



Packaging Information – IPS-CTS Coils

PERFORMANCE PIPE IPS PRODUCTS COILS

AUTO COIL PRODUCT

Size	Length	Standard Coil Size ID-OD-W	Standard Pallet Size	Standard Coil Per Pallet	Feet Per Pallet	Pallets Per 48' Truck	Feet Per 48' Truck	See Notes
1/2"	500	30-43-6.5	44	11	5,500	26	143,000	A/C
	1,000	30-43-11.75	44	6	6,000	26	156,000	A/C
3/4"	150	30-43-3.875	44	16	2,400	26	62,400	A/C
	250	30-43-5.625	44	12	3,000	26	78,000	A/C
	500	30-43-10.375	44	7	3,500	26	91,000	A/C
1"	150	30-43-5.5	44	12	1,800	26	46,800	A/C
	250	30-43-8.25	44	8	2,000	26	52,000	A/C
	500	30-43-12.5	44	5	2,500	24	60,000	A/C
BANDED PRODUCT								
1 1/4"	150	32-44-7 1/2	44	10	1,500	26	39,000	
	250	34-46 3/4 -11	48	6	1,500	24	36,000	
	500	48-72-7 1/2	78	12	6,000	7	42,000	
	1,000	48-74-12 3/4	78	7	7,000	7	49,000	
	1,500	48-76-21	78	4	6,000	7	42,000	
1 1/2"	250	45-65 1/4-7 1/2	67	10	2,500	8	20,000	
	500	48-75-8 1/2	78	8	4,000	7	28,000	
	1,000	48-75-16 1/2	78	5	5,000	7	35,000	
	1,500	48-81-18 1/2	96	4	6,000	7	42,000	
2"	150'	50-69-7.3/8	78	12	1,800'	7	12,600'	
	250	54-74-8	78	10	2,500	7	17,500	
	350	52-77-9 3/4	78	8	2,800	7	19,600	
	500	52-78-13	78	7	3,500	7	24,500	
	600	52-81-13 3/8	78	6	3,600	7	25,200	
	1,000	48-73-28	78	3	3,000	7	21,000	
	1,500	51 1/2-76-38	78	2	3,000	7	21,000	#
	2,000	52-77 3/8-50	78	2	4,000	7	28,000	#
2 1/2"	500	51-77-19	78	5	2,500	7	17,500	
	1,000	61-92-26	96	3	3,000	6	18,000	
3"	220	65-85-16	96	6	1,320	6	7,920	
	250	70-95-12 1/2	96	7	1,750	6	10,500	
	315	70-95-16	96	6	1,890	6	11,340	
	500	70-96-23 3/4	96	4	2,000	6	12,000	#
	700	70-96-32	96	2	1,400	6	8,400	#
	1,000	70-96-46	96	2	2,000	6	12,000	#
	1,000	70-96-46	Upright				13,000	*
	1,500	70-101-50	Upright				18,000	#

Notes: # can be shipped upright on a 102" flatbed or step-deck trailer without the use of a platform (Except for 6500, 8100, and 8300 series product, which requires a platform and therefore may require a drop deck trailer on selected sizes.) Coil dimensions are approximate and may vary slightly due to the equipment available at the manufacturing plant.

A/C- AUTO Coil product

* This product is loaded upright without a pallet, has one coil turned sideways on the flat. Due to the individual plant's loading capability with loading the product safely, the single coil may be shipped on a cradle.



Packaging Information – IPS-CTS Coils

Size	Length	Standard Coil Size ID-OD-W	Standard Pallet Size	Standard Coil Per Pallet	Feet Per Pallet	Pallets Per 48' Truck	Feet Per 48' Truck	Coils Per Step-deck Trailer	Feet Per Step-deck Trailer	See Notes
4"	330	68-93-28	96	3	990	6	5,940			#
	365	68-93-33	96	2	730	6	4,380			#
	450	68-95-37	96	2	900	6	5,400			#
	500	70-93-41	96	2	1,000	6	6,000			#
	550	70-93-44 ½	96	2	1,100	6	6,600			#
	600	70-93-47	96	2	1,200	6	7,200			#
	625	72-93-50	96	2	1,250	6	7,500			#
	800	70-100-49 ½	Upright					12	9,600	#
	1,000	84-116-49	Upright					8	8,000	#
	1,050'	84-116-49	Upright					8	8,400	#
1,400	70-116-50	Upright					8	11,200	#	
6"	400	84-120-40	Upright					8	3,200	#
	450	84-120-43	Upright					8	3,600	#
	500	84-120-50	Upright					8	4,000	#
	525	84-121-48	Upright					8	4,200	#

Notes: # can be shipped upright on a 102" flatbed or step-deck trailer without the use of a platform (Except for 6500, 8100, and 8300 series product, which requires a platform and therefore may require a step-deck trailer on select sizes.)
 Coil dimensions are approximate and may vary slightly due to the equipment available at the manufacturing plant.

