

16E / 16E-H PARAMETERS

GAS HEAD HARDWARE SELECTION TABLE

			NORMAL SPRAY ALL WIRE (NOTE 1)		START-STOP OPERATION ALUMINUM & ZINC ALLOYS (NOTES 2 & 4)		START-STOP OPERATION BABBIT, TIN LOW MELTING POINT ALLOYS (NOTE 3)	
FUEL GAS	WIRE SIZE	SIPHON PLUG	NOZZLE	AIR CAP	NOZZLE	NON LOAD AIRCAP	NON LOAD NOZZLE	NON LOAD AIRCAP
Acetylene Or Hydrogen	3/16	12E2-5	12E7-42	3K3-EA	12E7-42	3K3-AH	12E7-45	3K3-AH
	1/8	12E2-5	12E7-48	8E3-EC	12E7-48	3K3-CH	12E7-26	3K3-CH
	11 Ga.	12E2-5	12E7-35	4E3-J	12E7-35	3K3-JH	12E7-36	3K3-JH
	15 Ga.	12E2-7	12E7-29	4E3-M	12E7-29	3K3-JH or 3K3-MH	12E7-30	3K3-JH or 3K3-MH
Propane Or Natural Gas	3/16	12E2-6	12E7-43	3K3-EA	12E7-43	3K3-AH	12E7-46	3K3-AH
	1/8	12E2-6	12E7-49	8E3-EC	12E7-49	3K3-CH	12E7-27	3K3-CH
	11 Ga.	12E2-6	12E7-37	4E3-J	12E7-37	3K3-JH	12E7-38	3K3-JH
	15 Ga.	12E2-8	12E7-31	4E3-M	12E7-31	3K3-JH or 3K3-MH	12E7-32	3K3-JH or 3K3-MH
MAPP	3/16	12E2-6	12E7-44	3K3-AM	12E7-44		12E7-47	
	1/8	12E2-6	12E7-25	8E3-EC	12E7-25	3K3-CHM	12E7-28	3K3-CHM
	11 Ga.	12E2-6	12E7-39	4E3-J	12E7-39		12E7-40	
	15 Ga.	12E2-8	12E7-33	4E3-J	12E7-33		12E7-34	
Manufactured Gas	3/16	12E2-5	12E7-43	3K3-EA	12E7-43		12E7-46	
	1/8	12E2-5	12E7-49	8E3-EC	12E7-49		12E7-27	
	11 Ga.	12E2-5	12E7-37	4E3-J	12E7-37		12E7-38	
	15 Ga.	12E2-7	12E7-31	4E3-M	12E7-31		12E7-32	

NOTES:

1. Use spray parameters listed in the spray tables.
2. Use spray parameters listed in the spray tables. The use of non-load aircaps will cause a slight reduction in spray rates.
3. Use spray parameters listed in the spray tables. The use of non-load aircaps and nozzles will cause a slight reduction in spray rates.
4. Do not use non-load nozzles when spraying Aluminum. If excessive air cap loading occurs when spraying Zinc, replace the standard nozzle with a non-load nozzle. (See the table above for Babbitt and Tin.)
5. Refer to PL 96151 for order numbers.

