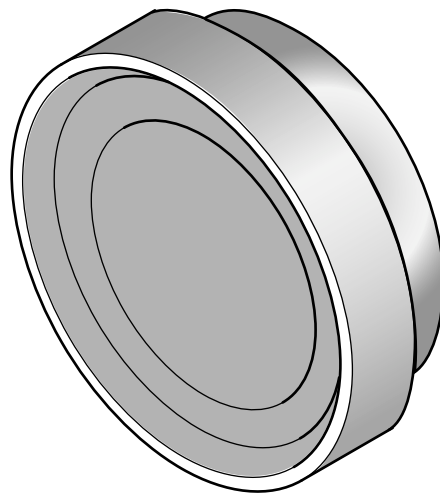




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DES00076

# User manual

## 60 and 70 mm Bellcups and Shaping air assemblies

FRANCE

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# 60 and 70 mm Bellcups and Shaping air assemblies

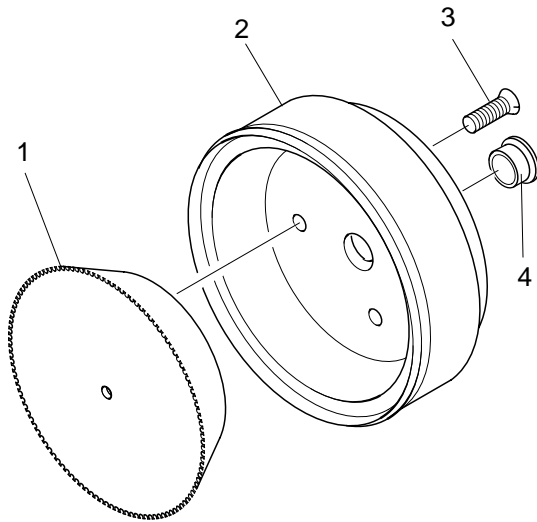
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## 1. Recommendations

For perfect results, the atomizing bellcup must be cleaned frequently and must not be subjected to impacts on its atomizing edge or distorted.

## 2. Description

Bellcups are the components that make it possible to atomize paint. They are fixed to the magnetic bearing turbine by a clip.



1	Flange
2	Bellcup
3	Flange retaining screw
4	Ring

DES01599

They are designed to atomize all types of paint. The type of bellcup is selected according to the product to be atomized.

Type of bellcup	Type of paint
60 mm Negative edge bellcup	Water-borne or solvent-based primer
	Water-borne or solvent-based solid or metallic colours
60 mm Serrated bellcup with radius	Water-borne or solvent-based primer
	Solvent-based or binary clear coats
	Lacquer coatings
	Lacquer + clear coat stations
60 mm Serrated bellcup with radius, type vortex	Solvent-based or binary clear coats
	Lacquer coatings
	Lacquer + clear coat stations
Super round bellcup	Solvent-based or binary clear coats
	Lacquer coatings
	Lacquer + clear coat stations
70 mm Serrated bellcup with radius, type vortex	Re-blushing of metallic colours

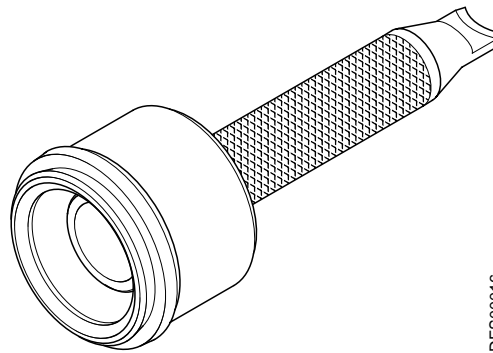
### 3. Characteristics

	Diameter	Thickness	Weight
60 mm Negative edge Bellcup	60 mm	20 mm	from 53 to 65 g
60 mm Serrated bellcup with radius	60 mm	20 mm	from 53 to 65 g
60 mm serrated bellcup with radius, type vortex	60 mm	20 mm	from 53 to 65 g
Super round bellcup	60 mm	20 mm	from 53 to 65 g
70 mm serrated bellcup with radius, type vortex	70 mm	20 mm	from 53 to 65 g

