

Frangisole

65 mm



PORTEND
LISSONE
TENDE CLASSICHE E MODERNE
indoor & outdoor dal 1972



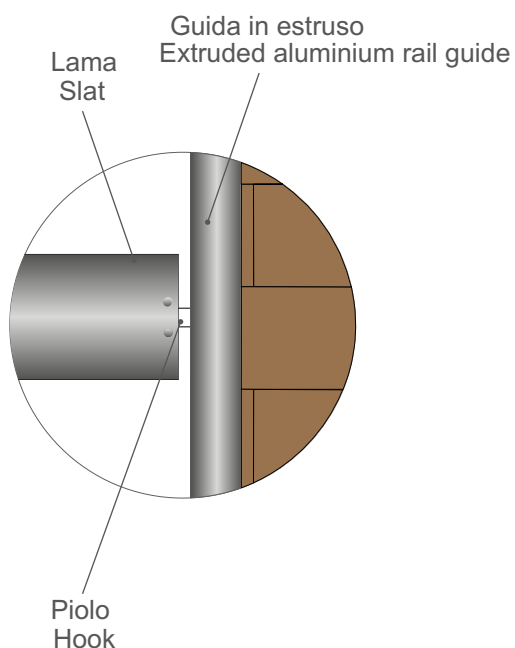
65 STD

65 STD



frangisole impacchettabile con sistema a filo

packing-up external venetian blind



Guide in alluminio estruso

- Massima superficie realizzabile 12,5 mq
- Ideale nel caso di spazi ridotti
- Ideale per edifici pubblici
- Oscuramento del 80%

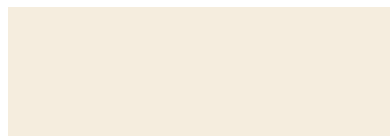
Side rail guides in extruded aluminium

- Maximum surface 12.5 sqm
- Suitable for small openings and tight spaces
- Ideal for public buildings
- Darkening up to 80%

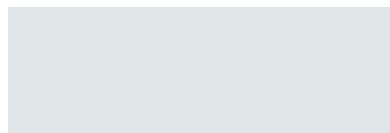
SISTEMI A FILO COLORI



BIANCO
disponibile per i modelli:
65 / 70 / 90 / LUME / LUME LIGHT



RAL 1013 FIORE DI VANIGLIA
disponibile per i modelli:
65 / 90 / LUME / LUME LIGHT



RAL 7035 GRIGIO GHIACCIO
disponibile per i modelli:
65 / 70 / 90 / LUME / LUME LIGHT



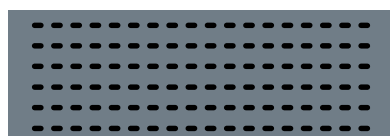
RAL 7016 GRIGIO FOSSILE
disponibile per i modelli:
65 / 70 / 90 / LUME LIGHT



RAL 9006 METAL
disponibile per i modelli:
65 / 70 / 90 / LUME / LUME LIGHT



RAL 9007 TITANIO
disponibile per i modelli:
65 / 70 / 90 / LUME / LUME LIGHT



RAL 9007 TITANIO TRAFORATO
disponibile per i modelli:
90*



RAL 3003 ROSSO RUBINO
disponibile per i modelli:
65* / 70* / 90*



RAL 6005 VERDE FORESTA
disponibile per i modelli:
65* / 70* / 90* / LUME



RAL 6021 VERDE PRIMAVERA
disponibile per i modelli:
65



RAL 8017 MARRONE CAFFÈ
disponibile per i modelli:
65* / 90*

Per i colori RAL 7016, RAL 6005
e RAL 8017, texband, terilene,
piolo per 65mm, tappo
terminale e cavo forniti neri.

* Colore a smaltimento

Tabella **valori** del coefficiente di trasmissione energetica **g tot**

Table of values g tot - energy transmission coefficient

Colori standard delle lamelle Slats standard colours			Telo chiuso ermeticamente Curtain tightly closed				Telo a 45° Blind at 45°				Vetrata + telo esterno Glass window + outside blind		Classe Class
			Te	Re	Tv	Rv	Te-45°	Re-45°	Tv-45°	Rv-45°	g-tot	g-tot45°	
	Bianco - White	RAL 9010	0.00	0.73	0.00	0.83	0.11	0.55	0.12	0.62	0.02	0.10	3
	Fiore di vaniglia - Vanilla flower	RAL 1013	0.00	0.57	0.00	0.83	0.11	0.55	0.12	0.62	0.02	0.10	3
	Grigio ghiaccio - Ice grey	RAL 7035	0.00	0.57	0.00	0.61	0.09	0.43	0.09	0.46	0.04	0.10	3
	Grigio fossile - Fossil grey	RAL 7016	0.00	0.16	0.00	0.08	0.02	0.09	0.01	0.06	0.08	0.09	4
	Argento/alluminio - Silver	RAL 9006	0.00	0.12	0.00	0.08	0.02	0.09	0.01	0.06	0.08	0.09	4
	Titanio - Titanium	RAL 9007	0.00	0.36	0.00	0.34	0.05	0.27	0.05	0.26	0.06	0.10	3
	Rosso rubino - Ruby red	RAL 3003	0.00	0.16	0.00	0.12	0.03	0.18	0.03	0.12	0.10	0.10	3
	Verde primavera - Spring green	RAL 6021	0.00	0.12	0.00	0.08	0.02	0.09	0.01	0.06	0.08	0.09	4
	Verde foresta - Forest green	RAL 6005	0.00	0.12	0.00	0.08	0.02	0.09	0.01	0.06	0.08	0.09	4
	Marrone caffè - Coffee brown	RAL 8017	0.00	0.16	0.00	0.12	0.03	0.18	0.03	0.12	0.10	0.10	3

NB: I colori presentati sono a titolo indicativo
NB: The colours shown are given as an indication

Re:coefficiente di riflessione solare - solar reflectance index

Rv:coefficiente di riflessione luminosa - light reflectance value

g-tot45°: g-tot con posizione delle lamelle a 45°

g-tot with slat at 45° angle

Te:coefficiente di trasmissione solare - solar transmittance

Tv:coefficiente di trasmissione luminosa - light transmittance

VETRATA: vetrata di riferimento C secondo EN 14501 - g = 0.59

- U = 1.20 [Wm2K] - reference glazing C according to EN 14501 -

g= 0.59 - heat transfer coefficient = 1.20 [Wm2K]

g-tot: coefficiente di trasmissione energetica totale per protezioni solari esterne "chiuse" con vetrate - the overall energy transmittance for "closed" external solar systems with glazing

quanto più la classe è alta, tanto meno il calore entra nel locale - the higher the class, the less the heat able to reach the indoor space

