SECTION 12 24 13

**Rollease Acmeda Contract Series Spring-Operated Manual Roller Window Shades**

PART 1 GENERAL

* 1. GENERAL REQUIREMENTS
		1. Work of this Section, as shown or specified, shall be in accordance with the requirements of the Contract Documents.
	2. SECTION INCLUDES
		1. Manually operated fabric roller shades controlled by an appropriate chain driven engineered clutch system to include the operating, installation hardware, brackets, accessories, and fabric.

*Specifier Note\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* Indicate appropriate related section below and remove none related sections, as necessary.*

* 1. Related Specification Sections:
		+ 1. Section 050000 - Cold-Formed Metal Framing.
			2. Section 061000 - Rough Carpentry – for in wall blocking as needed.
			3. Section 080000 – Doors and Windows.
			4. Section 095000 – Ceilings.
			5. Section 100000 – Specialties.
	2. Reference Section:
		1. CPSC-2022-25041 / 87 FR 73144 – Safety of Window Coverings Product
		2. ANSI/WCMA A100.1-2022 – American National Standard of Safety for Window Covering Products
		3. ASTM International (ASTM):
			1. ASTM E2180: 2018 - Standard Practice for Determining Resistance of Synthetic Polymeric Materials to Fungi.
			2. ASTM C423-17 – Standard Practice for measuring Sound Absorption.
		4. ISO (International Standards Organization)
			1. ISO 17050-1 : 2014 Allows a manufacturer to self-certify its products when necessary.
		5. LBC Red List Compliant
		6. Other:
			1. MA General Law - Part I, Title II, Chapter 21A, Section 28
			2. NFPA 701 - Standard Methods of Fire Tests for Flame Propagation of Textiles and Films.
			3. UL GREENGUARD Gold Certified Products; Current Edition.
			4. Health Product Declarations (HPD’s)
			5. Oeko-Tex Standard 100
			6. CDPH Standard Method V1.2-2017, Section 8
			7. AERC Certified Product Listing
	3. SYSTEM DESCRIPTION
		1. Manually operated fabric window and/or opening roller shade that includes the installation brackets and all respective components to operate a manually operated clutch or spring-assisted shade device to include any fascia, cassette, enclosure system, pocket, decorative or non-decorative bracketing system as per the contract documents.
	4. PERFORMANCE CRITERIA
		1. Performance Requirements: Provide components that have been manufactured, fabricated, and installed to maintain performance criteria stated by Manufacturer, without defect, damage, or failure.
		2. Manually operated window roller shades shall be attached to the structure of the building in accordance with the Architect, Structural Engineer in accordance with contract documents as it relates to attachment only. Provide Design Calculations certified by a registered professional engineer licensed in the State of \_\_\_\_\_\_\_ shall be submitted to verify load carrying capability of shading system using performance requirements and design criteria as indicated. Shading attachment system shall be capable of resisting a minimum positive and negative wind load per ASCE-7 or building code, whichever is greater.
		3. Design and Structural Properties: Conform to provisions of the most current IBC (International Building Code and/or the building code requirements of any other AHJ where the project is being built)
		4. Deflection Limits: Shading attachment and system components shall be designed in accordance with the Manufacturer’s recommended maximum deflection no greater than the Manufacturer’s allowable spans, based on published criteria.
		5. Design and install all support structure to accommodate expected construction tolerances and misalignment, deflection of building structural components, and openings within the interior envelope as designed.
	5. SUBMITTALS
		1. Product Data: For each system indicated. Include Manufacturer’s written installation instructions, including recommendations for evaluating, preparing, and treating substrate, technical data, material descriptions, and finishes.
		2. Shop Drawings: Show fabrication and installation layouts of shading system, details of support structure attachment and wall structure conditions, anchorages for support structure, attachment system for shading system and accessories, trims, closures, flashings, corner conditions, and accessories as required or specified by the architect, and all special job specific details.
		3. Samples: Submit selection and verification samples for finishes, colors, and textures of shading components and fabric materials. Submit color matched interior steel fasteners for each color specified. If special fastening is selected by architect provide color matched fastener for each shading system color specified.
		4. Manufacturer’s Instructions: Manufacturer’s installation instructions.
		5. Closeout Submittals: Submit the following:
			1. Warranty: Warranty documents specified herein.
	6. QUALITY ASSURANCE
		1. Installer Qualifications: Installer shall be approved by the architect and have a minimum of five (5) years of experience in performing work of similar type and scope.
		2. Fabricator Qualifications: A shop that employs skilled workers who custom fabricate shading and attachment systems to those specified herein and is approved by the architect and have a minimum of ten (10) years of experience in performing work of similar type and scope. If shop drawings are required for the project the shop drawings are to be drawn and coordinated by the approved fabrication company.
		3. Source Limitations: Obtain shading and attachment system and all auxiliary materials from a single source Manufacturer who has a minimum of 25 years of experience in the manufacturing of interior and exterior grade shading components, systems, and accessories. All shading systems to be supplied and or manufactured by a single manufacturer.
	7. DELIVERY, STORAGE AND HANDELING
		1. Delivery: Deliver materials to the site by fabricator in the original, unopened, undamaged containers with identification labels intact.
		2. Storage and Protection: Store materials protected from exposure to harmful weather conditions, at temperature and humidity conditions recommended by Manufacturer. Comply with Manufacturer’s written handling and storage guidelines.
		3. Packaging: The intent of the packaging by the fabricator is to be constructed to withstand the safe transport and storage of the finished contract series shade product so that at time of installation it complies with the manufacturer’s guidelines, performs and is warrantable upon installation.
	8. PROJECT CONDITIONS
		1. Field Measurements: Verify actual measurements/openings by field measurements before fabrication; show recorded measurements on shop drawings. Coordinate field measurements and fabrication schedule with construction progress to avoid construction delays.
		2. Environmental Limitations: Install roller shades after finish work, including painting, is complete and ambient temperature and humidity conditions are maintained at the levels indicated for Project when occupied for its intended use.
	9. WARRANTY
		1. Submit Installer’s standard warranty covering defects in supplied material for one (1) year.
		2. Fabrics are warranted for 10 years minimum.
		3. Lifetime Limited Warranty on shade hardware only.
		4. 25-year Special Commercial Warranty, transferrable to the building owner, project based, and specified. For further information and a Draft sample warranty please contact Contract@Rolleaseacmeda.com. *(this is a project-by-project warranty offering that is extended by specification only)*
1. PRODUCTS
	1. MANUFACTURERS

