Sulzer Metco

Diamond Jet® HVOF Process

Spraying Tables
56375, Issue c

About the Tables

Parameters listed for each powder are based on extensive laboratory and field experience. They will produce sound, reliable coatings at optimum deposit efficiency. Proper use of the Spraying Tables requires that the operator be familiar with all of the components used in a Sulzer Metco HVOF System. In this way, the equipment can be set up in accordance with parameters. They are a reasonable starting point. If necessary, modify them for your application.

Refer to the Spraying Table Selector below to find parameters for the fuel gas, front gun section and cooling method (air cooling or hybrid air-water cooling) used. Spraying tables list parameters in U.S. units, followed by the same parameters in metric units. Each spraying table contains notes with special instructions. These instructions are important and should be followed to achieve optimum spraying results.

Spraying Table Selector				
Table	**Fuel Gas**		**Front Gun Section**	**Cooling Method**
T1	H_2	Hydrogen	DJ8A	Air
T2	C_3H_6	Propylene	DJ9A	Air
T3	C_3H_8	Propane	DJ9A	Air
T4	C_3H_8	Propane	DJ1050	Air
T5	H_2	Hydrogen	DJ8W	Hybrid
T6	CH_4	Natural Gas (Methane)	DJ9W	Hybrid
T7	C_2H_4	Ethylene	DJ9W	Hybrid
T8	C_3H_6	Propylene	DJ9W	Hybrid
T9	C_3H_8	Propane	DJ9W	Hybrid

Abbreviations

Dist.	distance
Eff.	efficiency
ft^2/hr/.001	square feet per hour for 0.001 inch coating thickness
lbs/ft^2/.001	pounds per square foot for 0.001 inch coating thickness
µm	micrometer (10^{-6} m)
Press.	pressure
Vib.	vibrator

Document No.	Reason for revision	Date of revision
56375, Issue c	Revised introduction, layout and logo. Added copyright and trade-mark notices.	02/2003

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SULZER METCO

DIAMOND JET PARAMETERS

DJ8A HARDWARE

HYDROGEN (H2) FUEL GAS

AIR COOLED
U.S. UNITS

Coating Material	HARDWARE	PRESSURE			FLOWMETER READING			FLOW [1]			POWDER FEEDER (DJP) [2]					
	AIR CAP	OXYGEN PRESS. (psig)	FUEL PRESS. (psig)	AIR PRESS. (psig)	OXYGEN F.M.R.	FUEL F.M.R.	AIR F.M.R.	OXYGEN FLOW (SCFH)	FUEL FLOW (SCFH)	AIR FLOW (SCFH)	N2 F.M.R.	N2 FLOW (SCFH)	AIR VIB (psig)	SPRAY RATE (lbs./hr.)	SPRAY DIST. (in.)	DEPOSIT EFF. (%)
1003	DJ3-8	160	125	75	32	60	47	476	1310	742	55	26.3	20	6	8	75
2003	DJ3-8	160	125	75	41	64	45	610	1422	710	55	26.3	20	5	6	70
2004	DJ3-8	160	125	75	41	64	45	610	1422	710	55	26.3	20	5	6	70
2005	DJ3-8	150	125	75	38	63	45	550	1400	710	60	28.7	20	5	6	60
2006	DJ3-8	150	125	75	38	63	45	550	1400	710	60	28.7	40	5	6	60
3004	DJ3-8	160	125	75	41	63	45	610	1400	710	60	28.7	20	5	6	45
3005	DJ3-8	150	120	75	36	55	45	520	1200	710	60	28.7	20	2	5	30
3006	DJ3-8	150	120	75	36	55	45	520	1200	710	60	28.7	20	3	6	50
3007	DJ3-8	150	120	75	36	60	45	520	1310	710	60	28.7	20	4	6	45

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Notes :
1. S.C.F.H. = Standard Cubic Feet per Hour (0 psig, 70°F)
2. Set Nitrogen carrier gas pressure to 175 psig at the supply, and 125 psig at the gauge on the DJP. For 9MP-DJ use SCFH as Flow Meter Reading.

SULZER METCO

DIAMOND JET PARAMETERS

DJ8A HARDWARE

HYDROGEN (H2) FUEL GAS

AIR COOLED
METRIC UNITS

Coating Material	HARDWARE	PRESSURE			FLOWMETER READING			FLOW [1]			POWDER FEEDER (DJP)[2]					
	AIR CAP	OXYGEN PRESS. (bar)	FUEL PRESS. (bar)	AIR PRESS. (bar)	OXYGEN F.M.R.	FUEL F.M.R.	AIR F.M.R.	OXYGEN FLOW (NLPM)	FUEL FLOW (NLPM)	AIR FLOW (NLPM)	N2 F.M.R.	N2 FLOW (NLPM)	AIR VIB (bar)	SPRAY RATE (g./min.)	SPRAY DIST. (mm)	DEPOSIT EFF. (%)
1003	DJ3-8	11	8.6	5.2	32	60	47	208	574	325	55	11.5	1.4	45	200	75
2003	DJ3-8	11	8.6	5.2	41	64	45	267	623	311	55	11.5	1.4	38	150	70
2004	DJ3-8	11	8.6	5.2	41	64	45	267	623	311	55	11.5	1.4	38	150	70
2005	DJ3-8	10.3	8.6	5.2	38	63	45	241	613	311	60	12.6	1.4	38	150	60
2006	DJ3-8	10.3	8.6	5.2	38	63	45	241	613	311	60	12.6	2.8	38	150	60
3004	DJ3-8	11	8.6	5.2	41	63	45	267	613	311	60	12.6	1.4	38	150	45
3005	DJ3-8	10.3	8.3	5.2	36	55	45	228	526	311	60	12.6	1.4	15	125	30
3006	DJ3-8	10.3	8.3	5.2	36	55	45	228	526	311	60	12.6	1.4	23	150	50
3007	DJ3-8	10.3	8.3	5.2	36	60	45	228	574	311	60	12.6	1.4	30	150	45

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Notes :
1. N.L.P.M. = Normal Liters Per Minute (0°C)
2. Set Nitrogen carrier gas pressure to 12 Bar at the supply, and 8.6 Bar at the gauge on the DJP. For 9MP-DJ consult instruction manual.

SULZER METCO

DIAMOND JET PARAMETERS

DJ9A HARDWARE

PROPYLENE (C3H6) FUEL GAS

AIR COOLED

U.S. UNITS

Coating Material	HARDWARE [3]	PRESSURE			FLOWMETER READING			FLOW [1]			POWDER FEEDER (DJP) [2]							
	AIR CAP	OXYGEN PRESS. (psig)	FUEL PRESS. (psig)	AIR PRESS. (psig)	OXYGEN F.M.R.	FUEL F.M.R.	AIR F.M.R.	OXYGEN FLOW (SCFH)	FUEL FLOW (SCFH)	AIR FLOW (SCFH)	N2 F.M.R.	N2 FLOW (SCFH)	AIR VIB (psig)	SPRAY RATE (lbs./hr.)	SPRAY DIST. (in.)	DEPOSIT EFF. (%)	COVERAGE (ft^2/hr/.001)	POWDER REQUIRED (lb/ft^2/.001)
1003	DJ3-9	150	80	75	42	41	46	606	163	726	60	28.7	20	6	8	87	141	0.043
1004	DJ3-9	150	80	75	49	35	52	708	139	821	60	28.7	20	8	6-9	80	184	0.043
1005	DJ3-9	150	80	75	49	40	50	708	159	789	50	23.9	20	8	6-12	70	148	0.054
1006	DJ3-9	150	80	75	52	33	47	750	132	742	60	28.7	20	8	8-12	60	126	0.063
1007	DJ3-9	150	80	75	49	34	54	708	137	852	50	23.9	25	8	10	60	114	0.070
1008	DJ3-9	150	80	75	44	43	49	635	171	773	60	28.7	20	5	9-11	60	85	0.072
2001	DJ3-9	150	80	75	44	43	49	635	171	773	60	28.7	20	5	6	60	69	0.072
2002	DJ3-9	150	80	75	44	43	49	635	171	773	60	28.7	20	5	6-8	60	61	0.082
2003	DJ3-9	150	80	75	42	42	47	606	167	742	60	28.7	20	5	6-8	70	50	0.100
2004	DJ3-9	150	80	75	43	42	47	620	167	742	55	26.3	20	5	6-8	70	46	0.110
2005	DJ3-9	150	80	75	43	42	47	620	167	742	55	26.3	20	5	6-8	60	50	0.100
2006	DJ3-9	150	80	75	43	42	47	620	167	742	60	28.7	40	5	6-8	60	47	0.110
3001	DJ3-9	150	80	75	48	45	61	693	180	963	60	28.7	20	3	6	82	63	0.048
3002	DJ3-9	150	80	75	48	45	61	693	180	963	60	28.7	20	3	6	50	38	0.080
3004	DJ3-9	150	80	75	42	42	47	606	167	742	60	28.7	20	5	6-8	45	60	0.072
3005	DJ3-9	150	80	75	42	44	50	606	176	767	60	28.7	20	2	7	30	19	0.100
3006	DJ3-9	150	80	75	42	42	51	606	167	805	60	28.7	20	4	6-8	50	57	0.070
3007	DJ3-9	150	80	75	42	42	51	606	167	805	60	28.7	20	4	6-8	45	52	0.080
4006	DJ3-9	150	80	75	50	38	39	722	149	615	55	26.3	20	6	7-9	65	124	0.048
4008	DJ3-9	150	80	75	44	43	49	635	171	773	60	28.7	20	5	8	55	79	0.063
5810	DJ3-9	150	80	75	43	42	47	620	167	742	55	26.3	20	5	6-8	65		

B.R.

