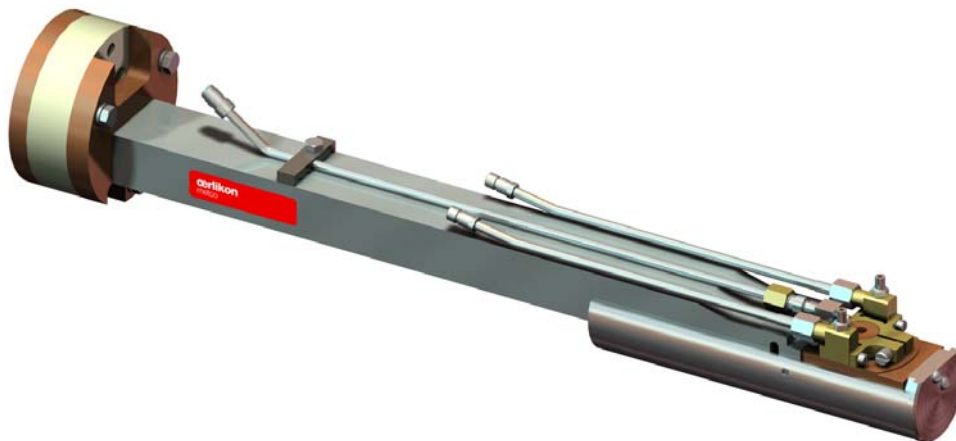


# 3MBTD Plasma Extension Gun Plasma Spraying


Parts List  
PL 40952 EN 10




## Oerlikon Metco (US) Inc.

1101 Prospect Avenue

Westbury NY 11590

 +1 516 334 1300

 +1 516 338 2414

[www.oerlikon.com/metco](http://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**

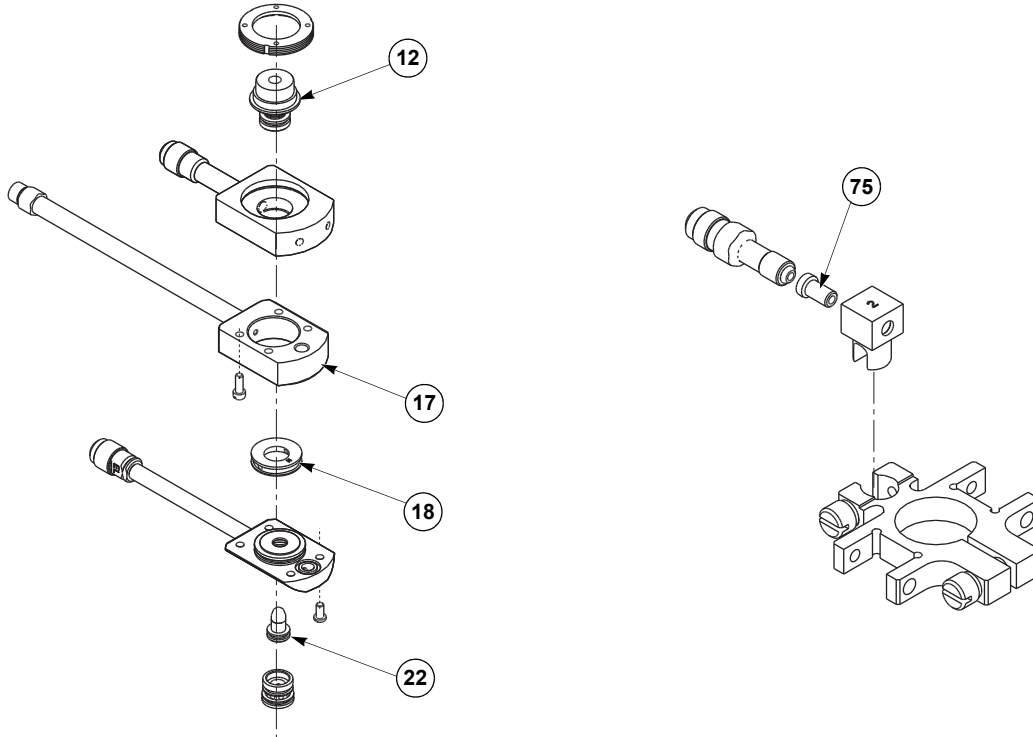
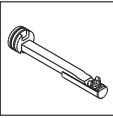
Parts recommended in order to guarantee maximum availability of component. This prevents downtime caused by delay in procurement.



