

Grain Damage Prevention Chart

Grain velocity has a direct correlation on grain damage in your spout system. Research has shown this damage can occur at or beyond 1750 FPM on free flowing grains with low moisture content. This chart is a snapshot of when damage will occur, furthermore at what point actions should be taken to reduce grain velocity by adding Cushion Boxes, Inline Flow Reducers or Dead Stops to your spouting system.

Grain Velocity in Feet per Minute (FPM)												
Spout Length (Nominal)	Spout Angle											
	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°	85°	90°
5'	400	524	618	700	770	830	885	935	975	1010	1050	1075
10'	570	742	875	990	1090	1180	1255	1320	1380	1435	1485	1520
15'	696	908	1070	1210	1335	1440	1530	1615	1690	1755	1820	1860
20'	805	1047	1235	1400	1540	1665	1770	1870	1950	2025	2100	2150
25'	899	1170	1380	1560	1725	1860	1975	2085	2180	2265	2340	2400
30'	985	1280	1520	1710	1890	2040	2165	2285	2390	2480	2570	2635
40'	1135	1480	1750	1975	2180	2355	2500	2640	2760	2865	2970	3040
50'	1270	1655	1950	2210	2440	2635	2800	2955	3090	3210	3320	3400
60'	1390	1810	2140	2420	2670	2880	3065	3240	3390	3520	3640	3720
70'	1500	1960	2310	2615	2880	3110	3315	3500	3660	3800	3930	4025
80'	1605	2090	2470	2795	3080	3330	3540	3740	3905	4055	4200	4295
90'	1705	2220	2620	2960	3275	3535	3760	3965	4150	4310	4460	4550
100'	1798	2340	2765	3120	3450	3720	3960	4180	4370	4540	4700	4800
125'	2005	2620	3090	3500	3860	4165	4440	4680	4890	5080	5250	5370
150'	2200	2865	3390	3835	4225	4560	4850	5120	5450	5560	5750	5880

This chart is to be used as a general guideline, T.O.P.S. Inc. assumes no liability for its use.



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