



**WEATHER SHIELD**  
Balcony & Exterior Screens



## BALCONY & EXTERIOR SCREENS

- EXTERIOR ZIP SCREEN
- SUPER WIDE SCREEN
- BALCONY INSECT NET
- DUAL ZIP SCREEN

**MADE IN USA**







**WEATHER SHIELD**  
Balcony & Exterior Screens

## Company Profile

We are a leading provider of Zip Screen solutions, our company stands at the forefront of innovation in outdoor living. Our products seamlessly blend functionality with style, offering customers a solution that enhances both the aesthetics and usability of their spaces. Zip Screens not only shield from the sun's rays but also provide privacy and protection against insects, all while allowing for airflow and maintaining visibility.

Renowned within the industry, our products have gained widespread recognition and are exported to various regions including Africa, the Middle East, Southeast Asia, and beyond. We are recognized as the premier supplier of exterior zip screens in India, delivering unmatched quality and service to our valued clientele.



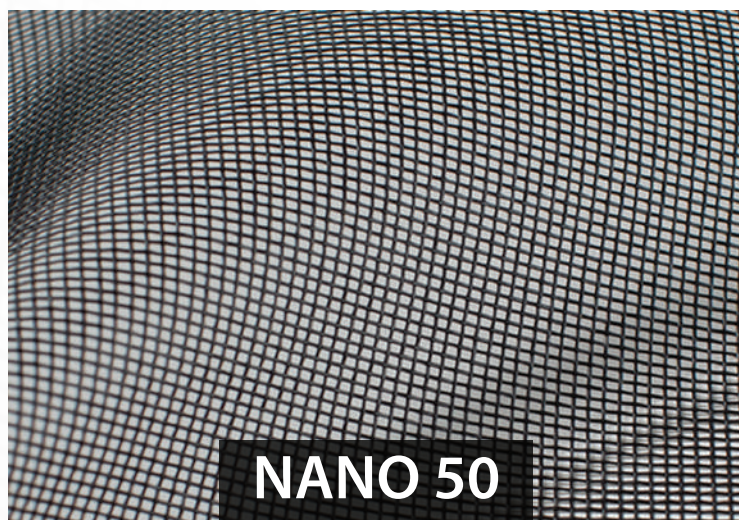


## About Product

Zip Screen promises to unlock your home's hidden potential without the time-consuming stress & cost of conventional renovations. Enhance your space and create an outdoor den for relaxation in natural elements and hassle-free & comfortable Family/Guest entertainment. Weather Shield Zip Screens are a barrier against wind, rain, sun, heat & cold without compromising on aesthetics views or privacy.

Zip Screen Fabric is of exterior grade and has undergone extremely tough tests to be rated as one of the best exterior screens in the World. The fabric is UV-resistant & ultra-durable. The product is ideal for homes, balconies, resorts, hotels, high-rise apartments & offices to protect from insects, heat, rain, cold and harmful UV rays without blocking beautiful views.

## 100 YEARS OF AMERICA AND EXCELLENCE WOVEN INTO YOUR LIFE



**NANO 50**

Since 1922, the Twitchell name has represented quality in yarns and fabrics. We pride ourselves on knowing that our yarn, textiles, and fabrics are made here in the USA in our Dothan, Alabama headquarters. Our product is created here and made to last. Textilene®, our trademarked PVC-coated polyester fabric, is the original all-weather fabric. Textilene's® pigments are incredibly UV stable, naturally flame resistant and mildew resistant. Our raw materials go through a unique heating process to make the core yarn less susceptible to shrinkage.





## SHEER ZIP SCREEN



### Features

- Retracts vertically
- Weighted slidebar
- Various color and openness options
- In-wall or hand-held remote controls

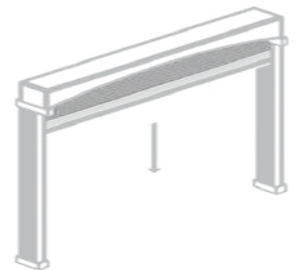
### Benefits

- Solar shading
- Insect protection
- Fresh air ventilation
- Lower air conditioning costs

### Installation options

- Surface mount
- Recessed into walls, columns and ceiling cavities

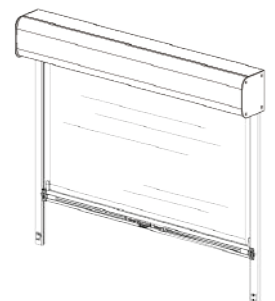
### Large Openings



### Balcony Zip Screen



### Insect Zip Screen





Imagine having motorized screens that disappear at the touch of a button. Or being able to screen wide glass wall. Imagine being able to move seamlessly between indoor and outdoor spaces without the intense glare of the sun or annoying mosquitoes. You can, thanks to Weather Shield retractable screens for large openings. With Weather Shield Screens, outdoor living is an insect-free pleasure and summer entertaining at home is easy ! Customized to each building project, zip screens merge perfectly with the décor to maintain the integrity of your design. These retractable screens can be mounted recess from view or on existing structures. Zip screens can be integrated into every type of architectural style including wood, brick, stucco, natural stone and concrete.

CUSTOMISED  
SIZES

SMOOTH  
OPERATION

SUN/INSECT  
PROTECTION



**WINDPROOF SCREENS**



**INSECT CONTROL SCREENS**



**SUN CONTROL SCREENS**



**MOTORIZED WINDPROOF ZIP SCREEN**





## 100 YEARS OF AMERICA AND EXCELLENCE WOVEN INTO YOUR LIFE

Just like the individual yarns that make up our fabrics, Twitchell Technical Products blends 100 years of innovative products, brand excellence, and custom solutions into a pattern of success. Our fabrics are in hundreds of products across multiple industries.

Not only do we have a large selection of stock fabrics, but we can produce custom fabrics to meet your unique needs. Our custom solutions offer limitless possibilities. Twitchell's ability to vertically integrate our technology and create custom solutions gives you the ultimate advantage over your competitors.

At Twitchell, our mission is to ensure you are thrilled with every product ordered every single time we align with your goals with a platinum service plan for a long-term focus.



TEXTILENE SUNSURE\* is a specially formulated high strength fabric built to withstand fading, mildew, soiling and wear and tear.

SUNSURE\* has up to a 92% shade factor making it the right choice for several outdoor applications.

It is specially designed to remain vibrant and colorful for years even through continuous outdoor exposure and under the most severe weather conditions.

TEXTILENE  
**SUNSURE**<sup>®</sup>  
BRAND FABRIC





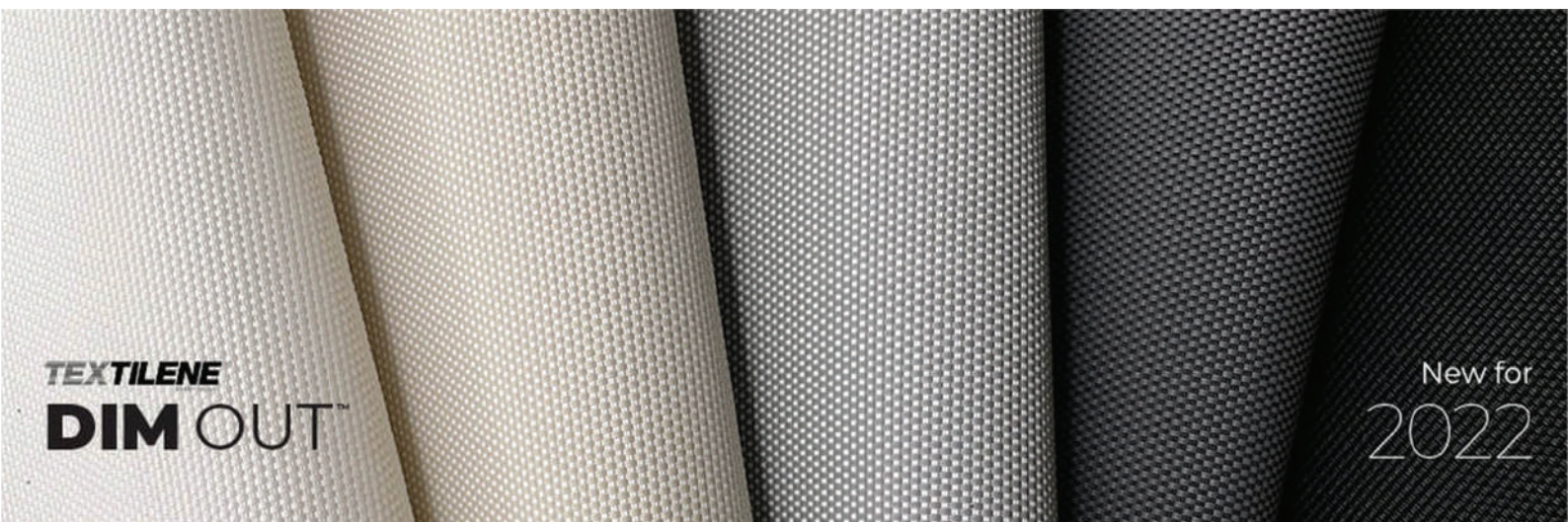
**TEXTILENE**  
**nano™ 50**

**144" Width Now Available!**

NO UV FADING OR FLAKING | SUPERIOR AIR FLOW AND CLEAR VISIBILITY  
50% UV BLOCKAGE | WITHSTANDS 800 POUNDS OF RESISTANCE

 36" | 48" | 60" | 72" | 84" | 96" | 108" | 120" | 126" | 144"





