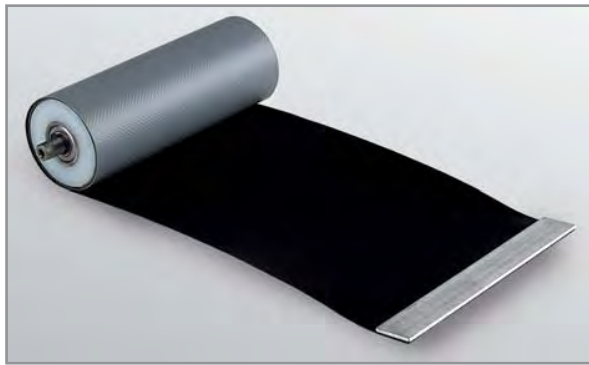


ROLLER COVERS

ROLLER cover systems are a possible substitute for bellow covers in very narrow spaces when only general sealing is required.

Two different types are available:

- ROLLER blind without housing - this type needs less space, best used with smaller diameters and short extensions
- ROLLER blind with housing - we recommend this type for safety reasons when longer extensions are used and especially when steel is used for the band material. They are available in many variants.



ROLLER blind cover without housing



ROLLER blind cover with steel band and housing

Drives

The ROLLER systems come with different drive concepts:

- Torsion springs TF: Drive separate to cover band
- Steel band drives SA: Cover band forms drive
- Steel band spring drive FM: Drive separate to cover band
- Electrical drive: to customers specifications (see page 62)

Torsion springs TF

Torsions springs are very well suited for a long working life performance at low loads. We recommend torsion spring drives primarily with synthetic material covers. The torsion springs are manufactured from a high quality alloyed wire. This wire material has been proved to reach ten times the service life of a conventional wire spring.

Steel band drive SA

For higher tension forces we recommend SA steel band drives. The steel band for the outer cover also serves as a spring motor. Steel is selected for the band.

Steel band spring drive FM

Also suitable for higher tension forces are the FM steel band spring drives.

Design option	ROLLER with TF drive	ROLLER with SA drive	ROLLER with FM drive
Housing available	■	■	■
Side mount available	■		■
Link Apron available	■ (limited)		■
Outer band synthetic material	■		■
Outer band stainless steel	■ (limited)		■
Outer band normal steel		■	■
Maximum band width in mm	1,500*	300	1,500*
Maximum band extension in mm	3,000	7,500	6,000*
Maximum travelling speed	60 m/min	30 m/min	40 m/min
Rapid change of direction	■	■	limited
Continuous load	very high	average	high
Resistance to dust/dirt	low	average	low
Tension forces	slightly increased when fully extended	increased when fully extended	slightly increased when fully extended
Product costs	low	low	average

*other dimensions on request

All dimensions in mm if not marked otherwise. Errors and omissions excepted.