16E / 16E-H PARAMETERS



Sulzer Metco

Acetylene (C₂H₂)
U.S. Units

Coating Material	Recommended Hardware			Pressure			Flowmeter Readings						Flow			Spray Rate (lbs/hr.)	Spray Distance (inch)	Wire Required ⁶ (lb/ft ² (.001"))	Coverage ⁶ (ft ² (.001")/h)
	Nozzle	Air Cap	Gears	Oxy ² (psig)	Acet ² (psig)	Air ^{2,3} (psig)	2GF		2AF	3GF		3AF	Oxy (ft ³ /hr)	Acet (ft ³ /hr)	Air (ft ³ /hr)				
							Oxy ² (FMR)	Acet ² (FMR)	Air (FMR)	Oxy ¹² (FMR)	Acet ¹² (FMR)	Air ¹³ (FMR)							
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Aluminum ⁸	3/16	EA	STD	33	15	70	48	48	51	97	50	23.5	95	50	1424	16	5-8	0.0144	1111
	1/8	EC		30	15	70	43	40	52	87	40	24	83	40	1452	12	5-8		833
	11	J		25	15	60	33	30	48	67	30	22.5	60	30	1259	5.5	5-8		382
	15	M		25	15	55	24	24	45	47	22	21	42	22	1140	2	5-8		139
S.F. Aluminum ⁸	1/8	EC	STD	30	15	70	43	40	52	87	40	24	83	40	1452	12	5-8	0.0158	764
	1/8	EC	HIGH	30	15	70	44	40	52	91	40	24	86	40	1452	15	5-8		937
Sprababbit A ^{8,9}	3/16	EA	HIGH	30	15	70	38	48	53	69	40	24.5	65	40	1480	95	5-8	0.0504	1875
	3/16	EA		35	15	70	43	55	53	85	60	24.5	85	60	1480	185	5-8		3680
	1/8	EC		35	15	65	28	41	53	48	40	24.5	48	40	1435	90	5-8		1770
	1/8	EC		30	15	65	29	29	53	46	25	24.5	44	25	1435	40	5-8		799
Sprabrass Y	1/8	EC	STD	30	15	70	44	40	52	91	40	24	86	40	1452	24	5-8	0.0504	486
Sprabond ^d	3/16	EA	STD	35	15	55	50	35	49	98	38	23	98	38	1241	8.5	3.5-6	0.0547	153
	1/8	EC		35	15	55	50	35	49	96	32	23	96	32	1241	7.5	3.5-6		139
	11	J		30	15	55	38	28	46	74	30	21.5	70	30	1165	4.5	3.5-6		83
Sprabronze AA	3/16	EA	STD	33	15	70	48	48	53	97	50	24.5	95	50	1480	19	5-8	0.0504	382
	1/8	EC		30	15	70	44	40	52	91	40	24	86	40	1452	15	5-8		299
	11	J		30	15	60	38	28	46	63	30	21.5	60	30	1206	7.5	5-8		146
Sprabronze TM	3/16	EA	STD	33	15	70	48	48	53	97	50	24.5	95	50	1480	33	5-8	0.0504	660
	1/8	EC		30	15	70	44	40	52	91	40	24	86	40	1452	30	5-8		590
	11	J		25	15	60	33	30	46	67	30	21.5	60	30	1206	17	5-8		347
Copper	3/16	EA	STD	33	15	70	48	48	53	97	50	24.5	95	50	1480	30	5-8	0.0504	590
	1/8	EC		30	15	70	44	40	52	91	40	24	86	40	1452	24	5-8		486
	11	J		25	15	60	33	30	46	67	30	21.5	60	30	1206	10	5-8		201
	15	M		25	15	60	24	24	43	47	22	20	42	22	1127	6	5-8		118
Metcoloy ⁵	3/16	EA	STD	33	15	70	48	45	53	100	46	24.5	98	46	1480	16	5-8	0.0461	347
	1/8	EC		30	15	70	44	40	50	89	40	23.5	84	40	1396	11	5-8		236
	11	J		25	15	60	33	30	48	67	30	22	60	30	1259	7.5	5-8		174
Monel	1/8	EC	STD	30	15	70	44	40	51	89	40	23.5	84	40	1424	10	5-8	0.0504	208
Nickel	1/8	EC	STD	30	15	70	44	40	51	89	40	23.5	84	40	1424	8	5-8	0.0432	160
	3/16	EA	STD	35	15	70	50	40	53	103	40	24.5	103	40	1480	18	5-8	0.0432	417
Sprasteels	1/8	EC	STD	30	15	70	46	33	53	95	32	24.5	90	32	1480	13	5-8		312
	1/8	EC	HIGH	30	15	65	44	24	53	90	20	24.5	85	20	1435	40	5-8	0.0504	799
Tin	1/8	EC	HIGH	30	15	65	42	29	53	84	25	24.5	80	25	1435	95	5-8		2674
	3/16	EA	STD	33	15	70	48	45	51	99	47	23.5	97	47	1424	65	5-8	0.0504	1285
1/8	EC	STD	30	15	70	45	40	53	91	40	24.5	86	40	1480	32	5-8	625		
1/8	EC	HIGH	30	15	70	45	42	53	91	40	24.5	86	40	1480	45	5-8	903		
11	J	STD	25	15	60	33	30	48	61	30	22.5	55	30	1259	20	5-8	382		
15	M	STD	25	15	60	24	24	43	47	22	20	42	22	1127	12	5-8	243		
Metco 402	1/8	EC	STD	35	15	65	52	40	50	108	44	23	108	44	1354	6	5-8	0.0403	146
Metco 405 ¹⁰	1/8	C	STD	30	15	70	44	39	52	91	48	24	86	48	1452	5	5-8	0.0432	111
Zinc/Aluminum ^f	1/8	EC	STD	30	15	70	45	40	51	95	43	23.5	90	43	1424	25	5-8	0.036	688

NOTES:

1. Refer to the Gas Head Hardware selection table for additional hardware recommendations before spraying.
2. Columns 5, 6, and 7 show lighting pressure only. After the gun is lit and spraying, adjust the flowmeter needle valves to obtain the flow rates listed in columns 8, 9 and 10 or 11, 12, and 13.
3. Adjust the air for running as well as for lighting to the pressure in column 7.
4. Only Acetylene and MAPP can be used as fuel gases to spray SPRAYBOND wire.
5. When spraying METCOLOY wires, the molten wire tip may appear ragged and uneven. If this should occur, correct by reducing oxygen flow by 2 or 3 points.
6. The values in columns 19 and 20 are optimum. They can be obtained by skilled operators with all equipment in first-class condition.
7. When using the fan spray air cap, spray rates will be lower than the chart values.
8. Use non-load nozzle and air cap hardware when using the reference metal in a start-stop operation. Refer to the hardware selection table.
9. For convenience, parameters for both high and reduced spray rates are given in this table for SPRABABBITT A, tin and zinc.
10. After spraying METCO 405 wire, you can continue to use the C air cap with any 1/8" overcoat wire at a slightly reduced spray rate. Use the gas flows shown above.
11. When spraying 1/8" Tin wire, use drive rolls and gears for 1/8-3/16 wire size range to avoid crushing the wire.
12. Read all FMR values on the 3GF SCFH scale.
13. Read all FMR values on the 3AF SCFM scale.

