

# ROOF-CM Eci

**CENTRIFUGALNI KROVNI VENTILATOR SA EC MOTOROM I INTEGRISANIM INVERTOROM**  
CENTRIFUGAL ROOF FAN WITH EC MOTOR AND INTEGRATED INVERTER



## APLIKACIJE

ROOF-CM Eci linija se sastoji od krovni ventilatora opremljenih centrifugalnim unazad zakrivljenim rotorima direktno povezanim sa elektronski komutiranim (EC) motorom sa permanentnim magnetima. Posebno je pogodna za usisavanje vazduha iz stambenih i komercijalnih (kancelarije, prodavnice, restorani) ili industrijskih (magacini, mašinske ili električne prostorije,...) zgrada u kojima je potreban tihi rad i izuzetno visoka efikasnost, uz ispunjavanje važećih ErP propisa o potrošnji energije.

## DOMET

8 modela sa rotorima od 310 do 630 mm i protokom vazduha do 16.000 m<sup>3</sup>/h. Maksimalni dozvoljeni pritisci do 1.100 Pa.

## PREDNOSTI

ROOF-CM Eci ventilatori karakterišu se izuzetno niskom potrošnjom energije zahvaljujući upotrebi EC motora sa permanentnim magnetima sa stepenom efikasnosti IE5, izuzetno jednostavnim povezivanjem i pokretanjem zahvaljujući integrisanom invertoru u motoru, unazad zakrivljenim rotorima sa preciznim dizajnom i veoma širokim i glatkim usisnim konusom. Visoko projektovani poklopac pruža estetski prijatnu instalaciju u svakom arhitektonskom kontekstu. Zaštitna rešetka od čelične žice ima mnogo manji aerodinamički uticaj u poređenju sa postojećim standardnim, što pruža bolje performanse i efikasan efekat samočišćenja.

## KONSTRUKCIJA

- Visoko efikasno unazad zakrivljeno impeler od pocinkovanog čeličnog lima. Step balansiranja prema UNI IS 21940-11.
- Osnovni okvir sa aerodinamičkim usisnim konusom od čeličnog lima zaštićenog od vremenskih uslova.
- Spoljašnja zaštitna rešetka od čelične žice zaštićena od vremenskih uslova.
- Poklopac od tehнопolimera.
- Sinhroni motor sa elektronski komutiranim permanentnim magnetima, stepena efikasnosti IE5, IP55 klase F, 100% podesiva brzina sa ugrađenim drajverom (invertor).
- Raspored 5 (direktno povezivanje)

## TEHNIČKE SPECIFIKACIJE

- Transportovani vazduh: čist, neabrazivan.
- Temperatura transportovanog vazduha: -20°C / +80°C
- Napon i frekvencija:
  - Trofazna verzija (T) 400V-50Hz.
  - Monofazna verzija (M) 230V-50Hz (veličine 310, 350, 400).
- Rad samo u režimu ekstrakcije.

## PRIBOR

- Gravitaciona zatvarač (GS-CM)
- Kontra-osnova (CB)
- Valovita osnova (SB)
- Ulazna rešetka (FPG)  
(neophodna za upotrebu u otvorenom vazduhu)
- Ulazni prigušivač (SIL-RO)
- Regulator brzine 0-10V (SRC 10)

## NA ZAHTEV

- Verzija bez rešetke
- Verzija sa metalnim poklopcem
- Verzija bez poklopca

## APPLICATIONS

ROOF-CM Eci line consists of roof fans equipped with centrifugal backward curved impellers directly coupled to an electronically commutated (EC) permanent magnets motor. It is specially suited for air extraction from residential and commercial (offices, shops, restaurants) or industrial (warehouses, engine or electrical rooms,...) buildings in which it is required silent operation and an extremely high efficiency, with fulfillment of the current ErP Regulations on power consumption.

## RANGE

8 models with impeller from 310s to 630 mm impellers and airflow up to 16.000 m<sup>3</sup>/h. Maximum pressures allowed up to 1.100 Pa.

## ADVANTAGES

ROOF-CM Eci fans are characterized by an extremely low power consumption thanks to the use of EC motors with permanent magnets with efficiency grade IE5, extremely easy connection and start-up thanks to the inverter integrated in the motor, of backward curved impellers with accurate design and of a very wide and smooth inlet cone. The highly engineered cover grant and aesthetically pleasant installation in every architectural context. The protection grid in steel wire has a much lower aerodynamic impact compared to standard existing ones, granting better performances and an effective self-cleaning effect.