ROLLER COVERS

Band width#	extension	ROLLER, drive torsion spring (TF) without housing Ø Roller	ROLLER,drive torsion spring (TF) with housing housing LxW	ROLLER, drive spring motor (FM) without housing Ø Roller	ROLLER, drive spring motor (FM) with housing housing LxW	ROLLER drive steel band (SA) with housing housing LxW
over 150	bis 300	21 / 28* ●	40 x 40 ●	50 ●	60 x 60 ●	40 x 40 ■
over 150	bis 500	21 / 30 ●	50 x 50 ●	50 ●	60 x 60 ●	50 x 50 ■
over 150	bis 1.000	40 ●	60 x 60 ●	45 / 50 ●	70 x 70 ●	60 x 60 ■
over 150	bis 1.500	-	-	50 / 60 ●	80 x 80 ●	70 x 70 ■
over 150	bis 2.000	-	-	60 / 70 ●■	90 x 90 ●■	75 x 75 ■
over 150	bis 2.500	-	-	70 / 80 ●■	110 x 110 ●■	80 x 80 ■
over 150	bis 3.000	-	-	80 / 90 ●■	120 x 120 ●■	90 x 90 ■
over 150	bis 4.000	-	-	90 / 100 ●■	130 x 130 ●■	100 x 100■
over 150	bis 5.000	-	-	100 / 120●■	140 x 140 ●■	110 x 110 ■
over 150	bis 7.000	-	-	120 / 133●■	150 x 150 ●■	120 x 120■
over 150	bis 9.000	-	-	120 / 133●■	160 x 160 ●■	120 x 120■
special dimensions	on request					
up to 300	up to 300	21 / 28 ●	40 x 40 ●	45 ●■	60 x 60 ●■	40 x 40 ■
up to 300	up to 500	21 / 28 ●	50 x 50 ●	50 / 60 ●■	70 x 70 ●■	50 x 50 ■
up to 300	up to 1,000	30 / 32 ●	60 x 60 ●	60 ●■	70 x 70 ●■	60 x 60 ■
up to 300	up to 1,500	40 / 45 ●	70 x 70 ●■	60 ●■	80 x 80 ●■	70 x 70 ■
up to 300	up to 2,000	-	80 x 80 ●■	60 / 70 ●■	90 x 90 ●■	75 x 75 ■
up to 300	up to 2,500	-	80 x 80 ●■	70 / 80 ●■	100 x 100 ●■	80 x 80 ■
up to 300	up to 3,000	-	90 x 90 ●■	80 / 90 ●■	110 x 110 ●■	90 x 90 ■
up to 300	up to 4,000	-	100 x 100●■	90 / 100 ●■	120 x 120 ●■	100 x 100■
up to 300	up to 5,000	-	120 x 120●■	90 / 100 ●■	130 x 130 ●■	110 x 110■
up to 300	up to 7,000	-	-	100 / 120●■	150 x 150 ●■	120 x 120■
up to 300	up to 9.000	-	-	100 / 120●	160 x 160 ●	140 x 140■
special dimnsions	on request					
over 300 up to,1000	up to 300	21 / 28 ●	40 x 40 ●■	40 / 45 ●■	60 x 60 ●■	-
over 300 up to,1000	up to 500	21 / 28 ●	50 x 50 ●■	45 / 50 ●■	70 x 70 ●■	-
over 300 up to,1000	up to 1,000	30 / 32 ●	60 x 60 ●■	45 / 50 ●■	70 x 70 ●■	-
over 300 up to,1000	up to 1,500	45 ●	70 x 70 ●■	50 / 60 ●■	80 x 80 ●■	-
over 300 up to,1000	up to 2,000	60 ●■	80 x 80 ●■	60 / 70 ●■	90 x 90 ●■	-
over 300 up to,1000	up to 2,500	50 / 60 ●■	80 x 80 ●■	70 / 80 ●■	110 x 110 ●■	-
over 300 up to,1000	up to 3,000	60 / 70 ●■	90 x 90 ●■	80 / 90 ●■	120 x 120 ●■	-
over 300 up to,1000	up to 4,000	70 / 80 ●■	100 x 100●■	80 / 100 ●■	130 x 130●■	-
over 300 up to,1000	up to 5,000	80 / 90 ●■	120 x 120●■	90 / 100 ●■	140 x 140●■	-
over 300 up to,1000	up to 7,000	90 / 100 ●■	130 x 130●■	100 / 120●■	150 x 150●■	-
over 300 up to,1000	up to 9,000	100 / 120●■	150 x 150●■	100 / 120●■	160 x 160●■	-
special dimensions	on request					

All dimensions in mm.

The band with is depending on the kind of drive FM or TF), a FM drive requests a band width of 50 mm min., a TF type 150 mm m in.

* 21/28 means a roller diameter of 21 mm for regular load and 28 mm for high load. Other types and sizes on request. Square outer housing, rollo size is equivalent to outer dimension of the tube. Type without housing: first number: standard spring force/second number: enlarged spring force is required.

● non-metallic band possible ■ steel band possible

Order and request forms available at: www.hema-group.com



ROLLER COVERS

Dimensions of housings

The measurements for the ROLLER System housings must take into account the band width, length of extension and also type of drive.

