







# TECHNICAL SPECIFICATION

## FSP SMOKE VENTILATION WINDOWS

WINDOW TYPE	FSP
	
<b>I. APPLICATION</b>	
Installation	installation angle 20°-60° universal installation system installation on battens
<b>II. FEATURES</b>	
Material	pinewood, vacuum impregnated
Lacquer	acrylic natural colour
Varnishing	twice
Air inlet type	–
Seals	two
Equipment	2 x SP8 actuator (chain reach: 350mm, 24V power supply)
Warranty	5 years for windows
<b>III. TECHNICAL PARAMETERS</b>	
Wind load resistance	WL 1500 as per EN 12101-2:2003
Snow load class as per EN 12101-2:2003	
Product size [cm]	Product code
	Roof angle in which the product is mounted
	20° 25° 30° 35° 40° 45°
78x140	07 SL 831 SL 870 SL 922 SL 989 SL 1075 SL 1185
94x140	09 SL 652 SL 685 SL 728 SL 783 SL 854 SL 946
114x118	10 SL 791 SL 829 SL 879 SL 943 SL 1025 SL 1131
114x140	11 SL 500 SL 527 SL 563 SL 608 SL 667 SL 742
134x98	12 SL 1020 SL 1067 SL 1128 SL 1207 SL 1307 SL 1437
Low ambient temperature	T (-05) as per EN 12101-2:2003
Reliability	RE 1000 as per EN 12101-2:2003
Resistance to heat	B 300 as per EN 12101-2:2003
Fire resistance	E (frame), F (seals) as per EN 12101-2:2003

WINDOW TYPE	FSP
<b>IV. OPTIONS</b>	
Wooden profiles	- painted in colours of RAL spectrum - painted in one of five Lazure colours - coated with polyurethane lacquer (white) - in mahogany woodwork
Cladding	- painted in colours of RAL spectrum - cladding elements made of different types of sheet metal (CU, TC) - window with black mullion bar and cladding
<b>V. ADDITIONAL PRODUCTS TO BE USED</b>	
Flashings	- special E_S flashings - EFS flat roof system
Control	- electric
Mounting accessories	- insulation sets - insulating band
External accessories	It is not possible to install accessories in smoke ventilation windows.
Internal accessories	

VI. TECHNICAL PARAMETERS FOR WINDOWS IN PARTICULAR SIZES					
frame external size [cm]	78x140	94x140	114x118	114x140	134x98
window size symbol	07	09	10	11	12
					
access roof light internal area [m <sup>2</sup> ]	0.91	1.12	1.15	1.38	1.11
smoke ventilation geometric area [m <sup>2</sup> ]	0.91	1.12	1.15	1.38	1.11
smoke ventilation active area A <sub>3</sub> [m <sup>2</sup> ]	0.53	0.65	0.67	0.80	0.65
FSP P1 window weight [kg]±1kg	41	47	48	54	47

It is not possible to manufacture other sizes

VII. TECHNICAL PARAMETERS FOR WINDOWS WITH PARTICULAR GLAZING UNIT TYPES	
Technical parameters	Glazing unit type
	<b>P1</b>
glazing U-value as per EN 673	1.1 W/m <sup>2</sup> K
light transmittance factor τ <sub>v</sub> as per EN 410	0.70
solar factor g as per EN 410	0.52
UV radiation as per EN 410	0.01
frame thermal insulation U <sub>f</sub> * as per EN ISO 10077-1, EN ISO 10077-2	2.34 W/m <sup>2</sup> K
thermal insulation of frame and glazing connection Ψ** as per EN ISO 10077-1, EN ISO 10077-2	0.068 W/mK

\* FAKRO internal test results  
npd – no performance determined



# TECHNICAL SPECIFICATION

## DSF, DSC

FLAT ROOF, SMOKE VENTILATION WINDOWS.