### 4. Diagrams

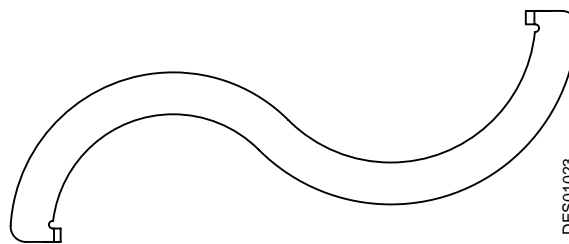
Not applicable.

### 5. Tools



DES00016

Part number	Description	Qty	Unit of sale
756491	Tool for removing 60 mm bellcup	1	1
1501967	Tool for removing 70 mm bellcup	1	1



DES01023

Référence	Description	Qté	Unité de vente
1308689	Outil de montage / démontage jupe extérieure	1	1

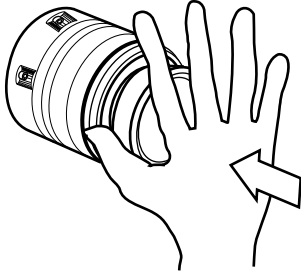
### 6. Operation

Not applicable.

## 7. Installation



**WARNING :** For any operation on the bellcup, wear rubber gloves to protect your hands from the sharp edges of the bellcup.



The bellcup can be fitted without special tools:

- Place the bellcup in the centre of the clip.
- With the palm of the hand, press firmly until a click is heard.

**Note:** To test the bellcup, supply bearing air and check the concentricity of rotation by turning the bellcup by hand.

DES01067

## 8. Adjustment

Not applicable.

## 9. Maintenance

### 9.1. Bellcup

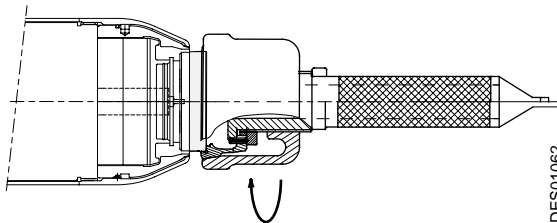


**WARNING :** For any operation on the bellcup, wear rubber gloves to protect your hands from the sharp edges of the bellcup.



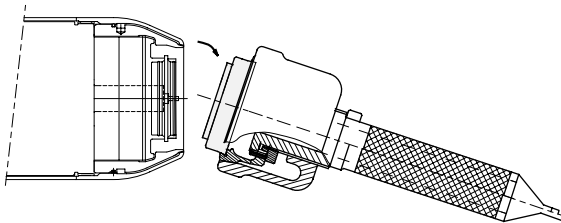
**WARNING :** It is essential to cut-off the bearing air supply before starting any operation.

#### 9.1.1. Removal of the Bellcup with the outer cover in place



DES01062

- Switch off the high voltage supply.
- Place the opened clamp close on the bellcup and rotate to lock the bellcup in the clamp.
- With one hand hold the handle, and with the other tighten the clamping nut.



DES01063

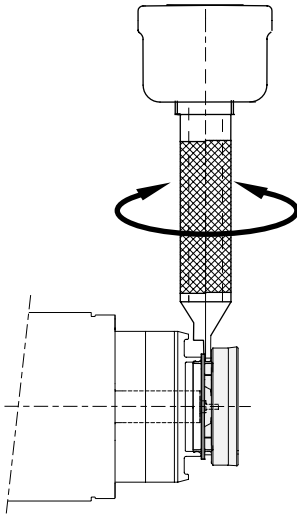
- Push in a direction perpendicular to the axis of the tool to free the bellcup from its clip.

### 9.1.2. Removal of the Bellcup with the outer cover removed



**WARNING :** When no outer cover is fitted to the atomizer, the bellcup must not be fitted as described above, since this could damage the magnetic air bearing turbine.

