Annexure III

We are interested in purchasing a cavitation erosion system (based on ASTM G32 standard) whose specifications are outlined below:

Sr.No	SPECIFICATION		Complied/Not Complied	Ref.Pg.No
1.	20 kHz (nominal frequency) ultrasonic transducer driven by a suitable electronic oscillator and power amplifier	Piezoelectric/Magnetostrictive type		
2.	System power output	500-1000 W		
3.	Sonotrode with a detachable tip			
4.	Sonotrode tip nominal diameter	15.9 mm		
5.	Peak-peak amplitude	Should be adjustable from 1% to 100%		
6.	Displays of frequency, adjustable power and amplitude settings are desirable			
7.	Dimensions and tolerances of detachable tip, as per ASTM G32 standard, are given as ready reference in Figure-1. Actual dimensions should closely adhere to the values indicated.			
8.	Desirable: Pulsed operation of sonotrode			
9.	Liquid vessel is at least a 600 ml cooling cell with water jacketed beaker or a 1000 ml to 1500 ml glass beaker with a cooling coil. In either case, desired depth and unobstructed internal diameter of the liquid vessel should each be about 100 mm.			
10.	A temperature sensor shall be provided to monitor the temperature of the liquid			
11.	A stand with a clamp shall be provided			
12.	Optional accessories: i) A sound enclosure to reduce noise by about 20 dB for this equipment ii) Sonotrode with solid tip for indirect cavitation measurement which would use the same electronics and capable of generating the same power range at the same frequency			

(Note: It is mandatory for the bidders to provide the compliance statement in tabular column format along with catalogue page number (comply/not comply) for the Above points with document proof as required. Failing which bidders will be technically disqualified)

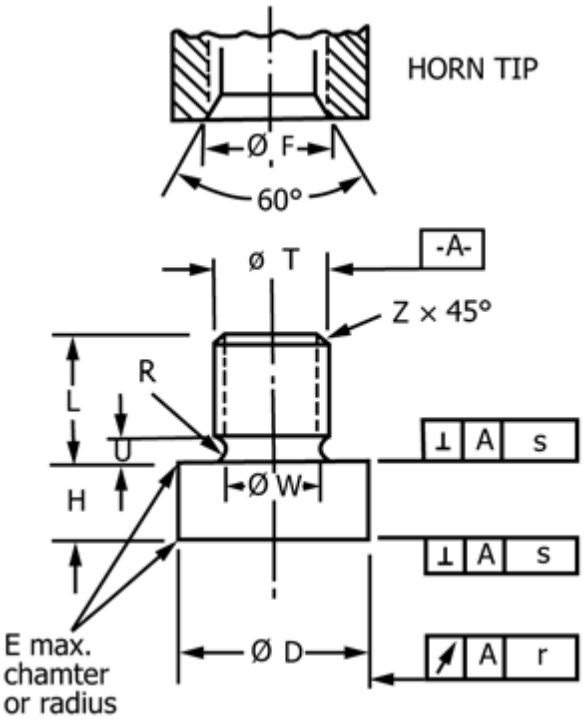

TABLE OF VALUES		
	mm	inch
D*	15.9 ± 0.05	0.624 ± 0.002
E*	0.15	0.006
F	(W + 2.2) ± 0.25	(W + 0.09) ± 0.01
H	See 7.2	
L	10.0 ± 0.5	0.394 ± 0.02
R	0.8 ± 0.15	0.031± 0.006
T	Thread, see X2.1	
U	2.0 ± 0.5	0.08 ± 0.02
W	Thread minor dia, see Table X2.2	
Z	0.8 ± 0.15	0.031 ± 0.006
r*	0.050	0.002
s*	0.025	0.001

NOTE 1—Asterisk (*) indicates mandatory; others recommended.

Figure-1: Detachable tip dimensions as per ASTM G32 standard