



## 5.0 VPS Powder Insert

Parts List  
PL 41024 EN 12



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## Spare Parts Categories

### **C = Consumable Parts**

Parts subjected to major wear during normal operation. These parts require replacement on a regular basis.

Recommended in order to avoid downtimes.

### **W = Wear Parts**

Parts used for maintenance service. These parts are likely and expected to wear out during the life of the product.

Wear parts are not subject to warranty.

### **K = Critical Parts**

Parts recommended in order to guarantee maximum availability of component. This prevents downtime caused by delay in procurement.



### **Warranty Disclaimer**

Installing non-Oerlikon Metco spare parts on Oerlikon Metco equipment voids the product warranty.

# 1 Configurations of the 5.0 VPS Powder Inserts

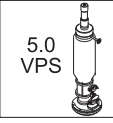
## 1.1 Designation system

Example of a configuration

Volume	Process (V = VPS)	Stirrer	Drive	Damper	Suction unit holder	Metering disk	Suction unit	Spreader	Heating
5.0L-	V	1	5	S	4	16/1.2S	C2	C1	T

## 1.2 Available configurations

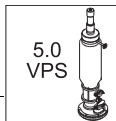
Art. No.	Code	Stirrer	Drive	Damper	Suction unit holder	Metering disk	Suction unit	Spreader	Heating
1006609	5.0L-V15S-4-16/1.2S-C2C1-T	1	5	S	4	16/1.2S	C2	C1	T
	For powder feeder	1003160	1089541	1003254	1003163	1003232	1003283	1003282	1003167
	Single-/Twin-120-V,	Standard	28.12:1	Standard	for valve (VPS-LVPS)	16 / 1.2 steel	16 / 1.2 / NL	16 / 1.2 / NL	500 W
	Single-220-V								
1008238	5.0L-V15S-4-16/1.2S-A1A2-T	1	5	S	4	16/1.2S	A1	A2	T
	For powder feeder	1003160	1089541	1003254	1003163	1003232	1003264	1003261	1003167
	Single-/Twin-120-V,	Standard	28.12:1	Standard	for valve (VPS-LVPS)	16 / 1.2 steel	16 / 1.2 / L	16 / 1.2 / L	500 W
	Single-220-V								
1008239	5.0L-V35D-4-16/1.2S-A1A2-T	3	5	D	4	16/1.2S	A1	A2	T
	For powder feeder	1003161	1089541	1003257	1003163	1003232	1003264	1003261	1003167
	Single-/Twin-120-V,	with 8 paddles	28.12:1	3CU	for valve (VPS-LVPS)	16 / 1.2 steel	16 / 1.2 / L	16 / 1.2 / L	500 W
	Single-220-V								
1008240	5.0L-V35S-4-16/1.2S-C2C1-T	3	5	S	4	16/1.2S	C2	C1	T
	For powder feeder	1003161	1089541	1003254	1003163	1003232	1003283	1003282	1003167
	Single-/Twin-120-V,	with 8 paddles	28.12:1	Standard	for valve (VPS-LVPS)	16 / 1.2 steel	16 / 1.2 / NL	16 / 1.2 / NL	500 W
	Single-220-V								
1008241	5.0L-V35D-4-16/1.2S-E1D1-T	3	5	D	4	16/1.2S	E1	D1	T
	For powder feeder	1003161	1089541	1003257	1003163	1003232	1003290	1003293	1003167
	Single-/Twin-120-V,	with 8 paddles	28.12:1	3CU	for valve (VPS-LVPS)	16 / 1.2 steel	16 / 1.2 / 601	16 / 1.2 / NL / 55°	500 W
	Single-220-V								
1100378	5.0L-V15S-4-16/1.2A-C2B2-T	1	5	S	4	16/1.2A	C2	B2	T
	For powder feeder	1003160	1089541	1003254	1003163	1003295	1003283	1003292	1003167
	Single-/Twin-120-V,	Standard	28.12:1	Standard	for valve (VPS-LVPS)	16/1.2 arnite	Standard	16 / 1.2 / L / 55°	500 W
	Single-220-V						16 / 1.2 / NL		



