

Operating Manual for RIFOair Automatic Vent Valve

Type: EF-8180 EF-8080-N / 8180-N EF-8281 EF-8012/8112 EF-8012-N / 8112-N EF-8018/8118 EF-8018-N/8118-N	PN 16/25 PN 16/25 PN 40 PN 16/25 PN 16/25 PN 16/25 PN 16/25	DN 15-50 DN 15-50 DN 15-50 DN 50/65 DN 50/65 DN 80/100 DN 80/100	Housing: EN-JS 1049 (GGG-40.3) Housing: SS 1.4581 / 1.4552 Housing: C-Steel (P265GH/HII) Housing: C-Steel (P265GH/HII) Housing: SS 1.4571 / 1.4541 Housing: C-Steel(P265GH/HII) Housing: SS 1.4571 / 1.4541
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1.0 Safety Instructions

1.1 Normal Usage:

Any mishandle, interference into the construction and any deviation from the design and design data lead automatically to the expiry of the guarantee. The exhaust machine is intended at points of plant high filled with liquid to derive from air and gas . A deviating use is inadmissible. The manufacturer is not responsible for any damage resulting from it . The risk is borne by the user or operator. This is also valid incase of wrong assembly, usage and maintenance.

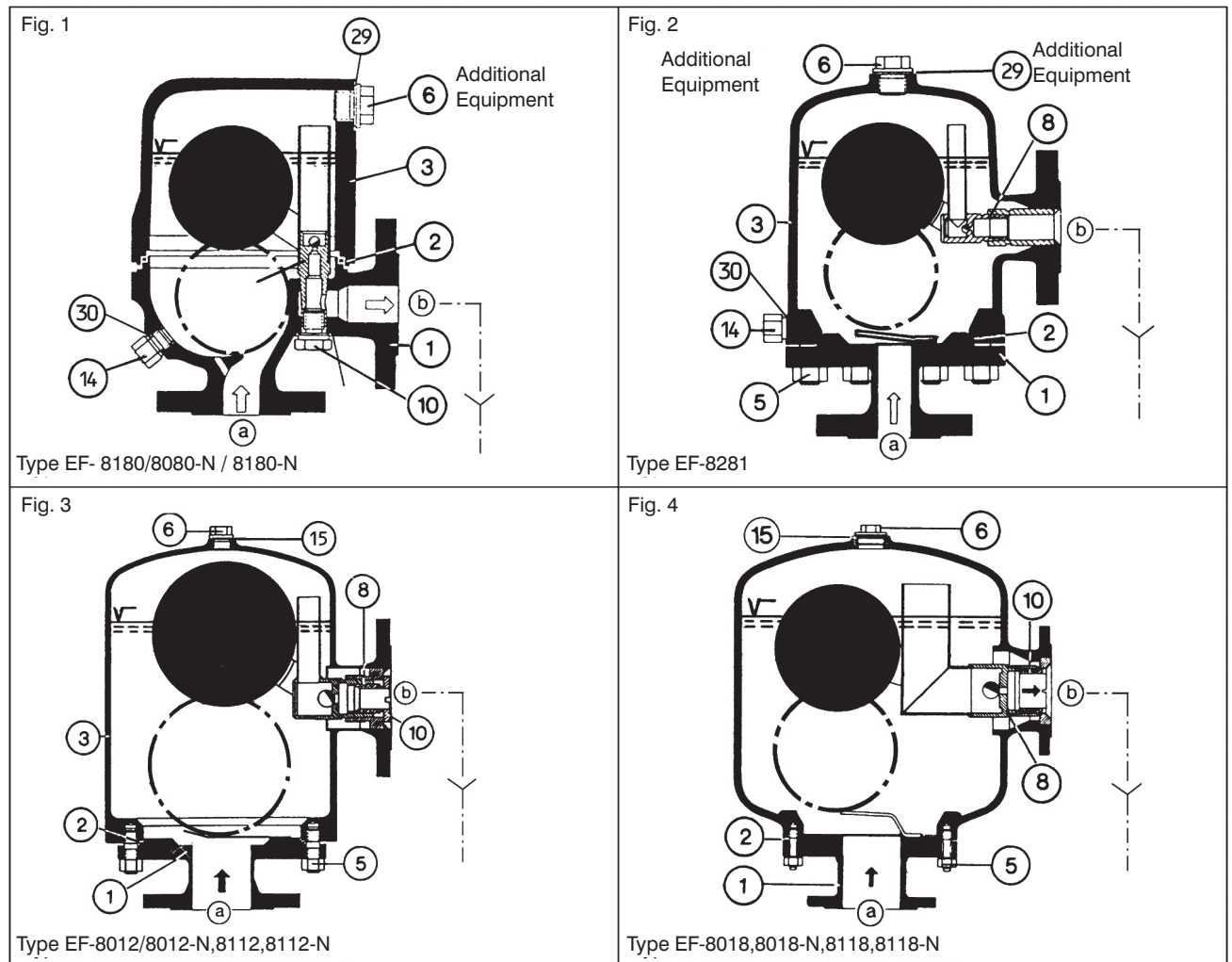
1.2 Warning Instructions and Symbols



- Endangerment to person by withdrawing operating medium with pressure, temperature and weight
- Negligence can lead to accidents
- Read carefully the instructions in this manual
- The operator must keep the manual and other applicable guide books handy, while operating the system
- To be used by qualified personnel
- Each safety risk function is to be omitted

2.0 General Description and Usage

2.1 Assembly of the Exhaust Fan



Position 1 Bottom part of body
 Position 2 Housing gasket
 Position 3 Upper part of body
 Position 5 Housing screws

Position 6 Plug
 Position 7 Complete float control
 Position 10 Carrying screw/ socket drawer
 Position 14 Plug

2.2 Label and Limitations of Use on the specification plate or body

2.3 Functional range of the float control(PMO in bar g)

Cross-section	Cold water	High temperature water	Cross-section	Cold water	High temperature water
Id	25	20	VIIIa	5	4
IIId	23	18	VIIIb	4,5	4
IIa	40	32	20/190	12	12
III	16	13	20/340	9	8
IV	14	11	25/200	25	21
V	2,8	2,5	25/400	23	18
VI	25	16	30/550	5	5
VIa	25	20	50/1100	5	5
VII	23	16			
SQ / SK	Special design after procedure data				

