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Product w/ Description	YOW 225 / 225 H Protek  An operable window system available in a variety of configurations and with either monolithic or insulating glass.	YOW 225 TU / 225 TUH  Protek  A thermally broken operable window system available in a variety of configurations and with either monolithic or insulating glass.	YOW 350 T A thermally broken operable window system available in a variety of configurations and with optional triple glazing and or with blinds.	YOW 350 TU / 350 TUH  Protek  A thermally broken operable window system available in a variety of configurations and with either monolithic or insulating glass.
Pictorial				
System Depth	2-1/4"	2-1/4"	3-1/2"	3-1/2"
Configurations	Fixed, Casement Inswing / Outswing, Projected In / Out	Fixed, Casement Inswing / Outswing, Projected In / Out	Fixed, Casement Inswing / Outswing, Projected In / Out	Fixed, Casement Inswing / Outswing, Projected In / Out
Infill Options	1/4", 9/16", 1"	1"	1" + Access Panel	1"
Design Pressure	AW-100 Fixed, AW-65 Operable	AW-100 Fixed, AW-65 Operable	AW-100 Fixed, AW-80 Operable	AW-100 Fixed, AW-65 Operable
Thermal System / Performance	No / CRF <sub>r</sub> : 30 U-value: 0.51 btu/hr/ft²/°F	Thermally Broken / CRF <sub>i</sub> : 55 Operable, 57 Fixed U-value: 0.52 btu/hr/ft²/°F Oper- able, 0.39 Fixed	Thermally Broken / CRF <sub>i</sub> : 50 Operable, 63 Fixed U-value: 0.53 btu/hr/ft²/°F Oper- able, 0.37 Fixed	Thermally Broken / CRF <sub>;</sub> : 58 Operable, 65 Fixed U-value: 0.51 btu/hr/ft²/°F Oper- able, 0.36 Fixed
Acoustical Rating	STC: 32 annealed, 36 laminated OITC: 26 annealed, 27 laminated	STC: 33 Casement, 34 Project, 32 Fixed OITC: 26 Casement, 27 Project, 27 Fixed	STC: 33 Casement, 31 Project, 32 Fixed OITC: 26 Casement, 25 Project, 26 Fixed	STC: 31 Casement, 33 Project, 31 Fixed OITC: 26 Casement, 26 Project, 31 Fixed
Mullion Options	Stacking, I-mullion	Stacking, I-mullion	Stacking, Zero Mullion	Stacking, Zero Mullion
2-Color Option	No	No	Yes	No
Blinds	No	No	Optional	No
Anchoring Methods	Thru-bolt, strap anchor, steel twist anchor, anchor clip, trim & clip, head / jamb receptor, sill flashing	Thru-bolt, strap anchor, steel twist anchor, anchor clip, trim & clip, head / jamb receptor, sill flashing	Thru-bolt, strap anchor, steel twist anchor, anchor clip, trim & clip, head / jamb receptor, sill flashing	Thru-bolt, strap anchor, steel twist anchor, anchor clip, trim & clip, head / jamb receptor, sill flashing
Screens	Optional	Optional	Optional	Optional
Hurricane Impact Tested	YOW 225 H Fixed & Outswing Only: Large Missile, Small Missile	YOW 225 TUH Fixed & Outswing Only: Large Missile, Small Missile	-	YOW 350 TUH Fixed & Outswing Only: Large Missile, Small Missile
Blast Mitigation	-	YOW 225 TUH Fixed & Outswing Only: GSA Hazard Level 2 @ 6 psi / 41 psi-ms	-	-
Forced Entry Resistance	Pass (Level 10)	Pass (Level 10)	Pass (Level 10)	Pass (Level 10)
Performance Test Standards	AAMA/WDMA/CSA 101/ I.S.A 440-05 ASTM E90, E283, E331, E547, E1332 AAMA 507, 1503 NFRC 100	AAMA/WDMA/CSA 101/ I.S.A 440-05 ASTM E283, E331, E1886, E1996 AAMA 1302.5, 1503 NFRC 100 TAS 201, 202, 203	AAMA/WDMA/CSA 101/I.S.2/ A 440-05 ASTM E90, E283, E331, E547, E1332, F588 AAMA 910, 1503 NFRC 102	AAMA/WDMA/CSA 101/I.S.2/ A440-08 ASTM E90, E331, E547, E1332, F588 AAMA 507, 1503 NFRC 100

See General Notes at end of document.

