



Smooth, efficient action of the famous Truth Lever Operator opens and closes awning windows quickly and easily. Features include the ability to hold a window open in any of five positions, and a simple release clip for quick sash detachment. 180° lever handle movement opens or closes the sash.

Choose from single- or dual-pull models, each with smooth cam-action for snug fit and easy break-away. A dual-pull model or Torsion Bar attachment provides additional stability to a wide sash in the open position - as well as, improving the seal at the corners when closing the window. Truth has also designed a special model which has a removable escutcheon. The advantage of this feature is that it allows vinyl or metal window manufacturers, who do not use a removable sill cover in their window design, to install this operator quickly and easily. Truth recommends you apply two Sash Locks for added security and improved weatherability performance (see Casement & Awning Sash Locks). To ensure maximum ease of operation, it is important that the operator and hinge be properly matched. See Tech Note #2 for several options, or call Truth for more information.

WARRANTY:

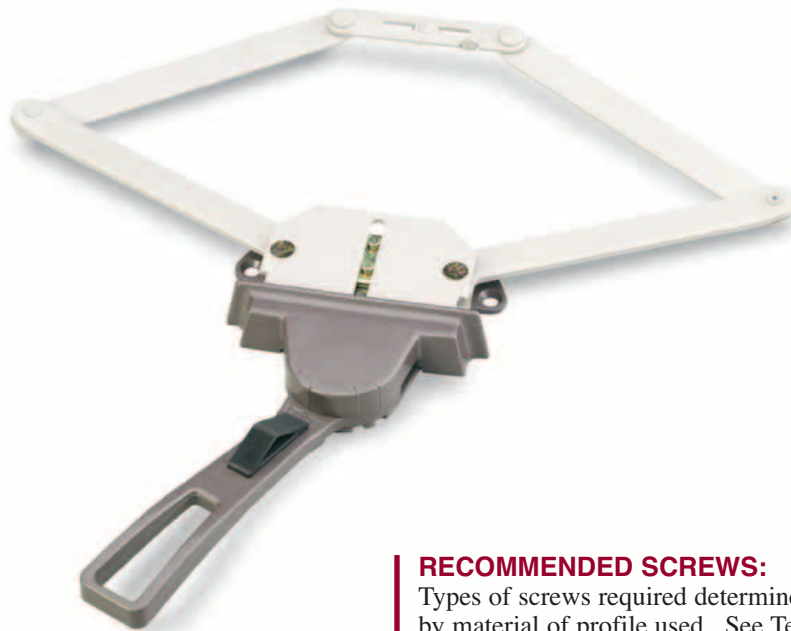
Protected under the terms of the Truth Warranty for Window and Door Manufacturers and Authorized Distributors. Refer to Truth's Terms and Conditions for further details.

MATERIAL: High-pressure die cast zinc case and lever handle. Steel base plate and lever arms.

CORROSION PROTECTION:

Truth's E-Gard® Hardware has a multi-stage coating process that produces a superior physical and aesthetic finish. Plus, it is resistant to a wider range of corrosive materials, including industrial cleaning materials and environmental pollutants. This proprietary process has been tested to be approximately three times better than common zinc plated finishes.

*For the severe conditions associated with coastal areas, Truth has developed certain product lines utilizing either **CoastGard® Hardware**, or stainless steel hardware. See Tech Note #7 for further information about corrosion protection and these special hardware options.*



FINISH: Electrostatically applied, durable coatings that provide excellent resistance to chipping, scratching and corrosion while maintaining color stability for years in direct sunlight. Please refer to Truth's Color Chart for examples of Truth's most popular finish options. Truth also offers a wide range of decorative "plated" finishes - contact Truth for additional information on availability of these finishes on specific product lines.

ORDERING INFORMATION:

1. Choose Lever Operator style desired (specify by part number).
2. Specify finish number.
3. Specify "handing", regular or opposite. [NOTE: When viewed from the inside, a regular handed operator handle will be pointing to the left when the window is in the closed position (see diagram).]
4. Indicate size of escutcheon cover desired. "C," "E," or "F" (See Table in Figure 1).
5. Select mounting hardware (sold separately):
Sash Hook - three styles to choose from - refer to drawings for sizes and part numbers (NOTE: #10.10 and #10.14 require 1 each; #10.11 requires 2 each).
#40181 - Torsion bars - on single-pull models only (optional).