Classe class	0	1	2	3	4
Effetto effect	effetto molto piccolo very small effect	effetto piccolo small effect	effetto moderato moderate effect	effetto buono good effect	effetto molto buono very good effect
Fattore solare solar factor	$g\text{-tot} \geq 0.50$	$0.35 \leq g\text{-tot} < 0.50$	$0.15 \leq g\text{-tot} < 0.35$	$0.10 \leq g\text{-tot} < 0.15$	$g\text{-tot} < 0.10$

Resistenza al carico del vento resistance to wind load

Articolo article	Tipologia di prova type of test	Norma di prova test regulation	Norma di classificazione regulatory classification	Km/h Km/h	Classe class
65 STD	Resistenza al carico del vento Resistance to wind load	UNI EN 1932	UNI EN 13659	92*	6*
65 CAVO	Resistenza al carico del vento Resistance to wind load	UNI EN 1932	UNI EN 13659	60*	4*

NB: Tenda sottoposta a prova con dimensioni 3000x3000 - NB: the system was tested on 3000X3000 mm dimension

★

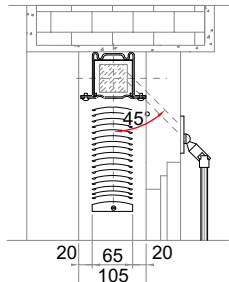
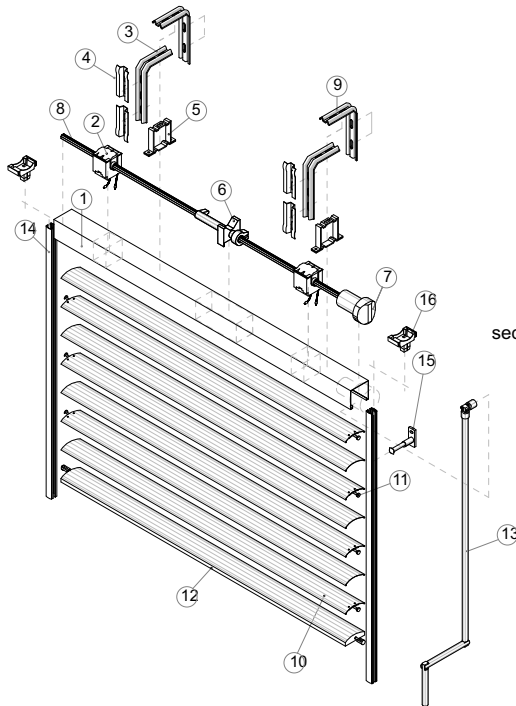
Il valore massimo assegnato alla resistenza al carico del vento è 6.

Max. value assigned for resistance to wind load is 6.

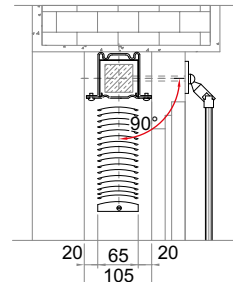


65 STD con manovra tramite **argano**

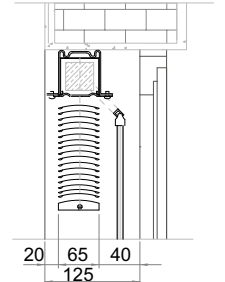
65 STD with crank operations



sezione con asta rinvata a 45°
section with extended joint for handle of 45°



sezione con asta rinvata a 90°
section with extended joint for handle of 90°

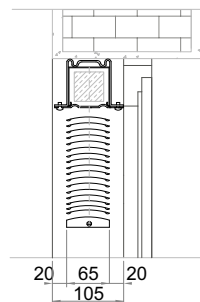
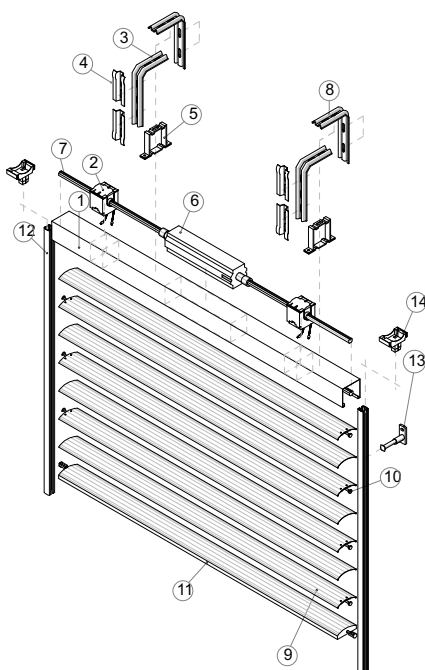


sezione con asta diretta
section with direct handle

- | | | |
|---|---|--|
| 1. Canale di manovra
Head rail | 7. Argano
Crank motor | 12. Terminale - Bottom rail |
| 2. Variatore
Tilter | 8. Alberino ø14 mm
Drive shaft ø14 mm | 13. Asta di manovra
Crank handle |
| 3. Mensola veletta
Bracket for front cover panel | 9. Mensole per fissaggio frontale
cassonetto-Brackets for head
box frontal installation | 14. Guida laterale
in estruso
Side rail guide in
extruded aluminium |
| 4. Alette registrabili
Adjustable sliders | 10. Lama mod. 65 mm bordata
Slat 65 mm with curved borders | 15. Distanziale telescopico
Telescopic holder |
| 5. Supporto canale di manovra
Holder for head rail | 11. Piolo lama
Hook for slat fastening | 16. Supporto in nylon
Holder in nylon |
| 6. Fine corsa - Limit switch | | |

