

Trial	Fluid Pressure, psi	Time, minutes		Fluid Temperature, F	Temperature Change, F
		To Reach Pressure	Held at Pressure		
1	0	0	0	73	
	112,000	2.17	0	123	+50
	112,000	--	5.0	110	-13
2	0	0	0	~50 ^(a)	
	210,000	3.25	0	141	~+90
	210,000	--	4.75	132	-9
3	0	0	0	52 ^(a)	
	246,000	3.75	0	155	+103
	246,000	--	2.75	144	-11

(a) The fluid cooled to below room temperature on decompression from the previous trials.

It is noted that small, but appreciable, increase in fluid temperature occurred even at the relatively slow stem speed of 1 ipm. It is of interest also that the temperature dropped while holding at pressure were relatively small (9 to 13 F), considering the large heat sinks available in the container assembly and the billet-shaped plug, both of which were at room temperature. Of particular importance was that no significant drop in fluid pressure readings was noted during holding at 112,000 or 210,000 psi, suggesting that no appreciable temperature change occurred in the active coil.

It was during the trial at 246,000 psi that a liner failure occurred after holding at this pressure for 2-3/4 minutes. No data on pressure fluctuations during the holding period were obtained.

The trials were not continued at higher stem speeds in the repaired container because sufficient data was obtained from the above trials. It was felt that if fluid pressures were unaffected by a 90 F change in temperature over a holding period of up to 5 minutes, then at higher stem speeds, pressures would not be affected by even higher possible fluid temperatures because of the short time interval during extrusion.