## Packaging Information - IPS Gas Bulk Packs

## PERFORMANCE PIPE IPS PRODUCTS BULK PACKS - GAS DISTRIBUTION (Series $6500,8300,8400$ )

| SIZE | TYPE | PIPE OD | $\begin{array}{\|c} \hline \text { LAYER } \\ \text { PER } \\ \text { TRUCK } \\ 20^{\prime} / 40^{\prime} / 50 \\ \hline \end{array}$ | $\begin{gathered} \text { JOINTS } \\ \text { PER } \\ \text { LAYER } \\ 20^{\prime} / 40^{\prime} / 50^{\prime} \\ \hline \end{gathered}$ | JOINTS PER TRUCK 20'/40'/50' | DR | FEET PER TRUCK 20' | FEET PER TRUCK 40' | FEET PER TRUCK 50' |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 10" | IPS | 10.750" | $7^{*} / 7^{*} / 5$ | 18/9/9 | 116 / 58 / 45 | 7-7.3 | 2,320 | 2,320 | 2,250 |
|  |  |  | 7/7/7 | 18/9/9 | 126/63 / 58 | 9 | 2,520 | 2,520 | 2,900 |
|  |  |  | 7/7/7 | 18/9/9 | 126/63 / 63 | 11-41 | 2,520, | 2,520, | 3,150 |
| 12" | IPS | 12.750" | 5/5/4 | 16/8/8 | 80/40 / 32 | 7-7.3 | 1,600 | 1,600 | 1,600 |
|  |  |  | 6/6/5 | 16/8/8 | 96/48/40 | 9 | 1,920 | 1,920 | 2,000 |
|  |  |  | 6/6/6 | 16/8/8 | 96/48/48 | 11-41 | 1,920 | 1,920 | 2,400 |
| 14" | IPS | 14.00" | $5^{*} / 5^{*} / 4$ | 14/7/7 | 64/32/25 | 7 | 1,280 | 1,280 | 1,250 |
|  |  |  | 5/5/4 | 14/7/7 | $70 / 35 / 28$ | 7.3 | 1,400 | 1,400 | 1,400 |
|  |  |  | 6/6/5 | $14 / 7 / 7$ | $84 / 42$ / 32 | 9 | 1,680 | 1,680 | 1,600 |
|  |  |  | 6/6/6 | 14/7/7 | 84/42/39 | 11 | 1,680 | 1,680 | 1,950 * |
|  |  |  | 6/6/6 | 14/7/7 | 84/42/42 | 13.5-41 | 1,680 | 1,680 | 2,100 |
| $\begin{gathered} 16 " \\ \text { (Note 1) } \end{gathered}$ | IPS | 16.00" | 4/4/4 | 12/6/6 | $48 / 24 / 21$ | 7-7.3 | 960 | 960 | 1,050 |
|  |  |  | 5/5/4 | 12/6/6 | $60 / 30$ / 24 | 9 | 1,200 | 1,200 | 1,200 |
|  |  |  | 5/5/5 | 12/6/6 | 60/30 / 30 | 11-41 | 1,200 | 1,200 | 1,500 |

(Note 1) - One additional layer can be added to this size when shipping from a state to states that allow a trailer/load height of 14 feet.
*- top layer has a different \# of joints, see footage per truck

## BULK PACK PACKAGING STANDARDS

1. Bulk Packs:
A. Bulk packs - for encasing all straight lengths between 10.750" OD through 16.00" OD gas pipe.
B. Lumber Size and Placement:
(1) Bulk packs shall be constructed using $3^{\prime \prime} \times 4^{\prime \prime}$ for GAS DISTRIBUTION (Series $6500,8100,8300$ ) bottom boards. Grooved boards are preferable, but not mandatory as the banding will create a notch in some soft woods securing the banding in place. (Note: $3^{\prime \prime} \times 4$ " boards actually have a thickness of approximately 2.0 " to $2.5^{\prime \prime}$ ) Hardwood or softwood is acceptable.
(2) Special Note: If customer requires bottom board thickness to exceed those listed above, total packs per load may need to be reduced to prevent the load from exceeding load height limits.
(3) Bottom boards are spaced at six (6) equidistant locations for forty-foot ( $40^{\prime}$ ) joints.

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(4) Bottom boards are spaced at seven (7) or eight (8) equidistant locations for fifty-foot (50') joints.
(5) The bottom board length is outlined in the tables below.