Basis of Design: Rollease Acmeda Contract Series as manufactured by Rollease Acmeda, 750 E Main Street, Stamford, CT 06902. Please contact Contract Sales at (800) 552-5100 or email: Contract@Rolleaseacmeda.com. A list of local contract dealers, fabricators and installers that comply with this specification section may be requested from the above contact.

Substitution Requests: As specified by Division 01 of the contract documents.

* + 1. No substitutions will be accepted.

*Specifier Note\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* Choose appropriate to your project the applicable Fasteners and Anchors and remove the appropriate sub-sections, as necessary. Please note the attention to each sub-section choice and remove non-used portions for clarity.*

**2.02 Spring Roller Shade Components**

 A. Control System:

1.**Easy Spring Air**: Tempered steel helical torsion spring of size and capacity to accomplish the lift requirements of size and fabric weight. A height limiter is an integral component for setting top or bottom limits for deployment of the shade panel. Standard 1-1/2” overall diameter. Adjuster wheels regulate spring tension to achieve balance and allow for minimal operating force. Manually raise and lower shade to desired height by applying minimum pressure to hem-bar of shade panel.

2. **Easy Spring Ultra**: Tempered steel helical torsion spring of size and capacity to accomplish the lift requirements of size and fabric weight. A speed reducer shall be an integral component of the spring assembly, with fittings sized for roller tube inside diameter and to be secured by the spring bracket end plugs. Four tube sizes available for fabricators to be able to accommodate a broader range of shade sizes (38mm, 43mm, 44mm, and 49mm outside diameter). Spring head adjustment regulates spring tension, opening speed, and top stop position. Shade must be removed from brackets to make adjustment. Tug on bottom of shade and release for shade to rise. Manually lower shade by pulling on bottom of shade.

