

Packaging Information – Bulk Packs Non-Gas

PERFORMANCE PIPE IPS PRODUCTS BULK PACKS NON-GAS DISTRIBUTION (All series except 6500.8100.8300)

SIZE	TYPE	PIPE OD	LAYER PER TRUCK 40'/50'/53'	JOINTS PER LAYER 40'/50'/53'	JOINTS PER TRUCK 40'/50'/53'	DR	FEET PER TRUCK 40'	FEET PER TRUCK 50'	FEET PER TRUCK 53'
10"	IPS	10.750"	5 / 4 / 4	9 / 9 / 9	41 / 32 / 32	5	1,640	1,600	1,696
			7 / 5 / 5	9 / 9 / 9	58 / 45 / 41	7	2,320	2,250	2,173
			7 / 5 / 5	9 / 9 / 9	59 / 45 / 45	7.3	2,360	2,250	2,385
			8 / 6 / 6	9 / 9 / 9	72 / 54 / 54	9	2,880	2,700	2,862
			8 / 8 / 7	9 / 9 / 9	72 / 68 / 63	11	2,880	3,400	3,339
			8 / 8 / 8	9 / 9 / 9	72 / 72 / 72	13.5 - 41	2,880	3,600	3,816
12"	IPS	12.750"	4 / 3 / 3	8 / 8 / 8	28 / 24 / 20	5	1,120	1,200	1,060
			5 / 4 / 4	8 / 8 / 8	40 / 32 / 28	7 - 7.3	1,600	1,600	1,484
			6 / 5 / 5	8 / 8 / 8	48 / 40 / 36	9	1,920	2,000	1,908
			7 / 6 / 6	8 / 8 / 8	56 / 48 / 44	11	2,240	2,400	2,332
			7 / 7 / 6	8 / 8 / 8	56 / 56 / 52	13.5	2,240	2,800	2,756
			7 / 7 / 7	8 / 8 / 8	56 / 56 / 56	17 - 41	2,240	2,800	2,968
14"	IPS	14.000"	4 / 3 / 3	7 / 7 / 7	25 / 21 / 18	5	1,000	1,050	954
			5 / 4 / 4	7 / 7 / 7	32 / 25 / 25	7	1,280	1,250	1,325
			5 / 4 / 4	7 / 7 / 7	35 / 28 / 25	7.3	1,400	1,400	1,325
			6 / 5 / 5	7 / 7 / 7	42 / 32 / 32	9	1,680	1,600	1,696
			6 / 6 / 5	7 / 7 / 7	42 / 39 / 35	11	1,680	1,950	1,855
			6 / 6 / 6	7 / 7 / 7	42 / 42 / 42	13.5 - 41	1,680	2,100	2,226
16"	IPS	16.000" (Note 1)	3 / 3 / 3	6 / 6 / 6	18 / 15 / 15	5	720	750	795
			4 / 4 / 3	6 / 6 / 6	24 / 21 / 18	7	960	1,050	954
			5 / 4 / 3	6 / 6 / 6	27 / 21 / 18	7.3	1,080	1,050	954
			5 / 4 / 4	6 / 6 / 6	30 / 24 / 24	9	1,200	1,200	1,272
			5 / 5 / 5	6 / 6 / 6	30 / 30 / 27	11	1,200*	1,500*	1,431
			5 / 5 / 5	6 / 6 / 6	30 / 30 / 30	13.5 - 41	1,200*	1,500*	1,590*

Blue number in joint column indicates top layer will only have one pack.

(Note 1) – * Denotes that one additional layer or pack can be added when shipping via states that allow a trailer / load height of 14 feet. An additional layer can be added to 16" IPS 20' and 40' joints that are DR 11 or thinner, 16" IPS 50' joints that are DR 13.5 or thinner and 16" IPS 53' joints that are DR 17.0 and thinner. 16" DR 13.5 53' joints will allow one extra pack. The quantity of pipe 29' in length and less shall be limited to a maximum of only seven layers high per truck.