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Product w/ Description	YOW 350 XT enerGfacade  A high thermal performance operable window system available in a variety of configurations.	YES SSG Vent A vent system that can be integrated into other aluminum wall systems without adding a large sight line of traditional windows.	YES SSG TU / TUH Vent ProTel  A thermally broken, zero sight line vent system that can be integrated into other aluminum wall systems.	YOV SSG Vent A vent system that can be integrated into captured or SSG curtain wall systems without adding a large sight line of traditional windows.
Pictorial				
System Depth	3-1/2"	2-3/4"	3-1/2"	3-5/8"
Configurations	Fixed, Casement Inswing / Outswing, Projected In / Out	Casement Outswing, Project Out	Casement Outswing, Project Out	Casement Outswing, Project Out
Infill Options	1"	1"	1"	1"
Design Pressure	AW-100 Fixed, AW-80 Operable	CW-PG60-C Casement Out CW-PG60-AP Project Out	CW-PG65-C Casement Out CW-PG65-AP Project Out	CW-PG70-C Casement Out CW-PG70-AP Project Out
Thermal System / Performance	Thermally Broken / CRF <sub>r</sub> : 68 U-value: 0.35 btu/hr/ft²/°F Oper- able, 0.34 Fixed	No / CRF <sub>r</sub> : 59 U-value: 0.43 btu/hr/ft²/°F	Thermally Broken / CRF <sub>r</sub> : 69 U-value: 0.41 btu/hr/ft²/°F	Thermally Broken / CRF <sub>r</sub> : 69 U-value: 0.41 btu/hr/ft²/°F
Acoustical Rating	STC: 32 OITC: 26	STC: 34 Casement, 28 Project, OITC: 27 Casement, 28 Project	STC: 35 OITC: 28	STC: 35 OITC: 28
Mullion Options	Stacking, I-mullion	-	-	-
2-Color Option	Yes	No	No	No
Blinds	No	No	No	No
Anchoring Methods	Thru-bolt, anchor clip, trim & clip, head / jamb receptor, sill flashing	Thru Bolt	Thru Bolt, Glazed into Host Wall System	Thru Bolt
Screens	Optional	Optional	Optional	Optional
Hurricane Impact Tested	-	-	YES SSG TUH Only: Large Missile, Small Missile	-
Blast Mitigation	-	-	-	-
Forced Entry Resistance	Pass (Level 10)	Pass (Level 10)	Pass (Level 10)	Pass (Level 10)
Performance Test Standards	AAMA/WDMA/CSA 101/I.S.2/ A440 AAMA 501.5, 910, 1503 ASTM E283, E331, E547, E1425, F588 NFRC 100	AAMA/WDMA/CSA 101/I.S.2/ A440-08 ASTM E283, E547, F588 AAMA 1503 NFRC 102	AAMA/WDMA/CSA 101/I.S.2/ A440-11 ASTM E90, E283, E1332, E1415, E1425, F588 AAMA 1503 NFRC 102	AAMA/WDMA/CSA 101/ I.S. A440 ASTM E331, E547, E1425, F588 AAMA 1503 NFRC 100