65 STD con manovra tramite **motore**

65 STD motor operated



sezione a motore
section with motorised blind

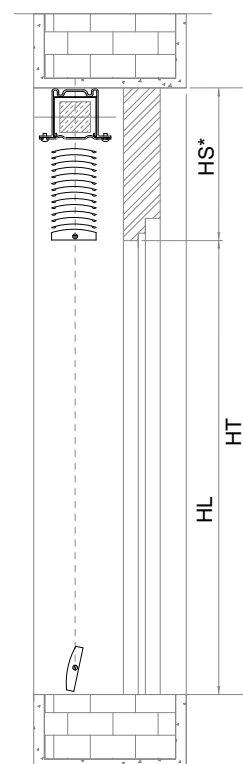
- | | | |
|---|--|--|
| 1. Canale di manovra
Head rail | 7. Alberino ø14 mm
Drive shaft ø14 mm | 11. Terminale
Bottom rail |
| 2. Variatore - Tilter | 8. Mensole per fissaggio
frontale cassonetto
Brackets for head
box frontal installation | 12. Guida laterale
in estruso
Side rail guide in
extruded aluminium |
| 3. Mensola veletta
Bracket for front cover panel | 9. Lama mod. 65 mm bordata
Slat 65 mm with curved borders | 13. Distanziale telescopico
Telescopic holder |
| 4. Alette registrabili
Adjustable sliders | 10. Piolo lama
Hook for slat fastening | 14. Supporto in nylon
Holder in nylon |
| 5. Supporto canale di manovra
Holder for head rail | | |
| 6. Motore bilaterale 220 volt
Bilateral motor 220 volt | | |

Tabella appacchettamenti table of stack heights

N° Lame nr. of slats	HS mm	HT mm	HL mm
		da-from	a-to
10	126	0	600
11	130	635	690
12	136	691	750
13	143	751	810
14	150	811	870
15	153	871	927
16	156	928	983
17	160	984	1040
18	163	1041	1100
19	166	1101	1161
20	170	1162	1220
21	173	1221	1277
22	176	1278	1333
23	180	1334	1390
24	183	1391	1450
25	186	1451	1510
26	190	1511	1570
27	196	1571	1626
28	203	1627	1683
29	210	1639	1740
30	213	1741	1800
31	216	1801	1860
32	220	1861	1920
33	223	1921	1976
34	226	1977	2033
35	230	2034	2090
36	233	2091	2150
37	236	2151	2210
38	240	2211	2270
39	246	2271	2326
40	253	2327	2383
41	260	2384	2440
42	263	2441	2500
43	266	2501	2560
44	270	2561	2620
45	273	2621	2676
46	276	2677	2733

Dimensioni fattibili solo per modello 65 STD - suitable dimensions for 65 STD system

N° Lame nr. of slats	HS mm	HT mm	HL mm
		da-from	a-to
47	280	2734	2790
48	283	2791	2850
49	286	2851	2910
50	290	2911	2960
51	296	2971	3026
52	303	3027	3083
53	310	3084	3140
54	313	3141	3196
55	316	3197	3253
56	320	3254	3310
57	323	3311	3370
58	326	3371	3430
59	330	3431	3490
60	333	3491	3546
61	336	3547	3603
62	340	3604	3660
63	343	3661	3716
64	346	3717	3773
65	350	3774	3830
66	356	3831	3890
67	363	3891	3950
68	370	3951	4010
69	373	4011	4066
70	376	4067	4123
71	380	4124	4180
72	383	4181	4240
73	386	4241	4300
74	390	4301	4360
75	393	4361	4416
76	396	4417	4473
77	403	4474	4535
78	406	4536	4590
79	409	4591	4645
80	413	4646	4701
81	416	4702	4761
82	419	4762	4800

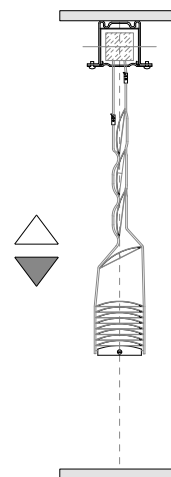
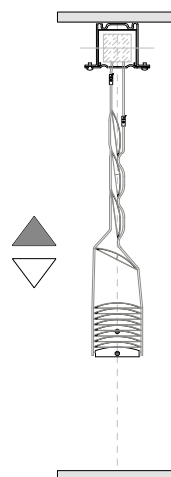
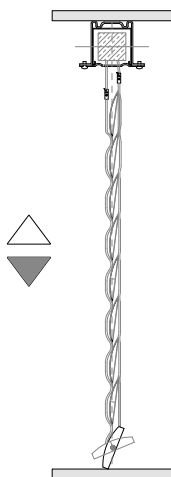


HS* variabili a seconda
del tipo di fissaggio
HS* change depending
on type of installation

HS* comprensivo del solo
supporto canale di manovra
HS* includes head
rail holder size

Orientamento lame modulation of slats

1. Posizione di fine corsa alto
Slat position upper limit stop
2. Posizione di fine corsa basso
Slat position lower limit stop
3. Posizione lame in salita
Slats running upward
4. Posizione lame in discesa
Slats running downward



NB: il sistema consente l'orientamento delle lame in ogni posizione. - the system allows slats to tilt at any angle.

Tabelle dimensioni

table of dimensions

65 STD	Motore Engeen	Argano Argano	Argano rinvio 45°/90° Argano rinvio 45°/90°
	mm	mm	mm
BL MINIMA	550	450*	450
BL MASSIMA	4500	4500	4500
HT MINIMA	600	600	600
HT MASSIMA	4800	4800	4800
SUP.MASSIMA	12,5 MQ	12,5 MQ	12,5 MQ
N MINIMA	105	125	105

* Manovra obbligatoria a sinistra vista interna.

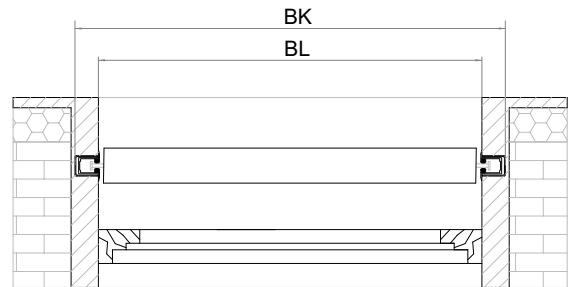
* Operations must be located in the left inside position.