2.4 Function / Installation / Location

- The exhaust fan is over headed (Picture 1-4 installed over a short riser on high plant point (container/piping).A stop valve (preferably a ball valve) to be inserted into the riser to the exhaust fan
- Air and gases in the lower float position escape over the immersion nozzle on top of the open valve cross section outlet.With liquid,the float gauge is raised, the controller closes.
- As it is a mechanical valve end, even a small drop of leakage is unavoidable. If necessary and depending upon exposure through the operating medium a catch line is provided at the outlet



3.0 Installation

- **Support:** When you type 8018 / 8118, DN 80/100, the weight of the ventilator/exhaust (115 kg) is taken over by a holder and a support, for example ,those involving the body of welded claws. By typing 8012/8112, the support can be avoided, if the riser is mounted sufficiently before the ventilator(Weight approx 45).
- **Installation:** In accordance with Figures 1 to 4 on a vertical riser on the system high point.
- Remove plastic cover from the inlet (a) and outlet (b)



4.0 Start-up

The pressure build-up and warming up of the case should not be done abruptly. If after the initial Start up, the leakages occur , the screws positioned 4/5/6 to be tightened if necessary, taking into account the torques mentioned. The tightening may only be done pressure free and followed till lukewarm body.



5.0 Maintenance/Inspection

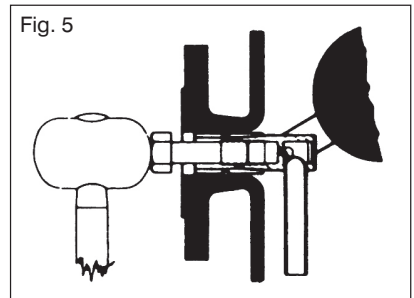
5.1 Opening of the Ventilator and expansion of the float control

- The air vent must be depressurized. Accompanied, where appropriate, downstream of the trap safely shut off.
- The residual pressure in the body by releasing item (14) or (6) Drain to only a quarter turn.
- from size DN 40/50, a lifting device fastened to the flange pipes and gently lifted out of the pipeline.
- Body screws (5) unscrew on the cross. Detach bodyparts (1)



5.2 Expansion of the float control in model EF-8080/8180 (Figure1)

- Loosen and unscre the mounting screw(10) by 1-2 turns.
- With a plastic hammer,strike mainly on the face of the mounting screw(10)
- This solves the float control of the seat cone.
- Unscrew the screw with the joint ring(20) and remove completely.

