PRF

Fans for aggressive media

The PRF is a robust plastic centrifugal fan ideal for applications where the extraction of dirt, corrosive gases, or other aggressive vapour will harm a standard fan. PRF fans are suitable for medical facilities, laboratories, pharmaceutical manufacturing, and the food, electrical, metal, or chemical industries.

ASS-P
Flexible connection

PRF
Centrifugal fan

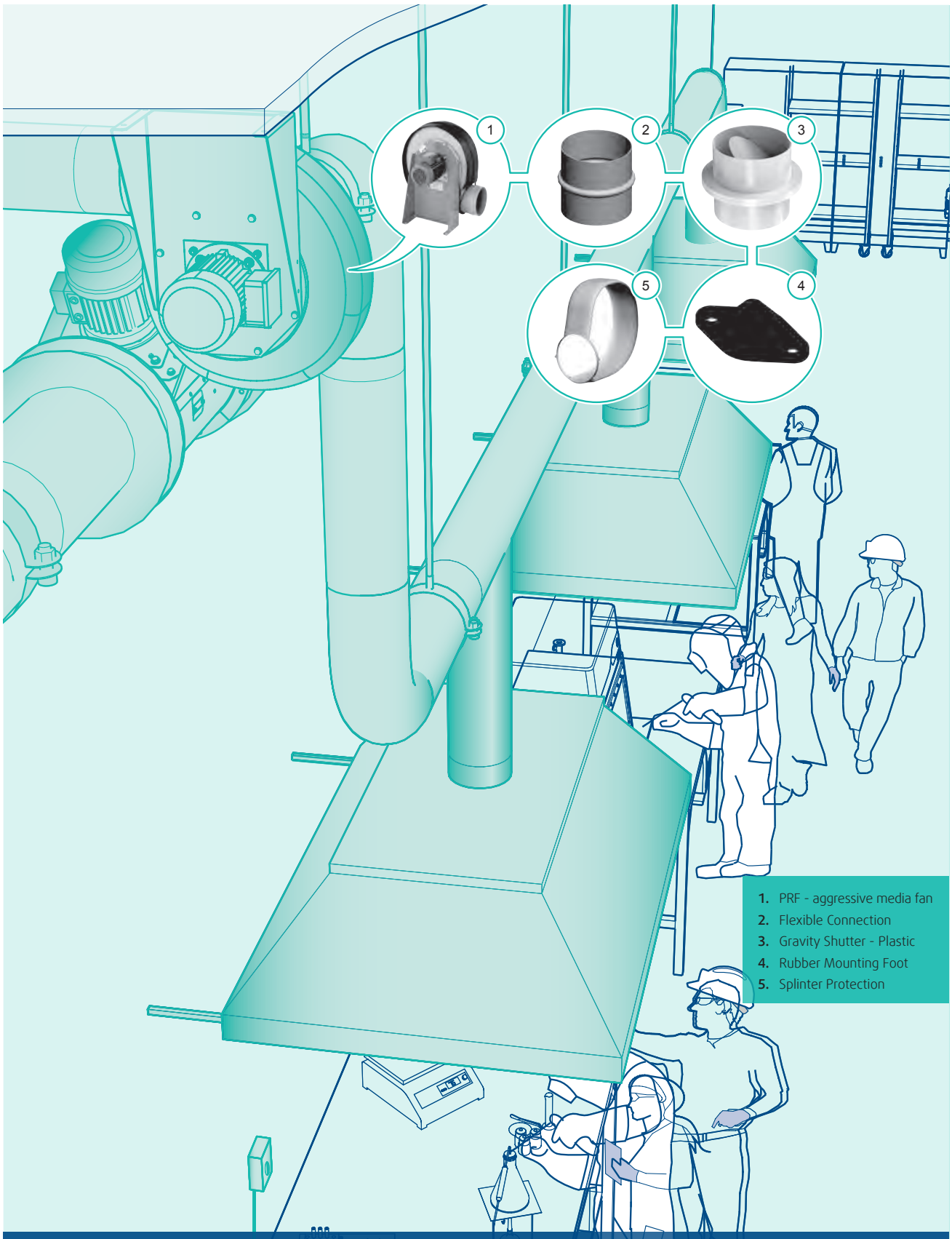
ASS-P
Flexible connection

VKA-P
Automatic shutter

SD PRF
Vibration damper

VP
Splinter protection

VKS-P
Automatic damper



1. PRF - aggressive media fan
2. Flexible Connection
3. Gravity Shutter - Plastic
4. Rubber Mounting Foot
5. Splinter Protection

Sample laboratory with aggressive media ventilation system.

