ABSTRACT

CROSSOVER JOINT FOR CONNECTING ECCENTRIC FLOW PATHS TO CONCENTRIC FLOW PATHS

A wellbore apparatus and method comprising a first wellbore tool having a primary flow path and at least one secondary flow path and a second wellbore tool having a primary flow path and secondary flow path. A radial center of the primary flow path in the first wellbore tool is offset from a radial center of the primary flow path in the second wellbore tool which comprises a crossover joint connecting the first wellbore tool to the second wellbore tool having a primary flow path fluidly connecting the primary flow path of the first wellbore tool to the primary flow path of the second wellbore tool, and at least one secondary flow path fluidly connecting the at least one secondary flow path of the first wellbore tool to the at least one secondary flow path of the second wellbore tool.

(Figure 1)