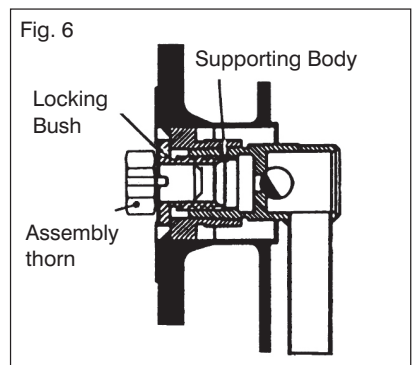


5.3 Removing the Float control in model EF-8281 (Figure2)

The assembly thorn which can be supplied by us is screwed into 3 courses in the thread of the supporting body (Figure4). The float control of the conical seat driven with slight to moderate blown Hammer to the head of the pin.Float this.Lift.Then turn out the assembly pin and see the float control through lid opening.

5.4 Expansion of the Float control in Model EF-8012/8112 (Figure3)

Insertion of the main assembly to be supplied in the 2 slots in the support sleeve(Fig. 6) Loosen the support sleeve by anti clockwise turning left(3-4 courses).The float control of the conical seat driven with slight to moderate Hammer blown to the head of the pin.Float this.Then remove the support sleeve completely and remove the float control through lid opening.



5.5 Removing the float control in Model EF-8018/8118 (Fig 4. And 7.)

Succeeded with a mounting steel sheet or with an assembly.Utility which is plugged into the jack provided with two holding millings (10.)Through turning to the left (3-4 courses) the lockingbush is loosened in the supporting body.After some slight to moderate blow on the hammer to the assembly Utility(picture) triggers the float control of the conical seat while lifting as possible. Then remove the support sleeve completely and remove the float control through lid opening.

5.6 Disassembling and cleaning the Float control (Fig.8 and 9)

1. After removing the split pin,(i) the rotary valve is pulled (j)simply by the page through the round hole in the float.
2. Clean the parts in benzine cleaning solvent.
3. Examine the rotary valve (j)on wear of the sealing edge. If required, support body (8) must be replaced with a rotary valve (j). An accurate leak test must be performed at RIFOX
4. When assembling,make sure the notch in the rotary valve (j)at the centre mark in the supporting body(8)and showing the Splint(i)is being carefully used and spread.
5. Check the upper rotary valve (j)is low-friction , i.e the float must manually move upwards and downwards easily.

5.7 Installation of the control

a) in Model EF-8080/8180 (Figure1.)

The control is implemented in the conical valve seat with the support body. It should be ensured the float lies in middle of the housing body (1.). The carrying screw (10)with sealing ring (20.)is screwed and tightened in the thread of the supporting body with a moderate key. Tighten torques,see page 4.

b) in Model EF-8281(Fig.2)

The control is introduced with the support body(8)in the conical valve. It should be ensured the float lies in middle of the housing body (1.). The assembly thorn supplied into the tapped hole of the control(8)is screwed and tightened excessively. This is firmly in control in the conical body seat. Loosen and unscrew the assembly steel sheet.

c) in Model EF-8012/8112 (Figure.3)

The control is introduced with the support body(8)in the conical valve. It should be ensured the float lies in middle of the housing body(1.). Screw the support sleeve(10)in the control support body and tighten with the assembly pin. Remove the assembly steel sheet.

d) for Model EF-8018/8118 (Fig.4)

The control is introduced with the support body(8)in the conical valve. It should be ensured the float lies in middle of the housing body (1.). Screw the support sleeve(10)in the control support body (8)and tighten with the Auxiliary tool described in Section 5.5

