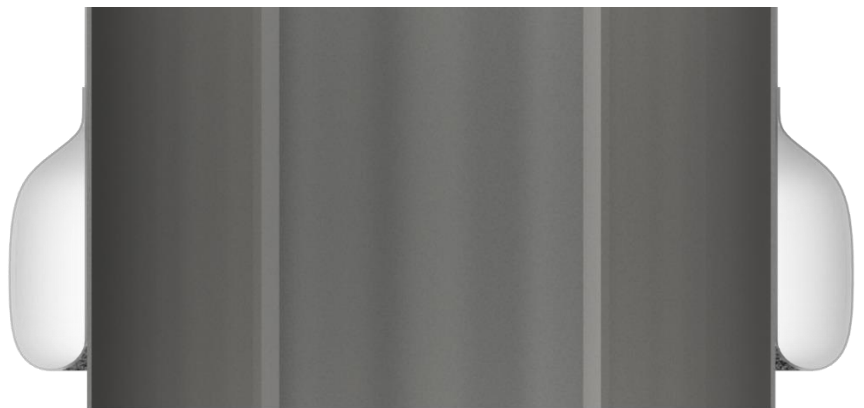
When the inflatable seal is pressurized it shortens and expands more than a laminated multi-layer inflatable seal.

The installation of the Inflatable Bag clamp over the tube or filling head takes mere seconds.  
Sliding the Big Bag over the inflatable bladder also requires only seconds.

Deflated



Inflated



### Pneumatic Connection and operation

PBS-QD is built with welded in compressed air lines, made of poly urethane hoses. The hoses are completely airtight welded in to the upper rim of the Poly Urethane inflatable bladder. The 8x5.5mm PU air hose is suitable to use with any standard 8mm push in air fitting, allowing it to be attached and detached within seconds.

The hoses are welded up straight to stay clear from the bulk bag. The inflatable bladder is 100% free of any obstructions, sharp edges or pneumatic fittings. The full bladder length can be used to clamp the bulk bag or container.

Because there are no obstructions or fittings in the inflatable bladder, more bladder surface can be used making it easier to position or align Bulk bags or containers without losing time.

The 3D HF welding technique used to weld the hoses in the inflatable clamp ensures a 100% seal.

Each weld is tested before the Pneumatic Bag Seal is shipped out.



Threaded fittings create possible entry points into the bladder. This can be classified as a hygiene risk.

By welding the hoses in the upper rim instead of using threaded fittings in the outside sleeve, the entire inflatable bladder surface is free of any sharp objects.

Threaded parts can loosen and because of these parts can be lost in the machinery or bulk container or bag. Threaded fittings can start to leak, and can't be tied down because one side is not accessible to hold while tightening down.





PBS-OT as a standard comes with 2 hoses, divided over 180° from each other.  
The quantity of hoses can be anywhere between 1 and 6 pcs.  
The number of hoses has an effect on the speed of inflating and deflating.



The distance between the hoses can be evenly spaced around the full 360° circumference.  
The hoses can also be orientated together on one side.



The Polyether Urethane hoses can be easily cut to length.  
The standard length is 175mm  
Simply use a pair of Multipurpose Miter Shears for the best and easiest cut.

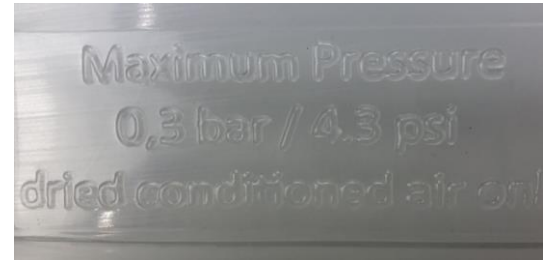


### Operator safety

There are no pinch points no sharp edges or metal objects in the clamping area that endanger the hands or fingers of operators.



Safety instructions can be embossed in the PU



### Air pressure / Compressed Air

The ideal compressed air line operating pressure is recommended to 0,3 Bar / 4.3 PSI.

If a higher pressure is required to reach a larger inflated diameter Please first contact Filcoflex for advise.

The absolute recommended maximum pressure is 0.41 Bar / 6 PSI but this does not apply to larger diameters or lengths

If air pressure recommendations are exceeded this may cause permanent damage to the inflatable bladder. Even though a higher pressure can be held in without any immediate burst, it is recommended to not to exceed the Maximum pressure recommendations.

**Over Inflated  
Too high pressure**



A hand operated button or switch as well as a foot pedal can be used to operate the inflation of the seal. Filcoflex offers a full kit with a hand button.





### Connection Styles and Dimensions

---

Filcoflex offers 5 different styles to connect the Inflatable Bulk Bag seal to the bulk filling or emptying equipment.

