

# JET dome rooflight upstands and JET roof connection systems

**VELUX®**
**Commercial**


The safe and secure connection to the roof for new construction and refurbishment

## The products

### JET metal upstands

- the material-specific solution for steel trapezoidal sheet roofs and other roof designs or constructions
- the perfect solution for every roof membrane and type of connection

### JET GFRP upstands

- roof connections with bituminous and plastic roof membranes, trapezoidal and/or corrugated profiles and ISO roofs are possible by utilising corresponding flange constructions

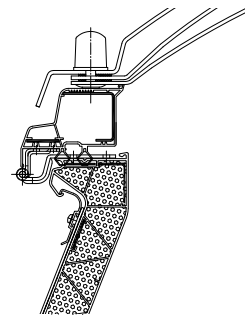
### JET PVC upstands

- system and standard compliant connection with JET OPTIMAL

### JET Roof connection systems

- provide the solution for professional connection for every roof membrane and type of connection

## JET OPTIMAL roof connection system



*JET PVC upstand, 15 cm high with JET OPTIMAL roof connection system (option)*

*Connection example: bituminous roof membrane*



*JET metal upstand, 30 cm high with JET OPTIMAL roof connection system (option)*

*Connection example: PVC plastic roof membranes*

## JET metal upstands

JET metal upstand RAK Model 30/40 cm high with JET OPTIMAL roof connection system, specially designed for smoke extraction; safe and secure connection not only for bituminous but also high-polymer roof membranes.

### Thermal insulation

30 mm mineral wool (A1 according to DIN 4102)

### Thermal transfer coefficient

$U_{up,30} = 1.89 \text{ W/m}^2\text{K}$  according to DIN EN 1873

$U_{up,40} = 1.66 \text{ W/m}^2\text{K}$  according to DIN EN 1873

JET metal upstand ISO-THERM Model 30/40/50/60 cm high, utilising PVC shiplap frames, free of thermal bridges and insulating upper upstand connection with E-clamping rail that can be mechanically screwed to the roof membrane in the upstand inclines.

### Thermal insulation

60 mm mineral wool (A1 according to DIN 4102)

### Thermal transfer coefficient

$U_{up,30} = 0.77 \text{ W/m}^2\text{K}$  according to DIN EN 1873

$U_{up,40} = 0.70 \text{ W/m}^2\text{K}$  according to DIN EN 1873

$U_{up,50} = 0.66 \text{ W/m}^2\text{K}$  according to DIN EN 1873

$U_{up,60} = 0.63 \text{ W/m}^2\text{K}$  according to DIN EN 1873

With minimised requirement for the roof insulation:  
JET metal upstand TE Model 30/40/50 cm high with E-clamping rail for the mechanically screwed fixing for the roof membrane in the upstand inclines.

### Thermal insulation

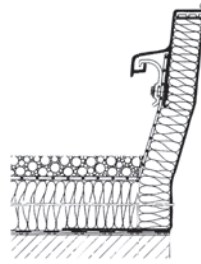
30 mm mineral wool (A1 according to DIN 4102)

### Thermal transfer coefficient

$U_{up,30} = 1.81 \text{ W/m}^2\text{K}$  according to DIN EN 1873

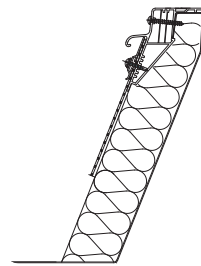
$U_{up,40} = 1.56 \text{ W/m}^2\text{K}$  according to DIN EN 1873

$U_{up,50} = 1.41 \text{ W/m}^2\text{K}$  according to DIN EN 1873



JET metal upstand RAK Model, 40 cm high with JET OPTIMAL roof connection system

Connection example:  
High-polymer roof membranes



JET metal upstand ISO-THERM Model, 30 cm high with E-clamping rail

Connection example:  
High-polymer roof membranes



JET metal upstand TE Model, 40 cm high with E-clamping rail

Connection example:  
PVC plastic roof membranes

## JET steel aluminium composite upstands

Steel inside and aluminium outside with thermal separating strip and flat adhesive base flange 30/40 cm high for SHEV RAK Model.

