

SELF-LOCKABLE OPENING AND CLOSING MECHANISM FOR VACUUM CABIN DOOR

ABSTRACT OF THE DISCLOSURE

5 A self-lockable opening and closing mechanism includes
a frame (10), a vacuum cabin door (100), a driving cylinder (20)
mounted in the frame (10), and a linkage mechanism formed of a
horizontal lever (30), one or a pair of first bars (40), one or a
pair of rotational levers (50), one or a pair of adjustment blocks
10 (60), one or a pair of second bars (70), one or a pair of sliding
blocks (80) and one or a pair of valve rods (90) and coupled
between the driving cylinder (20) and the linkage mechanism in
such a manner that operating the driving cylinder (20) drives the
valve rods (90) to move the vacuum cabin door (100) between an
15 open position and a close position, and a locking force is
automatically produced to hold the vacuum cabin door (100) in
the close position against any reaction force, preventing the
problem of failure or reduced effect in vacuum sealing.

Figure 1