Appendix D: Pibal Velocity Versus Size

Pibal Velocity vs. Size

Calculated Velocities for Round Balloons

Diameter (in)	Weight (gms)	Velocity (ft/min)
9	2.50	241
10	2.50	284
11	2.50	319
12	2.50	350
9	3.00	221
10	3.00	270
11	3.00	308
12	3.00	342
9	3.50	201
10	3.50	255
11	3.50	297
12	3.50	333
14	3.50	391
12	4.00	324
13	4.00	357
14	4.00	386
15	4.00	412
16	4.00	436
12	4.40	317
13	4.40	351
14	4.40	381
15	4.40	408
16	4.40	433
12	5.15	303
14	5.15	372
15	5.15	400
16	5.15	426
17	5.15	451
18	5.15	473
12	7.77	252
14	7.77	339
15	7.77	373
16	7.77	404
17	7.77	431
18	7.77	457

----------To Use This Chart ----------

Determine the weight of an empty balloon. Then, knowing the inflated diameter of the pibal, you can read the approximate vertical velocity of the pibal.

To get the weight of the empty balloon, weigh 10 empty pibals on a scale. Take the weight in ounces, and multiply by 28.35 to obtain the weight of the ten balloons in grams. Then, divide by 10 to obtain the weight of an individual balloon.