

F15D

FLUID DYNAMICS, i.e. METHODS OR MEANS FOR INFLUENCING THE FLOW OF GASES OR LIQUIDS ([N: nozzles, spray heads B05B; devices to decrease friction or resistance or to increase speed of ships B63B; ship rudders B63H25/38; influencing the flow or the viscosity of fluids with chemical additives C09K3/00, C10M; hydraulic engineering E02B]; fluid circuit elements F15C; [N: one-way check valves F16K15/00])

Definition statement

This subclass/group covers:

Means and methods not provided for in other classes, for influencing the flow of fluids relative to constraining surfaces and after leaving these surfaces, e.g. producing or removing turbulence, deflecting jets, guiding flow through bends in conduits, affecting distribution of fluid in a conduit, reducing fluid friction.

Informative references

Attention is drawn to the following places, which may be of interest for search:

Nozzles, spray heads	B05B
Devices to decrease friction or resistance or to increase speed of ships	B63B
Ship rudders	B63H 25/38
Influencing air-flow over aircraft surfaces	B64C 21/00
Influencing the flow or the viscosity of fluids with chemical additives	C09K 3/00 , C10M
Hydraulic engineering	E02B

F15D 1/00

Influencing flow of fluids

Definition statement

This subclass/group covers:

Means and methods not provided for in other classes, for influencing the flow of fluids, i.e. the flow of liquids or gases relative to constraining surfaces and after leaving these surfaces, e.g. producing or removing turbulence, deflecting jets, guiding flow through bends in conduits, affecting distribution of fluid in a conduit, reducing fluid friction.

F15D 1/001

[N: Flow of fluid from conduits such as pipes, sleeves, tubes, with equal distribution of fluid flow over the evacuation surface]

Definition statement

This subclass/group covers:

Means for equalising the velocity distribution across the cross section of a fluid conduit.

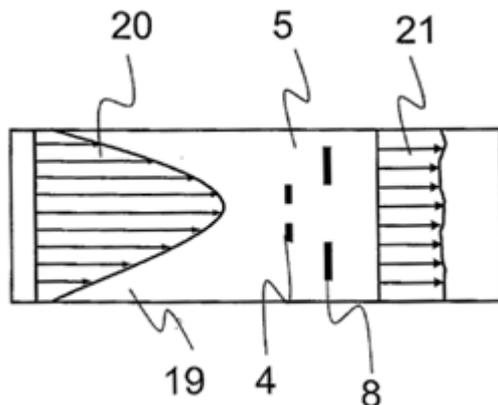


Fig. from WO2008071683

F15D 1/0015

[N: Whirl chambers]

Definition statement

This subclass/group covers:

E.g. vortex valves

F15D 1/12

by influencing the boundary layer [N: (use of materials, e.g. to reduce surface friction C09K3/00)]

Definition statement

This subclass/group covers:

Illustrative example of subject matter classified in this group.

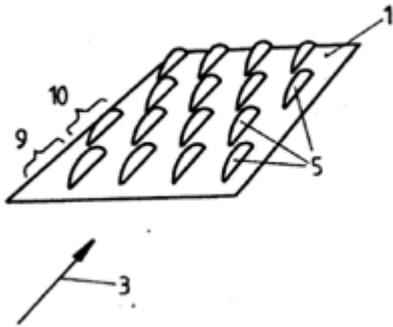


Fig. from DE3609541

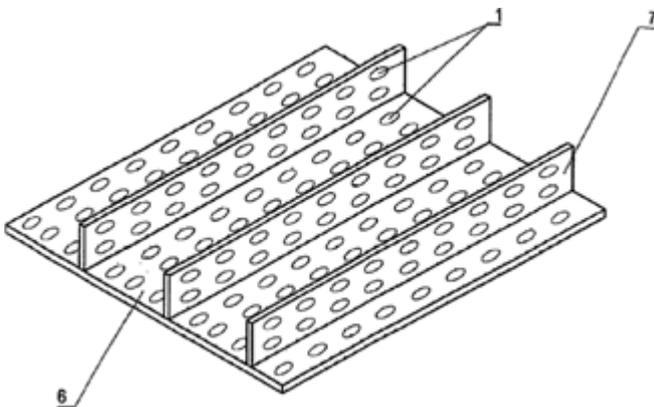


Fig. from EP2103818

Informative references

Attention is drawn to the following places, which may be of interest for search:

Golf balls having dimples	A63B 37/0004
Influencing air-flow over aircraft surfaces by affecting boundary-layer flow using e.g. riblets	B64C 21/10

Synonyms and Keywords

In patent documents the following words "riblet", "rille" (DE), "rippe" (DE) and "rainure" (FR) are often used as synonyms.

In patent documents the following words " boundary layer", "Grenzschicht" (DE) are often used as synonyms.