### Thermal insulation

30 mm mineral wool (A1 according to DIN 4102)

### Thermal transfer coefficient

$U_{up,30} = 1.89 \text{ W/m}^2\text{K}$  according to DIN EN 1873

$U_{up,40} = 1.66 \text{ W/m}^2\text{K}$  according to DIN EN 1873

### AK Model:

### Thermal insulation

60 mm mineral wool (A1 according to DIN 4102)

### Thermal transfer coefficient

$U_{up,30} = 1.52 \text{ W/m}^2\text{K}$  according to DIN EN 1873

$U_{up,40} = 1.25 \text{ W/m}^2\text{K}$  according to DIN EN 1873

$U_{up,50} = 1.09 \text{ W/m}^2\text{K}$  according to DIN EN 1873

A construction height of 40 cm can be provided for creating an on-site thermal flange



JET steel aluminium composite upstand for SHEV RAK Model, 30 cm high

Connection example:  
bituminous roof membranes



JET steel aluminium composite upstand AK model 40 cm high

Connection example:  
bituminous roof membranes, 1 layer

## JET GRP upstands

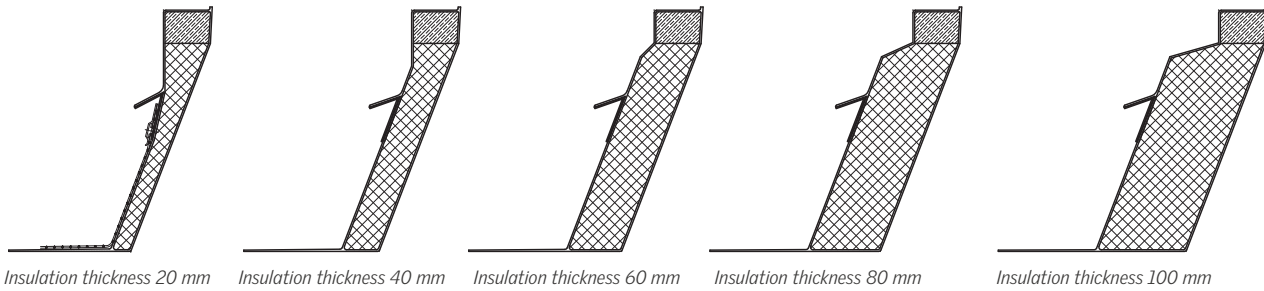
JET GRP upstand 15/30/50 cm high, safe and secure connection; not only for bituminous but also high-polymer roof membranes by utilising circumferential adhesive fixing flange

- Upstand cheeks with thermal insulation: 20 mm
- Alternative insulation thicknesses: 40, 60, 80 and 100 mm
- Optionally available with protruding strips

### Thermal transfer coefficient

	Insulation thickness [mm]				
	20	40	60	80	100
$U_{up,15}$ acc to DIN EN 1873 [W/m <sup>2</sup> K]	1.50	1.12	0.99	0.95	0.94
$U_{up,30}$ acc to DIN EN 1873 [W/m <sup>2</sup> K]	1.21	0.85	0.68	0.59	0.55
$U_{up,50}$ acc to DIN EN 1873 [W/m <sup>2</sup> K]	1.12	0.76	0.58	0.49	0.43

## JET GRP upstand 30 cm high, connection example: bituminous roof membranes



## JET GRP RAK 30/45 cm high, special upstand geometry for improving the A<sub>a</sub>-Values for smoke extraction

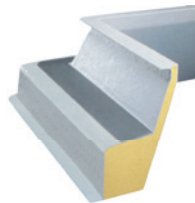
### Thermal transfer coefficient

$U_{up,30} = 1.36$  W/m<sup>2</sup>K according to DIN EN 1873

$U_{up,45} = 1.54$  W/m<sup>2</sup>K according to DIN EN 1873

### Supplementary insulation via

- thermally insulated base flange for upstand heights of 30 or 50 cm. Thermal insulation thicknesses from 100 up to 200 mm are possible
- doubling up the lateral cheeks' thermal insulation