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PERFORMANCE PIPE DIPS PRODUCTS BULK PACKS NON-GAS DISTRIBUTION (All series except 6500,6800,8100,8300)

SIZE	TYPE	PIPE OD	LAYER PER TRUCK 40'/50'/53'	JOINTS PER LAYER 40'/50'/53'	JOINTS PER TRUCK 40'/50'/53'	DR	FEET PER TRUCK 40'	FEET PER TRUCK 50'	FEET PER TRUCK 53'
8"	DIPS	9.050"	9 / 7 / 7	11 / 11 / 11	99 / 77 / 72	9	3,960	3,850	3,816
			9 / 9 / 9	11 / 11 / 11	99 / 94 / 88	11	3,960	4,700	4,664
			9 / 9 / 9	11 / 11 / 11	99 / 99 / 99	13.5 - 19	3,960	4,950	5,247
10"	DIPS	11.100"	8 / 6 / 6	9 / 9 / 9	67 / 50 / 50	9	2,680	2,500	2,650
			8 / 7 / 7	9 / 9 / 9	72 / 63 / 59	11	2,880	3,150	3,127
			8 / 8 / 8	9 / 9 / 9	72 / 72 / 72	13.5 - 19	2,880	3,600	3,816
12"	DIPS	13.200"	6 / 6 / 5	7 / 7 / 7	42 / 38 / 35	9	1,680	1,900	1,855
			6 / 6 / 6	7 / 7 / 7	42 / 42 / 42	11	1,680	2,100	2,226
			6 / 6 / 6	7 / 7 / 7	42 / 42 / 42	13.5 - 19	1,680	2,100	2,226
14"	DIPS	15.300"	6 / 5 / 4	6 / 6 / 6	33 / 27 / 24	9	1,320	1,350	1,272
			6 / 6 / 5	6 / 6 / 6	36 / 33 / 30	11	1,440	1,650	1,590
			6 / 6 / 6	6 / 6 / 6	36 / 36 / 36	13.5 - 19	1,440	1,800	1,908

Blue number in joint column indicates top layer will only have one pack.

BULK PACK PACKAGING STANDARDS

1. Bulk Packs:
 - A. Bulk packs – for encasing all straight lengths between 8" DIPS through 16.00" OD pipe for NON-GAS distribution product series.
 - (1) Grooved boards are preferable, but not mandatory as the banding will create a notch in some soft woods securing the banding in place.
 - B. Lumber Size and Placement:
 - (1) Bulk packs shall be constructed using 2" x 6" bottom boards and banding for NON-GAS DISTRIBUTION PRODUCT. The plant may utilize top boards to help increase stability during movement on certain diameters at their discretion. (Note: 2" x 6" boards actually have a thickness of approximately 1.5") 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.

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- (3) Bottom boards are spaced at six (6) equidistant locations for forty-foot (40') joints. Bottom boards are spaced at seven (7) or eight (8) equidistant locations for fifty-foot (50') joints and fifty-three foot (53') joints.
- (4) Top boards may be placed at the same or less intervals to help stability.

The bottom board length is outlined in the tables below.

NON-GAS DISTRIBUTION IPS (All series except 6500,6800,8100,8300)

<u>IPS Pipe Size</u>	<u>Board Thickness</u>	<u>Minimum Length</u>	<u>Maximum Length</u>
10" (5 Pack)	Approximately 1.5"	48"	52"
10" (4 Pack)	Approximately 1.5"	37"	42"
12" (4 Pack)	Approximately 1.5"	45"	49"
14" (4 Pack)	Approximately 1.5"	46"	54"
14" (3 Pack)	Approximately 1.5"	35"	40"
16" (3 Pack)	Approximately 1.5"	37"	45"

NON-GAS DISTRIBUTION DIPS

<u>DIPS Pipe Size</u>	<u>Board Thickness</u>	<u>Minimum Length</u>	<u>Maximum Length</u>
8" (6 Pack)	Approximately 1.5"	48"	53"
8" (5 Pack)	Approximately 1.5"	37"	44"
10" (5 Pack)	Approximately 1.5"	48"	54"
10" (4 Pack)	Approximately 1.5"	37"	43"
12" (4 Pack)	Approximately 1.5"	46"	51"
12" (3 Pack)	Approximately 1.5"	33"	38"
14" (3 Pack)	Approximately 1.5"	37"	43"

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- C. Banding:
- (1) Each band on a bulk pack shall be tightened to the same approximate tension. Use at least one (1) 3/4" .040 or (1) 3/4" .050 polyester band per board.
- D. Storage:
- (1) 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.
- E. Transport:
- (1) 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.
- F. 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
 - **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.)
- G. End Caps:
- (1) 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**.
- H. 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 **at a minimum of both ends and the middle of the pack.**