Art. No.	Code	Stirrer	Drive	Damper	Suction unit holder	Metering disk	Suction unit	Spreader	Heating
1100380	5.0L-V15S-4-16/1.2S-C2B2-T	1	5	S	4	16/1.2S	C2	B2	T
	For powder feeder	1003160	1089541	1003254	1003163	1003232	1003283	1003292	1003167
	Single-/Twin-120-V,	Standard	Standard	Standard	for valve (VPS-LVPS)	Standard 16 /	Standard	16 / 1.2 / L / 55°	500 W
	Single-220-V	28.12:1	28.12:1			1.2 steel	16 / 1.2 / NL		
1100051	5.0L-V35D-4-16/1.2S-E1E1-T	3	5	D	4	16/1.2S	E1	E1	T
	For powder feeder	1003161	1089541	1003257	1003163	1003232	1003290	1003291	1003167
	Single-/Twin-120-V,	with 8 paddles	Standard	3CU	for valve (VPS-LVPS)	Standard 16 /	16 / 1.2 / 601	16 / 1.2 / 601	500 W
	Single-220-V	28.12:1	28.12:1			1.2 steel			

## 2 List of recommended spare parts

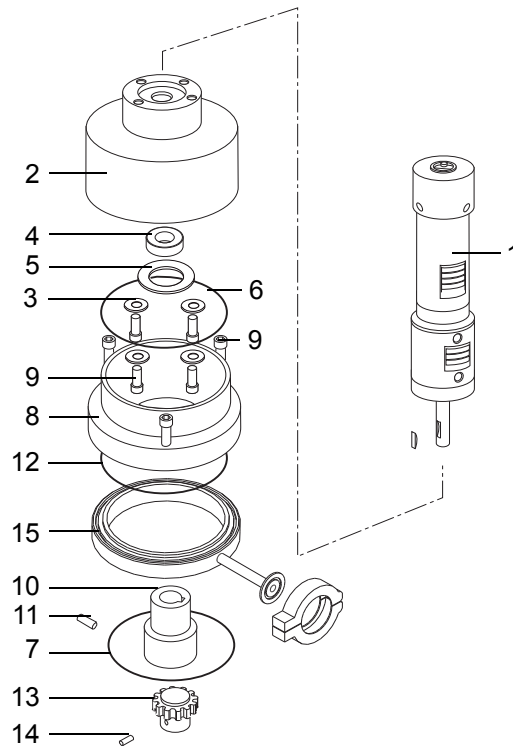
Pos.*	Designation	Qty.	Cat.	Art. No.	
1	Stirrer drive	1	K	See page 6	
10	Tooth clutch	1	C	1003203	
	Suction unit	1	C	See page 13	
	Spreader	1	C	See page 13	
	Metering disk	1	C	See page 13	
52	Dust seal 20 x 28 x 7	1	C	1003213	
	O-ring set for 5.0 VPS Powder Insert	includes:	10	W	1069772
6	O-ring NBR 85.32 x 3.53 mm 75SH	2		1003221	
7	O-ring Viton 109.5 x 3 mm	2		1003168	
12	O-ring NBR 92 x 2 mm 75SH	4		1003220	
25	O-ring NBR 85 x 5 mm 70SH	2		1003218	
32, 51	O-ring NBR 52 x 2 mm 75SH	2		1003222	
40	O-ring NBR 164.47 x 5.33 mm 75SH	2		1003217	
42	O-ring NBR 19 x 3 mm 75SH (for gas injector, powder feeder)	2		1003281	
43	O-ring NBR 26 x 3 mm 75SH (for gas injector, powder feeder)	2		1003280	
56	O-ring NBR 42 x 1.5 mm 70SH	2		1003287	
62	O-ring NBR 37.1 x 1.6 mm	2		1003286	
48	O-ring 18 x 5 mm	2		1003143	



