## Proper Size Selection and Layout

It's not always easy to decide how big a walk-in you need. Unfortunately, there is no simple formula to guide everyone. Restaurants with varied menus need more refrigerated space per patron than cafeterias serving a simple lunch. Rural eating-places may need more storage capacity than city establishments which receive frequent deliveries. Retailers, wholesalers and manufacturers in the many industries that use walk-ins must be guided by their own experience and knowledge.

## A Rule of Thumb

The rule of thumb for food service establishments is one cubic foot of storage space per person per meal. When frozen foods are used, figure $1 / 2$ cubic foot of normal temperature and $1 / 2$ cubic foot of low temperature space.

When determining space requirements consider what proportions of medium-temperature and low temperature space you'll need. Also, think about whether you'll want individual compartments. Many kitchens find it helpful to have separate sections for dairy products, vegetables, baked goods and so on.

After you've decided on capacity, consider height. Standard walk-in heights are 7'6", 8'6", 9'6", 10'6" and $11^{\prime} 6$ ". For installations in spaces with low ceilings, 6'6" -high walk-ins are available for refrigerated buildings. (See the chart on page 5 , section 6.)

When total desired capacity and height have been determined, it's simple to compute floor area. At this point it's necessary to determine the width and length desired. Best use of available space should determine this decision. Following are three
drawings, which illustrate different combinations of width and length, all having approximately the same area. Consult your Bally representative for help in determining the configuration that best suits your operation.


Ceiling panels up to 10 ' long will support a snow load of 40 lbs . per sq. ft . Ceiling panels 12 ' long will support a snow load of 30 lbs . per sq. ft. Bally supplies optional reinforced ceiling panels. For more information, call the factory for details on any specific application.

## Roughing-in Dimensions



PLAN VIEW 7' 9" X 13' 6" COMBINATION W/ 4" THICK WALLS

## Locating Doors

With the exception of corners, all Bally panels (including door panels) are made in multiples of 11-1/2" in width. All verticals are interchangeable. Doors should be located where they will provide the most convenient access and reduce storage space the least. Doors are available with right-hand or lefthand swing.


Left-or right-hand sliding doors can also be supplied.


## Door Panels are

 Interchangeable with Other Panels

## Vertical Panels Can Be Installed Two Ways

1. With floor panels. This method is most desirable as it provides the best insulation value without disturbing existing building floors.
2. Without floor panels. Vertical panels are constructed with flat bottoms which allow the panels to set directly on the concrete building floor. This arrangement can be used on all installations where height adjustment is not necessary.

Vertical panel height is same for 4", 5 " or 6" panels; however, overall walk-in height is increased if 5 " or 6" floor or ceiling panels are used. See drawing below.


1. WITH FLOOR PANEL


## 2. WITHOUT FLOOR PANEL

## Clearance Requirements



A minimum space of 1 " is required ( 4 " is recommended) between Bally walls and ceilings and the walls and ceilings of existing buildings. This space accounts for deviations in building construction and also provides space for air circulation to prevent moisture accumulation. Forced ventilation may be required in dead spaces without natural air movement.


Where ceiling-mounted, selfcontained refrigeration units are used, a minimum clearance of 2" plus the height of the unit is required between the top of the condensing unit and the building ceiling for proper air circulation and ease of maintenance. Side-mounted units require clearance from walk-in walls of 2' plus the depth of the unit.

## Loading Limits

For proper refrigeration efficiency it is always necessary to provide adequate space above the stored product to allow for air circulation. A rule-of-thumb guide to space required follows:

| Height of Walk-In <br> or Refrigerated <br> Building | Space Between <br> Ceiling and Top <br> of Product |
| :---: | :---: |
| $7^{\prime} 66^{\prime \prime}$ | $12^{\prime \prime}$ |
| $8^{\prime} 66^{\prime \prime}$ | $18^{\prime \prime}$ |
| $9 ' 6 ", 10^{\prime} 6 ", 12^{\prime} 6 "$ | $24 "$ |
| $14^{\prime}$ and above | $30 "$ |