Because of the extreme nature of laboratory fume hoods, the materials that make up an extraction system must be resistant to chemical stress. Selecting PRF fans and accessories creates a fully compatible, safe, and straightforward ventilation system.

PRF – Aggressive media fans

Casing

Sintered casing manufactured from UV-resistant PE, waterproof. The casing can be easily turned (default position for LG270).

Motor

- Standard TEFC motors
- Motor outside the airstream.
- Terminal box on the motor.

Impeller geometry

Single inlet impellers manufactured from PP with highperformance blade geometry.

Output control

Speed controllable via frequency inverter.

- Temperature of transported air from -15°C - +70°C
- Highly efficient motors available
- Powder coated galvanised steel pedestal
- Position of the casing can be easily adapted
- Perfect fitting accessories: connections, dampers, splinter protection

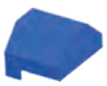
Accessories

ASS-P
Flexible connection

VKA-P
Adjustable damper

VKS-P
Automatic damper

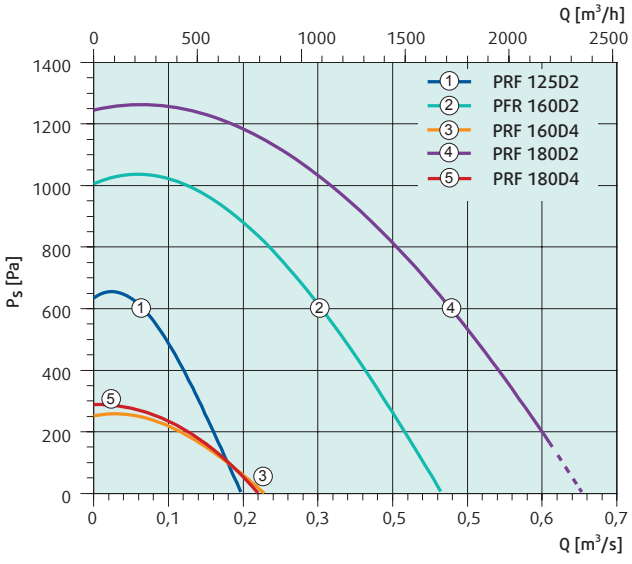
VP
Splinter protection

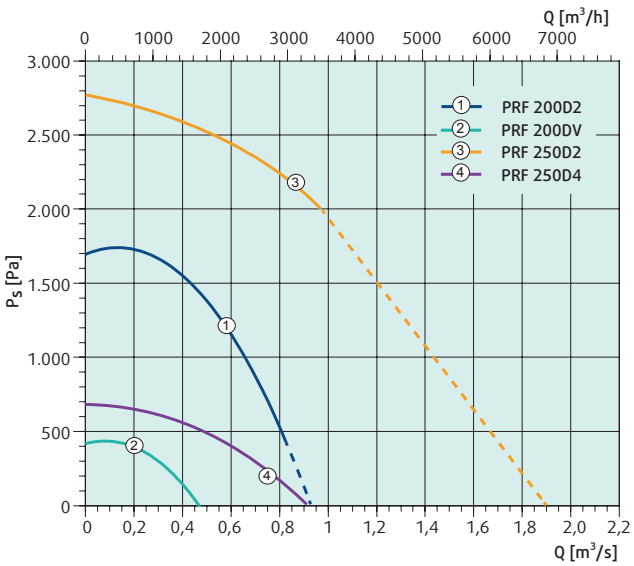


WSD PRF
Weather protection

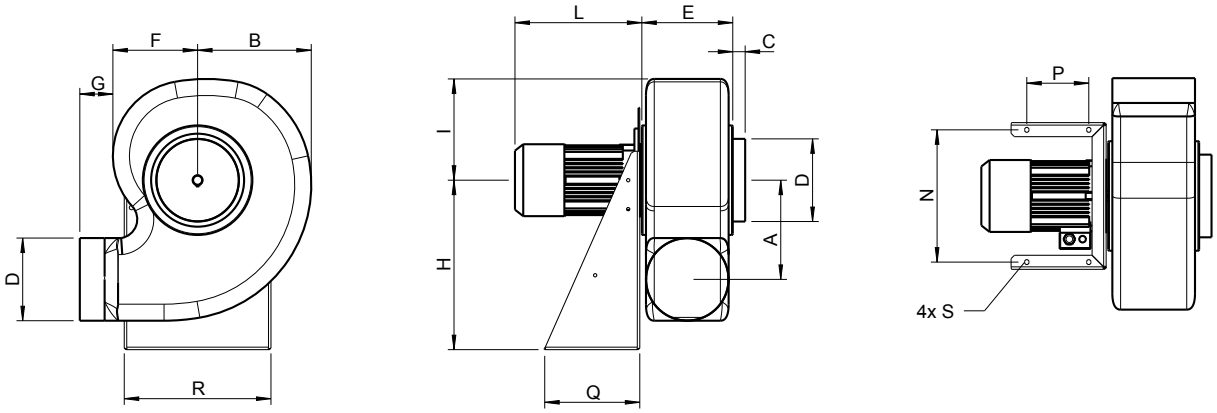
SD-PRF
Vibration damper

Quick selection





Dimensions



PRF	A	B	C	ØD	E	F	G	H	I	L	N	P	Q	R
PRF 125	142	187	40	125	120	150	60	250	165	195	200	100	140	235
PRF 160	183	228	40	160	153	188	60	310	210	210	255	100	140	290
PRF 180	208	274	40	180	160	204	60	350	230	230	277	120	190	316
PRF 200	230	310	40	200	170	220	60	410	245	260	320	150	230	355
PRF 250	290	380	40	250	194	265	80	495	330	340	330	170	250	365