## Warranty Disclaimer

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

# 1 List of Recommended Spare Parts for 3MBTD Plasma Extension Gun



3mbtd\_spare

Item No.	Description	Qty.	Cat.	Catalog No.	Order No.
12	Nozzle "G" (See also, page 6.)	1	C	3M7-G-50	1067309
17	Insulator (See also, page 6.)	1	C	3MBTD48974	1031652
18	Distribution Ring (Nitrogen) (See also, page 6.)	1	W	3MBTD48979	1031653
22	Electrode (See also, page 6.)	1	C	2M119197	1084121
75	Powder Port #2 (See also, page 10.)	1	C	3M325	1000691
85	Insulating Compound	1	C	2M281	1000526
86	Reseal Kit	1	C	2M206	1000522

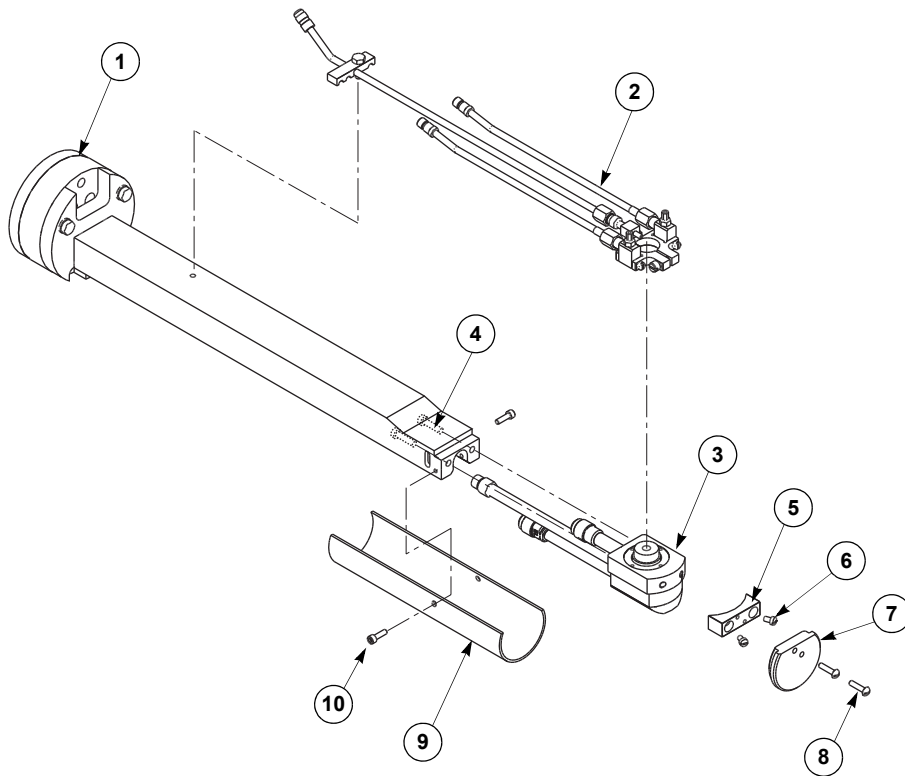
PL 40952 EN 10 Released on: 03/05/2019

## 2 Parts List

(1) Complete 3MBTD-18 Plasma Extension Gun 18" (460 mm)	3MBTD-18	1034005
Complete 3MBTD-24 Plasma Extension Gun 24" (610 mm)	3MBTD-24	1034006
Complete 3MBTD-34 Plasma Extension Gun 34" (865 mm)	3MBTD-34	1034007

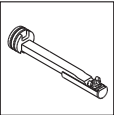
1. Discontinued. Replacement parts are still available.

