Add Value To Your Operable Skylight
The Truth Skylight Operator System offers you the flexibility the marketplace demands, the quality your windows deserve, easy factory or field installation and a means to keep your skylight hardware inventories both cost effective and efficient. The Truth Skylight Operator system is easy to install and compatible with wood, metal or vinyl framed skylights.

Truth's special high gear reduction provides the low torque needed to lift a maximum sash weight of 140 pounds (63.6 kg.) with minimum effort. For ease of factory or field installations, the steel chain is detachable at the sash. The sprocket and chain are made from hardened steel to provide years of continuous, chatter-free operation. An acetal case liner keeps the chain and sprocket sliding smoothly, easing the force required to open the window. The high-pressure, zinc die-cast case is phosphate coated, electrostatically painted to provide a finish that resists chipping and flaking. The worm gear is made from hardened steel for lasting service.

42.75 STRAIGHT DRIVE (see Fig. 4)
The Straight Drive is recommended for use in installations where pole operation is required (especially steep-pitched roofs). Recommended Screws: See Mounting Options in Fig. 2.

42.65 ANGLE DRIVE (see Fig. 3)
The Angle Drive is recommended for easily accessible installations where the use of the standard crank handle is warranted. It may sometimes be used in pole applications (see application information for skylight pole systems and misc. hardware). Recommended Screws: See Mounting Options in Fig. 2.

HANDLES (see Fig. 12-13)
Drive Module components offer application flexibility... Crank Handles come in standard and long versions. Each are zinc die-cast, finished to Truth's standards. They attach to the Drive Module with a set screw. They are available in bulk quantities, each individually bagged to protect the finish and to insure the set screw does not get lost. NOT FOR USE WITH STRAIGHT DRIVE UNLESS HANDLE EXTENSIONS ARE USED.

11660 HAND KNOB & 11573 T-HANDLE (see Fig. 14-15)
The Hand Knob and T-Handle are available for those who prefer to use something other than the standard Crank Handle, or where mini-blinds, sunshades, insect screens, etc. will not allow the Crank Handle to be used. The Hand Knob and T-Handle are zinc die-cast, and attaches with a set screw and painted to match the operator. NOT FOR USE WITH STRAIGHT DRIVE UNLESS HANDLE EXTENSIONS ARE USED.

31000 EYELET ADAPTER
(see Fig. 17)
The Eyelet Adapter is for use where the pole operation is required. Available with a zinc die-cast or painted finish. Attaches with a set screw. The Eyelet Adapter is individually bagged in a bulk package. For use with poles that have a hook end.

10453 HOOK ADAPTER
(see Fig. 16)
The Hook Adapter is for use where pole operation is required. Available with a zinc die-cast or painted finish. Attaches with a set screw. The Hook Adapter is individually bagged in a bulk package. For use with poles that have a hook end.

40096 AND 40097 HANDLE EXTENSIONS (see Fig. 9)
Handle/Adapter Extensions ensure that proper clearance is provided for either Handle Cranks or Hex and Hook Adapters. They are available in either 2" or 4" lengths, mount easily between the spline and Handle or Adapter and are painted to match.

30662 HEX BALL DRIVE ADAPTER
(see Fig. 19)
The Hex Ball Drive Adapter is for use where pole operation is required. Available in a color to match the operator, the Hex Ball Drive Adapter is individually bagged in a bulk package. Attaches with a set screw. For use with poles that have a hex ball end.

SKYLIGHT POLES (see Fig. 8 & 11)
These rigid anodized aluminum Adjustable Skylight Poles feature free-turning ABS hand grips for years of reliable service and a locking collar to lock the pole at a desired length, or to reduce its size for convenient storage. Manual Skylight Poles are available in two different adjustable lengths - four to six feet, or six to ten feet with either Hook or Hex Ball Drives - each to provide easy access to remote operator locations. Optional three foot pole extensions **#30681** (see Fig. 8) are also available. For inventory convenience, master packages of 20 fully assembled skylight poles individually packaged in one master carton are available. Also available is Truth's **#30476** Clerestory Pole Crank (see Fig. 11). This pole operates by means of a flexible shaft inside a tubular metal housing. This product is to be used as an alternative to the hook pole and universal joint assembly in clerestory applications. This product must be used with the Adapter **#20550** (see Fig. 10) which is sold separately.