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Notes :

1. S.C.F.H. = Standard Cubic Feet per Hour (0 psig, 70°F)
2. Set nitrogen carrier gas pressure to 175 psig at the supply, and 125 psig at the gauge on the DJP. For 9MP-DJ use SCFH as Flow Meter Reading.
3. DJ 2721 Air Cap Body must be used
4. For hand held gun use DJ2752 gold valve core

SULZER METCO

DIAMOND JET PARAMETERS

DJ9A Hardware

PROPYLENE (C3H6) FUEL GAS

AIR COOLED

METRIC UNITS

Coating Material	HARDWARE [3]	PRESSURE			FLOWMETER READING			FLOW [1]			POWDER FEEDER (DJP) [2]					
	AIR CAP	OXYGEN PRESS. (bar)	FUEL PRESS. (bar)	AIR PRESS. (bar)	OXYGEN F.M.R.	FUEL F.M.R.	AIR F.M.R.	OXYGEN FLOW (NLPM)	FUEL FLOW (NLPM)	AIR FLOW (NLPM)	N2 F.M.R.	N2 FLOW (NLPM)	AIR VIB (bar)	SPRAY RATE (g./min.)	SPRAY DIST. (mm)	DEPOSIT EFF. (%)
1003	DJ3-9	10.3	5.52	5.2	42	41	46	265	71	318	60	12.57	1.4	45	200	87
1004	DJ3-9	10.3	5.52	5.2	49	35	52	310	61	360	60	12.57	1.4	60	150-230	80
1005	DJ3-9	10.3	5.52	5.2	49	40	50	310	70	346	50	10.47	1.4	60	150-300	70
1006	DJ3-9	10.3	5.52	5.2	52	33	47	329	58	325	60	12.57	1.4	60	200-300	60
1007	DJ3-9	10.3	5.52	5.2	49	34	54	310	60	373	50	10.47	1.4	60	250	60
1008	DJ3-9	10.3	5.52	5.2	44	43	49	278	75	339	60	12.57	1.4	38	230-280	60
2001	DJ3-9	10.3	5.52	5.2	44	43	49	278	75	339	60	12.57	1.4	38	150	60
2002	DJ3-9	10.3	5.52	5.2	44	43	49	278	75	339	60	12.57	1.4	38	150-200	60
2003	DJ3-9	10.3	5.52	5.2	42	42	47	265	73	325	60	12.57	1.4	38	150-200	70
2004	DJ3-9	10.3	5.52	5.2	43	42	47	272	73	325	55	11.39	1.4	38	150-200	70
2005	DJ3-9	10.3	5.52	5.2	43	42	47	272	73	325	55	11.39	1.4	38	150-200	60
2006	DJ3-9	10.3	5.52	5.2	43	42	47	272	73	325	60	12.57	1.4	38	150-200	60
3001	DJ3-9	10.3	5.52	5.2	48	45	61	304	79	422	60	12.57	1.4	23	150	82
3002	DJ3-9	10.3	5.52	5.2	48	45	61	304	79	422	60	12.57	1.4	23	150	50
3004	DJ3-9	10.3	5.52	5.2	42	42	47	265	73	325	60	12.57	1.4	38	150-200	45
3005	DJ3-9	10.3	5.52	5.2	42	44	50	265	77	336	60	12.57	1.4	15	180	30
3006	DJ3-9	10.3	5.52	5.2	42	42	51	265	73	353	60	12.57	1.4	30	150-200	50
3007	DJ3-9	10.3	5.52	5.2	42	42	51	265	73	353	60	12.57	1.4	30	150-200	45
4006	DJ3-9	10.3	5.52	5.2	50	38	39	316	65	269	55	11.39	1.4	45	180-230	65
4008	DJ3-9	10.3	5.52	5.2	44	43	49	278	75	339	60	12.57	1.4	38	200	55
5810	DJ3-9	10.3	5.52	5.2	43	42	47	272	73	325	55	11.39	1.4	38	150-200	65

B.R.

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~~Notes :~~

1. N.L.P.M. = Normal Liters Per Minute (0°C)
2. Set Nitrogen carrier gas pressure to 12 Bar at the supply, and 8.6 Bar at the gauge on the DJP. For 9MP-DJ consult instruction manual.
3. DJ 2721 Air Cap Body must be used
4. For hand held gun use DJ2752 gold valve core

SULZER METCO

DIAMOND JET PARAMETERS

DJ9A HARDWARE

PROPANE (C3H8) FUEL GAS
AIR COOLED
U.S. UNITS

COATING MATERIAL	HARDWARE 3 AIR CAP	PRESSURE OXYGEN PRESS. (psig)	PRESSURE FUEL PRESS. (psig)	PRESSURE AIR PRESS. (psig)	FLOWMETER READING OXYGEN F.M.R.	FLOWMETER READING FUEL F.M.R.	FLOWMETER READING AIR F.M.R.	FLOW 1 OXYGEN FLOW (SCFH)	FLOW 1 FUEL FLOW (SCFH)	FLOW 1 AIR FLOW (SCFH)	POWDER FEEDER (DJP) 2 N2 F.M.R.	POWDER FEEDER (DJP) 2 N2 FLOW (SCFH)	POWDER FEEDER (DJP) 2 AIR VIB (psig)	SPRAY RATE (lbs./hr.)	SPRAY DIST. (in.)	DEPOSIT EFF. (%)	COVERAGE (ft^2/hr/.001)	POWDER REQUIRED (lb/ft^2/.001)
1003	DJ3-9	150	70	75	41	38	54	592	141	853	70	33.4	20	6	8	80	133	0.045
1004	DJ3-9	150	70	75	48	36	52	693	133	821	70	33.4	30	8	7.5	82	187	0.043
1005	DJ3-9	150	70	75	44	41	54	635	152	853	70	33.4	20	8	6-12	60	126	0.063
1006	DJ3-9	150	70	75	44	41	54	635	152	853	70	33.4	20	8	8-12	70	147	0.054
1007	DJ3-9	150	70	75	48	36	54	693	133	853	70	33.4	35	8	10	70	133	0.060
1008	DJ3-9	150	70	75	42	44	54	606	164	853	70	33.4	20	5	8	55	81	0.064
2001	DJ3-9	150	70	75	42	45	54	606	167	853	70	33.4	20	5	6	60	69	0.072
2003	DJ3-9	150	70	75	42	45	54	606	167	853	70	33.4	20	5	7	65	46	0.110
2005	DJ3-9	150	70	75	42	45	54	606	167	853	70	33.4	20	5	7	50	42	0.120
2006	DJ3-9	150	70	75	42	45	54	606	167	853	70	33.4	40	5	7	50	42	0.120
3006	DJ3-9	150	70	75	44	40	47	634	149	742	70	33.4	20	3	6	58	50	0.060
4006	DJ3-9	150	70	75	48	36	52	693	133	821	70	33.4	20	5	7	60	97	0.052

B.R.

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~~Notes :~~

1. S.C.F.H. = Standard Cubic Feet per Hour (0 psig, 70°F)
2. Set nitrogen carrier gas pressure to 175 psig at the supply, and 125 psig at the gauge on the DJP. For 9MP-DJ use SCFH as Flow Meter Reading.
3. DJ 2721 Air Cap Body must be used.
4. For hand held gun use DJ2752 gold valve core.

