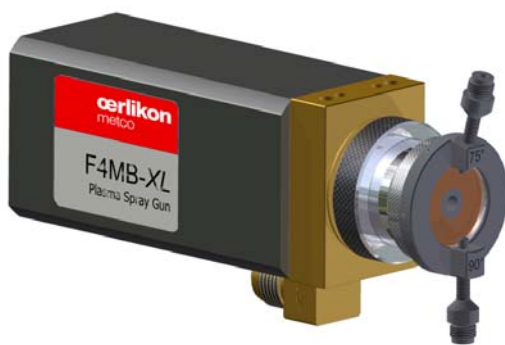


F4MB-XL Plasma Gun

Plasma Spraying

Parts List

PL 97927 EN 13



F4MB-XL





F4MB90-XL

Oerlikon Metco (US) Inc.

1101 Prospect Avenue

Westbury NY 11590

 +1 516 334 1300

 +1 516 338 2414

www.oerlikon.com/metco

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

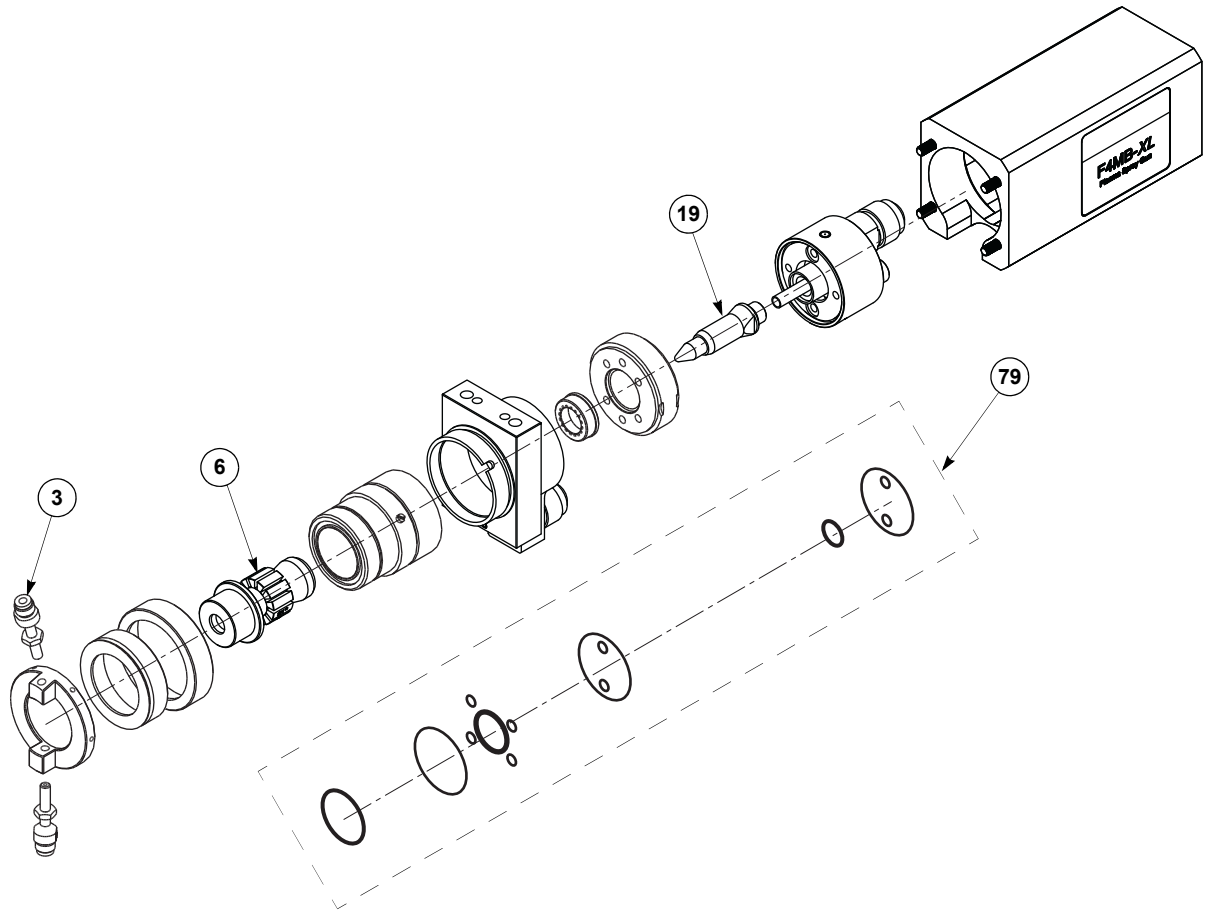
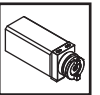
Parts recommended in order to guarantee maximum availability of component. This prevents downtime caused by delay in procurement.



Warranty Disclaimer

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

1 Recommended Spare Parts, F4MB-XL Plasma Gun



Item No.	Description	Qty.	Cat.	Catalog No.	Order No.
3	Powder Injector, 1.8 mm (with undercut)	2	C	F201115	1038715
6	Nozzle, 6mm	1	C	300002(TF)	1072007
19	Electrode	1	C	300001(TF)	1072006
69	Tool Kit	1	K	F4MB-XL98368	1070474
79	Reseal Kit	1	W	F4MB-XL98369	1070475

