

# ***TYPHOON***



***New Ventilation Systems from RENZ ...***

## RENZ GmbH Feuerwehrservice – your production, sales and service partner

We, your production, sales and service partner would like to introduce ourselves as an competent partner for fire fighting equipment, as well for rescue services.

### *Here is a breaf overview of our service portfolio:*

- Proficient pump repair from almost all manufacturers – with subsequent tests on our own pump test bench
- Service and installation of HALE FOAM systems
- Converting of pumps and pipe-work /Customize of fire vehicles as per individual customer made design
- Production of hydraulic-hoses for 300/350 bar systems (Hurst, Zumro, Resqtec)
- Conversion of rescue equipment (HURST, ZUMRO / RESQTEC)
- Sale entire product portfolio from Hale, Godiva, Class 1
- Weldings in steel/ stainless steel, aluminium and cast iron
- Own production of stainless steel water and foam tanks (as per customer request)
- Refurbishing of primers and Metz/GFT and HALE fire pumps



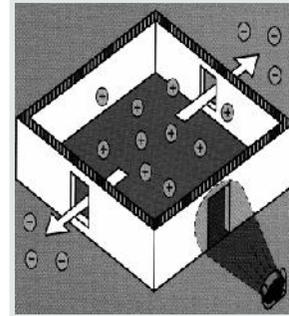
In April 2012, Renz GmbH took over the production and further development of the well known TYPHOON ventilation systems of HALE/GODIVA. These products are exclusively manufactured in Germany and distributed worldwide.



*In case of fire, transportable ppv fans enable an effective ventilation, in order to get rooms or buildings free of smoke, heat or flames improving opportunities and better conditions for fire fighting action forces.*

Currently we offer different ventilation variants with water turbine, but also petrol PPV and electric driven, each optimised for the particular intended operation purpose.

## Main prinziple and function of Positive Pressure Power

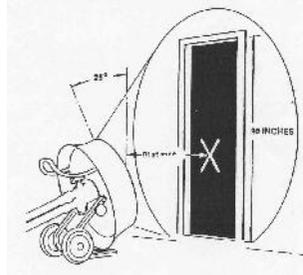


The development of heat smoke and toxic gas is an essential element factor in fire fighting hindering fire attack on the place of action. In particular the majority of the damages can be attributed to that fact.

With manual ventilation – e.g. through opening the windows and doors, you can get a natural outlet of fire gas. However, with the use of portable ventilation system an significantly enhanced ventilation can be achieved saving time for firefighters, you are able to reach better condition in case you will use a Portable ventilation system for pressure aeration.

For this purpose we offer you ventilation systems from our own production (Typhoon), which despite of their low weight have a very high efficiency.

In order to ventilate rooms in buildings, those fans must be located outside of the rooms, so that the room opening will be covered completely by the conical air-stream . The distance between inlet opening and blowing must be adjusted. This method brings fresh air in the room and effect an overpressure (similar to an hotair balloon). The air pressure is equal same everywhere in the room. As soon as window is opened the gases from all parts of the room will be blown outside(similar to piercing of a filled ballon).



*In a typical PPV application the fan is placed about 1.2m to 2.4m away from the external doorway (typically 0.9m wide by 2.0m high) of a burning structure. Immediately air pressure builds inside the structure.*

*A ventilation opening, rear door or window, allows the static air inside to escape, and the smoke and gases generated by the fire are replaced by cooler, fresher air.*

### **The advantages of the overpressure ventilation are therefore as follows:**

- Operating personal does not have to enter dangerous rooms in order to install the devices .
- Gateways, windows and ways are not blocked by the fans.
- The fans can be installed outside quicker and more efficient.
- Fans, which are positioned outside, causes fewer noise and do not impedes communication.