NB: per dimensioni fuori tabella richiedere specifiche e fattibilità

NB: send a request for info and feasibility of further dimensions



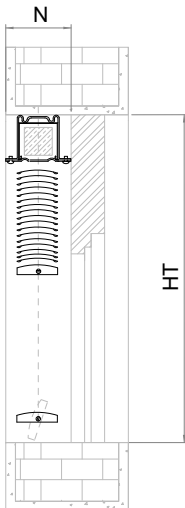
Sezione orizzontale guide in luce
Horizontal section with standard rail guides



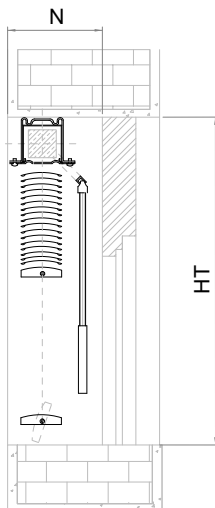
Sezione orizzontale guide incassate
Horizontal section with embedded rail guides

Sezione verticale -

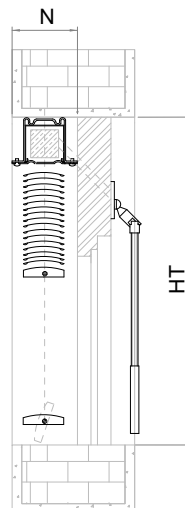
Vertical section



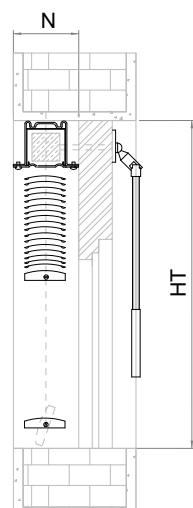
Motore
Motor operated



Argano diretto - Crank motor
with direct joint for handle



Argano rinvio a 45° - Crank motor
with extended joint for handle of 45°



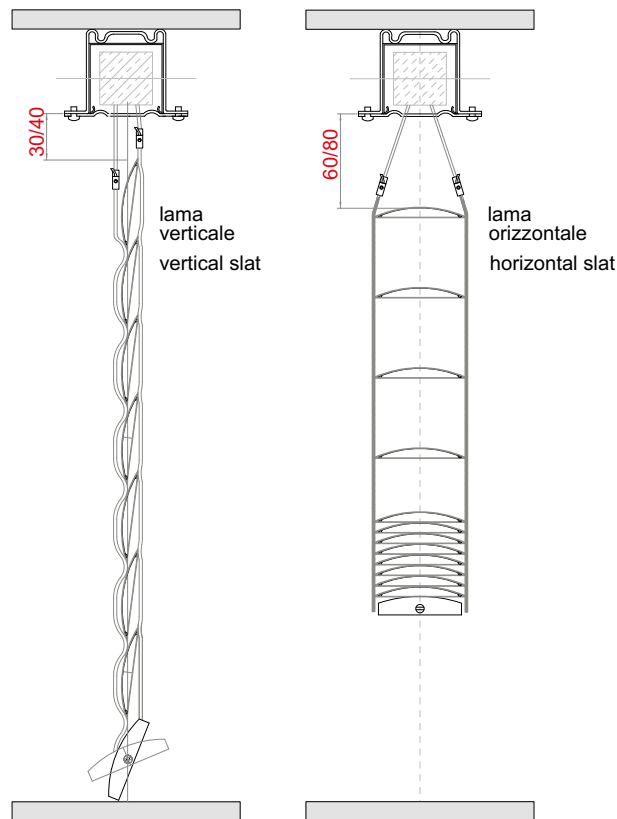
Argano rinvio a 90° - Crank motor
with extended joint for handle of 90°

posizione terminale in funzione alla dimensione del “COLLO” tenda

bottom rail position considering the blind's “blank space” dimensions

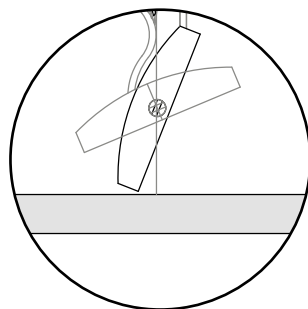
per “COLLO” si intende la distanza tra canale di manovra e prima lama

the “blank space between head rail and first slat” is the distance from the head rail and the first slat of the blind



NB:

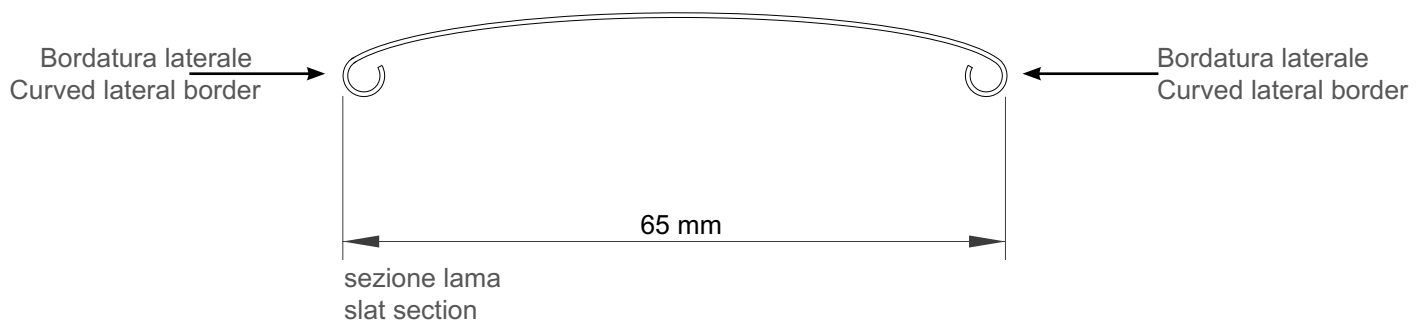
l'inclinazione del terminale rispetto alla banchina è variabile.
the closure of the bottom rail on threshold is variable



ove non è presente una nicchia superiore si consiglia di inserire anche la veletta
where there is no upper recess available, we recommend the application of front cover panels