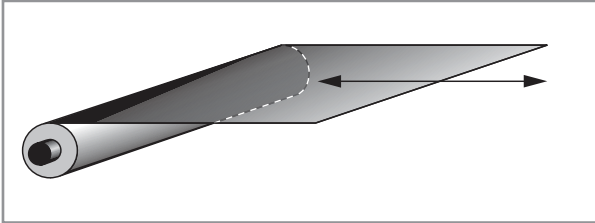
Design data for calculation

For the design of the ROLLER covers the following factors should be considered:

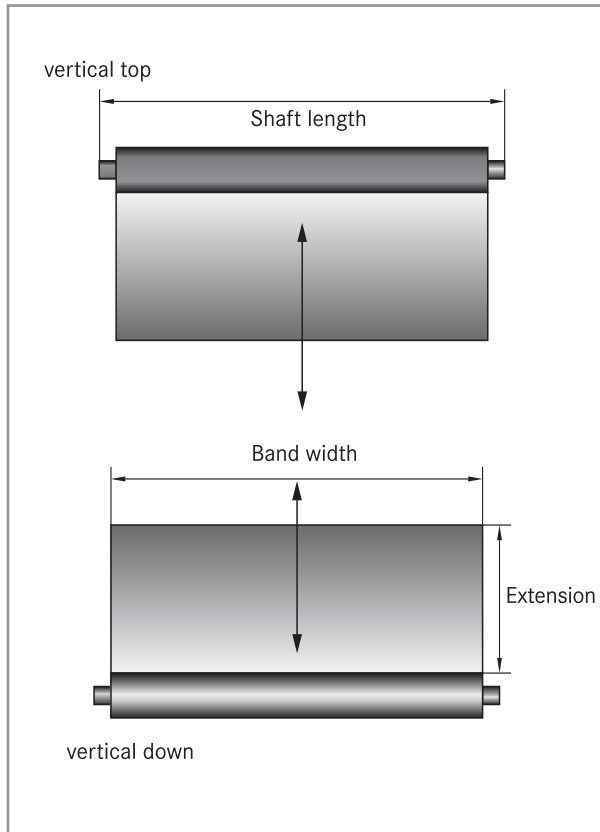
- speed of travel
- intended total number of cycles, working life
- frequency and speed of changes in travel direction
- mounting position, direction of swarf

Operating position

The operating position can be vertical, horizontal or transverse, with an extension to the left, right, top or bottom side.

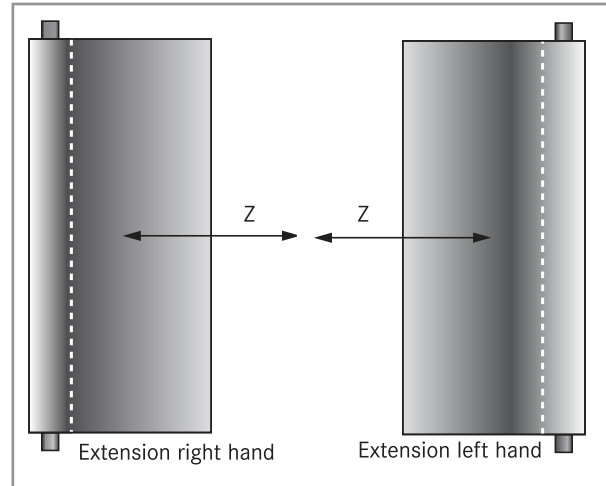


Operating position: horizontal flat



Operating position: vertical flat

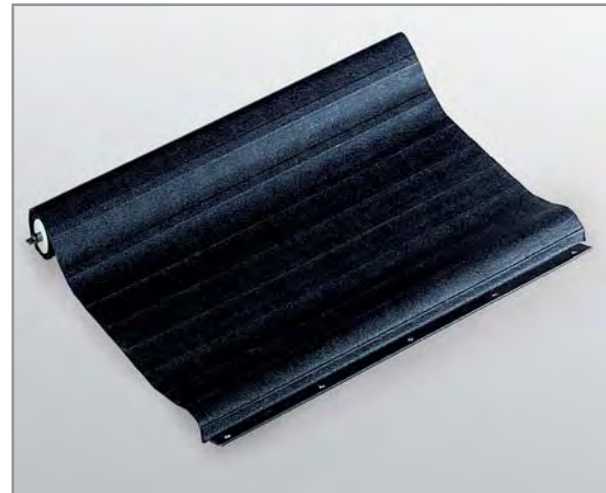
All dimensions in mm if not marked otherwise. Errors and omissions excepted.