SULZER METCO

DIAMOND JET PARAMETERS

DJ9A HARDWARE

PROPANE (C3H8) FUEL GAS
AIR COOLED
METRIC UNITS

COATING MATERIAL	HARDWARE [3] AIR CAP	PRESSURE OXYGEN PRESS. (bar)	PRESSURE FUEL PRESS. (bar)	PRESSURE AIR PRESS. (bar)	FLOWMETER READING OXYGEN F.M.R.	FLOWMETER READING FUEL F.M.R.	FLOWMETER READING AIR F.M.R.	FLOW [1] OXYGEN FLOW (NLPM)	FLOW [1] FUEL FLOW (NLPM)	FLOW [1] AIR FLOW (SLPM)	POWDER FEEDER (DJP) [2] N2 F.M.R.	POWDER FEEDER (DJP) [2] N2 FLOW (NLPM)	POWDER FEEDER (DJP) [2] AIR VIB (bar)	SPRAY RATE (g./min.)	SPRAY DIST. (mm)	DEPOSIT EFF. (%)
1003	DJ3-9	10.3	4.8	5.2	41	38	54	259	62	374	70	14.6	1.4	45	200	80
1004	DJ3-9	10.3	4.8	5.2	48	36	52	304	58	360	70	14.6	2.1	61	185	82
1005	DJ3-9	10.3	4.8	5.2	44	41	54	278	67	374	70	14.6	1.4	61	150-300	60
1006	DJ3-9	10.3	4.8	5.2	44	41	54	278	67	374	70	14.6	1.4	61	200-300	70
1007	DJ3-9	10.3	4.8	5.2	48	36	54	304	58	374	70	14.6	2.4	61	250	70
1008	DJ3-9	10.3	4.8	5.2	42	44	54	265	72	374	70	14.6	1.4	38	200	55
2001	DJ3-9	10.3	4.8	5.2	42	45	54	265	73	374	70	14.6	1.4	38	150	60
2003	DJ3-9	10.3	4.8	5.2	42	45	54	265	73	374	70	14.6	1.4	38	175	65
2005	DJ3-9	10.3	4.8	5.2	42	45	54	265	73	374	70	14.6	1.4	38	175	50
2006	DJ3-9	10.3	4.8	5.2	42	45	54	265	73	374	70	14.6	2.8	38	175	50
3006	DJ3-9	10.3	4.8	5.2	44	40	47	278	65	325	70	14.6	1.4	23	150	58
4006	DJ3-9	10.3	4.8	5.2	48	36	52	304	58	360	70	14.6	1.4	38	175	60

B.R.

Issued : 6 April 2000
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Notes :

1. N.L.P.M. = Normal Liters Per Minute (0°C)
2. Set Nitrogen carrier gas pressure to 12 Bar at the supply, and 8.6 Bar at the gauge on the DJP. For 9MP-DJ consult instruction manual.
3. DJ 2721 Air Cap Body must be used.
4. For hand held gun use DJ2752 gold valve core.

SULZER METCO

DIAMOND JET PARAMETERS

DJ1050 HARDWARE

PROPANE (C3H8) FUEL GAS
AIR COOLED
U.S. UNITS

Coating Material	HARDWARE AIR CAP	PRESSURE OXYGEN PRESS. (psig)	PRESSURE FUEL PRESS. (psig)	PRESSURE AIR PRESS. (psig)	FLOWMETER READING OXYGEN F.M.R.	FLOWMETER READING FUEL F.M.R.	FLOWMETER READING AIR F.M.R.	FLOW [1] OXYGEN FLOW (SCFH)	FLOW [1] FUEL FLOW (SCFH)	FLOW [1] AIR FLOW (SCFH)	POWDER FEEDER (DJP)[2] N2 F.M.R.	N2 FLOW (SCFH)	AIR VIB (psig)	SPRAY RATE (lbs./hr.)	SPRAY DIST. (in.)	DEPOSIT EFF. (%)	COVERAGE (ft^2/hr/.001)	POWDER REQUIRED (lb/ft^2/.001)
1003	MVG4	150	70	75	52	42	66	751	155	1042	70	35.2	20	10	12	85	213	0.047
1004	MVG4	150	70	75	48	46	50	693	170	790	70	35.2	30	20	10	78	406	0.049
1005	MVG4	150	70	75	50	44	60	722	163	948	70	35.2	20	20	12	74	356	0.056
1006	MVG4	150	70	75	50	48	66	722	178	1042	70	35.2	20	20	11	75	369	0.054
1007	MVG4	150	70	75	52	50	48	751	185	758	70	35.2	35	20	10	74	331	0.061
1008	MVG4	150	70	75	46	48	56	664	178	884	70	35.2	20	20	10	75	418	0.048
2001	MVG4	150	70	75	50	50	58	722	185	916	70	35.2	20	20	10	70	336	0.059
2002	MVG4	150	70	75	52	48	60	751	178	948	70	35.2	20	20	10	68	278	0.072
2003	MVG4	150	70	75	50	50	60	722	185	948	70	35.2	20	15	7	75	157	0.096
2004	MVG4	150	70	75	50	50	60	722	185	948	70	35.2	20	15	7	80	160	0.094
2005	MVG4	150	70	75	50	50	50	722	185	790	70	35.2	20	20	8	58	186	0.108
2006	MVG4	150	70	75	50	50	50	722	185	790	70	35.2	40	20	8	62	194	0.103
3001	MVG4	150	70	75	50	50	50	722	185	790	70	35.2	20	20	10	87	446	0.045
3004	MVG4	150	70	75	52	52	46	751	192	726	70	35.2	20	15	8	45	203	0.074
3005	MVG4	150	70	75	50	48	50	722	178	790	70	35.2	20	12	8	28	104	0.115
3006	MVG4	150	70	75	48	44	60	693	163	948	70	35.2	20	15	8	52	230	0.065
3007	MVG4	150	70	75	46	50	56	664	185	884	70	35.2	20	15	9	35	158	0.095
4006	MVG4	150	70	75	50	50	50	722	185	790	70	35.2	20	20	10	68	330	0.061
4008	MVG4	150	70	75	52	50	48	751	185	758	70	35.2	20	20	10	80	394	0.051

B.R.

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Notes :
1. S.C.F.H. = Standard Cubic Feet per Hour (0 psig, 70°F)
2. Set Nitrogen carrier gas pressure to 175 psig at the supply, and 140 psig at the gauge on the DJP. For 9MP-DJ use SCFH as Flow Meter Reading.

SULZER METCO

DIAMOND JET PARAMETERS

DJ1050 HARDWARE

PROPANE (C3H8) FUEL GAS
AIR COOLED
METRIC UNITS

Coating Material	HARDWARE AIR CAP	PRESSURE OXYGEN PRESS. (bar)	PRESSURE FUEL PRESS. (bar)	PRESSURE AIR PRESS. (bar)	FLOWMETER READING OXYGEN F.M.R.	FLOWMETER READING FUEL F.M.R.	FLOWMETER READING AIR F.M.R.	FLOW 1 OXYGEN FLOW (NLPM)	FLOW 1 FUEL FLOW (NLPM)	FLOW 1 AIR FLOW (NLPM)	POWDER FEEDER (DJP)2 N2 F.M.R.	POWDER FEEDER (DJP)2 N2 FLOW (NLPM)	POWDER FEEDER (DJP)2 AIR VIB (bar)	SPRAY RATE (g./min.)	SPRAY DIST. (mm)	DEPOSIT EFF. (%)
1003	MVG4	10.3	4.8	5.2	52	42	66	329	68	456	70	15.4	1.4	76	300	85
1004	MVG4	10.3	4.8	5.2	48	46	50	304	74	346	70	15.4	2.1	152	250	78
1005	MVG4	10.3	4.8	5.2	50	44	60	316	71	415	70	15.4	1.4	152	300	74
1006	MVG4	10.3	4.8	5.2	50	48	66	316	78	456	70	15.4	1.4	152	275	75
1007	MVG4	10.3	4.8	5.2	52	50	48	329	81	332	70	15.4	2.4	152	250	74
1008	MVG4	10.3	4.8	5.2	46	48	56	291	78	387	70	15.4	1.4	152	250	75
2001	MVG4	10.3	4.8	5.2	50	50	58	316	81	401	70	15.4	1.4	152	250	70
2002	MVG4	10.3	4.8	5.2	52	48	60	329	78	415	70	15.4	1.4	152	250	68
2003	MVG4	10.3	4.8	5.2	50	50	60	316	81	415	70	15.4	1.4	114	175	75
2004	MVG4	10.3	4.8	5.2	50	50	60	316	81	415	70	15.4	1.4	114	175	80
2005	MVG4	10.3	4.8	5.2	50	50	50	316	81	346	70	15.4	1.4	152	200	58
2006	MVG4	10.3	4.8	5.2	50	50	50	316	81	346	70	15.4	2.8	152	200	62
3001	MVG4	10.3	4.8	5.2	50	50	50	316	81	346	70	15.4	1.4	152	250	87
3004	MVG4	10.3	4.8	5.2	52	52	46	329	84	318	70	15.4	1.4	114	200	45
3005	MVG4	10.3	4.8	5.2	50	48	50	316	78	346	70	15.4	1.4	91	200	28
3006	MVG4	10.3	4.8	5.2	48	44	60	304	71	415	70	15.4	1.4	114	200	52
3007	MVG4	10.3	4.8	5.2	46	50	56	291	81	387	70	15.4	1.4	114	225	35
4006	MVG4	10.3	4.8	5.2	50	50	50	316	81	346	70	15.4	1.4	152	250	68
4008	MVG4	10.3	4.8	5.2	52	50	48	329	81	332	70	15.4	1.4	152	250	80

B.R.