Technical data

PRF		PRF 125D2	PRF 160D2	PRF 160D4	PRF 180D2	PRF 180D4	PRF 200D2	PRF 200D4	PRF 250D2	PRF 250D4
Voltage	V	400	400	400	400	400	400	400	400	400
Frequency	Hz	50	50	50	50	50	50	50	50	50
Input Power (P1)	W	278	919	142	1396	205	2101	406	5396	995
Current	A	0.58	1.69	0.57	2.45	0.49	3.14	1.32	8.13	1.82
Max T	°C	70	70	70	70	70	70	70	70	70
Sound Pressure Level (3m)*	dB(A)	60	61	49	68	45	69	56	75	60
Weight	kg	10.1	10.2	14.5	54	35	59	45.5	71	51

(*) Free field conditions

Compatibility with chemical agents

Abbreviation	Meaning
tp	technically pure
gas	gaseous
all	sämtlich

Abbreviation	Meaning
co sat	cold saturated
nc	normal concentration
gl ac	glacial acetic

Abbreviation	Meaning
wat	watery
li	liquid
pure	pure

✚ = Resistant ▼ = Partially Resistan ◘ = NOT Resistant

Chemical agents	Concentration	Temp. [°C]	PP	PE
Ammonium acetate	all, wat	20	✚	✚
		40	✚	✚
		60	✚	✚
Butyl acetate	tp	20	✚	▼
Ethyl acetate	tp	20	✚	✚
		40	▼	▼
Vinyl acetate	tp	20		✚
(Wine) vinegar	nc	20	✚	✚
Acetone	tp	20	✚	✚
Acetic acid	tp, gl ac	20	✚	✚
		40	✚	✚
		60	▼	▼
Boric acid glyceride	all, wat	20	✚	✚
		40	✚	✚
Hydrobromic acid	50% wat	20	✚	✚
Citric acid	10% wat	20	✚	✚
		40	✚	✚
		60	✚	✚
Chloric acid	10% wat	20	✚	◘
	20% wat	20	▼	◘
Hydrochloric acid	10% wat	20	✚	✚
		40	✚	✚
		60	✚	▼
	up to 30% wat	20	✚	✚
		40	✚	▼
		60	✚	▼
	30% wat	20	✚	✚
		40	✚	▼
		60	✚	◘
Chromic acid	up to 50% wat	20	▼	▼
		40	◘	◘
Hydrofluoric acid	50% wat	20	✚	✚
	70% wat	20	✚	✚
Fluosilicic acid	32% wat	20	✚	✚
Phosphoric acid dilution	50% watery	20	✚	✚
	85% watery	20	✚	✚
		40	✚	✚
		60	▼	✚
Phthalic acid	sat, wat	20	✚	✚
		40	✚	✚
Glycolic acid	37% wat	20	✚	✚