# MADE IN USA



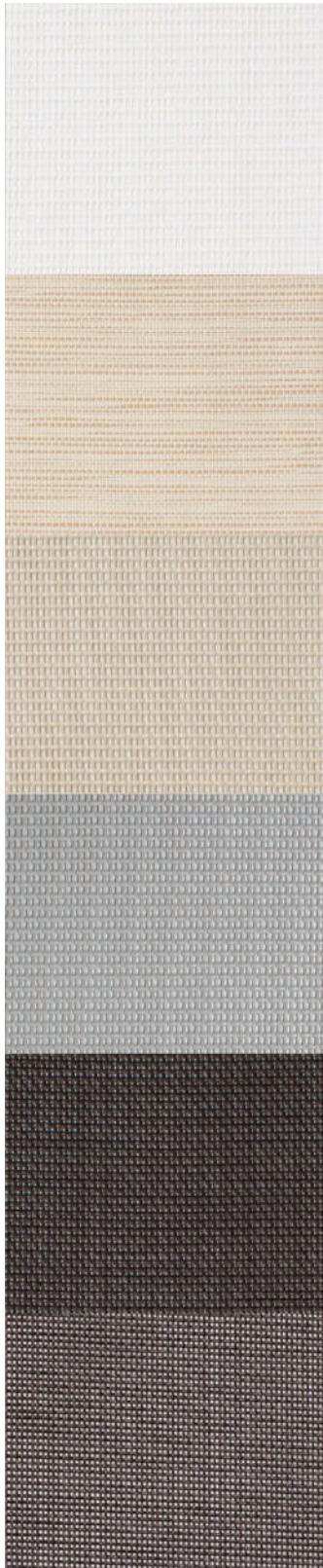
The Twitchell Coated division is ISO certified in developing, and producing specialty extrusion-coated and laminated products. ISO certification certifies that a management system, manufacturing process, service, or documentation procedure has all the requirements for standardization and quality assurance. ISO - International Organization for Standardization is an independent, non-governmental, international organization that develops standards to ensure the quality, safety, and efficiency of products, services, and systems.





## TEXTILENE® 80

BRAND FABRIC



White  
T18DES043 x 72"  
T18DES047 x 96"  
T18DES266 x 126"

Desert Sand  
T18BET002 x 36"  
T18BET003 x 48"  
T18BET006 x 60"  
T18BET001 x 72"  
T18BET011 x 96"  
T18BET035 x 126"

Sandstone  
T18DES191 x 36"  
T18DES194 x 48"  
T18DES192 x 60"  
T18DES190 x 72"  
T18DES237 x 96"  
T18DES267 x 126"

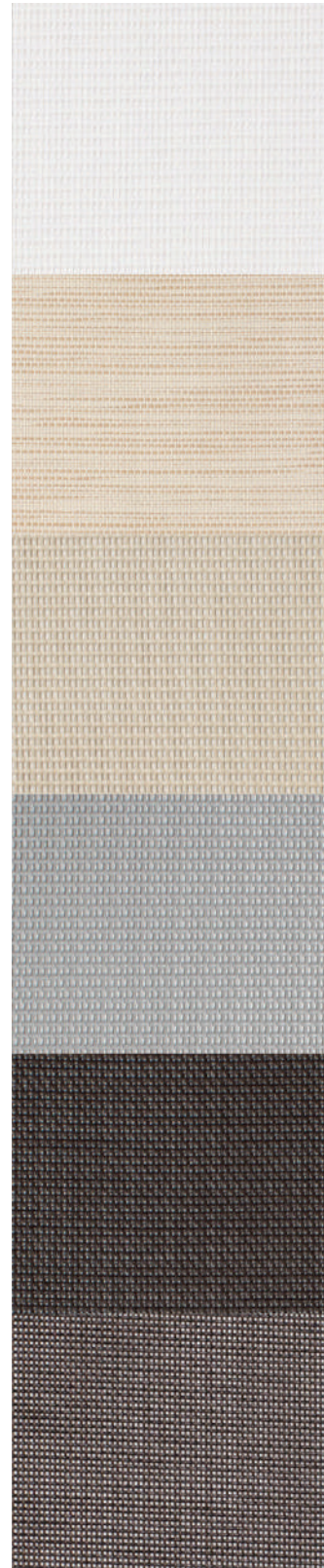
Dusk Grey  
T18DES183 x 36"  
T18DES182 x 48"  
T18DES181 x 60"  
T18DES180 x 72"  
T18DES179 x 96"  
T18DES270 x 126"

Brown  
T18DES177 x 36"  
T18DES176 x 48"  
T18DES175 x 60"  
T18DES174 x 72"  
T18DES173 x 96"  
T18DES271 x 126"

Black/Brown  
T18DET020 x 36"  
T18DET021 x 48"  
T18DET025 x 60"  
T18DET022 x 72"  
T18DET023 x 96"  
T18DET027 x 126"

## TEXTILENE® 90

BRAND FABRIC



White  
T18DCS028 x 72"  
T18DCS085 x 96"  
T18DCS130 x 126"

Desert Sand  
T18BCT010 x 36"  
T18BCT011 x 48"  
T18BCT012 x 60"  
T18BCT002 x 72"  
T18BCT014 x 96"  
T18BCT021 x 126"

Sandstone  
T18DCS076 x 36"  
T18DCS077 x 48"  
T18DCS078 x 60"  
T18DCS039 x 72"  
T18DCS081 x 96"  
T18DCS129 x 126"

Dusk Grey  
T18DCS019 x 36"  
T18DCS016 x 48"  
T18DCS020 x 60"  
T18DCS018 x 72"  
T18DCS015 x 96"  
T18DCS0126 x 126"

Brown  
T18DCS012 x 36"  
T18DCS009 x 48"  
T18DCS013 x 60"  
T18DCS011 x 72"  
T18DCS080 x 96"  
T18DCS128 x 126"

Black/Brown  
T18DCT025 x 36"  
T18DCT026 x 48"  
T18DCT032 x 60"  
T18DCT027 x 72"  
T18DCT028 x 96"  
T18DCT034 x 126"



## Specifications

**REACH Compliant** - Regulated by Registration, Evaluation, Authorization and Restriction of Chemicals. REACH places greater responsibility on industry to manage the risks that chemicals may pose to human health and the environment.

**Fire Classification** - Passes California U.S. Title 19 (small scale), NFPA701-2015 TM#1 (small scale), NFPA 101 (Class A Rating), UBC (Class 1), BS 5867 2008 Part 2 Type B Performance, NFPA 701 TM #2 (large scale), and CAN/ULC-S 109-03 (large and small scale).

**Bacteria and Fungal Resistance** - Passes ASTM E 2180, ASTM G21. Includes specially formulated antimicrobial.

**RoHS Compliant** - Free of Lead (Pb), Cadmium (Cd), Mercury (Hg), Hexavalent chromium (Hex-Cr), Polybrominated biphenyls (PBB), and Polybrominated diphenyl ethers (PBDE).

**Children's Toy Act** - Does not contain harmful phthalates listed under Section 108 of the Consumer Product Safety Improvement Act of 2008 (CPSIA).

**Environmental Certification** - GREENGUARD gold certified. Acceptable for use in environments such as schools and healthcare facilities. Complies with requirements of the State of California's Department of Public Health "Standard Method for Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers, Version 1.1 (2010)" (also known as California Section 01350).

**Warranty** - Twitchell Technical Products, LLC produces durable, all weather fabrics that are unmatched for quality and durability. Textilene® 80 and Textilene® 90 brand fabrics are covered by a 15-year limited warranty from the original date of purchase against defects of workmanship and materials, and/or excessive loss of color or strength from normal exposure conditions, including sunlight, rot, mildew, or atmospheric chemicals that might render it unserviceable.



REACH COMPLIANCE



GREENGUARD GOLD



FLAME RESISTANT



LEAD FREE



ANTIMICROBIAL



PRINTABLE



ROHS COMPLIANT



LIMITED WARRANTY



TOY ACT



MADE IN USA

## Technical Data

Item Number: T18DES, T18BET, T18DET, T18DCS, T18BCT, T18DCT

Product Description: A woven fabric using .025" diameter vinyl coated 1000 denier polyester core yarns in the warp and fill.

These results are a representation of real data from single test samples. Presently no specification is incorporated.