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Revision: D

Notes :
1. N.L.P.M. = Normal Liters Per Minute (0°C)
2. Set Nitrogen carrier gas pressure to 12 Bar at the supply, and 9.7 Bar at the gauge on the DJP. For 9MP-DJ consult instruction manual.

SULZER METCO

DIAMOND JET PARAMETERS

HYDROGEN (H2) FUEL GAS

DJ8W HARDWARE (2600)

WATER COOLED

U.S. UNITS

Coating Material	HARDWARE AIR CAP	PRESSURE OXYGEN PRESS. (psig)	PRESSURE FUEL PRESS. (psig)	PRESSURE AIR PRESS. (psig)	FLOWMETER READING OXYGEN F.M.R.	FLOWMETER READING FUEL F.M.R.	FLOWMETER READING AIR F.M.R.	FLOW [1] OXYGEN FLOW (SCFH)	FLOW [1] FUEL FLOW (SCFH)	FLOW [1] AIR FLOW (SCFH)	POWDER FEEDER (DJP)[2] N2 F.M.R.	POWDER FEEDER (DJP)[2] N2 FLOW (SCFH)	POWDER FEEDER (DJP)[2] AIR VIB (psig)	SPRAY RATE (lbs./hr.)	SPRAY DIST. (in.)	DEPOSIT EFF. (%)
1003	DJ2603	170	140	100	22	70	56	336	1637	1000	55	28.5	20	5-20	9-12	75
1005	DJ2603	170	140	100	22	70	50	336	1637	893	55	28.5	20	5-20	9-12	70
1006	DJ2603	170	140	100	32	62	44	489	1450	786	55	28.5	20	5-20	9-12	70
1008	DJ2603	170	140	100	32	62	44	489	1450	786	55	28.5	20	5-20	9-12	75
2003 [3]	DJ2603	170	140	100	32	62	44	489	1450	786	55	28.5	20	5-15	8-10	55
2004 [3]	DJ2603	170	140	100	32	62	44	489	1450	786	55	28.5	20	5	8-10	65
2005 [3]	DJ2603	170	140	100	32	62	44	489	1450	786	55	28.5	20	5-15	8-10	40
2006 [3]	DJ2603	170	140	100	32	62	44	489	1450	786	55	28.5	20	5-15	8-10	40
3001	DJ2603	170	140	100	32	68	44	489	1590	786	55	28.5	20	4-15	7.5-12	70
3002	DJ2603	170	140	100	32	62	44	489	1450	786	55	28.5	20	4-15	8-12	70
3004 [3]	DJ2603	170	140	100	32	62	44	489	1450	786	55	28.5	20	5-15	8-10	35
3005 [3]	DJ2603	170	140	100	32	62	44	489	1450	786	55	28.5	20	5-15	8-10	35
3006 [3]	DJ2603	170	140	100	32	62	44	489	1450	786	55	28.5	20	5-15	8-10	40
3007 [3]	DJ2603	170	140	100	32	62	44	489	1450	786	55	28.5	20	5-15	8-10	35
4006	DJ2603	170	140	100	32	62	44	489	1450	786	55	28.5	20	5-15	9-12	
4008	DJ2603	170	140	100	32	62	44	489	1450	786	55	28.5	20	5-20	9-12	75
5241 [3]	DJ2603	170	140	100	32	62	44	489	1450	786	55	28.5	20	5-6.5	8-10	65
5260 [3]	DJ2603	170	140	100	32	62	44	489	1450	786	55	28.5	20	5-15	8-10	
5803 [3]	DJ2603	170	140	100	32	62	44	489	1450	786	55	28.5	20	5-15	8-10	
5810 [3]	DJ2603	170	140	100	32	62	44	489	1450	786	55	28.5	20	5	8-10	40
5812	DJ2603	170	140	100	32	62	44	489	1450	786	55	28.5	20	5-15	8-10	
5843 [3]	DJ2603	170	140	100	32	62	44	489	1450	786	55	28.5	20	5-15	8-10	
5847 [3]	DJ2603	170	140	100	32	62	44	489	1450	786	55	28.5	20	5-15	8-10	40
5860 [3]	DJ2603	170	140	100	32	62	44	489	1450	786	55	28.5	20	5-15	8-10	
73F [3]	DJ2603	170	140	100	32	62	44	489	1450	786	55	28.5	20	5-15	8-10	40

B.R.

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Revision: D

Notes :

1. S.C.F.H. = Standard Cubic Feet per Hour (0 psig, 70°F)
2. Set Nitrogen carrier gas pressure to 175 psig at the supply, and 150 psig at the gauge on the DJP. For 9MP-DJ use SCFH as Flow Meter Reading.
3. Adjust spray rate to give a deposition rate of less than 12 um (.0005") per pass. Optimum is 8 um (.0003") per pass.

DIAMOND JET PARAMETERS

HYDROGEN (H2) FUEL GAS
DJ8W HARDWARE (2600)
WATER COOLED
METRIC UNITS

Coating	HARDWARE	PRESSURE			FLOWMETER READING			FLOW [1]			POWDER FEEDER (DJP) [2]					
Material	AIR CAP	OXYGEN PRESS. (bar)	FUEL PRESS. (bar)	AIR PRESS. (bar)	OXYGEN F.M.R.	FUEL F.M.R.	AIR F.M.R.	OXYGEN FLOW (NLPM)	FUEL FLOW (NLPM)	AIR FLOW (NLPM)	N2 F.M.R.	N2 FLOW (NLPM)	AIR VIB (bar)	SPRAY RATE (g./min.)	SPRAY DIST. (mm)	DEPOSIT EFF. (%)
1003	DJ2603	11.7	9.7	6.9	22	70	56	147	717	438	55	12.5	1.4	38-150	225-300	75
1005	DJ2603	11.7	9.7	6.9	22	70	50	147	717	391	55	12.5	1.4	38-150	225-300	70
1006	DJ2603	11.7	9.7	6.9	32	62	44	214	635	344	55	12.5	1.4	38-150	225-300	70
1008	DJ2603	11.7	9.7	6.9	32	62	44	214	635	344	55	12.5	1.4	38-150	225-300	75
2003 [3]	DJ2603	11.7	9.7	6.9	32	62	44	214	635	344	55	12.5	1.4	38-115	200-250	55
2004 [3]	DJ2603	11.7	9.7	6.9	32	62	44	214	635	344	55	12.5	1.4	38	200-250	65
2005 [3]	DJ2603	11.7	9.7	6.9	32	62	44	214	635	344	55	12.5	1.4	38-115	200-250	40
2006 [3]	DJ2603	11.7	9.7	6.9	32	62	44	214	635	344	55	12.5	1.4	38-115	200-250	40
3001	DJ2603	11.7	9.7	6.9	32	68	44	214	696	344	55	12.5	1.4	30-115	185-300	70
3002	DJ2603	11.7	9.7	6.9	32	62	44	214	635	344	55	12.5	1.4	30-115	200-300	70
3004 [3]	DJ2603	11.7	9.7	6.9	32	62	44	214	635	344	55	12.5	1.4	38-115	200-250	35
3005 [3]	DJ2603	11.7	9.7	6.9	32	62	44	214	635	344	55	12.5	1.4	38-115	200-250	35
3006 [3]	DJ2603	11.7	9.7	6.9	32	62	44	214	635	344	55	12.5	1.4	38-115	200-250	40
3007 [3]	DJ2603	11.7	9.7	6.9	32	62	44	214	635	344	55	12.5	1.4	38-115	200-250	35
4006	DJ2603	11.7	9.7	6.9	32	62	44	214	635	344	55	12.5	1.4	38-115	225-300	
4008	DJ2603	11.7	9.7	6.9	32	62	44	214	635	344	55	12.5	1.4	38-150	225-300	75
5241 [3]	DJ2603	11.7	9.7	6.9	32	62	44	214	635	344	55	12.5	1.4	38-50	200-250	65
5260 [3]	DJ2603	11.7	9.7	6.9	32	62	44	214	635	344	55	12.5	1.4	38-115	200-250	
5803 [3]	DJ2603	11.7	9.7	6.9	32	62	44	214	635	344	55	12.5	1.4	38-115	200-250	
5810 [3]	DJ2603	11.7	9.7	6.9	32	62	44	214	635	344	55	12.5	1.4	38	200-250	40
5812	DJ2603	11.7	9.7	6.9	32	62	44	214	635	344	55	12.5	1.4	38-115	200-250	
5843 [3]	DJ2603	11.7	9.7	6.9	32	62	44	214	635	344	55	12.5	1.4	38-115	200-250	
5847 [3]	DJ2603	11.7	9.7	6.9	32	62	44	214	635	344	55	12.5	1.4	38-115	200-250	40
5860 [3]	DJ2603	11.7	9.7	6.9	32	62	44	214	635	344	55	12.5	1.4	38-115	200-250	
73F [3]	DJ2603	11.7	9.7	6.9	32	62	44	214	635	344	55	12.5	1.4	38-115	200-250	40

B.R.