The bellcup must be dismantled as follows:



DES01065

- Switch off the high voltage supply.
- Place the thin end of the bellcup removing tool between the bellcup and the clip.
- Hold the bellcup with the other hand.
- Depending on the tool axis, turn the tool to the right or left to free the bellcup from its clip.
- Free the bellcup manually.

### 9.1.3. Refitting the Bellcup



**WARNING :** For any operation on the bellcup, wear rubber gloves to protect your hands from the sharp edges of the bellcup.



**WARNING :** Before refitting, clean off all traces of paint from the bellcup and its supporting surfaces.

No tool is necessary to refit the bellcup, in this case, proceed as follows:

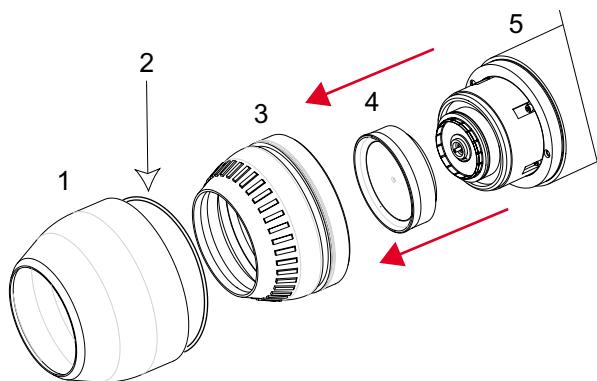
- Present the bellcup by centring it in the turbine clip.
- Press firmly with the palm of the hand.
- Make sure the bellcup is pressed fully home, a slight click should be heard.
- Make sure (with bearing air only), that the bellcup turns concentrically when spun by hand.

## 9.2. Outer cover and shaping air shroud

### 9.2.1. Removal



**WARNING :** Before any operation, switch off the high voltage supply.

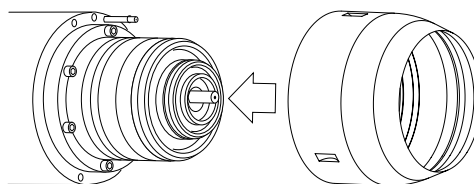


DES02221

Item	Description	Qty
1	Outer cover	1
2	O-ring	1
3	Shaping air shroud	1
4	Bellcup	1
5	Clip	1

**Note:** With a 60 mm bellcup, the outer cover can be removed with or without the bellcup installed, but cannot be removed with the 70 mm bellcup.

- Place wrench notches (P/N: 1308689) into outer cover slots. Turn counter clock wise and continue removing by hand.
- Hold the cover firmly in both hands and pull, parallel to the axis of the atomizer.
- Remove the shaping air shroud being careful, not to damage the o-ring of the solvent pipette.



DES01721



### 9.2.2. Assembly

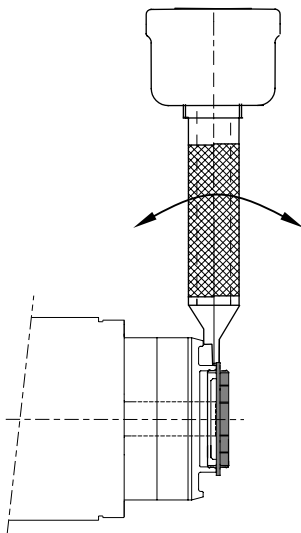
- Check the solvent pipette o-ring. Align the shaping air shroud equipped with its o-ring to the shaping air pin and to the solvent pipette. Push until contact is made with the turbine.
- Install the outer cover over the shaping air shroud and tighten by hand then tighten with the tool the tool (P/N.: 1308689).

### 9.3. Replacing the Clip



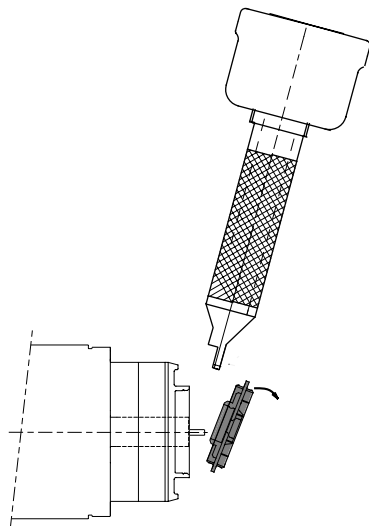
**WARNING :** It is essential to cut-off the bearing air supply before starting any operation. Furthermore, the shaping air assy must be dismantled.

