FORMULAS FOR CALCULATION

$$v_{(th)} = \sqrt{2gH}$$

$$H = \frac{V^2}{2g}$$

$$E = mgH$$

$$e = \frac{mV^2}{2}$$

$$v = \frac{d}{t}$$

$$F = ma$$

$$\text{System friction (\%)} = \frac{v_{(th)} - v_{(pr)}}{v_{(th)}}$$

RESPECTIVELY WHERE:

a = acceleration (m/sec^2)
e = energy (joules)
m = mass (kg)
F = force (Newton)
g = 9.8068 m/sec^2
(universal gravity constant)

H = drop height (m)
$V_{(pr)}$ = practical velocity (m/sec)
$V_{(th)}$ = theoretical velocity (m/sec)
d = distance (mm)
t = time (millisecond)