

100 HE Plasma Parameters

Ceramics		Hardware				Gas SCFH			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	180	120	140	243/95	40	30	4.5 in
PX 4005.1	Pure AIO	20-45 micron	841143	841149	3-Port	180	120	140	250/95	100	50	4.5 in
HC 742.850	97 AIO/TiO 3	10-90 micron	841143	841149	2-Port	220	100	120	250/85	70	40	4.5 in
HC 744.0	87 AIO/TiO 13	22.5-5micron	866695	841151	3-Port	180	120	140	252/95	80	55	4.5 in
SM 130 NS	87 AIO/TiO 13	15-53 micron	841143	841149	2-Port	180	120	120	223/95	90	30	4.5 in
SG 106	85 AIO/TiO 15	15-45 micron	841121	NA	NA	220	100	100	229/80	80	18	4.5 in
HC 750.0	60 AIO/YZRO 40	5-22 micron	841143	841149	2-Port	180	100	140	244/95	50	40	4.5 in
SM	Pure CRO	22-44 micron	210570	841150	2-Port	180	120	60	232/87	80	22	4.5 in
PX CRO-214	Pure CRO	20-45 micron	210570	841149	3-Port	180	120	90	237/90	100	45	5.0 in
HC 703.1	Pure CRO	22-45 micron	841121	NA	NA	180	115	0	219/87	80	24	4.5 in
HC 703.053	Pure CRO	10-25 micron	210570	841149	3-Port	180	115	90	228/90	100	60	5.0 in
HC 703.053	Pure CRO	10-25 micron	210570	841149	3-Port	220	120	80	234/90	150	50	5.0 in
HC 704.053	Pure CRO	10-25 micron	210570	841149	3-Port	220	120	70	236/90	100	45	6.0 in
HC 704.0	Pure CRO	5-22 micron	866695	841151	2-Port	200	100	100	224/95	85	20	5.0 in
SG 2020	Pure CRO	10-45 micron	210570	841149	3-Port	180	100	100	231/95	100	45	5.0 in
SG 3032	Pure CRO	10-30 micron	210570	841149	3-Port	180	100	100	230/90	120	60	5.0 in
SG 3032	Pure CRO	10-30 micron	210570	841149	3-Port	180	100	100	228/90	150	50	5.0 in
SG	Pure CRO	5-15 micron	210570	841149	3-Port	220	100	100	237/90	100	60	5.0 in
SG	Ruby	10-45 micron	210570	841149	3-Port	200	100	80	227/95	100	45	4.5 in
SG 890	Ruby	10-30 micron	210570	841149	3-Port	220	100	100	237/95	100	60	5.0 in
SG 1001	Pure TiO	10-63 micron	841143	841149	2-Port	180	120	120	223/95	90	30	4.5 in
HC 782.2	Pure TiO	45-90 micron	841143	841149	3-Port	180	100	120	230/80	80	40	6.0 in
HC 782.2	Pure TiO	45-90 micron	841143	841149	3-Port	180	120	120	223/95	90	40	4.5 in
HC 782.2	Pure TiO	45-90 micron	841143	841149	3-Port	180	100	80	229/60	100	40	6.0 in
HC 782.2	Pure TiO	45-90 micron	841143	841149	3-Port	180	100	80	229/60	120	40	6.0 in
HC 782.2	Pure TiO	45-90 micron	841143	841149	3-Port	180	100	80	229/60	140	40	6.0 in
HC 782.2	Pure TiO	45-90 micron	841143	841149	3-Port	180	100	80	229/60	180	40	7.0 in
HC 782.2	Pure TiO	45-90 micron	841143	841149	3-Port	180	100	80	229/60	220	30	7.0 in
SM 102	Pure TiO	7.8-88 micron	841143	841149	3-Port	180	100	140	238/95	100	40	4.5 in
SM 210 NS	24 MgO/ZrO 76	11-53 micron	841143	841149	2-Port	180	100	140	247/95	100	22	5.5 in
SM 210	24 MgO/ZrO 76	11-53 micron	841143	841149	2-Port	180	120	140	243/95	75	40	4.5 in
SM 210	24 MgO/ZrO 76	11-53 micron	841143	841149	2-Port	180	100	140	240/95	100	45	4.5 in
SM 204B-NS	7 Y/ZrO 93	45-75 micron	841143	841149	2-Port	170	120	150	240/110	80	40	4.5 in
SM 204 NS	7 Y/ZrO 93	11-125 micron	841143	841149	2-Port	180	100	140	212/98	80	25	4.5 in

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HC 825.0	7 Y/ZrO 93	5-22 micron	866695	841151	3-Port	180	120	150	256/100	50	40	4.5 in
HC 825.1 dvc	7 Y/ZrO 93	22-45 micron	841143	841149	2-Port	180	120	120	241/95	50	25	2.5 in
HC 825.242	7 Y/ZrO 93	10-90 micron	841143	841149	2-Port	180	120	140	245/95	80	30	4.5 in
HC 827.873	7 Y/ZrO 93	20-106 micron	841143	841149	3-Port	180	120	140	198/100	220	50	4.5 in
HC 827.873	7 Y/ZrO 93	20-106 micron	841143	841149	3-Port	180	100	140	240/95	220	45	6.0 in
HC 827.873	7 Y/ZrO 93	20-106 micron	841143	841149	3-Port	180	120	150	243/100	300	50	4.5 in
HC 827.873 dvc	7 Y/ZrO 93	20-106 micron	841143	841149	3-Port	180	120	140	241/95	200	40	3.0 in
SG 204F	7 Y/ZrO 93	10-45 micron	841143	841149	2-Port	180	120	140	243/95	80	30	5.0 in
SG 204	7 Y/ZrO 93	11-125 micron	841143	841149	2-Port	180	120	140	236/95	95	20	4.5 in

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)
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- *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.**