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IPS BULK PACKAGE CONSTRUCTION



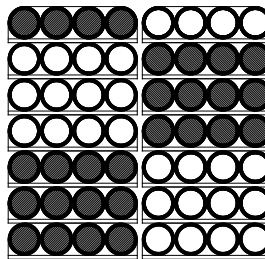
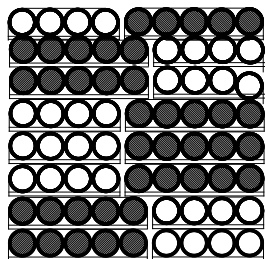
10"	12"
5 Joints Per Pack	4 Joints Per Pack
4 Joints Per Pack	4 Joints Per Pack



14"	16"
3 Joints Per Pack	3 Joints Per Pack
4 Joints Per Pack	3 Joints Per Pack

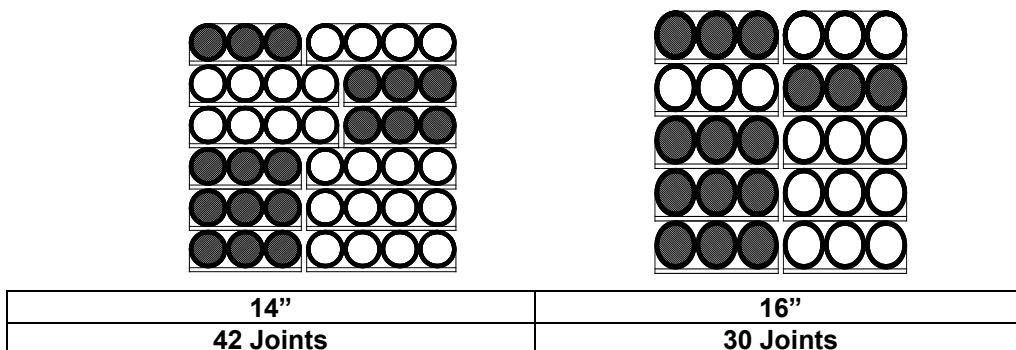
Note: Joints per layer / load may vary depending on the DR of the pipe being shipped.

IPS BULK PACK TRUCKLOAD PACKAGE STANDARDS



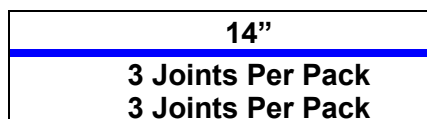
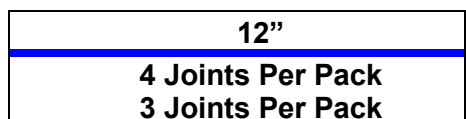
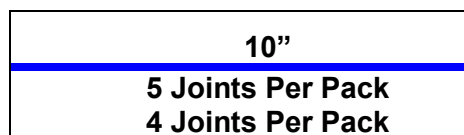
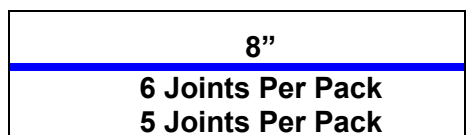
10"	12"
72 Joints	56 Joints

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

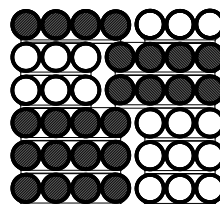
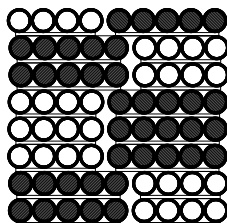
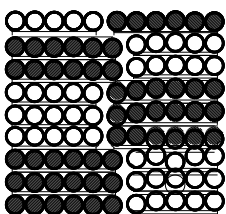
IPS BULK PACKAGE CONSTRUCTION



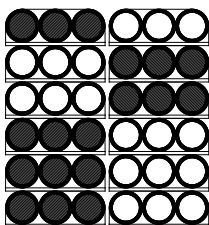
Note: Joints per layer / load may vary depending on the DR of the pipe being shipped.

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DIPS BULK PACK TRUCKLOAD PACKAGE STANDARDS



8"	10"	12"
99 Joints	72 Joints	42 Joints



14"
36 Joints

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