#### 9.3.1. Disassembly



DES01068

- Switch off the high voltage supply.
- Dismantle the bellcup ([see § 9.1.1 page 6](#)).
- Remove the outer cover.
- Remove the shaping air shroud.
- Insert the tool between the turbine and the clip, the shoulder must be placed on the turbine side.
- Turn the tool using its shoulder and the turbine as a bearing point.



DES01069

- Free the clip from the turbine by turning the tool at right angles, taking special care to hold the clip with the other hand.

### 9.3.2. Reassembly

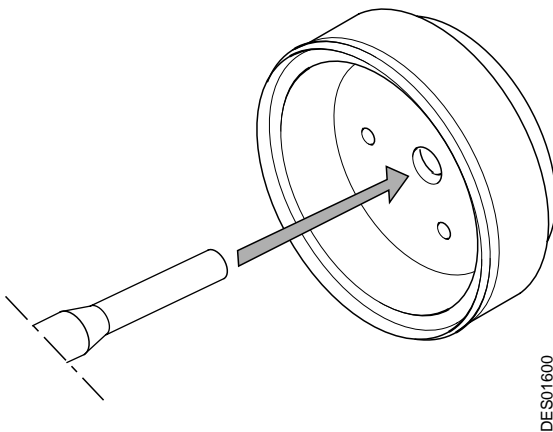


**WARNING :** Before reassembly, clean off all traces of paint. Do not turn the clip without the bellcup, as this could distort the clip, which then might no longer hold the bellcup in place.

- Place the new clip on the turbine, carefully centred.
- Press hard with the palm of the hand.
- Make sure the bellcup is pressed fully home: a slight click should be heard.

## 9.4. Replacement of the Teflon Ring

### 9.4.1. Disassembly



- Dismantle the bellcup ([see § 9.1 page 6](#)).
- Unscrew the 3 flange-retaining screws.
- Remove the flange from the bellcup.
- Using a drift punch corresponding to the diameter of the ring, drive the ring from the front to the back of the bellcup in order to extract it.

### 9.4.2. Reassembly

- Using a cloth soaked in solvent, clean the surfaces of the bellcup and the ring
- Clip the ring on the bellcup
- Re-fit the flange to the bellcup using the three screws M 2 x 6 .



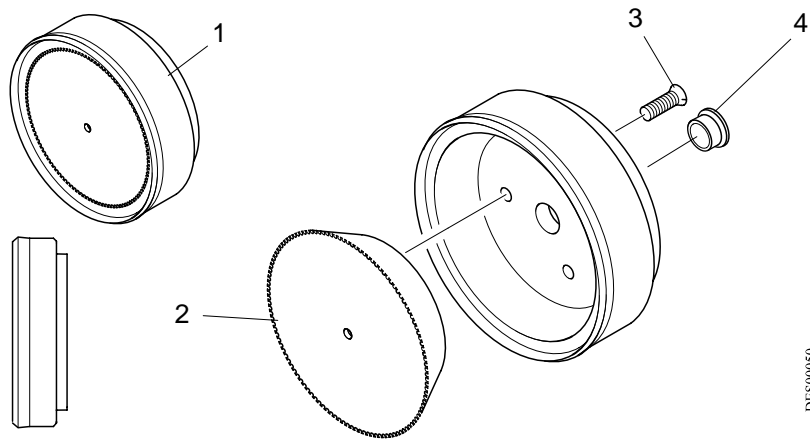
**WARNING :** The tightening torque for the 3 screws is 0,35N.m and is obtained using a torque screwdriver.

## 10. Fault Finding

Not applicable.