PERFORMANCE PIPE CTS PRODUCTS COILS

AUTO COIL PRODUCT

Size	Length	Standard Coil Size ID-OD—W	Standard Pallet Size	Standard Coil Per Pallet	Feet Per Pallet	Pallets Per 48' Truck	Feet Per 48' Truck	See Notes
½"	150	30-35-3.562	36	18	2,700	32	86,400	A/C
	250	30-35-5.5	36	12	3,000	32	96,000	A/C
	500	30-43.3-3.66	44	18	9,000	26	234,000	A/C
	1,000	30-43- 6.5	44	11	11,000	26	286,000	A/C
¾"	250	30-43-3.5	44	18	4,500	26	117,000	A/C
	500	30-43-6.75	44	10	5,000	26	130,000	A/C
1"	150	30-43-4	44	16	2,400	26	62,400	A/C
	250	30-43-5.875	44	12	3,000	26	78,000	A/C
	350	30-43-7.875	44	9	3,150	26	81,900	A/C
	500	30-43-11	44	6	3,000	26	78,000	A/C

BANDED PRODUCT

1 1/4"	175	28-43-6	44	12	2,100	26	54,600	
	350	30-42-11	44	8	2,800	26	72,800	
	500	32-45-14.5	45	6	3,000	24	72,000	

A/C- AUTO Coil product



Packaging Information – IPS-CTS Coils

COIL PACKAGING STANDARDS AND BANDING PROCEDURE

1. Pallet sizes and structures will conform to instructions in the pallet section of this manual. Customers specifically requiring different sizes or specifications must do so in writing. Special request should be related to the pricing coordinators so bids and quotes are adjusted accordingly. The plant reserves the right to ship industrial or OG&E coils on the flatbed without cradles or pallets.
2. Pallets must be at least as large as the coil OD. No overhang of coils is permitted on pallets.
3. **Banding guidelines (Minimum Requirements)**
 - A. **Coils 1" IPS and smaller, Plus all tubing sizes:**
 - (1) Plant must utilize at a minimum either 7/16" X .024 polypropylene or 7/16" X .029 nylon banding for all inner, outer wraps and coil to pallet packaging.
 - (2) One (1) intermediate band every two (2) layers at 180-degree intervals around the coil. Banding locations to be alternated 90 degrees from previous bands.
 - (3) Bottom coil will be banded to the pallet in four (4) places at 90-degree intervals around the coil.
 - (4) Band each coil to the coil above at two (2) points 180 degrees apart. Alternate banding location from coil to coil to increase stability of silo.
 - (5) At the plant's discretion double stick tape may be used to augment banding. It's recommended to use a minimum of three (3) strips of between each coil at equidistant intervals with a tape width between 1" and 3".
 - (6) Coil to coil bands should be located such that end users can identify straps that, when severed, separate the coil and maintain its integrity.
 - B. **Coils 1 ¼" IPS through 2" Sizes:**
 - (1) Plant must utilize at a minimum either 7/16" X .024 polypropylene or 7/16" X .029 nylon banding for all inner, outer wraps and coil to pallet packaging.
 - (2) Intermediate banding every two (2) layers, three (3) times at 120-degree intervals. Bottom coil will be banded to the pallet in four (4) places 90-degree intervals around the coil.
 - (3) Band each coil to the coil above at two (2) points 180 degrees apart. Alternate banding location from coil to coil to increase stability of silo.
 - (4) At the plant's discretion double stick tape may be used to augment banding. It's recommended to use a minimum of three (3) strips of between each coil at equidistant intervals with a tape width between 1" and 3".
 - (5) Coil-to-coil bands should be located such that end users can identify straps that, when severed, separate the coil and maintain its integrity.
 - C. **Coils 3" IPS Sizes:**
 - (1) Plant must utilize at a minimum either 7/16" X .024 polypropylene or 7/16" X .029 nylon, 3/4" X .040, 3/4" X .050 or 5/8 X .035 polyester banding, for inner and outer wraps and coil to pallet packaging.