JET GRP AK, 30 cm high  
with 120 mm thermal flange construction



JET GRP RAK for SHEV  
with optional GFRP apron (protruding strips)

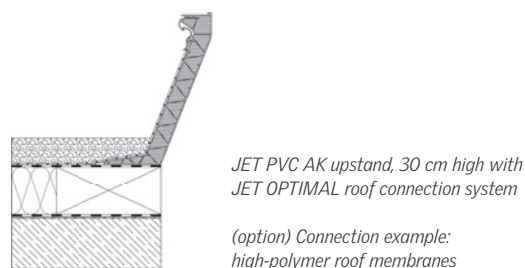
## JET PVC upstands

JET PVC AK 15/30 cm high, double-walled with sturdy internal K-bracing geometry, circumferential shaped nose for hanging in the JET OPTIMAL roof connection system (optional), PVC roof membranes can be connected to the upstand flange in a source welding process.

### Thermal transfer coefficient

$U_{up,15} = 1.53$  W/m<sup>2</sup>K according to DIN EN 1873

$U_{up,30} = 1.25$  W/m<sup>2</sup>K according to DIN EN 1873



## Application possibilities for the JET dome rooflight upstands

JET upstands	Construction height	Connection on roof membrane				
	cm	Bituminous roof membrane	Plastic roof membrane	Trapezoidal and/or corrugated profiles	Standing seam profile	ISO roof
JET PVC upstand	15/30	•	•	-	-	-
JET GRP upstand	15/30/50	•	•	-	-	-
JET GRP RAK upstand <sup>1</sup>	30/45	•	•	-	-	-
JET GRP AK with TRP-slanted sides	15/30/50	-	-	•	•	•
JET GRP RAK upstand with TRP-slanted sides	30	-	-	•	•	•
JET GRP AK upstand with plinth flange	15/30/50	•	•	•	•	•
JET GRP upstand RAK corrugated profile <sup>1</sup>	25/30	-	-	•	•	-
JET GRP upstand AK corrugated profile <sup>1</sup>	20/30	-	-	•	•	-
JET GRP AK upstand with thermal flange	30/50	•	•	-	-	-
JET GRP RAK upstand with thermal flange	30/45	•	•	-	-	-
JET GRP aluminium composite TRP RAK upstand <sup>1</sup>	30	-	-	•	•	•
JET GRP aluminium composite TRP upstand <sup>1</sup>	15/30/50	-	-	•	•	•
JET ISO-THERM AK upstand	30/40/50/60	•	•	-	-	-
JET metal RAK upstand	30/40/50	•	•	-	-	-
JET metal AK upstand TE Model	30/40/50	•	•	-	-	-
JET metal AK upstand type SE-AS <sup>1</sup>	40/50	-	-	•	•	•
JET steel aluminium integrated upstand	30	-	-	•	•	-
JET steel aluminium integrated upstand with TRP-slanted sides <sup>1</sup>	30	-	-	•	•	-
JET steel aluminium integrated upstand with thermal flange preparation	40	-	-	•	•	-
JET steel aluminium integrated RAK upstand	30	-	-	•	•	-
JET steel aluminium integrated RAK upstand with TRP-slanted sides	30	-	-	•	•	-
JET steel aluminium integrated RAK upstand with thermal flange preparation	40	-	-	•	•	-
JET steel aluminium integrated TRP AK upstand <sup>1</sup>	30	-	-	•	•	-
JET steel aluminium integrated TRP RAK upstand <sup>1</sup>	30	-	-	•	•	-
JET aluminium TRP AK upstand <sup>1</sup>	15/30	-	-	•	•	-
JET aluminium TRP RAK upstand <sup>1</sup>	30	-	-	•	•	-
JET aluminium thermal TRP AK upstand <sup>1</sup>	15/30	-	-	-	-	•
JET aluminium thermal TRP RAK upstand <sup>1</sup>	30	-	-	-	-	•

• = utilisable  
- = not utilisable

**Note:**  
1) Also refer to separate product information