Axial Stress & Force Requirements

Givens	Max Sample Size			
t	0.06	Solution		
w	6	I	0.000108	
L	6	Fmax(buckli	1184.35	
E	1.00E+07	σmax(buckli	3289.868: psi	Below
Kfixed	0.5			

Givens	Minimum Sample Size			
t	0.06	Solution		
w	0.5	I	0.000009	
L	1	Fmax(buckli	3553.06	
E	1.00E+07	σmax(buckli	118435.2: psi	Above 40 ksi
Kfixed	0.5			

Modified to find Max Length To avoid Failure

Givens	Max Sample Size			
t	0.06	Solution		
w	6	I	0.000108	
L	1.720721:	Fmax(buckli	14400.00	
E	1.00E+07	σmax(buckli	40000.00(psi	
Kfixed	0.5			

Givens	Mim Sample Size			
t	0.06	Solution		
w	0.5	I	0.000009	
L	1.720721:	Fmax(buckli	1200.00	
E	1.00E+07	σmax(buckli	40000.00(psi	
Kfixed	0.5			

The length of the samples would be extremely limited to keep the samples from buckling. Also the forces needed to reach this stress level are quite high even for a hydraulic system