

Title (en)  
Pressure discharge flotation device.

Title (de)  
Druckabflussflotationsvorrichtung

Title (fr)  
Dispositif pour la flottation à décharge de pression

Publication  
**EP 1270077 A1 20030102 (EN)**

Application  
**EP 02077351 A 20020617**

Priority  
NL 1018325 A 20010619

Abstract (en)  
The invention relates to a pressure discharge flotation device comprising a flotation tank fitted with an aerating system, which aerating system comprises a device for pressurising a flotation liquid and dissolving a gas therein, and at least one pressure discharge device for reducing the pressure of the pressurised flotation liquid containing dissolved gas, which pressure discharge device comprises at least one valve arranged in a conduit line of the flotation liquid, which valve can be controlled by means of a fluid under a working pressure, whilst pressure control means are present for controlling the working pressure of said fluid. The object of the invention is to provide a pressure discharge device, which is less susceptible to wear and which will not become obstructed, which does not comprise any mechanical parts and which furthermore allows precise adjustment within a wide working range and which, once it has been adjusted in such a manner that gas bubbles having the correct diameter are obtained, will automatically maintain said adjustment independently of changes in the flotation liquid being supplied. According to the invention, this objective is accomplished in that the valve comprises a flexible hose member, which hose member forms at least part of the wall of the conduit line at the location of the valve, and wherein the passage of said hose member is adjustable through omnilateral deformation thereof by the fluid under a working pressure.

IPC 1-7  
**B03D 1/14**; **B03D 1/24**

IPC 8 full level  
**B03D 1/14** (2006.01); **B03D 1/24** (2006.01)

CPC (source: EP)  
**B03D 1/028** (2013.01); **B03D 1/1412** (2013.01); **B03D 1/1431** (2013.01); **B03D 1/1475** (2013.01); **B03D 1/24** (2013.01)

Citation (search report)  
• [DA] WO 9526930 A1 19951012 - WISER OY [FI], et al  
• [DA] US 3542675 A 19701124 - MAIL ISAAC P, et al  
• [A] GB 2095130 A 19820929 - BERGWERKSVERBAND GMBH, et al

Cited by  
CN117599962A; CN105170337A; CN103090106A; EP4084911A4

Designated contracting state (EPC)  
AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR

DOCDB simple family (publication)  
**EP 1270077 A1 20030102**; NL 1018325 C2 20021220

DOCDB simple family (application)  
**EP 02077351 A 20020617**; NL 1018325 A 20010619