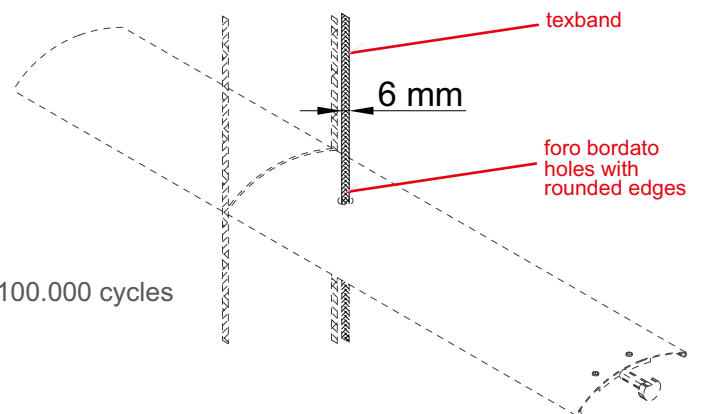
► Lamelle Slats

- Lama 65 - Slat 65
- Spessore 0,47 mm - Thickness 0.47 mm
- Verniciatura su entrambi i lati - Painted on both sides



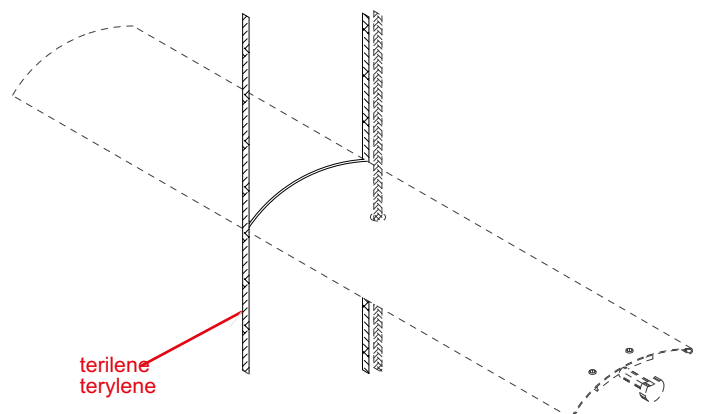
► Texband di trazione texband for blind movement

- Spessore 0,34 mm
- Colore grigio
- Alta resistenza e durata, testata con 100.000 cicli
- Rivestimento con filamenti in Kevlar
- Thickness 0.34 mm
- Grey colour
- High resistance and long-lasting quality, tested with 100.000 cycles
- Covered with kevlar fibers



► Scaletta di orientamento Ladder string for slat tilting

- Scaletta di orientamento che avvolge la lama
- Colore grigio
- Materiale in poliestere rafforzato con fili in aramid
- Rivestimento con filamenti in Kevlar
- Ladder string for slat tilting
- Grey colour
- Polyester material covered with aramid fibers
- Coated with kevlar fibers

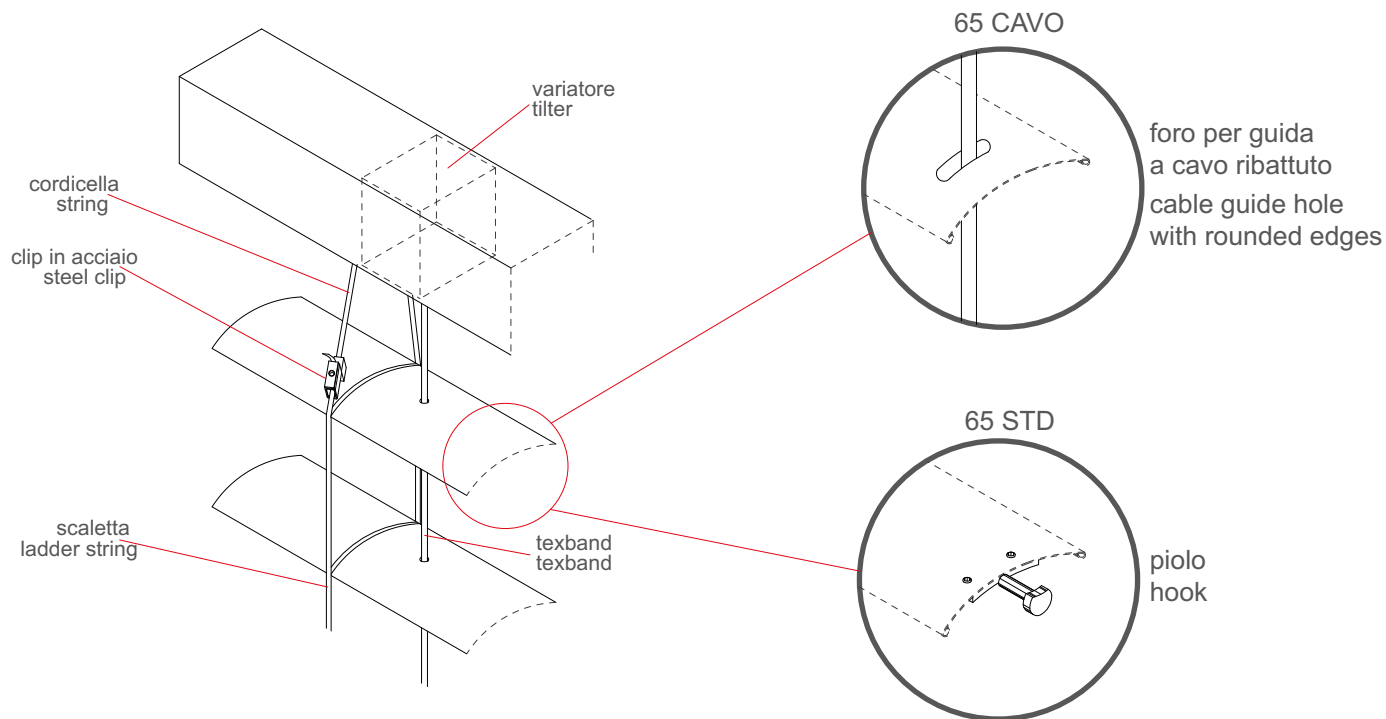


► Clip in acciaio - Piolo - Foro per guida cavo

steel clip, hook, hole for cable guide

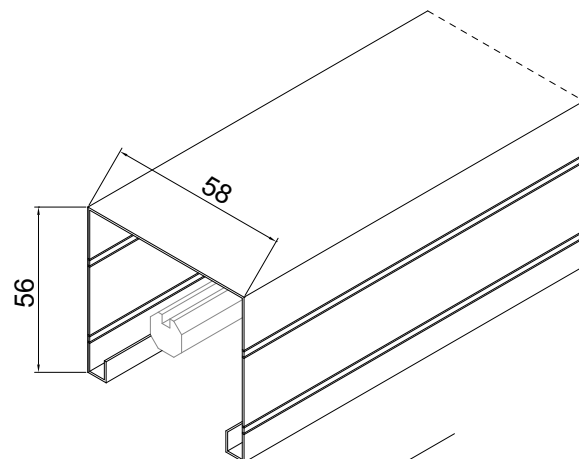
L'aggancio tra terilene e variatore avviene tramite CLIP in acciaio INOX A2

