

# BALL INSTRUCTIONS

## BALL DIAMETER

5.5'  
7'  
8.5'  
10'

## HELIUM REQUIRED

87 cu. ft.  
180 cu. ft.  
322 cu. ft.  
524 cu. ft.

## NET LIFT

3.1 lbs  
7.2 lbs  
13.9 lbs  
23.8 lbs

**HELIUM** To purchase helium look under Gas-Industrial & Medical in your local Yellow Pages. Be sure to ask for standard industrial helium (99% pure), not party balloon or medical helium.

Consider the length of time you plan to be flying your balloon, so that you will have adequate helium. You will need to top the ball off every 3 to 5 days. (There is a normal helium loss of approximately 1% of the volume per day).

**LOCATION** FAA regulations state that you may not fly your balloon over 150' and not within a 5 mile radius of an airport without permission. Also please check with your local Sign Ordinances, to make sure you comply.

Select a location for inflating your ball that is free of any sharp or rough objects which may puncture your balloon. (A tarp covering on the ground would be a good precautionary measure). Inflate and fly the balloon in an area free of power lines, trees, and any other obstructions. *Warning!* Contact with power lines can result in electrocution and **DEATH!**

**FILLING** Attach the end of bridle point on balloon, to the end quick link of tether line, making sure to securely screw closed the quick link. Your balloon will gain lift as you are filling with helium, so you must secure the tether line close to ground, or have someone hold the tether line.

If using one of our inflation hoses, slip white cap over spigot of helium tank (it is a tight fit, slightly moisten the inside of the cap and push on with a twisting motion). Insert around 6" of hose end into red valve inflation port, gather material around hose (inside balloon) and hold securely with one hand. Use other hand to slowly open valve on helium tank. **INFLATE SLOWLY!** Helium is under extreme high pressure and can cause the balloon material to flap violently which will result in permanent damage to the material. If you hear a high screeching sound, you are inflating too fast!

Inflate until inflation strap (located in mid panel of ball) is laying smooth against the body of the balloon.

Check the inflation level of your balloon daily. If not kept to the proper inflation level it will not have enough lift to fly properly.

The clear valve on the inflation port is used to top off the balloon. Slide end of hose over tip of valve and hold firmly in place with hand. **INFLATE SLOWLY** as explained above.

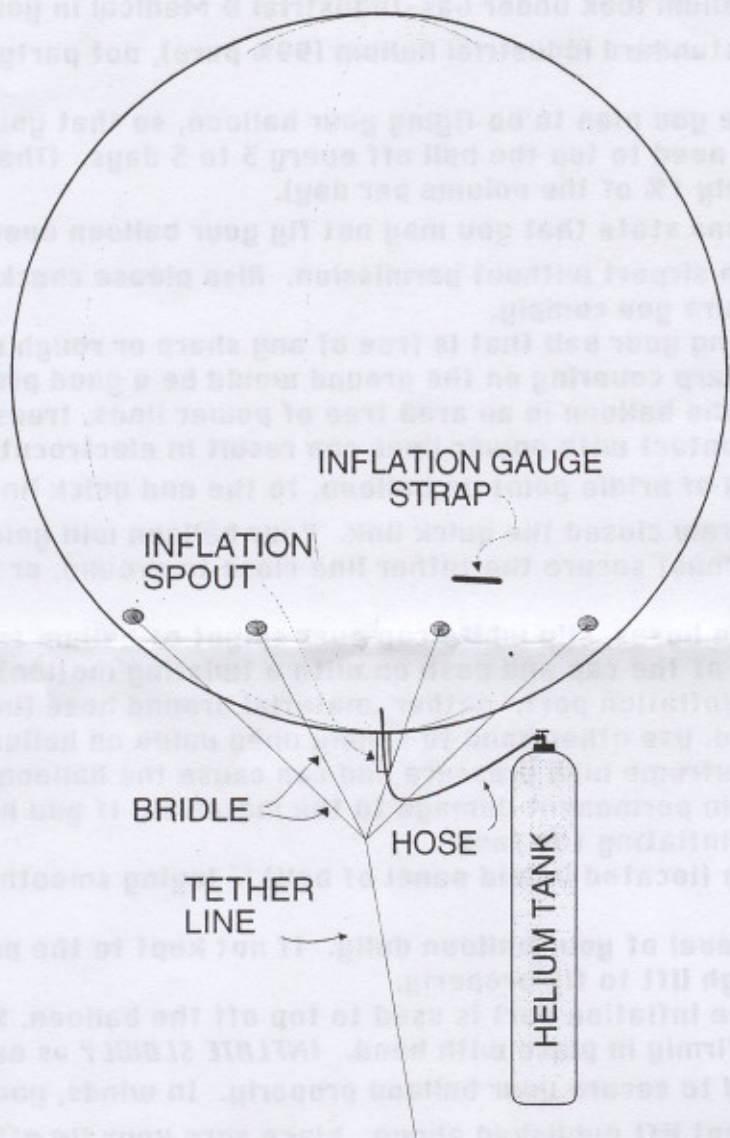
**TETHERING** You will need to secure your balloon properly. In winds, your balloon can gain lift which will exceed the net lift published above. Make sure your tie off point can hold 3X the net lift, and has no rough edges which will cut or rub your tether line. Also, make sure there are no surrounding obstructions that will damage the tether line.