#### R

---

30mm Straight End Sleeve end  
Can be fitted with or without hose clamp  
Length: 100 - 350mm  
Total length: – 40mm is Bladder Length  
Smallest Diameter: Ø 100mm  
Largest Diameter: unlimited



#### K

---

Sealed In 9mm hose clamp  
9mm stainless steel screw clip  
Length: 100 - 350mm  
Total length: – 30mm is Bladder Length  
Smallest Diameter: Ø 100mm  
Largest Diameter: unlimited



#### Q

---

Lips for quick fixing to the tube  
Weld studs on the tube or filling head Ø8-Ø10mm  
The lips with holes can slide over the studs  
Length: 100 - 350mm  
Total length: – 40mm is Bladder Length  
Smallest Diameter: Ø 100mm  
Largest Diameter: unlimited



### QA

Double Lips for quick fixing to the tube  
Weld studs on the tube or filling head Ø8-Ø10mm  
The lips with holes can slide over the studs  
Length: 100 - 350mm  
Total length: – 40mm is Bladder Length  
Smallest Diameter: Ø 100mm  
Largest Diameter: unlimited

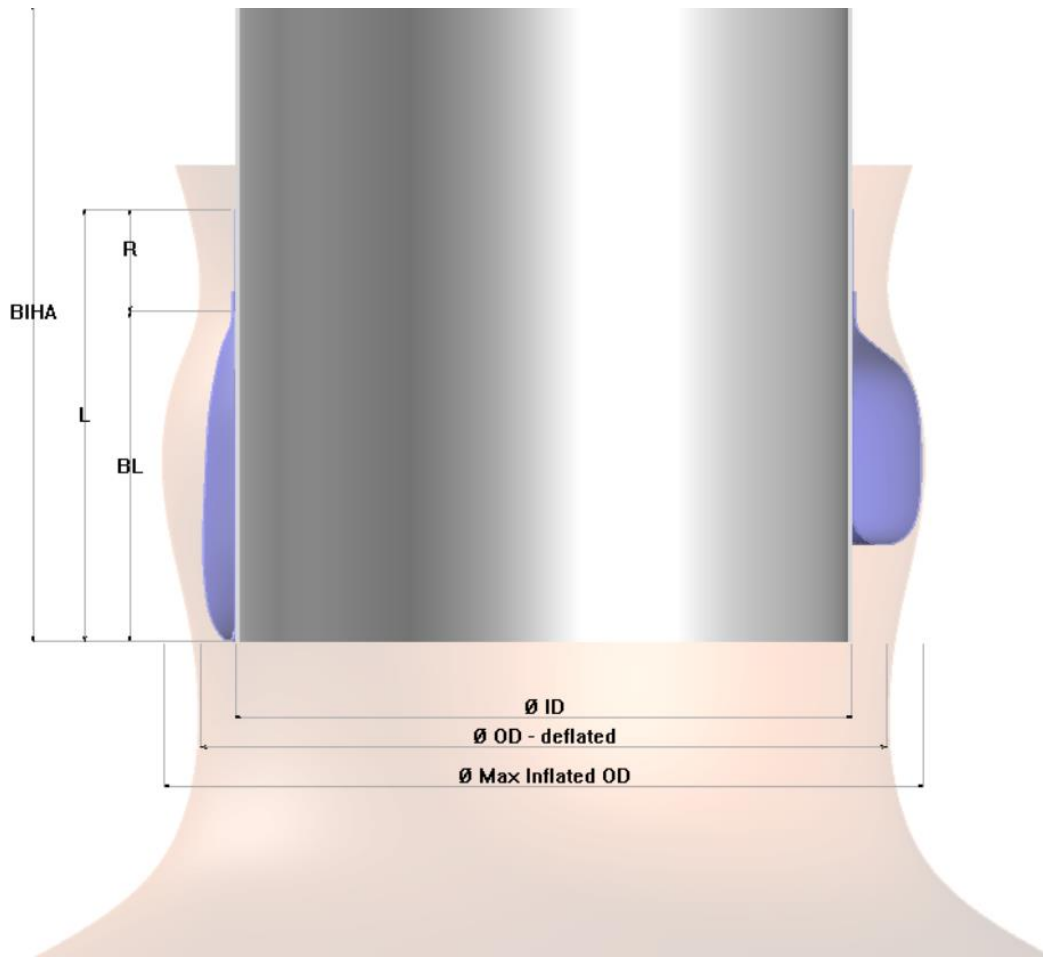


### O

Unworked End  
No clamp or any type of fixing method  
Length: 100 - 350mm  
Total length: – 10mm is Bladder Length  
Smallest Diameter: Ø 100mm  
Largest Diameter: unlimited



