



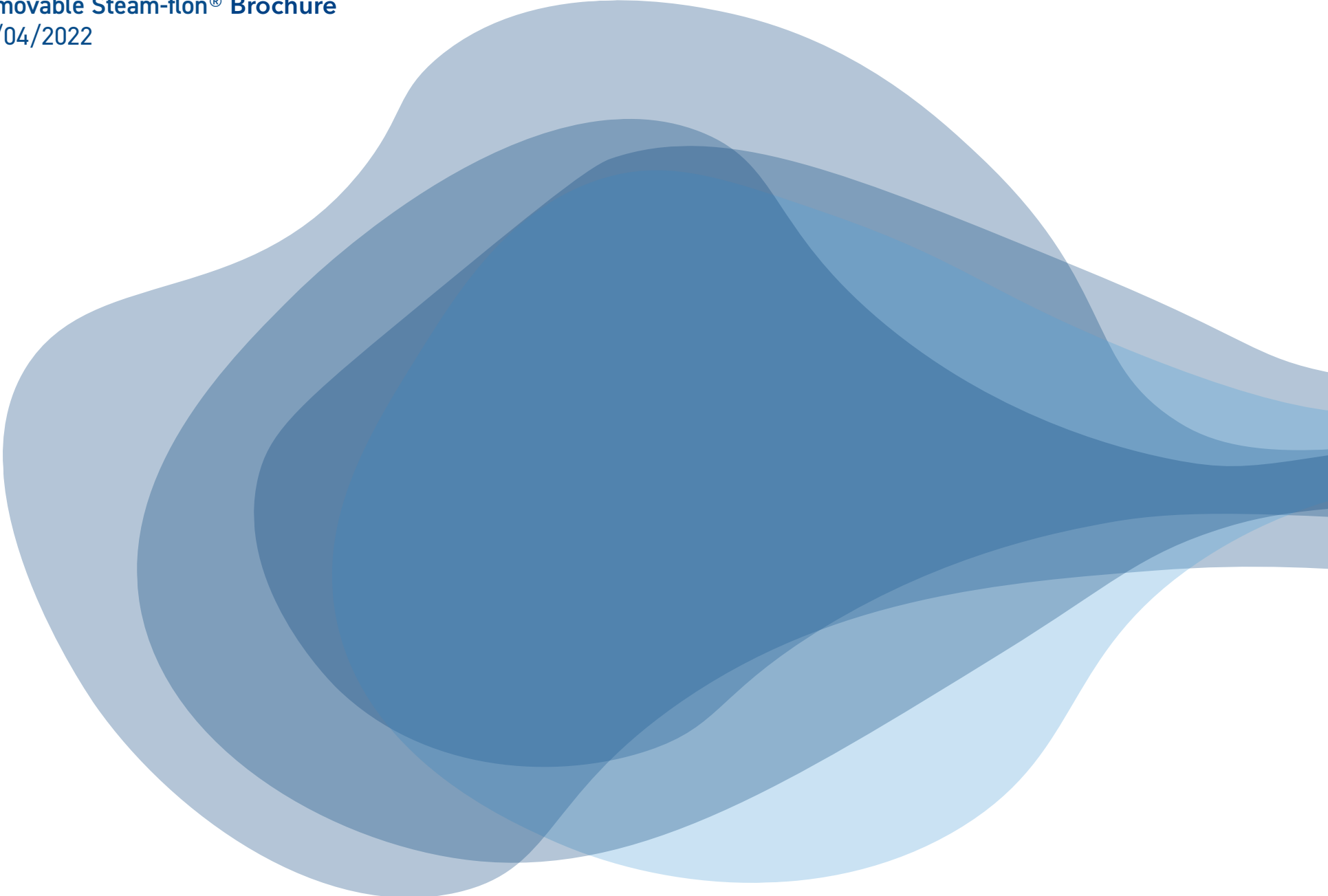
# UP

## Removable Steam-flon®

Property of Ultrapharma BV

PHARMASEP

Always by your side



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## 1. Materials



Steam-Flon® is a registered trademark of Ultrapharma BV

Ultrapharma has developed "Steam-Flon®" for sanitary gaskets and some special products. This material is a unique blend of non pigmented PTFE and 316L stainless steel powder.

