

## **USES AND APPLICATIONS**

**RED BOX** fiberglass reinforced aromatic amine cured epoxy resin casing and tubing is designed for downhole services of medium to high pumping pressure at depths as great as 13,000 feet.

**RED BOX** is available in 1000, 1250, 1500, 1750, 2000, 2250, 2500, 2750, 3000 and 3250 psi operating pressure ratings.

**RED BOX** offers a high-strength, non-corroding casing and tubing system in 2-3/8 through 30 inch sizes that has a proven low installed cost and long lifespan.

**RED BOX** casing and tubing system is recommended for use in:

- Production wells (oil, gas, thermal)
- Disposal wells (salt water, chemical effluent, and waste)
- Injection wells (salt water, CO<sub>2</sub>, polymer)
- Liners for the repair of corroded steel casing
- Municipal and commercial water wells.

## **COMPOSITION AND CLASSIFICATION**

**RED BOX** casing and tubing is of a machine-made composite material, produced by the filament-winding method, combining high strength glass fiber filaments and corrosion resistant epoxy resin specially formulated to result in a structurally and chemically optimum product. The epoxy resin is an aromatic amine cured system that has the highest mechanical strength, thermal resistance and best corrosion resistance of all commercially available resin systems used in the fabrication of fiberglass tubulars.

**RED BOX** casing and tubing will be authorized to use the API monogram by conforming to API Specification 15TR (when issued). Future Pipe Industries, Inc.'s Quality Management System is certified to be in compliance with ISO-9001 and ANSI-RAB.

**RED BOX** pipe conforms to ASTM Specification D2996 (Designation RTRP-11AT-1334) and ASTM Classification D2310 (Designation RTRP-11AT).

## **JOINING SYSTEM AND FITTINGS**

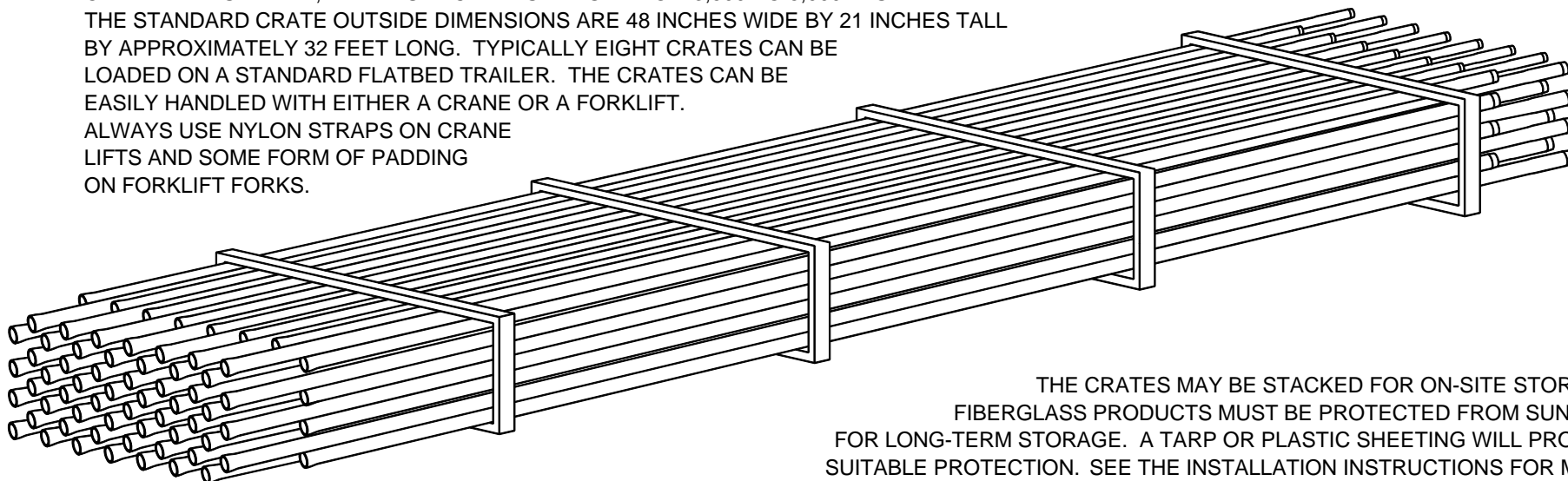
**RED BOX** casing and tubing products are connected with the reliable, time proven integral joint API 8 round external upset end (EUE) long threaded connections, or casing long threaded connections. Pin ends are lathe cut while box ends are filament-wound as integral part of the tubing body.