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.

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. Select Drive needed:
42.75 Straight Drive (painted)
42.65 Angle Drive (painted).

2. Specify finish number.

3. Choose method of operation for
Elevated Applications:
#10637 - Telescoping Pole (Hex Ball Drive),
#30662 - Hex Ball Drive Adapter, or
#10638 - Telescoping Pole (Hook Drive),
#31000 - Eyelet Adapter, or
#30476 - Clerestory Pole Crank,
#20550 - Adapter.
Non-Elevated Applications:
#11454 - New Contour Handle (painted) or
#10579 - Long Handle (painted) or
#11660 - Hand Knob (painted).
Accessories:
#40096 - 2" Handle Extension (painted),
#40097 - 4" Handle Extension (painted).

RECOMMENDED SCREWS:
Operator: 4 - #19410 - #10 x 11/4" Phillips flat head, shank slotted, sheet metal screws.Sash Bracket: 2 - #10 Phillips flat head screws. Length and thread type to be determined by application.

TRUTH TIPS:
1. To keep the Skylight operator operating efficiently and trouble free, Truth recommends that the operator chain be lubricated once a year with a spray silicone lubricant.

2. The secret to a successful pole operated Skylight is to minimize the approach angle of the pole to the Skylight operator. This is most easily accomplished by using a Truth Straight Drive whenever pole operation is required. To figure the minimum angle of approach for a straight drive and a given pole system, subtract the maximum operational angle of a given pole system from the roof pitch (see Fig. 5). For an angle drive, do the same as with the straight drive and add 34 degrees. Pole length, Skylight height, and room layout will then determine what approach angle is needed for a particular application.

3. The design of the Straight Drive does not allow a handle or hand knob to be applied directly to it. If it is desirable to operate a straight drive with a handle or hand knob, a handle extension can be used as an adapter.