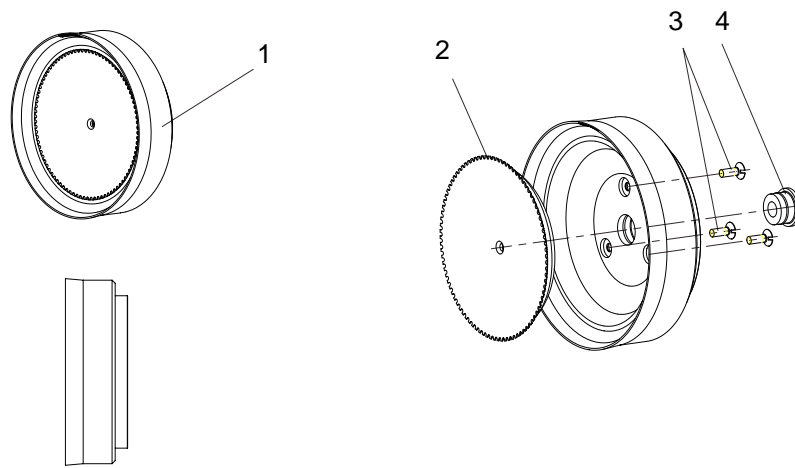
## 11. Spare Parts

### 11.1. 60 mm Negative edge Bellcup



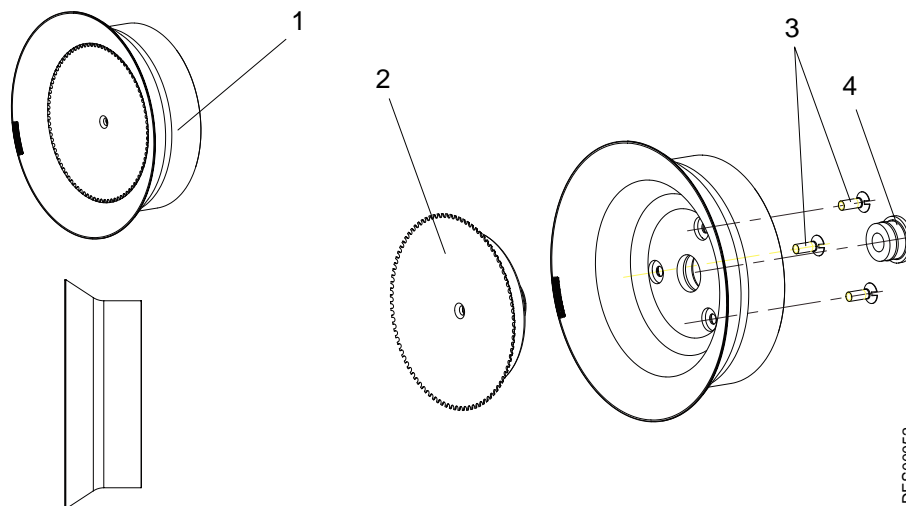
Item	Part number	Description	Qty	Unit of sale	First Emergency	Consumable
1	858665	60 mm Negative edge bellcup	1	1	X	
2	821763	Aluminium bellcup flange	1	1	X	
3	X4FVFP024	Screw F/90 M 2 x 6 stainless steel	3	1		
4	544839	Teflon ring	1	1	X	

### 11.2. 60 mm Serrated Bellcup



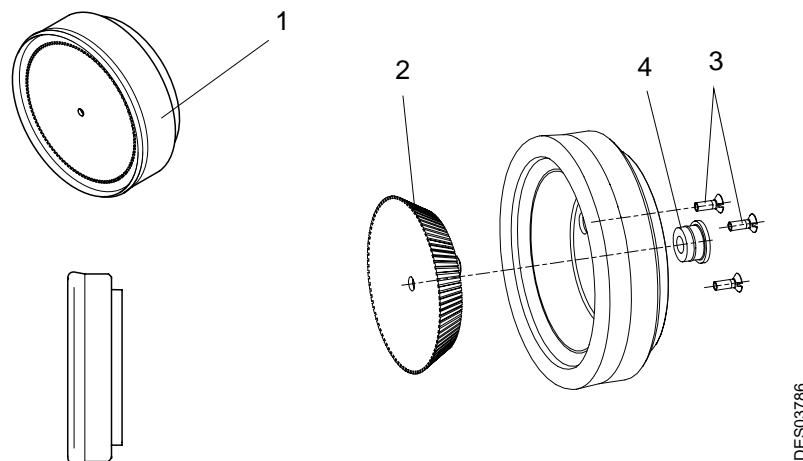
Item	Part number	Description	Qty	Unit of sale	First Emergency	Consumable
1	1527060	60 mm serrated Bellcup	1	1	X	
2	1204250	Aluminium bellcup flange	1	1	X	
3	X4FVFP024	Screw F/90 M 2 x 6 stainless steel	3	1		
4	544839	Teflon ring	1	1	X	

