

100 HE Plasma Parameters

Ceramics		Hardware				Gas SLM			Power	Powder Feed		Torch
Powder	Composition	Particle Size	Nozzle	Pwdr Ports	Ext Attach	Ar	N2	H2	GV/KW	Gr/min	Cr Gas	Std Off
Hochrhein	Pure AIO	5-25 micron	841143	841149	2-Port	85	57	66	243/95	40	14	11.4 cm
PX 4005.1	Pure AIO	20-45 micron	841143	841149	3-Port	85	57	66	250/95	100	24	11.4 cm
HC 742.850	97 AIO/TiO 3	10-90 micron	841143	841149	2-Port	104	47	57	250/85	70	19	11.4 cm
SM 130 NS	87 AIO/TiO 13	15-53 micron	841143	841149	2-Port	85	57	57	223/95	90	14	11.4 cm
SG 106	85 AIO/TiO 15	15-45 micron	841121	NA	NA	104	47	47	229/80	80	18	11.4 cm
HC 750.0	60 AIO/YZRO 40	5-22 micron	841143	841149	2-Port	85	47	66	244/95	50	19	11.4 cm
SM	Pure CRO	22-44 micron	210570	841150	2-Port	85	57	28	232/87	80	10	11.4 cm
PX CRO-214	Pure CRO	20-45 micron	210570	841149	3-Port	85	57	42	237/90	100	21	13.0 cm
HC 703.1	Pure CRO	22-45 micron	841121	NA	NA	85	54	0	219/87	80	11	11.4 cm
HC 703.053	Pure CRO	10-25 micron	210570	841149	3-Port	85	54	42	228/90	100	28	13.0cm
HC 703.053	Pure CRO	10-25 micron	210570	841149	3-Port	104	57	38	234/90	150	24	13.0cm
HC 704.053	Pure CRO	10-25 micron	210570	841149	3-Port	104	57	33	236/90	100	21	15.0 cm
HC 704.0	Pure CRO	5-22 micron	866695	841151	2-Port	104	47	47	224/95	85	9	13.0cm
SG 2020	Pure CRO	10-45 micron	210570	841149	3-Port	85	47	47	231/95	100	21	13.0 cm
SG 3032	Pure CRO	10-30 micron	210570	841149	3-Port	85	47	47	230/90	120	28	13.0 cm
SG 3032	Pure CRO	10-30 micron	210570	841149	3-Port	85	47	47	228/90	150	24	13.0 cm
SG	Pure CRO	5-15 micron	210570	841149	3-Port	104	47	47	237/90	100	28	13.0 cm
SG	Ruby	10-45 micron	210570	841149	3-Port	94	47	80	227/95	100	21	11.4 cm
SG 890	Ruby	10-30 micron	210570	841149	3-Port	104	47	47	237/95	100	28	13.0cm
SG 1001	Pure TiO	10-63 micron	841143	841149	2-Port	85	57	57	223/95	90	14	11.4 cm
HC 782.2	Pure TiO	45-90 micron	841143	841149	3-Port	85	47	57	230/80	80	19	15.0 cm
HC 782.2	Pure TiO	45-90 micron	841143	841149	3-Port	85	57	57	223/95	90	19	11.4 cm
HC 782.2	Pure TiO	45-90 micron	841143	841149	3-Port	85	47	38	229/60	100	19	15.0 cm
HC 782.2	Pure TiO	45-90 micron	841143	841149	3-Port	85	47	38	229/60	120	19	15.0 cm
HC 782.2	Pure TiO	45-90 micron	841143	841149	3-Port	85	47	38	229/60	140	19	15.0 cm
HC 782.2	Pure TiO	45-90 micron	841143	841149	3-Port	85	47	38	229/60	180	19	18.0 cm
HC 782.2	Pure TiO	45-90 micron	841143	841149	3-Port	85	47	38	229/60	220	14	18.0 cm
SM 102	Pure TiO	7.8-88 micron	841143	841149	3-Port	85	47	66	238/95	100	19	11.4 cm
SM 210 NS	24 MgO/ZrO 76	11-53 micron	841143	841149	2-Port	85	47	66	247/95	100	10	14.0 cm
SM 210	24 MgO/ZrO 76	11-53 micron	841143	841149	2-Port	85	57	66	243/95	75	19	11.4 cm
SM 210	24 MgO/ZrO 76	11-53 micron	841143	841149	2-Port	85	47	66	240/95	100	21	11.4 cm
SM 204B-NS	7 Y/ZrO 93	45-75 micron	841143	841149	2-Port	80	57	71	240/110	80	19	11.4 cm
SM 204 NS	7 Y/ZrO 93	11-125 micron	841143	841149	2-Port	85	47	66	212/98	80	12	11.4 cm
HC 825.1 dvc	7 Y/ZrO 93	22-45 micron	841143	841149	2-Port	85	57	57	241/95	50	12	6.5 cm

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HC 825.0	7 Y/ZrO 93	5-25 micron	866695	841151	3-Port	85	57	71	256/100	50	19	11.4 cm
HC 825.242	7 Y/ZrO 93	10-90 micron	841143	841149	2-Port	85	57	66	245/95	80	14	11.4 cm
HC 827.873	7 Y/ZrO 93	20-106 micron	841143	841149	3-Port	85	57	66	198/100	220	24	11.4 cm
HC 827.873	7 Y/ZrO 93	20-106 micron	841143	841149	3-Port	85	47	66	240/95	220	21	15.0 cm
HC 827.873	7 Y/ZrO 93	20-106 micron	841143	841149	3-Port	85	57	71	243/100	300	24	11.4 cm
HC 827.873	7 Y/ZrO 93	20-106 micron	841143	841149	3-Port	85	57	66	241/95	200	19	7.5 cm
SG 204F	7 Y/ZrO 93	10-45 micron	841143	841149	2-Port	85	57	66	243/95	80	14	13.0 cm
SG 204	7 Y/ZrO 93	11-125 micron	841143	841149	2-Port	85	57	66	236/95	95	9	11.4 cm

100 HE Disclaimer and Coating Parameter Legend

Coating parameters contained in this manual should be considered starting points. The parameters published in this manual were developed under laboratory conditions. Field results may vary.

Progressive Technologies, Inc. is constantly striving to improve coating characteristics and properties through parameter and 100 HE hardware development. **Contact your Sales Engineer or the Application Manager at PTI for the latest developments and parameter that best fits your requirements.** A complete coating report will be supplied upon request.

The Two Port and Three Port External attachments are interchangeable for all coatings listed as 2-Port or 3-Port injection in the Parameter Guide. In most cases the Three Port Injection shows slight improvement in density and deposition efficiency over the Two Port injection method.

Material Selection Guide

- *Sulzer Metco, Inc. (SM)
- *Sulzer Metco, Inc. (Amdry)
- *HC Starck, Inc. (HC)
- *Saint-Gobain, LLC. (SG)
- *Praxair Surface Technologies, Inc. (PX)
- *Powder Alloy Corporation (PAC)
- *Deloro Stellite, Inc. (Stellite)
- *Carpenter Alloys, Inc. (Carp)
- *Hoganas International, Inc. (Hog)
- *Wall Colmonoy, Inc. (WC)
- *Liquid Metals, Inc. (Armacor)
- *Nano Steel Corporation (Nano)
- *Montreal Carbide, Ltd. (MC)
- *Lineage Alloys, Inc. (LA)
- *Atlantic Minerals Corporation. (Hochrhein).

***Materials outlined in the Parameter Guidelines are registered trade marks of the aforementioned companies.**