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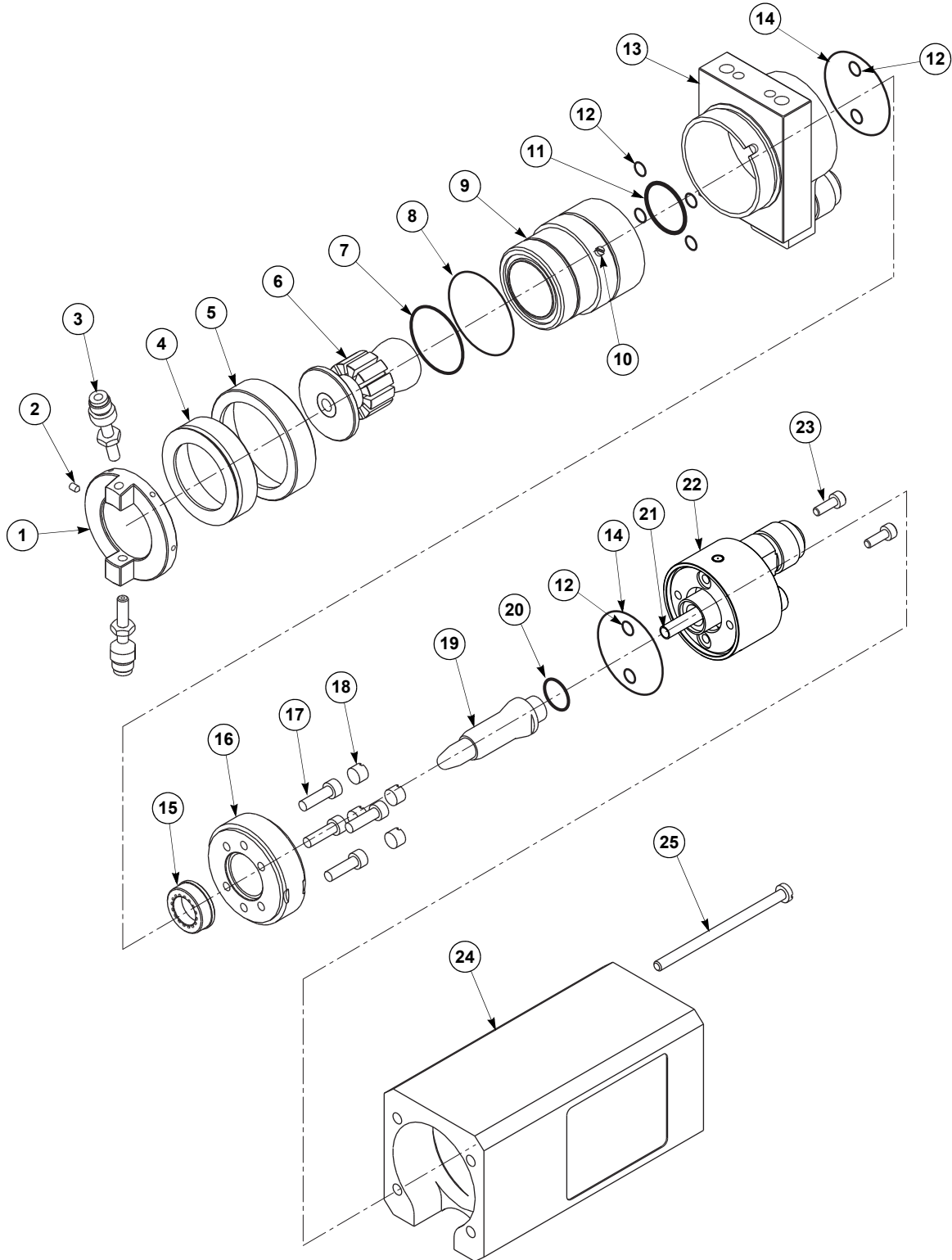
2 Parts Lists for F4MB-XL Plasma Gun