### TEXTILENE® 80

BRAND FABRIC

Attribute	ASTM
Construction, end/inch	D3775-12
Weight, oz/yd <sup>2</sup>	D3776-09
Weight, g/m <sup>2</sup>	D3776-09
Tensile Strength (grab), lbf / daN	D5034-09
Tensile Strength (strip), lbf / daN	D5035-11
Tear Strength (trapezoidal), lbf / daN	D5733
Elongation, %	D5035-11
Abrasion Resistance (CS10/500 cycles/ with no added weight)	D3884-09
Flammability Rating	
Weatherability, 1200 hours	G154
Mildew Resistance	G21-13
Thickness, inches/mm	D1777-96

Warp	Fill	Typical
16.0 ±0.5	14.5 ±0.5	
		13.0
		440.8
304.7/138.2	290.9/132.0	
230.7/104.6	193.7/87.9	
76.8/34.8	58.8/26.7	
13.8	13.0	
No Exposure of Core Yarn		
CS191-53 & CA117E		
Trace Discoloration		
No growth		
		.0328"/.83312mm

### TEXTILENE® 90

BRAND FABRIC

Warp	Fill	Typical
20.0 ±0.5	18.0 ±0.5	
		15.8
		535.8
608.3/275.9	527.3/239.2	
269.8/121.9	225.3/102.2	
68.3/31.0	67.6/30.7	
29.3	29.8	
No Exposure of Core Yarn		
CA Title 19 & NFPA 701		
Trace Discoloration		
No growth		
		.0345"/.8763mm

Twitchell Exterior Window Shade Solar Screen													
								Shading Coefficient					
	Profile	Total Solar			Visible			UV	O.F.	1/8" Clr.	1/4" Clr.	1/4" Clr.	HA/ Dbl.
	Angle	Trans.	Ref.	Abs.	Trans.	Ref.	Abs.	Trans.					
TEXTILENE® 80	0	0.24	0.03	0.73	0.21	0.04	0.75	0.33	0.23	0.33	0.33	0.31	0.28
	45	0.20	0.03	0.77	0.18	0.04	0.78	0.29	n/a	0.29	0.29	0.27	0.25
TEXTILENE® 90	0	0.13	0.0	0.83	0.14	0.06	0.78	0.15	0.13	0.23	0.23	0.22	0.19
	45	0.09	0.06	0.86	0.11	0.06	0.83	n/a	n/a	0.19	0.19	0.18	0.15

DISTRIBUTED OR MANUFACTURED BY:

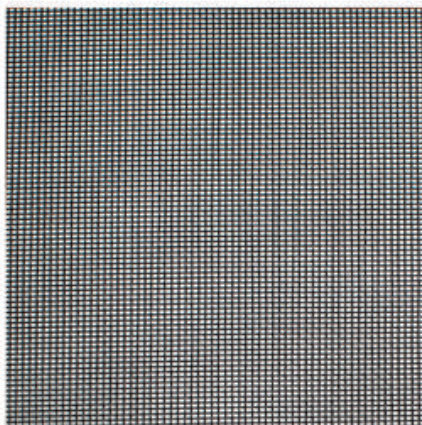




## Technical Data

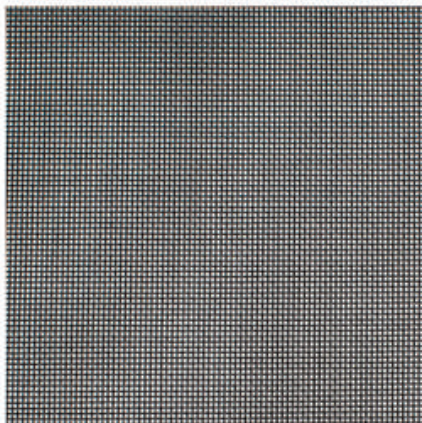
**Product Description:** A fabric using .014" diameter vinyl coated 420 denier polyester core yarns woven in the warp and fill direction.

### nano™ 50



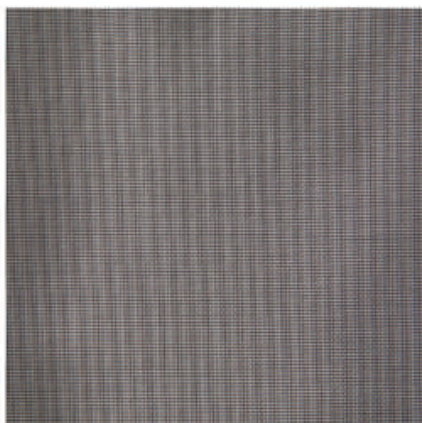
Black  
T18FBS006 x 36"  
T18FBS007 x 48"  
T18FBS011 x 60"  
T18FBS001 x 72"  
T18FBS005 x 84"  
T18FBS002 x 96"  
T18FBS004 x 108"  
T18FBS016 x 120"  
T18FBS032 x 126"

### nano™ 55



Black  
T18FFS003 x 120"  
T18FBS010 x 126"

### nano™ 60



Black  
T18FHS008 x 36"  
T18FHS001 x 48"  
T18FHS009 x 60"  
T18FHS006 x 72"  
T18FHS010 x 84"  
T18FHS002 x 96"  
T18FHS005 x 108"  
T18FHS003 x 120"  
T18FHS022 x 126"

## Specifications



### nano™ 50 - Item Number: T18FBS

Attribute	ASTM	Warp	Fill	Typical
Construction, end/inch	D3775-12	17.0 ±0.5	14.0 ±0.5	
Weight, oz/yd <sup>2</sup>	D3776-09	-	-	5.9
Weight, g/m <sup>2</sup>	D3776-09	-	-	200
Tensile Strength (grab), lbf /daN	D5034-09	229.2 / 102	230.7 / 102.6	
Tensile Strength (strip), lbf /daN	D5035-11	111.6 / 49.6	85.5 / 38	
Tear Strength (trapezoidal), lbf /daN	D5733	24.9 / 11.1	42.9 / 19.1	
Elongation, %	D5035-11	29.8	21.6	
Abrasion Resistance (CS10/500 cycles/ with no added weight)	D3884-09	No Exposure of Core Yarn		
Flammability Rating		CA TB 117-2013		
Weatherability, 1200 hours	G154	Trace Discoloration		
Mildew Resistance	G21-13	No Growth		
Thickness, inches/mm	D1777-96	0.021" / 0.533mm		

### nano™ 55 - Item Number: T18FFS

Attribute	ASTM	Warp	Fill	Typical
Construction, end/inch	D3775-12	17.0 ±0.5	17.0 ±0.5	
Weight, oz/yd <sup>2</sup>	D3776-09	-	-	7.1
Weight, g/m <sup>2</sup>	D3776-09	-	-	240.7
Tensile Strength (grab), lbf /daN	D5034-09	273.3 / 121.6	339.4 / 151	
Tensile Strength (strip), lbf /daN	D5035-11	100.9 / 44.9	116.1 / 51.6	
Tear Strength (trapezoidal), lbf /daN	D5733	28.2 / 12.5	25.7 / 11.4	
Elongation, %	D5035-11	21.5	29.9	
Abrasion Resistance (CS10/500 cycles/ with no added weight)	D3884-09	No Exposure of Core Yarn		
Flammability Rating		CA TB 117-2013		
Weatherability, 1200 hours	G154	Trace Discoloration		
Mildew Resistance	G21-13	No Growth		
Thickness, inches/mm	D1777-96	0.022" / 0.558mm		

### nano™ 60 - Item Number: T18FHS

Attribute	ASTM	Warp	Fill	Typical
Construction, end/inch	D3775-12	17.0 ±0.5	20.0 ±0.5	
Weight, oz/yd <sup>2</sup>	D3776-09	-	-	7.3
Weight, g/m <sup>2</sup>	D3776-09	-	-	247.5
Tensile Strength (grab), lbf /daN	D5034-09	274.1 / 121.9	232.6 / 103.5	
Tensile Strength (strip), lbf /daN	D5035-11	122.8 / 54.6	107.6 / 47.9	
Tear Strength (trapezoidal), lbf /daN	D5733	35.5 / 15.8	32.6 / 14.5	
Elongation, %	D5035-11	30.8	25.4	
Abrasion Resistance (CS10/500 cycles/ with no added weight)	D3884-09	No Exposure of Core Yarn		
Flammability Rating		CA TB 117-2013		
Weatherability, 1200 hours	G154	Trace Discoloration		
Mildew Resistance	G21-13	No Growth		
Thickness, inches/mm	D1777-96	0.022" / 0.559mm		



# Largest Range Available

Solution for all Requirements



## WS-120 Motorized Windproof Zip Screens

Width up to 6 meters, multiple smart home connections, widely used in sunrooms, clubhouses, balconies and other high-end places.



## WS-120 Spring Windproof Zip Screens

Width up to 4 m; suitable for small to medium-sized, not very high, no power supply locations.