Operating position: horizontal upright, e.g. for X axis covers

Pre-loading

- ROLLER systems with housing are pre-loaded at the factory to customer or HEMA specifications and are ready to install.
- ROLLER systems without housing are not pre-loaded.



Roller blind with cover band

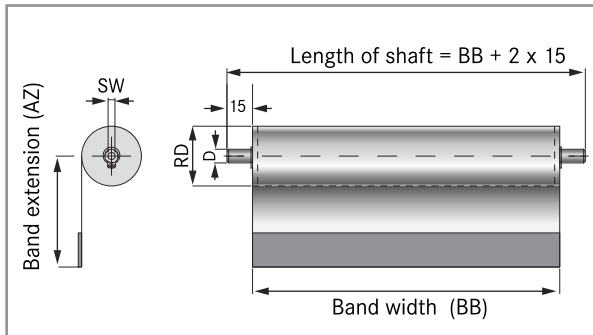
Cover material

The outer band is subjected to a wide variety of stresses; the material chosen depends on the field of application:

- Steel bands with rounded edges (standard and stainless steel): Protection from cold and hot chips, coolants. Maximum width of steel band standard 300 mm, steel band stainless 1000 mm
- Synthetic bands, e.g. Preotex, awning cloth, Neoprene, etc., Protection from dust, coolants, contact guard
- Link aprons: Protection from large chips, coolants: Recommended for applications requiring additional lateral stability



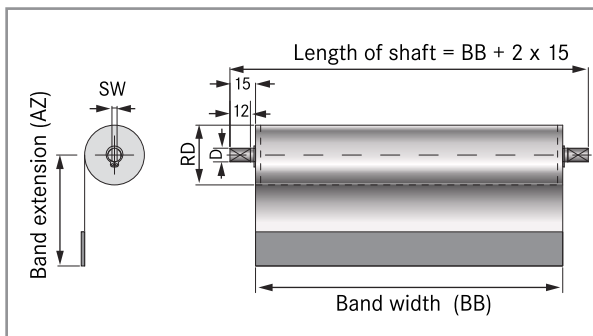
ROLLER COVERS



Standard shaft for ROLLER blind without housing

Type of shaft	inner hexagon (SW)	Projecting
E1-08	4	2 x 15
E1-10	4 / 6 optional	2 x 15
E1-12	6	2 x 15

Standard shaft for ROLLER blind without housing



Shaft for ROLLER blind without housing (optional)

Type of shaft	inner hexagon (SW)	Maximum width across flats
E2-08	4	3 x 12
E2-10	4 / 6 optional	4 x 12
E2-12	6	6 x 12

Shaft for ROLLER blind without housing (optional)

Mounting

A variety of mounting positions is available. ROLLER covers with housing can be mounted at the standard positions shown in the next column.

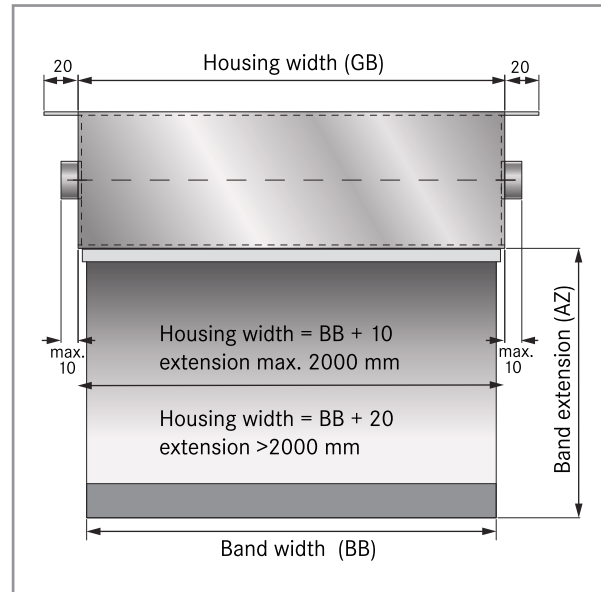
For mounting roller covers without housing two holder types are available for easy and permanent fixing:

- Standard holder (HL)
- Heavy duty holder (HS)

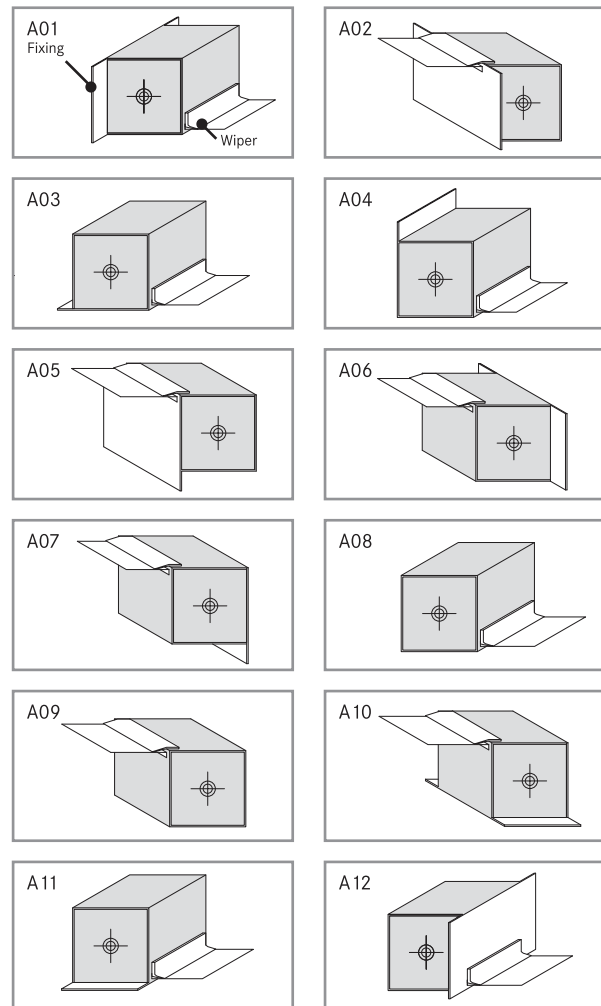
Customized holders can be produced for special requirements.

Please note

ROLLER covers ordered without housing are produced with round shafts as standard.



Calculation of housing dimension

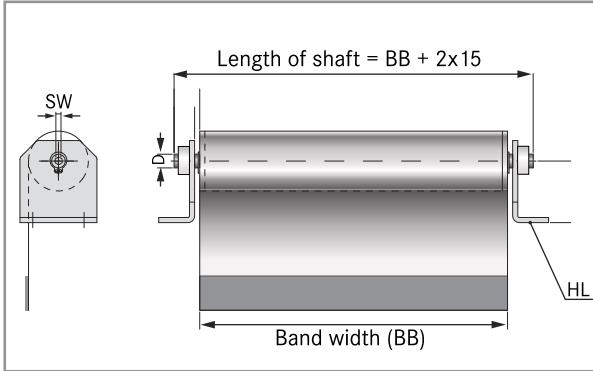


Fixing types for ROLLER with housing

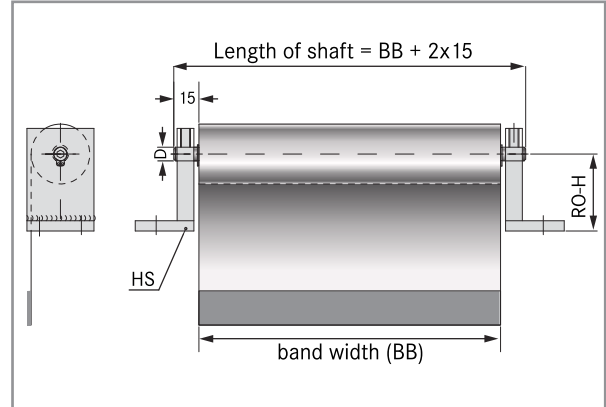
Order and request forms available at: www.hema-group.com