2.1 F4MB-XL Plasma Gun Assembly

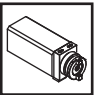
F4MB-XL Plasma Gun

F4MB-XL

1069415



PL 97927 EN 13 HV on: 03/07/2019



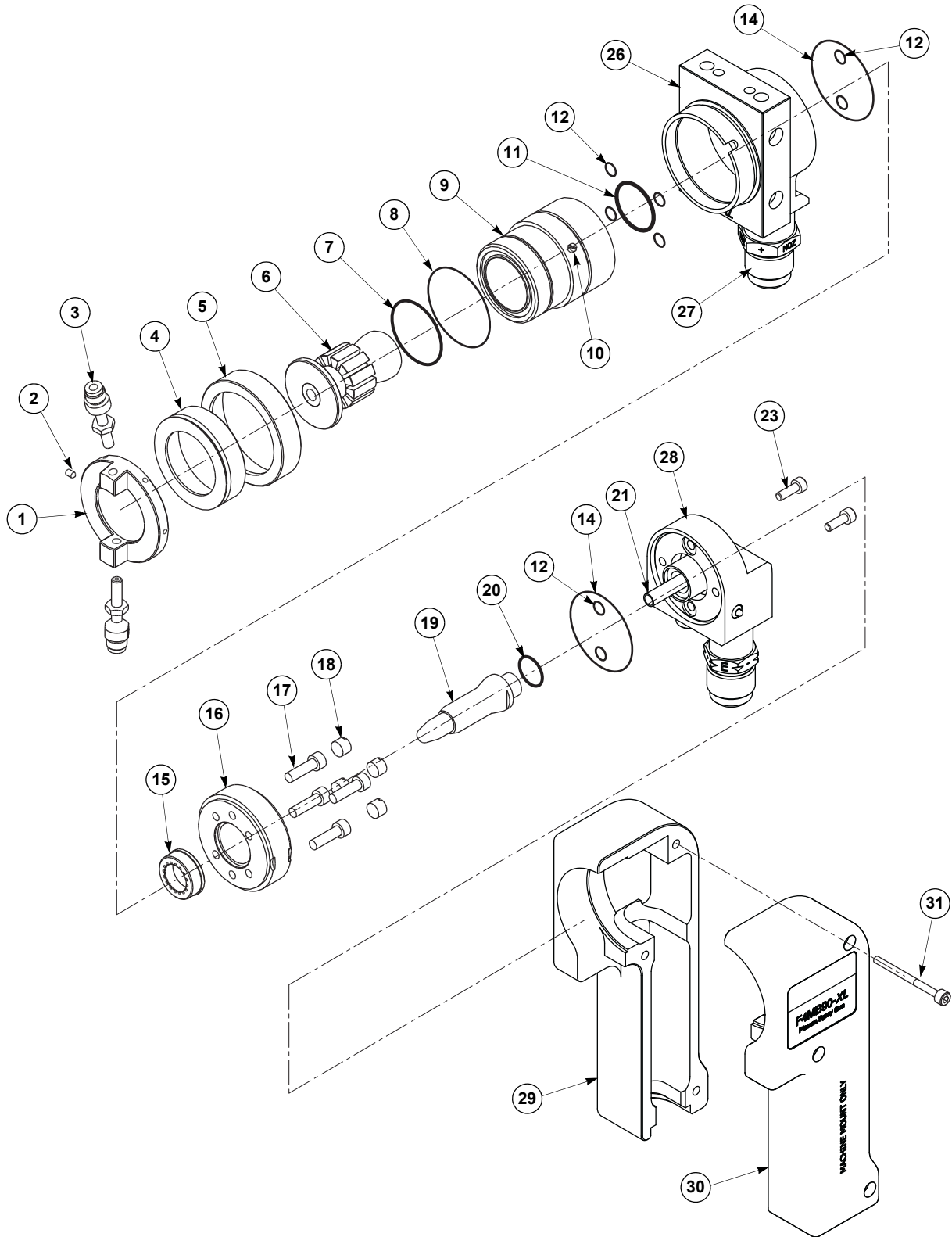
Item No.	Description	Qty.	Catalog No.	Order No.
1	Injector Holder, Double, 90°/75° (includes item 2)	1	300015	1003430
2	Screw, Injector Holder, M3x5	6	300151-06	1003525
3	Powder Injector, 1.8 mm (with undercut)	2	F201115	1038715
4	Front Locking Ring	1	F400302	1003419
5	Rear Locking Ring	1	F201312	1003425
6	Nozzle, 6mm (includes items 7 & 11)	1	300002(TF)	1072007
7	O-Ring, Viton 1.176 x 0.07 in.	1	TRPP57746	1059684
8	O-Ring, Viton, 42 x 1.5 mm	1	300041	1003473
9	Front Gun Body (includes item 10)	1	300009	1003421
10	Positioning Screw	1	300139	1003511
11	O-Ring, Viton, 0.924 x 0.103 in.	1	WJ57747	1041816
12	O-Ring, Buna, 0.208 x 0.07 in. (pkg. of 3)	8	7E129	1001434
13	Center Gun Body	1	F4MB-XL83699	1069416
14	O-Ring, NBR, 70.44 x 1 mm (pkg. of 2)	2	300005	1038940
15	Gas Ring	1	F300048	1003499
16	Insulator Assembly (includes items 17&18)	1	F200044	1003497
17	Screw, M4 x 10	4	300141	1003513
18	Insulating Screw	4	300140	1003512
19	Electrode	1	300001(TF)	1072006
20	O-Ring, Black Viton, 0.489 x 0.07 in.	1	2-014V	1000359
21	Cooling tube	1	300009	1003423
22	Rear Gun Body Assembly (includes item 21)	1	F4MB-XL85897	1069418
23	Screw, M4 x 25	2	300142	1003514
24	Cover Assembly (includes item 25)	1	F4MB-XL85988	1069419
25	Screw, M5 x 0.8mm	4	F4MB-XL83787	1069417