3. **Easy Spring Wand**: Tempered steel helical torsion spring of size and capacity to accomplish the lift requirements of size and fabric weight. A speed reducer shall be an integral component of the spring assembly, with fittings sized for roller tube inside diameter and to be secured by the spring bracket end plugs. Four tube sizes available for fabricators to be able to accommodate a broader range of shade sizes (38mm, 43mm, 44mm, and 49mm outside diameter). Spring head adjustment regulates spring tension, opening speed, and top stop position. Shade must be removed from brackets to make adjustment. Tug on wand and release for shade to rise. Manually lower shade by pulling wand in short cycles to position shade. Shade can also be manually operated by pulling on the bottom of the shade to lower. Collapsible wand to prevent exposure to operational cord. Tug and release bottom of shade to raise. No exposed cords to comply with safety standards and regulations.

 B. Headrail:

1. **Easy Spring Air**: Standard requires no headrail. Optional extruded aluminum headrail with integral recesses to accept snap-in, zinc-plated, stamped-steel mounting assemblies. Extrusion has white powder coat, mill, or anodized finish. Headrail is required.

2. **Easy Spring Ultra**: Standard requires no headrail. Optional extruded aluminum headrail with integral recesses to accept snap-in, plated or painted, spring-steel mounting assemblies. Extrusion has white powder coat, mill, or anodized finish.

3. **Easy Spring Wand**: Standard requires no headrail. Optional extruded aluminum headrail with integral recesses to accept snap-in, plated or painted, spring-steel mounting assemblies. Extrusion has white powder coat, mill, or anodized finish.

 C. Mounting Hardware:

1. **Easy Spring Air**: Manufacturer’s standard zinc plated or white powder-coated, cold-rolled steel end brackets. Bracket covers available for finished look on outside mounted shades. Headrail option mounting brackets are stainless or white spring steel mounting clips.

2. **Easy Spring Ultra**: Manufacturer’s standard zinc plated or white powder-coated, cold-rolled steel end brackets. Bracket covers available for finished look on outside mounted shades. Headrail option mounting brackets are stainless or white spring steel mounting clips.

3. **Easy Spring Wand**: Manufacturer’s standard zinc plated or white powder-coated, cold-rolled steel end brackets. Bracket covers available for finished look on outside mounted shades. Headrail option mounting brackets are stainless or white spring steel mounting clips.

 D. Roller Tube:

1. **Easy Spring Air**: Extruded aluminum shade roller tube of 1-1/2” diameter to support shade fabric without excessive deflection, with engineered wall & ribs to lock the spring mechanism and stop mechanism into place, providing strength & durability. Size limits based on fabric choice.

2. **Easy Spring Ultra**: Extruded aluminum shade roller tube of 38mm (std. 1.5”), 43mm, 44mm, or 49mm outside diameter to support shade fabric without excessive deflection, with engineered wall & ribs to lock the spring mechanism and stop mechanism into place, providing strength & durability. Tube size chosen by fabricator based on shade size and fabric choice.

3. **Easy Spring Wand**: Extruded aluminum shade roller tube of 38mm (std. 1.5”), 43mm, 44mm, or 49mm outside diameter to support shade fabric without excessive deflection, with engineered wall & ribs to lock the spring mechanism and stop mechanism into place, providing strength & durability. Tube size chosen by fabricator based on shade size and fabric choice.

E. Fabric Attachment to Tube:

1. Provide for positive mechanical attachment of fabric to

roller tube:

a. LSE (Low Stress Energy) double-sided adhesive tape to secure the fabric without having to remove shade roller from shade brackets. Adhesive attachment affords minor lateral adjustments to edge clearance dimensions.