16E / 16E-H PARAMETERS



Sulzer Metco

Acetylene (C₂H₂)
S.I. Units

Coating Material	Recommended Hardware			Pressure			Flowmeter Readings						Flow			Spray Rate ⁷ (g/min)	Spray Distance (mm)	Wire Required ⁶ (g/m ² (0.1mm))	Coverage ⁶ (m ² (0.1mm)/h)
	Nozzle	Air Cap	Gears	Oxy ² (bar)	Acet ² (bar)	Air ^{2,3} (bar)	2GF		2AF	3GF		3AF	Oxy (NLPM)	Acet (NLPM)	Air (NLPM)				
							Oxy ² (FMR)	Acet ² (FMR)	Air (FMR)	Oxy ¹² (FMR)	Acet ¹² (FMR)	Air ¹³ (FMR)							
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Aluminum ⁸	3/16	EA	STD	2.3	1.0	4.8	48	48	51	42	22	618	42	22	624	121	125-200	277	26.2
	1/8	EC		2.1	1.0	4.8	43	40	52	38	18	631	36	18	636	91	125-200		19.7
	11	J		1.7	1.0	4.1	33	30	48	29	13	591	26	13	552	42	125-200		9.0
	15	M		1.7	1.0	3.8	24	24	45	21	10	552	18	10	499	15	125-200		3.3
S.F. Aluminum ⁸	1/8	EC	STD	2.1	1.0	4.8	43	40	52	38	18	631	36	18	636	91	125-200	304	18.0
	1/8	EC	HIGH	2.1	1.0	4.8	44	40	52	40	18	631	38	18	636	114	125-200		22.1
Sprababbit A ^{8,9}	3/16	EA	HIGH	2.1	1.0	4.8	38	48	53	30	18	644	28	18	648	720	125-200	969	44.2
	3/16	EA		2.4	1.0	4.8	43	55	53	37	26	644	37	26	648	1402	125-200		86.8
	1/8	EC		2.4	1.0	4.5	28	41	53	21	18	644	21	18	629	682	125-200		41.8
	1/8	EC		2.1	1.0	4.5	29	29	53	20	11	644	19	11	629	303	125-200		18.9
Sprabrass Y	1/8	EC	STD	2.1	1.0	4.8	44	40	52	40	18	631	38	18	636	182	125-200	969	11.5
Sprabond ⁴	3/16	EA	STD	2.4	1.0	3.8	50	35	49	43	17	604	43	17	544	64	90-150	1051	3.6
	1/8	EC		2.4	1.0	3.8	50	35	49	42	14	604	42	14	544	57	90-150		3.3
	11	J		2.1	1.0	3.8	38	28	46	32	13	565	31	13	510	34	90-150		2.0
Sprabronze AA	3/16	EA	STD	2.3	1.0	4.8	48	48	53	42	22	644	42	22	648	144	125-200	969	9.0
	1/8	EC		2.1	1.0	4.8	44	40	52	40	18	631	38	18	636	114	125-200		7.1
	11	J		2.1	1.0	4.1	38	28	46	28	13	565	26	13	528	57	125-200		3.4
Sprabronze TM	3/16	EA	STD	2.3	1.0	4.8	48	48	53	42	22	644	42	22	648	250	125-200	969	15.6
	1/8	EC		2.1	1.0	4.8	44	40	52	40	18	631	38	18	636	227	125-200		13.9
	11	J		1.7	1.0	4.1	33	30	46	29	13	565	26	13	528	129	125-200		8.2
Copper	3/16	EA	STD	2.3	1.0	4.8	48	48	53	42	22	644	42	22	648	227	125-200	969	13.9
	1/8	EC		2.1	1.0	4.8	44	40	52	40	18	631	38	18	636	182	125-200		11.5
	11	J		1.7	1.0	4.1	33	30	46	29	13	565	26	13	528	76	125-200		4.7
	15	M		1.7	1.0	4.1	24	24	43	21	10	526	18	10	494	45	125-200		2.8
Metcoloy ⁵	3/16	EA	STD	2.3	1.0	4.8	48	45	53	44	20	644	43	20	648	121	125-200	886	8.2
	1/8	EC		2.1	1.0	4.8	44	40	50	39	18	618	37	18	612	83	125-200		5.6
	11	J		1.7	1.0	4.1	33	30	48	29	13	578	26	13	552	57	125-200		4.1
Monel	1/8	EC	STD	2.1	1.0	4.8	44	40	51	39	18	618	37	18	624	76	125-200	969	4.9
Nickel	1/8	EC	STD	2.1	1.0	4.8	44	40	51	39	18	618	37	18	624	61	125-200	830	3.8
Sprasteels	3/16	EA	STD	2.4	1.0	4.8	50	40	53	45	18	644	45	18	648	136	125-200	830	9.8
	1/8	EC		2.1	1.0	4.8	46	33	53	42	14	644	39	14	648	98	125-200		7.4
Tin	1/8	EC	HIGH	2.1	1.0	4.5	44	24	53	39	9	644	37	9	629	303	125-200	969	18.9
	1/8	EC		2.1	1.0	4.5	42	29	53	37	11	644	35	11	629	720	125-200		63.1
Zinc ^{8,9}	3/16	EA	STD	2.3	1.0	4.8	48	45	51	43	21	618	42	21	624	492	125-200	969	30.3
	1/8	EC		2.1	1.0	4.8	45	40	53	40	18	644	38	18	648	242	125-200		14.7
	1/8	EC	HIGH	2.1	1.0	4.8	45	42	53	40	18	644	38	18	648	341	125-200		21.3
	11	J		1.7	1.0	4.1	33	30	48	27	13	591	24	13	552	152	125-200		9.0
	15	M		1.7	1.0	4.1	24	24	43	21	10	526	18	10	494	91	125-200		5.7
Metco 402	1/8	EC	STD	2.4	1.0	4.5	52	40	50	47	19	604	47	19	593	45	125-200	775	3.4
Metco 405 ¹⁰	1/8	C	STD	2.1	1.0	4.8	44	39	52	40	21	631	38	21	636	38	125-200	830	2.6
Zinc/Aluminum ⁸	1/8	EC	STD	2.1	1.0	4.8	45	40	51	42	19	618	39	19	624	189	125-200	692	16.2