Always fly your balloon the full length of the 135' tether line. This will keep it above the erratic ground surface winds.

**PROTECTING YOUR INVESTMENT** Keep the tether line away from vandals, the roof of the establishment is the best tethering point.

Bring your ball down, if winds exceed 20 mph, or bad weather comes up. Also, you should bring your balloon in at night to protect it from unsuspecting weather and vandals. If you must secure it outdoors, pull the balloon down on one tarp and securely cover with a second tarp.

# BALL SHAPE



# GENERAL FILLING & FLYING INSTRUCTIONS

## *Introduction:*

Each product is factory inspected and test inflated to insure there are no defects or leaks. Each product is shipped with a "Special Instruction" page with assembly and filling instructions pertaining only to that product! Make sure you read that page in addition to this page!

## *Helium Purchase:*

Tanks of helium may be purchased from your local welding supply company. Page I-20 is a chart indicating how many tanks of helium are required. Most welding suppliers will deliver to your location and pick up the tanks when you have finished.

Plan to keep at least one tank with some helium to occasionally top off your product. A product with no holes will have around a 1% loss per day through the material, which means you will normally have to add a little helium every 3 to 5 days.

## *Preparations for Inflation:*

Select a location for inflation which is smooth and clear of any rough or sharp objects. Lay out a tarp to protect the product during inflation. Make sure all valves on the product are completely closed! Avoid inflating in windy conditions if possible.

Attach the quick link on the end of the tether line to the quick link on the product. Screw both quick links closed and tighten with a small pair of pliers. Unwind around ten feet of tether line from the reel and tie off to a secure point to insure the product doesn't get away while being inflated.

## *Inflation Procedures:*

Inflating is a two man operation! One person holds the product at the point where the tether line attaches and the other person does the inflating. Slip the white rubber cup end of the inflation hose over the cock of the helium tank. Slide the other end of the hose into the large inflation port and hold the material tightly around the hose.

Helium is a nonflammable, non-toxic gas, but it is bottled under extremely high pressure. **WARNING!** Very slowly crack the helium tank valve! The flow of helium will make a rushing noise. Inflate slowly! Never open the helium tank valve to the point that the flow of helium makes a high pitched screeching noise and violently flaps the material, which could result in damage to the material. Continue inflating until the "inflation strap" on the outside of the product lies smooth and flat against the surface.

Cold weather inflations: Towards the end of the inflation, when the material starts to flatten out, finish inflating very slowly to allow the cold material time to stretch without damage! If it is below freezing, the final stage of inflation must be done in stages.