1. Fabric wrap of 2 ½ to 3 times the circumference of the roller tube required for proper tension of fabric-to-tube.

2. Switch Spline attachment (for removal and cleaning of shade band (or fabric))

a. Must allow for easy removal of shade band without removing roller tube, housing, or mechanical systems. System must allow top of shade band to drop below the shade tube, fascia bottom return, or pocket closure for easy removal of shade band.

b. Switch Spline style roller tube required.

 F. Hem Pockets and Hem Weights:

1. Fabric hem pocket with RF-welded seams (including welded ends) and extruded aluminum concealed hem weight. Hem weights shall be of appropriate size and weight for shade band and shall be continuous inside the sealed hem pocket.

2. Hem pocket construction and hem weight per foot shall be consistent for all shades within one room.

3. Exposed aluminum extruded hem bar, of manufacturer’s standard configurations, with coordinating end caps. Color / finish as selected by Architect. Specify Standard oval, Round, or D30. D30 has bottom extrusion feature to add light blocking brush or bubble seal for blocking light against the sill and optional rear feature for back bumper to protect window surfaces from rubbing.

 G. Enclosures:

* + - 1. Medium Enclosure system:
				1. Pelmet 95 (P95):

One piece decorative with spring loaded attachment

Ceiling mounted

Wall mounted

* + - * 1. Fabric wrapped
				2. Non-Fabric wrapped
				3. Color

Pure White

Black

Anodized

Sandstone

Silver Frost

* + - 1. Cassette/Fascia (CF90)

Square

Round

* + - * 1. Color

Pure White

Black

Anodized

* + - 1. Fascia systems
				1. 3” Fascia (Not on Easy Spring Wand)

Single only

* + - * 1. 4” Fascia

Single only

* + - * 1. 5” Fascia

Single

Dual

* + - 1. Pocket:
				1. Three-sided aluminum extrusion to conceal brackets, roller tube, fabric, and operating system above ceiling line or for recessed installation.

3” x 3” nominal with closure panel (optional: [2”] w/o brush)

4” x 4” nominal with closure panel (optional: [2”] w/o brush)

5” x 5” nominal with closure panel (optional: [2”] [3”] w/o brush)

5” x 5” actual-AP with closure panel (optional: [2”] [3”] w/o brush)

6” x 6” actual-AP with closure panel (optional: [2”] [3”] [4”] w/o brush)

7” x 9” actual-AP with closure panel (optional: [2-1/4”], [3-3/4”], [4”], [5”] w/o brush)

* + - 1. Pocket Clip:
				1. “L” shaped pocket clip for edge conditions as an integral part to the existing gyp system with an overlap of 3/4". Providing an overlap condition at the border for acoustical ceiling systems.

2” w/o brush feature Closure Panel.

3” w/o brush feature Closure Panel.

4” w/o brush feature Closure Panel.

5” w/o brush feature Closure Panel

* + - * 1. “I” shaped pocket clip for trim conditions as an integral part to the existing gyp system with an overlap of 1/16".

2” w/o brush feature Closure Panel.

3” w/o brush feature Closure Panel.

4” w/o brush feature Closure Panel.

5” w/o brush feature Closure Panel

2 ¼” w brush feature Closure Panel.

2 ¾” w brush feature Closure Panel.

2 ¾” w/o brush feature Closure Panel.

* + - 1. Closure panel options for pockets and pocket clips:
				1. For use with pockets

Closure panel w/o brush feature (2”, 3”, 4”, 5”)

* + - * 1. For use with “L” or “I” pocket clips

Closure panel w/o brush feature (2”, 3”, 4”, 5”)

* + - 1. Cassette:
				1. Flat Cassette 100 – 3 1/4" x 3” w/ spline attachment for fabric wrapped option.

H. Other Accessories:

 1. Edge Side Channels:

* + - * 1. Extruded aluminum channels generally used to eliminate light infiltration (or leakage) at side or bottom clearances to jambs and/or sills.
				2. Finish color as selected by architect from manufacturer’s full range.