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Revision: D

Notes :

1. N.L.P.M. = Normal Liters Per Minute (0°C)
2. Set Nitrogen carrier gas pressure to 12 Bar at the supply, and 9.7 Bar at the gauge on the DJP. For 9MP-DJ consult instruction manual.
3. Adjust spray rate to give a deposition rate of less than 12 um (.0005") per pass. Optimum is 8 um (.0003") per pass.

SULZER METCO

DIAMOND JET PARAMETERS

Natural Gas (CH4) FUEL GAS
DJ9W Hardware (2700)
WATER COOLED
U.S. UNITS

Coating Material	HARDWARE	PRESSURE			FLOWMETER READING			FLOW [1]			POWDER FEEDER (DJP) [2]					
	AIR CAP	OXYGEN PRESS. (psig)	FUEL PRESS. (psig)	AIR PRESS. (psig)	OXYGEN F.M.R.	FUEL F.M.R.	AIR F.M.R.	OXYGEN FLOW (SCFH)	FUEL FLOW (SCFH)	AIR FLOW (SCFH)	N2 F.M.R.	N2 FLOW (SCFH)	AIR VIB (psig)	SPRAY RATE (lbs./hr.)	SPRAY DIST. (in.)	DEPOSIT EFF. (%)
1003	DJ2702	150	110	105	30	62	40	433	461	730	55	28.5	20	5-10	10	70
1005	DJ2702	150	110	105	30	62	40	433	461	730	55	28.5	20	5-10	10	65
1006	DJ2702	150	110	105	30	62	40	433	461	730	55	28.5	20	5-10	10	70
1008	DJ2702	150	110	105	30	62	40	433	461	730	55	28.5	20	5-10	10	60
2001	DJ2702	150	110	105	30	62	40	433	461	730	55	28.5	20	5-10	10	75
2002	DJ2702	150	110	105	30	62	40	433	461	730	55	28.5	20	5-10	10	55
2003 [3]	DJ2701	150	110	100	44	58	46	635	432	822	55	28.5	20	5-10	9	65
2004 [3]	DJ2701	150	110	100	44	58	50	635	432	893	55	28.5	20	5	9	60
2005 [3]	DJ2701	150	110	100	44	58	46	635	432	822	55	28.5	20	5-10	9	40
2006 [3]	DJ2701	150	110	100	44	58	46	635	432	822	55	28.5	40	5-10	9	40
3001	DJ2702	150	110	105	30	62	40	433	461	730	55	28.5	20	5-10	9	65
3002	DJ2702	150	110	105	30	62	40	433	461	730	55	28.5	20	5-10	9	65
3004 [3]	DJ2701	150	110	100	44	58	46	635	432	822	55	28.5	20	5-10	9	30
3005 [3]	DJ2701	150	110	100	44	58	46	635	432	822	55	28.5	20	5-10	9	35
3006 [3]	DJ2701	150	110	100	44	58	46	635	432	822	55	28.5	20	5-10	9	40
3007 [3]	DJ2701	150	110	100	44	58	46	635	432	822	55	28.5	20	5-10	9	40
5241 [3]																
5260 [3]	DJ2701	160	110	105	46	62	46	684	432	839	55	28.5	20	5-10	9	45
5803 [3]	DJ2701	150	110	100	44	58	46	635	432	822	55	28.5	20	5-10	9	40
5843 [3]	DJ2701	160	110	105	46	62	46	684	432	839	55	28.5	20	5-10	9	60
5847 [3]	DJ2701	160	110	105	46	62	46	684	432	839	55	28.5	20	5-10	9	
73F [3]	DJ2701	150	110	100	44	58	46	635	432	822	55	28.5	20	5	9	45

B.R.

Issued : 6 April 2000
Revision: D

Notes :

1. S.C.F.H. = Standard Cubic Feet per Hour (0 psig, 70°F)
2. Set Nitrogen carrier gas pressure to 175 psig at the supply, and 150 psig at the gauge on the DJP. For 9MP-DJ use SCFH as Flow Meter Reading.
3. Adjust spray rate to give a deposition rate of less than 12 um (.0005") per pass. Optimum is 8 um (.0003") per pass.

DIAMOND JET PARAMETERS

Natural Gas (CH4) FUEL GAS
DJ9W Hardware (2700)
WATER COOLED
METRIC UNITS

Coating	HARDWARE	PRESSURE			FLOWMETER READING			FLOW [1]			POWDER FEEDER (DJP) [2]					
Material	AIR CAP	OXYGEN PRESS. (bar)	FUEL PRESS. (bar)	AIR PRESS. (bar)	OXYGEN F.M.R.	FUEL F.M.R.	AIR F.M.R.	OXYGEN FLOW (NLPM)	FUEL FLOW (NLPM)	AIR FLOW (NLPM)	N2 F.M.R.	N2 FLOW (NLPM)	AIR VIB (bar)	SPRAY RATE (g./min.)	SPRAY DIST. (mm)	DEPOSIT EFF. (%)
1003	DJ2702	10.3	7.6	7.2	30	62	40	190	202	320	55	12.5	1.4	38-75	250	70
1005	DJ2702	10.3	7.6	7.2	30	62	40	190	202	320	55	12.5	1.4	38-75	250	65
1006	DJ2702	10.3	7.6	7.2	30	62	40	190	202	320	55	12.5	1.4	38-75	250	70
1008	DJ2702	10.3	7.6	7.2	30	62	40	190	202	320	55	12.5	1.4	38-75	250	60
2001	DJ2702	10.3	7.6	7.2	30	62	40	190	202	320	55	12.5	1.4	38-75	250	75
2002	DJ2702	10.3	7.6	7.2	30	62	40	190	202	320	55	12.5	1.4	38-75	250	55
2003 [3]	DJ2701	10.3	7.6	6.9	44	58	46	279	190	361	55	12.5	1.4	38-75	230	65
2004 [3]	DJ2701	10.3	7.6	6.9	44	58	50	279	190	392	55	12.5	1.4	38	230	60
2005 [3]	DJ2701	10.3	7.6	6.9	44	58	46	279	190	361	55	12.5	1.4	38-75	230	40
2006 [3]	DJ2701	10.3	7.6	6.9	44	58	46	279	190	361	55	12.5	2.8	38-75	230	40
3001	DJ2702	10.3	7.6	7.2	30	62	40	190	202	320	55	12.5	1.4	38-75	230	65
3002	DJ2702	10.3	7.6	7.2	30	62	40	190	202	320	55	12.5	1.4	38-75	230	65
3004 [3]	DJ2701	10.3	7.6	6.9	44	58	46	279	190	361	55	12.5	1.4	38-75	230	30
3005 [3]	DJ2701	10.3	7.6	6.9	44	58	46	279	190	361	55	12.5	1.4	38-75	230	35
3006 [3]	DJ2701	10.3	7.6	6.9	44	58	46	279	190	361	55	12.5	1.4	38-75	230	40
3007 [3]	DJ2701	10.3	7.6	6.9	44	58	46	279	190	361	55	12.5	1.4	38-75	230	40
5241 [3]																
5260 [3]	DJ2701	11.0	7.6	7.2	46	62	46	300	190	368	55	12.5	1.4	38-75	230	45
5803 [3]	DJ2701	10.3	7.6	6.9	44	58	46	279	190	361	55	12.5	1.4	38-75	230	40
5843 [3]	DJ2701	11.0	7.6	7.2	46	62	46	300	190	368	55	12.5	1.4	38-75	230	60
5847 [3]	DJ2701	11.0	7.6	7.2	46	62	46	300	190	368	55	12.5	1.4	38-75	230	
73F [3]	DJ2701	10.3	7.6	6.9	44	58	46	279	190	361	55	12.5	1.4	38	230	45

B.R.