## *Selecting the Operational Area:*

Select an area which is clear of power lines, trees, buildings, poles and other obstructions which might damage the product as it moves around the sky. At the tie down point and the area around the tether line, make sure there are no objects which might catch, fray or cut the tether line. **Warning!** A tether line under tension is easily severed!

### ***Protect your Investment:***

The tether line tie down point should be kept away from the public, such as on the roof of a building. Individuals have been known to cut the tether line for the fun of it! To prevent vandalism, the product should be lowered and stored inside anytime your business is closed. This is especially true at night.

### ***Tether Line Handling and Operation:***

Letting the tether line slide through your fingers too fast will cause rope burns! It is recommended that you wear gloves. Products should be flown using the total length of the tether line. This keeps the product flying above surface wind turbulence. At the tie down point and the area around the tether line, make sure there are no objects which might catch, fray or cut the tether line. A tether line under tension is easily severed!

### ***Weather Considerations:***

Once inflated, rain, ice and snow will not hurt the material, but the added weight will reduce the lift and affect the flying performance. Rain should not be a serious problem, but accumulating ice and snow will.

The main weather consideration is wind! If high winds or thunderstorms are forecast, the product should be pulled down and stored inside. If you do not have an inside storage location, then: (1) lay out a ground tarp, (2) tie the tether line off short to a ground anchor, (3) cover the product with a cover tarp and (4) anchor the cover tarp securely, pulling the product snugly down on top of the ground tarp.

### ***Understanding the Affects of Temperature Change:***

Helium shrinks in cold temperatures and expands in warm temperatures. Consider:

1. You inflate outside in hot weather and bring the product inside where it is cool. The helium will shrink slightly and the product will become soft. Do not add helium, because when you take it back outside in the hot weather, it will expand back out.
2. You inflate outside in cold weather and bring the product inside where it is warm. The helium will expand and so will the product. Do not bleed off helium, because if you do, when you take it back outside in the cold weather, the helium will shrink and the product will become too soft to fly properly.

### ***Dealing with Leaks:***

Leaks are usually caused by the product coming in contact with something sharp or rough which punctures the material. To repair leaks, follow the "Blimp & Balloon Repair Instructions" included with each product.

### ***Storage Considerations:***

All products need to be completely dry before deflating and packing up for any length of time. The product should be stored in a climate controlled environment, free of moisture.

**Warning!** If folded damp or stored in a damp location, a fungus will develop that will eat holes in the material, which will destroy the balloon beyond repair.

### ***In Review... Three Major Precautions!***

1. Tether Line.... It must not rub against anything to prevent it from being severed!
2. The Product... Avoid any obstructions to prevent causing holes and leaks!
3. Storage..... Pack up dry and store in a damp free location to prevent damage!

# TETHER LINE INSTRUCTIONS

Attach this Quick-Link to the ring on the blimp or balloon. Screw the link closed and tighten with pliers.

Hold onto the tether line as you slowly let the blimp or balloon up or down.

The tether line is braided polyester with a breaking strength, when new, that is more than adequate for any wind in which the blimp or balloon can fly.

The Plastic Storage Reel is not meant to be used as a handle for flying the blimp or balloon. It could break, and your blimp or balloon would get away.

Notice the way the line is "figure 8" wound around the plastic reel.

## WARNING!

The tether line is under tension when being used and will quickly break if allowed to rub or chafe against anything!

Attach this Quick-Link directly to the anchor or to a rope, chain or cable connected to the anchor. Screw the link closed and tighten with pliers.

# HELIUM REQUIREMENTS

**Warning!** When ordering helium from your local Welding Supply Company ask for 99% pure helium. Do not use "balloon helium" or "party balloon helium", which has been diluted with other gases and is much less pure than 99%. You do not need "medical helium", which is like 99.99% pure and much more expensive.

The chart below should not be considered exact, because the exact number of cubic feet of helium in tanks vary and the exact volume and loss of each product varies. Select the size tank (cu. ft.) that will both fill your product and provide the RESERVE necessary to replace the typical 1% loss of helium (through the material) per day.