4. For accurate hardware placement in vinyl or metal applications, pre-drilling of the window profile is recommended.

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

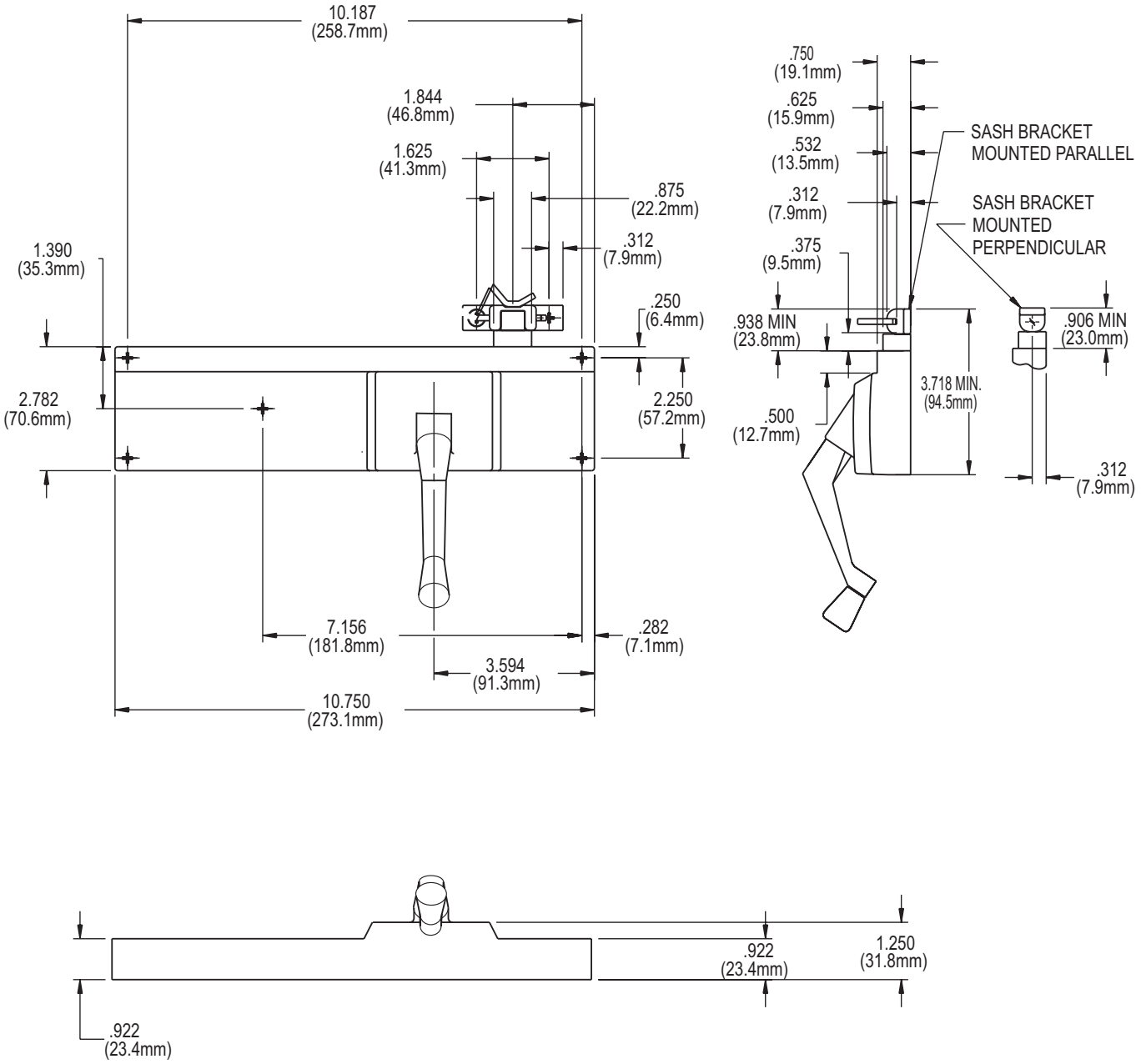
6. For easy operation of a Hook or Hex Ball Pole, the operational angle between the pole and the window operator must not be exceeded.

PRODUCT APPLICATION ASSISTANCE:
If you are designing a new window profile, or are having difficulty selecting hardware for your window, please contact Truth. Our highly trained Technical Service Staff can assist you with the selection of the appropriate hardware to meet your performance requirements, as well as providing personalized application drawings.

INCLUDE TRUTH SPECS IN YOUR NEXT SKYLIGHT PROJECT:
Skylight operating hardware should be suited for roof windows, and skylight installation for wood, PVC, and metal market. Skylight hardware shall be provided with a special high quality gear reduction (high output torque) to meet required maximum sash weight of 140 lbs. (63.6 kg.), unit to be constructed of high pressure zinc diecast case with phosphate finish, electrostatically painted and oven baked. Hardware to be complete with steel chain, sprocket, and detachable sash bracket. The steel chain design must include interlocking solid and u-links riveted in such a manner as to result in no more than .375" (9.5 mm) - .625" (15.9 mm) deflection. The chain sprocket shall be hardened steel and an acetal chain guide must be provided. Skylight hardware to be available with various means of control such as angle drive, straight drive, or motors. Skylight hardware shall be manufactured by Truth Hardware, Owatonna, MN.

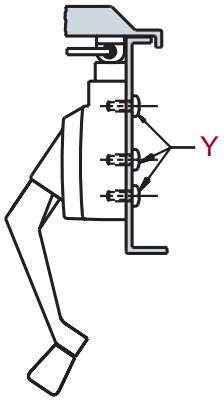
Patented

FIG. 1 APPLICATION OF TRUTH 42.65 MANUAL SKYLIGHT OPERATOR



HARDWARE SHOWN
42.65 ANGLE DRIVE MODULE
10579 HANDLE

FIG. 2 MOUNTING OPTIONS

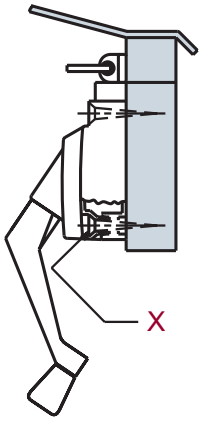


OPTION 1
REAR MOUNT

SCREWS ENTER FROM BEHIND AND SCREW INTO BASE AT LOCATION Y.