NOTES:

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3. Adjust the air for running as well as for lighting to the pressure in column 7.
4. Only Acetylene and MAPP can be used as fuel gases to spray SPRAYBOND wire.
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9. For convenience, parameters for both high and reduced spray rates are given in this table for SPRABABBITT A, tin and zinc.
10. After spraying METCO 405 wire, you can continue to use the C air cap with any 1/8" overcoat wire at a slightly reduced spray rate. Use the gas flows shown above.
11. When spraying 1/8" Tin wire, use drive rolls and gears for 1/8-3/16 wire size range to avoid crushing the wire.
12. Read all FMR values on the 3GF NLPM scale.
13. Read all FMR values on the 3AF NLPM scale.

16E / 16E-H PARAMETERS



Sulzer Metco

Propane (C₃H₈)

U.S. Units

Coating Material	Recommended Hardware			Pressure			Flowmeter Readings						Flow			Spray Rate ⁷ (lbs./hr.)	Spray Distance (inch)	Wire Required ⁶ (lb/ft ² (.001"))	Coverage ⁵ (ft ² (.001"))/h
	Nozzle	Air Cap	Gears	Oxy ² (psig)	Prop ² (psig)	Air ^{2,3} (psig)	2GF		2AF	3GF		3AF	Oxy (ft ³ /hr)	Prop (ft ³ /hr)	Air (ft ³ /hr)				
							Oxy ² (FMR)	Prop ² (FMR)	Air (FMR)	Oxy ¹² (FMR)	Prop ¹² (FMR)	Air ¹³ (FMR)							
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Aluminum ⁸	3/16	EA	STD	45	40	70	69	35	53	157	33	24.5	172	34	1482	16	5-8	0.0144	1111
	1/8	EC		50	40	70	72	33	52	170	32	24.5	194	33	1452	12	5-8		833
	11	J		40	35	60	54	24	48	114	23	22.5	120	23	1260	5.5	5-8		382
	15	M		35	35	60	46	18	45	95	15	21	95	15	1182	2	5-8		139
S.F. Aluminum ⁸	1/8	EC	STD	50	40	70	72	33	52	171	32	24.5	194	33	1452	15	5-8	0.0158	764
	1/8	EC	HIGH	50	40	70	72	33	52	171	32	24.5	194	33	1452	17	5-8		937
Sprababbit A ^{8,9}	3/16	EA	HIGH	30	30	70	60	26	53	137	21	24.5	130	20	1482	95	5-8	0.0504	1875
	3/16	EA		45	35	70	72	35	53	169	35	24.5	185	35	1482	185	5-8		3680
	1/8	EC		25	25	70	45	17	53	90	28	24.5	80	12	1482	40	5-8		799
	1/8	EC		25	20	70	50	22	53	101	20	24.5	90	17	1482	90	5-8		1770
Sprabrass Y	1/8	EC	STD	50	40	70	68	33	53	153	34	24.5	175	35	1482	26	5-8	0.0504	528
Sprabronze AA	3/16	EA	STD	50	40	70	70	35	53	158	34	24.5	180	35	1482	21	5-8	0.0504	403
	1/8	EC		50	40	70	68	33	53	153	34	24.5	175	35	1482	18	5-8		354
	11	J		40	35	60	54	24	48	114	23	22.5	120	23	1260	8	5-8		160
Sprabronze TM	3/16	EA	STD	50	40	70	70	35	53	158	34	24.5	180	35	1482	36	5-8	0.0504	680
	1/8	EC		50	40	70	68	33	53	153	34	24.5	175	35	1482	33	5-8		625
	11	J		40	35	60	54	24	48	114	23	22.5	120	23	1260	19	5-8		361
Copper	3/16	EA	STD	50	40	70	70	35	53	158	34	24.5	180	35	1482	33	5-8	0.0504	660
	1/8	EC		50	40	70	68	33	53	153	34	24.5	175	35	1482	25	5-8		521
	11	J		40	35	60	54	24	48	114	23	22.5	120	23	1260	14	5-8		278
	15	M		35	35	60	46	18	43	95	15	20	95	15	1128	8	5-8		160
Metcoloy ⁵	3/16	EA	STD	55	50	70	68	38	53	152	37	24.5	180	42	1482	20	5-8	0.0461	417
	1/8	EC		55	50	70	68	36	53	153	35	24.5	181	40	1482	12	5-8		264
	11	J		45	35	70	50	25	48	89	22	24.5	97	22	1338	8	5-8		181
Monel	1/8	EC	STD	55	50	70	68	36	53	153	35	24.5	181	40	1482	12	5-8	0.0504	243
Nickel	1/8	EC	STD	55	50	70	68	36	53	153	35	24.5	181	40	1482	8	5-8	0.0432	160
Sprasteels	3/16	EA	STD	50	40	70	70	32	53	165	22	24.5	188	23	1482	18	5-8	0.0504	417
	1/8	EC		55	40	70	68	32	53	149	29	24.5	176	30	1482	13	5-8	0.0432	312
Tin	1/8	EC	HIGH	25	20	70	45	17	53	90	15	24.5	80	12	1482	40	5-8	0.0504	799
	1/8	EC		25	25	70	50	22	53	101	19	24.5	90	17	1482	95	5-8		2673
Zinc ^{8,9}	3/16	AH	STD	45	35	70	68	32	53	147	30	24.5	161	30	1482	60	5-8	0.0504	1125
	1/8	CH		50	40	70	68	34	53	153	34	24.5	175	35	1482	32	5-8		625
	1/8	CH	HIGH	50	40	70	68	34	53	153	34	24.5	175	35	1482	45	5-8		903
	11	J		40	35	60	54	24	48	114	23	22.5	120	23	1260	20	5-8		382
	15	M		35	35	60	46	18	43	195	15	20	195	15	1128	12	5-8		243
Metco 402	1/8	EC	STD	50	40	70	70	32	53	160	31	24.5	182	32	1482	6	5-8	0.0403	146
Metco 405 ¹⁰	1/8	C	STD	50	45	70	68	35	53	154	35	24.5	176	38	1482	5	5-8	0.0432	111
Zinc/Aluminum ⁸	1/8	CH	STD	50	40	70	68	34	53	154	34	24.5	176	35	1482	25	5-8	0.036	694