**It is of great importance, that all application forces have understood the principle.**

Modell	Art.-No	Description	Air volume (AMCA210)	Dimensions (h x w x d)mm	Weight kg
<b>WATER DRIVEN</b>	 <b>21W10</b> 	016-00084/02 21 inch Water turbine driven ppv fan, 10hp ATEX approval certification EXII 2GD cIIc T6(80°C), Misting nozzle, Range of inlet / outlet connections available	23.789m <sup>3</sup> /h	640 x 625 x 440	16kg
	 <b>30W22</b> 	016-00095/03 30 inch Water turbine driven ppv fan, 22hp ATEX approval certification EXII 2GD cIIc T6(80°C), Misting nozzle, Range of inlet / outlet connections available	50.976m <sup>3</sup> /h	910 x 890 x 550	39kg
	 <b>30W22</b> 	016-00095/02 30 inch Water turbine driven ppv fan, 22hp ATEX approval certification EXII 2GD cIIc T6(80°C), Misting nozzle, Range of inlet / outlet connections available	50.976m <sup>3</sup> /h	910 x 890 x 550	40kg
<b>ELECTRO MOTOR</b>	 <b>18E</b>	736-1800-22-0 18 inch Fan, PPV Power Blower with Electric Motor, 380V, 50Hz, 2,2kW, polyamide blades mounted directly on the drive shaft.	14.644m <sup>3</sup> /h	570 x 550 x 440	26kg
	 <b>21E</b>	736-2100-22-0 18 inch Fan, PPV Power Blower with Electric Motor, 380V, 50Hz, 2,2kW, polyamide blades mounted directly on the drive shaft.	19.811m <sup>3</sup> /h	640 x 625 x 440	27kg
	 <b>24E3,0-FU</b>	736-2400-30-FU 24 inch Fan, PPV Power Blower with Electric Motor, 220V, 50Hz, 3,0kW Fan Belt Ventilation + Variable Speed ( <b>Frequency converter</b> )	20.269m <sup>3</sup> /h	790 x 705 x 530	51kg
	 <b>27E3,0-FU</b>	736-2700-22-FU 27 inch Fan, PPV Power Blower with Electric Motor, 220V, 50Hz, 3,0kW Fan Belt Ventilation + Variable Speed ( <b>Frequency converter</b> )	21.458m <sup>3</sup> /h	830 x 790 x 530	59kg
	 <b>21EE2,2</b>	736-2100-FU_EEx 21 inch PPV Fan, EEx Electric - Motor, 380V, 50Hz, 2,2kW, <b>ATEX components</b> <b>+ Variable Speed (Frequency converter)</b>	13.490m <sup>3</sup> /h  257 x 188 x 187	640 x 625 x 440  4,1kg	
<b>GASOLINE</b>	 <b>18H5</b>	545-3590-10-0 18 inch, Honda 5,5 hp, Air cooled, 4-stroke, recoil start, petrol driven	10.803m <sup>3</sup> /h	630 x 560 x 530	41kg
	<b>21H5</b>	545-3600-10-0 21 inch, Honda 5,5 hp, Air cooled, 4-stroke, recoil start, petrol driven	14.511m <sup>3</sup> /h	670 x 625 x 530	44kg
	<b>24H6,5</b>	545-3610-20-0 24 inch, Honda 6,5 hp, Air cooled, 4-stroke, recoil start, petrol driven	18.246m <sup>3</sup> /h	810 x 705 x 530	47kg
	<b>24H9</b>	545-3650-20-0 24 inch, Honda 9,0 hp, Air cooled, 4-stroke, recoil start, petrol driven	24.447m <sup>3</sup> /h	810 x 705 x 560	59kg
	<b>27H9</b>	545-3620-00-0 27 inch, Honda 9,0 hp, Air cooled, 4-stroke, recoil start, petrol driven	26.857m <sup>3</sup> /h	850 x 790 x 560	60kg

All performance data are actual volume flow rates by the device, with consideration of lateral entrained air beside the main airflow a three-fold output arises approx. (AMCA 240)

We therefore reserve the right to amend specifications without notice or obligation.

## Water Turbine Driven Fan

### Water Turbine driven ppv fans: 21W10 and 30W22



- Angle adjustment: up to 45°
- Ventilation and exhaust of pits, shafts, tunnels ...

The Typhoon water turbine series is in use throughout the world. Highly effective on the fireground and dependable in operation, the Typhoon is a lightweight and cost-effective piece of high quality equipment that can save vital seconds, for rescue services to enable even faster rescue, where speed of rescue is crucial to improve the chances of survival.

The Typhoon Water Turbine range offers a safe solution where flammable gases or liquids are present.

The secret of our Typhoon is the driving force of Water turbines. The equipment is maintenance-free, because there is no use of another motor. You only have to connect it with any pump unit or connect it with a hydrant.

The new Typhoon is also setting new standards in safety and security. It is operated without electrical power or petrol: no electric spark, no carbon monoxide.