2.2 F4MB90-XL Plasma Gun Assembly

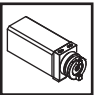
F4MB90-XL Plasma Gun

F4MB90-XL

1078527

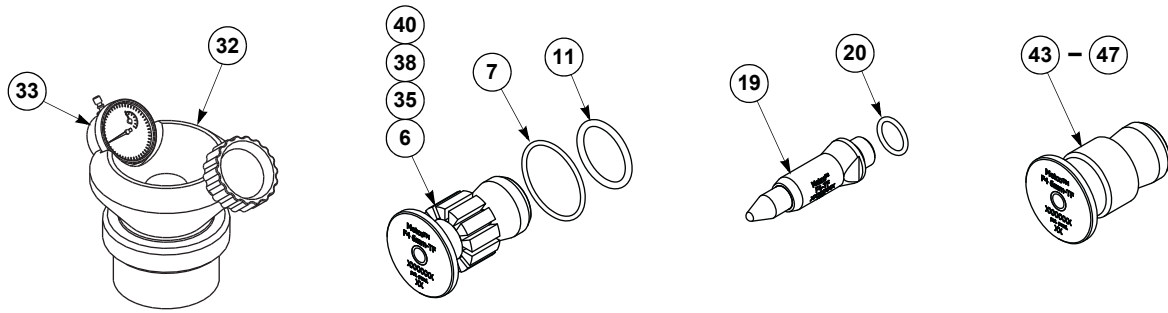


PL 97927 EN 13 HV on: 03/07/2019



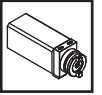
Item No.	Description	Qty.	Catalog No.	Order No.
1	Injector Holder, Double, 90°/75° (includes item 2)	1	300015	1003430
2	Screw, Injector Holder, M3x5	6	300151-06	1003525
3	Powder Injector, 1.8 mm (with undercut)	2	F201115	1038715
4	Front Locking Ring	1	F400302	1003419
5	Rear Locking Ring	1	F201312	1003425
6	Nozzle, 6mm (includes items 7 & 11)	1	300002(TF)	1072007
7	O-Ring, Viton 1.176 x 0.07 in.	1	TRPP57746	1059684
8	O-Ring, Viton, 42 x 1.5 mm	1	300041	1003473
9	Front Gun Body (includes item 10)	1	300009	1003421
10	Positioning Screw	1	300139	1003511
11	O-Ring, Viton, 0.924 x 0.103 in.	1	WJ57747	1041816
12	O-Ring, Buna, 0.208 x 0.07 in. (pkg. of 3)	8	7E129	1001434
14	O-Ring, NBR, 70.44 x 1 mm (pkg. of 2)	2	300005	1038940
15	Gas Ring	1	F300048	1003499
16	Insulator Assembly (includes items 17&18)	1	F200044	1003497
17	Screw, M4 x 10	4	300141	1003513
18	Insulating Screw	4	300140	1003512
19	Electrode (includes item 20)	1	—	1072006
20	O-Ring, Black Viton, 0.489 x 0.07 in.	1	2-014V	1000359
21	Cooling tube	1	300009	1003423
23	Screw, M4 x 25	2	300142	1003514
26	Center Gun Body (includes item 27)	1	F4MB90XL104677	1079065
27	Hose Fitting (NOZ+)	1	10MB15	1000103
28	Rear Gun Body Assembly (includes item 21)	1	F4MB90XL104679	1079045
29	Right Gun Cover	1	F4MB90XL104683	1079047
30	Left Gun Cover	1	F4MB90XL104681	1079046
31	Screw, M4 x 35 mm	3	—	—

2.3 Nozzles and Electrodes



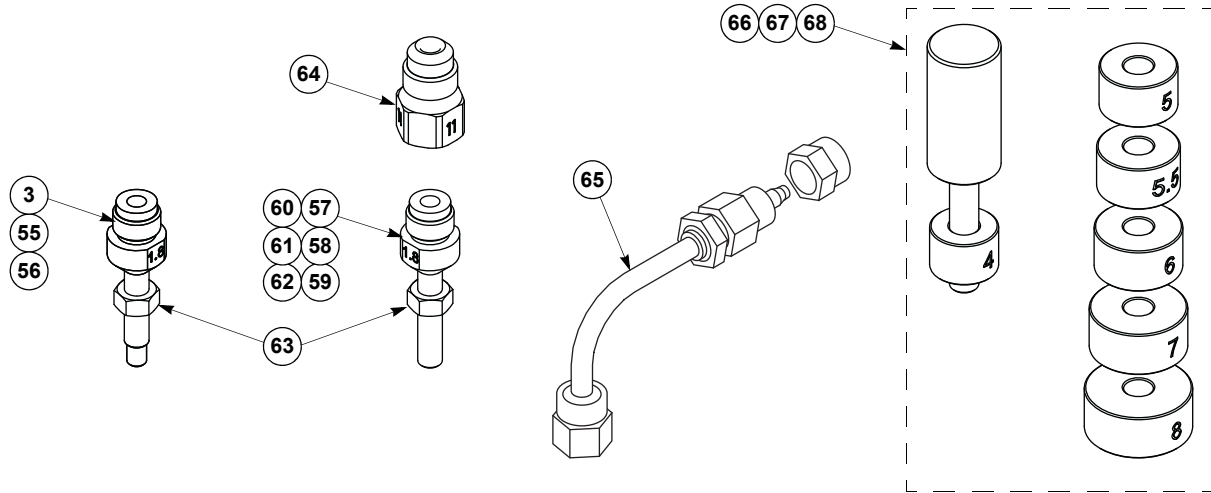
Item No.	Description	Qty.	Catalog No.	Order No.
32	Electrode Centering Tool (optional; includes item 33)	—	349001	1003765
33	Dial Gauge	—	349031	1003775
Standard Components (Supplied with spray gun.)				
6	Nozzle, 6mm (standard) (includes items 7 & 11)	1	300002(TF)	1072007
7	O-Ring, Viton 1.176 x 0.07 in.	1	TRPP57746	1059684
11	O-Ring, Viton, 0.924 x 0.103 in.	1	WJ57747	1041816
19	Electrode (standard) (includes item 20)	1	300001(TF)	1072006
20	O-Ring, Black Viton, 0.489 x 0.07 in.	1	2-014V	1000359
Optional Nozzles (Each set includes nozzle listed and items 7, 11, 19 & 20.)				
34	5 mm Nozzle / Electrode / O-Ring Set (includes item 35)	—	300003-05(TF)	1088067
35	5 mm Nozzle (includes items 7 & 11)	1	300022(TF)	1088066
36	6 mm Nozzle / Electrode / O-Ring Set (includes item 6)	—	300003(TF)	1088048
6	6mm Nozzle (standard) (includes items 7 & 11)	1	300002(TF)	1072007
37	7 mm Nozzle / Electrode / O-Ring Set (includes item 38)	—	300003-10(TF)	1088063
38	7 mm Nozzle (includes items 7 & 11)	1	300002-10(TF)	1088062
39	8 mm Nozzle / Electrode / O-Ring Set (includes item 40)	—	300003-20(TF)	1088058
40	8 mm Nozzle (includes items 7 & 11)	1	300002-20(TF)	1088057
41	6 mm Nozzle / Electrode / O-Ring Set, Type 257	—	300070	1018807
42	6mm Nozzle, Type 257	1	300029(TF)	1093141
Nozzles with Cooling Holes (Optional; Each includes items 7 & 11.)				
43	6 mm Nozzle, Tungsten Lined	—	300002-06(TF)	1088047
44	6 mm Nozzle	—	300002-01	1003403
45	7 mm Nozzle, Tungsten Lined	—	300002-07(TF)	1088060
46	8 mm Nozzle, Tungsten Lined	—	300002-08(TF)	1088056
47	8 mm Nozzle	—	300002-03	1003404
Short Components (Nitrogen) (Each set includes items 7, 11, 20 & 53. Requires item 54.)				
48	6 mm Nozzle / Electrode / O-Ring Set, Short	—	300072(TF)	1093604
49	6 mm Nozzle, Short (includes items 7 & 11)	1	125196(TF)	1088069
50	7 mm Nozzle / Electrode / O-Ring Set, Short	—	300072-05	1018812
51	7 mm Nozzle, Short (includes items 7 & 11)	1	300046-01	1003475
52	6 mm N2 Set (includes items 6, 7, 11, 20 & 53.)	—	—	1088053
53	Electrode, Short	—	300047(TF)	1088052
54	Front Gun Body, Short	—	300048	1003477