Propane (C₃H₈)
U.S. Units

16E / 16E-H PARAMETERS

SULZER

Sulzer Metco

Propane (C₃H₈)
U.S. Units

NOTES:

1. Refer to the Gas Head Hardware selection table for additional hardware recommendations before spraying.
2. Columns 5, 6, and 7 show lighting pressure only. After the gun is lit and spraying, adjust the flowmeter needle valves to obtain the flow rates listed in columns 8, 9, and 10 or 11, 12, and 13.
3. Adjust the air for running as well as for lighting to the pressure in column 7.
4. Only Acetylene and MAPP can be used as fuel gases to spray SPRAYBOND wire.
5. When spraying METCOLOY wires, the molten wire tip may appear ragged and uneven. If this should occur, correct by reducing oxygen flow by 2 or 3 points.
6. The values in columns 19 and 20 are optimum. They can be obtained by skilled operators with all equipment in first-class condition.
7. When using the fan spray air cap, spray rates will be lower than the chart values.
8. Use non-load nozzle and air cap hardware when using the reference metal in a start-stop operation. Refer to the hardware selection table.
9. For convenience, parameters for both high and reduced spray rates are given in this table for SPRABABBITT A, tin and zinc.
10. After spraying METCO 405 wire, you can continue to use the C air cap with any 1/8" overcoat wire at a slightly reduced spray rate. Use the gas flows shown above.
11. When spraying 1/8" Tin wire, use drive rolls and gears for 1/8-3/16 wire size range to avoid crushing the wire.
12. Read all FMR values on the 3GF SCFH scale.
13. Read all FMR values on the 3AF SCFM scale.

16E / 16E-H PARAMETERS



Sulzer Metco

Propane (C₃H₈)
S.I. Units

Coating Material	Recommended Hardware			Pressure			Flowmeter Readings						Flow			Spray Rate ⁷ (g/min)	Spray Distance (mm)	Wire Required ⁶ (g/m ² (0.1mm))	Coverage ⁵ (m ² (0.1mm)/h)
	Nozzle	Air Cap	Gears	Oxy ² (bar)	Prop ² (bar)	Air ^{2,3} (bar)	2GF		2AF	3GF		3AF	Oxy (NLPM)	Prop (NLPM)	Air (NLPM)				
							Oxy ² (FMR)	Prop ² (FMR)	Air (FMR)	Oxy ¹² (FMR)	Prop ¹² (FMR)	Air ¹³ (FMR)							
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Aluminum ¹⁰	3/16	EA	STD	3.1	2.8	4.8	69	35	53	69	14	644	75	15	649	121	125-200	277	26.2
	1/8	EC		3.4	2.8	4.8	72	33	52	74	14	644	85	14	636	91			19.7
	11	J		2.8	2.4	4.1	54	24	48	50	10	591	53	10	552	42			9.0
	15	M		2.4	2.4	4.1	46	18	45	42	7	552	42	7	518	15			3.3
S.F. Aluminum ¹⁰	1/8	EC	STD	3.4	2.8	4.8	72	33	52	75	14	644	85	14	636	114	125-200	304	18.0
	1/8	EC	HIGH	3.4	2.8	4.8	72	33	52	75	14	644	85	14	636	129			22.1
Sprababbit A ^{10,11}	3/16	EA	HIGH	2.1	2.1	4.8	60	26	53	60	9	644	57	9	649	720	125-200	969	44.2
	3/16	EA		3.1	2.4	4.8	72	35	53	74	15	644	81	15	649	1402			86.8
	1/8	EC		1.7	1.7	4.8	45	17	53	39	12	644	35	5	649	303			18.9
	1/8	EC		1.7	1.4	4.8	50	22	53	44	9	644	39	7	649	682			41.8
Sprabrass Y	1/8	EC	STD	3.4	2.8	4.8	68	33	53	67	15	644	77	15	649	197	125-200	969	12.5
Sprabronze AA	3/16	EA	STD	3.4	2.8	4.8	70	35	53	69	15	644	79	15	649	159			9.5
	1/8	EC		3.4	2.8	4.8	68	33	53	67	15	644	77	15	649	136	8.4		
	11	J		2.8	2.4	4.1	54	24	48	50	10	591	53	10	552	61	3.8		
Sprabronze TM	3/16	EA	STD	3.4	2.8	4.8	70	35	53	69	15	644	79	15	649	273	125-200	969	16.0
	1/8	EC		3.4	2.8	4.8	68	33	53	67	15	644	77	15	649	250			14.7
	11	J		2.8	2.4	4.1	54	24	48	50	10	591	53	10	552	144			8.5
Copper	3/16	EA	STD	3.4	2.8	4.8	70	35	53	69	15	644	79	15	649	250	125-200	969	15.6
	1/8	EC		3.4	2.8	4.8	68	33	53	67	15	644	77	15	649	189			12.3
	11	J		2.8	2.4	4.1	54	24	48	50	10	591	53	10	552	106			6.6
	15	M		2.4	2.4	4.1	46	18	43	42	7	526	42	7	494	61			3.8
Metcoloy ⁵	3/16	EA	STD	3.8	3.4	4.8	68	38	53	67	16	644	79	18	649	152	125-200	886	9.8
	1/8	EC		3.8	3.4	4.8	68	36	53	67	15	644	79	18	649	91			6.2
	11	J		3.1	2.4	4.8	50	25	48	39	10	644	42	10	586	61			4.3
Monel	1/8	EC	STD	3.8	3.4	4.8	68	36	53	67	15	644	79	18	649	91	125-200	969	5.7
Nickel	1/8	EC	STD	3.8	3.4	4.8	68	36	53	67	15	644	79	18	649	61			3.8
Sprasteels	3/16	EA	STD	3.4	2.8	4.8	70	32	53	72	10	644	82	10	649	136	125-200	969	9.8
	1/8	EC		3.8	2.8	4.8	68	32	53	65	13	644	77	13	649	98			7.4
Tin	1/8	EC	HIGH	1.7	1.4	4.8	45	17	53	39	7	644	35	5	649	303	125-200	969	18.9
	1/8	EC		1.7	1.7	4.8	50	22	53	44	8	644	39	7	649	720			63.1
Zinc ^{10,11}	3/16	EA	STD	3.1	2.4	4.8	68	32	53	64	13	644	71	13	649	455	125-200	969	26.5
	1/8	EC		3.4	2.8	4.8	68	34	53	67	15	644	77	15	649	242			14.7
	1/8	EC	HIGH	3.4	2.8	4.8	68	34	53	67	15	644	77	15	649	341			21.3
	11	J		2.8	2.4	4.1	54	24	48	50	10	591	53	10	552	152			9.0
	15	M		2.4	2.4	4.1	46	18	43	85	7	526	85	7	494	91			5.7
Metco 402	1/8	EC	STD	3.4	2.8	4.8	70	32	53	70	14	644	80	14	649	45	125-200	775	3.4
Metco 405 ¹²	1/8	C	STD	3.4	3.1	4.8	68	35	53	67	15	644	77	17	649	38			2.6
Zinc/Aluminum ¹⁰	1/8	EC	STD	3.4	2.8	4.8	68	34	53	67	15	644	77	15	649	189	125-200	692	16.4