### 2.1 Complete Gun Assembly

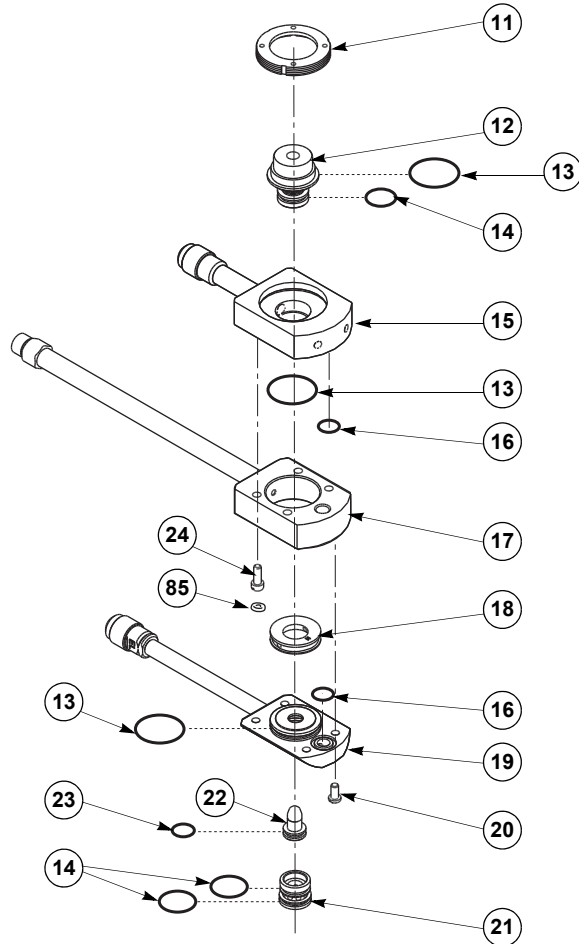


3mbtd\_complete

Item No.	Description	Qty.	Catalog No.	Order No.
1	Robot Mount Assembly	1	—	See page 8.
2	Air Cooler Powder Port Assembly	1	—	See page 9.
3	Front Gun Assembly	1	—	See page 5.
4	Screw, 1/4–20 x 7/8 (pkg. of 6)	2	3K133	1000631
5	Adapter Block	1	3M744	1031697
6	Screw, 1/4–20 x 3/8 (pkg. of 6)	2	2M185	1000511
7	Cap	1	3MBTD40611	1035089
8	Screw, 10–24 x 13/16 (pkg. of 4)	2	3M397	1031683
9	Shield	1	3MBTD40610	1035088
10	Cap Screw, 10–24 x 5/8	2	3MBTD23853	1035087



