

7 E-Patching

The expandable patch systems can seal cracks, small holes or perforation holes in the tubing and casing.

These products can be deploy by Wireline, tubing or coiled tubing.

The Expansion Cone ID post-installation can ensure that most logging tools, coiled tubing, bridge plugs and other tools can pass through smoothly, minimizing the restriction on fluid flow to the greatest extent.

Tool Specifications	Manufacturer	Thru Tubing Systems, LLC New Iberia, LA 70560	
	Product Number	105-0288-A-001	
	Product Name	2-7/8" (6.5#) Straddle Patch	
	Product Type	Tubing Patch	
	Product Characteristics	Metal Seal Element, Permanent	
	Service Provided	Permanent Straddle Assemblies	
	Metallic Materials	13 Cr, 4130, L-80	
	Non-Metallic Materials	Viton O-rings	
	Patch OD	2.230in	56.64mm
	Patch ID	1.875in	47.63mm
	Overall Length	Variable	
	Temperature Range	50-400°F	10–204°C
	Temperature Cycle Range V3, V1,	NA	
	Rated Performance Envelope V4 to V0	NA	
	Pressure Rating	8,000psi	544.22bars
	Top Connection	N/A	
	Bottom Connection	N/A	
	Setting ID Range	2.441–2.495in	62.00–63.37mm
	Conveyance Method	Electric Line, Slick line, Coil tubing, Jointed pipe	
	Maximum Conveyance OD	2.230in	56.64mm
	Setting Method(s), Min/Max Set Force	Power Charge, Hydraulic pressure,30,000 lbs	
	Retrieval Method	Permanent	
	Repositioning Method	N/A	
	Quality Grade	Q3	
	Design Validation Grade	V5	
	Operating Manual Ref. #	105-0288-A-001TU	
	Setting Tool-Wireline	4010-213-A-003, 2-1/18" MSST	
	SettingSleeve/ Running Tool Kit	100-0288-A-001	
	Recommended Tubing Size	2-7/8" 6.5#	
	Stroke Length	Variable	
	Burst / Collapse	9,500psi / 9,500psi	
	Serial Number		



Specification

Pipe size	2-3/8 60.3	2-7/8 73.0	3-1/2 88.9	4-1/2 114.3			5-1/2 139.7			7 177.8		
Pipe grade	4.6-4.7 6.86-7.00	6.4-6.5 9.54-9.69	9.2-9.3 13.72-13.86	15.1 22.16	13.5 20.13	11.6-12.6 17.3-18.79	23 34.30	20 29.83	17 25.35	26 38.78	23 34.30	20 29.83
ID of the Pipe	1.995 50.673	2.441 62.001	2.992 75.997	3.826 97.180	3.920 99.568	4.00/3.958 101.6/100.53	4.670 118.618	4.778 121.361	4.892 124.257	6.276 159.410	6.366 161.696	6.456 163.982
OD of the Patching tube	1.812 46.025	2.250 57.150	2.812 71.425	3.600 91.440	3.776 95.910	3.800 96.520	4.515 114.681	4.600 116.840	4.700 119.380	6.110 155.194	6.160 156.464	6.281 159.537
ID of the Patching tube	1.437 36.500	1.875 47.625	2.375 60.325	2.992 75.997	3.375 85.725	3.375 85.725	4.000 101.600	4.000 101.600	4.000 101.600	5.500 139.700	5.500 139.700	5.750 146.050
Breakage pressure of the Patching tube	6580 45.34	8000 55.16	6180 42.58	9000 62.01	4220 29.08	4440 30.59	4530 31.21	5180 35.69	5920 40.79	3970 27.35	4260 29.35	3360 23.15
Setting tool	1.688	2.125		3.6'						4.1'		