Issued : 6 April 2000
Revision: D

Notes :
1. N.L.P.M. = Normal Liters Per Minute (0°C)
2. Set Nitrogen carrier gas pressure to 12 Bar at the supply, and 9.7 Bar at the gauge on the DJP. For 9MP-DJ consult instruction manual.
3. Adjust spray rate to give a deposition rate of less than 12 um (.0005") per pass. Optimum is 8 um (.0003") per pass.

SULZER METCO

DIAMOND JET PARAMETERS

Ethylene (C2H4) FUEL GAS
DJ9W HARDWARE (2700)
WATER COOLED
U.S. UNITS

Coating Material	HARDWARE AIR CAP	PRESSURE OXYGEN PRESS. (psig)	PRESSURE FUEL PRESS. (psig)	PRESSURE AIR PRESS. (psig)	FLOWMETER READING OXYGEN F.M.R.	FLOWMETER READING FUEL F.M.R.	FLOWMETER READING AIR F.M.R.	FLOW 1 OXYGEN FLOW (SCFH)	FLOW 1 FUEL FLOW (SCFH)	FLOW 1 AIR FLOW (SCFH)	POWDER FEEDER (DJP) 2 N2 F.M.R.	POWDER FEEDER (DJP) 2 N2 FLOW (SCFH)	POWDER FEEDER (DJP) 2 AIR VIB (psig)	SPRAY RATE (lbs./hr.)	SPRAY DIST. (in.)	DEPOSIT EFF. (%)
1003	DJ2702	160	105	105	21	54	46	312	298	839	55	28.5	20	5-20	9-12	75
1004	DJ2702	150	100	105	28	40	58	404	216	1058	55	28.5	20	5-20	9-12	
1005	DJ2702	150	105	110	31	43	47	448	237	875	55	28.5	20	5-20	9-12	60
1006	DJ2702	150	105	110	31	43	47	448	237	875	55	28.5	20	5-20	9-12	
1007	DJ2702	145	100	100	20	43	46	284	232	822	55	28.5	20	5-20	9-12	80
1008	DJ2702	150	105	105	31	43	48	448	237	876	55	28.5	20	5-20	9-12	
2001	DJ2702	150	100	105	28	40	58	404	216	1058	55	28.5	20	5-20	9-12	
2002	DJ2702	150	100	110	31	40	47	448	216	875	55	28.5	20	5-20	9-12	45
2003 3	DJ2701	150	95	100	39	48	46	563	253	822	55	28.5	20	5-15	8-10	40
2004 3	DJ2701	150	95	100	39	48	46	563	253	822	55	28.5	20	5	8-10	60
2005 3	DJ2701	150	95	100	39	48	46	563	253	822	55	28.5	20	5-15	8-10	35
2006 3	DJ2701	150	95	100	39	48	46	563	253	822	55	28.5	40	5-15	8-10	
3001	DJ2702	150	105	105	31	43	47	448	237	857	55	28.5	20	5-15	8-10	60
3002	DJ2702	150	105	105	31	43	47	448	237	857	55	28.5	20	5-15	8-10	60
3004 3	DJ2701	150	95	100	39	48	46	563	253	822	55	28.5	20	5-15	8-10	35
3005 3	DJ2701	150	95	100	39	48	46	563	253	822	55	28.5	20	5-15	8-10	
3006 3	DJ2701	150	95	100	39	48	46	563	253	822	55	28.5	20	5-15	8-10	
3007 3	DJ2701	150	95	100	39	48	46	563	253	822	55	28.5	20	5-15	8-10	40
4006	DJ2701	150	105	110	31	43	47	448	237	875	55	28.5	20	5-15	9-12	60
4008	DJ2701	150	105	110	31	43	47	448	237	875	55	28.5	20	5-20	9-12	60
5241 3 5260 3 5803 3	DJ2701	150	95	100	39	48	46	563	253	822	55	28.5	20	5-15	8-10	
5810 3	DJ2701	150	95	100	39	48	46	563	253	822	55	28.5	20	5	8-10	40
5843 3	DJ2701	150	95	100	39	48	46	563	253	822	55	28.5	20	5-15	8-10	
5847 3	DJ2701	150	95	100	39	48	46	563	253	822	55	28.5	20	5-15	8-10	35

U.E.

Issued : 6 April 2000
Revision: D

Notes :

1. S.C.F.H. = Standard Cubic Feet per Hour (0 psig, 70°F)
2. Set Nitrogen carrier gas pressure to 175 psig at the supply, and 150 psig at the gauge on the DJP. For 9MP-DJ use SCFH as Flow Meter Reading.
3. Adjust spray rate to give a deposition rate of less than 12 um (.0005") per pass. Optimum is 8 um (.0003") per pass.

DIAMOND JET PARAMETERS

Ethylene (C2H4) FUEL GAS
DJ9W HARDWARE (2700)
WATER COOLED
METRIC UNITS

Coating	HARDWARE	PRESSURE			FLOWMETER READING			FLOW [1]			POWDER FEEDER (DJP)[2]					
Material	AIR CAP	OXYGEN PRESS. (bar)	FUEL PRESS. (bar)	AIR PRESS. (bar)	OXYGEN F.M.R.	FUEL F.M.R.	AIR F.M.R.	OXYGEN FLOW (NLPM)	FUEL FLOW (NLPM)	AIR FLOW (NLPM)	N2 F.M.R.	N2 FLOW (NLPM)	AIR VIB (bar)	SPRAY RATE (g./min.)	SPRAY DIST. (mm)	DEPOSIT EFF. (%)
1003	DJ2702	11.0	7.2	7.2	21	54	46	137	131	368	55	12.5	1.4	40-150	230-300	75
1004	DJ2702	10.3	6.9	7.2	28	40	58	177	95	464	55	12.5	1.4	40-150	230-300	
1005	DJ2702	10.3	7.2	7.6	31	43	47	197	104	384	55	12.5	1.4	40-150	230-300	60
1006	DJ2702	10.3	7.2	7.6	31	43	47	197	104	384	55	12.5	1.4	40-150	230-300	
1007	DJ2702	10.0	6.9	6.9	20	43	46	125	102	361	55	12.5	1.4	40-150	230-300	80
1008	DJ2702	10.3	7.2	7.2	31	43	48	197	104	384	55	12.5	1.4	40-150	230-300	
2001	DJ2702	10.3	6.9	7.2	28	40	58	177	95	464	55	12.5	1.4	40-150	230-300	
2002	DJ2702	10.3	6.9	7.6	31	40	47	197	95	384	55	12.5	1.4	40-150	230-300	45
2003 [3]	DJ2701	10.3	6.6	6.9	39	48	46	247	111	361	55	12.5	1.4	40-120	200-250	40
2004 [3]	DJ2701	10.3	6.6	6.9	39	48	46	247	111	361	55	12.5	1.4	40	200-250	60
2005 [3]	DJ2701	10.3	6.6	6.9	39	48	46	247	111	361	55	12.5	1.4	40-120	200-250	35
2006 [3]	DJ2701	10.3	6.6	6.9	39	48	46	247	111	361	55	12.5	2.8	40-120	200-250	
3001	DJ2702	10.3	7.2	7.2	31	43	47	197	104	376	55	12.5	1.4	40-120	230-300	60
3002	DJ2702	10.3	7.2	7.2	31	43	47	197	104	376	55	12.5	1.4	40-120	230-300	60
3004 [3]	DJ2701	10.3	6.6	6.9	39	48	46	247	111	361	55	12.5	1.4	40-120	200-250	35
3005 [3]	DJ2701	10.3	6.6	6.9	39	48	46	247	111	361	55	12.5	1.4	40-120	200-250	
3006 [3]	DJ2701	10.3	6.6	6.9	39	48	46	247	111	361	55	12.5	1.4	40-120	200-250	
3007 [3]	DJ2701	10.3	6.6	6.9	39	48	46	247	111	361	55	12.5	1.4	40-120	200-250	40
4006	DJ2701	10.3	7.2	7.6	31	43	47	197	104	384	55	12.5	1.4	40-120	230-300	60
4008	DJ2701	10.3	7.2	7.6	31	43	47	197	104	384	55	12.5	1.4	40-120	230-300	60
5241 [3] 5260 [3] 5803 [3]	DJ2701	10.3	6.6	6.9	39	48	46	247	111	361	55	12.5	1.4	40-120	200-250	
5810 [3]	DJ2701	10.3	6.6	6.9	39	48	46	247	111	361	55	12.5	1.4	40	200-250	40
5843 [3]	DJ2701	10.3	6.6	6.9	39	48	46	247	111	361	55	12.5	1.4	40-120	200-250	
5847 [3]	DJ2701	10.3	6.6	6.9	39	48	46	247	111	361	55	12.5	1.4	40-120	200-250	35

U.E.

