

Title (en)

IMPROVED MIXING SYSTEM FOR THE INTRODUCTION OF CHEMICAL SUBSTANCES IN A FLUID TO BE TREATED

Title (de)

VERBESSERTES MISCHSYSTEM ZUM EINBRINGEN VON CHEMISCHEN SUBSTANZEN IN EINE ZU BEHANDELNDE FLÜSSIGKEIT

Title (fr)

SYSTÈME DE MÉLANGE AMÉLIORÉ POUR L'INTRODUCTION DE SUBSTANCES CHIMIQUES DANS UN FLUIDE À TRAITER

Publication

**EP 4122587 A1 20230125 (EN)**

Application

**EP 21182715 A 20210630**

Priority

EP 21182715 A 20210630

Abstract (en)

The present invention concerns an improved mixing system (10) for the introduction of chemical substances in a fluid to be treated, comprising: a container (11) comprising an external wall (12), an internal wall (13), a bottom (14) and a cover (15); at least two concentric mixing chambers in communication with each other, a first central chamber (16) defined within the internal wall (13) and a second chamber (17) defined outside the internal wall (13); an inlet duct (19) for a fluid to be treated, configured for the introduction of the fluid in the cone (14); an outlet duct (20) for the treated fluid, configured for the outflow of the fluid from the second chamber (17) to the outside of the container (11); the inlet duct (19), the first chamber (16), the second chamber (17) and the outlet duct (20) defining a labyrinthine mixing path (30); stirring blades (18) positioned inside the first chamber (16); at least one injection passage (22), characterized in that the bottom has the form of a cone (14) extending from the external wall (12), said cone (14) being extended by a tube (23) whose the end forms the inlet duct (19) for the fluid to be treated , the cone (14) has an internal angle alpha comprised between 10° and 60°, and the at least one injection passage (22) is positioned on the cone (14), or on the tube extending from the cone (14),

CPC (source: EP)

**B01F 23/43** (2022.01); **B01F 27/191** (2022.01); **B01F 27/861** (2022.01); **B01F 27/91** (2022.01)

Citation (applicant)

- US 5314076 A 19940524 - LA PLACE CHRISTIAN [FR], et al
- US 2012199524 A1 20120809 - BLY JR JOSEPH M [US], et al
- US 3392963 A 19680716 - DIERENDONCK LAURENTIUS L VAN, et al
- US 2577856 A 19511211 - NELSON JOSEPH F
- US 3737288 A 19730605 - HOCHMAN J
- EP 3626336 A1 20200325 - SAVIO SRL [IT]

Citation (search report)

- [XAI] US 4036699 A 19770719 - QUIGG DONALD J
- [AD] EP 3626336 A1 20200325 - SAVIO SRL [IT]

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

Designated validation state (EPC)

KH MA MD TN

DOCDB simple family (publication)

**EP 4122587 A1 20230125**

DOCDB simple family (application)

**EP 21182715 A 20210630**