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Chemical agents	concentration	Temp. [°C]	PP	PE
Sulphur dioxide		20	◘	◘
Anilin	tp	20	▼	▼
Anti-freeze, liquid	tp	20	✚	✚
Potassium bromate	sat, wat	20	✚	✚
Borax	all, wat	20	✚	✚
Bromine, liquid	tp	20	◘	◘
Butadiene	tp	20	✚	✚
Butane, gaseous	tp	20	✚	✚
Cyclohexane	tp	20	✚	✚
Chlorine	tp	20	◘	◘
Chloroform	97% moisture, gaseous	20	◘	▼
Ethylene chloride	tp	20	▼	▼
Chloromethane	tp	20	▼	◘
Vinyl chloride	tp	20		
Dichlorotoluene	tp	20	◘	▼
Dimethylamine	tp	20	✚	✚
1,4-Dioxan	tp	20	✚	▼
Dioctylphthalate	tp	20	▼	✚
Ethane	tp	20	✚	✚
Ether	tp	20	▼	✚
Ethyl benzene	tp	20	◘	▼
Ethylene diamine	tp	20	✚	✚
Phenol	up to 10% wat	20	✚	✚
Fluorine, dry	tp	20	◘	◘
Ammonium fluoride	50% wat	20	✚	✚
Formaldehyde	40% wat	20	✚	✚
Sodium phosphate	wat, co sat	20	✚	✚
Phosgene	tp	20		▼
Diesel fuel		20	✚	▼
Glycerine	tp	20	✚	✚
Hydrogen	tp	20	✚	✚
Ammonium hydroxide	wat, co sat	20	✚	✚
Iodine		20	✚	✚
Sodium iodide	wat	20	✚	✚
Calcium hypochlorite	wat, co sat	20	✚	✚
Sodium hypochlorite	12,5% active chlorine, wat	20	▼	▼
Isoctane	tp	20	✚	✚
Mercury	pure	20	✚	✚
Methane	tp	20	✚	✚
Methylhexylketon	tp	20	✚	✚

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Chemical agents	Concentration	Temp. [°C]	PP	PE
Lactic acid	● 10% wat	20	✚	✚
		40	✚	✚
Maleic acid	● wat ● co sat	20	✚	✚
Nitric acid	● up to 40% wat	20	▼	▼
		40		
		60	◘	◘
	● 65% wat	20	▼	◘
		40	◘	
	● 100%	20	◘	◘
Oxalic acid	● wat ● co sat	20	✚	✚
Perchloric acid	● 10% wat	20	✚	✚
		40	✚	✚
		60	✚	✚
	● 70% wat	20	✚	▼
		40	▼	◘
Hydrogen sulphide	● tp	20	✚	✚
Sulphuric acid	● up to 40% wat	20	✚	✚
		40	✚	✚
		60	✚	✚
	● up to 60% wat	20	✚	✚
		40	✚	✚
		60	✚	✚
	● up to 80% wat	20	✚	✚
		40	✚	✚
		60	▼	▼
	● 90% wat	20	▼	▼
		40		
	● 96% wat	20	◘	◘
		40		
		60		
Sulphurous acid	● sat ● wat	20	✚	✚
Stearic acid	● tp	20	✚	✚
Tartaric acid	● all ● wat	20	✚	✚
Trichloroacetic acid		20	✚	✚
Turpentine	● nc	20	✚	▼
Benzyl alcohol	● tp	20	✚	✚
Ethanol	● 96% tp	20	✚	✚
		40	✚	✚
		60	✚	✚
Methyl alcohol	● all	20	✚	✚
Acetaldehyde	● tp	20	✚	▼
Chrome alum	● wat ● co sat	20	✚	✚
Ammoniac	● tp ● gas	20	✚	✚
		40	✚	✚
		60	✚	✚
Acetic acid anhydride	● tp	20	✚	✚