Issued : 6 April 2000
Revision: D

Notes :

1. N.L.P.M. = Normal Liters Per Minute (0°C)
2. Set Nitrogen carrier gas pressure to 12 Bar at the supply, and 9.7 Bar at the gauge on the DJP. For 9MP-DJ consult instruction manual.
3. Adjust spray rate to give a deposition rate of less than 12 um (.0005") per pass. Optimum is 8 um (.0003") per pass.

SULZER METCO

DIAMOND JET PARAMETERS

PROPYLENE (C3H6) FUEL GAS
DJ9W HARDWARE (2700)
WATER COOLED
U.S. UNITS

Coating	HARDWARE	PRESSURE			FLOWMETER READING			FLOW [1]			POWDER FEEDER (DJP) [2]					
Material	AIR CAP	OXYGEN PRESS. (psig)	FUEL PRESS. (psig)	AIR PRESS. (psig)	OXYGEN F.M.R.	FUEL F.M.R.	AIR F.M.R.	OXYGEN FLOW (SCFH)	FUEL FLOW (SCFH)	AIR FLOW (SCFH)	N2 F.M.R.	N2 FLOW (SCFH)	AIR VIB (psig)	SPRAY RATE (lbs./hr.)	SPRAY DIST. (in.)	DEPOSIT EFF. (%)
1003	DJ2702	150	100	105	22	46	48	318	203	876	55	28.5	20	5-20	9-12	
1004	DJ2702	150	100	105	20	40	58	289	176	1058	55	28.5	20	5-20	9-12	
1005	DJ2702	150	100	105	24	44	48	347	194	876	55	28.5	20	5-20	9-12	
1006	DJ2702	150	100	105	24	45	48	347	198	876	55	28.5	20	5-20	9-12	
1007	DJ2702	150	100	105	20	40	58	289	176	1058	55	28.5	20	5-20	9-12	
1008	DJ2702	150	100	105	26	40	48	375	176	876	55	28.5	20	5-20	9-12	
2001	DJ2702	150	100	105	20	40	58	289	176	1058	55	28.5	20	5-20	9-12	
2002	DJ2702	150	100	105	20	40	58	289	176	1058	55	28.5	20	5-20	9-12	
2003 [3]	DJ2701	150	100	100	40	40	48	578	176	857	55	28.5	20	5-15	8-10	
2004 [3]	DJ2701	150	100	100	40	40	48	578	176	857	55	28.5	20	5	8-10	
2005 [3]	DJ2701	150	100	100	40	40	48	578	176	857	55	28.5	20	5-15	8-10	
2006 [3]	DJ2701	150	100	100	40	40	48	578	176	857	55	28.5	40	5-15	8-10	
3001	DJ2702	150	100	105	24	45	48	347	198	876	55	28.5	20	5-15	9-12	
3002	DJ2702	150	100	105	24	45	48	347	198	876	55	28.5	20	5-15	9-12	
3004 [3]	DJ2701	150	100	100	40	40	48	578	176	857	55	28.5	20	5-15	8-10	
3005 [3]	DJ2701	150	100	100	40	40	48	578	176	857	55	28.5	20	5-15	8-10	
3006 [3]	DJ2701	150	100	100	40	40	48	578	176	857	55	28.5	20	5-15	8-10	
3007 [3]	DJ2701	150	100	100	40	40	48	578	176	857	55	28.5	20	5-15	8-10	
4006	DJ2702	150	100	105	24	40	58	347	176	1058	55	28.5	20	5-15	9-12	
4008	DJ2702	150	100	105	24	40	58	347	176	1058	55	28.5	20	5-20	9-12	
5241 [3] 5260 [3] 5803 [3]	DJ2701	150	100	100	40	40	48	578	176	857	55	28.5	20	5-15	8-10	
5810 [3]	DJ2701	150	100	100	40	40	48	578	176	857	55	28.5	20	5	8-10	40
5843 [3]	DJ2701	150	100	100	40	40	48	578	176	857	55	28.5	20	5-15	8-10	
5847 [3]																

B.R.

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Revision: D

Notes :

1. S.C.F.H. = Standard Cubic Feet per Hour (0 psig, 70°F)
2. Set Nitrogen carrier gas pressure to 175 psig at the supply, and 150 psig at the gauge on the DJP. For 9MP-DJ use SCFH as Flow Meter Reading.
3. Adjust spray rate to give a deposition rate of less than 12 um (.0005") per pass. Optimum is 8 um (.0003") per pass.

SULZER METCO

DIAMOND JET PARAMETERS

PROPYLENE (C3H6) FUEL GAS

DJ9W HARDWARE (2700)

WATER COOLED

METRIC UNITS

Coating	HARDWARE	PRESSURE			FLOWMETER READING			FLOW [1]			POWDER FEEDER (DJP) [2]					
Material	AIR CAP	OXYGEN PRESS. (bar)	FUEL PRESS. (bar)	AIR PRESS. (bar)	OXYGEN F.M.R.	FUEL F.M.R.	AIR F.M.R.	OXYGEN FLOW (SLPM)	FUEL FLOW (SLPM)	AIR FLOW (SLPM)	N2 F.M.R.	N2 FLOW (SLPM)	AIR VIB (bar)	SPRAY RATE (g./min.)	SPRAY DIST. (mm)	DEPOSIT EFF. (%)
1003	DJ2702	10.3	6.9	7.2	22	46	48	139	89	384	55	12.5	1.4	38-150	225-300	
1004	DJ2702	10.3	6.9	7.2	20	40	58	127	77	463	55	12.5	1.4	38-150	225-300	
1005	DJ2702	10.3	6.9	7.2	24	44	48	152	85	384	55	12.5	1.4	38-150	225-300	
1006	DJ2702	10.3	6.9	7.2	24	45	48	152	87	384	55	12.5	1.4	38-150	225-300	
1007	DJ2702	10.3	6.9	7.2	20	40	58	127	77	463	55	12.5	1.4	38-150	225-300	
1008	DJ2702	10.3	6.9	7.2	26	40	48	164	77	384	55	12.5	1.4	38-150	225-300	
2001	DJ2702	10.3	6.9	7.2	20	40	58	127	77	463	55	12.5	1.4	38-150	225-300	
2002	DJ2702	10.3	6.9	7.2	20	40	58	127	77	463	55	12.5	1.4	38-150	225-300	
2003 [3]	DJ2701	10.3	6.9	6.9	40	40	48	253	77	375	55	12.5	1.4	38-115	200-250	
2004 [3]	DJ2701	10.3	6.9	6.9	40	40	48	253	77	375	55	12.5	1.4	38	200-250	
2005 [3]	DJ2701	10.3	6.9	6.9	40	40	48	253	77	375	55	12.5	1.4	38-115	200-250	
2006 [3]	DJ2701	10.3	6.9	6.9	40	40	48	253	77	375	55	12.5	2.8	38-115	200-250	
3001	DJ2702	10.3	6.9	7.2	24	45	48	152	87	384	55	12.5	1.4	38-115	225-300	
3002	DJ2702	10.3	6.9	7.2	24	45	48	152	87	384	55	12.5	1.4	38-115	225-300	
3004 [3]	DJ2701	10.3	6.9	6.9	40	40	48	253	77	375	55	12.5	1.4	38-115	200-250	
3005 [3]	DJ2701	10.3	6.9	6.9	40	40	48	253	77	375	55	12.5	1.4	38-115	200-250	
3006 [3]	DJ2701	10.3	6.9	6.9	40	40	48	253	77	375	55	12.5	1.4	38-115	200-250	
3007 [3]	DJ2701	10.3	6.9	6.9	40	40	48	253	77	375	55	12.5	1.4	38-115	200-250	
4006	DJ2702	10.3	6.9	7.2	24	40	58	152	77	463	55	12.5	1.4	38-115	225-300	
4008	DJ2702	10.3	6.9	7.2	24	40	58	152	77	463	55	12.5	1.4	38-150	225-300	
5241 [3] 5260 [3] 5803 [3]	DJ2701	10.3	6.9	6.9	40	40	48	253	77	375	55	12.5	1.4	38-115	200-250	
5810 [3]	DJ2701	10.3	6.9	6.9	40	40	48	253	77	375	55	12.5	1.4	38	200-250	40
5843 [3] 5847 [3]	DJ2701	10.3	6.9	6.9	40	40	48	253	77	375	55	12.5	1.4	38-115	200-250	

B.R.

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~~Notes :~~

1. N.L.P.M. = Normal Liters Per Minute (0°C)
2. Set Nitrogen carrier gas pressure to 12 Bar at the supply, and 9.7 Bar at the gauge on the DJP. For 9MP-DJ consult instruction manual.
3. Adjust spray rate to give a deposition rate of less than 12 um (.0005") per pass. Optimum is 8 um (.0003") per pass.