## 2.2 Front Gun Assembly



3mbtd\_front\_gun\_assy

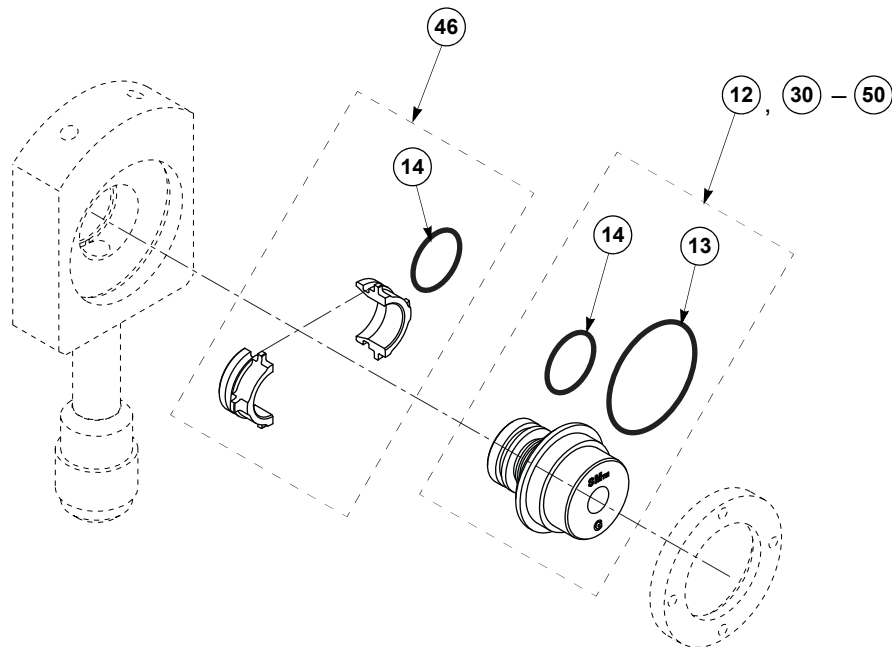
Item No.	Description	Qty.	Catalog No.	Order No.
11	Nozzle Locking Ring	1	2M190	1000515
12	Nozzle Assembly "G" (See page 6.) (includes items 13 & 14)	1	3M7-G	1000721
13	O-Ring, Black Viton 1.114 x 0.07' (pkg. of 6)	3	7M57	1001495
14	O-Ring, Black Viton, 0.614 x 0.07' (pkg. of 6)	3	7M111	1001462
15	Front Gun Body	1	2M187	1000512
16	O-Ring, Buna, 0.489 x 0.07' (pkg. of 6)	2	2M195	1000518
17	Insulator (See page 6.)	1	3MBTD48974	1031652
18	Distribution Ring (Nitrogen) (See page 6.)	1	3MBTD48979	1031653
19	Rear Gun Body	1	3MBTD40603	1033941
20	Screw, 10-24 x 3/8	4	3MBTD158	1069196
21	Electrode Holder (includes item 14)	1	3MBTD40604	1021424
22	Electrode (See page 6.) (includes item 23)	1	2M119197	1084121
23	O-Ring, Black Viton, 0.426x0.07' (pkg. of 2)	1	7M51	1001493
24	Screw, 10-24 x 1/2 (pkg. of 5)	4	4E38	1000834
85	Insulating Compound	AR	2M281	1000526

PL 40952 EN 10 Released on: 03/05/2019

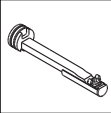
## 2.3 Optional Gun Components

Item No.	Description	Qty.	Catalog No.	Order No.
—	Optional Nozzle Assemblies, see page 6.	—	—	—
25	Distribution Ring Argon, 1 hole	—	3M275	1000687
26	Insulator & Hose Assembly	—	3MBTD118367	1083030
27	Electrode (includes item 23)	—	9M119198	1084120
28	Electrode Package (Contains quantity 50, item 22.)	—	9MB63-50	1089198
29	Nozzle Package (Contains quantity 50, item 12.)	—	3M7-G-50	1067309