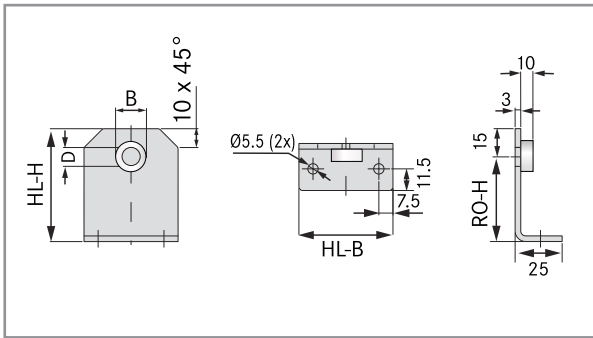
ROLLER COVERS



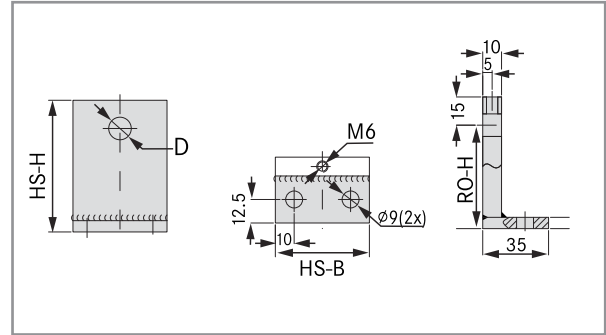
Standard holder (HL)



Heavy duty holder (HS)



Standard holder (HL)



Heavy duty holder (HS)

Legend

D	Diameter of axle
B	Collar
SW	Wrench size
RO-H	Space axis to holder
HL-B/HS-B	Width holder standard/holder heavy duty
HL-H/HS-H	Height holder standard/holder heavy duty

Halter-Typ	RO-H	D	B	HL-B	HL-H
HL-30/8	30	8	16	40	45
HL-30/10	30	10	20	40	45
HL-30/12	30	12	22	40	45
HL-40/8	40	8	16	45	55
HL-40/10	40	10	20	45	55
HL-40/12	40	12	22	45	55
HL-45/8	45	8	16	50	60
HL-45/10	45	10	20	50	60
HL-45/12	45	12	22	50	60
HL-50/8	50	8	16	65	65
HL-50/10	50	10	20	65	65
HL-50/12	50	12	22	65	65
HL-60/10	60	10	20	65	75
HL-60/12	60	12	22	65	75
HL-70/10	70	10	20	65	85
HL-70/12	70	12	22	65	85
HL-80/10	80	10	20	65	95
HL-80/12	80	12	22	65	95

Type of holder	RO-H	D	HS-B	HS-H
HS-45/10	45	10.2	50	60
HS-45/12	45	12.2	50	60
HS-50/10	50	10.2	50	65
HS-50/12	50	12.2	50	65
HS-60/10	60	10.2	70	75
HS-60/12	60	12.2	70	75
HS-70/10	70	10.2	70	85
HS-70/12	70	12.2	70	85
HS-80/10	80	10.2	90	95
HS-80/12	80	12.2	90	95
HS-90/10	90	10.2	90	105
HS-90/12	90	12.2	90	105
HS-100/10	100	10.2	100	115
HS-100/12	100	12.2	100	115
HS-120/10	120	10.2	100	135
HS-120/12	120	12.2	100	135
HS-140/10	140	10.2	100	155
HS-140/12	140	12.2	100	155
HS-150/10	150	10.2	100	165
HS-150/12	150	12.2	100	165

All dimensions in mm if not marked otherwise. Errors and omissions excepted.



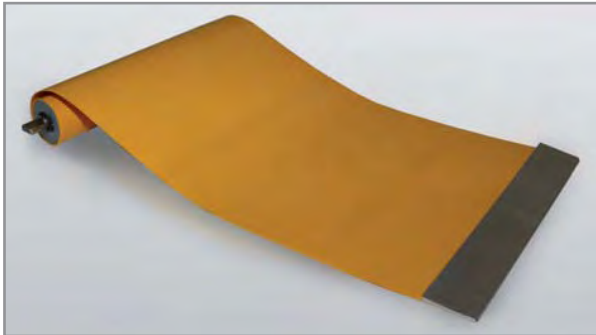
تلفن : (021) 33913364 - 33951660

فکس : (021) 33985603

ROLLER COVERS

Fixing the band

The band is fixed to your requirements with flat or angular steel brackets bonded or riveted to the band on one or both sides.