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2.4 Injectors and Injector Holders

2.4.1 Injectors



Item No.	Description	Qty.	Catalog No.	Order No.
3	1.8 mm (with undercut)	2	F20115	1038715
Optional Injectors				
55	1.5 mm (with undercut)	—	F20114	1038714
56	2.0 mm (with undercut)	—	F20116	1038716
57	1.5 mm (without undercut)	—	300019	1003434
58	1.8 mm (without undercut)	—	300020	1003436
59	2.0 mm (without undercut)	—	300021	1003439
60	1.5 mm (with cemented carbide insert for long life)	—	300019-01	1003435
61	1.8 mm (with cemented carbide insert for long life)	—	300020-01	1003437
62	2.0 mm (with cemented carbide insert for long life)	—	300021-01	1003440
63	Lock Nut, M5 (supplied with all injectors)	—	—	—
Powder Fittings				
64	Powder Fitting Adapter (optional)	—	PTM11	1002329
65	Powder Elbow Fitting Assembly, 90° (optional)	—	344019-01	1003759
Distance Gauge				
66	Injector Distance Gauge, Ø6 mm (Green; standard)	1	349002	1003766
67	Injector Distance Gauge, Ø7 mm (Blue; optional)	—	349002-01	1003767
68	Injector Distance Gauge, Ø8 mm (Red; optional)	—	349002-02	1003768

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2.4.2 Injector Holders with Retaining Screws

Designation	Catalog No.	Order No.	Illustration
Injector Holder, Double			
100° / 105°	300054	1003481	
90° / 105°	300050	1003478	
90° / 100°	300051	1006700	
100° / 100°	300052	1003479	
105° / 105°	300053	1003480	
105° / 75°	300053-01	1008686	
90° / 75°	300015	1003430	
90° / 90°	300016	1003431	
75° / 75°	300017	1003432	

Injector Holder, 2x15°, On One Side

90° / 90°	300056	1003482	
90° / 105°	300056-01	1003483	
90° / 75°	300056-02	1003484	
75° / 75°	300056-03	1008687	

Injector Holder, Triple, Double On One Side

100° / 100° / 75°	300056-10	1008688	
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Injector Holder For Graded Coating

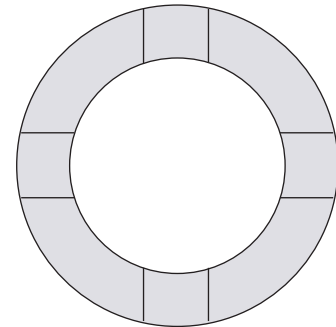
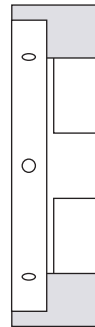
90° / 60°	300055	1006701	
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(Continued)

Designation	Catalog No.	Order No.	Illustration
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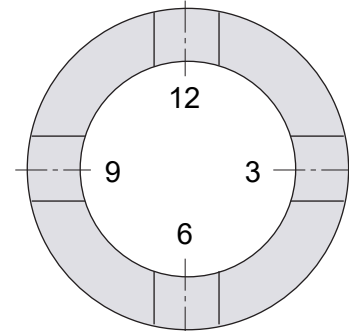
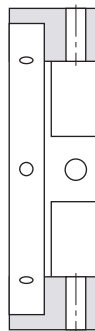
Injector Holder Blank

Without Bores	300023	1006690
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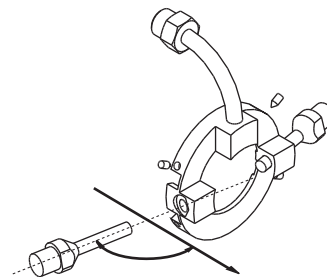
Injector Holder, Fourfold (Clockwise - 12 / 3 / 6 / 9)

4 x 90°	300023-01	1003443
105° / 75° / 105° / 75°	300023-03	1003444
75° / 75° / 90° / 90°	300023-04	1003445
105° / 90° / 105°	300023-05	1003446
90° / 75° / 90° / 105°	300023-06	1008656
105° / 90° / 90° / 75°	300023-07	1008657