**RED BOX** casing and tubing system is offered with a complete line of accessories including guide shoes, float collars, centralizers, polished bore receptacle stingers, and slotted screens.

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# SHIPPING PROCEDURES

PIPE, TUBING, AND CASING UP TO 6 INCH SIZE IN PIPE, (6-5/8 INCH IN CASING), IS PACKAGED IN OPEN-SIDE STEEL BAND REINFORCED WOODEN CRATE FRAMES PER THE DIAGRAM BELOW. DEPENDENT ON THE WALL THICKNESS OF THE PIPE SHIPPED, INDIVIDUAL CRATES WEIGH FROM 3,500 TO 5,000 LBS. THE STANDARD CRATE OUTSIDE DIMENSIONS ARE 48 INCHES WIDE BY 21 INCHES TALL BY APPROXIMATELY 32 FEET LONG. TYPICALLY EIGHT CRATES CAN BE LOADED ON A STANDARD FLATBED TRAILER. THE CRATES CAN BE EASILY HANDLED WITH EITHER A CRANE OR A FORKLIFT. ALWAYS USE NYLON STRAPS ON CRANE LIFTS AND SOME FORM OF PADDING ON FORKLIFT FORKS.



TRUCK AND CONTAINER LOAD QUANTITIES ARE DETAILED ON THE FOLLOWING PAGES

THE CRATES MAY BE STACKED FOR ON-SITE STORAGE. FIBERGLASS PRODUCTS MUST BE PROTECTED FROM SUNLIGHT FOR LONG-TERM STORAGE. A TARP OR PLASTIC SHEETING WILL PROVIDE SUITABLE PROTECTION. SEE THE INSTALLATION INSTRUCTIONS FOR MORE DETAILS.

PARTIAL HEIGHT CRATES ARE USED FOR LARGER SIZE PIPE TO ACCOMMODATE SPACING. AN OPEN TOP CONTAINER HOLDS 7 FULL SIZE CRATES.

CRATE FRAME QUANTITIES

SIZE YB/RB	JTS/CRATE	FEET/CRATE
2" / 2-3/8"	110	3,300
2-1/2" / 2-7/8"	82	2,460
3" / 3-1/2"	56	1,680
3-1/2" / 4"	46	1,380
4" / 4-1/2"	34	1,020
5" / 5-1/2"	22	660
6" / 6-5/8"	12	360
7"	12	360
6L / 7-5/8"	10	300

**FUTURE PIPE INDUSTRIES, INC.**  
HOUSTON, TEXAS (281) 847-2987

## CRATE FRAME

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**TRUCKLOAD AND CONTAINER LOAD QUANTITIES  
RED BOX FIBERGLASS DOWNHOLE TUBING AND CASING**

