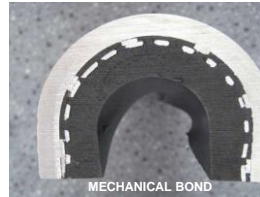




SPIRA HT- HIGH TEMPERATURE UNIFORM RUBBER

T2 ALS can provide PC Pumps that can perform in high temperature applications using a combination of the following technologies.

- Proprietary elastomer
- Uniform rubber wall thickness
- Mechanical bond
- Gland seal at stator ends



Spira HT utilizes the combination of a mechanical bond and uniform rubber wall thicknesses to extend the application range of PC Pumps in high temperature environments. Thanks to their properties, these SPIRA HT stators will operate in temperature ranges up to 350F (175C)

Benefits

- No break down of chemical rubber to metal bond due to high temperatures, steam or adverse downhole fluids
- Combination of SPIRA **and** MECHANICAL BOND Technology
- Uniform rubber wall thickness produces even and predictable expansion
- Patented gland seal at stator ends
- Cost efficiency

Application advantages of SPIRA stators include the following;

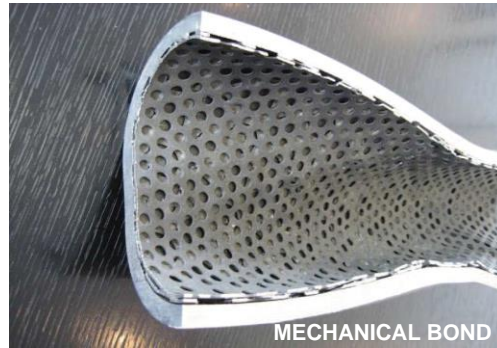
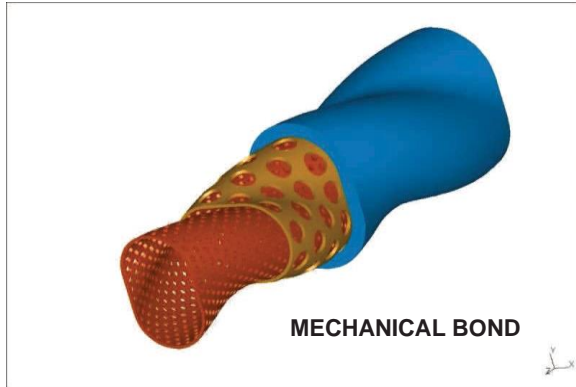
- Reduces frictional torque
- Greater pump degree of efficiency
- Consistent and predictable thermal and chemical expansion
- Better heat dissipation
- Longer service life
- No premature drop in volumetric displacement at higher pressures drops across pump
- Higher overall pressure rating (30-50% higher per stator stage as compared to conventional stators)
- Reduced length
 - Easier to install and transport



Proven Technology

The Spira technology has been successfully applied in downhole PC Pumps, surface transfer pumps and downhole drilling applications. Although the technology is not new, there are only a couple of manufactures able to supply quality, uniform rubber wall product. The Spira technology is one of the quality manufactured products that T2 ALS can provide to our customers.

Mechanical rubber to metal bond technology (patented)



Gland seal at stator end (critical for longevity, patented)



Available Sizes

Pump Model	Metric	Pump Model Imperial		Stator Top Connection	Stator Bottom Connection	Stator Length		Rotor Connection
	m3/day/100rpm	Lift Meters	bbls/day/100rpm			Lift Feet	Meters	
50	1000	315	3300	3 1/2-in EUE Box	3 1/2-in EUE Box	4.6	182	1" AP1 Pin
50	1250	315	4100			5.8	228	
50	1500	315	5000			7.0	274	
50	1750	315	5700			9.3	365	
105	750	660	2500	3 1/2-in EUE Box	3 1/2-in EUE Box	7.1	280	1" AP1 Pin
105	900	660	3000			8.5	336	
105	1200	660	4000			11.4	448	
140	600	880	2000	3 1/2-in EUE Box	3 1/2-in EUE Box	7.0	274	1" AP1 Pin
140	900	880	3000			10.4	411	
140	1200	880	4000			13.9	548	

50, 105 & 140 series will drift through 2 7/8" Tubing
 50, 105 & 140 series will drift through 3 1/2" Lined Tubing

Other lifts available upon request
 50 series is coilable in 3 1/2" tubing