



The Maxim Series is a window operating “system”, where the hinges and operators were developed to work together to meet or exceed the “maximum” performance requirements that are sought in today’s market of larger more versatile casement and awning windows.

The Maxim System consists of “Sealable” sill mounted operators – developed to help reduce air and water infiltration and are available in a variety of different models (*see specific sections for “standard” or “low-profile” options*):

- **Dual Arm Operator** for large casements (as large as 40" x 84" frame/ 96 lb. sash).
- **Dyad Operator** for 16"-32" wide casements.
- **Reverse Dyad** models for 12"-24" wide windows and specialty windows (i.e., round tops, half round, trapezoid, garden, octagon, and windows that use butt hinges or 4-Bar Hinges)
- **Single Arm Operator** for 20"-32" wide casements and specialty windows where egress is required.
- **Awning Operator** for frame widths from 20" to 60" wide.
- **Single Arm Awning Operator** for narrow windows or those with a smaller profile cavity.

The torque required to operate each of these models has been significantly reduced, and each operator will use the same frame preparation and screw hole pattern to help achieve the “maximum” in manufacturing efficiencies.

- **Two unique casement hinge designs** have been created to work in unison with these Maxim Operators. Designed for either “Washability” or “Egress” casement applications, these **Maxim® Hinges** help carry the load of these potentially larger windows.

All Maxim Operators are designed to meet the AAMA 901-96 Cycle Test at a commercial rating.

The Maxim Series of operators and hinges are described individually on the following pages, however, keep in mind, to achieve the “maximum” benefits of this system, you must use these items together.

The following pages go into greater detail regarding the features and benefits of each of the components in this system. Truth Hardware has prepared a matrix based on AAMA 101 Load Tests which will help you choose the best hardware for your window requirements. *The sizes and weights which Truth recommends throughout this catalog section are based upon “typical” mounting locations as outlined within the Matrix page.*

Maxim System Table of Contents

Maxim System - Sill Mount.....	23
Hardware Comparison Chart.....	23a
Dual Arm - Sill Mount.....	24
Dyad - Sill Mount.....	25
Reverse Dyad - Sill Mount.....	26
Single Arm - Sill Mount.....	27
Awning Operator - Sill Mount.....	28
Single Arm Awning - Sill Mount.....	29

Hardware Comparison for AAMA/NWDA Hardware Load Test (AAMA/NWDA 101/I.S.2-97 Voluntary Specification for Aluminum, Vinyl (PVC) and Wood Windows and Glass Doors)

CAUTION: There are many factors in addition to the hardware which influence the maximum size casement window that should be produced. These include sash and frame stiffness and strength, screw holding strength, sash sag, weather tightness, and weatherstrip drag. For this reason, Truth recommends careful evaluation of the entire window before producing units as large as this matrix suggests.

Residential Rating: The Maximum Frame Size and Sash Weight (to meet Section 2.2.5.6.2) is Listed in the Table.

Commercial Rating: The Maximum Frame Area (Width x Height) Listed in the Table Must be Reduced by 20%.

Operator		Hinge						Approximate Minimum Frame Width to fit Operator
		Maxim Washable 14.97	Maxim Egress 14.12	10" Standard 14.75	10" Washable 14.76	10" Egress 14.77		
Maxim Dual Arm	50.00	40"W x 84"H; 108*(96) lbs	32"W x 68"H; 69 lbs	32"W x 84"H; 85 lbs	32"W x 72"H; 73 lbs	32"W x 68"H; 69 lbs	24"	
Maxim Dyad	50.50	32"W x 72"H; 73*(55) lbs	Not Recommended	24"W x 64"H; 47 lbs	24"W x 60"H; 45 lbs	Not Recommended	16"	
Maxim Reverse Dyad	50.70	24"W x 72"H; 53 lbs**	24"W x 72"H; 53 lbs**	24"W x 72"H; 53 lbs**	24"W x 72"H; 53 lbs**	24"W x 72"H; 53 lbs**	12"	
Maxim Single Arm	52.01	Not Recommended	32"W x 72"H; 73 lbs	32"W x 70"H; 71*(36) lbs	32"W x 70"H; 71*(29) lbs	32"W x 72"H; 73 lbs	20"	
EntryGard Dual Arm	15.10	Not Recommended	Not Recommended	32"W x 60"H; 60 lbs	32"W x 60"H; 60*(54) lbs	Not Recommended	20"	
EntryGard Egress D.A.	15.15	Not Recommended	28"W x 60"H; 52 lbs	Not Recommended	Not Recommended	28"W x 60"H; 52 lbs	18"	
EntryGard Dyad	15.11	Not Recommended	Not Recommended	24"W x 74"H; 55 lbs	24"W x 67"H; 50 lbs	Not Recommended	13"	
9.5" Single Arm	15.31	Not Recommended	24"W x 66"H; 49 lbs	24"W x 60"H; 44*(27) lbs	24"W x 60"H; 44*(19) lbs	24"W x 66"H; 49 lbs	20"	
13.5" Single Arm	15.32	Not Recommended	27"W x 60"H; 50 lbs	27"W x 60"H; 50 lbs	27"W x 62"H; 52*(40) lbs	27"W x 60"H; 50 lbs	24"	
Split Arm	15.18	Not Recommended	Not Recommended	24"W x 70"H; 52 lbs	24"W x 64"H; 47 lbs	Not Recommended	16"	

The maximum window size, ease of operation and service life are strongly influenced by the hardware mounting positions (see Fig. 1 below). This table assumes the following typical mounting positions: Operator Position 1.938", Hinge Position .438", Bracket Position 1.625" for the Maxim Dual Arm and Dyad Operators, 1.625" for the EntryGard Dual Arm Operator with the 14.76 hinge, and 1.375" for other operator/hinge combinations.

Applications with dimensions larger than the typical mounting positions given will not be able to support a window as large as that shown in this Table.

Applications with smaller dimensions may be able to support a larger window. For Example, An EntryGard Dual Arm Operator & 14.75 hinge with Operator Position 2.125", Hinge Position 1.000" and Bracket Position 1.750" can only support a 27"W x 60"H x 50 lb window as opposed to the 32"W x 60"H x 60 lb window shown in the table. Contact Truth for recommendations specific to your application.

*The first sash weight shown in the table is the maximum permitted for the AAMA Hardware Load Test. The sash weight shown in parenthesis is the maximum recommended by Truth to assure ease of operation.

**The Maxim Reverse Dyad Operator has been limited to use in windows 24" wide and narrower in order to ensure good performance near the closed position. In its full open position, it can support windows larger than those shown in the table.

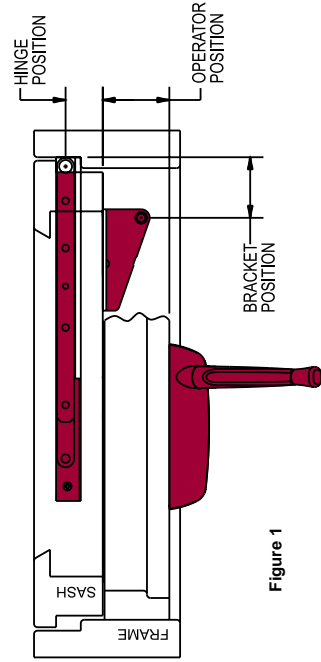


Figure 1