WINDOW TYPE	DSF DU6
<b>I. APPLICATION</b>	
Installation	installation angle 0°-15° window must be level
Roofing base type	roofing felt paper, membrane, green roofs, gravel roofs, terraces
<b>II. FEATURES</b>	
Sash structure	multi-chamber PVC profile
Dome	domeless
Installation set	domeless
Profiles fixing roofing	profiles mechanically fixing roofing to the frame
Opening method	The sash raises to a height of 23cm when used for everyday ventilation, but in the event of fire it raises to 50cm.
Equipment	- opening mechanism and actuators - seals: three - number of actuators: 4
Warranty	10 years for access roof light, 2 years for opening elements
<b>III. TECHNICAL PARAMETERS</b>	
Wind load resistance	WL3000
Snow load resistance	SL1200
Low ambient temperature	T(-05)
Reliability	Re 1000
Resistance to heat	B300
Fire resistance	F
<b>IV. OPTIONS</b>	
Peripheral profile	- coating in colours of RAL Classic spectrum (ColourLine version)
<b>V. ADDITIONAL PRODUCTS TO BE USED</b>	
Mounting accessories	frame for DS_ window (max. 2 frames under a window) - available on request

WINDOW TYPE	DSC-C P2
<b>I. APPLICATION</b>	
Installation	installation angle 0°-15° window must be level
Roofing base type	roofing felt paper, membrane, green roofs, gravel roofs, terraces
<b>II. FEATURES</b>	
Sash structure	multi-chamber PVC profile
Dome	transparent, UV-stabilized polycarbonate
Installation set	set fixing dome and hindering its removal - material resistant to weather conditions (alloy of Al-Zn)
Profiles fixing roofing	profiles mechanically fixing roofing to the frame
Opening method	The sash raises to a height of 23cm when used for everyday ventilation, but in the event of fire it raises to 50cm.
Equipment	- opening mechanism and actuators - seals: three - number of actuators: 2 (DSC-C2) or 4 (DSC-C4)
Warranty	10 years for access roof light, 2 years for opening elements
<b>III. TECHNICAL PARAMETERS</b>	
Wind load resistance	WL2000
Snow load resistance	SL 450 (DSC-C2 P2) SL1200 (DSC-C4 P2)
Low ambient temperature	T(-05)
Reliability	Re 1000
Resistance to heat	B300
Fire resistance	F
<b>IV. OPTIONS</b>	
Dome	- transparent dome can be produced (DSC-M)
<b>V. ADDITIONAL PRODUCTS TO BE USED</b>	
Mounting accessories	frame for DS_ window (max. 2 frames under a window) - available on request

VI. TECHNICAL PARAMETERS FOR PARTICULAR SMOKE VENTILATION WINDOWS					
Technical parameters	Smoke ventilation window type		Technical parameters	Smoke ventilation window type	
	DSF DU6			DSC-C P2	
Glazing structure	6H-16-4HT-18-55.2T		Glazing structure	4H-14-33.2T	
U <sub>g</sub> value as per EN 673	0.5 W/m <sup>2</sup> K		U <sub>g</sub> value as per EN 673	1.1 W/m <sup>2</sup> K	
U <sub>w</sub> value as per PN-EN ISO 10077-1:2007	0.79 W/m <sup>2</sup> K (for the size 120x120)		U <sub>w</sub> value as per PN-EN ISO 10077-1:2007	1.0 W/m <sup>2</sup> K (for the size 120x120)	
light transmittance factor τ <sub>v</sub> as per EN 410	0.54		light transmittance factor τ <sub>v</sub> as per EN 1873:2005	57.7	

VII. TECHNICAL PARAMETERS FOR ACCESS ROOF LIGHTS IN PARTICULAR SIZES					
commercial size [cm]	105x105	120x120	commercial size [cm]	100x100	120x120
roof light symbol	12K	08K	roof light symbol	07K	08K
internal area [m <sup>2</sup> ]	1.00	1.32	internal area [m <sup>2</sup> ]	0.90	1.32
effective glazing area [m <sup>2</sup> ]	1.00	1.32	effective glazing area [m <sup>2</sup> ]	0.90	1.32
smoke ventilation active area A <sub>a</sub> [m <sup>2</sup> ]	0.49	0.61	smoke ventilation active area A <sub>a</sub> [m <sup>2</sup> ]	0.44	0.57
DSF DU6 window weight [kg]±1kg	183	217	DSC-C2 P2 window weight [kg]±1kg	138	169
			DSC-C4 P2 window weight [kg]±1kg	142	172