Terylene and tilter are connected through a CLIP in stainless STEEL A2



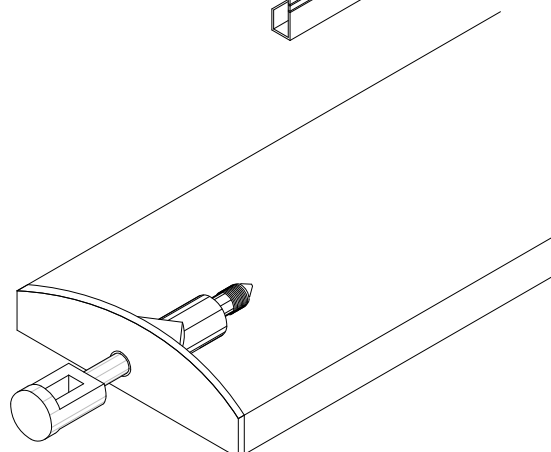
► Canale di manovra 56x58 head rail 56x58

Canale in acciaio zincato o zincato con verniciatura di spessore 6/10
Head rail in galvanised steel or painted with thickness of 6/10

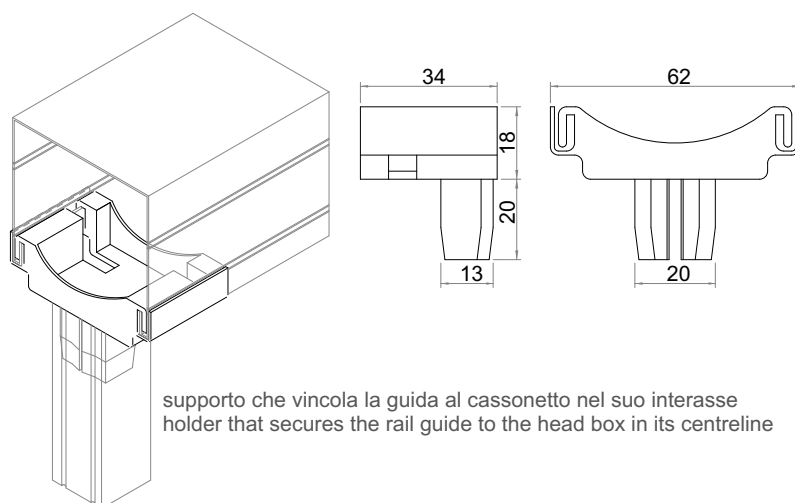


► Terminale e Tappo bottom rail and cap

Terminale in alluminio estruso anodizzato o verniciato di spessore 13/10 completo di tappi telescopici.
Bottom rail in extruded aluminium, anodised or painted with thickness of 13/10 and telescopic caps.



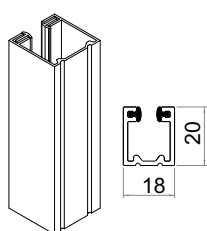
► Supporto in nylon Modello 65 STD holder in nylon for 65 STD type



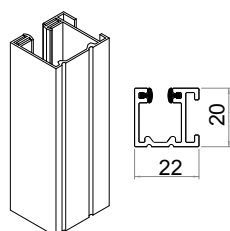
supporto che vincola la guida al cassonetto nel suo interasse
holder that secures the rail guide to the head box in its centreline

► Guide Modello 65 STD rail guide types for 65 STD

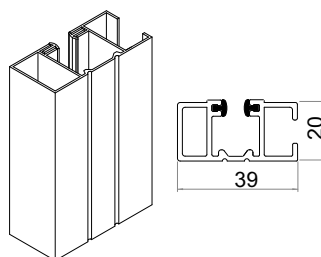
Guide in alluminio estruso anodizzato o verniciato complete di guarnizioni antirumore
extruded aluminium rail guides, anodised or painted, with rubber prole for noise reduction



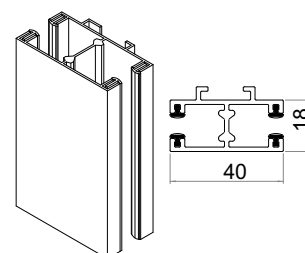
*Guida singola
Standard rail guide



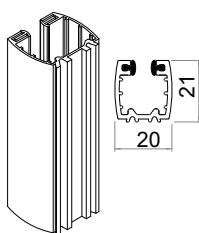
*Guida singola per distanziale
Standard rail guide for telescopic holder



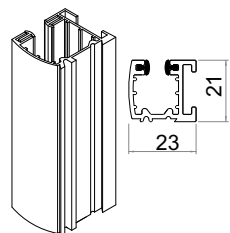
Guida autoportante
Self-supporting rail guide



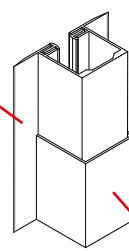
Guida doppia
Double rail guide



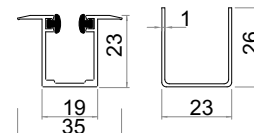
Guida singola round Guida singola round per distanziale
Rounded single rail guide single rail guide for telescopic holder