\* For illustration see following pages

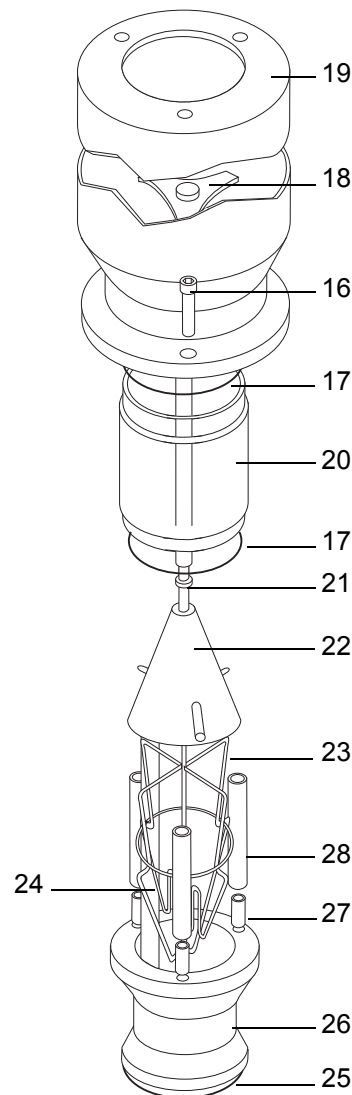
### 3 Parts list

#### 3.1 Powder container



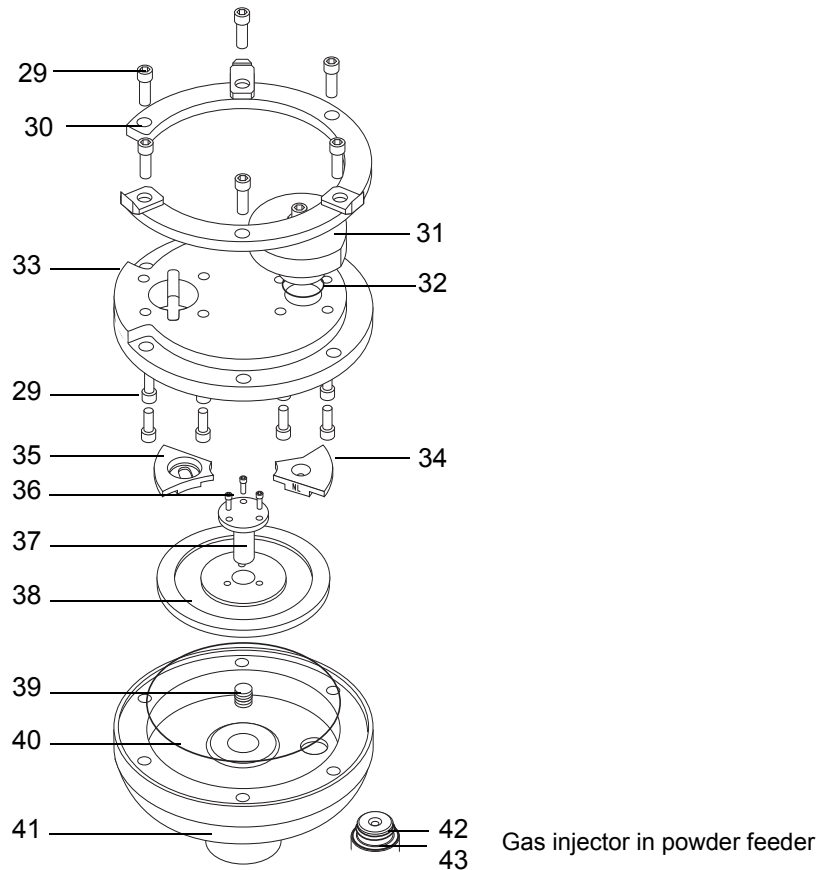
Pos.	Designation	Qty.	Art. No.
1	Standard drive 28.12 : 1 (MC 120) (for Single-/Twin-120-V, Single-220-V powder inserts)	1	1089541
2	Powder feeder lid	1	1003259
3	Washer seal ring polyamide M5	4	1013819
4	Seal 12 x 28 x 7	1	1020024
5	Washer M16	1	1020165
6	O-ring 85.32 x 3.53 mm	2	1003221
7	O-ring 109.5 x 3 mm	1	1003168
8	Funnel tube	1	1003155
9	Socket head cap screw M5 x 25	7	1003269
10	Tooth clutch	1	1003203
11	Set screw M5 x 6	1	1003272
12	O-ring 92 x 2 mm	1	1003220
13	Pinion	1	1003202
14	Set screw M4 x 10	1	1003273
15	Flange for pressure equalizing 5 L VPS, complete incl.	1	1035682
	Flange with thread	1	1035309
	Adapter KF 16-18" 90°	1	1014689

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Pos.	Designation	Qty.	Art. No.
16	Socket head cap screw M5 x 12	3	1008339
17	O-ring 92 x 2 mm	2	1003220
18	Support complete	1	1003159
19	Powder container	1	1006611
20	Cylinder	1	1003157
21	Bushing	2	1003265
22	Damper		See page 14
23	Stirrer		See page 14
24	Riser	1	1003158
25	O-ring 85 x 5 mm	1	1003218
26	Outlet funnel	1	1003225
27	Set screw M5 x 20	3	1003274
28	Distance bolt	3	1003170