Injector Holder, Double With Cooling Air

90° / 90°	300023-15	1008658
100° / 100°	300023-16	1003447



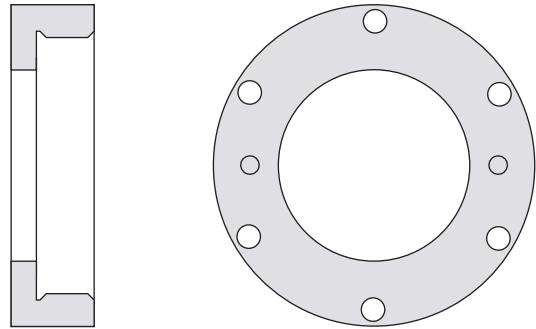
PL 97927 EN 13 HV on: 03/07/2019

2.4.3 Injector Holders with Securing Ring, Type MVR

Designation	Catalog No.	Order No.	Illustration
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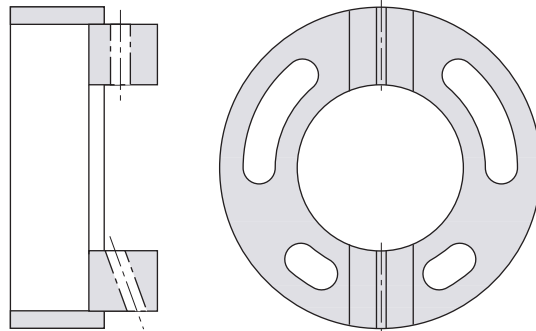
Securing Ring For Injector Holder Type MVR

Included with each injector holder type MVR.



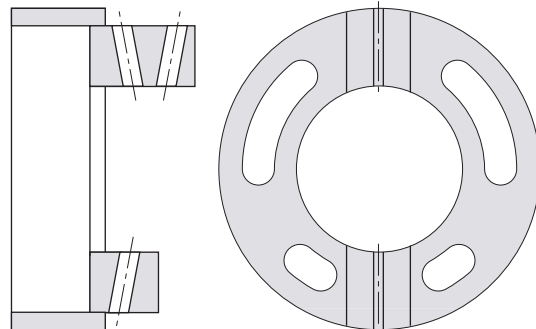
Injector Holder, Double

90° / 75°	300061	1003487
90° / 90°	300060	1003486
90° / 105°	300069	1003490
90° / 100°	300069-01	1003491
100° / 100°	300066	1003488
105° / 105°	300067	1003489
100° / 105°	300068	1006705
75° / 75°	300062	1006702
Without Bores M5	300063	1006703



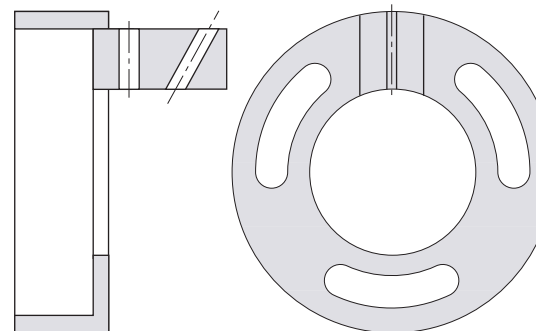
Injector Holder For Graded Coating

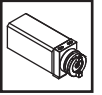
100° / 75° / 100°	300069-02	1003492
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Injector Holder, Double On One Side

90° / 60°	300069-03	1008692
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3 Additional Equipment

3.1 Tools and Spares

(Supplied with F4MB-XL Plasma Gun.)

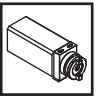
Item No.	Description	Qty.	Catalog. No.	Order No.
32	Electrode Centering Tool (optional)	—	349001	1003765
69	Tool Kit (includes items 70-78)	1	F4MB-XL98368	1070474
70	Screwdriver	1	4E105	1000814
71	Hex Wrench, 3 mm	1	11E140	1000144
72	Hex Wrench, 1.5 mm	1	4RG64	1005115
73	Hex Wrench, 2 mm	1	11E102	1000137
74	Hex Wrench, 1.27 mm	1	11MB156	1004724
75	Hex Wrench, 4 mm	1	G34075	1304339
76	Wrench, Adjustable	1	4E106	1000815
77	Tweezers	1	11MB51	1030626
78	Ringlube	1	2M182	1000508
79	Reseal Kit (includes):	1	F4MB-XL98369	1070475
7	O-Ring, Viton 1.176 x 0.07 in.	1	TRPP57746	1059684
8	O-Ring, Viton, 42 x 1.5 mm	1	300041	1003473
11	O-Ring, Viton, 0.924 x 0.103 in.	1	WJ57747	1041816
12	O-Ring, Buna, 0.208 x 0.07 in.	8	7E129	1001434
14	O-Ring, NBR, 70.44 x 1 mm	2	300005	1038940
20	O-Ring, Black Viton, 0.489 x 0.07 in.	1	2-014V	1000359

3.2 Hoses and Cables

Hoses are supplied separately and listed below. Additional powder hoses are available and selected based on the spraying application.

