

100 HE Plasma Parameters

Carbides		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	Stnd Off
Amdry CRC	90 CrC/NiCr 10	5-45 micron	841121	NA	NA	113	57	28	199/70	100	9	11.4 cm
SM 81 VFNS	75 CrC/NiCr 25	5-45 micron	866695	867750	2-Port	94	47	47	234/90	100	12	15.0 cm
SM 81 VFNS	75 CrC/NiCr 25	5-45 micron	866695	867750	2-Port	94	47	47	234/90	80	12	11.4 cm
SM 3007	80 CrC/NiCr 20	5.5-45 micron	868648	867750	2-Port	150	47	57	262/90	100	16	15.0 cm
SM 3007	80 CrC/NiCr 20	5.5-45 micron	868648	867750	2-Port	142	47	57	278/90	50	16	13.0 cm
PX CRC-106	75 CrC/NiCr 25	5-45 micron	868648	867750	2-Port	132	47	47	257/75	75	12	13.0 cm
PX CRC-425-9	75 CrC/NiCr 25	5-22 micron	841187	867750	2-Port	142	47	28	275/70	50	14	15.0 cm
PX WC-733	WC/CrC/Ni	5-45 micron	868648	867750	2-Port	132	57	28	252/95	80	14	11.4 cm
SYL SX-199	WC/CrC/NiCr	5-45 micron	868648	867750	2-Port	76	47	57	248/50	50	9	13.0 cm
SYL SX-199	WC/CrC/NiCr	5-45 micron	868648	867750	2-Port	165	57	57	280/90	50	11	15.0 cm
PX W-124-4	46Cr/36W/12Co/4C	16-45 micron	868648	867750	2-Port	104	47	47	246/95	70	9	15.0 cm
PX WC-114	88 WC/Co 12	10-45 micron	868648	867750	2-Port	150	57	47	255/90	80	11	15.0 cm
HC 518.280	88 WC/Co 12	10-45 micron	868648	867750	2-Port	132	57	57	265/95	50	9	15.0 cm
PX WC-726	88 WC/Co 12	5-45 micron	868648	867750	2-Port	150	57	24	255/90	50	9	15.0 cm
PX WC-726	88 WC/Co 12	5-45 micron	866695	841151	2-Port	142	57	24	257/85	80	10	15.0 cm
SM 71 VFNS	88 WC/Co 12	5-45 micron	868648	867750	2-Port	132	57	28	249/95	100	12	11.4 cm
LA 3379	88 WC/Co 12	5-45 micron	868648	867750	2-Port	142	57	33	246/90	80	11	15.0 cm
SYL SD-251	88 WC/Co 12	5-45 micron	868648	841151	2-Port	132	57	57	287/95	85	8.5	15.0 cm
SYL SD-251	88 WC/Co 12	5-45 micron	868648	841151	2-Port	142	47	47	280/85	85	8.5	15.0 cm
SM 71 VFNS-5	88 WC/Co 12	5-22 micron	868648	841151	2-Port	142	57	24	263/90	80	11	15.0 cm
SM 71 VFNS-5	88 WC/Co 12	5-22 micron	868648	841151	2-Port	142	57	24	263/90	80	11	15.0 cm
HC 526.350	73 WC/Co 17	11-53 micron	868648	867750	2-Port	150	57	47	262/80	100	8.5	15.0 cm
SM 2005	73 WC/Co 17	5.5-38 micron	868648	867750	2-Port	150	47	57	275/90	70	10	15.0 cm
SM 2005	73 WC/Co 17	5.5-38 micron	868648	867750	2-Port	150	57	47	262/80	100	8.5	15.0 cm
SM 73SFNS	73 WC/Co 17	5.5-38 micron	868648	867750	2-Port	150	57	47	261/80	100	8.5	15.0 cm
SM 73SFNS	73 WC/Co 17	5.5-38 micron	868648	867750	3-Port	165	57	47	258/70	50	21	15.0 cm
SM 73FNS-1	73 WC/Co 17	11-53 micron	868648	867750	3-Port	132	47	38	260/60	70	14	15.0 cm
SM 5847	86 WC/Co 10/Cr 4	10-35 micron	868648	841151	2-Port	188	57	38	267/80	80	11	15.0 cm
HC 558.059	86 WC/Co 10/Cr 4	5-30 micron	868648	841151	2-Port	188	47	38	263/80	80	10	15.0 cm
HC 558.059	86 WC/Co 10/Cr 4	5-30 micron	868648	841151	2-Port	160	47	57	254/80	80	11	15.0 cm
HC 558.059	86 WC/Co 10/Cr 4	5-30 micron	868648	867750	2-Port	160	47	57	257/95	80	11	13.0 cm
HC 558.074	86 WC/Co 10/Cr 4	15-45 micron	868648	841151	2-Port	180	57	57	280/95	100	9	15.0 cm
LA 3386-DJ	86 WC/Co 10/Cr 4	11-45 micron	868648	867750	2-Port	165	47	57	267/95	50	11	15.0 cm
HC 544.3	73 WC/Ni 17	5.6-44 micron	868648	867750	3-Port	198	57	47	261/45	50	19	15.0 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.**