The Typhoon is with his less than 14 kgs or respectively 34 kgs a portable and compact lightweight construction. With up to 850 m<sup>3</sup> per minute, he brings more power than every other ventilation system, smoke and toxic gases are displaced faster than with every other equipment.

*If required, you can use the spray mist for suppression of toxic gases or steam*

*The object of a PPV fan is to provide effective ventilation that will remove heat, smoke and toxic gases away from fire fighting personnel during operations.*



#### Key features:

- Lightweight aluminium frame
- Strong thermoplastic shroud
- Antistatic characteristics - ATEX approval certification EXII 2GD cIIC T6(80°C)
- Misting nozzle(s)
- Drain valve
- Range of inlet/outlet connections available - ISO 2.5inch BSP, NST 2.5inch Instantaneous type, Storz type



#### Specification

	21W10	30W22
<b>Air volume (AMCA210)</b>	23.789m <sup>3</sup> /h	50.976m <sup>3</sup> /h
<b>Diameter, fan</b>	21 inch (533mm)	30 inch (762mm)
<b>Fanblades</b>	8 x anti-static, glass reinforced, polyimide blades	12 x anti-static, glass reinforced, polyimide blades
<b>Drive</b>	10 PS Wasserturbine	22 PS Wasserturbine
<b>Dimensions (h x w x d)</b>	640mm x 625mm x 440mm	910mm x 890mm x 550mm
<b>Weight</b>	16kg	40kg
<b>Additional model features</b>	One man handling Misting feature with on/off control	Grab handle and wheels for manoeuvrability Misting feature with on/off control

#### Options

- Comprehensive tilt control for Typhoon 30W22
- Spiral ducts
- Hard wearing vinyl cover





## Gasoline driven ppv fans / V-Belt driven

### Key features:

- Electro polished stainless steel frame
- Retractable handle and pneumatic tyres for easy manoeuvrability
- Strong thermoplastic shroud
- Single suspended fiberglass-reinforced fan-blades
- Angle adjustment:  $-10 \sim +20^\circ$
- Connection for exhaust hose

### Specification

	18H5	21H5	24H6.5	24H9	27H9
<b>Air volume (AMCA210)</b>	10.803m <sup>3</sup> /h	14.511m <sup>3</sup> /h	18.246m <sup>3</sup> /h	24.477m <sup>3</sup> /h	26.857m <sup>3</sup> /h
<b>Diameter, fan</b>	18 inch (457mm)	21 inch (533mm)	24 inch (610mm)	24 inch (610mm)	27 inch (686mm)
<b>Fan blades</b>	anti-static, glass reinforced, polyamide blades				
<b>Motor</b>	Honda 5.5hp, Air cooled, 4-stroke, recoil start	Honda 5.5hp, Air cooled, 4-stroke, recoil start	Honda 6.5hp, Air cooled, 4-stroke, recoil start	Honda 9hp, Air cooled, 4-stroke, recoil start	Honda 9hp, Air cooled, 4-stroke, recoil start
<b>Dimernsions (h x w x d)mm</b>	630 x 560 x 530	670 x 625 x 530	810 x 705 x 530	810 x 705 x 560	850 x 705 x 530
<b>Weight</b>	41kg	44kg	47kg	59kg	60kg



Angle adjustment:  $-10 \sim +20^\circ$

### Options for Gasoline driven TYPHOON

- **Exhaust hose (1,5 to 3,0 Meter)**



*Adaptor piece + exhaust hose (1,5 Meter)*

- **Spray mist pipes:** For the subsequent mounting on petrol and electric driven devices.



*The spray pipes are mounted with just a few swift moves even on already delivered fans.*

*The spray mist pipes are delivered with C-Storz couplings*

- *Spiral ducts*
- *Hard-wearing vinyl cover*



## The PPV Power Blower with Electric Motor / Direct driven



### Key features:

- Lightweight aluminium frame
- Strong thermoplastic shroud
- Individually suspended glass-fibre reinforced propeller blades
- Angle adjustment: up to 45 °
- Connecting cable 5 meters with plug

### Specification

	18E2,2	21E2,2
<b>Air Volume (AMCA210)</b>	14.644m <sup>3</sup> /h	19.811m <sup>3</sup> /h
<b>Fan Diameter</b>	18 inch (457mm)	21 inch (533mm)
<b>Motor</b>	E-Motor, 380V, 50Hz, 2,2kW, Degree of Protection IP 55, air cooled	
<b>Dimension (w x h x d)</b>	570 x 550 x 440mm	625 x 625 x 440mm
<b>Weight ca.</b>	26kg	27kg