RECOMMENDED SCREWS:

4-(P/N 19992) #12-24 X .500 PHILLIPS, PAN HEAD, THREAD FORMING, MACHINE SCREWS



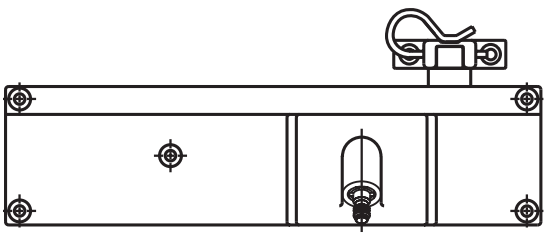
OPTION 2
FRONT MOUNT

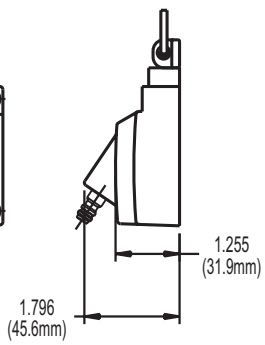
SCREWS ENTER FROM THE TOP AND SCREW INTO JAMB AT LOCATION X .

RECOMMENDED SCREWS:

5-(P/N 19410)#10 X 1.250 PHILLIPS, FLAT HEAD, SHANK SLOTTED, SHEET METAL SCREWS.

FIG. 3 ANGLE DRIVE MODULE 42.65





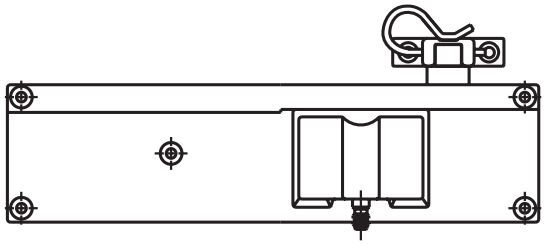
* AVAILABLE DRIVES FOR ANGLE DRIVE MODULE
10024 HANDLE
10579 HANDLE
30662 HEX BALL DRIVE ADAPTER
10453 HOOK
31000 EYELET
40096 2.0 (50.8mm) EXTENSION
40097 4.0 (101.6mm) EXTENSION

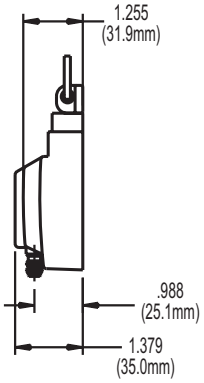
RECOMMENDED SCREWS:

SEE MOUNTING OPTIONS IN FIG. 2

* NOTE: SEE POLES AND MISC. SKYLIGHT HARDWARE FOR MORE INFORMATION

FIG. 4 STRAIGHT DRIVE MODULE 42.75





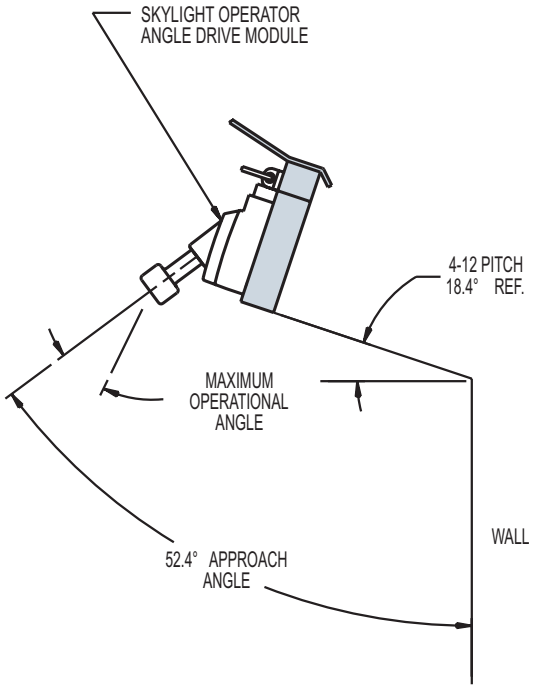
* AVAILABLE DRIVES FOR STRAIGHT DRIVE MODULE
30662 HEX BALL DRIVE ADAPTER
10453 HOOK
31000 EYELET
40096 2.0 (50.8mm) EXTENSION
40097 4.0 (101.6mm) EXTENSION