The mechanical properties of this compound are very interesting, because it eliminates the cold flow problems we experience with for example virgin PTFE. Cold flow is the term we use for movement of plastic under permanent load/stress, a state that is used with static seals. At elevated temperatures cold flow increases. Material of the gasket is slowly moving towards the inside of the fitting and creates a bead. This bead leads to flow restriction and is a potential area for particles/bacterial entrapment. The Steam-Flon® material takes the cold flow out of the equation, creating a very stable seal with no leaks even at large temperature fluctuations.

DIN32676 Series A  
DIN32676 Series B (ISO1127)  
DIN32676 Series C (ASME BPE)  
SMS3017

Steam-Flon® Biological Compliance:

Material:	PTFE/316L
Compound number:	CMD-1019
Color:	Brownish
Temperature range:	-212°C to 288°C
Meets:	FDA CFR 177.1550 USP Class VI-121°C USP<661> EC 10/2011

## Removable Steam-Flon®

The removable Steam-Flon® is a gasket that we developed because of these unique mechanical properties. The gasket is made out of two mating parts. In between these two parts you can place any kind of product as long as it is not thicker than 1,00 mm. Products like orifice plates, screens and perforated discs can be used.



If we want to install an orifice plate with a thickness of 1,00 mm we use the above setup with two mating parts with both a 0,50 mm chamber. These two chambers total up to 1,00 mm. Carefully locate the center chamber and place the orifice plate inside and click the two gasket chambers together so they lock. Ready to use.

Some screens are much thinner, a 40 mesh screen is  $\pm 0,50$  mm thick, therefore we designed a top part with no chamber. See Top Part II above. Same installation.



The removable Steam-Flon® gasket can be dismantled after use, cleaned and reassembled again without any problem. Perfect if a screen needs to be cleaned. Orifice plates can be exchanged rapidly. Sock screens which cannot be supplied with PTFE seal can now be equipped with a Steam-Flon® seal. See front page. Rupture disc gaskets are difficult to replace. With the use of the removable Steam-Flon® (special) gaskets it becomes an easy task to perform. Ask us for available options. Photo on the right is an example.

### Supply

We offer removable Steam-Flon® as a complete product, assembled with plate or screen. We can also supply just the removable Steam-Flon® gasket by itself, which means three gasket parts, you can make all possible combinations. The bottom-part with flange and 0,5 mm chamber, the top-part with 0,5 mm chamber and the top-part without the chamber. Typical screens for removable Steam-Flon® are: 10, 20, 40, 60, 80, 100 mesh in 316SS and 316L on special request. Fine mesh screens down to the 10 $\mu$ m range are so called double mesh screens with a sintered support mesh for strength, these are all 0,80 mm thick. Orifice plates are supplied in 316L. All metal items can be supplied with EN10204-3.1 certification. Removable Steam-Flon is also available in DIN11851 series.

## 2. Available sizes

DIN32 676 Series A  
 DIN32 676 Series B  
 DIN32 676 Series C  
 = = =  
 DIN  
 ISO  
 „

DN Size		Flange Size			Chamber Ø	Rec. Torque
DN12	25 mm				19 mm	1,5 Nm
DN16	25 mm				19 mm	1,5 Nm
DN18	25 mm				19 mm	1,5 Nm
1/2"	25 mm				19 mm	1,5 Nm
3/4"	25 mm				19 mm	1,5 Nm
DN10 DIN+ISO		34 mm			29 mm	2,5 Nm
DN15 DIN+ISO		34 mm			29 mm	2,5 Nm
DN20 DIN+ISO		34 mm			29 mm	2,5 Nm
DN15 ISO			50,5 mm		44 mm	5,0 Nm
DN20 DIN+ISO			50,5 mm		44 mm	5,0 Nm
DN25 DIN+ISO+SMS			50,5 mm		44 mm	5,0 Nm
DN33,7 SMS			50,5 mm		44 mm	5,0 Nm
DN32 DIN+ISO			50,5 mm		44 mm	5,0 Nm
DN38 SMS			50,5 mm		44 mm	5,0 Nm
DN40 DIN			50,5 mm		44 mm	5,0 Nm
1"			50,5 mm		44 mm	5,0 Nm
1,5"			50,5 mm		44 mm	5,0 Nm