Packaging Information – IPS-CTS Coils

- (2) Pig tails shall be secured with either 3/4" X .040, 3/4" X .050 or 5/8 X .035 polyester banding.
- (3) Band every layer four (4) times at 90-degree intervals.
- (4) Bottom coil will be banded to the pallet in four (4) places at 90-degree intervals around the coil.
- (5) Band each coil to the coil above at two (2) points 180 degree apart. Alternate banding location from coil to coil to increase stability of silo.
- (6) Coiled pipe shall be constrained in a stable configuration by the banding. The banding shall permit the removal of one layer of the coil without the remainder of the coil being unraveled. The banding arrangement shall ensure that individual layers are clearly discriminated and shall not be impaired by transport and handling.

D. Coils 4" IPS Sizes:

- (1) Plants must utilize either 3/4" X .040, 3/4" X .050 or 5/8" X .035 polyester for inner and outer coil wraps. Secure "pig tails" to body of coil with minimum of two sections of 3/4" .040 polyester ,or two sections of 3/4" .050 polyester banding, or 4 sections 5/8" x .035 polyester banding. Band is placed approximately 2 feet from the coil end. Use protective padding under the steel banding on 6500, 8100, and 8300 series pipe.
- (2) Double band every layer four (4) times at 90-degree intervals.
- (3) Bottom coil will be banded to the pallet in four (4) places at 90-degree intervals around the coil.
- (4) Band each coil to the coil above at two (2) points 180 degrees apart. Alternate the banding location from coil to coil to increase stability of silo.
- (5) Pipe shall be constrained in a stable configuration by the banding. The banding shall permit the removal of one layer of the coil without the remainder of the coil being unraveled. The banding arrangement shall ensure that individual layers are clearly discriminated and shall not be impaired by transport and handling.
- (6) If the Coil is mounted upright on a platform/cradle then it should be secured to the platform in two places with a minimum of 3/4" X .023 steel or 3/4 X .050 polyester banding. When using steel, protect the coil with protective padding at each band location. Coil shall be oriented on the platform such that the pigtail is on the bottom of the coil and pointing slightly downward.

E. Coils 6" IPS Sizes (for coiler with 8 arms):

- (1) Plants must utilize either 3/4" X .040, 3/4" X .050 or 5/8" X .035 polyester for inner wraps. 3/4" X .050 is recommended for outer wraps; however, 5/8" X .035 polyester may be utilized providing four of the eight outer bands are made using at a minimum of 3/4" X .0040 polyester. Secure "pig tails" to body of coil with minimum with two sections of 3/4" .050 polyester or with two sections of 3/4" .050 polyester banding. Use protective padding under the steel banding on 6500, 8100, and 8300 series pipe.
- (2) Double band every layer eight (8) times at 45-degree intervals.



Packaging Information – IPS-CTS Coils

- (3) Outer bands shall be placed using at minimum 3/4" - .040 polyester or 3/4" .050 polyester banding wrapped around the finished coil eight (8) times at 45-degree intervals. (This includes wraps to cradle)
- (4) Coiled pipe shall be constrained in a stable configuration by the banding. The banding shall permit the removal of one layer of the coil without the remainder of the coil being unraveled. The banding arrangement shall ensure that individual layers are clearly discriminated and shall not be impaired by transport and handling.
- (5) Coil is mounted upright on a platform and secured to the platform in two places with a minimum of 3/4" - .004 polyester or 3/4" .050 polyester banding. If using steel protect the coil with protective padding at each band location. Coil shall be oriented on the platform such that the pigtail is on the bottom of the coil and pointing slightly upward.

F. Coils 6" IPS Sizes (for PCT coiler with 6 arms):

- (1) Plants must utilize either 3/4" X .040, 3/4" X .050 or 5/8" X .035 polyester for inner wraps. 3/4" X .050 is recommended for outer wraps; however 5/8" X .035 polyester may be utilized providing four of the seven outer bands are made using at a minimum of two sections 3/4" X .040 polyester. Secure "pig tails" to body of coil with minimum 3/4" - .040 polyester or with two sections of 3/4" .050 polyester banding. Use protective padding under the steel banding on 6500, 8100, and 8300 series pipe.
- (2) Double band every layer six (6) times at 60-degree intervals.
- (3) Outer bands shall be placed using at minimum 3/4" - .040 polyester or 3/4" .050 polyester banding around the finished coil six (7) times at 60-degree intervals. For steel protect the coil from the banding with protective padding.
- (4) Coiled pipe shall be constrained in a stable configuration by the banding. The banding shall permit the removal of one layer of the coil without the remainder of the coil being unraveled. The banding arrangement shall ensure that individual layers are clearly discriminated and shall not be impaired by transport and handling.
- (5) Coil is mounted upright on a platform and secured to the platform in at least two places with 3/4" - .040 polyester or 3/4" .050 polyester banding. For steel protect the coil with a protective padding strip or other protection at each band locations. Coil shall be oriented on the platform such that the "pig tail" is on the bottom of the coil and pointing slightly downward.