### 11.3. 60 mm serrated Bellcup with radius, type vortex



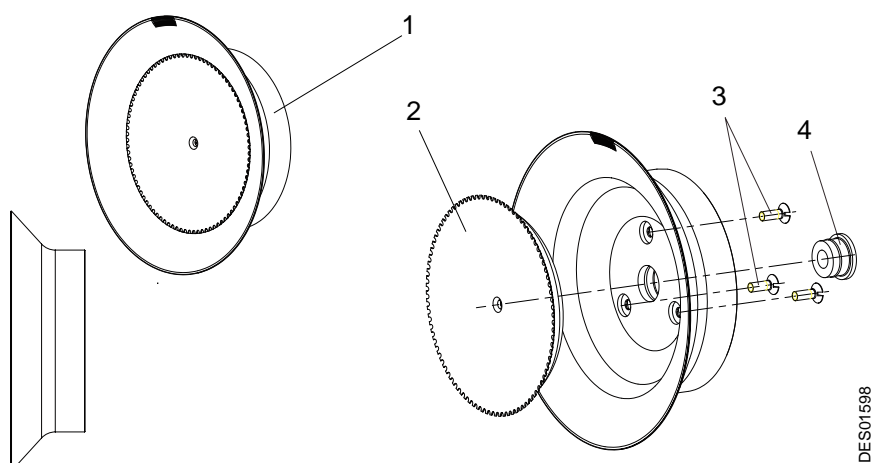
Item	Part number	Description	Qty	Unit of sale	First Emergency	Consumable
1	1517063	60 mm serrated Bellcupwith radius, type vortex	1	1	X	
2	1200958	Aluminium bellcup flange	1	1	X	
3	X4FVFP024	Screw F/90 M 2 x 6 stainless steel	3	1		
4	544839	Teflon ring	1	1	X	

### 11.4. 60 mm Super round bellcup



Item	Part number	Description	Qty	Unit of sale	First Emergency	Consumable
1	853588	Bellcup with super round edge and delrin flange	1	1	X	
2	821234	Delrin bellcup flange	1	1	X	
3	X4FVFP024	Screw F/90 M 2 x 6 stainless steel	3	1	-	-
4	544839	Teflon ring	1	1	X	

### 11.5. 70 mm serrated Bellcup, type vortex



Item	Part number	Description	Qty	Unit of sale	First Emergency	Consumable
1	910000554	70 mm Serrated Bellcup type vortex	1	1	X	
2	1204250	Aluminium bellcup flange	1	1	X	
3	X4FVFP024	Screw F/90 M 2 x 6 stainless steel	3	1		
4	544839	Teflon ring	1	1	X	

### 70 mm Serrated Bellcup with radius, type vortex with aluminium flange and titanium pins

Item	Part number	Description	Qty	Unit of sale	First Emergency	Consumable
1	910003572	70 mm Serrated Bellcup type vortex	1	1	X	
2	900002689	Aluminium bellcup flange	1	1	X	
3	X4FVFP024	Screw F/90 M 2 x 6 stainless steel	3	1	-	-
4	544839	Teflon ring	1	1	X	