## CONSTRUCTION

## CONSTRUCTION

- High efficiency backward curved impeller in galvanized steel sheet. Balancing grade according to UNI IS 21940-11.
- Base frame with aerodynamic inlet cone in steel sheet protected against weather agents.
- External protection grid in steel wire protected against weather agents.
- Cover in technopolymer.
- Electronically commutated permanent magnets synchronous motor, with efficiency IE5, IP55 Cl.F, 100% speed adjustable with built-in driver (inverter).
- Arrangement 5 (direct coupling)

## TECHNICAL SPECIFICATIONS

- Conveyed air: clean not abrasive.
- Temperature of conveyed air: -20°C / +80°C
- Voltage and frequency:
  - Three phase version (T) 400V-50Hz.
  - Mono-phase version (M) 230V-50Hz (sizes 310, 350, 400).
- Working only in extraction.

## ACCESSORIES

- Gravity shutter (GS-CM)
- Counter-base (CB)
- Corrugated basis (SB)
- Inlet grid (FPG) (necessary for use in free air)
- Inlet silencer (SIL-RO)
- Speed regulator 0-10V (SRC 10)

## UPON REQUEST

- Version without grid
- Version with metal cover
- Version without cover

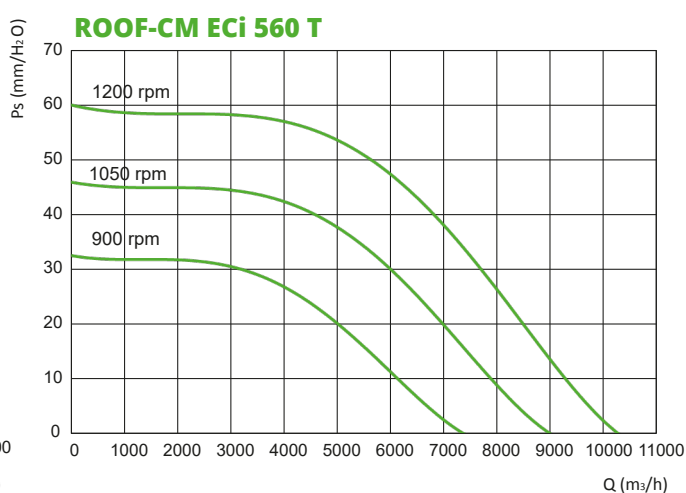
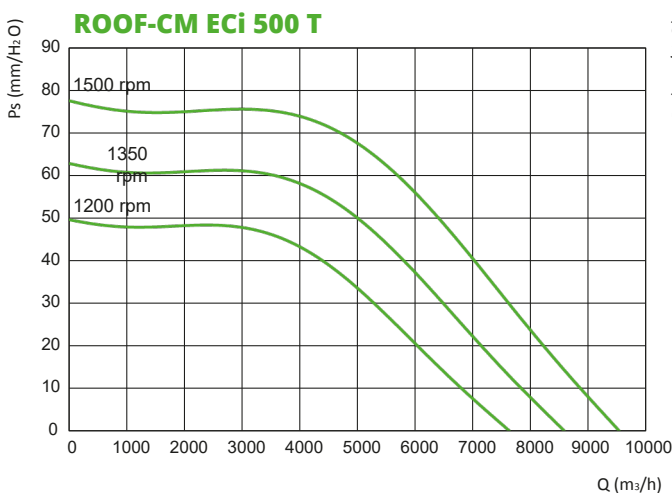
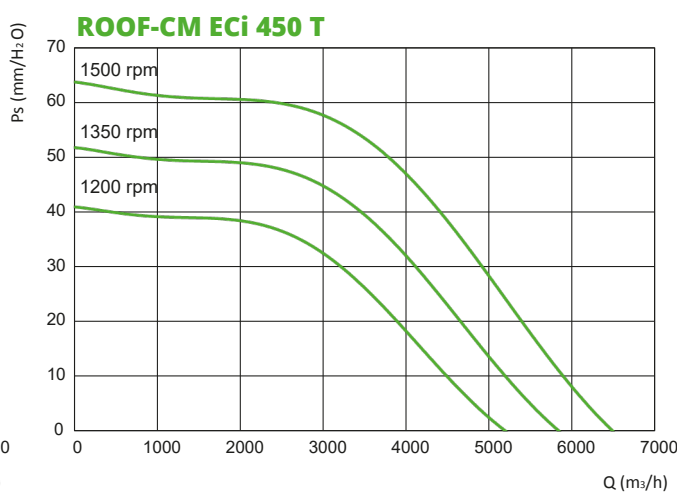
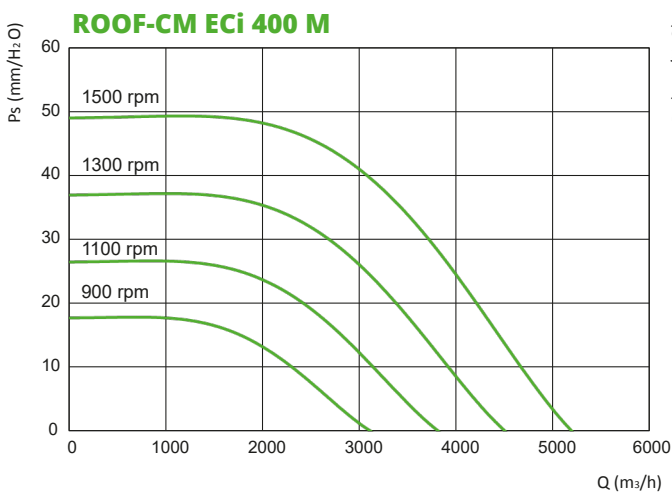
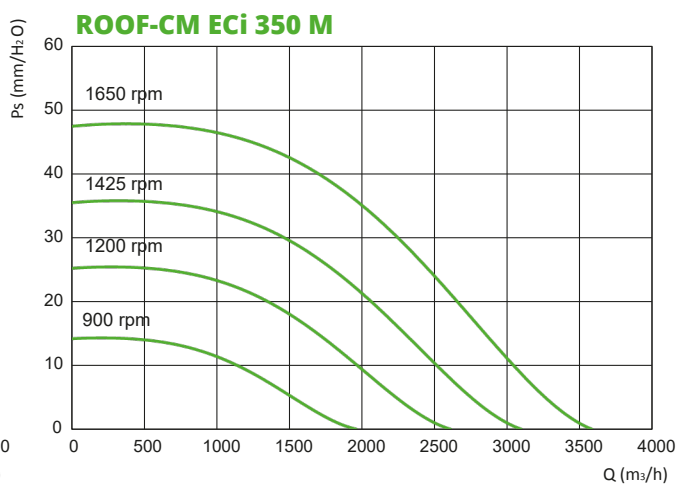
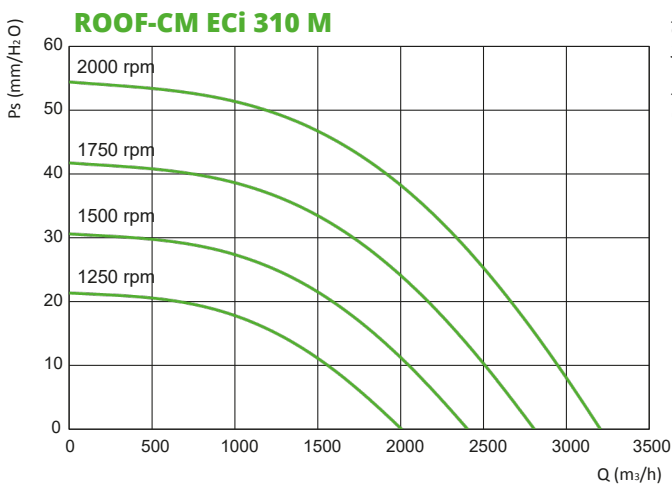
# ROOF-CM Eci

## PERFORMANSE - PERFORMANCES

1 mm H<sub>2</sub>O = 9,8 Pa

Performanse prikazane na dijagramima selekcije odnose se na vazduh na temperaturi od 15°C i nadmorskoj visini od 0 m, a dobijene su kod tipa instalacije „C“ bez rešetke i dodatne opreme.