## Panel Size And Weight

## Galvalume weights (lbs.)

| Description Of Sections | Bright Galvalume Steel (Interior \& Exterior) |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 6'-10" | 7'-10" | 8'-10" | 9'-10" | 11-4" | 12-4" | 13'-4" | 14-4" | 15'-4" | 16'-4" | 17'-4" |
| $12^{\prime} \times 12$ Corner | 46 | 51 | 56 | 63 | 74 | 81 | 88 | 95 | 102 | 109 | 116 |
| 11-1/2" Panel | 29 | 32 | 35 | 37 | 42 | 45 | 48 | 51 | 54 | 57 | 60 |
| 23" Panel | 49 | 56 | 62 | 73 | 90 | 101 | 112 | 123 | 134 | 145 | 156 |
| 46" Panel | 99 | 110 | 121 | 140 | 178 | 197 | 216 | 235 | 254 | 273 | 292 |
| 8" Part. Section | 20 | 23 | 26 | 31 | 39 | 44 | 49 | 54 | 59 | 64 | 69 |
| $\begin{array}{r} \hline 46 " \text { Door Panel } \\ 36 " \times 78 " \text { Hinged } \\ \hline \end{array}$ | 194 | 210 | 226 | 242 | 278 | 297 | 316 | 335 | 354 | 373 | 392 |
| 69" Door Panel 36" x 78" Hinged | 245 | 262 | 279 | 296 | 364 | 394 | 424 | 454 | 484 | 514 | 544 |
| $\begin{gathered} \hline 69 " \text { Door Panel } \\ 60 "\left(48^{\prime \prime}\right) \times 84 " \text { Hinged } 78 \text { high } \end{gathered}$ | 322 | 349 | 366 | 398 | 459 | 489 | 519 | 549 | 579 | 609 | 639 |


| Description of Sections | Ceiling Panel |  |  | Floor Panel |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\mathbf{1 1 - 1 / 2 "}$ | $\mathbf{2 3 "}$ | $\mathbf{4 6 "}$ | $\mathbf{1 1 - 1 / 2 "}$ | $\mathbf{2 3 "}$ | $\mathbf{4 6 "}$ |
| $5^{\prime}-10 "\left(70^{\prime \prime}\right)$ | 23 | 43 | 86 | 31 | 61 | 124 |
| $6^{\prime}-9-1 / 2^{\prime \prime}\left(81-1 / 2^{\prime \prime}\right)$ | 27 | 51 | 95 | 38 | 73 | 144 |
| $77^{\prime}-9^{\prime \prime}\left(93^{\prime \prime}\right)$ | 30 | 58 | 103 | 44 | 85 | 183 |
| $8^{\prime}-8-1 / 2^{\prime \prime}\left(104-1 / 2^{\prime \prime}\right)$ | 34 | 65 | 119 | 49 | 97 | 182 |
| $9^{\prime}-8^{\prime \prime}\left(116^{\prime \prime}\right)$ | 37 | 71 | 135 | 54 | 108 | 201 |
| $10^{\prime}-7-1 / 2^{\prime \prime}\left(127-1 / 2^{\prime \prime}\right)$ | 42 | 78 | 149 | 62 | 117 | 228 |
| $11^{\prime}-7^{\prime \prime}(139 ")$ | 46 | 84 | 163 | 68 | 125 | 254 |
| $12^{\prime}-6-1 / 2^{\prime \prime}\left(150-1 / 2^{\prime \prime}\right)$ | 50 | 91 | 176 | 74 | 135 | 275 |
| $13^{\prime}-6^{\prime \prime}\left(162^{\prime \prime}\right)$ | 54 | 98 | 189 | 80 | 145 | 296 |
| $14^{\prime}-5-1 / 2^{\prime \prime}\left(173-1 / 2^{\prime \prime}\right)$ | 58 | 105 | 202 | 86 | 155 | 317 |
| $15^{\prime}-55^{\prime \prime}\left(185^{\prime \prime}\right)$ | 62 | 112 | 215 | 92 | 165 | 338 |
| $16^{\prime}-4-1 / 2^{\prime \prime}\left(196-1 / 2^{\prime \prime}\right)$ | 66 | 119 | 228 | 98 | 175 | 359 |
| $17^{\prime}-4 "(208 ")$ | 70 | 126 | 241 | 104 | 185 | 380 |

## BACK PRINT

## Aluminum weights (lbs.)

| Description Of Sections | Stucco Embossed Aluminum (Interior \& Exterior) |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 6'-10" | 7'-10" | 8'-10" | 9'-10" | 11'-4" | 12'-4" | 13'-4" | 14'-4" | 15'-4" | 16'-4" | 17'-4" |
| 12' x 12" Corner | 29 | 32 | 35 | 40 | 48 | 53 | 58 | 63 | 68 | 73 | 78 |
| 11-1/2" Panel | 18 | 20 | 22 | 26 | 30 | 34 | 38 | 42 | 46 | 50 | 54 |
| 23" Panel | 26 | 32 | 38 | 45 | 56 | 63 | 70 | 77 | 84 | 91 | 98 |
| 46" Panel | 58 | 65 | 72 | 85 | 105 | 118 | 131 | 144 | 157 | 170 | 183 |
| 8" Part. Section | 13 | 15 | 17 | 19 | 22 | 24 | 26 | 28 | 30 | 32 | 34 |
| 46" Door Panel $36^{\prime \prime} \times 78^{\prime \prime}$ Hinged | 150 | 158 | 166 | 174 | 195 | 208 | 221 | 234 | 247 | 260 | 273 |
| 69" Door Panel 36" x 78" Hinged | 177 | 189 | 201 | 212 | 251 | 271 | 291 | 311 | 331 | 351 | 371 |
| 69" Door Panel 60" (48") x 84" Hinged 78" high | 257 | 279 | 292 | 305 | 341 | 361 | 381 | 401 | 421 | 441 | 461 |