## WS-100 Small Windproof Zip Screens

100mm cassette size. Suitable for small openings. Also used in interior locations.



## WS 120 Small Windproof Zip Screens

Dual screen in a single cassette. Used in blackout & sheer screen or sun & insect screen combinations.



## WS 120C Super Wide Windproof Zip Screens

Width up to 12 meters. Used for super wide openings. Only motorised operations. Suitable for large balconies, showrooms, wide verandas, terrace gazebo.





**WEATHER SHIELD**  
Balcony & Exterior Screens

# CORE TECHNOLOGY





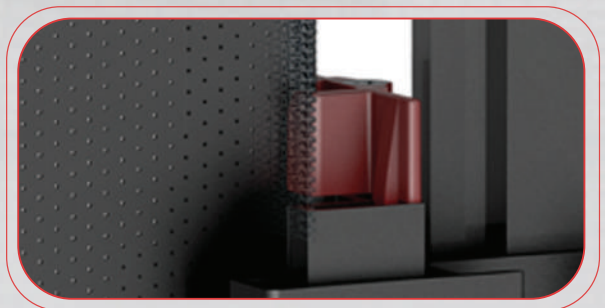
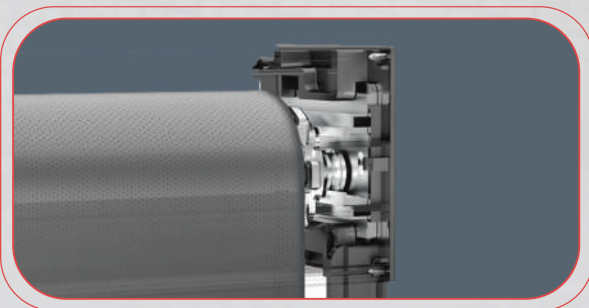
Core technology

01

Smart balancer makes the  
windproof Zip Screen  
more durable



**WEATHER SHIELD**  
Balcony & Exterior Screens





Core technology

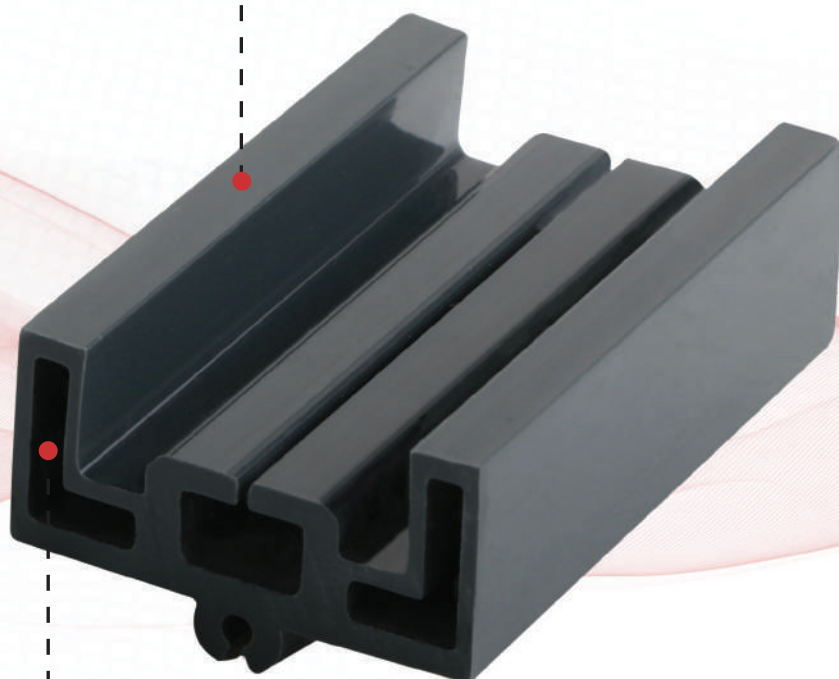
02

**Hollow Structure**  
**High temprature resistant**  
**zipper guide keep the zipper stable**

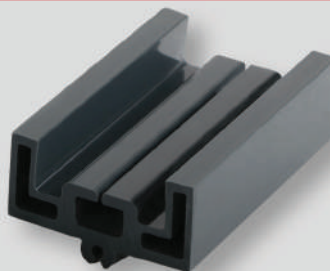
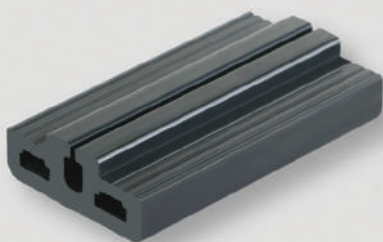


**WEATHER SHIELD**  
Balcony & Exterior Screens

HIGH TEMPRATURE RESISTANT,  
ANTIOXIDANT MATERIAL



UNIQUE HOLLOW STRUCTURE,  
BETTER STRENGTH





Core technology

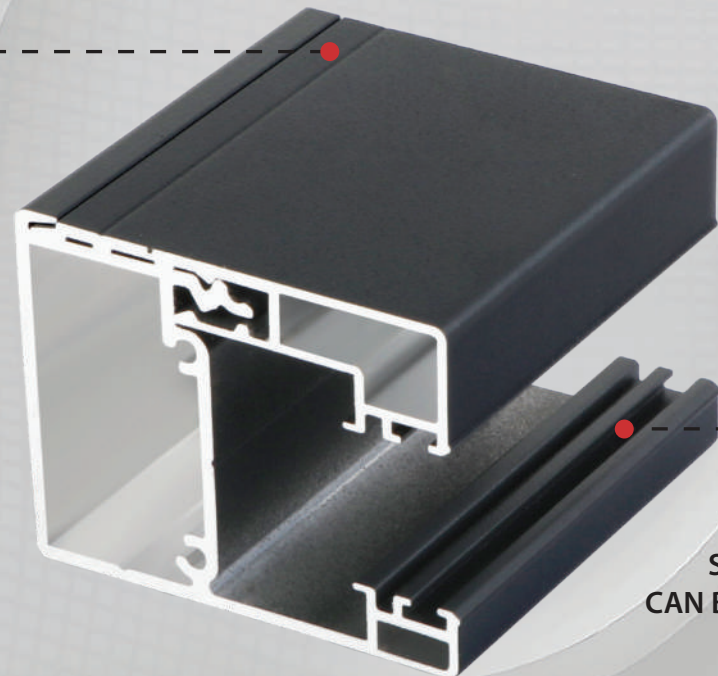
03

No screws installation  
side rail, more  
convenient disassembly

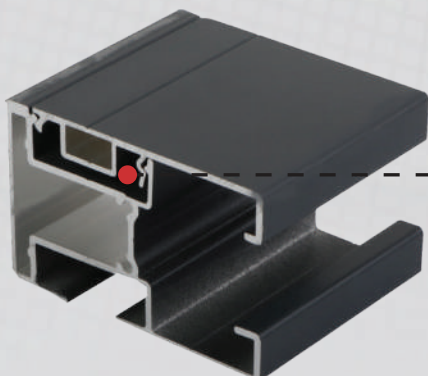


**WEATHER SHIELD**  
Balcony & Exterior Screens

INSERT BAYONET DIAGONALLY  
FOR EASY DISASSEMBLY



SILENCER BAR  
CAN BE INSTALLED



EXTERNAL BUCKET TYPE,  
BETTER WIND RESISTANCE

WS 120 snap side rail



Core technology

04

**Fabric oriented technique  
make the windproof  
zip screen more flat**



**WEATHER SHIELD**  
Balcony & Exterior Screens



- Equipped with wear-resistant nanostrips to reduce fabric friction noise
- At the same time will face the zipper vertical direction into the guide rail
- Nanostrip assisted, the balancer automatically adjusts the center position according to the amount of the winding of the fabric to ensure that the fabric is protected at aligned Angle to ensure life