2. Wire Guided Mount:

* + - * 1. Top and bottom anchors for 1.2mm steel wire guide cables. Must have tension adjustment and integral wire guides in hem bar end caps. Must be corrosion resistant zinc plated, or powder coated.
	1. ROLLER SHADE FABRICATION
		1. Field measure finished openings prior to ordering or fabrication.
		2. Dimensional Tolerances:
			1. Vertical Dimensions.
				1. Fill openings from head to sill with no greater than 1/2” space between bottom bar and [finished floor] [window stool].
			2. Horizontal Dimensions: Inside Mounting.
				1. Fill openings from jamb to jamb

Light gap on control side no greater than 0.75”

Light gap on idler side no greater than 0.5”

* + - 1. Horizontal Dimensions: Outside mounting.
				1. Cover window frames, trim, and casings completely.
				2. Extend shades beyond jambs on each side: 2 inches.
				3. Extend shades beyond jambs on each side: \_\_\_\_ total.
			2. Openings Requiring Continuous Multiple Shade Units with Separate Rollers: (linked shades)
				1. Locate roller joints at

[window mullion centers] [butt rollers end-to-end].

Light gap between linked shades to be no greater than 0.71”

* 1. SHADE CLOTH FABRIC –
		1. Inherently anti-static, flame retardant, fade and stain resistant, light filtering, room darkening, or blackout fabrics as selected by the architect from Texstyle, a division of Rollease Acmeda.  Solar Control and Shade Color from available contract colors.
			1. Ambient Renew Screen: Sustainable Closed loop recyclable solar screen made from 85% recycled plastic bottles. CPDH tested for Low VOCs, PVC free, OEKO-TEX Standard 100 Certified, FR Rated, Lead, phthalate, formaldehyde, and fragrance free. LBC Red List Compliant. Light filtering options and color selections to be chosen using the manufacturers standard selections. Using test method ASTM C423, Ambient Renew 1% achieves an NRC rating of .50 and an SAA rating of .51 for acoustical performance.
			2. Mesa Façade: Charcoal backed blackout fabric. Greenguard Gold Certified, CPDH tested for Low VOCs, ISO 9001 Certified, OEKO-TEX Standard 100 Certified, FR Rated, Lead free, PVC free, Phthalate free, fragrance free, Eco-Friendly. Color selections to be chosen using the manufacturers standard selections.
			3. Mesa Blackout: White backed blackout fabric. Greenguard Gold Certified, CPDH tested for Low VOCs, ISO 9001 Certified, OEKO-TEX Standard 100 Certified, FR Rated, Lead free, PVC free, Phthalate free, fragrance free, Eco-Friendly. Color selections to be chosen using the manufacturers standard selections. AERC product certified for energy savings.
			4. Kleenscreen light-filtering screen: Lightweight 2x1 basketweave screen in 1%, 3%, and 5% openness. Features Sanitized® protection which inhibits the development of bacterial odors as well as the growth of mold and mildew. CDPH tested for Low VOCs, PVC free, OEKO-TEX Standard 100 Certified, FR Rated, Lead, phthalate, formaldehyde, and fragrance free. LBC Red List Compliant. Light filtering options and color selections to be chosen using the manufacturers standard selections. Using test method ASTM C423, Kleenscreen 1% achieves an NRC rating of .60 and an SAA rating of .61 for acoustical performance.
			5. Silverscreen light filtering screen: Aluminum backed 1x2 fiberglass core solar screen in 2% and 4%. Greenguard Gold Certified, ISO 9001 Certified, OEKO-TEX Standard 100 Certified, FR Rated, Lead, Phthalate, Formaldehyde, and fragrance free. Eco-Friendly and Energy Saving.
			6. Texstyle’s 3000 NET light filtering screen: Greenguard Gold Certified, CPDH tested for Low VOCs, ISO 9001 Certified, OEKO-TEX Standard 100 Certified, FR Rated, Lead free, Phthalate free, fragrance free, Eco-Friendly. Color selections to be chosen using the manufacturers standard selections. Using test method ASTM C423, 3000 Net 1% achieves an NRC rating of .55 and an SAA rating of .55 for acoustical performance. AERC product certified for energy savings.
			7. All fabrics to include current Health Product Declarations (HPD’s) issued by the HPD Collaborative, [https://www.hpd-collaborative.org/hpd-public-repository/.com](https://nam02.safelinks.protection.outlook.com/?url=https%3A%2F%2Flinkprotect.cudasvc.com%2Furl%3Fa%3Dhttps%253a%252f%252fwww.hpd-collaborative.org%252fhpd-public-repository%252f.com%26c%3DE%2C1%2CdDFHbezZLnwppuJ0xowwQRhq3vZy48UHlVAXR5XflkHq6vUPTTUGOK3lfMDz7nw8fQ90qSIv_FTsTLww4b94xCmXOXeDWzilkK1dRSHwS4Wvvw%2C%2C%26typo%3D1&data=05%7C01%7Clindsey.desalvo%40rolleaseacmeda.com%7Cb25a5ab052304fb8cd3908db0dfb46d2%7Ca2aa5819e7354eeb847078d0820c861a%7C0%7C0%7C638119145103365171%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C3000%7C%7C%7C&sdata=S%2BP8rwHJ0J7ODocGUK6W746q1zVx4eqO5FIye4J9gvc%3D&reserved=0)