*Performances shown in the selection diagrams refer to air at 15°C temperature and 0 m a.s.l. altitude, and they were obtained in instal-lation type “C” with no grid nor accessories.*



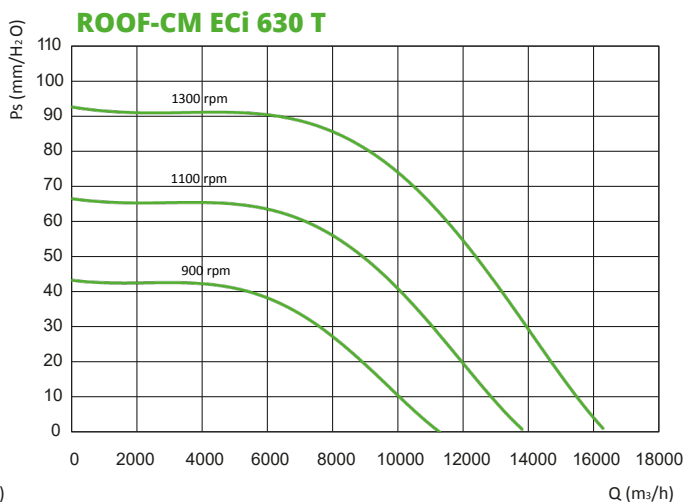
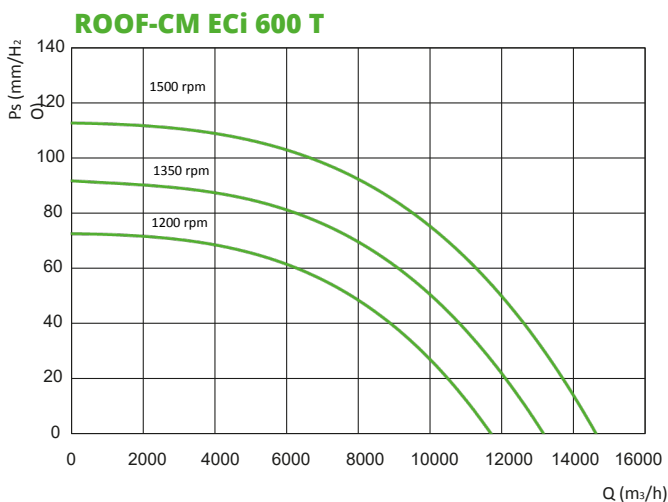
## ROOF-CM ECI

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**VAŽNO:** tokom upotrebe proverite da li apsorbovana struja nikada ne prelazi vrednost nominalne struje motora.

**IMPORTANT:** during use check that the current absorbed never exceeds the value of the rated current of the motor.

**VAŽNO:** tokom upotrebe nikada ne prekoračujte maksimalni broj obrtaja naznačen u tabelama (\*).

**IMPORTANT:** during use never exceed the maximum RPM indicated in tables (\*).

**TOLERANCIJE:** performanse i nivoi zvučne snage unutar tolerancija dozvoljenih standardom DIN 24166 za klasu 2.

**TOLERANCES:** performances and sound power levels within the tolerances allowed by the DIN 24166 standard for Class 2.

Model Model	Snabdevanje Supply	RPM fan max (*)	Pr (kW)	Pm motor (kW/RPM)	In max (Ams)	Lp (dB(A))
310 M	230V/1ph	2000	0,3	0,75/3000	5,0	60
350 M	230V/1ph	1650	0,3	0,75/3000	5,0	56
400 M	230V/1ph	1500	0,5	0,6/1800	4,3	58
450 T	400V/3ph	1500	0,8	1,7/1500	3,2	60
500 T	400V/3ph	1500	1,5	1,7/1500	3,2	62
560 T	400V/3ph	1200	1,4	1,7/1500	3,2	67
600 T	400V/3ph	1500	2,9	3,0/1500	5,9	74
630 T	400V/3ph	1300	2,9	3,0/1500	5,9	70

Pm = Snaga motora  
Pr = Snaga osovine pri maksimalnim obrtajima ventilatora  
RPM = Maksimalna brzina okretanja ventilatora (ne sme se prekoračiti)  
In = Potrošnja struje  
Lp = Nivo zvučnog pritiska u slobodnom polju 6 m od ventilatora sa kanalnim ulazom i slobodnim izlazom.

Pm = Power and speed motor  
Pr = Shaft power at max fan RPM  
RPM = Maximum turning speed of the fan (not to be exceeded)  
In = Motor nameplate current  
Lp = Sound pressure level in free field at 3 m distance from the fan, with ducted inlet and ducted outlet, outlet on the opposite side of the inlet.