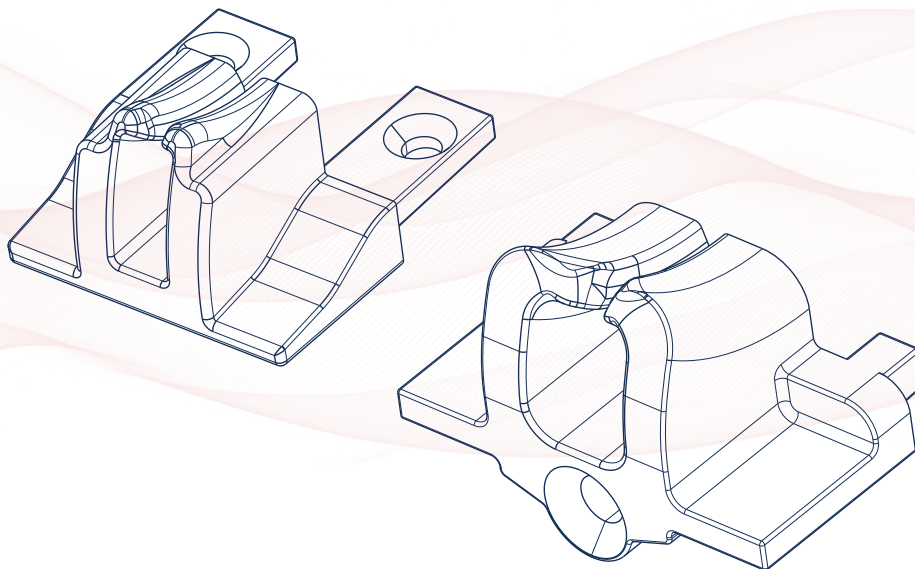
Core technology

05

No screws installation  
side rail, more  
convenient disassembly



**WEATHER SHIELD**  
Balcony & Exterior Screens

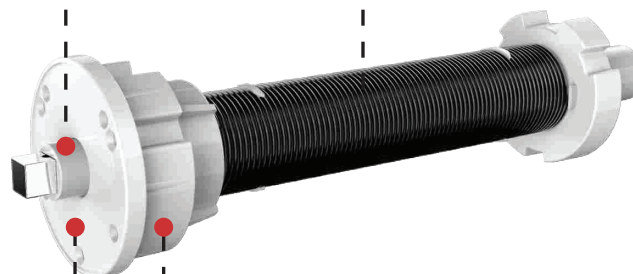


PRETIGHTEN SELF-LOCKING

HIGH QUALITY SPRING WIRE

ADAPTIVE BALANCER  
TECHNOLOGY

PA + GF  
ENGINEERING PLASTICS



Self-balancing adjusting spring system



PROTECTION  
&  
COMFORT  
FOR EVERY SEASON



## WS 100 WINDPROOF ZIP SCREEN

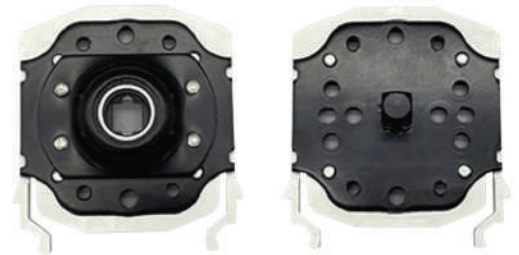
- Face oriented technology, let the zipper vertically into the zipper guide rail, make fabric flat, good resistance
- Fastener self-locking installation fixed seat
- The latch type rail and the three-piece side rail (finished product) can be used
- Motorized, hand push, chain control, hand crank, four operating systems
- Use 63 tube, width less than 4 meters and height up to 3.5 metres



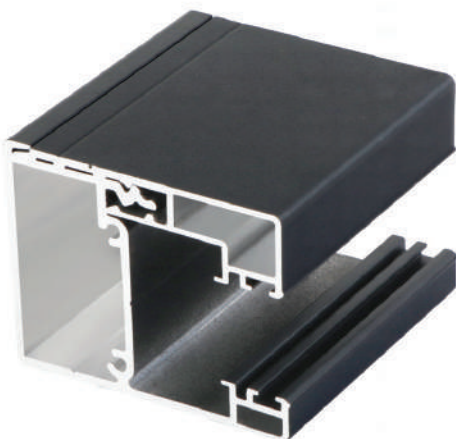
# WS 100 General Windproof zip screen application characteristics

## WS100 Windproof zip screens

Plug-in mounting seat structure



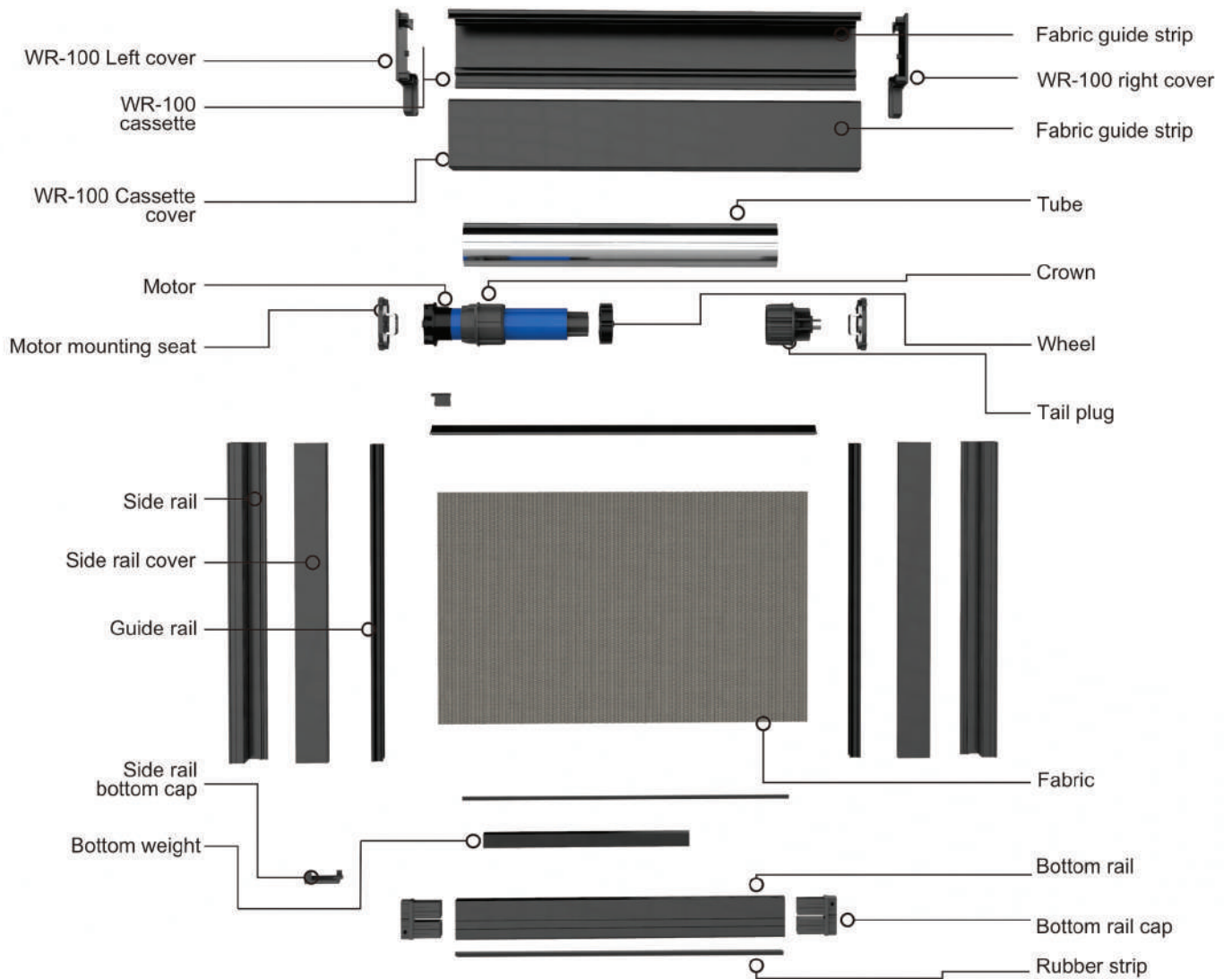
System tail motor mounting seat



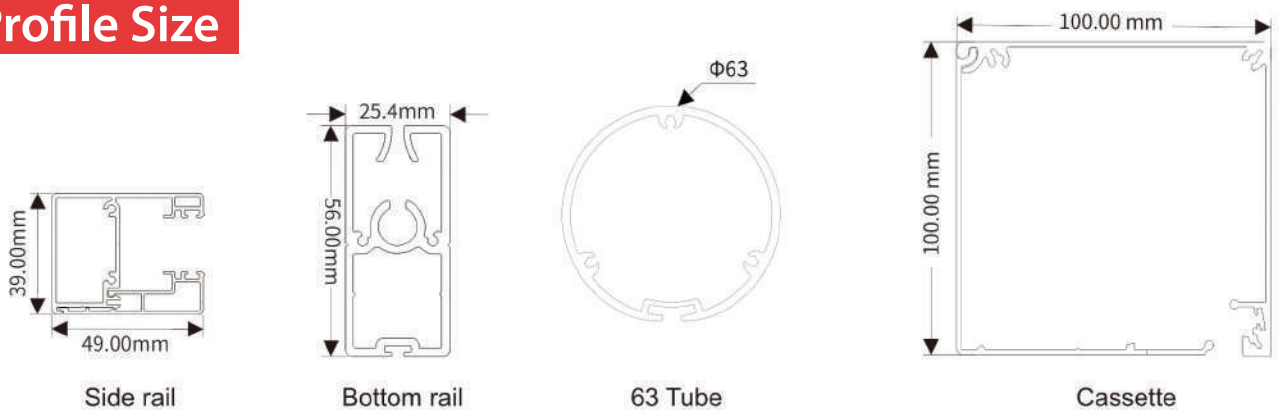
## Outdoor and indoor universal Windproof series

