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(54) Title: LINEAR HOLLOW SPOOL VALVE

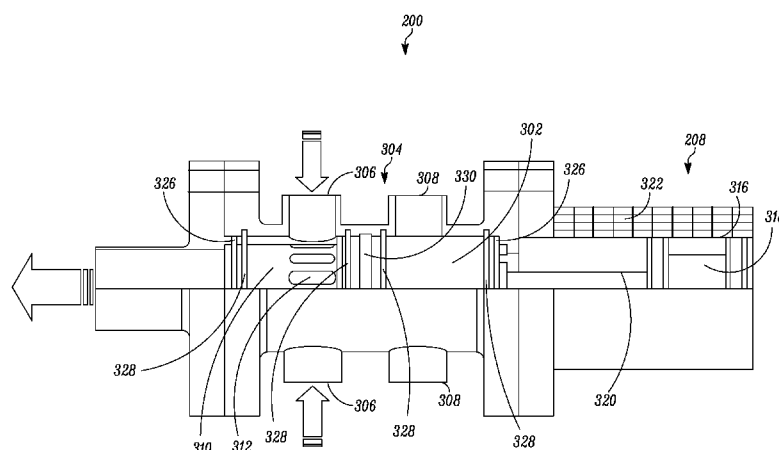


FIG. 3

(57) Abstract: A valve system (200) for pressure exchanger tubes of an energy recovery system (100) is provided. The valve system includes a valve housing (304), a flow distributor (310), a hollow spool (302) and a sealing system. The valve housing may comprise a set of high-pressure ports (306) and a set of low-pressure ports (308). The flow distributor allows the flow to and from the set of high- pressure ports and the set of low-pressure ports within the valve housing. The hollow spool may be configured to reciprocate axially in a radial clearance between the valve housing and the flow distributor. The hollow spool may connect the pressure exchanger tube in fluid communication with the high-pressure ports or the low-pressure ports. The sealing system may be provided within the valve housing for imparting substantial hydraulic balance to the hollow spool.



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