



### Testing

Oil Country Tubular Products are subjected to tests as required by the applicable API specifications. These include: hydrostatic tests, chemical analysis, tensile and yield tests and others as required by the specification. Casing, tubing, and drill pipe are subjected to a drift test which requires a cylindrical mandrel of an appropriate size be passed through the entire length of pipe.

## TOLERANCES ON DIMENSIONS AND WEIGHTS

### OUTSIDE DIAMETER. *D*

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Tolerance

4 in. and smaller  $\pm 0.031$  in.  
 4~ in. and larger +1.00 percent  
 -0.50 percent

For upset casing the following tolerances apply to the outside diameter of the pipe body immediately behind the upset for a distance of approximately 5 in. for sizes 5 1/2 in. OD and smaller, and a distance approximately equal to the OD for sizes larger than 5 1/2 in. Measurements shall be made with calipers or snap gages.

Pipe Size. OD in.

1.050-3.500  
 4.000-5.000  
 5.500-8.625  
 9.625 and larger

Tolerances

Behind M eu or L□.  
 in.

+3/32      - 1/32  
 + 7/64     - 0.75 %D  
 +1/8       - 0.75 %D  
 +5/32      - 0.75 %D

For 2 3/8 in. and larger external-upset tubing the following tolerances shall apply to the outside diameter at distance La from the end of the pipe.

The measurements shall be made with snap-gages or calipers. Changes in diameter between La ~ • Lb shall be smooth and gradual.

Pipe body OD tolerances do not apply for a distance of Lb from end of the pipe.

Pipe Size. OD.  
 in.

2 3/8- 3 1/2

4

4 1/2

Tolerance.

in

+3/32      - 1/32

+ 7/64      - 1/32

+7/64      - 0.75 %D

### WALL THICKNESS. *t*

WEIGHT: Single lengths .

+6.5 pe

-3.5 per'

Carload lots..... -1.75 percent

A carload is considered to be a minimum of 40.  
 lb (18144 kg).

INSIDE DIAMETER, *d*, is governed by the outside diameter and weight tolerances.

UPSET DIMENSIONS: Tolerances on upset dimensions are given in Tables 6.5, 6.7, and 6.8.

**RANGE LENGTHS**  
(All lengths in feet)

	Range	1	2	3
<b>CASING AND LINERS</b>				
Total range length, incl. Range length for 95 percent or more of carload:		16-25	25-34	34-48
Permissible variation Max		6	5	6
Permissible length Min.		18	32	36
<b>TUBING</b>				
+Total range length, incl. 20-24 length for 100 percent of carload:		20-24	28-32	
Permissible variation Max		2	2	
Permissible length Min.		20	28	
<b>PUP JOINTS</b>				
Lengths - 2. 3. 4. 6. 8, 10 and 12 feet Tolerance - ±3 in.				

\* Carload tolerances shall not apply to orders of less than a carload. For any carload of pipe, shipped to the final destination without transfer or removal from the car, the tolerance shall apply to each car. For any order consisting of more than a carload and shipped from the manufacturer's facility by rail but not to the final destination the carload tolerance shall apply to the total order. but not to the individual carloads.

tBy agreement between purchaser and manufacturer or processor the total range length for Range 1 tubing may be 20'28 ft.

#2 ft pup joints may be furnished up to 3 ft long by agreement between purchaser and manufacturer and lengths other than those listed may be furnished by agreement between purchaser and manufacturer.