

<b>100 HE Plasma Parameters</b>												
<b>Alloys and PM</b>				<b>Hardware</b>		<b>Gas SLM</b>			<b>Power</b>	<b>Powder Feed</b>		<b>Torch</b>
<b>Powder</b>	<b>Composition</b>	<b>Particle Size</b>	<b>Nozzle</b>	<b>Pwdr Ports</b>	<b>Ext Attach</b>	<b>Ar</b>	<b>N2</b>	<b>H2</b>	<b>GV/KW</b>	<b>Gr/min</b>	<b>Cr Gas</b>	<b>Stnd Off</b>
SM 52 CNS	AlSi 88/12	45-90 micron	866695	841151	3-Port	85	45	33	213/70	150	33	11.5 cm
SM 58 NS	CuNiIn	45-75 micron	868648	867750	3-Port	85	47	66	262/95	50	12	17.8 cm
SM 58 NS	CuNiIn	45-75 micron	841121	N/A	N/A	141	47	8	233/55	50	8	11.5 cm
SM 404 NS	NiAl 80/20	53-90 micron	866695	841149	3-Port	94	47	57	235/90	150	25	15.0 cm
SM 404 NS	NiAl 80/20	53-90 micron	866695	841149	3-Port	85	47	66	225/90	80	25	15.0 cm
SM 450 NS	NiAl 95/5	45-90 micron	866695	841149	3-Port	85	57	66	236/95	120	20	15.0 cm
SM 450 NS	NiAl 95/5	45-90 micron	841143	841149	3-Port	94	47	38	214/90	95	7	11.5 cm
HC 281.863	NiAl 95/5	45-90 micron	841143	841149	2-Port	85	47	66	240/95	80	8	15.0 cm
SM 443 NS	NiCrAl	45-125 micron	866695	841149	3-Port	85	57	66	238/95	120	23	15.0 cm
SM 447 NS	NiMoAl	45-90 micron	866695	841149	3-Port	76	57	66	234/95	120	21	15.0 cm
Carp 718	CoNiCrAlY	45-106 micron	841121	N/A	N/A	113	45	19	200/65	85	8	11.5 cm
Carp 718	CoNiCrAlY	45-106 micron	841121	N/A	N/A	141	47	28	231/45	70	10	11.5 cm
HC 415.220	CoNiCrAlY	5-45 micron	866695	841151	3-Port	104	47	66	224/85	80	6	15.0 cm
SM 995 C	CoNiCrAlY	45-75 micron	841121	N/A	N/A	118	47	28	234/75	85	7	11.5 cm
SM 461	NiCrAlCoY	45-106 micron	841143	841149	2-Port	104	47	28	220/70	100	6	11.5 cm
SM 9625 F	NiCrAlY	22-45 micron	868648	841151	2-Port	85	47	66	250/95	75	10	14.0 cm
SM 66 F T-400	CoMoCr	15-45 micron	868648	841151	2-Port	94	47	66	250/95	100	10	15.0 cm
Stellite T-400	CoMoCr	5-44 micron	866695	841149	2-Port	113	47	66	250/95	50	8	12.7 cm
PX T-800	CoMoCrSi	10-45 micron	841121	N/A	N/A	141	47	28	227/60	60	17	11.5 cm
Stellite T-800	CoMoCrSi	5-44 micron	868648	867750	2-Port	95	47	70	350/95	100	17	11.5 cm
Carp 316 SS	FeCrNiMo	22-53 micron	841121	NA	N/A	150	45	28	227/75	100	7	11.5 cm
Carp 316 SS	FeCrNiMo	22-53 micron	868648	867750	2-Port	94	47	57	242/95	85	10	14.0 cm
Hog 316 SS	FeCrNiMo	5-45 micron	841121	NA	NA	150	45	28	205/40	90	12	11.5 cm
Hog 316 SS	FeCrNiMo	5-45 micron	841143	841149	2-Port	113	47	42	225/90	105	9	11.5 cm
SM 41 C	FeCrNiMo	45-106 micron	841121	NA	NA	113	42	8	200/75	85	7	14.0 cm
WC 63 HV	NiCrBSi/CrC	15-45 micron	868648	867750	2-Port	76	57	66	265/95	80	10	15.0 cm
Armacor C	CrNiBMoCuSi	15-45 micron	868648	867750	2-Port	113	57	47	254/95	100	14	11.5 cm
Armacor M	FeCrNiBMoCuSi	15-45 micron	868648	867750	2-Port	113	57	47	254/95	100	12	11.5 cm
Nano SHS	Proprietary	15-45 micron	841121	NA	NA	165	47	28	230/50	75	12	11.5 cm
HC Mo B4273	Pure Molybdenum	5-44 micron	866695	841151	3-Port	104	57	57	243/95	70	10	15.5 cm
HC Mo Bond	Pure Molybdenum	30-45 micron	866695	841151	3-Port	76	38	24	211/40	70	6	15.5 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.**