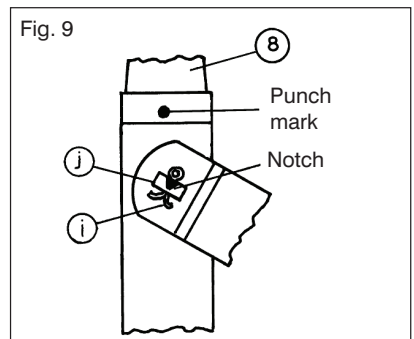
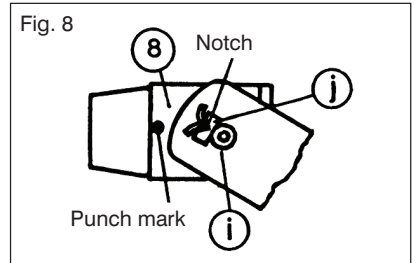
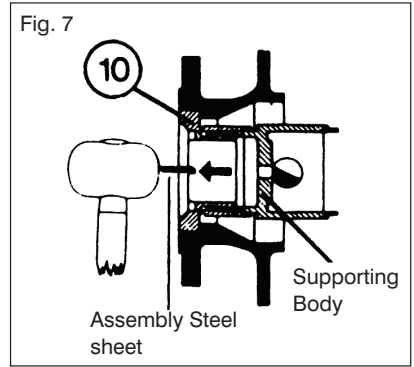
5.8 Assembly

Check housing gasket (2),replace if necessary. Housing body(1) and/or (3)as shown in Fig 1-4. Tighten the body screws (5) crosswise evenly. Torque,see page 4

5.9 Care and Maintenance,Spare parts

- With the high risk of pollution,the body should be from time to time flushed and where appropriate the float control is examined as in paragraph5.6
- In certain cases,installing a separate strainer makes sense.
- The float control usually requires no special care. Maintenance is determined primarily by the abrasion resistance of the valve conclusion.

Spareparts. Only original spare parts used. See table



Type 8180				Type 8080-N / 8180-N			
Pos.	Identification	Dimension	Material	Pos.	Identification	Dimension	Material
2	Housing gasket	1) 138 x 132 2) 195 x 188	a) Cu b) WE Profiled	2	Housing gasket	1) 138 x 132 2) 195 x 188 3) 197 x 188	PTFE or SS Profiled, graph.
5	Screws/nuts	1) M 14 2) M 16	a) 8.8 b) A4-70	5	Screws/nuts	1) M 14 2) M 16	A4-70
7	Complete Control Unit	Size see Pos 10	a) Standard b) 1.4571	7	Complete Control Unit	Size see Pos 10	1.4571
8	Supportbody/rotary valve	See above	a) Standard b) 1.4571	8	Support body/rotary valve	See above	1.4571
9	Float/Fork	See above	a) 1.4301 b) 1.4571	9	Float/Fork	See above	1.4571
10	Suspension bolt	1) G ¼ 2) M 18 x 1,5	a) 1.4104 b) 1.4571	10	Suspension bolt	1) G ¼ 2) M 18 x 1,5	1.4571
20	Gasket	1) Da = 24 2) Da = 28	a) Cu b) WE	20	Gasket	1) Da = 24 2) Da = 28	PTFE or SS Profiled, graph.
30	Gasket	For G ¼	a) Cu b) WE	30	Gasket	For G ¼	See above

Type 8281							
Pos.	Identification	Dimension	Material	Pos.	Identification	Dimension	Material
2	Housing gasket	1) 118 x 112 2) 176 x 168	a) Cu b) WE cross section	5	Screws/nuts	1) M 14 2) M 16	a) 8.8 b) A4-70
7	Complete Control Unit	Size see label or Bodycover	Niro standard	8	Supportbody/Rotary valve	Size see Pos.7	a) 8.8
9	Float/Fork	See above	See above	29	Gasket	For G ½	a) Cu b) WE

Type 8012/8112				Type 8012-N/8112-N			
Pos.	Identification	Dimension	Material	Pos.	Identification	Dimension	Material
2	Housing gasket	195x188	WE Cross section	2	Housing gasket	195x188	PTFE or SS Profiled, graph.
5	Screws/nuts	M16	A4-70	5	Screws/nuts	M16	A4-70
7	Complete Control Unit	Size see label	Niro standard	7	Complete Regulator	Size see label	1.4571
8	Supportbody/ Rotary valve	See above	See above	8	Supportbody/ Rotary valve	See above	See above
9	Float/Fork	See above	1.4301	9	Float/Fork	See above	See above
10	Gasket	For G½	WE	10	Gasket	For G½	PTFE or SS Profiled, graph.

