



Mandrel & Wiper Selection

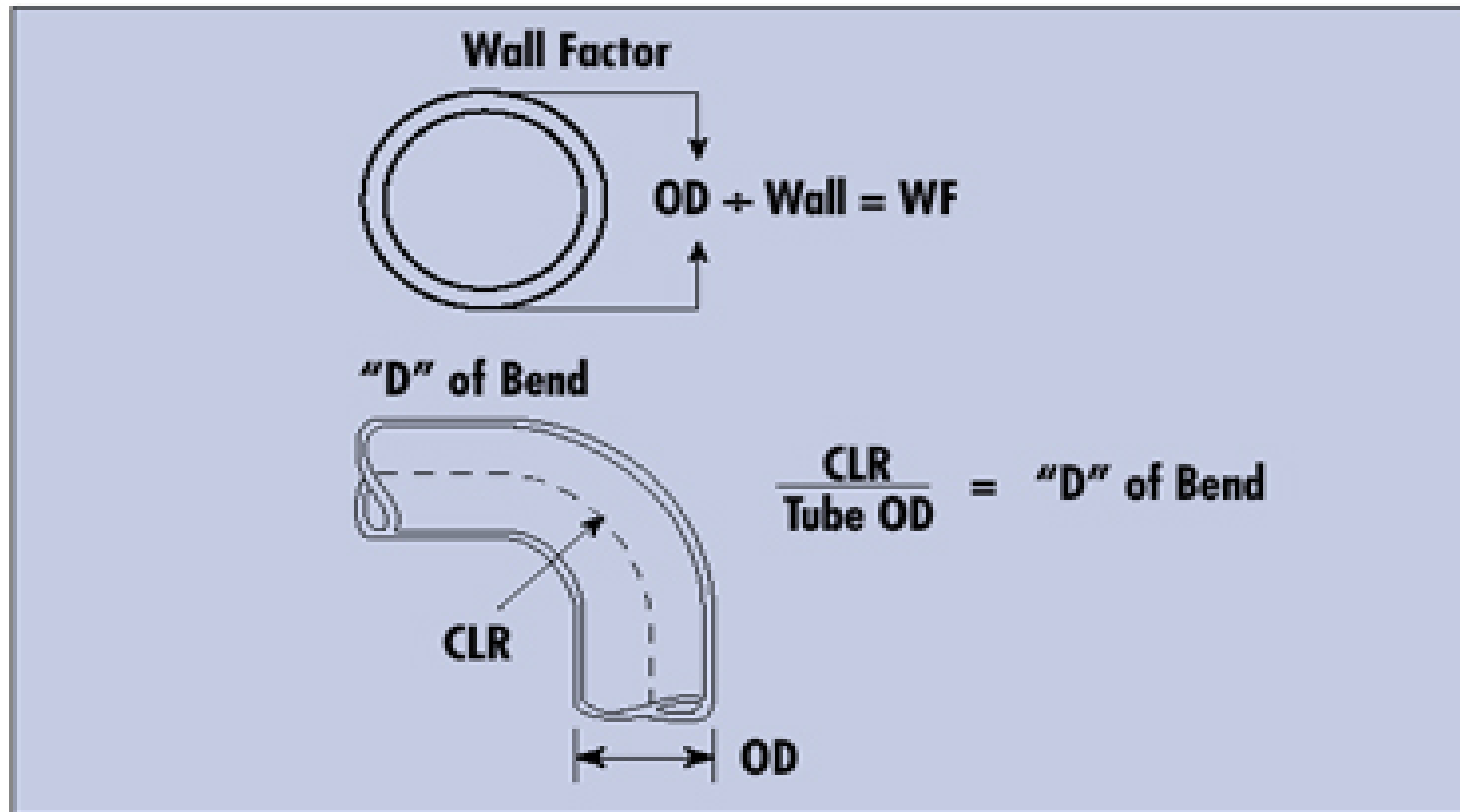
Determine the wall factor and “D” of bend on the next page
 Then select the appropriate mandrel/wiper configuration
 from the chart below. These are recommendations based
 on average conditions.

Wall Factor	1	1.25	1.5	2	2.5	3	4	“D” of Bend
10	M 1	M 1	M 1	M 1	P	P		
15	M 1W	M 1W	M 1	M 1	P	P		
20	M 2W	M 1W	M 1W	M 1	M 1	M 1	P	
25	M 3W	M 2W	M 1W	M 1W	M 1	M 1	M 1	
30	M 3W	M 3W	M 2W	M 2W	M 1W	M 1	M 1	
35	M 3W	M 3W	M 3W	M 2W	M 2W	M 2W	M 2	
40	M 4W	M 3W	M 3W	M 3W	M 3W	M 3W	M 2W	
45	M 4W	M 3W	M 3W	M 3W	M 3W	M 3W	M 2W	
50	M 4W	M 3W	M 3W	M 3W	M 3W	M 3W	M 2W	
60	M 4W	M 4W	M 3W	M 3W	M 3W	M 3W	M 2W	
70	TW 5W	TW 5W	TW 5W	M 3W	M 3W	M 3W	M 3W	
80	TW 5W	TW 5W	TW 5W	TW 5W	M 3W	M 3W	M 3W	
90	TW 5W	TW 5W	TW 5W	TW 5W	M 3W	M 3W	M 3W	
100	TW 5W	TW 5W	TW 5W	TW 5W	TW 5W	M 3W	M 3W	
125	TW 5W	TW 5W	TW 5W	TW 5W	TW 5W	TW 5W	M 4W	
150	TW 6W	TW 6W	TW 6W	TW 6W	TW 5W	TW 5W	TW 4W	
175	TW 7W	TW 7W	TW 7W	TW 7W	TW 7W	TW 6W	TW 6W	
200	TW 10W	TW 10W	TW 10W	TW 10W	TW 9W	TW 9W	TW 8W	
225		UTW 10W	UTW 10W	UTW 10W	TW 10W	TW 10W	TW 10W	
250			UTW 10W	UTW 10W	UTW 10W	UTW 10W	UTW 10W	
275			UTW 10W	UTW 10W	UTW 10W	UTW 10W	UTW 10W	

P=Plug Mandrel
 M1 = 1 ball
 M2 = 2 ball
 T = Thin wall
 UT = Ultra Thin wall
 W = Wiper

Purple shaded area = Standard mandrel, Yellow shades area = Thin Wall Mandrel

Blue shaded area = Ultra Thin Wall Mandrel



- 1) Determine the Wall Factor "WF"
- 2) Determine the "D" of Bend
- 3) Consult Chart to determine proper die set-up. (other page)