## SRC 10: REGULATOR REGULATOR

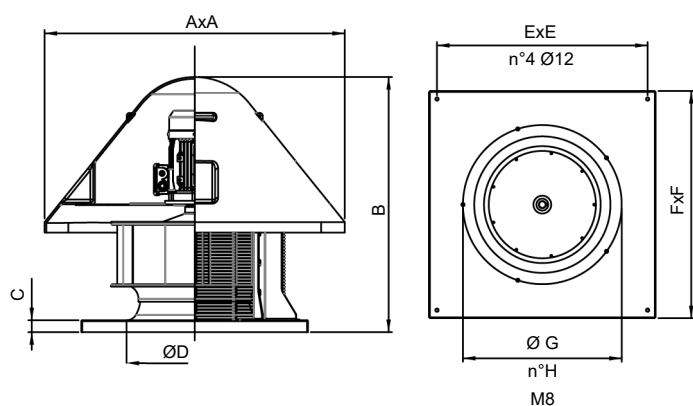
Kontrolni potenciometar (regulator brzine) sa izlazom 0-10V i integrisanim prekidačem UKLJ./ISKLJ. (suvi kontakt).

Control potentiometer (speed regulator) with 0-10V output and integrated ON / OFF switch (dry contact).



# ROOF-CM ECI

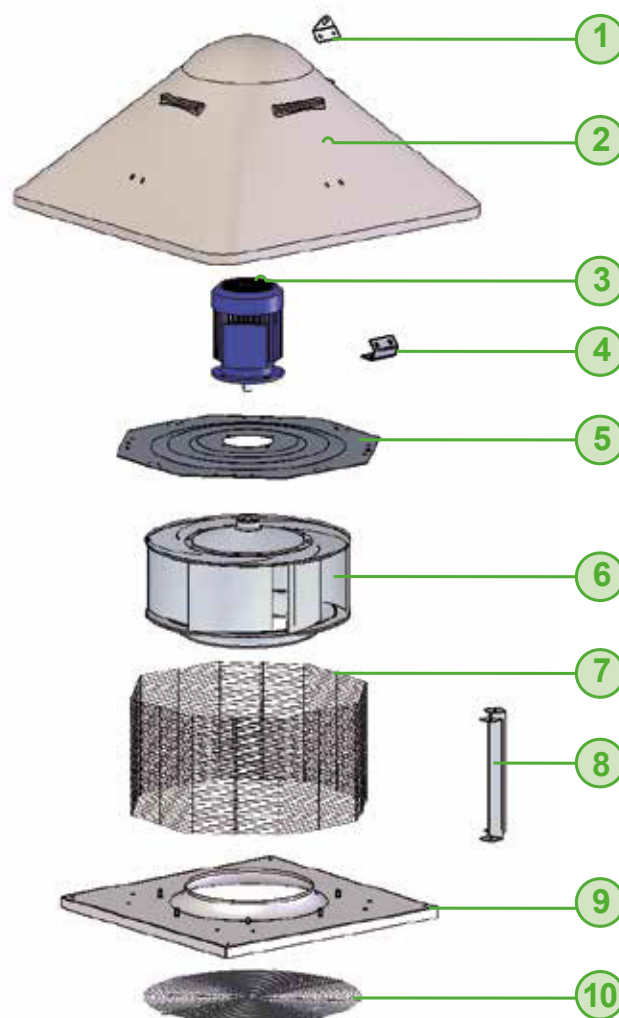
## DIMENZIJE - DIMENSIONS



Model Model	A	B	C	ØD	E	F	ØG	n°H	kg
31	570	490	30	280	360	400	310	3	19
35	670	600	30	300	450	500	330	3	29
40	840	700	35	350	600	650	382	4	43
45	840	730	35	400	600	650	432	4	52
50	1000	840	40	450	710	760	485	5	70
56	1000	880	40	500	710	760	535	5	75
60	1000	900	40	500	870	930	580	6	105
63	1200	980	40	550	870	930	580	6	115

Totalne dimenzije u ± 5 mm - Dimensional tolerances ± 5 mm

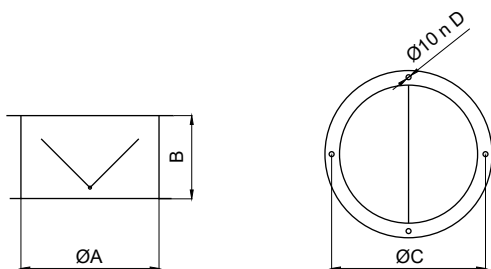
- 1 Nosači za podizanje - Lifting brackets
- 2 Prekrivač - Cover
- 3 Motor - Motor
- 4 Poklopci - Cover brackets
- 5 Nosači motora - Motor support
- 6 Impler - Impeller
- 7 Nosači držača mreže - Protection grid
- 8 Zaštitna mreža - Grid brackets
- 9 Fiksna baza - Fixing base
- 10 Zaštitna rešetka (pribor) obavezna za slobodan vazduh - Protection grid (accessory) mandatory for free air