**Joints/Feet per Truckload**

PIPE SIZE	PRESSURE RATING - RED BOX TUBING & CASING										
	1000	1250	1500	1750	2000	2250	2500	2750	3000	3250	3500
2-3/8"	1,100	1,100	1,100	1,100	1,100	1,100	1,100	1,046	941	770	770
	33,000	33,000	33,000	33,000	33,000	33,000	33,000	31,366	28,216	23,100	23,100
2-7/8"	656	656	656	656	656	656	656	656	574	533	
	19,680	19,680	19,680	19,680	19,680	19,680	19,680	19,680	17,220	15,990	
3-1/2"	448	448	448	448	448	448	448	448	392	364	
	13,440	13,440	13,440	13,440	13,440	13,440	13,440	13,440	11,760	10,920	
4"	368	368	368	368	368	368	368	345	322	299	
	11,040	11,040	11,040	11,040	11,040	11,040	11,040	10,350	9,660	8,970	
4-1/2"	272	272	272	272	272	272	272	238	221		
	8,160	8,160	8,160	8,160	8,160	8,160	8,160	7,140	6,630		
5-1/2"	220	220	220	220	220	220	220	198	176		
	6,600	6,600	6,600	6,600	6,600	6,600	6,600	5,940	5,280		
6-5/8"	120	120	120	120	120	120	120	120			
	3,600	3,600	3,600	3,600	3,600	3,600	3,600	3,600			
*7"	120	120	120	120							
	3,600	3,600	3,600	3,600							
*7-5/8"	80	80	80	80	80	80	80	80			
	2,400	2,400	2,400	2,400	2,400	2,400	2,400	2,400			
*9-5/8"	64	64	64	64	64	64	64	64			
	1,920	1,920	1,920	1,920	1,920	1,920	1,920	1,920			
*10-3/4"	56	56	56	56	49	49	49				
	1,680	1,680	1,680	1,680	1,470	1,470	1,470				
*11-3/4"	49	49	42	42							
	1,470	1,470	1,260	1,260							
*13-3/8"	36	36	36	36							
	1,080	1,080	1,080	1,080							
*16"	25	25	25	20							
	750	750	750	600							
*18"	16	16	16								
	480	480	480								
*20"	16	16	16								
	480	480	480								
*24"	9	9									
	270	270									
*30"	4	4									
	120	120									

**Joints/Feet per Container**

PIPE SIZE	PRESSURE RATING - RED BOX TUBING & CASING										
	1000	1250	1500	1750	2000	2250	2500	2750	3000	3250	3500
2-3/8"	770	770	770	770	770	770	770	770	770	770	770
	23,100	23,100	23,100	23,100	23,100	23,100	23,100	23,100	23,100	23,100	23,100
2-7/8"	574	574	574	574	574	574	574	574	574	492	
	17,220	17,220	17,220	17,220	17,220	17,220	17,220	17,220	17,220	14,760	
3-1/2"	392	392	392	392	392	392	392	392	392	336	
	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	11,760	10,080	
4"	322	322	322	322	322	322	322	322	322	322	
	9,660	9,660	9,660	9,660	9,660	9,660	9,660	9,660	9,660	9,660	
4-1/2"	238	238	238	238	238	238	238	238	204		
	7,140	7,140	7,140	7,140	7,140	7,140	7,140	7,140	6,120		
5-1/2"	176	176	176	176	176	176	176	176	176		
	5,280	5,280	5,280	5,280	5,280	5,280	5,280	5,280	5,280		
6-5/8"	96	96	96	96	96	96	96	96			
	2,880	2,880	2,880	2,880	2,880	2,880	2,880	2,880			
*7"	96	96	96	96							
	2,880	2,880	2,880	2,880							
*7-5/8"	80	80	80	80	80	80	80	80			
	2,400	2,400	2,400	2,400	2,400	2,400	2,400	2,400			
*9-5/8"	56	56	56	56	56	56	56				
	1,680	1,680	1,680	1,680	1,680	1,680	1,680				
*10-3/4"	42	42	42	36	36	36	36				
	1,260	1,260	1,260	1,080	1,080	1,080	1,080				
*11-3/4"	36	36	36	36							
	1,080	1,080	1,080	1,080							
*13-3/8"	25	25	25	25							
	750	750	750	750							
*16"	20	16	16	16							
	600	480	480	480							
*18"	16	16	16								
	480	480	480								
*20"	12	9	9								
	360	270	270								
*24"	9	9									
	270	270									
*30"	4	4									
	120	120									

\* THESE LARGER SIZES ARE UNSUITABLE FOR CRATE FRAMES AND ARE LOADED IN ROWS AND COLUMNS ON FLATBED TRAILERS WITH WOOD DUNNAGE BETWEEN ROWS AND SIDE FRAMES AT EACH DUNNAGE CROSS SLAT.