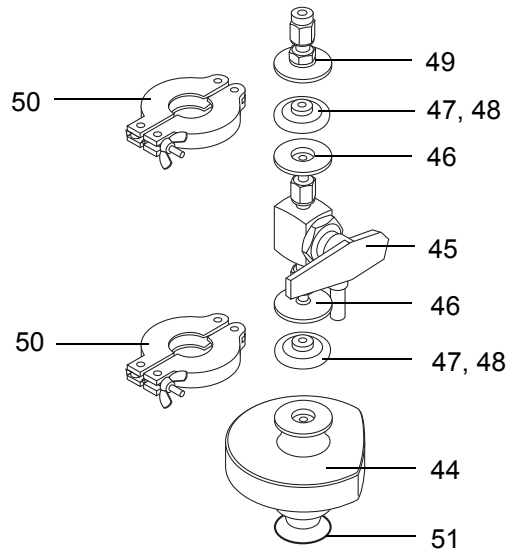
### 3.2 Metering unit



Pos.	Designation	Qty.	Art. No.	
29	Socket head cap screw M5 x16	14	1003270	
30	Steel ring with cam	1	1003249	
31	Extractor holder Ø 3.5 mm	1	1003226	
32	O-Ring 52 x 2 mm	1	1003222	
33	Cover plate	1	1003252	
34	Suction unit	1	See page 13	
35	Spreader	1	See page 13	
36	Countersunk hexagon socket screw M4 x 12	3	1003278	
37	Connection shaft	1	1003231	
38	Metering disk steel	1	See page 13	
39	Compression spring	1	1003214	
40	O-ring 164.47 x 5.33 mm	1	1003217	
41	Main housing	1	1003224	
42	O-ring 19 x 3 mm	(gas injector in powder feeder)	1	1003281
43	O-ring 26 x 3 mm	(gas injector in powder feeder)	1	1003280

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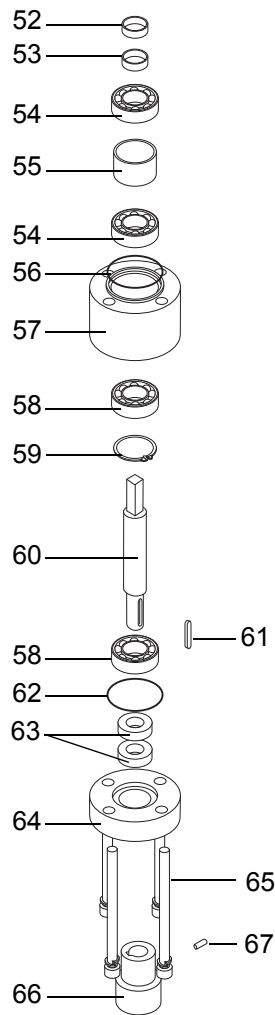




Pos.	Designation		Qty.	Art. No.
--	Suction unit holder with valve, complete	includes:	1	1008252
44	Suction unit holder		1	1003163
45	Stop valve		1	1006607
46	Flange		2	1003165
47	Centering ring		2	1003166
48	O-ring 18 x 5 mm		2	1003143
49	Flange D30 complete		1	1038663
50	Clamping ring		2	1003144
51	O-ring 52 x 2 mm		1	1003222

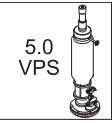
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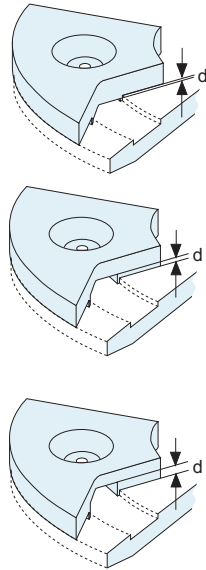
Pos.	Designation	Qty.	Art. No.
52	Dust seal 20 x 28 x 7	1	1003213
53	Spreader seal 20 x 28 x 4	1	1003212
54	Ball bearing 6004	2	1003209
55	Spacer	1	1004760
56	O-ring 42 x 1.5 mm	1	1003287
57	Extension block	1	1003229
58	Ball bearing 6002	2	1003210
59	Clip Ø 15	1	1003279
60	Drive shaft 15 x 95	1	1003246
61	Wedge 14 x 5 x 5	1	1003276
62	O-ring 37.1 x 1.6 mm	1	1003286
63	Shaft seal 15 x 30 x 7	2	1003242
64	Bearing cap	1	1003247
65	Socket head cap screw M5 x 60	4	1008338
66	Tooth clutch	1	1003200
67	Set screw M5 x 6	1	1003272



