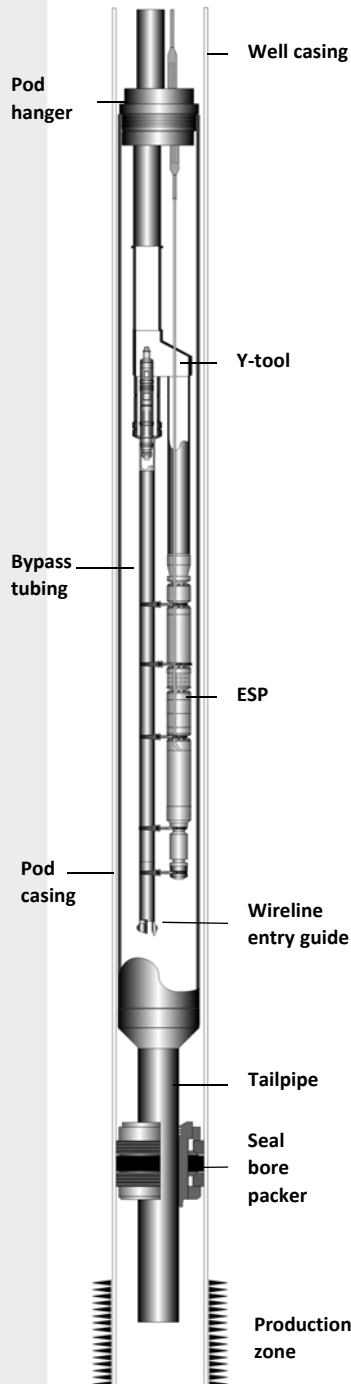


Reservoir access with casing isolation (Y-tool inside a pod)



The UMS Flowell Y-tool and Pod system can be combined as a single unit to provide access to the reservoir through the y-tool bypass tubing, and provide casing isolation from the produced well fluids with having the y-tool bypass system inside the Pod.

The system eliminates the requirements for an ESP packer and removes the bypass tubing and ESP from being the weak point with high tailpipe loads below the ESP (compression and tension string loads). This is an advantage for ESP completions stabbing into a lower completion, or ESP drill stem tests (DSTs) where the DST tools are suspended below the ESP, and protects the ESP when firing Tubing Conveyed Perforating (TCP) guns.

The system requires having a pod system dimensionally capable of fitting inside the well casing and a y-tool system capable of fitting inside the Pod. Details of some system constraints are shown below;

Minimum Well Casing Size	Maximum POD Casing size	ESP Series	Bypass tubing size
8-5/8"	7" 26#	387	2.125"
8-5/8"	7" 26#	375	2.375"
9-5/8"	7-5/8" 29.7#	387	2.875"
9-5/8"	7-5/8" 29.7#	456	2.125"
10-3/4"	8-5/8" 40#	540	2.125"
10-3/4"	8-5/8" 44#	456	2.875"
13-3/8"	9-5/8" 47#	562	2.875"
13-3/8"	9-5/8" 53.5#	562	2.375"
13-3/8"	10-3/4" 60.7#	562	3.500"
13-3/8"	10-3/4" 60.7#	675	2.375"

For more information on the UMS Flowell ESP Pod and Bypass Logging systems, please refer to our datasheets.