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Chemical agents	concentration	Temp. [°C]	PP	PE
Naphta		20	▼	▼
		40	◘	◘
Naphtalene	● tp		✚	✚
Ammonium nitrate	● 10% wat	20	✚	✚
Sodium nitrate	● wat ● co sat	20	✚	✚
Nitrotoluene	● tp	20	✚	✚
Oleum	10% SO2	20	◘	◘
Lubricant oils		20	✚	▼
Olive oil		20	✚	✚
Paraffin oil		20	✚	✚
Silicon oil		20	✚	✚
Sodium oxalate	● wat ● co sat	20	✚	✚
Ethylene oxide	● tp	20	◘	▼
Oxygen	● tp	20	✚	✚
		60	▼	▼
Ozone	in the air up to 2%	20	▼	▼
Tetrachloroethylene	● tp	20	▼	▼
Potassium permanganate	● wat ● co sat	20	✚	✚
Hydrogen peroxide	● 20% wat	20	✚	✚
		40	✚	✚
		60	✚	▼
Hydrogen peroxide	● 90% wat	20	✚	◘
Petroleum	● tp	20	✚	✚
		40	✚	▼
		60	▼	▼
Propane	● tp ● li	20	✚	✚
Sodium silicate	● all ● wat	20	✚	✚
Caustic soda	● 50% wat	20	✚	✚
		40	✚	✚
		60	✚	✚
Ammonium sulphate	● 10% wat	20	✚	✚
		40	✚	✚
		60	✚	✚
Tetrachloroethane	● tp	20	▼	▼
Lead tetraethyl	● tp	20	✚	✚
Tetrahydrofurane	● tp	20	▼	◘
Toluene	● tp	20	▼	▼
Trichloroethane	● tp	20	▼	▼
Trichloroethylene	● tp	20	◘	▼
Triethanolamine	● tp	20	✚	✚
Urea	● up to 30% wat	20	✚	✚
Vaseline	● tp	20	▼	✚
Xylene	● tp	20	◘	◘
Sulphur	● tp	20	✚	✚

Handing sheet for PRF fans

Date: _____

Customer: _____ Order No.: _____

Job No.: _____ Tag: _____ Quantity: _____

Project: _____ Date reqd.: _____

Contact name: _____ Phone: _____ Email: _____

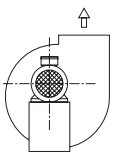
Delivery address: _____

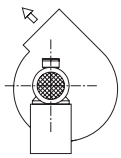
Model No.: _____ Duty: _____ Material: _____

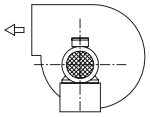
Mounts: _____ Quantity: _____

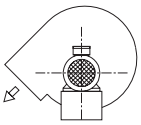
Special requirements: _____

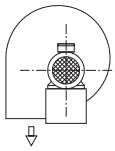
Designation of direction of rotation

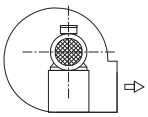
LG 0 (ACW 90) ☐ 

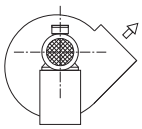
LG 45 (ACW 135) ☐ 

LG 90 (ACW 180) ☐ 

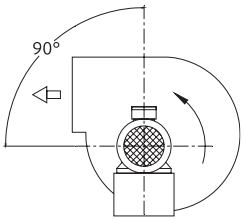
LG 135 (ACW 225) ☐ 

LG 180 (ACW 270) ☐ Default 

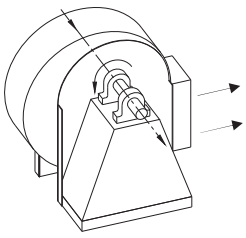
LG 270 (ACW 0) ☐ 

LG 315 (ACW 45) ☐ 

Example: LG 90



View from the drive side



LG: counter-clockwise rotation

PV00162_A_FEB 2021_Version 1.0.0

Comprehensive information for selecting the most suitable fan for your application is available via our fansSelect selection software.

www.pacificventilation.com/downloads

We are the safe choice.

PV00155_MARCH_2021_Version 1.0.0

Pacific Ventilation

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