## 2.4 Nozzle Assemblies

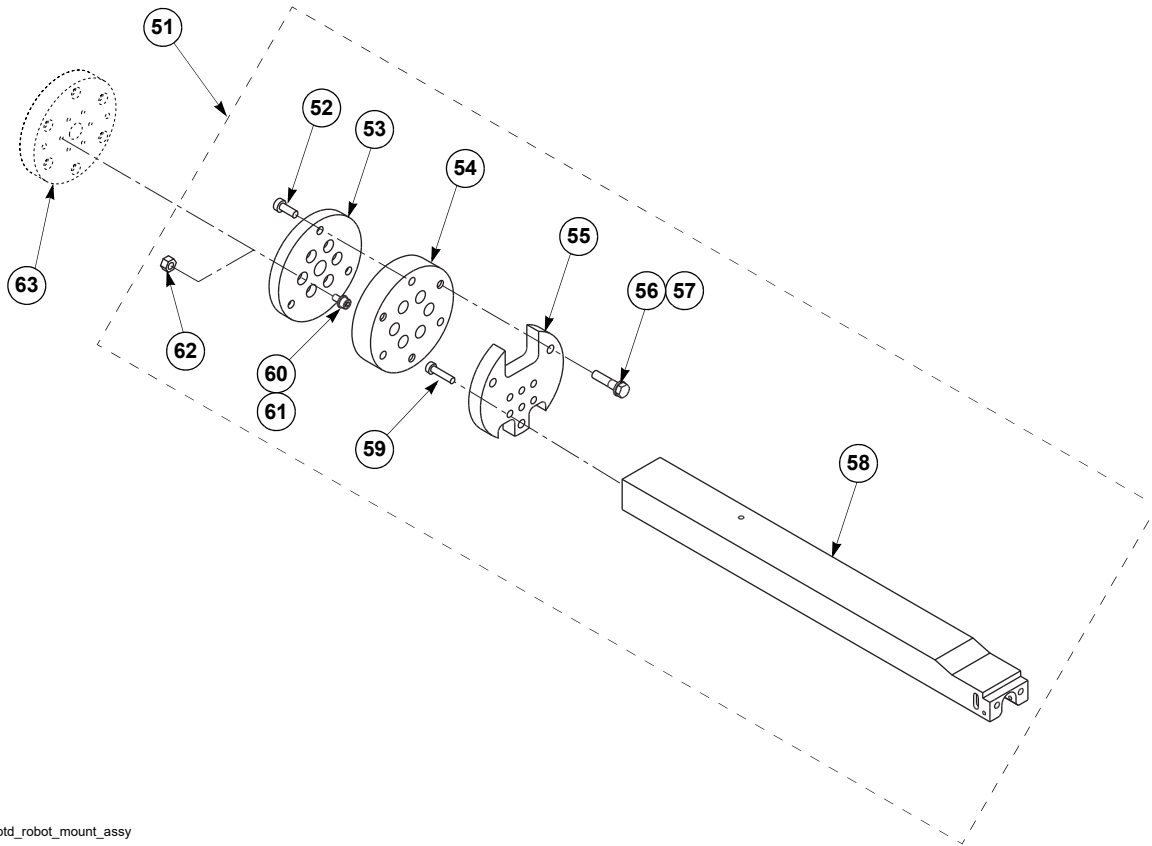


3MBTD\_nozzle



Item No.	Description	Qty.	Catalog No.	Order No.
<b>Standard Nozzle</b> (Supplied with spray gun.)				
12	Nozzle Assembly G (N2, N2/H2, Ar/H2) (includes items 13 & 14)	—	3M7-G	1000721
13	O-Ring, Black Viton, 1.114x0.07 in. (pkg. of 6)	1	7M57	1001495
14	O-Ring, Black Viton, 0.614x0.07 in. (pkg. of 6)	1	7M111	1001462
29	Nozzle Package (Contains quantity 50, item 12.)	—	3M7-G-50	1067309
<b>Optional Nozzles</b> (Each includes O-Rings, items 13 & 14.)				
30	Nozzle Assembly GP (Ar, Ar/H2, Ar/He)	—	3M7-GP	1000724
31	Nozzle Assembly GE (N2, N2/H2, Ar/N2, Ar/H2, Ar/He)	—	3M7-GE	1000722
32	Nozzle Assembly GH (Ar/H2, Ar/He)	—	3M7-GH	1000723
33	Nozzle Assembly 700 (Ar, Ar/H2, N2)	—	7M700	1001507
34	Nozzle Assembly 703 (Ar, Ar/H2)	—	7M703	1001508
35	Nozzle Assembly 704 (Ar, Ar/H2, Ar/He)	—	7M704	1001509
36	Nozzle Assembly 705 (Ar/N2, Ar/He)	—	7M705	1001510
37	Nozzle Assembly 706 (Ar, Ar/He, Ar/N2)	—	7M706	1005298
38	Nozzle Assembly 707 (Ar, N2, N2/H2, Ar/H2, Ar/He)	—	7M707	1005299
<b>Tungsten-Lined Nozzles</b> (Each includes O-Rings, items 13 & 14.)				
39 <sup>(1)</sup>	Nozzle, 930W (Tungsten Lined) (N2, N2/H2)	—	9MB57850(TF)	1088071
40 <sup>(1)</sup>	Nozzle, 932W (Tungsten Lined) (Ar, Ar/H2)	—	9MB57851(TF)	1088072
41 <sup>(1)</sup>	Nozzle, 933W (Tungsten Lined) (Ar, Ar/H2, Ar/He)	—	9MB57852(TF)	1088077
42 <sup>(1)</sup>	Nozzle, 927W (Tungsten Lined) (N2, N2/H2, Ar/H2, Ar/He)	—	9MB57889(TF)	1088078
43 <sup>(1)</sup>	Nozzle, 931W (Tungsten Lined) (N2, N2/H2, Ar/N2)	—	9MB58244(TF)	1088079
44	Nozzle, G-W (Tungsten Lined) (N2, N2/H2)	—	9MB58395(TF)	1088073
45	Nozzle, GH-W (Tungsten Lined) (Ar, Ar/H2, Ar/He)	—	9MB58396(TF)	1088074
46	Water Jacket (Includes both halves & item 14.)	—	9MB54809	1040838
<b>Commercial-Grade Nozzle Packages</b> (Each includes O-Rings, items 13 & 14. Quantity 10 each.)				
47	Nozzle, G (Commercial Grade, pkg. of 10)	—	3M7-G-CG	1063176
48	Nozzle, GE (Commercial Grade, pkg. of 10)	—	3M7-GE-CG	1063179
49	Nozzle, GH (Commercial Grade, pkg. of 10)	—	3M7-GH-CG	1063178
50	Nozzle, GP (Commercial Grade, pkg. of 10)	—	3M7-GP-CG	1063182
1. Requires Water Jacket, item 46.				