DIAMOND JET PARAMETERS

PROPANE (C3H8) FUEL GAS

DJ9W HARDWARE (2700)

WATER COOLED

U.S. UNITS

Coating Material	HARDWARE AIR CAP	PRESSURE OXYGEN PRESS. (psig)	PRESSURE FUEL PRESS. (psig)	PRESSURE AIR PRESS. (psig)	FLOWMETER READING OXYGEN F.M.R.	FLOWMETER READING FUEL F.M.R.	FLOWMETER READING AIR F.M.R.	FLOW [1] OXYGEN FLOW (SCFH)	FLOW [1] FUEL FLOW (SCFH)	FLOW [1] AIR FLOW (SCFH)	POWDER FEEDER (DJP) [2] N2 F.M.R.	POWDER FEEDER (DJP) [2] N2 FLOW (SCFH)	POWDER FEEDER (DJP) [2] AIR VIB (psig)	SPRAY RATE (lbs./hr.)	SPRAY DIST. (in.)	DEPOSIT EFF. (%)
1003	DJ2702	150	90	105	24	40	50	347	165	912	55	28.5	20	5-20	9-12	75
1004	DJ2702	150	90	105	24	40	50	347	165	912	55	28.5	20	5-20	9-12	
1005	DJ2702	150	90	105	24	40	50	347	165	912	55	28.5	20	5-20	9-12	75
1006	DJ2702	150	90	105	24	40	50	347	165	912	55	28.5	20	5-20	9-12	75
1007	DJ2702	150	90	105	24	40	50	347	165	912	55	28.5	20	5-20	9-12	
1008	DJ2702	150	90	105	24	40	50	347	165	912	55	28.5	20	5-20	9-12	
2001	DJ2702	150	90	105	24	40	50	347	165	912	55	28.5	20	5-20	9-12	
2002	DJ2702	150	90	105	24	40	50	347	165	912	55	28.5	20	5-20	9-12	
2003 [3]	DJ2701	150	90	100	38	38	48	549	156	857	55	28.5	20	5-15	8-10	55
2004 [3]	DJ2701	150	90	100	38	38	48	549	156	857	55	28.5	20	5	8-10	65
2005 [3]	DJ2701	150	90	100	38	38	48	549	156	857	55	28.5	20	5-15	8-10	40
2006 [3]	DJ2701	150	90	100	38	38	48	549	156	857	55	28.5	40	5-15	8-10	40
3001	DJ2702	150	90	105	24	40	50	347	165	912	55	28.5	20	5-15	9-12	75
3002	DJ2702	150	90	105	24	40	50	347	165	912	55	28.5	20	5-15	9-12	
3004 [3]	DJ2701	150	90	100	38	38	48	549	156	857	55	28.5	20	5-15	8-10	35
3005 [3]	DJ2701	150	90	100	38	38	48	549	156	857	55	28.5	20	5-15	8-10	
3006 [3]	DJ2701	150	90	100	38	38	48	549	156	857	55	28.5	20	5-15	8-10	
3007 [3]	DJ2701	150	90	100	38	38	48	549	156	857	55	28.5	20	5-15	8-10	35
4006	DJ2702	150	90	105	24	40	50	347	165	912	55	28.5	20	5-15	9-12	
4008	DJ2702	150	90	105	24	40	50	347	165	912	55	28.5	20	5-20	9-12	75
5241 [3]																
5260 [3]	DJ2701	150	90	100	38	38	48	549	156	857	55	28.5	20	5-15	8-10	
5803 [3]	DJ2701	150	90	100	38	38	48	549	156	857	55	28.5	20	5-15	8-10	
5843 [3]	DJ2701	150	90	100	38	38	48	549	156	857	55	28.5	20	5-15	8-10	
5847 [3]																

B.R.

Issued : 6 April 2000

Revision: D

Notes :

1. S.C.F.H. = Standard Cubic Feet per Hour (0 psig, 70°F)
2. Set Nitrogen carrier gas pressure to 175 psig at the supply, and 150 psig at the gauge on the DJP. For 9MP-DJ use SCFH as Flow Meter Reading.
3. Adjust spray rate to give a deposition rate of less than 12 um (.0005") per pass. Optimum is 8 um (.0003") per pass.

SULZER METCO

DIAMOND JET PARAMETERS

PROPANE (C3H8) FUEL GAS
DJ9W HARDWARE (2700)
WATER COOLED
METRIC UNITS

Coating Material	HARDWARE AIR CAP	PRESSURE OXYGEN PRESS. (bar)	PRESSURE FUEL PRESS. (bar)	PRESSURE AIR PRESS. (bar)	FLOWMETER READING OXYGEN F.M.R.	FLOWMETER READING FUEL F.M.R.	FLOWMETER READING AIR F.M.R.	FLOW [1] OXYGEN FLOW (NLPM)	FLOW [1] FUEL FLOW (NLPM)	FLOW [1] AIR FLOW (NLPM)	POWDER FEEDER (DJP) [2] N2 F.M.R.	POWDER FEEDER (DJP) [2] N2 FLOW (NLPM)	POWDER FEEDER (DJP) [2] AIR VIB (bar)	SPRAY RATE (g./min.)	SPRAY DIST. (mm)	DEPOSIT EFF. (%)
1003	DJ2702	10.3	6.2	7.2	24	40	50	152	72	399	55	12.5	1.4	38-150	225-300	75
1004	DJ2702	10.3	6.2	7.2	24	40	50	152	72	399	55	12.5	1.4	38-150	225-300	
1005	DJ2702	10.3	6.2	7.2	24	40	50	152	72	399	55	12.5	1.4	38-150	225-300	75
1006	DJ2702	10.3	6.2	7.2	24	40	50	152	72	399	55	12.5	1.4	38-150	225-300	75
1007	DJ2702	10.3	6.2	7.2	24	40	50	152	72	399	55	12.5	1.4	38-150	225-300	
1008	DJ2702	10.3	6.2	7.2	24	40	50	152	72	399	55	12.5	1.4	38-150	225-300	
2001	DJ2702	10.3	6.2	7.2	24	40	50	152	72	399	55	12.5	1.4	38-150	225-300	
2002	DJ2702	10.3	6.2	7.2	24	40	50	152	72	399	55	12.5	1.4	38-150	225-300	
2003 [3]	DJ2701	10.3	6.2	6.9	38	38	48	240	68	375	55	12.5	1.4	38-115	200-250	55
2004 [3]	DJ2701	10.3	6.2	6.9	38	38	48	240	68	375	55	12.5	1.4	38	200-250	65
2005 [3]	DJ2701	10.3	6.2	6.9	38	38	48	240	68	375	55	12.5	1.4	38-115	200-250	40
2006 [3]	DJ2701	10.3	6.2	6.9	38	38	48	240	68	375	55	12.5	2.8	38-115	200-250	40
3001	DJ2702	10.3	6.2	7.2	24	40	50	152	72	399	55	12.5	1.4	38-115	225-300	75
3002	DJ2702	10.3	6.2	7.2	24	40	50	152	72	399	55	12.5	1.4	38-115	225-300	
3004 [3]	DJ2701	10.3	6.2	6.9	38	38	48	240	68	375	55	12.5	1.4	38-115	200-250	35
3005 [3]	DJ2701	10.3	6.2	6.9	38	38	48	240	68	375	55	12.5	1.4	38-115	200-250	
3006 [3]	DJ2701	10.3	6.2	6.9	38	38	48	240	68	375	55	12.5	1.4	38-115	200-250	
3007 [3]	DJ2701	10.3	6.2	6.9	38	38	48	240	68	375	55	12.5	1.4	38-115	200-250	35
4006	DJ2702	10.3	6.2	7.2	24	40	50	152	72	399	55	12.5	1.4	38-115	225-300	
4008	DJ2702	10.3	6.2	7.2	24	40	50	152	72	399	55	12.5	1.4	38-150	225-300	75
5241 [3]																
5260 [3]	DJ2701	10.3	6.2	6.9	38	38	48	240	68	375	55	12.5	1.4	38-115	200-250	
5803 [3]	DJ2701	10.3	6.2	6.9	38	38	48	240	68	375	55	12.5	1.4	38-115	200-250	
5843 [3]	DJ2701	10.3	6.2	6.9	38	38	48	240	68	375	55	12.5	1.4	38-115	200-250	
5847 [3]																

B.R.

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Notes :

1. N.L.P.M. = Normal Liters Per Minute (0°C)
2. Set Nitrogen carrier gas pressure to 12 Bar at the supply, and 9.7 Bar at the gauge on the DJP. For 9MP-DJ consult instruction manual.
3. Adjust spray rate to give a deposition rate of less than 12 um (.0005") per pass. Optimum is 8 um (.0003") per pass.