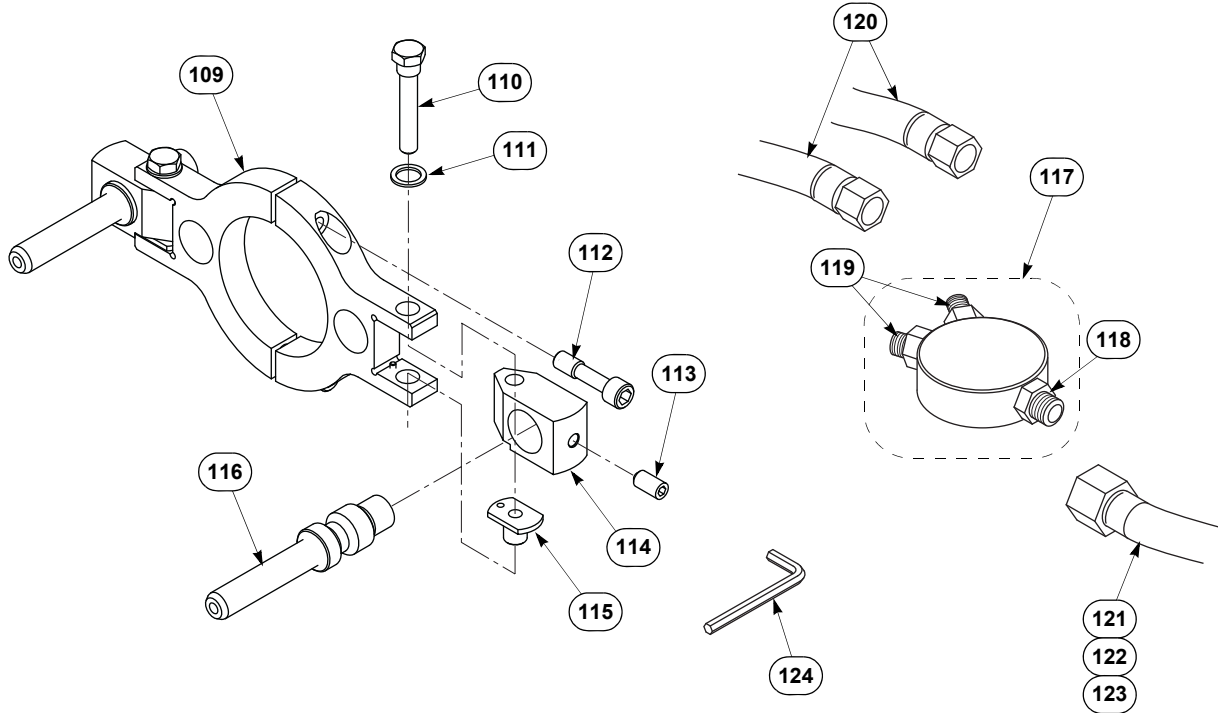
Item No.	Description	Qty.	Catalog. No.	Order No.
80	Hose & Cable Package, 5 m (16.4') (includes items 81-84)	—	8MH	1034011
81	Plasma Gas Hose	1	7MH50	1001561
82	Electric Cable, Water Cooled (Red) 5 m (16.4')	1	8MH57586	1034012
83	Electric Cable, Water Cooled (Blue) 5 m (16.4')	1	8MH57587	1034013
84	T-Clip Fastener (pkg. of 3)	3	8MH58390	1093447
85	Hose & Cable Package, 8 m (26') (includes 84, 86-88)	—	8MH-8	1034014
86	Plasma Gas Hose, 9.1 m (30')	1	7MH116	1001553
87	Electric Cable, Water Cooled (Red) 8 m (26')	1	8MH57568	1034470
88	Electric Cable, Water Cooled (Blue) 8 m (26')	1	8MH57567	1034471
89	Hose & Cable Package, 3.5 m (11.5') (includes 84, 90-93)	—	8MH-3.5	1058503
90	Electric Cable, Water Cooled (Red) 3.5 m (11.5')	1	8MH58592	1058539
91	Electric Cable, Water Cooled (Blue) 3.5 m (11.5')	1	8MH58593	1058540
92	Plasma Gas Hose, 3.5 m (11.5')	1	8MH58594	1058541
93	Air Hose 3.5 m (11.5')	1	8MH58595	1058543
94	Hose & Cable Package, 1.5 m (5') (includes 84, 95-98)	—	8MH-1.5	1058504
95	Electric Cable, Water Cooled (Red) 1.5 m (5')	1	8MH58586	1058550
96	Electric Cable, Water Cooled (Blue) 1.5 m (5')	1	8MH58588	1058551
97	Plasma Gas Hose, 1.5 m (5')	1	MH58589	1058552
98	Air Hose 1.5 m (4.9')	1	8MH58590	1058553
Made-to-Order Lengths (Minimum 1.5 m / 5' to maximum 10.5 m / 35'.)				
99	Hose & Cable Package (includes 84, 100-102)	—	8MHCTO	1034390
100	Plasma Gas Hose	1	7MH50MTO	1034352
101	Electric Cable, Water Cooled (Blue)	1	8MH20CTO	1034543
102	Electric Cable, Water Cooled (Red)	1	8MH10CTO	1034542
Adapters				
103 ⁽¹⁾	Gun Hose Adapter Package (includes items 104-106)	—	PTM300	1028806
104	Hose Adapter (EL-)	1	PTM8	1002339
105	Hose Adapter (NOZ+)	1	PTM9	1002340
106	Plasma Gas Hose Adapter	1	PTM15	1002331
107 ⁽²⁾	Adapter Package (Praxair)	—	8MH97360	1070059

1. For connection of 8MH cable packages to legacy JAM Box.
2. For connection of 8MH cable packages to Praxair controller and powder feeder.