## 2.5 Robot Mount Assembly

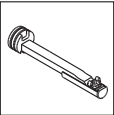


3mbtd\_robot\_mount\_assy

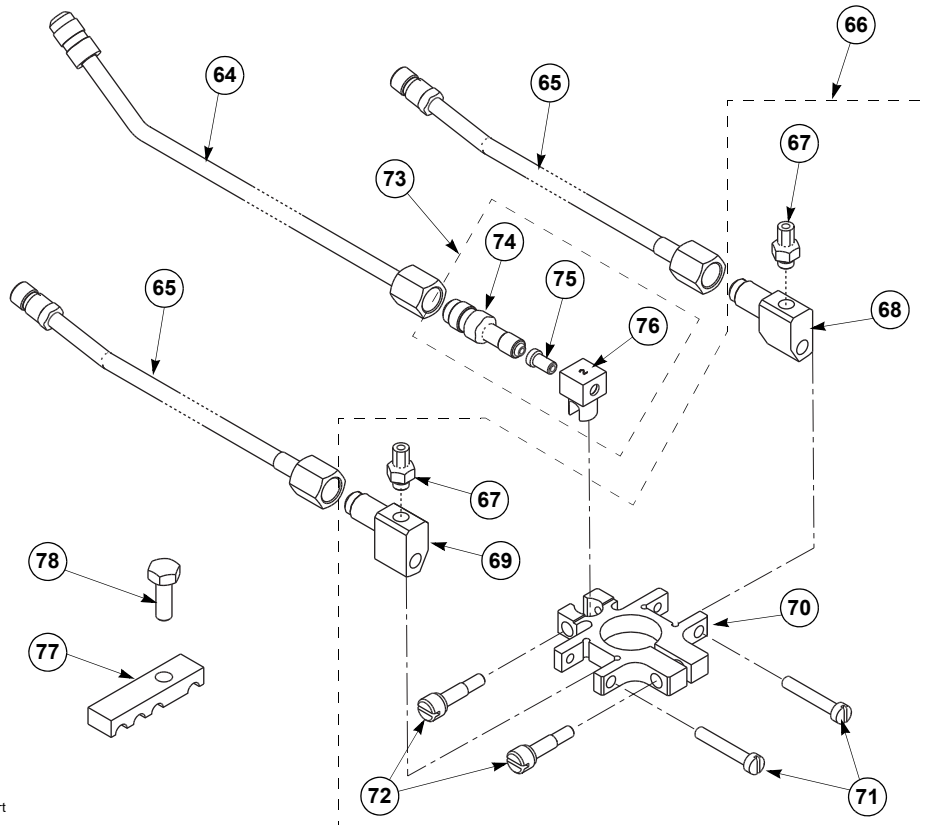
Item No.	Description	Qty.	Catalog No.	Order No.
51	(1) Robot Mount Assembly (460 mm / 18") (incl. items 52 - 62)	1	3MBTD48985	1035092
	(2) Robot Mount Assembly (610 mm / 24") (incl. items 52 - 62)		3MBTD48984	1035091
	(3) Robot Mount Assembly (865 mm / 34") (incl. items 52 - 62)		3MBTD40589	1035090
52	Screw, 5/16–18 x 3/4	3	3MBTD20295	1038224
53	Mounting Plate	1	3MBTD58000	1038219
54	Insulator Plate	1	3MBTD38571	1038217
55	Gun Bracket Plate	1	3MBTD57975	1038216
56	Bolt 5/16–18 x 1–3/8	3	3MBTD10371	1038220
57	Lock Washer 5/16	3	RW39	1006108
58	(1) Gun Bracket (460 mm / 18")	1	3MBTD57976	1038203
	(2) Gun Bracket (610 mm / 24")		3MBTD57977	1038214
	(3) Gun Bracket (865 mm / 34")		3MBTD57978	1038215
59	Socket Head Cap Screw, 1/4–20 X 1	5	3MBTD20247	1038222
60	Screw, M6 x 12	6	3MBTD34601	1038221
61	Lock Washer	6	3MBTD19357	1038223
62	Nut, 6mm x 5mm (pkg. of 5)	6	11E75	1000197
63	Robot Adapter Plate (supplied separately)	—	—	—