# ROOF-CM ECI

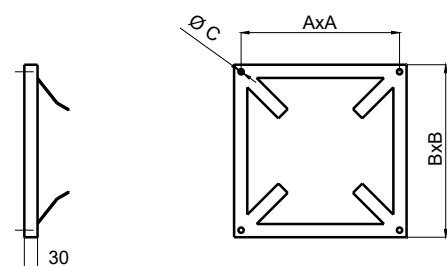
## DIMENZIJA PRIBORA - ACCESSORIES DIMENSIONS

### GS-CM: ZATVARAČ SHUTTER



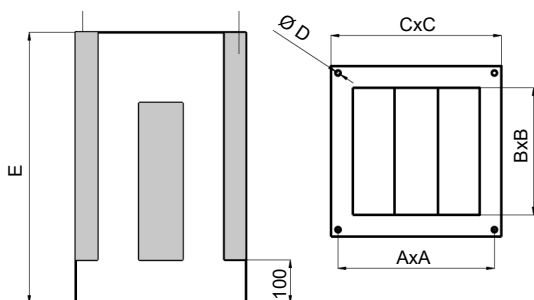
Model Model	ØA	B	ØC	n*D	kg
GS-CM 31	280	170	310	3	2,2
GS-CM 35	300	180	330	3	3,3
GS-CM 40	350	200	382	4	4
GS-CM 45	400	230	432	4	5
GS-CM 50	450	260	485	5	5,5
GS-CM 56	500	290	535	5	6
GS-CM 60-63	550	310	580	6	8,5

### CB-CM: OSNOVA COUNTER BASE



Model Model	A	B	C	kg
CB-CM 31	360	390	M8	1
CB-CM 35	450	490	M8	1
CB-CM 40-45	600	640	M8	2,8
CB-CM 50-56	710	750	M10	3,3
CB-CM 60-63	870	920	M10	4,2

### SIL-RO: SILENZIATORE SILENCER



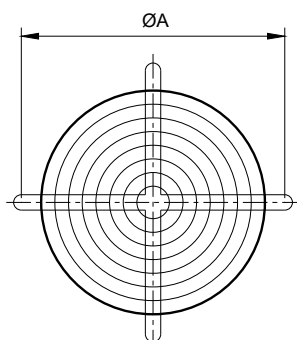
Modello Model	A	B	C	D	E	kg
SIL-RO 31	360	310	390	M8	850	28
SIL-RO 35	450	390	490	M8	850	37
SIL-RO 40-45	600	540	640	M8	850	43
SIL-RO 50-56	710	650	750	M10	850	51
SIL-RO 60-63	870	820	920	M10	1100	80

Modello ROOF-CMV ROOF-CMV Model	Hz							
	63	125	250	500	1k	2k	4k	8k
SIL-RO 31	2	4	6	10	16	18	15	11
SIL-RO 35	3	5	9	11	19	20	18	14
SIL-RO 40-45	3	4	8	9	18	15	10	6
SIL-RO 50-56	4	5	11	15	16	12	9	5
SIL-RO 60-63	3	4	5	8	14	9	7	3

Oktavni (Hz) spektar slabljenja šuma u dB.

Octave (Hz) spectrum of noise attenuation in dB.

### FGP: ULAZNA REŠETKA INLET GRID



Model Model	A	kg
FPG 31	355	0,6
FPG 35	395	0,6
FPG 40	395	0,7
FPG 45	395	0,7
FPG 50	450	0,9
FPG 56	560	1
FPG 60	620	1,3
FPG 63	620	1,3

# ROOF-CM Eci

## PRIBOR - ACCESSORIES

### SB: SUPPORT BASES FOR ROOF FANS SUPPORT BASES FOR ROOF FANS



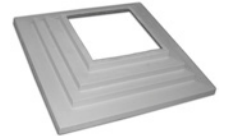
SBIg/1 - SBI/1-2



SBc



SBIp



SBr

### APLIKACIJE

Nosači SB (udubljenja), proizvedeni od čvrste staklene smole, pogodni su za montažu naših krovnih ventilatora na nadgradnje od valovitih ploča, izbegavajući štetno zadržavanje vode u blizini ventilatora i skupe zidarske ili stolarske radove.