- 100\*100mm cassette system; Small and delicate, can be used indoors and outdoors
- Plug in mounting base
- Optional clamp side rail, three piece side rail system
- Hollow zipper guide rail, good strength
- The use of ultra-thick 63 double-layer tube, windproof blinds up to 4 meters wide, height less than 3.2 meters
- Chain control, hand crank, hand push, Motorized, four operating systems, Meet the needs of most of clients

# WS 100 Windproof zip screen diagram



## Profile Size

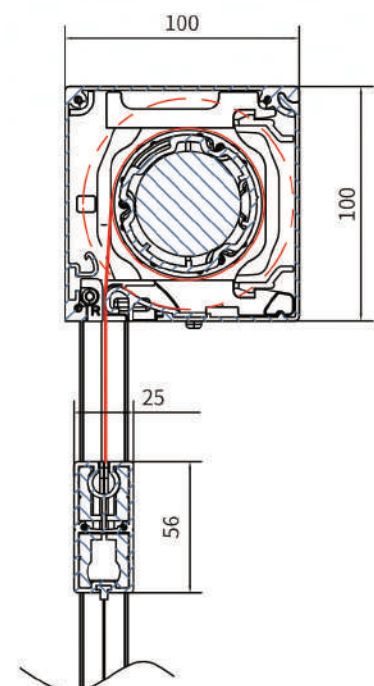
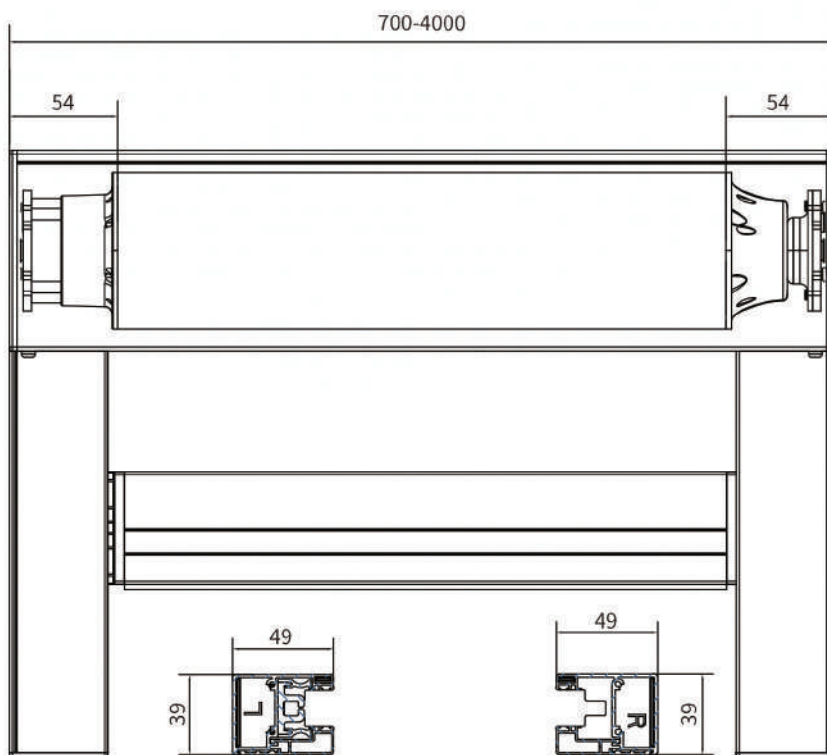




# WS 100 Windproof zip screen recommendation

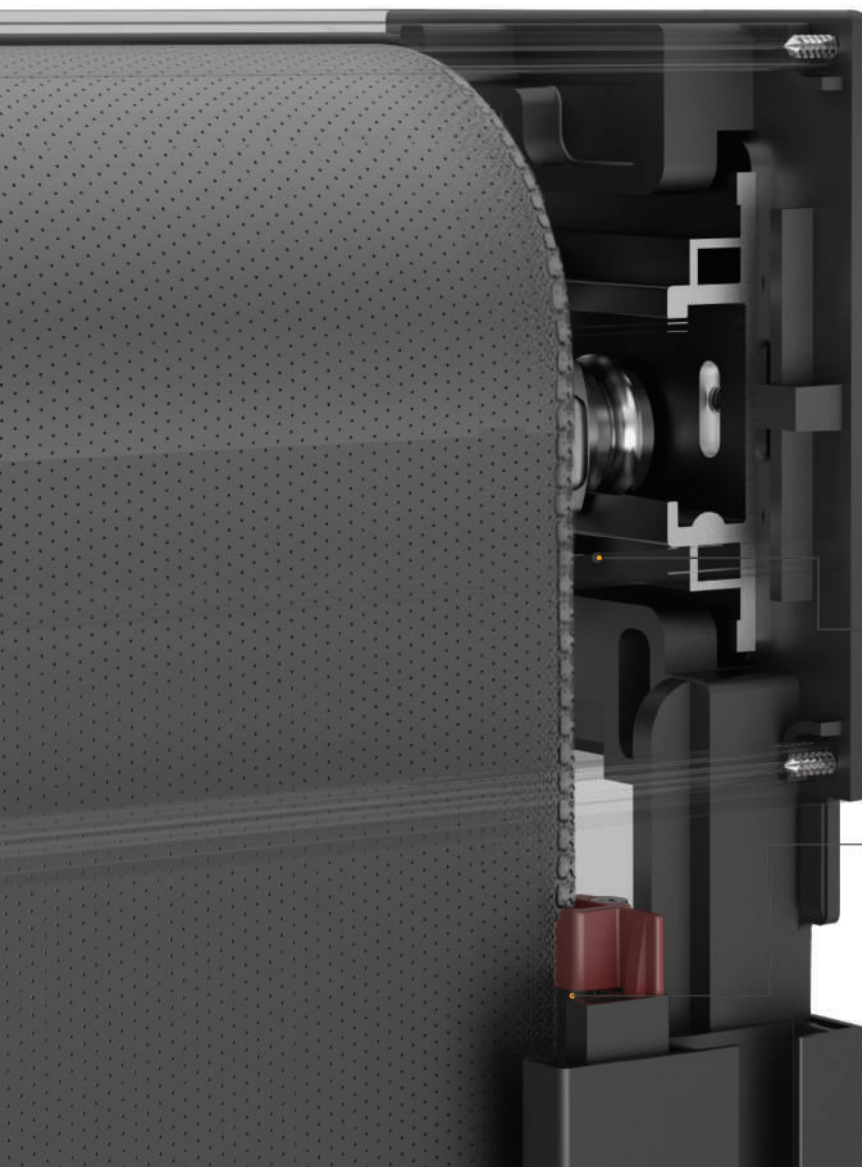
## The specification recommendation of windproof zip screen

Height	Using 63 tubes, the maximum height exceeds 4 m or less, and using 55 tubes, the maximum width is less than 2.5 m.						
Width	Width <4m			Width			Remarks
Category	Drive System	Aluminum Tube	Bottom rail	Drive System	Aluminum tube	Bottom rail	
Motorized	35 tubular motor AM35-10/17, 10NM	63mm Tube	Heavy bottom rail				0.67M
	45 Tubular motor 20NM	63mm Tube	Heavy bottom rail				0.67M
Hand push	T1001 Spring system	63mm Tube	Easy to pull bottom rail				It is recommended that the width is below 3 meters, the height is below 2.2 meters, and the super high will pay for the retractor or push rod 0.9M
Chain control	WR100-63 clutch	63mm Tube	Heavy bottom rail	WR100-55 clutch	55mm Tube	Heavy bottom rail	Using 55 tubes the height can exceed 4 meters 0.38M



## WS 120 Windproof zip screen application features

- 120x120mm Cassette system;
- Smart balancer, windproof roller blinds last longer
- External buckle side rail, excellent windproof performance
- Double zipper guide for better strength
- Ultra-thick 78 double-layer tube, windproof curtain up to 6 meters wide, using 63 aluminum tube, height up to 6 meters
- Pull bead, hand push, hand, electric operating system, to meet the different needs of customers



### SMART BALANCER

SMART BALANCER MAKES WINDPROOF ZIP SCREEN MORE DURABLE



#### FLAT & STRAIGHT

Smart Balancer: Ensures the fabric is released or wound from the roller tube at an angle parallel to the zipper guide resulting flat & straight zip screens.