RECOMMENDED SCREWS:

Types of screws required determined by material of profile used. See Tech Note #11. Refer to drawings for complete information on screw type and quantity needed (sold separately).

TRUTH TIPS:

1. The Truth Lever Operator is handed by specifying regular or opposite hand. In the closed position, the handle on a regular handed operator points to the left when viewed from inside.
2. The Lever Operator can be used with all Truth 13 Series Awning Hinges. To insure maximum operator efficiency and avoid sash chatter, it is important that the operator, hinge, and sash height be properly matched. For more complete information on proper hinge sizing and how to overcome corner pull-in problems, see Truth Tech Note #2.
3. When security and/or a tighter weather seal is desired, Truth Sash Locks should be added to either the sill or side jamb.
4. Adding a Truth Snubber to the center of the top rail on an awning window may increase the negative air pressure rating of the window.
5. For accurate hardware placement in vinyl or metal applications, pre-drilling of the window profile is recommended.
6. For vinyl window applications, mounting screws should pass through two PVC walls, or one PVC wall and one insert wall. For this reason, it may be necessary to use a longer screw than is recommended.

10 LEVER OPERATOR

7. For metal window profiles Truth recommends machine screws. However, in most applications, sheet metal screws will provide adequate holding power.

8. When selecting mounting screws for Truth hardware, coating compatibility is one of the most important criteria. For best corrosion resistance the coating on the screws should be the same as the coating on the hardware. For more information see Tech Note #11.

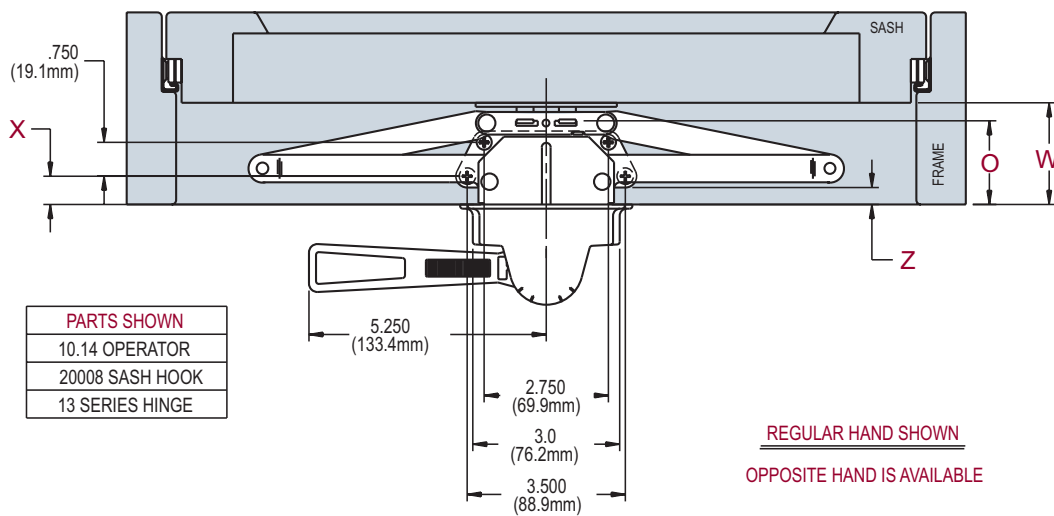
INCLUDE TRUTH SPECS ON YOUR NEXT WINDOW PROJECT

Window operators shall be provided which allow easy adjustment of window position. The mechanism should be lever operated and provide locking at any of five open positions. Connection to the movable sash must be easily detachable for window cleaning and maintenance.

Window operators will be of scissors arm design driven by a 180° swing of hand lever. The operator must be constructed of E-Gard® components and high pressure zinc alloy die castings.

Window Operators shall be 10 series Lever Operator as manufactured by Truth Hardware, Owatonna, MN.

