

Caption for supplementary movie 1:

Supplemental movie of a case with a crushed tube. The plexiglass acrylic tube bursts after the first complete collapse of the cavitation bubble. Parameters for this case: $d = 18$ mm, $l = 640$ mm, $u = 3.08$ m·s⁻¹, $a = 8050.00$ m·s⁻², $Ca_1 = 0.02$, and $Ca_2 = 0.53$. The movie is played back at 1/200 of real speed.

Caption for supplementary movie 2:

Supplemental movie of a no-cavitation case. A thick foam is attached on the stopper to achieve a small impact acceleration. No cavitation is observed in the experiment. Parameters for this case: $d = 19$ mm, $l = 336$ mm, $u = 2.30$ m·s⁻¹, $a = 122.26$ m·s⁻², $Ca_1 = 2.46$, $Ca_2 = 2.16$. The movie is played back at 1/200 of real speed.

Caption for supplementary movie 3:

Supplemental movie of a case with small cavitation bubbles. The dimensionless maximum bubble length is $L_{max}^* = 0.08$. Parameters for this case: $d = 18$ mm, $l = 200$ mm, $u = 1.91$ m·s⁻¹, $a = 843.00$ m·s⁻², $Ca_1 = 0.60$, $Ca_2 = 5.00$. The movie is played back at 1/200 of real speed.

Caption for supplementary movie 4:

Supplemental movie of a case with a large cavitation bubble. The dimensionless maximum bubble length is $L_{max}^* = 1.94$. Parameters for this case: $d = 16$ mm, $l = 530$ mm, $u = 3.40$ m·s⁻¹, $a = 1857.00$ m·s⁻², $Ca_1 = 0.10$, $Ca_2 = 0.53$. The movie is played back at 1/200 of real speed.