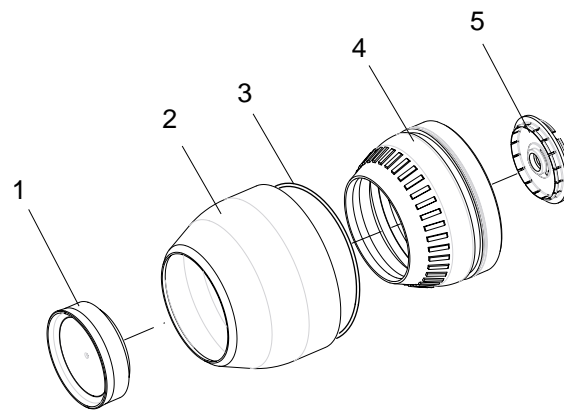
### 70 mm Serrated Bellcup with radius, type vortex with aluminium flange and titanium pins without rinsing

Item	Part number	Description	Qty	Unit of sale	First Emergency	Consumable
1	910001721	70 mm Serrated Bellcup type vortex	1	1	X	
2	1204561	Aluminium bellcup flange	1	1	X	
3	X4FVFP024	Screw F/90 M 2 x 6 stainless steel	3	1	-	-
4	544839	Teflon ring	1	1	X	

### 70 mm Serrated Bellcup with radius, type vortex with aluminium flange, titanium pins, 2 holes for rinsing

Item	Part number	Description	Qty	Unit of sale	First Emergency	Consumable
1	910003156	70 mm Serrated Bellcup type vortex	1	1	X	
2	900001515	Aluminium bellcup flange	1	1	X	
3	X4FVFP024	Screw F/90 M 2 x 6 stainless steel	3	1	-	-
4	544839	Teflon ring	1	1	X	

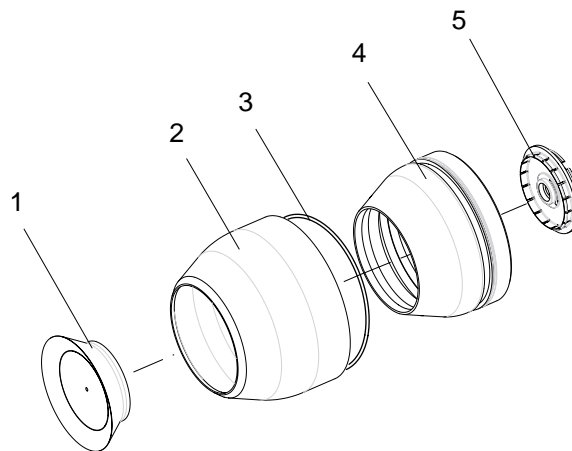
### 11.6. 60 mm Bellcup and shaping air assy



DES02245

Item	Part number	Description	Qty	Unit of sale	First Emergency	Consumable
	<b>910000770</b>	<b>Kit, bellcup + shaping air assy + clip</b>	<b>1</b>	<b>1</b>	<b>X</b>	
<b>1</b>	<b>1527060</b>	<b>60 mm Serrated bellcup</b> <a href="#">see § 11.2 page 11</a>	<b>1</b>	<b>1</b>	<b>X</b>	
2	1200804	Outer cover	1	1	X	
3	J2FENV622	O-ring (included in item 4)	1	1	X	
4	1100719	Plastic shaping air shroud	1	1	X	
5	1200134	Clip	1	1	X	

### 11.7. 70 mm Vortex Bellcup and shaping air assy 55°



DES02246

Item	Part number	Description	Qty	Unit of sale	First Emergency	Consumable
	<b>910000768</b>	<b>Kit, bellcup + shaping air assy + clip</b>	<b>1</b>	<b>1</b>	<b>X</b>	
<b>1</b>	<b>910000554</b>	<b>70 mm Serrated Bellcup with radius, type vortex</b> <a href="#">see § 11.5 page 13</a>	<b>1</b>	<b>1</b>	<b>X</b>	
2	1104255	Vortex outer cover	1	1	X	
3	J2FENV622	O-ring	1	1	X	
4	1100954	Shaping air shroud without notch	1	1	X	
5	1200134	Clip	1	1	X	