

## Search History:

### Limited Classification Search

The Patent Analyst performed a limited classification search within the following US, IPC, CPC, ECLA, or F-Term classification areas:

U.S. Class/Subclass(es): 138/43; 210/137, 153, 634, 644, 749

IPC (8) Class/Subclass(es): B01F 5/02, 5/06, 5/10; F15D 1/04, 1/08, 1/10, 1/14 (2016.01)

CPC Class/Subclass(es): B01F 5/0268, 5/064, 5/0642, 5/0652, 5/0656, 5/0688, 5/0689; F15D 1/04, 1/08, 1/10, 1/14 (2016.02)

See Global Search Results.

### Global Patent Literature Text Search

The Patent Analyst performed the following global text search, which was not limited by classification but may or may not have been limited by other criteria:

Minesoft PatBase: <https://www.patbase.com>

#	Search query	Results
1	PA=(FLUID-QUIP)	0
2	INV=(SPRAGUE w1 Allison)	7
3	PA=(FLUID QUIP)	14
4	3 and conic*	6
5	FT=(((flow* or fluid*) w3 jet%) and (diffus* w5 (cone% or conic* or ellips* or curv*)))	373
6	5 and Froud*	0
7	5 and (ellip*)	51
8	5 and (ellip* w5 curv*)	8
9	(froude* w3 constant*)	28
10	9 and (cone% or conic*)	17
11	10 and curv*	11
12	11 and (jet% or nozzl* or diffus*)	11
13	9 and ((cone% or conic*) w5 curv*)	0
14	9 and ellip*	3
15	CPC=(B01F5/0268)	351
16	CPC=(B01F5/064)	198
17	CPC=(B01F5/0642)	35
18	CPC=(B01F5/0652)	129

19	CPC=(B01F5/0656)	176
20	CPC=(B01F5/0688)	372
21	CPC=(B01F5/0689)	152
22	or=15:21	1284
23	22 and (cone% or conic*)	388
24	23 and froude	2
25	22 and (diffus* w5 curv*)	2
26	22 and ((cone% or conic*) w5 diffus*)	21
27	26 and ((velocit* or speed* or rate%) w5 flow*)	17
28	27 and ellip*	1
29	27 and curv*	9
30	26 and ((velocit* or speed* or rate%) w5 constant*)	1
31	UC=(138/43)	509
32	UC=(210/137)	969
33	UC=(210/153)	361
34	UC=(210/634)	1233
35	UC=(210/644)	498
36	UC=(210/749)	1101
37	or=31:36	4520
38	37 and ((cone% or conic*) w5 diffus*)	8
39	38 and curv*	4
40	37 and froude*	2
41	PN=(US6510687)	1
42	PN=(US3160392)	1
43	RF=(diffuser)	7
44	43 and froude*	1
45	IC=(B01F5/02)	4287
46	IC=(B01F5/06)	7770
47	IC=(B01F5/10)	3257
48	IC=(F15D1/04)	965
49	IC=(F15D1/08)	1115

50	IC=(F15D1/10)	664
51	IC=(F15D1/14)	309
52	CPC=(F15D1/14)	71
53	CPC=(F15D1/10)	183
54	CPC=(F15D1/08)	172
55	CPC=(F15D1/04)	261
56	or=52:55	679
57	56 and ((cone% or conic*) w5 diffus*)	10
58	57 and curv*	6
59	56 and froude*	0
60	56 and ellip*	92
61	57 and 60	3

**Google Patents: <https://patents.google.com>**

#	Search query	Results
1	RADIAL FLOW PROCESSOR AND METHOD	132,000
2	RADIAL FLOW PROCESSOR conical diffuser	2,010
3	conical diffuser curvature maintaining constant Froude number	10
4	conical diffuser having curvature maintaining constant Froude number	9
5	conical diffuser constant Froude number	36
6	conical curvature constant Froude number	29
7	fluid-quip conical diffuser	65

**Computer Accessed Text Databases Searched**

The Patent Analyst searched the following computer accessed text databases:

**Google: <https://www.google.com/>**

#	Search query	Results
1	fluid-quip conical diffuser	89,600
2	conical curvature constant Froude number	118,000
3	conical diffuser constant Froude number	27,400
4	conical diffuser having curvature maintaining constant Froude number	13,100
5	RADIAL FLOW PROCESSOR conical diffuser	35,400
6	conical diffuser having elliptical curvature	64,400

**Google Scholar: <https://scholar.google.com/>**

<b>#</b>	<b>Search query</b>	<b>Results</b>
1	conical diffuser having elliptical curvature	813
2	conical diffuser constant Froude number	499
3	fluid quip conical diffuser	7
4	RADIAL FLOW PROCESSOR AND METHOD	58,000

Date search was completed: 19 April 2016

EA/CJ