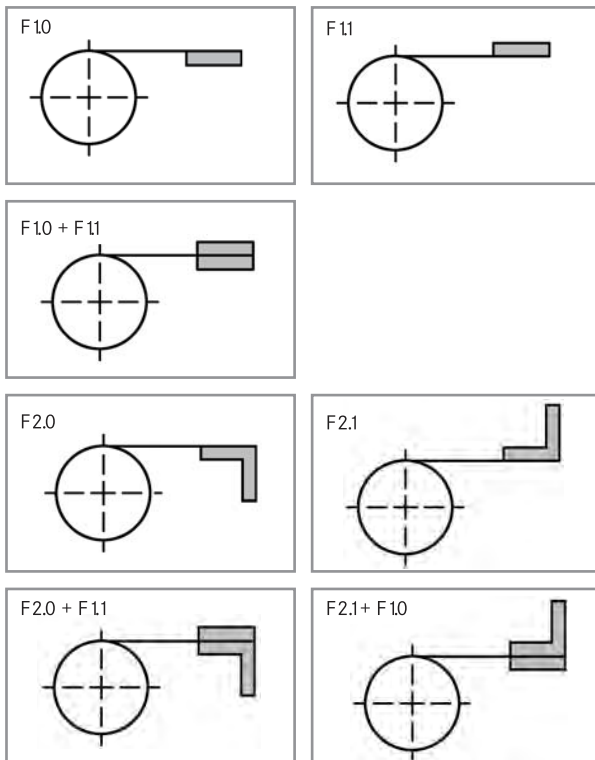


ROLLER with bonded fixing bracket F1.1



Link Apron with fixing bracket F2.1, riveted

Variety of band fixing types



Order and request forms available at: www.hema-group.com

Wiper

In order to keep the case as clean as possible, we use wiper systems as a standard feature.

For special applications we offer wipers for guideways and telescopic covers and brush wipers.



Rollo with housing and HEMA serial number

Replacement

When ordering replacement rollers please quote the serial number for the ROLLER cover.

This number can be found either on the roller blind itself or on a label on the housing.

Security information

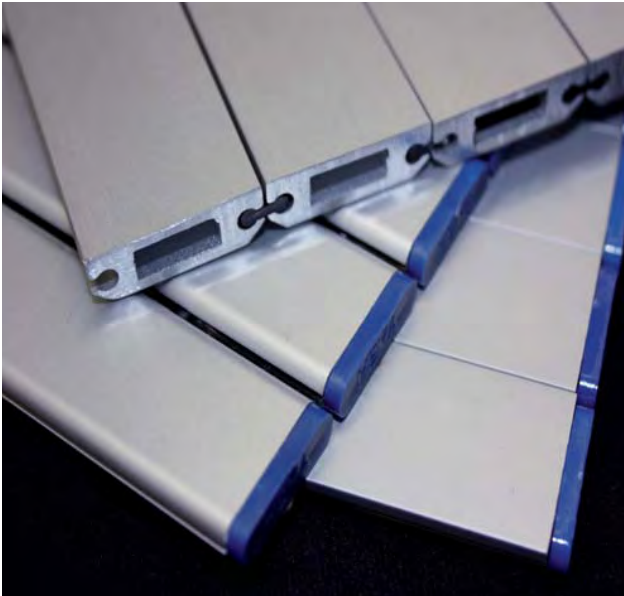
Please observe the mounting and maintenance information supplied with each ROLLER cover.



Mounting and maintenance information for ROLLER



ROLLER COVERS AND LINK APRONS



All dimensions in mm if not marked otherwise. Errors and omissions excepted.



تلفن : (021) 33913364 - 33951660

فکس : (021) 33985603