

Technical Bulletin 41: Import Roundslings Testing

When selecting rigging items there are many attributes to consider. This can include traceability, workmanship, durability, and consistency. Slingmax evaluated imported roundslings from 3 different suppliers.

Initial examination of the 30 various sized roundslings showed discrepancies in the tag and workmanship. None of the tags included the manufacturer’s name as required by ASME B30.9, and in 2 out of the 3 slings it was difficult or impossible to decipher the country of origin.

After the visual evaluation the slings were taken to their ultimate load. The break test results ranged from a 4.3:1 Design Factor to 9.2:1 DF (see Figure 2). This extreme variance in break test results highlighted issues with the consistencies in the manufacturing process of these slings. A comparison between the break test results of a Twin-Path® and the imported roundslings can be seen in Figure 1.

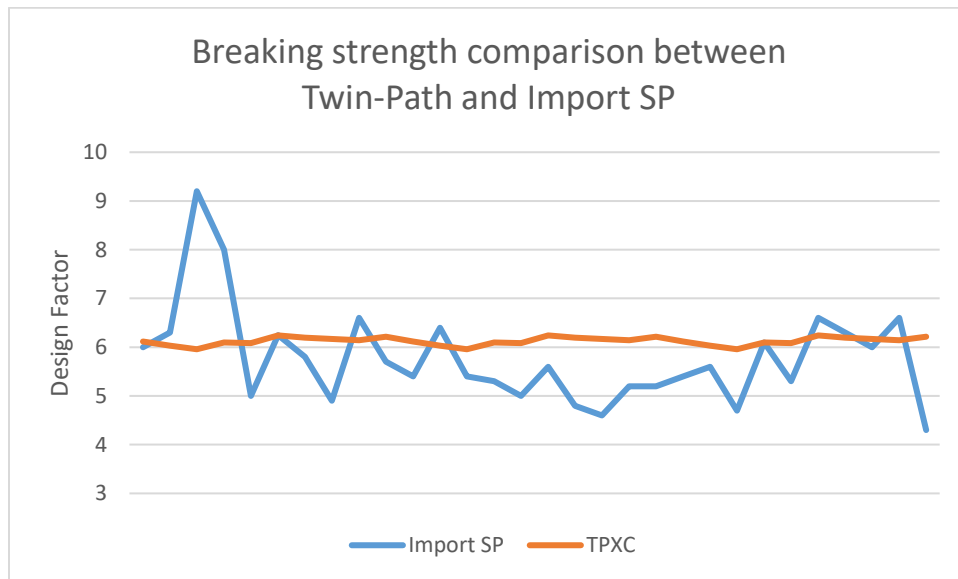


Figure 1 – Breaking strength comparison between TPXC and Import SP

Test #	Rated Capacity (lbf)	Break Strength (lbf)	Achieved Design Factor
080087-1	5,300	31,960	6.0
080087-2	5,300	33,300	6.3
080087-3	2,600	24,020	9.2
080087-4	2,600	20970	8.0
080087-5	5,300	26,720	5.0
080087-6	8,400	52,520	6.25
080087-7	8,400	48,730	5.8
080087-8	8,400	41,750	4.9
080087-9	5,300	35,140	6.6
080087-10	5,300	30,440	5.7
080087-11	5,300	28,810	5.4
080087-12	5,300	34,100	6.4
080087-13	5,300	28,520	5.4
080087-14	8,400	44,160	5.3
080087-15	8,400	42,020	5.0
080087-16	8,400	46,890	5.6
080087-17	8,400	40,290	4.8
080087-18	13,200	60,780	4.6
080087-19	13,200	68,560	5.2
080087-20	13,200	67,940	5.2
080087-21	13,200	70,650	5.4
080087-22	5,300	29,630	5.6
080087-23	5,300	25,080	4.7
080087-24	5,300	32,180	6.1
080087-25	5,300	28,180	5.3
080087-26	5,300	34,950	6.6
080087-27	8,400	53,220	6.3
080087-28	8,400	50,360	6.0
080087-29	8,400	55,300	6.6
080087-30	13,200	56,450	4.3

Figure 2 – Breaking test results of Import Roundslings

It is important to consider the quality of the manufacturing process when selecting roundslings. As seen in the test results above, this can affect the ability of the sling to achieve its full design factor and meet ASME B30.9 requirements.