16E / 16E-H PARAMETERS

SULZER

Sulzer Metco

Propane (C₃H₈)

S.I. Units

NOTES:

1. Refer to the Gas Head Hardware selection table for additional hardware recommendations before spraying.
2. Columns 5, 6, and 7 show lighting pressure only. After the gun is lit and spraying, adjust the flowmeter needle valves to obtain the flow rates listed in columns 8, 9 and 10 or 11, 12, and 13.
3. Adjust the air for running as well as for lighting to the pressure in column 7.
4. Only Acetylene and MAPP can be used as fuel gases to spray SPRAYBOND wire.
5. When spraying METCOLOY wires, the molten wire tip may appear ragged and uneven. If this should occur, correct by reducing oxygen flow by 2 or 3 points.
6. The values in columns 19 and 20 are optimum. They can be obtained by skilled operators with all equipment in first-class condition.
7. When using the fan spray air cap, spray rates will be lower than the chart values.
8. Use non-load nozzle and air cap hardware when using the reference metal in a start-stop operation. Refer to the hardware selection table.
9. For convenience, parameters for both high and reduced spray rates are given in this table for SPRABABBITT A, tin and zinc.
10. After spraying METCO 405 wire, you can continue to use the C air cap with any 1/8" overcoat wire at a slightly reduced spray rate. Use the gas flows shown above.
11. When spraying 1/8" Tin wire, use drive rolls and gears for 1/8-3/16 wire size range to avoid crushing the wire.
12. Read all FMR values on the 3GF NLPM scale.
13. Read all FMR values on the 3AF NLPM scale.