1. 3MBTD-18
2. 3MBTD-24
3. 3MBTD-34





## 2.6 Air Cooler and Powder Port Assembly



3mbtd\_air\_cool\_powder\_port

Item No.	Description	Qty.	Catalog No.	Order No.
64	(1) Powder Tube 18" (460mm)	1	3MBTD48978	1035070
	(2) Powder Tube 24" (610mm)		3MBTD48977	1035069
	(3) Powder Tube 34" (865mm)		3MBTD40601	1035068
65	(1) Air Tube 18" (460mm)	2	3MBTD48976	1035072
	(2) Air Tube 24" (610mm)		3MBTD48975	1035073
	(3) Air Tube 34" (865mm)		3MBTD41454	1035071
66	Air Jet Assembly (includes items 67-72)	1	3MBTD40598	1034872
67	Air Jet	2	3M861	1031707
68	Right Pivot Block	1	3MBTD40596	1035067
69	Left Pivot Block	1	3MBTD40594	1035066
70	Mounting Bracket	1	3MBTD41271	1037475
71	Screw, 10-24 x 1-1/8	2	3M735	1022159
72	Knurled Screw, 10-24 x 1-13/64	2	3M327	1000692
73	Powder Port Assembly, #2 (includes items 74-76)	1	3M325	1000691
74	Powder Stem	1	3M202	1000679
75	Powder Port #2	1	3M210	1000681
76	Mounting Block	1	3M211	1000682
77	Tubing Clamp	1	3MBTD40592	1035093
78	Screw, 1/4-20 x 3/4	1	3MBTD19342	1035094

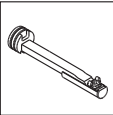
- 1. 3MBTD-18
- 2. 3MBTD-24
- 3. 3MBTD-34

### 3 Additional Equipment

#### 3.1 Tools and Spares

Item No.	Description	Qty.	Catalog No.	Order No.
<b>Optional Powder Ports</b>				
79	Powder Port Assembly, #1 (One piece; replaces items 74-76.)	—	3M320	1000690
80	Powder Port Assembly, #3 (includes items 74-76)	—	3M330	1000693
81	Powder Port Assembly, #4 (includes items 74-76)	—	3M350	1000697
82	Powder Port Assembly, #5 (includes items 74-76)	—	3M245	1000684
<b>Tools and Spares</b> (Supplied with gun.)				
83	Nozzle Wrench	1	3M193	1000517
84	Ringlube	1	3M182	1000508
85	Insulating Compound	1	2M281	1000526
86	Reseal Kit ( <i>includes:</i> )	1	2M206	1000522
13	O-Ring, Black Viton 1.114 x 0.07'	5	7M57	1001495
14	O-Ring, Black Viton, 0.614 x 0.07'	3	7M111	1001462
16	O-Ring, Buna, 0.489 x 0.07'	2	2M195	1000518
23	O-Ring, Black Viton, 0.426x0.07'	3	7M51	1001493
—(1)	O-Ring, Buna, 0.239x0.07in	1	4EFC56	1000861
—(1)	O-Ring, Buna, 0.989x0.07in	2	2M198	1000520