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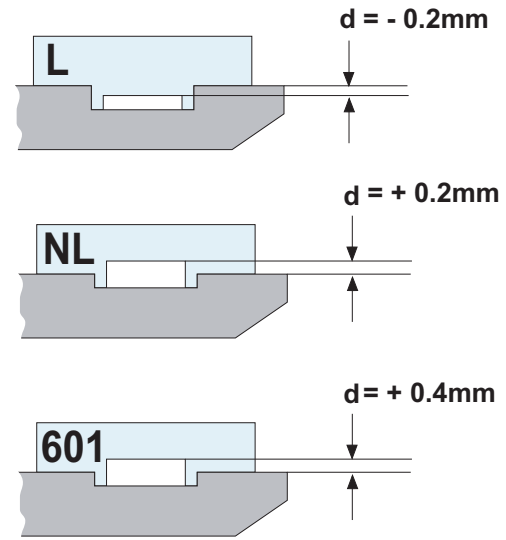
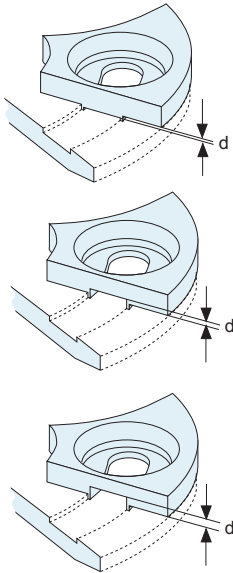
### 3.2.1 Suction units and spreaders

Suction unit

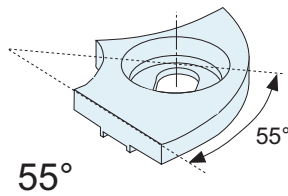


Height of groove

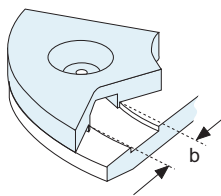
Spreader



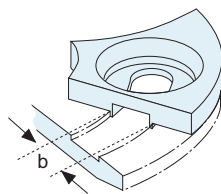
Height of groove L, NL, 601



Length of groove



Width of groove

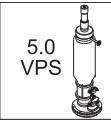


Width of groove

b = width of metering disk groove

### Suction units

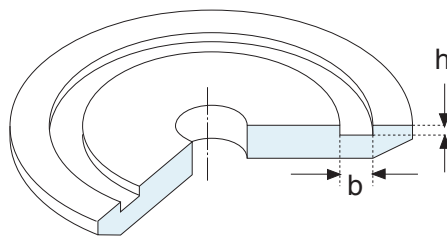
Designation	Dimension of groove	Type	Art. No.
A1	16 / 1.2	L	1003264
C2	16 / 1.2	NL	1003283
E1	16 / 1.2	601	1003290



### Spreaders

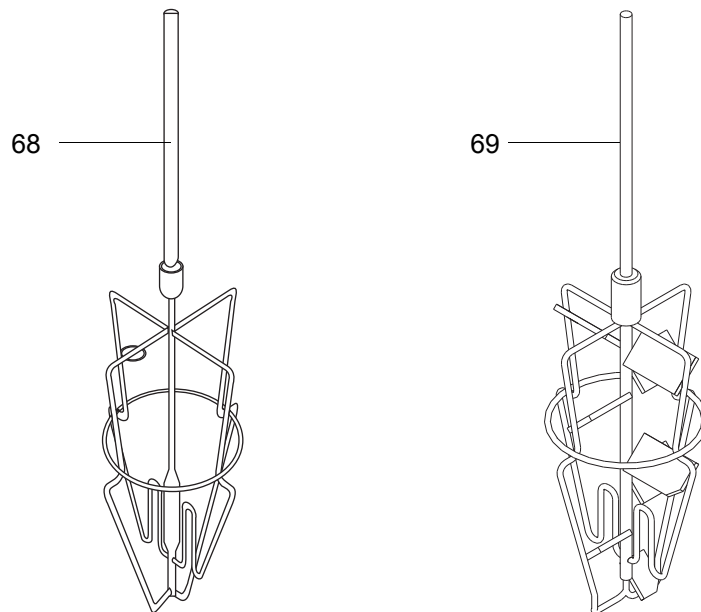
Designation	Dimension of groove	Type	Art. No.
A2	16 / 1.2	L	1003261
C1	16 / 1.2	NL	1003282
D1	16 / 1.2	NL / 55°	1003293
B2	16 / 1.2	L / 55°	1003292
E1	16 / 1.2	601	1003291