		DN Size	Flange Size		Chamber Ø	Rec. Torque	
DIN32 676 Series A DIN32 676 Series B DIN32 676 Series C  = = =  DIN ISO "		DN32 ISO			64 mm	57 mm	6,0 Nm
		DN40 ISO			64 mm	57 mm	6,0 Nm
		DN50 DIN			64 mm	57 mm	6,0 Nm
		DN51 SMS			64 mm	57 mm	6,0 Nm
		2"			64 mm	57 mm	6,0 Nm
		DN50 ISO		77,5 mm		72 mm	10,0 Nm
		DN63,5 SMS		77,5 mm		72 mm	10,0 Nm
		2,5"		77,5 mm		72 mm	10,0 Nm
		DN65 DIN+ISO		91 mm		84 mm	6,0 Nm
		DN76,1 SMS		91 mm		84 mm	6,0 Nm
		3"		91 mm		84 mm	6,0 Nm
		DN80 DIN+ISO+SMS	106 mm			97 mm	10,0 Nm
		DN100 DIN + 4" + DN101,6 SMS		119 mm		110,4 mm	10,0 Nm
		6"			167 mm	156,9 mm	12,0 Nm

**Recommended Torque**  
The removable Steam-Flon® is a product that we designed to be reused, therefore we recommend the Torque guide line for your convenience: as per the last column in table above.

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**Recommended Clamp**  
To secure a leak tight connection with Removable Steam-Flon® gaskets we recommend using the 13HMP clamp. This is the double bolted clamp.

### 3. Orifices plates with tab

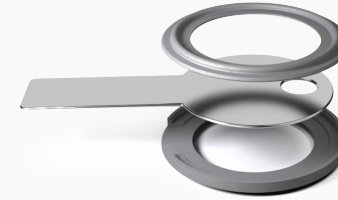
Tabs are a helpful feature to visualize the presence of an orifice plate “in line” easy to recognize from the outside. Text can be laser engraved on the tab indicating hole size for example. The tab is very useful when positioning a plate with an eccentric self-draining hole.

We always drill the hole opposite the tab, so the tab always points up.

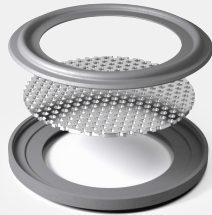
#### Available Sizes

1/2" through 6" (TC 25 -TC 167)

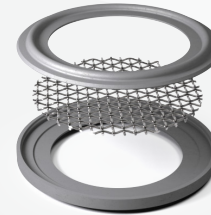
DIN32676 A, B, C same TC diameters



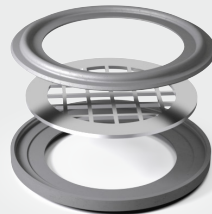
### 4. Available options



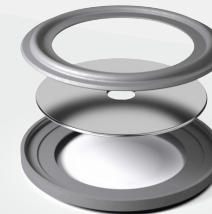
Perforated plates with 0,80 - 3,00 mm holes



Wire screen in many different mesh sizes



Laser cut from 316L plate coarse 4 & 6 mesh screens



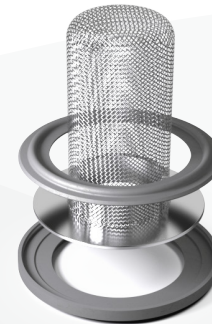
Orifice plates can randomly be drilled by removing them from the gasket



Orifice plates with tab, for laser engraving and identification



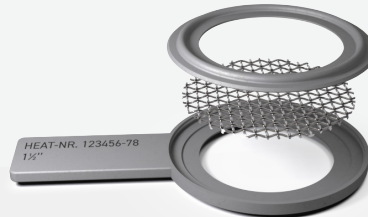
Vertical Orifice plates



Sock Screens now available with Steam-Flon® gasket

## 5. Under development

Removable Steam-flon with molded Steam-flon tab.



Previously a tabbed removable Steam-flon gasket was available in only one configuration, because the original-tab is attached to the orifice plate. With a molded Steam-flon tab attached to the gasket, every configuration of the regular Steam-flon removable is now possible.

Another advantage is that a wrong installation simply is not possible because the tab does not go through the gasket. A closed gasket lowers the chances of a leakage and requires less torque to be installed correctly, which extends the lifespan of the gasket.

**PHARMASEP**

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