



GARRISON
TRADITIONAL SANDBAG

Filling Garrison Sandbags

Equipment Needs

- A #2 rounded point shovel with D grip and straight shaft
- Durable gloves for hand protection when filling

Personnel Requirements

- Recruit enough help to build your wall in appropriate time
- 2 people working together can fill 12-15 sandbags per hour on average
- 45-50 hour estimated to fill and position enough bags for a 100ft long dike
- It is possible to purchase sandbag filling machines which can fill upwards of 15,000 sandbags per 24 hour period



Building a Sandbag Wall

- We recommend building a dike with a base width that is 2 to 3 times the height of the dike or berm
- A 4ft high wall requires a base width between 8ft and 12ft
- Most sandbags are 24" long, 14" wide and 4" high
- Bags should be positioned with the long side facing the direction of expected water flow





Number of Sandbags Needed

It is important to get a sense in advance of how long and how tall of a dike you may need to build, as it is often impossible to get enough sandbags once an emergency situation is developing.

Bags Required for 100 Linear Foot Wall

Wall Height w/Base 2x Height	Number of Sandbags	Wall Height w/Base 3x Height	Number of Sandbags
1ft Tall	600	1ft Tall	600
2ft Tall	1700	2ft Tall	2100
3ft Tall	3000	3ft Tall	4500
4ft Tall	5500	4ft Tall	7800

Amount of Sand or Fill Needed

For erosion control applications, we suggest using gravel, however for flood control applications, sand is considered the best fill material.

- 1 cubic yard of sand will fill approximately 100 sandbags sizes 14" x 26"
- We recommend filling to a weight of 30 pounds (around 1/2 to 2/3 full)
- Do not overfill sandbags or they will not conform to environment and be difficult to handle

Fill Required for 100 Linear Foot Wall

Wall Height w/Base 2x Height	Cubic Yards of Sand	Wall Height w/Base 3x Height	Cubic Yards of Sand
1ft Tall	6	1ft Tall	7
2ft Tall	8	2ft Tall	25
3ft Tall	38	3ft Tall	54
4ft Tall	65	4ft Tall	95
5ft Tall	100	5ft Tall	145

Additional Precautions

Plastic Sheeting

- Sandbags are not completely sealed and leaks are expected
- Acquire plastic rolled sheeting at most home improvement stores
- Add layer on top and water side of sandbag wall
- Weight down sheeting with additional sandbags to create seal

Pumps

- Rain and seepage may allow water to penetrate the sandbag wall
- Secure a simple water pump (a pool cover pump is often suited)
- Place pump behind the sandbag wall
- Use pump to drain excess water and redirect it outside the perimeter