16E / 16E-H PARAMETERS



Sulzer Metco

MAPP
U.S. Units

Coating Material	Recommended Hardware			Pressure			Flowmeter Readings						Flow			Spray Rate ⁷ (lbs./hr.)	Spray Distance (inch)	Wire Required ⁶ (lb/ft ² (.001"))	Coverage ⁶ (ft ² (.001"))/h)
	Nozzle	Air Cap	Gears	Oxy ² (psig)	MAPP ² (psig)	Air ^{2,3} (psig)	2GF		2AF	3GF		3AF	Oxy (ft ³ /hr)	MAPP (ft ³ /hr)	Air (ft ³ /hr)				
							Oxy ² (FMR)	MAPP ² (FMR)	Air (FMR)	Oxy ¹² (FMR)	MAPP ¹² (FMR)	Air ¹³ (FMR)							
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Aluminum	3/16	AM	STD	45	45	70	72	34	51	169	35	23.5	185	40	1424	20.5	5-8	0.014	1389
	1/8	EC		45	40	70	67	30	53	155	27	24.5	170	30	1480	12.5	5-8		833
	15	J		35	40	60	47	22	48	105	18	22.5	105	20	1259	3	5-8		208
S.F. Aluminum	1/8	EC	STD	50	50	60	69	33	51	153	31	23.5	175	37	1337	16	5-8	0.016	1007
	1/8	EC	HIGH	50	50	60	69	33	51	153	31	23.5	175	37	1337	12	5-8		764
Sprababbit A	3/16	AM	HIGH	30	25	70	57	25	53	116	21	24.5	110	20	1480	95	5-8	0.050	1875
	3/16	AM		35	35	70	60	30	53	130	29	24.5	130	30	1480	185	5-8		3681
	1/8	EC		35	25	70	57	20	53	120	16	24.5	120	15	1480	40	5-8		799
	1/8	EC		40	30	70	60	25	53	124	22	24.5	130	22	1480	90	5-8		1771
Sprabond	3/16	AM	STD	45	40	55	70	32	50	164	32	23	180	35	1266	9	3.5-6	0.055	160
	1/8	EC		45	40	55	67	30	46	155	27	21.5	170	30	1165	7	3.5-6		125
	11	J		50	45	55	60	27	48	127	25	22.5	145	28	1216	6	3.5-6		90
Sprabronze AA	3/16	AM	STD	50	45	70	72	34	51	162	35	23.5	185	40	1424	25	5-8	0.050	486
	1/8	EC		50	50	60	69	33	51	153	31	23.5	175	37	1337	16	5-8		312
Sprabronze TM	1/8	EC		50	50	60	69	33	51	153	31	23.5	175	37	1337	28	5-8		556
Copper	1/8	EC		45	50	60	69	33	51	160	31	23.5	175	37	1337	22	5-8		437
	11	J		50	45	60	60	27	48	127	25	22.5	145	28	1259	15	5-8		299
Metcolloys	3/16	AM	STD	45	45	70	72	34	51	169	35	23.5	185	40	1424	20	5-8	0.046	431
	1/8	EC		50	50	60	69	33	51	153	31	23.5	175	37	1337	12	5-8		264
	11	J		50	45	60	60	30	48	131	28	22.5	150	32	1259	11	5-8		243
Sprasteels	3/16	AM	STD	45	45	70	72	34	51	178	32	23.5	195	37	1424	20	5-8	0.050	458
	1/8	EC		50	50	60	70	32	51	158	30	23.5	180	36	1337	14.5	5-8	0.043	333
Zinc	3/16	AM	STD	45	45	70	72	34	51	169	35	23.5	185	40	1424	68	5-8	0.050	1354
	1/8	EC		50	50	70	69	33	53	153	31	24.5	175	37	1480	32	5-8		625
	1/8	EC	HIGH	50	50	70	69	33	53	153	31	24.5	175	37	1480	45	5-8		903
	15	J		40	45	60	51	22	48	100	18	22.5	105	20	1259	14	5-8		278
Metco 402	1/8	EC	STD	55	45	70	70	32	51	150	31	23.5	177	35	1424	5	5-8	0.040	125
Metco 405	1/8	C	STD	40	40	70	65	30	52	138	27	24	145	30	1452	5	5-8	0.043	111
Zinc/Aluminum	1/8	CHM	STD	50	50	70	69	33	53	153	31	24.5	175	37	1480	25	5-8	0.036	694

NOTES:

1. Refer to the Gas Head Hardware selection table for additional hardware recommendations before spraying.
2. Columns 5, 6, and 7 show lighting pressure only. After the gun is lit and spraying, adjust the flowmeter needle valves to obtain the flow rates listed in columns 8, 9 and 10 or 11, 12, and 13.
3. Adjust the air for running as well as for lighting to the pressure in column 7.

16E / 16E-H PARAMETERS

SULZER

Sulzer Metco

MAPP
U.S. Units

4. Only Acetylene and MAPP can be used as fuel gases to spray SPRAYBOND wire.
5. When spraying METCOLOY wires, the molten wire tip may appear ragged and uneven. If this should occur, correct by reducing oxygen flow by 2 or 3 points.
6. The values in columns 19 and 20 are optimum. They can be obtained by skilled operators with all equipment in first-class condition.
7. When using the fan spray air cap, spray rates will be lower than the chart values.
8. Use non-load nozzle and air cap hardware when using the reference metal in a start-stop operation. Refer to the hardware selection table.
9. For convenience, parameters for both high and reduced spray rates are given in this table for SPRABABBITT A, tin and zinc.
10. After spraying METCO 405 wire, you can continue to use the C air cap with any 1/8" overcoat wire at a slightly reduced spray rate. Use the gas flows shown above.
11. When spraying 1/8" Tin wire, use drive rolls and gears for 1/8-3/16 wire size range to avoid crushing the wire.
12. Read all FMR values on the 3GF SCFH scale.
13. Read all FMR values on the 3AF SCFM scale.