Type 8018/8118				Type 8018-N/8118-N			
Pos.	Identification	Dimension	Material	Pos.	Identification	Dimension	Material
2	Housing gasket	240x230	WE Cross section	2	Housing gasket	240x230	PTFE or SS Profiled, graph.
5	Screw/nuts	M16,DIN 2510	21CrMoV57	5	Screw/nuts	M16	A4-70
7	Complete Control Unit	Size see label	Niro-standard	7	Complete Control Unit	Size see label	1.4571
8	Support body/ Rotary valve	See above	See above	8	Support body/ Rotary valve	See above	See above
9	Float/Fork	See above	See above	9	Float/Fork	See above	See above
10	Socket	M68X1.5	1.4571	10	Socket	M68X1.5	1.4571
15	Gasket	For G3/4	Niro-cross section graph	15	Gasket	For G3/4	SS Profiled, Graph.

5.10 Screw tightening torque (at room temperature, coat thread with temperature - resistant lubricant)

Type	Material pos.2	Screw pos.5	Torque Pos.5	Exhaust pipe gasket pos.20	Torque Pos.10
8180, DN 15-25	Cu e WE	8.8, M 14	90 Nm	Cu or WE	60 Nm
8180, DN 40-50	1) CU 2) WE	A4-70, M 16	1) 100 Nm 2) 80 Nm	Cu or WE	100 Nm
8080-N/8180-N, DN 15-25	1) PTFE 2) SS Profiled	A4-70, M 14	1) 25 Nm 2) 60 Nm	1) PTFE 2) SS Profiled	1) 12 Nm 2) 20 Nm
8080-N/8180-N, DN 40/50	1) PTFE 2) SS Profiled	A4-70, M 16	1) 25 Nm 2) 70 Nm	1) PTFE 2) SS Profiled	1) 15-25 Nm 2) 40 Nm
8181, DN 15-25	1) Cu 2) WE	8.8 + A4-70, M 14	50 Nm	-	-
8281, DN 40-50	1) Cu 2) WE	A4-70	1) 80 Nm 2) 70 Nm	-	-
8012/8112/8012-N/8112-N	1) WE Profiled 2) SS Profiled 3) PTFE	A4-70, M 16	1) 60 Nm 2) 60 Nm 3) 20 Nm	-	-
8018/8118/ 8018-N/8118-N	1) WE Profiled 2) SS Profiled	1) 21CrMoV57 2) A4-70	1) 70 Nm 2) 70 Nm	-	-

6.10 Declaration of conformity C E

We declare conformity with Directive 97/23/EC of 29.05.1997 for the following printing unit

Venting Machine- Float type:

- 8180/8180-N DN 15-25: Category 1, Fluidgr. 1, type. 3, para 1, no CE-mark
- 8180/8180-N DN 40/50: Category 2, Fluidgr. 1, Module H
- 8281 DN 15-25: Category 2, Fluidgr. 1, type. 3, para 1, no CE-mark
- 8281 DN 40/50: Category 2, Fluidgr. 1, Module H
- 8012/8012-N DN 50/65: Category 3, Fluidgr. 1, Module H
- 8112/8112-N DN 50/65: Category 4, Fluidgr. 1, Module H
- 8018/8018-N DN 80/100: Category 3, Fluidgr. 1, Module H
- 8118/8118-N DN 80/100: Category 4, Fluidgr. 1, Module H

In the described printing device, it acts as a pressure accessory part according to Article 1,2.1.4

Applied conformity assessment procedures according to Annexure III


Notified body: Lloyd's Register Quality Assurance Pvt Ltd

Mönkebergstr. 27, D-20095 Hamburg, identification number 0525

This declaration is not valid in case of a change of equipment not co-ordinated with us.

RIFOX-Hans Richter Pvt Ltd
Special armatures


Management


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