### 3.2.2 Metering disks



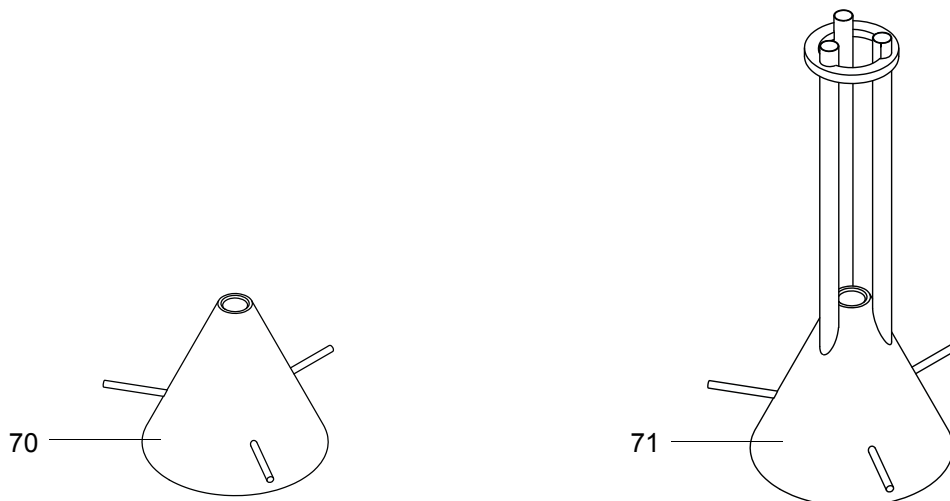
b	h	Material	Art. No.
16	1.2	Steel	1003232
16	1.2	Arnite	1003295

### 3.2.3 Stirrer



Pos.	Designation	Qty.	Art. No.
68	Stirrer standard 5.0 L	1	1003160
69	Stirrer with 8 paddles 5.0 L	1	1003161

### 3.2.4 Damper

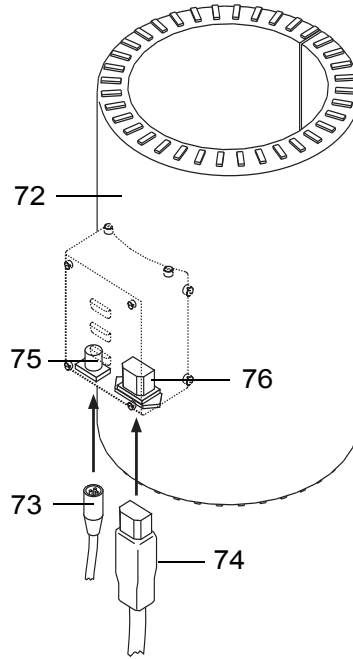


Pos.	Designation	Qty.	Art. No.
70	Damper standard	1	1003254
71	Damper with discharge pipe	1	1003257

**3.2.5 Heating jacket**

72 Heating jacket 5.0 Liter

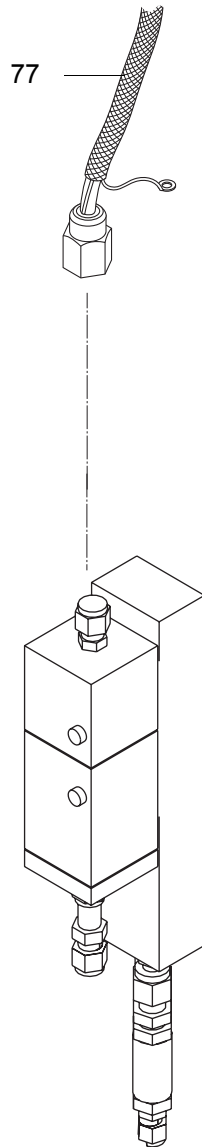
1003167



Pos.	Designation	Qty.	Art. No.
73	Plug for temperature sensor without cable	1	1003145
74	Plug straight without cable	1	1008230
75	Socket for temperature sensor	1	1006606
76	Socket 15 A 250 V	1	1008229

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### 3.3 Powder hoses



Powder Feeder  
TWIN-120-V  
SINGLE-120-V  
SINGLE-220-V

Pos.	Designation	Art. No.
77	Hose with copper shield	see Parts List Powder Feeder TWIN-120-V / SINGLE-220-V