



FirmaLoad™

Bulk Bag Carriers

SELECT THE RIGHT SIZE

STEP 1 — Determine the minimum and maximum size needed

Minimum size — In a properly filled bag, the base is the only portion in contact with the carrier. The size of the base determines the minimum size of the carrier that should be used for your application. Normally the bulk bag's dimensions can be found on the tag attached to the bag (figure A). Note that length is the first dimension listed. The minimum length of carrier

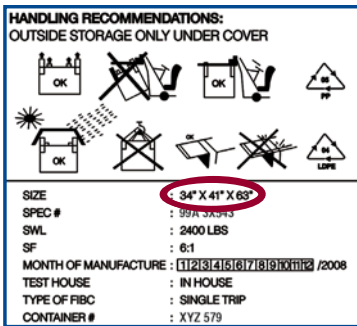


fig. A

should be longer than the greater of the length (L) or width (W) of the bag's base (figure B).

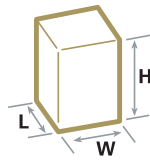


fig. B

Maximum size — To determine the maximum size of the carrier, add the length plus width dimensions of the bag together then multiply the sum by 2; divide that total by 3.1416 (pi). The result is the diameter of the bag when filled, and will be the maximum length of carrier needed.

For example: To find the diameter of a bag with a base that is 34 inches in length and 41 inches in width, calculate:

$$34 + 41 = 75$$

$$75 \times 2 = 150$$

$$150 / 3.1416 = 47.75$$

The diameter of the filled bag is 47.75 inches.

Therefore, the carrier's length in this example should be more than 41 inches and less than 48 inches.

FirmaLoad sizing worksheet:

Bag length (L): ____ + Bag width (W): ____ = _____
 (Multiplied times 2) x 2
 Bag circumference = _____
 (Divided by pi) / 3.1416
 Bag diameter = _____

Minimum size: _____ [larger of (L) or (W)]

Maximum size: _____ [bag diameter]

STEP 2 — Determine the best FirmaLoad carrier size

Choose a FirmaLoad bulk bag carrier that is longer than the larger dimension of (L) or (W) yet no larger than the bag diameter determined in your worksheet in Step 1.

Use your experience and good judgment to choose the ideal size, considering the following factors:

- The carrier should be large enough to allow the bulk bag to be easily centered and set down without taking valuable time to position it precisely.
- A bag that is too large for the carrier, or not properly placed on the carrier, may block the carrier's channels, prohibiting forklift access. Carriers should have channels long enough to allow adequate clearance.
- A carrier that is larger than necessary will take up valuable space in storage and shipping.

STEP 3 — Determine the FirmaLoad carrier's Safe Working Load (SWL)

When selecting a FirmaLoad bulk bag carrier it's important to know the filling weights being used and how many bags you plan to stack on top of one another in the operation. To calculate your FirmaLoad carrier's SWL, use the following formula:

SWL = Bag weight times the number of bags being stacked high.

For example: If filled bags are 2,200 lbs. each and stacked 3 bags high, the FirmaLoad bulk bag carrier must hold a total stacked weight of 6,600 lbs. (2,200 x 3). Therefore, the medium-duty FirmaLoad carrier is the best choice for this application.

FirmaLoad carrier SWL worksheet:

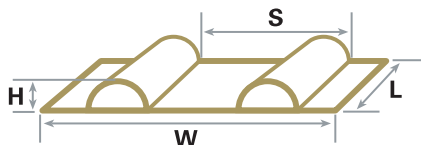
Filled bag weight: _____

(Multiplied by the number of bags per stack) x _____

Total stacked weight (SWL) = _____

FirmaLoad carrier grade	Maximum weight load capacity (SWL)	
	lbs.	kg
Standard duty	4,410	2,000
Medium duty	6,614	3,000
Heavy duty	8,819	4,000

SELECT AND ORDER



L = Channel length
W = Overall width
S* = Channel spacing*
H = Overall height: 3"

Description	Part #	Carrier size	Dimensions (in.)			Weight per unit	
			L	W	S	Lbs.	kg
Standard-duty FirmaLoad bulk bag carriers 4,410 lbs. (2,000kg)	FL3394225S	39x42	39	42	25	6.6	3.0
	FL3424225S	42x42	42	42	25	7.0	3.2
	FL3444225S	44x42	44	42	25	7.4	3.4
	FL3444425S	44x44	44	44	25	7.6	3.5
	FL3454525S	45x45	45	45	25	7.8	3.6
	FL3464225S	46x42	46	42	25	7.8	3.6
	FL3484025S	48x40	48	40	25	8.0	3.6
	FL3484225S	48x42	48	42	25	8.2	3.7
Medium-duty FirmaLoad bulk bag carriers 6,614 lbs. (3,000kg)	FL3394225M	39x42	39	42	25	8.4	3.8
	FL3424225M	42x42	42	42	25	8.9	4.1
	FL3444225M	44x42	44	42	25	9.4	4.3
	FL3444425M	44x44	44	44	25	9.6	4.4
	FL3454525M	45x45	45	45	25	10.0	4.6
	FL3464225M	46x42	46	42	25	9.9	4.5
	FL3484025M	48x40	48	40	25	10.2	4.7
	FL3484225M	48x42	48	42	25	10.4	4.8
Heavy-duty FirmaLoad bulk bag carriers 8,819 lbs. (4,000kg)	FL3394225H	39x42	39	42	25	12.0	5.5
	FL3424225H	42x42	42	42	25	12.8	5.8
	FL3444225H	44x42	44	42	25	13.5	6.2
	FL3444425H	44x44	44	44	25	13.7	6.2
	FL3454525H	45x45	45	45	25	14.1	6.4
	FL3464225H	46x42	46	42	25	14.2	6.5
	FL3484025H	48x40	48	40	25	14.7	6.7
	FL3484225H	48x42	48	42	25	14.9	6.8

* Channel spacing has been optimized to meet the broadest possible range of applications. Depending on the application (e.g. particle size/type of material being used with the bulk bag), there may be a need to customize the channel spacing to optimize the handling performance for the application. Please contact your Sonoco sales representative for more information. Minimum order quantities and set-up fees apply.

- All pricing is F.O.B. final assembly facility.
- Minimum order quantity of 46 FirmaLoad carriers (1 stack).
- Truckload quantity = 1,200 FirmaLoad bulk bag carriers = 26 stacks.
- Each stack is approximately 78" tall.
- Truckload quantities:
 - 1,200 assembled FirmaLoad bulk bag carriers (26 stacks).
 - 3,000 carriers in kit form (to be assembled at your facility).



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