Other fabric selections can be made by visiting: [http:www//texstyle.com](https://nam02.safelinks.protection.outlook.com/?url=https%3A%2F%2Flinkprotect.cudasvc.com%2Furl%3Fa%3Dhttp%253a%252f%252fTexstyle.com%26c%3DE%2C1%2CbQCALq_N_4kw9B6PufvwkYer2C77LMquSN-ub7K-WSCkJOirG7VoTrm-MK_zYmJwygdg71gEEzqtXKJg3yYBKm9L_jM6LNprwEGx-oXaMAYfwg%2C%2C%26typo%3D1&data=05%7C01%7Clindsey.desalvo%40rolleaseacmeda.com%7Cb25a5ab052304fb8cd3908db0dfb46d2%7Ca2aa5819e7354eeb847078d0820c861a%7C0%7C0%7C638119145103365171%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C3000%7C%7C%7C&sdata=17%2B7qKc2zgqB8y80AcjWgxip7bA3lm3hVnV36BqoGdI%3D&reserved=0)

1. EXECUTION
	1. MANUFACTURERS INSTRUCTIONS
		1. Compliance: Comply with manufacturer’s product data, including product technical bulletins, product installation instructions and published technical guidelines.
	2. EXAMINATION
		1. Site Verification of Conditions: Verify that substrate conditions, which have been previously installed under other sections, are acceptable for product installation in accordance with manufacturer's instructions.
		2. Review areas of potential interference and conflicts, and coordinate layout and support provisions for interfacing work.
		3. Adjust and perform work as necessary for plumb and true alignments.
		4. Proceed with installation only after unsatisfactory conditions have been corrected.
	3. INSTALLATION
		1. Conform to Manufacturer's instructions and provisions of Contract Documents.
		2. Install shades level, plumb, square, and true per manufacturer's instructions and approved shop drawings. Locate so shade band is at least 2 inches (51 mm) from interior face of glass. Allow proper clearances for window operation hardware. Use mounting devices as indicated.
		3. Replace shades outside the specified tolerances at no extra cost to Owner.
		4. Adjust and balance roller shades to operate smoothly, easily, safely, and free from binding or malfunction throughout entire operational range. Adjust level, projection, and shade centering from mounting bracket. Verify there is no telescoping of shade fabric.
		5. Clean roller shade surfaces after installation, per manufacturer's written instructions.
		6. Demonstrate operation and maintenance of window shade system to Owner's personnel.
		7. Manufacturer's authorized personnel are to train Owner's personnel on operation and maintenance of system.
			1. Use operation and maintenance manual as a reference, supplemented with additional training materials as required.
	4. FIELD QUALITY CONTROL
		1. Manufacturer’s Field Technical Service: Make intermittent and final inspection to verify installation in conformance to Manufacturer instructions and suitable as framing assembly for subsequent cladding installations.
			1. Confirm framing members installed in correct orientation and as per the approved Shop Drawings.

END OF SECTION 12 24 13