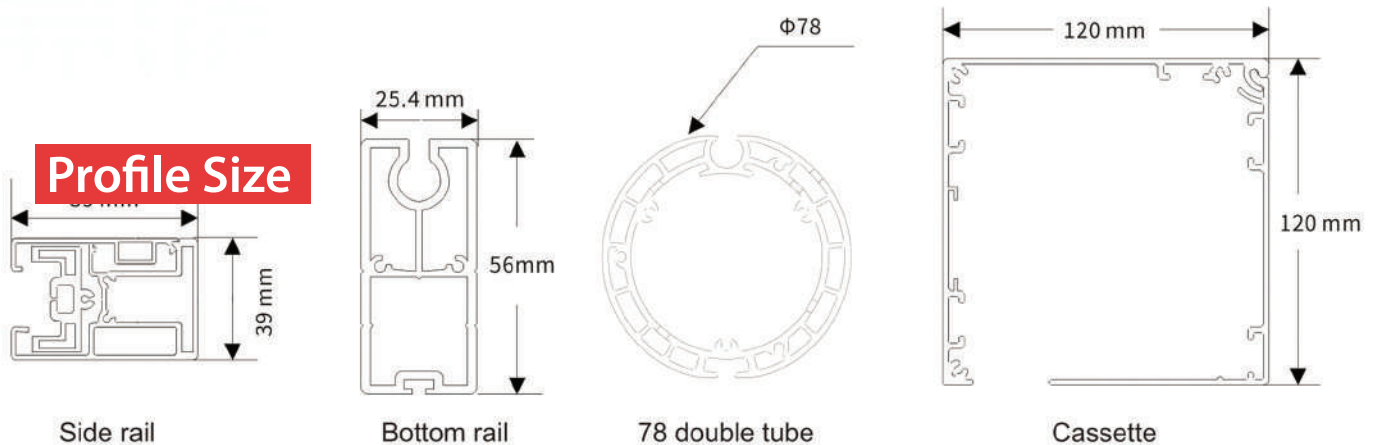
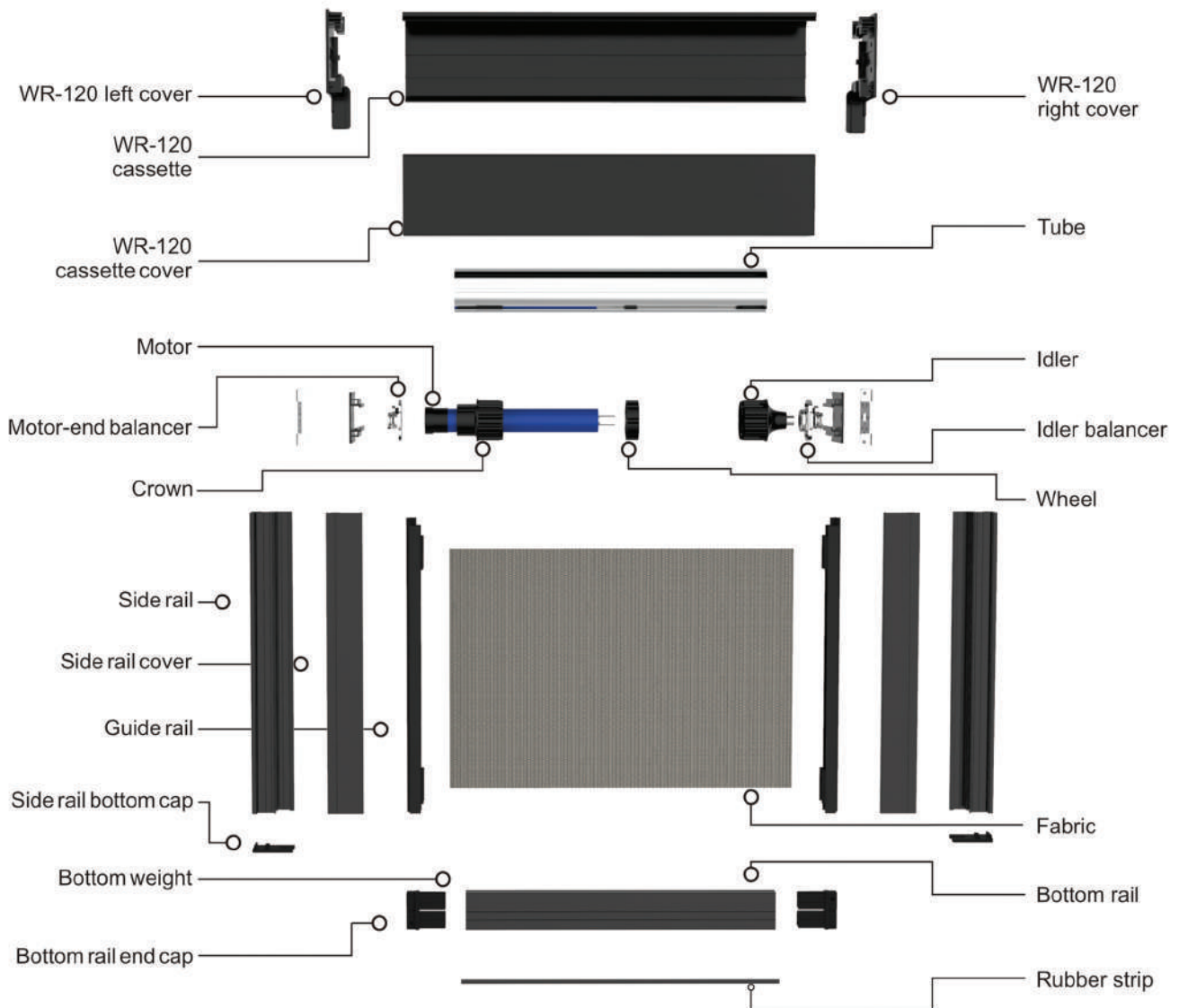


#### FULL CARE OF ZIPPERS

Smart Balancer: Automatically adjusts the position of the zip to the centre of the roller according to the tension of the fabric. This ensures smooth unhindered movement of the zipper in the guide and avoids jamming and zipper damage thus improving life of the product.



# WS 120 Windproof zip screen diagram



PROTECTION  
&  
COMFORT  
FOR EVERY SEASON



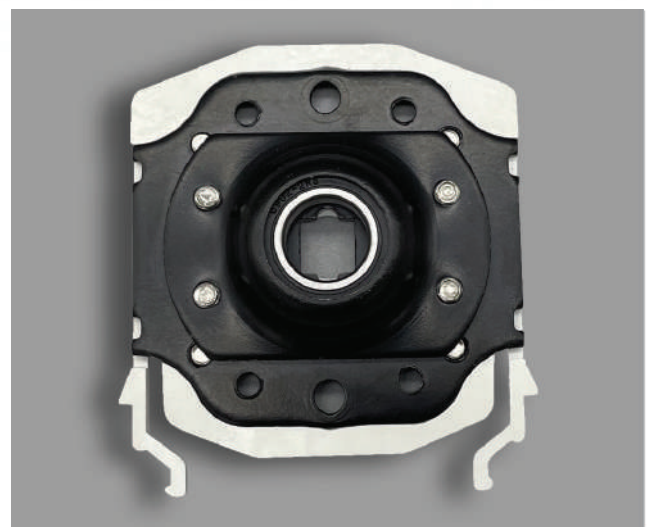
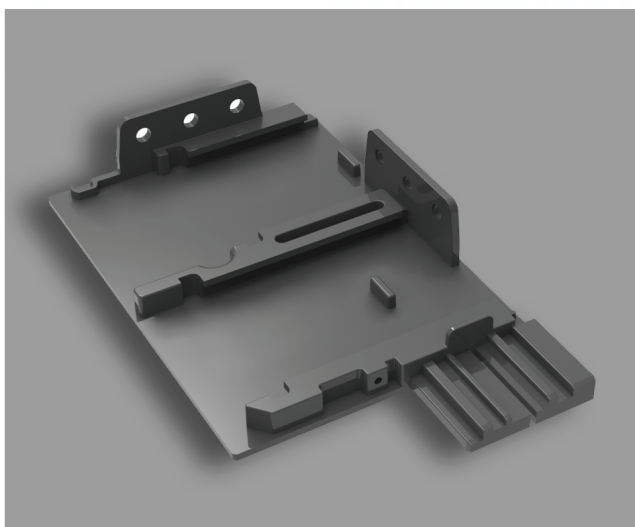
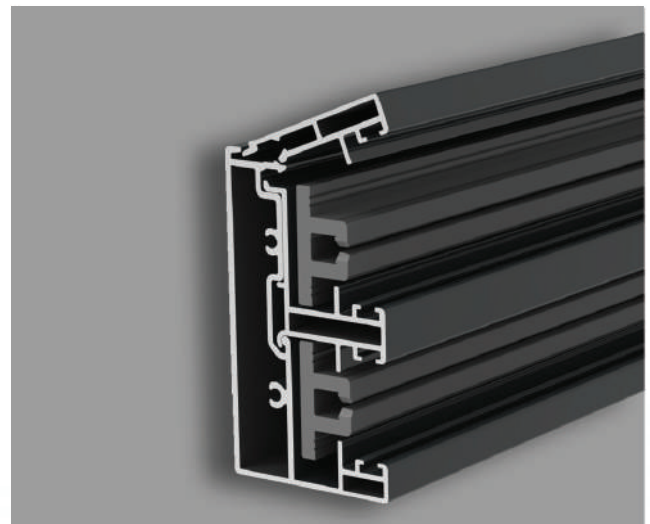
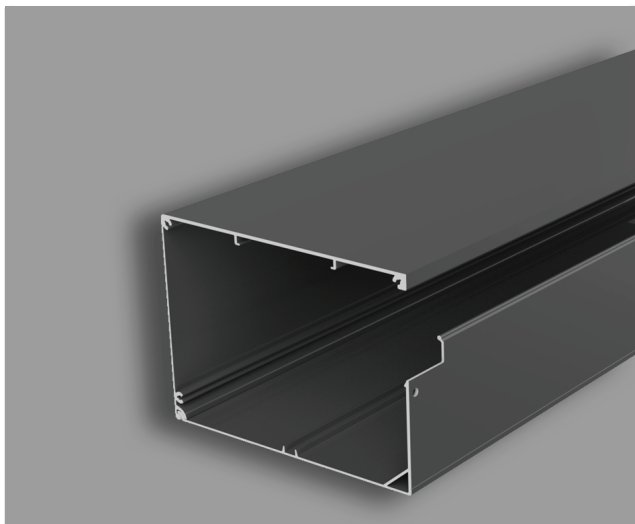
## WS 120D DOUBLE WINDPROOF ZIP SCREENS