4. **Coil dimensions are approximate: ID, OD and Width dimensions may vary slightly due to the variation in coiling equipment at the manufacturing plant. The plants may change these dimensions to improve coil aesthetics and stability.** Coils shipped on their sides may have widths that vary plus or minus one pipe row to improve stability.
5. **Coil End Alignment:** Every opportunity should be taken to align coil ends in a straight vertical line to improve silo appearance. Coil designs may construct leaning silos when ends of coils are aligned vertically. If silo consists of four coils or more, alternate coil ends every 90 degrees. If three coils or less, alternate coils end 180 degrees apart.



Packaging Information – IPS-CTS Coils

6. Use of stretch wrap (shrink-wrap):

- A. Stretch wrap may be used on product 11/4" CTS and larger silos to improve stability during storage and transport with exception given to product coiled in reels. Stretch wrap shall be applied, at the shipper's discretion, to those silos that exhibit tendencies to shift or become unstable during transit and/or in cases where additional protection may be required to guard against damage.
- B. Customers may specify the use of stretch wrap for products and sizes other than those stated above. Pricing coordinators should be advised of special requests, so bids and quotes are adjusted accordingly.

7. Use of pallet liners:

- A. Use cardboard or corrulite between all 6500, 8100, and 8300 series coils and their pallets or platforms. Manufacturing reserves the right to use pallet liners with other series.

8. Pallet Specifications

- A. Pallets must always be as large as or larger than the OD of the silo it supports. Coils are not permitted to overhang pallets.
- B. Pallets 67" and smaller may be constructed from #3 or better softwood or hardwood.
- C. Note: Many lumber companies consider Southern Yellow Pine a hardwood.
- D. Pallets 79" and larger must be constructed from hardwood except in those areas where hardwood is not prevalent.
- E. All pallets must be constructed with screw shank nails. Split boards are absolutely unacceptable. All nails should be counter sunk or at least flush. A minimum of three (3) nails will be used per runner. Top and bottom boards are evenly spaced.
- F. Pallets 78" and larger shall have two top boards butted together at the ends to insure pipe rests on wood.
- G. The following measures will be used for procurement purposes.

Pallet Size	Runners		Top Boards		Bottom Boards	
	No.	Size	No.	Size	No.	Size
30"	3	2 x 4	3	3/4 x 6	2	3/4 x 6
36"	3	2 x 4	3	3/4 x 6	3	3/4 x 6
44"	3	2 x 4	5	3/4 x 6	3	3/4 x 6
45"	3	2 x 4	5	3/4 x 6	3	3/4 x 6
50"	3	2 x 4	5	3/4 x 6	3	3/4 x 6
67"	5	2 x 4	6	3/4 x 6	4	3/4 x 6
78"	6	2 x 4	8	1 x 6	4	1 x 6
78"	5	2 x 4	11	1 x 4	6	1 x 6
79"	5	2 x 4	8	1 x 6	4	1 x 6
96"	5	2 x 4	9	1 x 6	5	1 x 6
96"	6	2 x 4	12	1 x 2	7	1 x 6



Packaging Information – IPS-CTS Coils

9. **Use of Truckers' Strap Protection during transit:**
- A. Protective padding strips that are minimum 8" wide by 24" long secure to all palletized silos shipping on flatbed trailers. These strips are mandatory for all 8100 product, but optional for all other gas products when stretch wrap is used. Industrial pipe is at the discretion of the plant.
 - B. Band protectors to opposing silo tops at location where driver places straps to secure the load.
 - C. Strap protection is not mandatory for product that has a solid black exterior.
 - D. Specific customer requirements regarding the use of tarps during transit must be communicated to shipping staffs prior to loading. Individual customer requirements override Performance Pipe specifications below.
10. **Tarping**
- A. 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-** For 1 ¼", 2", 3", 4", and 6" coils, the first pallet or set of coils must be completely tarped on top and at least four feet down in front and on the 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.)
 - B. Full loads of product on 45" pallets or smaller should be shipped in enclosed vans when possible.
11. **End caps:**
- A. With exception of AUTO coils, place end caps or plugs on all 6500, 8100, 8300, series product or if the customer requests end caps or plugs. Other series may be capped or plugged by request.
12. **Nesting:**
- A. Due to safety concerns, Performance Pipe will not nest smaller coil silos inside of larger coil silos. Any deviation of this must be approved by the Manufacturing or Engineering Manager.