

# VALVES

## ENVIRONMENTAL PRODUCT DECLARATION

COMPANY INFORMATION: REC Indovent AB

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Quality certified ISO 9001:2015  
Environmental certified ISO 14001:2015

**Following data concerns CKK, with size 125. The other valves are similar, and the following information can be assumed to be valid for all valves.**

### 1. PRODUCT DESCRIPTION

The Environmental Product Declaration concerns following products:  
Supply-air valves: CKT, CKE, CNE  
Exhaust valves: CKS, CKK, CNK  
Natural ventilation valves: CRT, CRP  
Fire damper valve: CKP  
CKP has Type approval certificate no 1459/93.

For recommended range of application we refer to the product catalogue.

### 2. DECLARATION OF CONTENTS

The valves are made of sheet steel and is stove enamelled in epoxy. The valves are equipped with a gasket to form an airtight seal with the mounting ring. CNE, CKE, CNK and CKK have a gasket made of foam rubber (polyurethana, superloan E25). The other valves have a gasket made of cellular plastic (LD-polyethylene, termolon). CKP has a fuse made of brass plates soldered with tin. The fuse also contains a spring of stainless steel and a pin made of hardened steel.

The products' does not contain substances that are included in the Priority guide PRIO from Swedish National Chemical Inspectorate.

### 3. INPUT MATERIALS

Material:	weight-%	weight(kg)
Sheet steel	97,0	0,225
Polyurethane (or LDPE)	1,5	0,003
Paint	1,5	0,003

(The paint contains of 60% polyester and 40% epoxy)  
**Additives:** Glue (Emuterm)

At production of input materials, recycled materials are used to a varying extent; 15-35 %.

### Energy consumption during material production:

Material:	MJ/valve:
Sheet steel	0,80
Paint	0,17
Polyurethane	0,13
Total:	1,10

### Emissions to water during material production (expressed as g/valve):

Chloride (Cl <sup>-</sup> )	1,44
Sodium (Na <sup>+</sup> )	0,64
Nitrate (NO <sub>3</sub> <sup>-</sup> )	0,13
Suspended material	0,11
COD	0,077

### Emissions to air during material production (expressed as g/valve):

Carbon dioxide (CO <sub>2</sub> )	122,99
Nitrogen oxides (NO <sub>x</sub> )	0,31
Sulphur oxides (SO <sub>x</sub> )	0,13
Methane (CH <sub>4</sub> )	0,096
Carbon monoxide (CO)	0,012

### 4. PRODUCTION

#### Energy consumption during production phase:

Approximately 4,4 MJ/valve

**Emissions to water:** N/A

**Emissions to air:** Dry gas 0,37 kg/h  
(This is for the production plant's total production)

#### Production waste (rest products):

Powder waste 3,5 g/valve  
Damper waste 32,8 g/valve  
The powder is specially taken care of and all damper waste is recycled.

### 5. DISTRIBUTION OF FINAL PRODUCT

**Packing material:** Cardboard boxes, paper, polyethylene bag, polypropylene tape. The packing material can be recycled and then re-used, producing either new material or energy.

### Transportation:

Average emissions from transportation by truck for 100 km (26 tonnes), expressed with characterization factors for a functional unit, weight 1,35 kg:

<b>GWP</b>	0,00024 kg CO <sub>2</sub> -equivalents
<b>AP</b>	0,00007 kg SO <sub>2</sub> - equivalents
<b>POCP</b>	0 g ethene-equivalents
<b>EP</b>	0,00002 kg PO <sub>4</sub> <sup>3-</sup> -equivalents

The majority of REC Indovent ABs transportations are carried out by truck.

### 6. USING PHASE

The product is emission free during use.

### 7. DISPOSED PRODUCT

The disposed product does not contain environmentally hazardous waste. Materials that are parts of the disposed product should be separated in order to enable re-use alternatively recycling.

### 8. ENVIRONMENTAL IMPACT

#### Environmental impact that the largest emissions are associated with:

Chloride + Sodium	No environmental effect
Nitrate	Nitrification, acidification
COD	Consumption of oxygen in seas and lakes
Carbon dioxide	Greenhouse effect
Sulphur oxides	Acidification
Nitrogen oxides	Groundlevel ozone, acidification, nitrification

### 9. OTHER INFORMATION

Characterization factors according to SS-EN15804. Calculated according to the standard SS-EN 15978. TYPE II - ISO 14025

Characterization factors for production phase:	<b>GWP</b> (Global Warming Potential )	0,13 kg CO <sub>2</sub> - equivalents
	<b>AP</b> (Acidification Potential)	0,29 g SO <sub>2</sub> - equivalents
	<b>POCP</b> (Photochemical Ozone Creation Potential)	0,00086 g ethene-e equivalents
	<b>EP</b> (Eutrophication potential)	0,60 g PO <sub>4</sub> <sup>3-</sup> - equivalents