## Parameters



<b>L</b>	total Length of the inflatable seal
<b>R</b>	Length of the upper Rim
<b>BL</b>	inflatable Bladder Length
<b>BIHA</b>	Maximum length available to fit an Inflatable Bulk Bag Seal
<b>ID</b>	Inside Diameter of the seal / Outside diameter of the tube
<b>OD - deflated</b>	Outside Diameter when deflated
<b>Max Inflated OD</b>	Maximum Inflated Outside Diameter / Bulk Bag (spout) Diameter

ID	Dimensions		Pressure	
	Bladder Length (BL)	OD deflated	0,3 Bar / 4,35 PSI	0,41 Bar / 6PSI
104	90	108		
104	140	108		
104	190	108		
154	90	158		
154	140	158		
154	190	158		
204	90	208		
204	140	208	239	261
204	190	208		
254	90	258	300	305
254	140	258	310	320
254	190	258	312	335
254	240	258	315	377
273	190	277	340	368
304	90	308	360	370
304	140	308	371	393
304	190	308	386	423
304	240	308	387	456
304	290	308	408	509
354	140	358	435	460
354	190	358	454	490
404	90	408	477	485
404	140	408	505	520
404	190	408	530	558
454	90	458	519	535
454	140	458	555	570
454	190	458	580	600

**The list of sizes will keep expanding with every new size that is manufactured.**

**If your required size is not listed yet, please send us the requirement and we will be happy to test it for you**

Every pneumatic bag seal is custom made to the required filling head / chute diameter and length, calculated to be right size for each diameter Bulk Bag that is used in your filling process.

All custom made products have a short delivery time.

### Physical properties

The standard material every Inflatable Bulk Bag Clamp is made in, is our PU-UF3.

#### PU-UF3

A hygienic flexible material with food contact safety certification and migration testing reports and provides good explosion safety characteristics.

PU-UF3 has a gloss hygienic surface on both sides and is non porous.  
PU-UF3 does not age, does not become porous, will not crack or turn brittle.

Poly Urethane has a great abrasion and wear resistance.

Material :	Poly Ether Urethane (thermoplastic)
Surface Finish :	Gloss / Gloss non porous
Color :	Transparent / Opaque
Hardness :	87° Shore A
Wall Thickness :	1.0mm / 0.04 inch
Tensile Strength :	1200 grams / M <sup>2</sup>
Operating Temperature Range :	- 40°C / -40°F to 90°C / 194°F
Ultimate Elongation (%) :	550%
Tear Strength :	60 Mpa
Air Permeability :	0 – non permeable
Weight :	1200 grams/M <sup>2</sup>

PU-UF3 is a thermoplastic material and is welded using High Frequency or Heat Contact welding. No glue or any other adhesive will be used in the manufacturing of PU-UF3 products.

PU-UF3 is tested to be safe to use in ATEX zones 20, 21 and 22.  
Electrostatic properties have been tested and reported by independent laboratories.  
Filcoflex would happily provide all documentation



### Materials

- **PU-UF3** 1,0mm transparent / opaque food contact compliant, explosion safe Poly Urethane  
Standard for each inflatable bulk bag seal  
Next to the standard PU-UF3 material there are a few more alternative materials:
- **PUW1** 1,0mm solid white food contact compliant poly urethane
- **PU-AS1** 1,0mm transparent static dissipative food contact compliant poly urethane

### Food Safety and Certification

---

Every PBS is made out of the Filcoflex poly urethane film PU-UF3 as a standard.

PU-UF3 is safe to use for repetitive contact with food according to main international food contact safety regulations as well as explosion safety guidelines.

PU-UF3 being a polyurethane film is a non-porous material which makes it far more hygienic than any rubber material. The color is translucent / transparent which allows to see inside the 3 layers and inspect visually if there is any contamination between the 3 layers of poly urethane which may form any risk to the high quality product passing through to the container or big bag.

Poly urethane films do not become brittle and the surface does not crack due to exposure to light, UV, temperature or other influences that may affect most rubber seals making it superior for hygienic use.



- United States Food contact safety regulations FDA 21 CFR
  - o 175.105
  - o 177.1680
  - o 177.2600



- European Food contact safety regulations
  - o (EC) 1935/2004
  - o (EC) 10/2011
  - o (EC) 2023/2006



- Chinese Food Contact regulations
  - o GB 4806.7 – 2016
  - o GB 5009.156
  - o GB 31604.1 – 2015
  - o GB 4806.6 – 2016
  - o GB 9685 – 2016

PU-UF3 contains no PVC, Phthalates, Animal derived components, Bisphenol, Silicone, Latex or heavy metals and do not contain any substances listed under REACH regulations.

Please contact us to receive the full safety datasheets, certificates, compliancy declarations, migration testing reports, explosion safety testing reports.