PRODUCT	LOSS PER DAY (Cu. Ft.) (based on 1% per day)		SIZE TANKS (Cu. Ft.)					Most Common Size Tank *****	
	CU. FT.		80	110	138	160	219	244	291
5.5' Ball*	87	.9	2( 73)	1( 23)	1( 51)	1( 73)	1(132)	1(157)	1(204)
7' Ball*	180	1.8	3( 60)	2( 40)	2( 96)	2(140)	1( 39)	1( 64)	1(111)
8.5' Ball*	322	3.2	5( 78)	3( 8)	3( 92)	3(158)	2(116)	2(166)	2(260)
10' Ball*	524	5.2	7( 36)	5( 26)	4( 28)	4(116)	3(133)	3(208)	2( 58)
7' Blimp	24	.2	1( 56)	1( 86)	1(114)	1(136)	1(195)	1(220)	1(267)
10' Blimp	72	.7	1( 8)	1( 38)	1( 66)	1( 88)	1(147)	1(172)	1(219)
13' Blimp	170	1.7	3( 70)	2( 50)	2(106)	2(150)	1( 49)	1(74)	1(121)
15' Blimp	255	2.6	4( 65)	3( 75)	2( 21)	2( 65)	2(183)	2(233)	1( 36)
18' Blimp	319	3.2	4( 1)	3( 11)	3( 95)	2( 1)	2(119)	2(169)	2(263)
21' Blimp	430	4.3	6( 50)	4( 10)	4(122)	3( 50)	2( 8)	2( 58)	2(152)
25' Blimp	787	7.9	10( 13)	8( 93)	6( 41)	5( 13)	4( 89)	4(189)	3( 86)
30' Blimp	1510	15.1	19( 10)	14( 30)	11( 8)	10( 90)	7( 23)	7(198)	6(236)
6' F-HAB	69	.7	2( 11)	1( 41)	1( 69)	1( 91)	1(150)	1(175)	1(222)
8.5' F-HAB	189	1.9	3( 51)	2( 31)	2( 87)	2(131)	1( 30)	2( 55)	1(102)
9.5' P-HAB	198	2.0	3( 42)	2( 22)	2( 78)	2(122)	1( 21)	1( 46)	1( 93)
13.5' P-HAB	576	5.8	8( 64)	6( 84)	5(114)	4( 64)	3( 81)	3(156)	2( 6)
17.5' P-HAB	1265	12.7	16( 15)	12( 55)	10(115)	8( 15)	6( 49)	6(199)	5(190)
10' Football	108	1.3	2( 52)	2(112)	1( 30)	1( 52)	1(111)	1(136)	1(183)
15' Football	363	4.5	5( 37)	4( 77)	3( 51)	3(117)	2( 75)	2(125)	2(219)
20' Football	861	8.6	11( 19)	8( 19)	7(105)	6( 99)	4( 15)	4(115)	3( 12)
3' x 8' Tube	57	.6	1( 23)	1( 53)	1( 81)	1(103)	1(162)	1(187)	1(234)
5' x 12' Tube	182	1.8	3( 58)	2( 38)	2( 94)	2(138)	1( 37)	1( 62)	1(109)
6.5' x 15' Tube	406	4.1	6( 74)	4( 34)	3( 8)	3( 74)	2( 32)	2( 82)	2(176)
8' x 18' Tube	760	7.6	10( 40)	7( 10)	6( 68)	5( 40)	4(116)	4(216)	3(113)
10' x 22' Tube	1355	13.6	17( 5)	13( 75)	10( 25)	9( 85)	7(178)	6(109)	5(100)

\* Also for the 5.5', 7', 8.5' and 10':

Apple, Baseball, Basketball, Cherry, Golf Ball, Jack O'Lantern, Orange & Soccer Ball

Number of Tanks required ———  
RESERVE remaining in the last tank ———

How many days will the RESERVE keep you flying? Divide the RESERVE by the LOSS PER DAY