RECOMMENDED SCREWS:

SEE MOUNTING OPTIONS IN FIG. 2

* NOTE: SEE POLES AND MISC. SKYLIGHT HARDWARE FOR MORE INFORMATION

FIG. 5 APPLICATION INFORMATION FOR POLE SYSTEMS AND MISC. HARDWARE



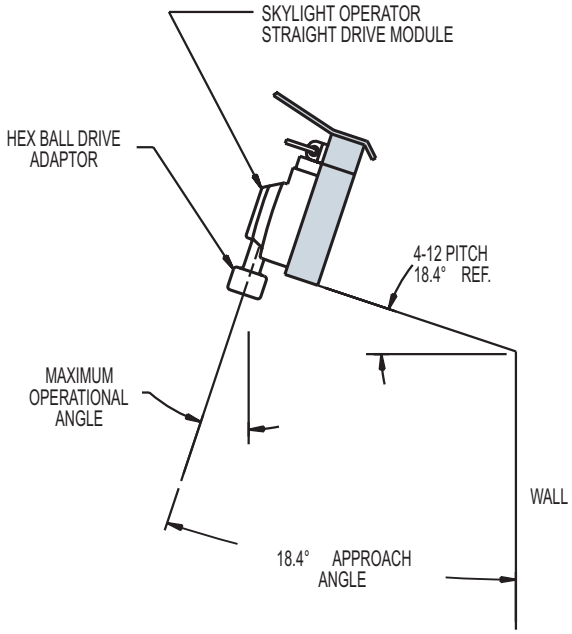


FIG. 6 SASH BRACKET 40470 AND DETACHABLE SASH PIN 20642

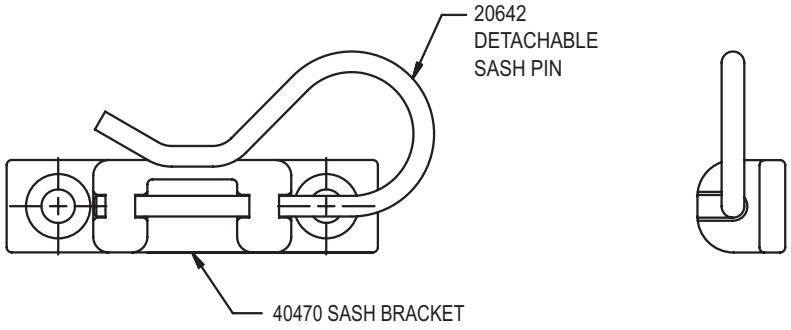
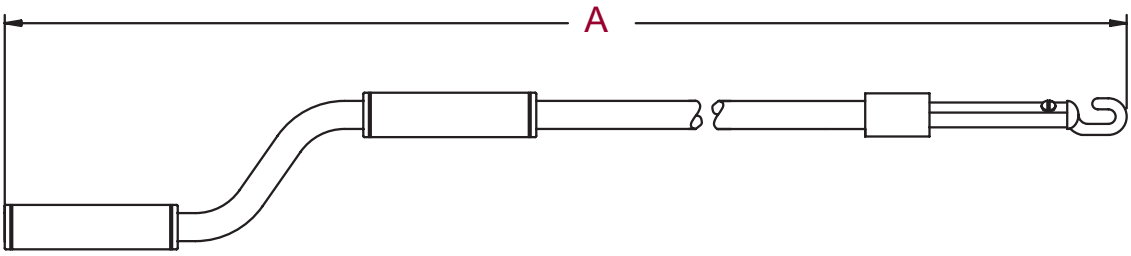