### VERZIJE

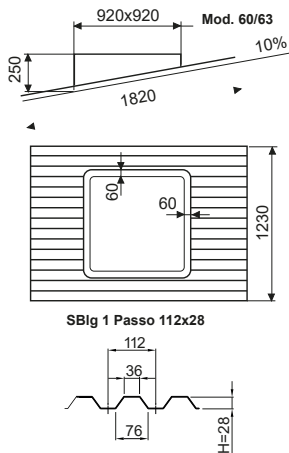
**SBIg/1, SBI/1-2, SBc, SBIp:** za upotrebu sa krovnim ventilatorima sa osnovama 930x930 mm (modeli 60, 63).

- **SBr:** Adapter za povezivanje sa podlogama za namakanje **SBIg/1, SBI/1-2, SBc, SBIp** za montažu krovnih ventilatora modela 35, 40, 45, 50, 56. Verzije SB su pogodne za povezivanje sa valovitim pločama sa korakom tip nagiba:
- **SBIg/1:** trapezoidni talas H 28 (korak 112 mm visina 28 mm)
- **SBI/1 10x146:** Međunarodni tip (korak 146 mm visina 48 mm)
- **SBI/2 10x177:** „Euro“ tip (korak 177 mm visina 51 mm)
- **SBc:** „Euro“ tip (korak 177 mm visina 51 mm) i poluprečnikom zakrivljenosti ploče od 3 metra.
- **SBIp:** slične karakteristike kao SBI, ali sa ravnim ivicama (ne talasastim)

### INSTALACIJA

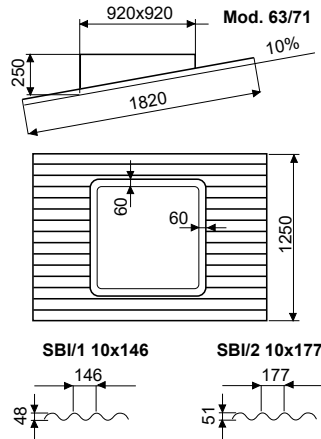
Preklopite dolinu sa pločom nizvodno i postavite je uzvodno. Preklopite se najmanje jedan četvrti talas sa bočnim susjednim pločama (**mod. SBIg/1, SBI/1-2, SBc**). Proverite da nije dolina prekomerno preopterećena.

#### SBIg/1



SBIg 1 Passo 112x28

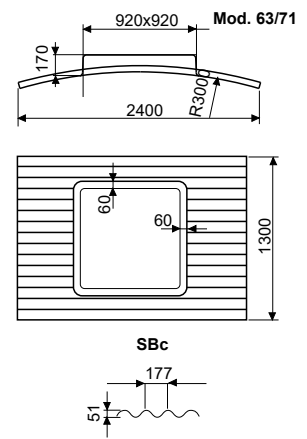
#### SBI/1 - SBI/2



SBI/1 10x146

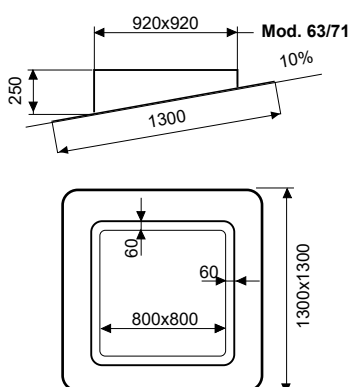
SBI/2 10x177

#### SBc

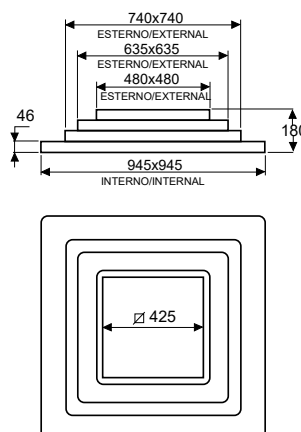


SBc

#### SBIp



#### SBr



#### SBIg/1 - SBI/1-2 - SBc - SBIp

per/for  
Mod. 606371



con/with **SBr**  
per/for  
Mod. 354045  
505556