| Description of Sections | Ceiling Panel |  |  | Floor Panel |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 11-1/2" | 23" | 46" | 11-1/2" | 23" | 46" |
| 5'-10" (70") | 13 | 26 | 52 | 32 | 55 | 96 |
| 6'- 9-1/2" (81-1/2") | 16 | 30 | 60 | 38 | 62 | 115 |
| 7'-9" (93') | 19 | 34 | 87 | 39 | 68 | 134 |
| 8'- 8-1/2" (104-1/2") | 21 | 38 | 74 | 42 | 80 | 153 |
| 9'-8" (116") | 23 | 42 | 81 | 45 | 91 | 172 |
| 10'-7-1/2" (127-1/2") | 25 | 47 | 90 | 52 | 99 | 186 |
| 11'-7" (139") | 27 | 52 | 99 | 58 | 109 | 200 |
| 12'- 6-1/2" (150-1/2") | 29 | 56 | 107 | 63 | 118 | 216 |
| 13'-6" (162") | 31 | 60 | 115 | 68 | 127 | 232 |
| 14'- 5-1/2" (173-1/2") | 33 | 64 | 123 | 73 | 136 | 248 |
| 15'-5" (185") | 35 | 68 | 131 | 78 | 145 | 264 |
| 16'- 4-1/2" (196-1/2") | 37 | 72 | 139 | 83 | 154 | 280 |
| 17'-4" (208") | 39 | 76 | 147 | 88 | 163 | 296 |


| Outside Actual Size |
| :---: |
| 3'11" |
| 4'10-1/2" |
| 5'10" |
| 6'9-1/2" |
| 7'9' |
| 8'8-1/2" |
| 9'8' |
| 10'7-1/2" |
| 11'7" |
| 12'6-1/2' |
| 13'6" |
| 14'5-1/2" |
| 15'5" |
| 16'4-1/2" |
| 17'4" |
| 18'3-1/2" |
| 19'3" |
| 20'2-12' |
| 21'2" |
| 22'1-1/2" |
| 23'1" |
| 24'1/2" |
| 25'0" |
| 25'11-1/2" |
| 26'11" |
| 27'10-1/2' |
| 28'10" |
| 29'9-1/2" |
| 30'9" |
| 31'8-1/2" |
| 32'8" |
| 33'7-1/2" |
| 34'7" |
| 35'6-1/2" |
| 36'6" |
| 37'5-1/2' |
| 38'5" |
| 39'4-1/2" |
| 40'4" |
| 41'3-1/2" |


| Outside <br> Actual Size |
| :---: |
| 42'3' |
| 43'2-1/2" |
| 44'2" |
| 45'1-1/2" |
| 46'1" |
| 47'1/2" |
| 48'0" |
| 48'11-1/2' |
| 49'11" |
| 50'10-1/2' |
| 51'10" |
| 52'9-1/2" |
| 53'9" |
| 54'8-1/2" |
| 55'8" |
| 56'7-1/2" |
| 57'7' |
| 58'6-1/2' |
| 59'6" |
| 60'5-1/2' |
| 61'5" |
| 62'4-1/2" |
| 63'4" |
| 64'3-1/2" |
| 65'3' |
| 66'2-1/2" |
| 67'2' |
| 68'1-1/2" |
| 69'1" |
| 70'1/2" |
| 71'0" |
| 71'11-1/2" |
| 72'11" |
| 73'10-1/2' |
| 74'10" |
| 75'9-1/2" |
| 76'9' |
| 77'8-1/2" |
| 78'8" |
| 79'7-1/2" |
| 80'7" |


| Outside Actual Size |
| :---: |
| 81'6-1/2" |
| 82'6" |
| 83'5-1/2" |
| 84'5" |
| 85'4-1/2" |
| 86'4" |
| 87'3-1/2" |
| 88'3' |
| 89'2-1/2" |
| 90'2' |
| 91'1-1/2" |
| 92'1" |
| 93'1/2" |
| 94'0" |
| 94'11-1/2" |
| 95'11" |
| 96'10-1/2" |
| 97'10" |
| 98'9-1/2' |
| 99'9' |
| 100'8-1/2" |
| 101'8" |
| 102'7-1/2" |
| 103'7" |
| 104'6-1/2" |
| 105'6" |
| 106'5-1/2" |
| 107'5" |
| 108'4-1/2" |
| 109'4" |
| 110'3-1/2" |
| 111'3" |
| 112'2-1/2" |
| 113'2" |
| 114'1-1/2" |
| 115'1" |
| 116'1/2" |
| 117'0" |
| 117'11-1/2" |

