Roller Shade Sizes and Limits

Maximum size for single fabric bands:

Tube	Finished Size Width	Length	Control
1.5"	72"	108"	Clutch or any 250/280 Motor
2.0"	96"	144"	Clutch or any 350 motor
2.5"	120"	180"	350F and 350PW motors only
3.5"	168"	216"	not yet available

5" Rollease Dual System

Tube	Finished Size Width	Length	Control
1.5"	72"	120"	Clutch or any 250/280 Motor
2.0"	96"	96"	Clutch or any 350 motor

Maximum size for multiple fabric bands (on a single tube, not coupled):

Tube	Finished Size Width	Length	Control
1.5"	87"	108"	Clutch or any 250/280 Motor
2.0"	116"	144"	Clutch or any 350 motor
2.5"	145"	180"	350F and 350PW motors only

Shade Guardian Requirements

Any shade that exceeds 84" in width
Any shade that exceeds 84" in length

Minimum shade widths:

Operation	Width
Clutch	12"
Clutch w/ Spring Assist	
Clutch w/ Pin End Spring Assist	
Somfy LT30 Motor	
250B Battery Motor	21.5"
280B Battery Motor	
280BC Battery Motor	
280S Battery Motor	
280SC Battery Motor	
350B Battery Motor	30.5"
350BC Battery Motor	
350F Plugin Motor	27.5"
350PW Standard Motor	27.5"

Roller Shade Sizes and Limits

Deductions

Rollease SL20 Clutch

Fabric cut height = finished height **PLUS** 2” **PLUS** (tube circumference x 2)

Fabric cut width = finished width **MINUS** 1.375”

Tube cut width = finished width **MINUS** 1.250”

Hembar cut width

- Internal = finished width **MINUS** 2.375”
- External = finished width **MINUS** 1.375”
- Slim External with SIDE CHANNELS = finished width **MINUS** 1.750”

Fascia cut width

- Outside Mount = finished width
- Inside Mount = finished width **MINUS** 0.125"

Tube Circumference

Tube	Circumference	Fabric Length Add
1.5"	4.75"	12"
2.0"	6.25"	15"
2.5"	8.00"	18"

Roller Shade Sizes and Limits

General Guidelines

The chain-pull force for a manual roller shade should not exceed 4 pounds. This will leave you enough headroom for when the user pulls the chain at an odd angle or increased drag through the chain hold-down bracket. The chain pull due to clutch friction (without a load) is about 2 pounds.

A spring-assist should be used to counterbalance as much of the total weight load as possible, generally starting with roller shade sizes approaching 25 square feet.

Motorized roller shades should use The smallest (lowest torque) possible motor while using a spring-assist to counterbalance as much of the total weight load as possible. If done correctly no more than 2Nm of motor torque should be required. This will result in less noise, lower power consumption… and a lower cost motor.

The finished roller shade height should not exceed 72 times the tube diameter.

The max tube width for a SINGLE BANDED shade should not exceed 48 times the tube diameter.

The max tube width for a MULTI BANDED shade should not exceed 58 times the tube diameter.

The wall thickness of an aluminum tube should not exceed 3% of the tube diameter.

Some roller shade fabrics vary in their dimensional stability and can be subject to unpredictable telescoping when the ratio of width to height (aka aspect ratio) is excessive, generally exceeding 1:4.