Product w/ Description	YPI 1500 Access Panel An interior secondary access panel window system designed for new and retrofit installation where enhanced thermal, acoustical, or privacy performance are critical.	YSW 400 T An architectural grade, horizontal sliding window that offers ease of operation.	YFW 400 TU / TUH ProTela  A fixed window fully tested in accordance with AAMA standards achieving an AW rating.	YVS 400 TU A vertical sliding, hung window designed to tilt in for easy cleaning of the exterior glass surfaces from the inside of the building without removing the sash.
Pictorial				
System Depth	-	4"	4"	4"
Configurations	Access Panel	XO, OX, XOX	Fixed	Single Hung, Double Hung
Infill Options	1/4"	1"	1"	1"
Design Pressure	-	HS-AW-40	AW-100	AW-50
Thermal System / Performance	No	Thermally Broken / CRF <sub>,</sub> : 55 U-value: 0.50 btu/hr/ft²/°F	Thermally Broken/ CRF <sub>i</sub> : 67 U-value: 0.40 btu/hr/ft²/°F	Thermally Broken / CRF <sub>i</sub> : 51 Single Hung, 53 Double Hung U-value: 0.50 btu/hr/ft²/°F Single Hung, 0.53 Double Hung
Acoustical Rating	STC: 32 OITC: 26	STC: 33 OITC: 28	STC: 38 OITC: 30	STC: 32 Single Hung, 35 Double Hung OITC: 28 Single Hung, 31 Double Hung
Mullion Options	-	No	Stacking	Stacking
2-Color Option	No	Yes	No	No
Blinds	Optional	No	No	No
Anchoring Methods	Thru Bolt	Thru-bolt	Thru-bolt, strap anchor, steel twist anchor, anchor clip, trim & clip, head / jamb receptor, sill flashing	Thru-bolt, strap anchor, steel twist anchor, anchor clip, trim & clip, head / jamb receptor, sill flashing
Screens	-	Optional	Yes	Yes
Hurricane Impact Tested	-	-	YFW 400 TUH Only: Large Missile, Small Missile	-
Blast Mitigation	-	-	YFW 400 TUH Only: GSA Hazard Level 2 @ 6 psi / 41 psi-ms	-
Forced Entry Resistance	-	Pass (Level 10)	Pass (Level 10)	Pass (Level 10)
Performance Test Standards	AAMA/WDMA/CSA 101/I.S.A/ A440-05 ASTM E90, E283, E1332 AAMA 1503, 1801 NFRC 102	AAMA/WDMA/CSA 101/I.S.A/ A440-05 ASTM E90, E283, E331, E987, F588 AAMA 507 910, 1503 NFRC 102	AAMA/WDMA/CSA 101/I.S.2/ A440-08 ASTM E283, E330, E331, E547, F842 AAMA 507, 1503 NFRC 102 TAS 201, 202, 203	AAMA/NAFS 101/I.S.2/NAFS-02 ASTM E90, E283, E331, E547, E937, E1332, F588 AAMA 101, 910, 1503 NFRC 100

See General Notes at end of document.

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Product w/ Description	A vertical sliding, hung window designed to capture the side rails of the sash, providing a high level of security and dependability.		
Pictorial			
System Depth	4"		
Configurations	Single Hung, Double Hung		
Infill Options	1"		
Design Pressure	AW-65		
Thermal System / Performance	Thermally Broken / CRF <sub>r</sub> : 51 Single Hung, 53 Double Hung U-value: 0.50 btu/hr/ft²/°F Single Hung, 0.53 Double Hung		
Acoustical Rating	STC: 36 Single & Double Hung OITC: 31 Single Hung, 30 Double Hung		
Mullion Options	Vert & Horiz Stacking Mullions		
2-Color Option	No		
Blinds	No		
Anchoring Methods	Thru-bolt, strap anchor, trim & clip		
Screens	Yes		
Hurricane Impact Tested	YOW 350 TUH Fixed & Outswing Only: Large Missile, Small Missile		
Blast Mitigation	YVS 410 TUH Only:		
Forced Entry Resistance	Pass (Level 10)		
Performance Test Standards	ASTM E283, E331 E547, E987, F588 AAMA 507, 910, 1503, 1801 NFRC 100		
See General Notes at	1.61		

See General Notes at end of document.



## **GENERAL NOTES**

Glass and glazing building codes governing the design and use of products vary widely. YKK AP America Inc. does not control the selection of products, product configurations, operating hardware and function, or glazing materials, and YKK AP assumes no responsibility for these design considerations. It is the responsibility of the design professional, owner, architect, specifier, general contractor, and the installer to make these selections in strict accordance with all applicable codes.

Visit www.ykkap.com for more information on YKK AP's architectural products and for any updates on the Product Selection Guide.

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