

FORCED-DRAFT MACHINES

The forced-draft machines (FDMs) are designed for delivery and suction of air and other gases. The FDMs include centrifugal fans and smoke exhausters. The fields of the FDMs' use are shown in the Table below. The FDMs are electrically driven and stationary (foundation-mounted).

Type of FDM	Fluid moved
Mill fans (type BMH)	Corrosive non-explosive gases with temperature up to 100°C with concentration of fluorine compounds, spatter of phosphoric acid, etc up to 0.5 g/m ³
High-pressure fans (type BBΔH)	Air and other non-corrosive gases with temperature up to 200°C with concentration of solid particles up to 80 g/m ³
Hot-blast mill fans (type BM) and hot-blast fans (types BΓΔ and BΓΔH)	Air and other non-corrosive gases with temperature up to 400°C
Smoke exhausters (types Δ and ΔH)	Air or flue gases with temperature up to 250°C
Smoke exhausters (type ΔH-НЖ)	Corrosive flue gases with temperature up to 450°C containing sulfur dioxide (SO ₂) up to 11 percent

Type of FDM	Q, 1000m ³ /hr	Pv, kPa(mm H ₂ O)	N, kW
MILL FANS			
BMH-15	14-38-57	8.3-7.2-4.6(845-730-470)	50-112
BMH-17	23-58-84	10.7-9.0-5.9(1090-920-600)	105-211
BMH-15M	10-38-60	8.2-7.2-5.0(841-730-510)	38-139
BMH-17M	20-58-90	11.0-9.0-5.0(1120-920-510)	102-208
HIGH-PRESSURE FANS			
BBΔH-15	18-38-58	8.1-7.2-4.3(824-730-434)	62-105
BBΔH-17	24-58-90	9.9-9.0-4.8(1014-920-490)	110-200
HOT-BLAST MILL FANS			
BM-50/1000-11Y	16-36-53	2.3-2.4-2.0(230-242-204)	17-50
	24-54-80	5.1-5.3-4.5(518-545-460)	56-167
HOT BLAST FANS			
BΓΔH-15M	30-50-57	1.9-1.6-1.4(195-167-147)	21-28
	45-75-85	4.3-3.7-3.2(438-375-330)	72-94
BΓΔH-17M	40-73-80	2.5-2.1-2.0(250-213-202)	37-55
	60-110-120	5.5-4.7-4.5(560-480-455)	124-184
BΓΔ-40/380	13-27-39	1.6-1.7-1.4(167-170-138)	10-25
	20-40-59	3.7-3.8-3.0(375-382-310)	34-83
SUCTION SMOKE EXHAUSTERS			
Δ-3.5	4.3	0.5(52)	1.05
ΔH-6.3	3.4	0.4(40)	0.66
	5.1	0.9(90)	1.5
Δ-15/140	7-15-28	1.3-1.4-1.3(137-146-135)	4.6-17
	10-20-37	2.4-2.5-2.4(243-259-240)	11-40
Δ-60/310	21-36-53	1.1-1.2-1.1(109-117-113)	10-26
	26-45-66	1.7-1.8-1.7(170-183-176)	19-50
Δ-90/410	35-60-88	3.0-3.2-3.1(302-325-313)	46-119
	30-54-78	1.4-1.5-1.4(140-154-147)	18-50
ΔH-15Y	38-68-100	2.1-2.4-2.3(218-240-230)	35-97
	50-90-130	3.8-4.2-4.0(388-427-410)	84-231
ΔH-17Y	20-38-55	1.5-1.4-0.9(156-140-92)	12-19
	27-50-73	2.7-2.4-1.6(277-249-164)	28-46
ΔH-15Y	40-75-110	6.1-5.5-3.6(624-560-368)	96-155
	30-55-78	1.9-1.7-1.2(197-176-120)	22-35
ΔH-17Y	40-73-104	3.4-3.1-2.1(350-313-213)	53-84
	60-110-156	7.7-6.9-4.7(788-704-480)	179-283
DELIVERY SMOKE EXHAUSTERS			
Δ-3.5	4.3	0.8(82)	1.64
ΔH-6.3	3.4	0.6(62)	1.03
	5.1	1.4(140)	2.34
Δ-15/140	7-15-28	2.1-2.2-2.1(214-228-211)	7-27
	10-20-37	3.7-4.0-3.7(380-405-375)	17-63
Δ-60/310	21-36-53	1.7-1.8-1.7(170-183-176)	15-40
	26-45-66	2.6-2.8-2.7(265-286-275)	30-78
Δ-90/410	35-60-88	4.6-5.0-4.8(471-508-489)	71-186
	30-54-78	2.1-2.4-2.3(218-240-230)	28-78
ΔH-15Y	38-68-100	3.3-3.7-3.5(340-375-360)	55-152
	50-90-130	5.9-6.5-6.3(606-666-640)	131-360
ΔH-17Y	20-38-55	2.4-2.1-1.4(243-218-144)	19-30
	27-50-73	4.2-3.8-2.5(432-389-256)	44-72
ΔH-15Y	40-75-110	9.6-8.6-5.6(974-874-574)	150-242
	30-55-78	3.0-2.7-1.8(307-275-187)	35-55
ΔH-17Y	40-73-104	5.4-4.8-3.3(546-488-332)	83-131
	60-110-156	12.1-10.8-7.3(1230-1099-749)	280-442
CORROSIVE FLUID SMOKE EXHAUSTERS			
ΔH-15HЖY	27-52-73	1.9-1.7-1.1(193-170-114)	20-32
	40-78-110	4.3-3.7-2.5(434-382-256)	66-107
ΔH-17HЖY	40-74-100	2.5-2.2-1.6(250-222-168)	38-60
	60-111-150	5.5-4.9-3.7(563-500-378)	128-203

Average values of Q and Pv of all FDMs represent standard mode of operation

LEGEND: · Q - capacity under initial conditions
· Pv - full pressure (pressure rise)
· N - power consumption