16E / 16E-H PARAMETERS



Sulzer Metco

MAPP
S.I. Units

Coating Material	Recommended Hardware			Pressure			Flowmeter Readings						Flow			Spray Rate ⁷ (g/min)	Spray Distance (mm)	Wire Required ⁶ (g/m ² (0.1mm))	Coverage ⁵ (m ² (0.1mm)/h)
	Nozzle	Air Cap	Gears	Oxy ² (bar)	MAPP ² (bar)	Air ^{2,3} (bar)	2GF		2AF	3GF		3AF	Oxy (NLPM)	MAPP (NLPM)	Air (NLPM)				
							Oxy ² (FMR)	MAPP ² (FMR)	Air ² (FMR)	Oxy ¹² (FMR)	MAPP ¹² (FMR)	Air ¹³ (FMR)							
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Aluminum	3/16	AM	STD	3.1	3.1	4.8	72	34	51	74	15	665	81.0	17.5	624	155	125-200	277	32.8
	1/8	EC		3.1	2.8	4.8	67	30	53	68	12	694	74.5	13.1	648	95	125-200		19.7
	15	J		2.4	2.8	4.1	47	22	48	46	8	637	46.0	8.8	552	23	125-200		4.9
S.F. Aluminum	1/8	EC	STD	3.4	3.4	4.1	69	33	51	67	14	665	76.7	16.2	586	121	125-200	304	23.8
	1/8	EC	HIGH	3.4	3.4	4.1	69	33	51	67	14	665	76.7	16.2	586	91	125-200		18.0
Sprababbit A	3/16	AM	HIGH	2.1	1.7	4.8	57	25	53	51	9	694	48.2	8.8	648	720	125-200	969	44.2
	3/16	AM		2.4	2.4	4.8	60	30	53	57	13	694	57.0	13.1	648	1402	125-200		86.9
	1/8	EC		2.4	1.7	4.8	57	20	53	53	7	694	52.6	6.6	648	303	125-200		18.8
	1/8	EC		2.8	2.1	4.8	60	25	53	54	10	694	57.0	9.6	648	682	125-200		41.8
Sprabond	3/16	AM	STD	3.1	2.8	3.8	70	32	50	72	14	651	78.9	15.3	555	68	90-150	1052	3.8
	1/8	EC		3.1	2.8	3.8	67	30	46	68	12	609	74.5	13.1	510	53	90-150		2.9
	11	J		3.4	3.1	3.8	60	27	48	56	11	637	63.5	12.3	533	45	90-150		2.1
Sprabronze AA	3/16	AM	STD	3.4	3.1	4.8	72	34	51	71	15	665	81.0	17.5	624	189	125-200	969	11.5
	1/8	EC		3.4	3.4	4.1	69	33	51	67	14	665	76.7	16.2	586	121	125-200		7.4
Sprabronze TM	1/8	EC		3.4	3.4	4.1	69	33	51	67	14	665	76.7	16.2	586	212	125-200		13.1
Copper	1/8	EC		3.1	3.4	4.1	69	33	51	70	14	665	76.7	16.2	586	167	125-200		10.3
	11	J		3.4	3.1	4.1	60	27	48	56	11	637	63.5	12.3	552	114	125-200		7.0
Metcolloys	3/16	AM	STD	3.1	3.1	4.8	72	34	51	74	15	665	81.0	17.5	624	152	125-200	886	10.2
	1/8	EC		3.4	3.4	4.1	69	33	51	67	14	665	76.7	16.2	586	91	125-200		6.2
	11	J		3.4	3.1	4.1	60	30	48	57	12	637	65.7	14.0	552	83	125-200		5.7
Sprasteels	3/16	AM	STD	3.1	3.1	4.8	72	34	51	78	14	665	85.4	16.2	624	152	125-200	969	10.8
	1/8	EC		3.4	3.4	4.1	70	32	51	69	13	665	78.9	15.8	586	110	125-200		830
Zinc	3/16	AM	STD	3.1	3.1	4.8	72	34	51	74	15	665	81.0	17.5	624	515	125-200	969	32.0
	1/8	EC		3.4	3.4	4.8	69	33	53	67	14	694	76.7	16.2	648	242	125-200		14.7
	1/8	EC	HIGH	3.4	3.4	4.8	69	33	53	67	14	694	76.7	16.2	648	341	125-200		21.3
	15	J		2.8	3.1	4.1	51	22	48	44	8	637	46.0	8.8	552	106	125-200		6.6
Metco 402	1/8	EC	STD	3.8	3.1	4.8	70	32	51	66	14	665	77.5	15.3	624	38	125-200	775	2.9
Metco 405	1/8	C	STD	2.8	2.8	4.8	65	30	52	60	12	680	63.5	13.1	636	38	125-200	830	2.6
Zinc/Aluminum	1/8	CHM	STD	3.4	3.4	4.8	69	33	53	67	14	694	76.7	16.2	648	189	125-200	692	16.4

NOTES:

1. Refer to the Gas Head Hardware selection table for additional hardware recommendations before spraying.
2. Columns 5, 6, and 7 show lighting pressure only. After the gun is lit and spraying, adjust the flowmeter needle valves to obtain the flow rates listed in columns 8, 9 and 10 or 11, 12, and 13.
3. Adjust the air for running as well as for lighting to the pressure in column 7.

4. Only Acetylene and MAPP can be used as fuel gases to spray SPRAYBOND wire.
5. When spraying METCOLOY wires, the molten wire tip may appear ragged and uneven. If this should occur, correct by reducing oxygen flow by 2 or 3 points.
6. The values in columns 19 and 20 are optimum. They can be obtained by skilled operators with all equipment in first-class condition.
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8. Use non-load nozzle and air cap hardware when using the reference metal in a start-stop operation. Refer to the hardware selection table.
9. For convenience, parameters for both high and reduced spray rates are given in this table for SPRABABBITT A, tin and zinc.
10. After spraying METCO 405 wire, you can continue to use the C air cap with any 1/8" overcoat wire at a slightly reduced spray rate. Use the gas flows shown above.
11. When spraying 1/8" Tin wire, use drive rolls and gears for 1/8-3/16 wire size range to avoid crushing the wire.
12. Read all FMR values on the 3GF NLPM scale.
13. Read all FMR values on the 3AF NLPM scale.