3.3 Accessories

3.3.1 Air Jet Assembly

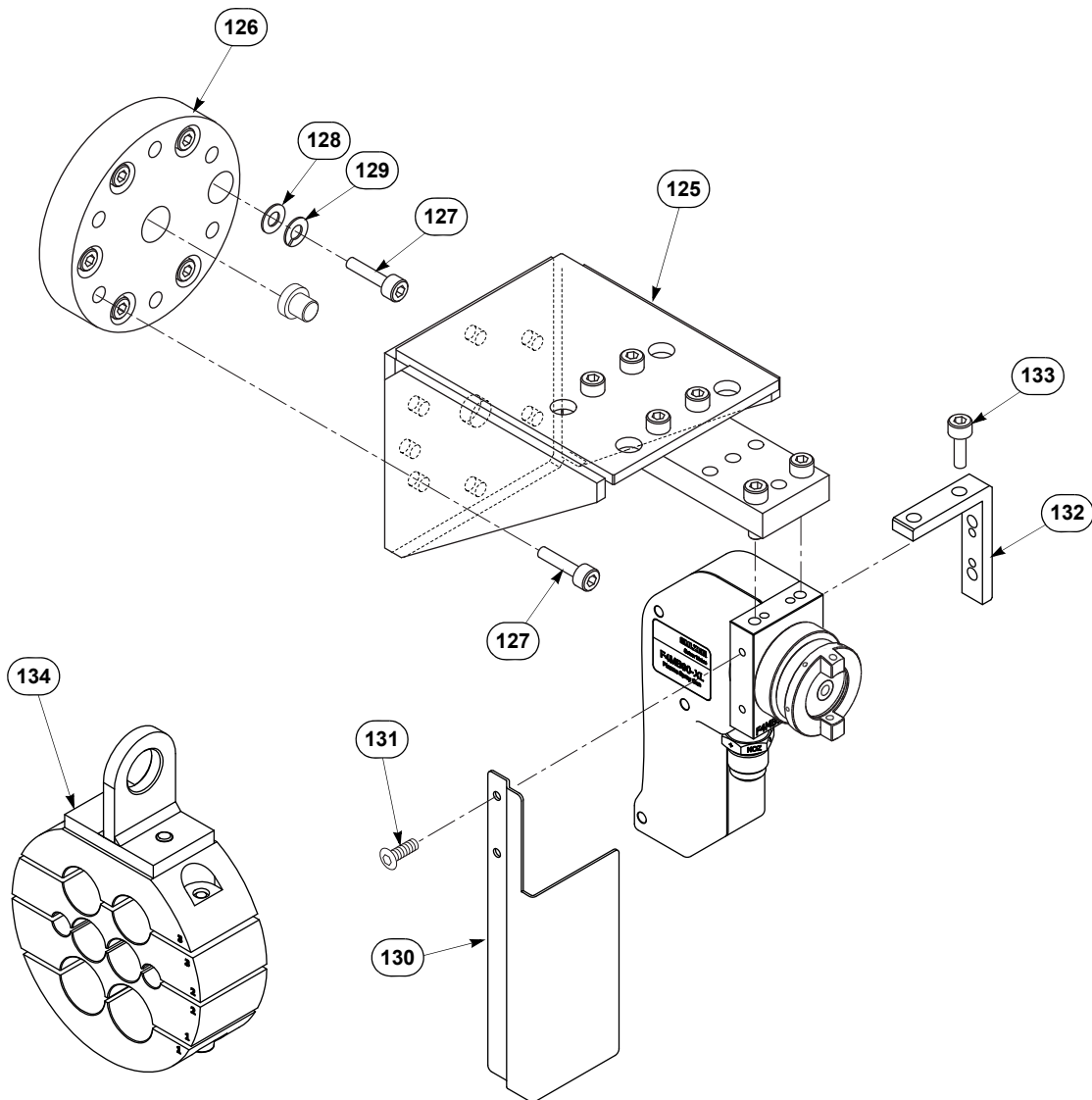


Item No.	Description	Qty.	Catalog No.	Order No.
108	Air Jet Assembly (includes items 109-120)	—	F4MBXL105268	1075441
109	Air Jet Clamp	1	—	—
110	Pivot Clamp Screw	2	3M784	1000719
111	Flat Washer	2	3M646	1000710
112	Captive Screw	2	F4MBXL105266	1075791
113	Hex Set Screw (pkg. of 2)	2	2PSA37	1000542
114	Air Jet Pivot Block	2	3M782	1000717
115	Pivot Block Nut	2	2PSA28	1000539
116	Air Nozzle	2	2PSA30	1000540
117	Wye Assembly (includes items 118 & 119)	1	2PSA35	1000541
118	Hex Nipple	1	4E20	1000824
119	Hex Nipple	2	2E22	1000464
120	Air Nozzle Hose Assembly, 38 cm (15")	2	2PSA40	1000543
121	⁽¹⁾ Air Hose Assembly, 4.6m (15')		6H50	1001319
122	⁽¹⁾ Air Hose Assembly, 5.8 m (19')	1	7M150	1001473
123	⁽¹⁾ Air Hose Assembly, 10.7 m (35')		7H50	1001451
124	Hex Key Wrench (3/32")	—	PS43	1002327

1. One air supply hose required but not supplied with Air Jet Assembly (108).

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3.3.2 Mounting Accessories



Item No.	Designation	Qty.	Order No.
125	Robot Mounting Bracket Assembly (includes items 126 - 129)	—	1064196
126	Robot Insulator Plate	1	1064198
127	Screw, M8 X 25 mm (pkg. of 2)	18	1030603
128	Washer, M8	6	—
129	Lock Washer, M8	6	—
130 ⁽¹⁾	Heat Shield (includes item 131)	1	1079048
131	Screw, M8 X 8 mm	2	—
132 ⁽¹⁾	Mounting Adapter (includes item 133)	1	1079049
133	Screw, M8 X 16 mm	2	—
134	Hose and Cable Holder / Strain Relief (AR100)	—	1100938

1. Included standard with F4MB90-XL.

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