Guida singola ad incasso
Single embedded rail guide



Canalina
Mounting profile

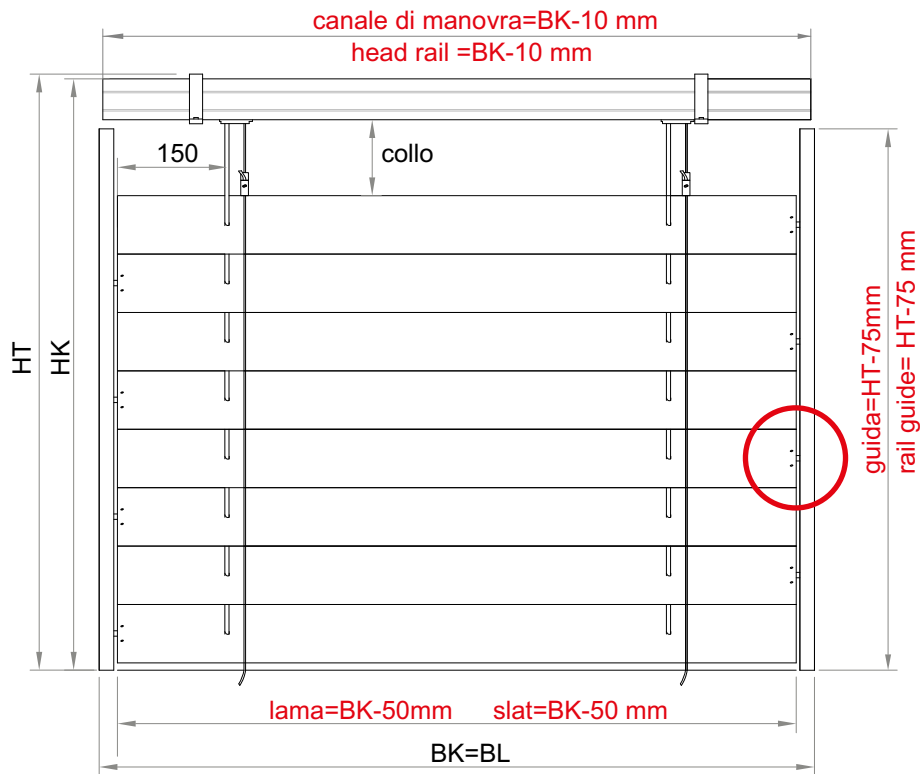


*Guide fornite su richiesta *rail guides supplied upon request

65 STD

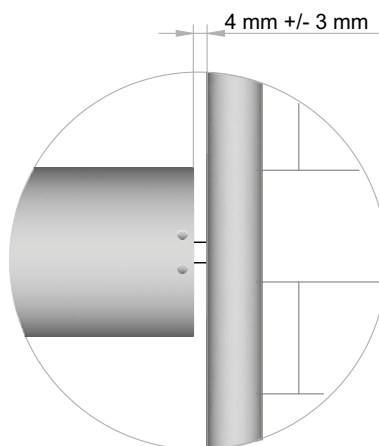
guide in luce - standard rail guides

Parametri delle componenti nella realizzazione della tenda e relative tolleranze
components guidelines for blind installation and tolerances



Vista frontale da fuori - Outside frontal view

Particolare - Detail

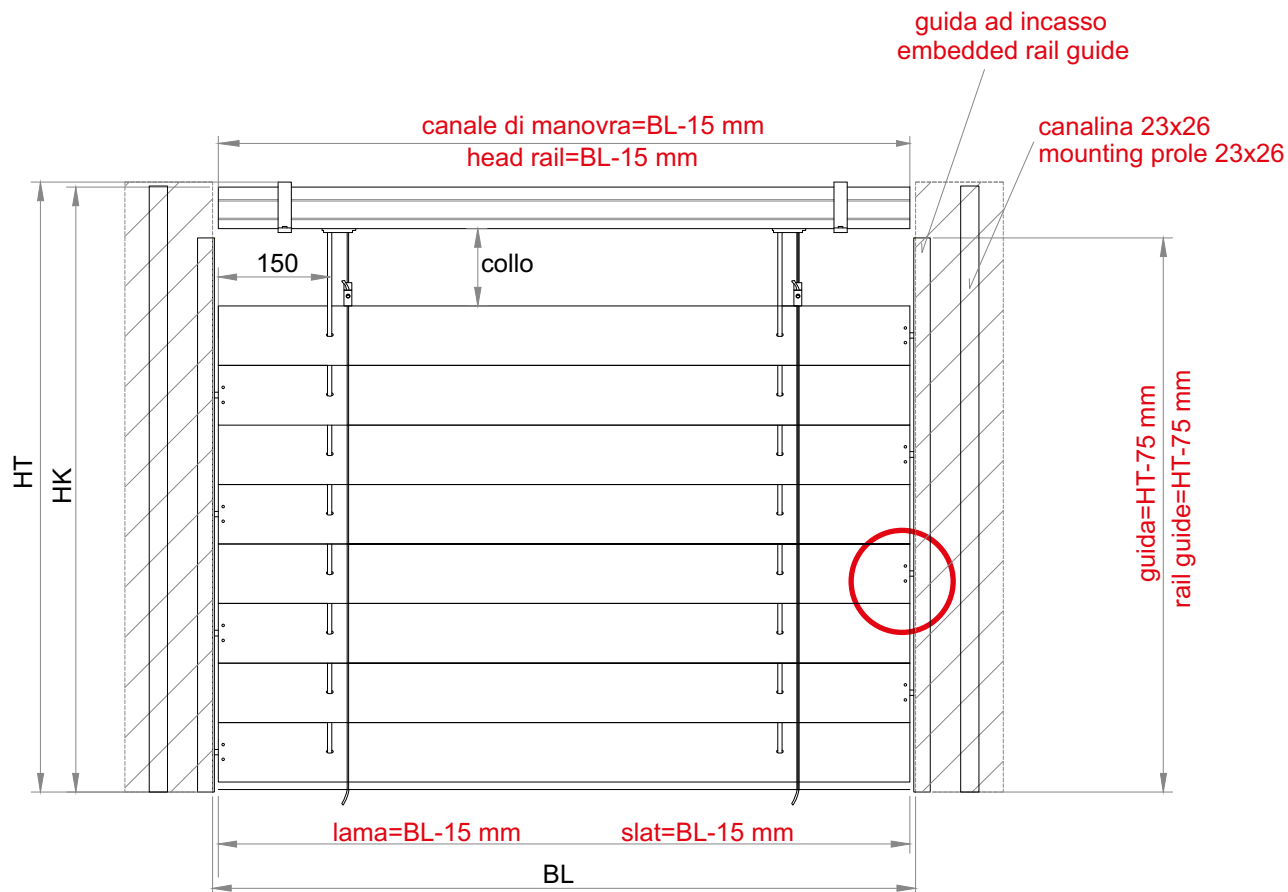


Sfioro per ciascun lato guida di 4 mm con tolleranza di +/- 3 mm
(quindi minimo 1 mm fino ad un massimo di 7 mm)
Distance between slat and rail guide
of 4 mm with +/- 3 mm tolerances (from 1mm up to 7 mm)

