

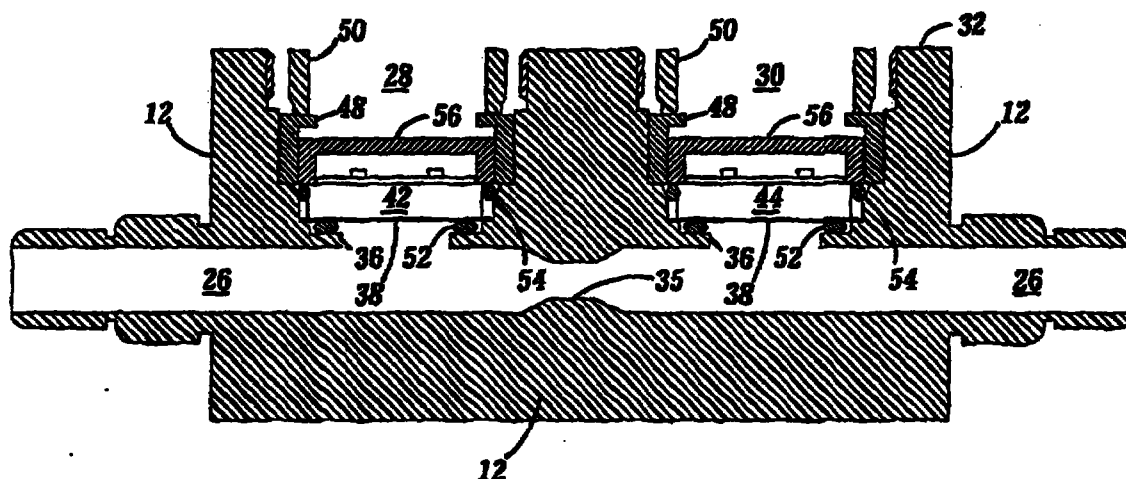


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(54) Title: FLOW METER WITHIN CAUSTIC FLUIDS HAVING NON-CONTAMINATING BODY**(57) Abstract**

A non-contaminating flow meter (10) having an isolation member (38). The flow meter includes two pressure sensor transducers (42, 44), located on opposite sides of a restriction (35) in a conduit. Each of the pressure transducers is isolated by an isolation member (38) from exposure to fluids flowing through the conduit. The flow meter is placed in line with the fluid flow line carrying corrosive materials. The flow rate is determined by calculating the square root of the difference between the two pressure sensors. The flow meter compensates for changes in temperature within the fluid flow line and activates an alarm if the pressure or flow rate within the flow line exceeds or falls below a threshold level.