### Options

- 230V, 50Hz, 3,0 kW
- Hard-wearing vinyl cover
- Spiral ducts
- Low Noise Impeller
- EEx / Explosion proof electric motor

### • Spiral duct for forced and exhaust ventilation



- **Diameter range:** 18"(500), 21"(580), 24"(660), 27"(730), 30"(820) inch/mm
- All diameters between 300 and 850 mm
- can be supplied
- **Length of ducting:** From 5 up to 7,5m. Intermediate lengths are possible.

## The Positive Pressure Power Blower + Suction Blower + Variable Speed (Frequency regulated) / V-Belt driven

### Key features:

- Electro polished stainless steel frame
- Retractable handle and pneumatic tyres for easy manoeuvrability
- Strong thermoplastic shroud
- positive **pressure and suction**
- Steplessly variable speed
- Angles adjustment **-10 ~ + 20 °**

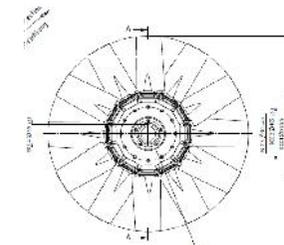


### Specification

	24E3,0-FU	27E3,0-FU
<b>Air Volume (AMCA210)</b>	20.269m <sup>3</sup> /h	21.458m <sup>3</sup> /h
<b>Fan diameter</b>	24 inch (610mm)	27 inch (686mm)
<b>Motor</b>	E-Motor, 230V, 50Hz, 3,0kW, Degree of protection IP55, air cooled	
<b>Variable Speed</b>	Frequency converter, Degree of Protection IP66, air cooled Poti + switch	
<b>Dimension (w x h x d)</b>	790 x 705 x 530mm	830 x 790 x 530mm
<b>Weith ca.</b>	51kg	59kg

### Options

- Spiral ducts
- Water mist ring
- LED Lamp
- Hard-wearing vinyl cover
- Reversible impeller for positive pressure and suction



## Electro Motor PPV

# The Positive Pressure Power Blower with Electric Motor / ATEX Components

### Key features:

- Lightweight aluminium frame
- Strong thermoplastic shroud
- Comprehensive tilt control
- Steplessly variable speed
- **positive pressure and suction**
- Angle adjustment: up to 45 °
- 10 Meter connection cable + Ex-5 pole-Plug



### Specification

	21EEx2,2	30EEx7,5
Air Volume AMCA 210	13.490m <sup>3</sup> /h	
Fan Diameter	21 inch (533mm)	30 inch (762mm)
Impeller	Glass reinforced polyamide (PACAS)	
Motor 	E-Motor, 230/400V, 50Hz, 3,0kW, Degree of protection IP 55, air cooled ATEX-II2G EExde IIC T4	E-Motor, 400/690V, 50Hz, 7,5kW, Degree of protection IP 55, air cooled ATEX-II2G EExde IIC T4
Dimension (w x h x d) / Weight	640 x 625 x 440mm / 30kg	910 x 890 x 550mm / ca.50kg



### Frequency Converter

Steplessly variable Speed	Frequency converter, Degree of Protection IP 66, air cooled, Poti + Switch	
Dimension (w x h x d) / Weight	257 x 188 x 187mm / 4,1kg	310 x 210 x 243mm / 7,5kg



**PPV with ATEX Components + Frequency Converter**  
(Steplessly variable speed )

### Options

- **Reversible Impeller** for positive pressure and suction
- Spiral ducts
- Hard-wearing vinyl cover



- 30 or 50 meters ATEX cable reel



- **Cable** drum with 50 m plastic coated copper wire
- HO7V-K



- **Copper-grounding cable** with plastic sheath, on both sides with lugs M8 provide / 30 m
- 



- Ground stake from galvanised steel, with T-handle



- **Screw clamp**, spark free + ground screw M8 and butterfly nut



#### Your TYPHOON dealer

Generalni zastupnik za Hrvatsku:  
**POLUS d.o.o.**

Hrvatske mornarice 1/H, 21000 Split

tel: +385(0)21 332 510

fax: +385(0)21 332 414

mob: +385(0)98 264 123

e-mail: info@polus.hr

web: www.polus.hr