

ESeal™ FLEX

The cost-effective, gas-tight well remediation solution

Post-drilling operations such as converting a well from producer to injector can be an extremely costly, time consuming and risky proposition. In response, Enventure, a leader in expandable technologies, engineered the gas-tight ESeal Flex system to provide a safer, more cost-effective and removable alternative for a host of well remediation, re-design and associated applications.

The uniquely innovative ESeal Flex system comprises non-expandable spacer pipe and connections that are fitted between two expandable elastomer seals. Since only the elastomer seals can be expanded, the ESeal Flex system promotes the use of standard API premium connections, giving you a gas-tight system with the industry's maximum ID and one that delivers exceptional internal yield and collapse ratings. Should future remedial plans require a different well design, the ESeal Flex installation can be removed through a simple milling and fishing operation.

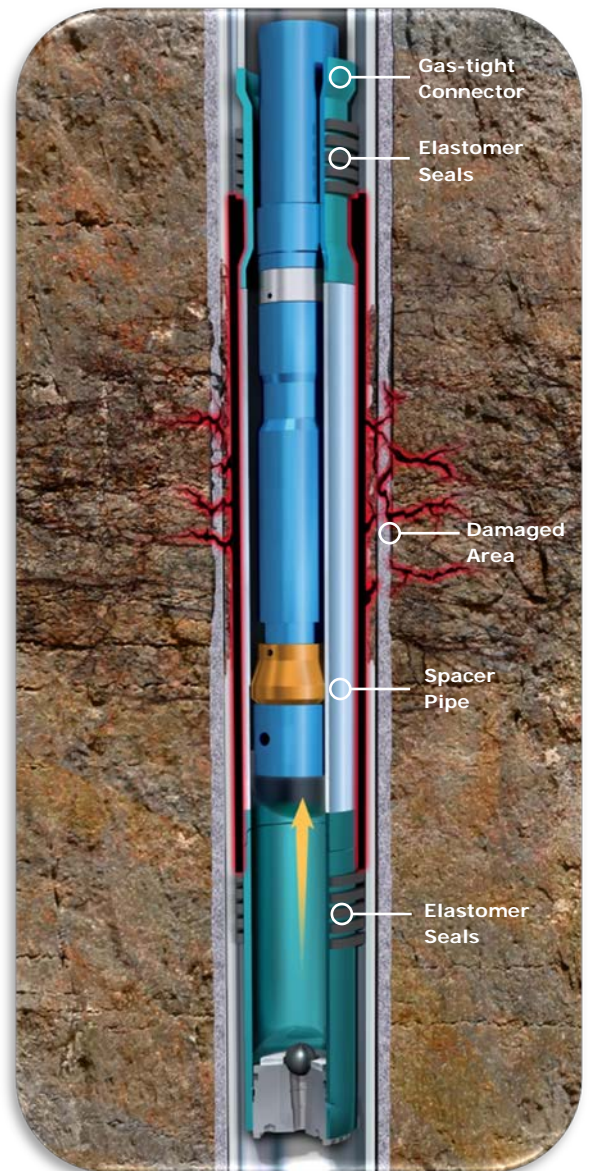
All this makes the ESeal Flex system an ideal and non-permanent solution for a variety of applications, including:

- Remediating casing leaks, weakness and other corrosion issues
- Perforation shut-offs
- Zonal isolation for stimulating new perforations
- Bridging between parted casing strings
- Connecting across ill-placed completion hardware
- Transitioning from a high-capacity production well to an injection well

Contact your nearest Enventure representative to learn how the ESeal Flex system can cut your well costs and increase your completion success.

The ESeal Flex advantage

- ▶ **A considerably lower-cost option**
- ▶ **Flexibility in changing existing well objectives**
- ▶ **Easily removable solution**
- ▶ **The industry's highest performance ratings**
- ▶ **Numerous HSE benefits**



Enventure Global Technology

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3-1/2 9.3 lb/ft x 4-1/2 in. ESeal Flex System									
Pre-Expansion				ESeal Flex Launcher & Hanger Joint					
				Pre-Expansion			Post-Expansion		
OD (in.)	Weight (lb/ft)	ID (in.)	Drift ID (in.)	Launcher OD (in.)	Seal OD (in.)	ID (in.)	Drift ID (in.)	Internal Yield (psi)	Collapse (psi)
4.500	10.50	4.052	3.927	3.500	3.925	2.930	2.867	**	**
4.500	11.60	4.000	3.875	3.500	3.870	2.930	2.867	**	**
4.500	12.60	3.598	3.883	3.500	3.830	2.930	2.867	**	**
4.500	13.50	3.920	3.795	3.500	3.790	2.930	2.867	**	**
4.500	15.10	3.826	3.701	3.500	3.680	2.930	2.867	**	**

** Internal yield and collapse equal to spacer pipe depending on grade

3-1/2 9.3 lb/ft x 4-1/2 in. ESeal Flex Spacer Pipe							
OD (in.)	Weight (lb/ft)	Grade	ID (in.)	Drift ID (in.)	Connection	Internal Yield (psi)	Collapse (psi)
3.500	9.30	80	2.992	2.867	STL	10,160	15,540
3.500	9.30	110	2.992	2.867	STL	13,970	13,530
3.500	9.30	125	2.992	2.867	STL	15,880	14,890

3-1/2 10.3 lb/ft x 4-1/2 in. ESeal Flex System									
Base Casing		ESeal Flex Launcher & Hanger Joint							
		Pre-Expansion			Post-Expansion				
OD (in.)	Weight (lb/ft)	Launcher OD (in.)	Seal OD (in.)	ID (in.)	OD (in.)	Drift ID (in.)	Internal Yield (psi)	Collapse (psi)	
4.500	11.60	3.500	3.875	2.820	3.330	2.761	15,890	16,670	
4.500	12.60	3.500	3.835	2.820	3.330	2.761	15,890	16,670	
4.500	13.50	3.500	3.795	2.820	3.330	2.761	15,890	16,670	

3-1/2 10.3 lb/ft x 4-1/2 in. ESeal Flex Spacer Pipe							
OD (in.)	Weight (lb/ft)	Grade	ID (in.)	Drift ID (in.)	Connection	Internal Yield (psi)	Collapse (psi)
3.500	10.30	110	2.992	2.797	STL	15,890	16,670
3.500	125	125	2.992	2.797	STL	18,060	18,940

4-1/2 13.5 lb/ft x 5-1/2 in. ESeal Flex System									
Base Casing		ESeal Flex Launcher & Hanger Joint							
		Pre-Expansion			Post-Expansion				
OD (in.)	Weight (lb/ft)	Launcher OD (in.)	Seal OD (in.)	ID (in.)	OD (in.)	Drift ID (in.)	Internal Yield (psi)	Collapse (psi)	
5.500	17.00	4.500	4.760	3.844	4.407	3.785	12,410	10,690	
5.500	20.00	4.470	4.760	3.844	4.407	3.785	12,410	10,690	

4-1/2 13.5 lb/ft x 5-1/2 in. ESeal Flex Spacer Pipe							
OD (in.)	Weight (lb/ft)	Grade	ID (in.)	Drift ID (in.)	Connection	Internal Yield (psi)	Collapse (psi)
4.500	13.50	110	3.920	3.795	STL	12,4010	10,690
4.500	13.50	125	3.920	3.795	STL	14,100	11,600

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