GAS DISTRIBUTION (Series 6500, 8300,8400)

| IPS Pipe <br> Size | Recommended <br> Board Thickness | Minimum <br> Length | Maximum <br> Length |
| :---: | :---: | :---: | :---: |
| $10^{\prime \prime}$ | Between 2.0" and 2.5" | $48^{\prime \prime}$ | $52 "$ |
| $10^{\prime \prime}$ | Between 2.0" and 2.5" | $38^{\prime \prime}$ | $41^{\prime \prime}$ |
| $12^{\prime \prime}$ | Between 2.0" and 2.5" | $45 "$ | $49 "$ |
| $14 "$ | Between 2.0" and 2.5" | $49 "$ | $54 "$ |
| $14 "$ | Between 2.0" and 2.5" | $35 "$ | $40 "$ |
| $16 "$ | Between 2.0" and 2.5" | $40 "$ | $45 "$ |
|  |  |  |  |

1. Banding:

Each band on a bulk pack shall be tightened to the same approximate tension.

1. For pipe diameters 10 " -12 " with 3 " $\times 4$ " or $2 \times 6$ " bottom boards: Use at least one $3 / 4$ " $\times .050$ polyester strapping band per bottom board. For pipe diameters up to 14 " with 3 " x 4 " or $2 \times 6$ " bottom boards: (NOTE) 16 " must use 1 " x .050 polyester banding.
2. Protective Padding:
3. Protective padding is to be used under all steel strapping for all GAS PIPE ONLY (Series 6500,8300,8400).
(a). With 3 " $\times 4$ " bottom boards: Use a minimum $3-5 / 8 " \times 72$ " protective padding strip. Use one strip per board draped over the pipe.
With 2" x 6" bottom boards: Use a minimum 5-5/8"x72" protective padding strip. Use one strip per board draped over the pipe. Special
note: It is acceptable to use two (2) strips 36 " long per bottom board.
4. Storage:
5. Bulk packs should be aligned wood-on-steel strapping and stacked plumb to prevent leaning. Special care must be taken when staging bulk packs in storage.
6. Transport:
7. Performance pipe Transport Strapping Policy establishes minimum requirements regarding the number of trucker straps used in all transportation providers to secure bulk packs. The policy also contains conditions regarding the tightening of straps after a carrier leaves a Performance Pipe facility.

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## 5. Tarping:

1. All pipe series may, at customer request, be smoked tarped, $1 / 3$ tarped or full tarped depending on customer requirement.
Performance Pipe's definition of

- Smoke tarp- at least 8' back on top and 4' in front and on sides
- $\quad 1 / 3$ tarp- covering all product at minimal $1 / 3$ of the load
- Full tarp- covering all product.

An individual customer requirement may override this definition.
(Customer requested tarping of any load will incur additional expense to the customer. Any damage caused by tarp is the sole responsibility of the customer requesting a tarp.)
6. End Caps:

1. Place end caps (or plugs) on 6500-8300-8400 series products
2. End caps / inserts will not be placed on any product above 12 ".

Any caps/ inserts used on product above 12" must be approved through our deviation process, located in the Packaging Manual under E. 10 Deviation Request Form.
7. Non-Standard Bulk Pack Quantities:

1. The extra product weight associated with longer joints and thicker walled product often reduces the number of joints allowed on a truck to stay within weight limits.
2. If a single joint results as the top layer, then the single joint shall be loaded using the strip load with chocks methodology.
3. If the top layer results in a standard bulk pack plus one joint, then the single joint shall be unitized to the other bulk pack on that row. The bottom boards and bands shall be replaced with the appropriate bottom board length or duplicated at the same frequency.

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## IPS <br> BULK PACKAGE CONSTRUCTION

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| 10" | 12" |
| :---: | :---: |
| 5 Joints Per Pack | 4 Joints Per Pack |
| 4 Joints Per Pack | 4 Joints Per Pack |

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| 14" | 16" |
| :---: | :---: |
| 3 Joints Per Pack | 3 Joints Per Pack |
| 4 Joints Per Pack | 3 Joints Per Pack |

Note: Joints per load may vary depending on the DR of the pipe being shipped.

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## IPS BULK PACK TRUCKLOAD PACKAGE STANDARDS



| 10 " |
| :---: |
| 63 Joints |



| $12 "$ | $14 "$ | $16 "$ |
| :---: | :---: | :---: |
| 48 Joints | 42 Joints | 30 Joints |