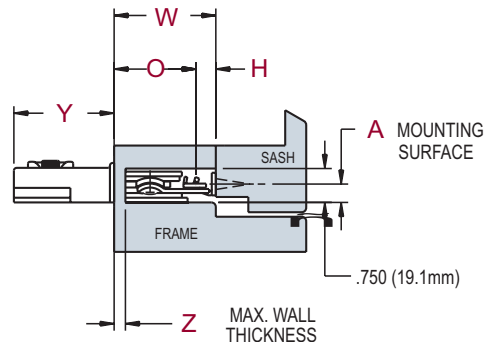
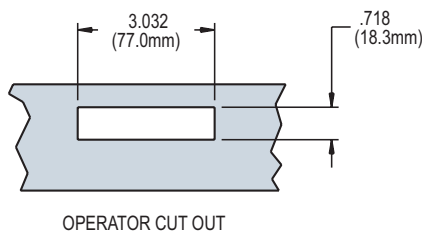
FIG. 1 APPLICATION OF TRUTH LEVER OPERATOR



SASH HOOKS	A	H HOOK DIMENSION
20008	+ .383 (9.7mm)	+ .410 (10.4mm)
40543	N/A	+ .845 (21.5mm)
*31336	N/A	± .160 (4.1mm)
40181	+ .568 (8.2mm)	+ .410 (10.4mm)

*31336 MAY ADD OR SUBTRACT FROM O.

NOTE:
FOR AVAILABLE HINGES
SEE TRUTH TIPS.

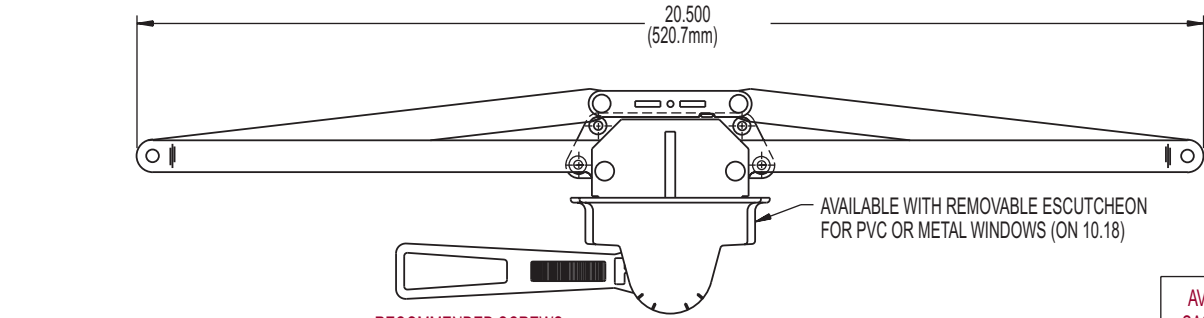


NOTE:
TO DETERMINE THE W DIMENSION FOR OPERATOR SPACE
REQUIREMENTS ADD HOOK DIMENSION H TO OPERATOR
CONSTANT O. ($W = O + H$)

ESCUTCHEON PLATE	O	X	Y	Z
C	2.215 (56.3mm)	1.00 (25.4mm)	1.843 (46.8mm)	.688 (17.5mm)
E	1.965 (50.0mm)	.750 (19.1mm)	2.093 (53.2mm)	.437 (11.1mm)
* F	1.840 (46.7mm)	.625 (15.9mm)	2.218 (56.3mm)	.312 (7.9mm)

* REMOVABLE ESCUTCHEON MODELS AVAILABLE IN "F" TYPE ONLY.

FIG. 2 SINGLE PULL LEVER OPERATOR 10.10 (removable escutcheon 10.18)



APPROXIMATE SASH OPENING:
15.500 (393.7mm)

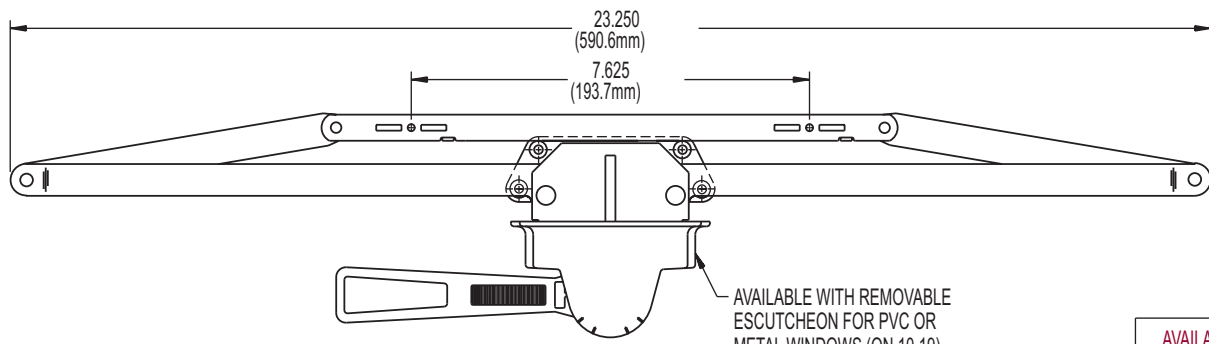
RECOMMENDED SCREWS:

WOOD: 4 (P/N 19240) #8 X 1.0 PHILLIPS, FLAT HEAD, SHEET METAL SCREWS

PVC/METAL: 4 - #8 PHILLIPS, FLAT HEAD SCREWS (LENGTH AND THREAD TYPE DETERMINED BY PROFILE)

AVAILABLE SASH HOOKS
20008
40181
31336
40543

FIG. 3 DUAL PULL LEVER OPERATOR 10.11 (removable escutcheon 10.19)



APPROXIMATE SASH OPENING:
14.0 (355.6mm)

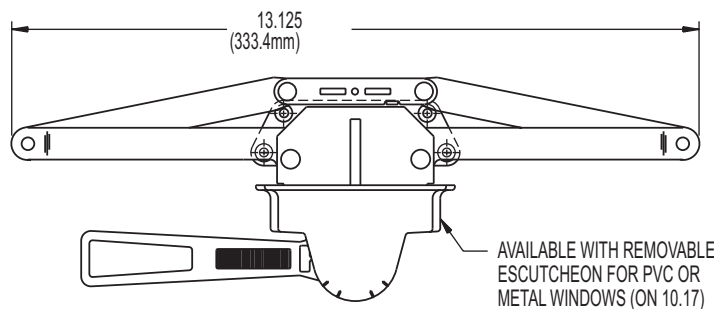
RECOMMENDED SCREWS:

WOOD: 4 (P/N 19240) #8 X 1.0 PHILLIPS, FLAT HEAD, SHEET METAL SCREWS

PVC/METAL: 4 - #8 PHILLIPS, FLAT HEAD SCREWS (LENGTH AND THREAD TYPE DETERMINED BY PROFILE)

AVAILABLE SASH HOOKS
20008 (2)
31336 (2)
40543 (2)

FIG. 4 SINGLE PULL LEVER OPERATOR 10.14 (removable escutcheon 10.17)



APPROXIMATE SASH OPENING:
8.500 (215.9mm)

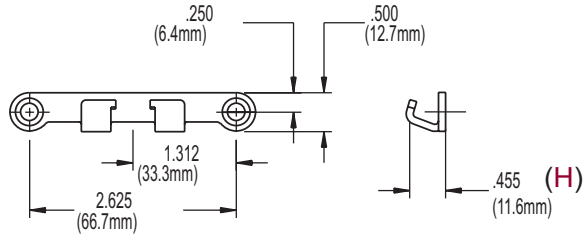
RECOMMENDED SCREWS:

WOOD: 4 (P/N 19240) #8 X 1.0 PHILLIPS, FLAT HEAD, SHEET METAL SCREWS

PVC/METAL: 4 - #8 PHILLIPS, FLAT HEAD SCREWS (LENGTH AND THREAD TYPE DETERMINED BY PROFILE)

AVAILABLE SASH HOOKS
20008
40181
31336
40543

FIG. 5 SASH HOOK 20008.XX



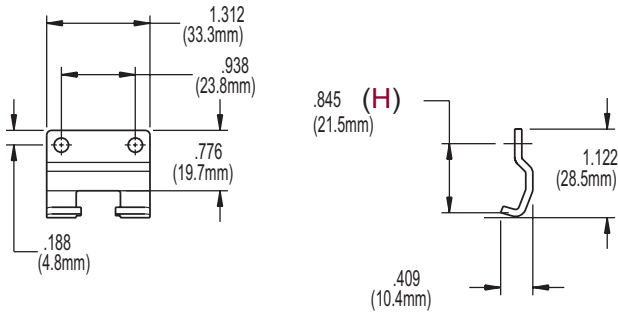
RECOMMENDED SCREWS:

WOOD: 2 (P/N 19240) #8 X 1.0 PHILLIPS, FLAT HEAD, SHEET METAL SCREWS

PVC/METAL: 2 - #8 PHILLIPS, FLAT HEAD SCREWS (LENGTH AND THREAD TYPE DETERMINED BY PROFILE)

STAINLESS STEEL SCREWS REQUIRED WITH SST SASH HOOK

FIG. 6 SASH HOOK 40543.XX

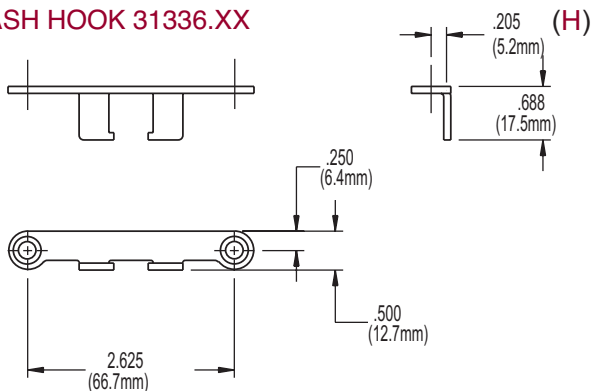


RECOMMENDED SCREWS:

WOOD: 2 (P/N 19230) #8 X 1.0 PHILLIPS, PAN HEAD, SHEET METAL SCREWS

PVC/METAL: 2 - #8 PHILLIPS, PAN HEAD SCREWS (LENGTH AND THREAD TYPE DETERMINED BY PROFILE)

FIG. 7 SASH HOOK 31336.XX

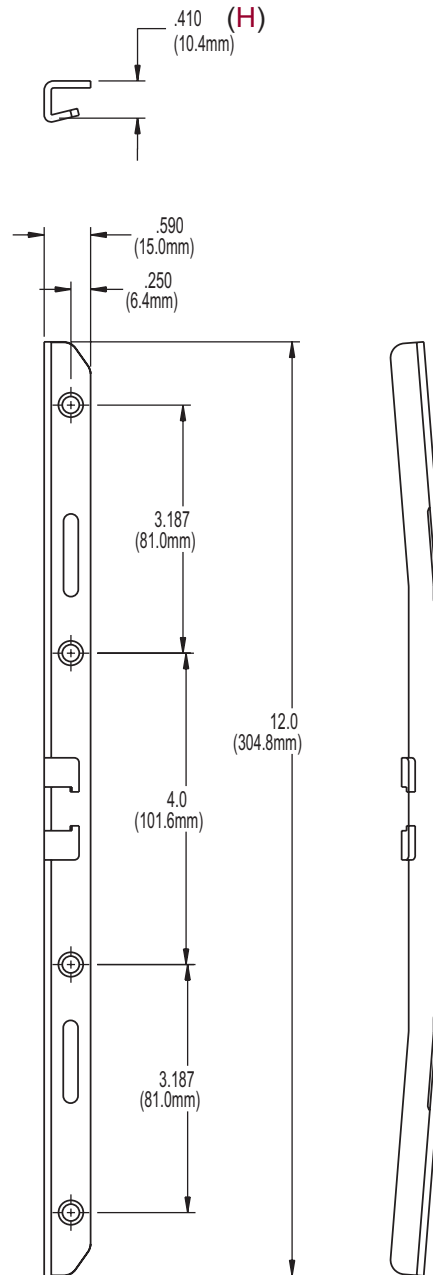


RECOMMENDED SCREWS:

WOOD: 2 (P/N 19240) #8 X 1.0 PHILLIPS, FLAT HEAD, SHEET METAL SCREWS

PVC/METAL: 2 - #8 PHILLIPS, FLAT HEAD SCREWS (LENGTH AND THREAD TYPE DETERMINED BY PROFILE)

FIG. 8 TORSION BAR 40181.XX



RECOMMENDED SCREWS:

WOOD: 4 (P/N 19240) #8 X 1.0 PHILLIPS, FLAT HEAD, SHEET METAL SCREWS

PVC/METAL: 4 - #8 PHILLIPS, FLAT HEAD SCREWS (LENGTH AND THREAD TYPE DETERMINED BY PROFILE)