

Hielscher - Cavitation Erosion Test Protocol - ASTM G32 - 16

Cavitation Erosion Test Parameters

Date		Oct-3, 17
Standard		ASTM G32-16
Material		Titanium Ti-6Al-4V (Grade 5), Annealed
Batch number		JPN-700321/1
Density	g/cm3	4,43
Specimen Surface Diameter	mm	15,9
Specimen Surface Area	mm2	198,6
Amplitude (at 100% setting)	µm	75
Amplitude (adjustment)	%	60
Amplitude (resulting)	µm	45
Gap under sonotrode	mm	2
Direct/Indirect Testing		direct
Liquid Temperature	degC	20
Pressure	barg	0 (ambient)

Cavitation Erosion Measurements

Cumulated Energy	Cum. Time	Net Power	Cumulative Weight-Loss	marginal Erosion Rate	marginal Erosion Rate
kWs	sec	W	mg	µm/hr	mm3/kWh
0	0		0		
50	1064	47	0,46	1,769	7,48
100	2128	47	0,76	1,154	4,88
150	3192	47	0,97	0,808	3,41
200	4256	47	1,14	0,654	2,76
250	5320	47	1,27	0,500	2,11
300	6384	47	1,42	0,577	2,44