- Face oriented technology, let the zipper vertically into the zipper guide rail, make fabric flat
- Fastener self-locking installation fixed seat
- Double card type side track
- Electric Operating System
- Use 63 tube, width less than 4 meters



## WS 120D Double Windproof zip screens

- 130\*180mm cassette system, Install two layers of semi-shading and full-shading fabrics
- Button-type mounting base, easy to install
- Side buckle double track, easy to install
- Small zipper rail. Compact structure
- The use of ultra-thick 63 double-layer tube, windproof blind up to 4 meters wide, height less than 3.2 meters
- Electric operating system, special use for indoor places

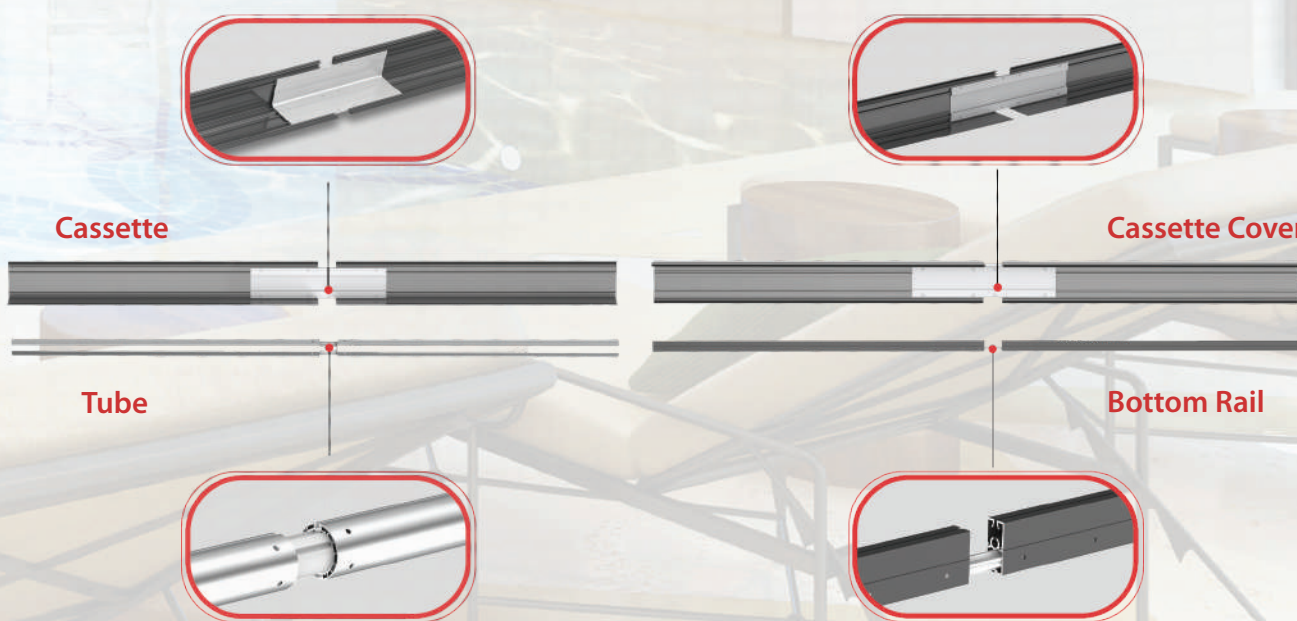
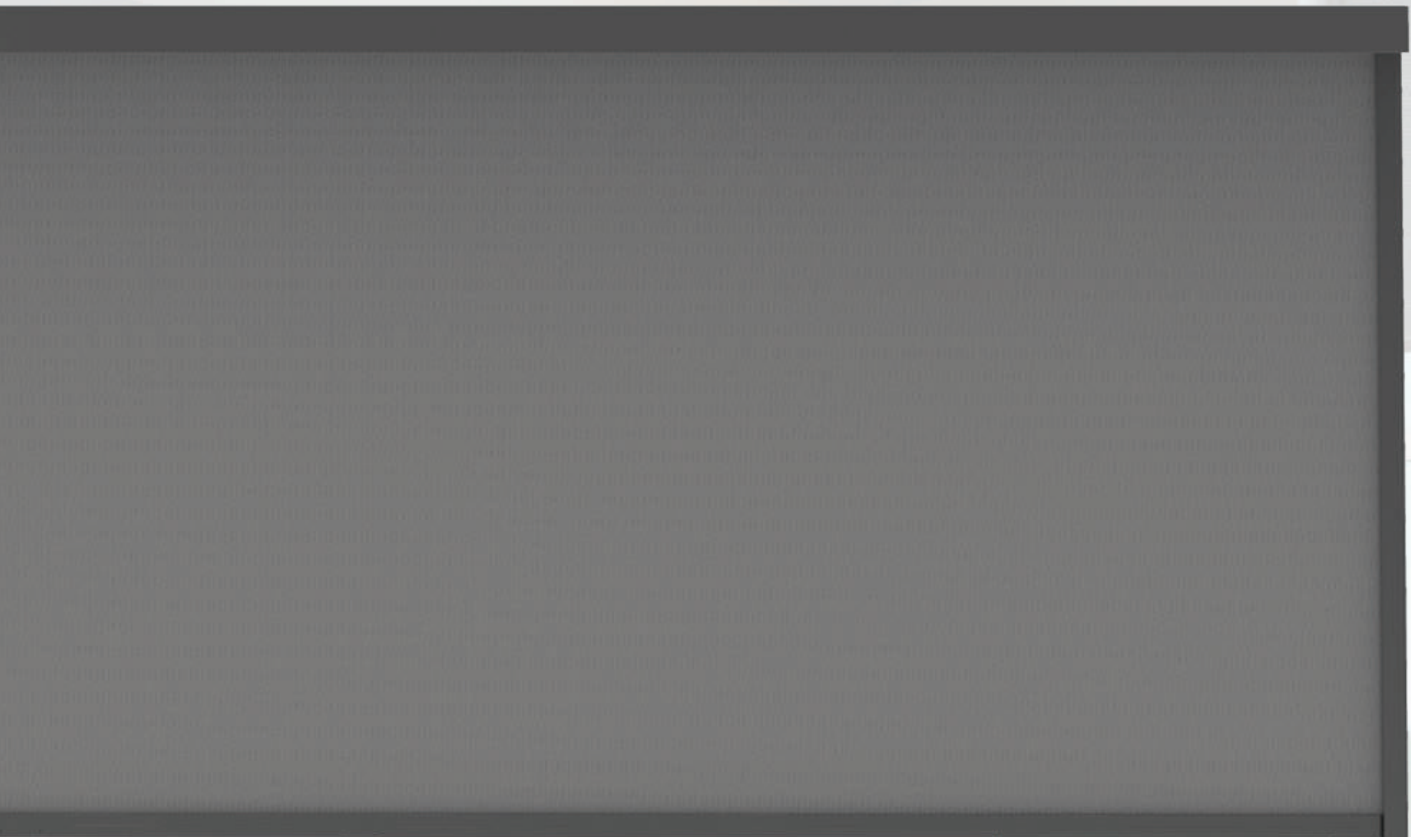


# WS120C Superwide Windproof Zip Screens

## Special Features

- The Cassette, Tube and Bottom Rail will be Connected
- Super Wide Zip Screen can be installed in High-Rise Building
- Can Carry in Lift to Higher Floors in Knocked Down Condition
- At the Site Assembly of the Finished Zip Screen
- The Width does not exceed 12 meters
- The Height does not exceed 3.5 meters







**WEATHER SHIELD**  
Balcony & Exterior Screens

## WEATHER SHIELD INDIA

Krishna Colony, Sector-25, Ballabhgarh  
Faridabad-121004, Haryana

Delhi, Mumbai, Bengaluru, Kolkata, Guwahati