1. Not used on 3MBTD Plasma Extension Gun.



### 3.2 Hoses and Cables

Item No.	Description	Qty.	Catalog. No.	Order No.
<b>Hoses &amp; Cables</b> (Supplied with gun.)				
87	Nozzle Hose & Cable (+), 1.2m (4') (3M394 hose to gun)	1	3MBTD57618	1035084
88	Electrode Hose & Cable (-), 1.2m (4') (3M395 hose to gun)	1	3MBTD57619	1035085
89	Current Insulators	2	2M263	1031569
90	Plasma Gas Hose, 1.2m (4') (AJ10 hose to gun)	1	3MBTD57616	1035086
91	Air Hose, 9.1 m (30') (air supply to wye input)	1	5RH50-30	1001252
92	Wye	1	2PSA35	1000541
93	Air Nozzle Hose, 0.38 m (15") (wye outputs to gun)	2	2PSA40	1000543
<b>Extension Hoses/Cables</b> (Required; supplied separately.)				
94	Cable & Hose Package, 4.5 m (15') (incl. items 89 & 95-97)	—	3M393	1031679
95	Nozzle Cable (+), 4.5m (15') (distribution unit to gun)	1	3M394	1031680
96	Electrode Cable (-), 4.5m (15') (distribution unit to gun)	1	3M395	1031681
97	Plasma Gas Hose, 4.5m (15') (controller to gun)	1	AJ10	1001746
<b>Optional Hoses/Adapters</b> (Used instead of 3M393.)				
98	Hose Adapter Fitting ( <b>NOZ+</b> )	—	7MH11	1001552
99	Hose Adapter Fitting ( <b>EL-</b> )	—	7MC639	1019031
100	Hose Adapter, Plasma	—	3M794	1021185
101	Hose & Cable Package, 5 m (16.4') (includes items 102-105)	—	8MH	1034011
102	Plasma Gas Hose	1	7MH50	1001561
103	Electric Cable, Water Cooled (Red) 5 m (16.4')	1	8MH57586	1034012
104	Electric Cable, Water Cooled (Blue) 5 m (16.4')	1	8MH57587	1034013
105	T-Clip Fastener (pkg. of 3)	3	8MH58390	1093447
106	Hose & Cable Package, 8 m (26'.) (includes 105, 107-109)	—	8MH-8	1034014
107	Plasma Gas Hose, 9.1 m (30')	1	7MH116	1001553
108	Electric Cable, Water Cooled (Red) 8 m (26')	1	8MH57568	1034470
109	Electric Cable, Water Cooled (Blue) 8 m (26')	1	8MH57567	1034471
110	Hose & Cable Package, 3.5 m (11.5') (includes 105, 111-114)	—	8MH-3.5	1058503
111	Electric Cable, Water Cooled (Red) 3.5 m (11.5')	1	8MH58592	1058539
112	Electric Cable, Water Cooled (Blue) 3.5 m (11.5')	1	8MH58593	1058540
113	Plasma Gas Hose, 3.5 m (11.5')	1	8MH58594	1058541
114	Air Hose 3.5 m (11.5')	1	8MH58595	1058543
115	Hose & Cable Package, 1.5 m (5') (includes 105, 116-119)	—	8MH-1.5	1058504
116	Electric Cable, Water Cooled (Red) 1.5 m (5')	1	8MH58586	1058550
117	Electric Cable, Water Cooled (Blue) 1.5 m (5')	1	8MH58588	1058551
118	Plasma Gas Hose, 1.5 m (5')	1	MH58589	1058552
119	Air Hose 1.5 m (4.9')	1	8MH58590	1058553
<b>Made-to-Order Lengths</b> (Minimum 1.5 m / 5' to maximum 10.5 m / 35'.)				
120	Hose & Cable Package (includes 105, 121-123)	—	8MHCTO	1034390
121	Plasma Gas Hose	1	7MH50MTO	1034352
122	Electric Cable, Water Cooled (Red)	1	8MH20CTO	1034543
123	Electric Cable, Water Cooled (Blue)	1	8MH10CTO	1034542