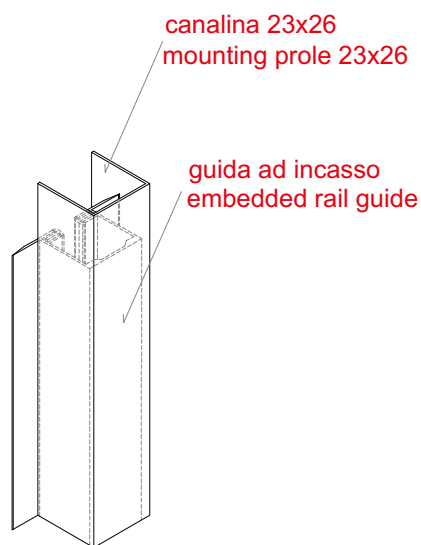
65 STD

guide incassate - embedded rail guides

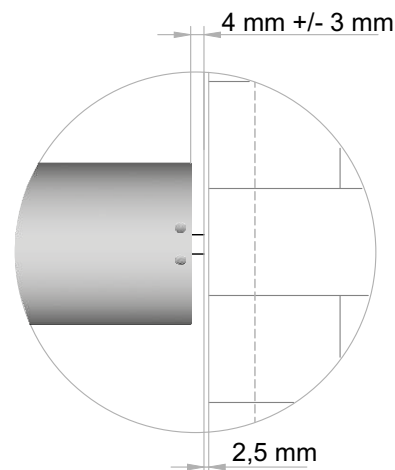
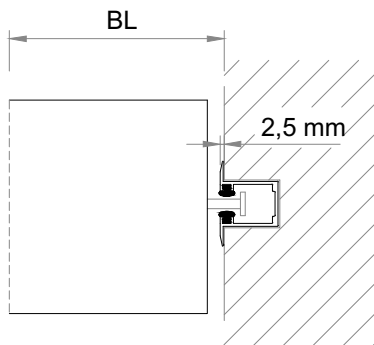
Parametri delle componenti nella realizzazione della tenda e relative tolleranze
components guidelines for blind installation and tolerances



Vista frontale da fuori - Outside frontal view



Particolari - Details



Sfioro per ciascun lato guida di 4 mm con tolleranza di +/- 3 mm (quindi minimo 1 mm fino ad un massimo di 7 mm)
Distance between slat and rail guide of 4 mm with +/- 3 mm tolerances (from 1mm up to 7 mm)

65 STD

Descrittiva di capitolato technical specifications

- Oscuramento tenda 80%
- Orientamento lame in qualsiasi posizione
- Movimentazione lame da 0 a 180°
- Lamelle spessore 0,47 mm, dimensione 65 mm, in lega di alluminio con bordature laterali
- Verniciatura lamelle su entrambi i lati, opaca ed antigraffio
- Guide laterali in lega di alluminio estruso in tinta con guarnizioni antirumore
- Disponibili anche guide per incasso, guide autoportanti e guide doppie
- Canale di manovra in acciaio, (dim. 56X58 mm spessore 0,60 mm), disponibile zincato o zincato verniciato
- Movimentazione ad argano o motore IP44.
- Terminale in lega di alluminio estruso in tinta completo di tappi telescopici
- Darkening up to 80%
- Adjustable slats at any angle and height
- Slats tilt from 0° to 180°
- Slats thickness 0,47mm, width 65 mm, in aluminium alloy with rounded borders
- Painted slats on both sides, matt and anti-scratch coat
- Painted side rail guides in extruded aluminium with rubber profile for noise reduction. Embedded, self-supporting and double rail guides are available.
- Steel head rail (dimensions 56x58 mm, thickness 0.60 Mm), Available galvanised or painted
- Crank or motor ip44 operations available
- Painted bottom rail in extruded aluminium with telescopic caps

Descrittiva: Tenda frangisole appacchettabile con lama sagomata a "coppo" con bordatura laterale per conferire maggiore robustezza. Fori lama passaggio Texband ribattuti. Trazione della tenda assicurata da nastri Texband da 6 mm con 100.000 cicli di movimentazione certificati. Movimentazione dell'orientamento regolata da nastri terilene composti da Aramid e Kevlar. Alle estremità delle lame, posizionati in maniera alternata, sono fissati i pioli in materiale sintetico che scorrono all'interno delle guide laterali appoggiando sulle relative guarnizioni per evitare rumorosità. Nella parte superiore il canale di manovra in acciaio, rivolto verso il basso permette l'ispezionabilità, raccoglie la componentistica che consente la trasmissione del movimento sia esso ad argano che a motore. All'interno sono alloggiati i variatori necessari per l'avvolgimento del Texband e l'orientamento delle lame mediante terilene a sua volta collegato con clips in acciaio inox (detto mammut). L'organo di trasmissione è un albero in alluminio estruso con Ø14 mm scanalato che attraversa i variatori. Manovra ad argano diretta oppure rinviata a 45° o 90°, manovella snodata con asta in alluminio Ø15 mm. Movimentazione a motore meccanico. La potenza del motore viene calcolata in base alla dimensione della tenda. Il motore dispone di una spina stagna Hirschmann Stas 3 (chiamata maschio) abbinata alla presa Stak 3 (chiamata femmina).

Description: packing-up external venetian blind with curved slats and rounded borders for more stability. The blind traction is secured from the Texband of 6 mm with 100.000 certified cycles and pass through the slats via holes with rounded edges. The slats tilt thanks to Aramid and Kevlar terylene strings. On both sides of the slats, there are alternating hooks in synthetic material, which allow slats to move regularly in the side rail guides provided with a rubber for noise reduction. In the upper part, there is the head rail which points downwards for an easier maintenance; it is composed of all the essential components that allow the blind to work properly, both in crank or motor operations. In the head box, there are the tilters needed to roll up the Texband and to tilt the slats through the terylene, which is fastened with stainless steel clips (called Mammut). The threaded drive shaft Ø14 mm is in extruded aluminium which passes through the tilters. Crank with direct handle or with extended joint of 45° or 90°, articulated handle in aluminium Ø15 mm. Motor operations. The motor power depends on the size of the blind. Stas 3 male plug and Stak 3 female plug are included in the supply.