MAGNETIC COUPLING MECHANISM FOR FLUID CONDUITS

ABSTRACT

A magnetic coupling mechanism (1) for a fluid conduit comprising:

a female part (3) having an internal cavity (7) with an inlet opening (9) and an opposing outlet opening (19);

a male part (5) having a coupling section (11) insertable through the inlet opening of the female part for coupling with the internal cavity thereof, and an engagement section (13) for engaging with a fluid conduit,

a coupling arrangement provided between the internal cavity of the female part and the coupling section of the male part, the coupling arrangement including at least one engagement lug (23) extending from the coupling section, and at least one cooperating channel (25) provided within an inner wall of the internal cavity, the or each said cooperating channel accommodating an associated said engagement lug when the coupling section is rotated relative to the internal cavity once accommodated therein to a coupling position to thereby prevent extraction of the coupling section from the internal cavity;

wherein the coupling section is urged for rotation to the coupling position during use by a magnetic assembly including at least one first magnet (29) mounted on the coupling section, and at least one second magnet (31) mounted within the internal cavity.

[Figure. 1]