FIG. 7 TELESCOPING POLE CRANK: POLE WITH HOOK ADAPTOR 10638 (SHOWN) POLE WITH HEX BALL DRIVE 10637



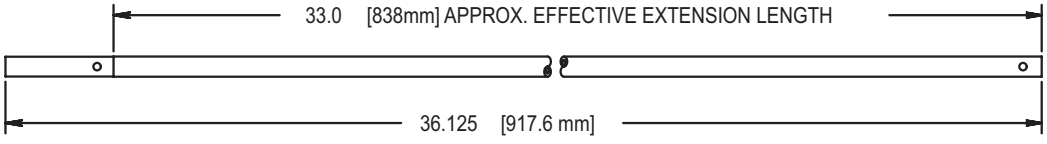
		A DIMENSION		
PART NO.	DRIVE	EXTENDED	COLLAPSED	COMPATIBLE WITH
10637	HEX BALL (INCLUDED)	115.75 (2940.1mm)	67.75 (1720.9mm)	30662 HEX BALL DRIVE ADAPTOR (SEE FIG. 11)
10638	HOOK (INCLUDED)	116.50 (2959.1mm)	68.50 (1739.9mm)	10453 HOOK (SEE FIG. 18) OR 31000 EYELET (SEE FIG. 19)
10864	HEX BALL (INCLUDED)	73.75 (1873.3mm)	47.75 (1212.9mm)	30662 HEX BALL DRIVE ADAPTOR (SEE FIG. 11)
10855	HOOK (INCLUDED)	74.50 (1892.3mm)	48.50 (1231.9mm)	10453 HOOK (SEE FIG. 18) OR 31000 EYELET (SEE FIG. 19)

HOOK ADAPTER

HEX BALL DRIVE

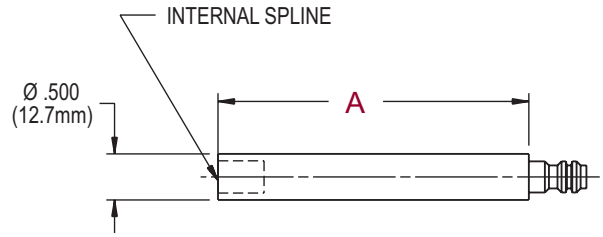
NOTE:
1. THE OPERATIONAL ANGLE OF HOOK POLE WHEN USED WITH A HOOK OR EYELET IS 45∞.
2. THE OPERATIONAL ANGLE OF HEX BALL POLE WHEN USED WITH A HEX BALL ADAPTER IS 35∞.

FIG. 8 3 FOOT POLE EXTENSION 30681 (Fits Telescoping Poles)



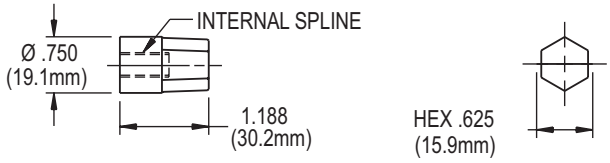
NO MORE THAN ONE EXTENSION SHOULD BE USED PER TELESCOPING POLE CRANK.

FIG. 9 HANDLE EXTENSIONS 40096.XX, 40097.XX



EXTENSION	A
40096	2.0 (50.8mm)
40097	4.0 (101.6mm)

FIG. 10 ADAPTOR 20550



NOTE:

THIS ADAPTER EASILY FITS OVER THE SPLINE OF THE WINDOW OPERATOR AND IS USED IN CONJUNCTION WITH TRUTH'S 30476 CLERESTORY POLE CRANK AS AN ALTERNATIVE TO TRUTH'S HOOK POLE AND UNIVERAL JOINT ASSEMBLY.

FIG. 11 CLERESTORY POLE CRANK 30476

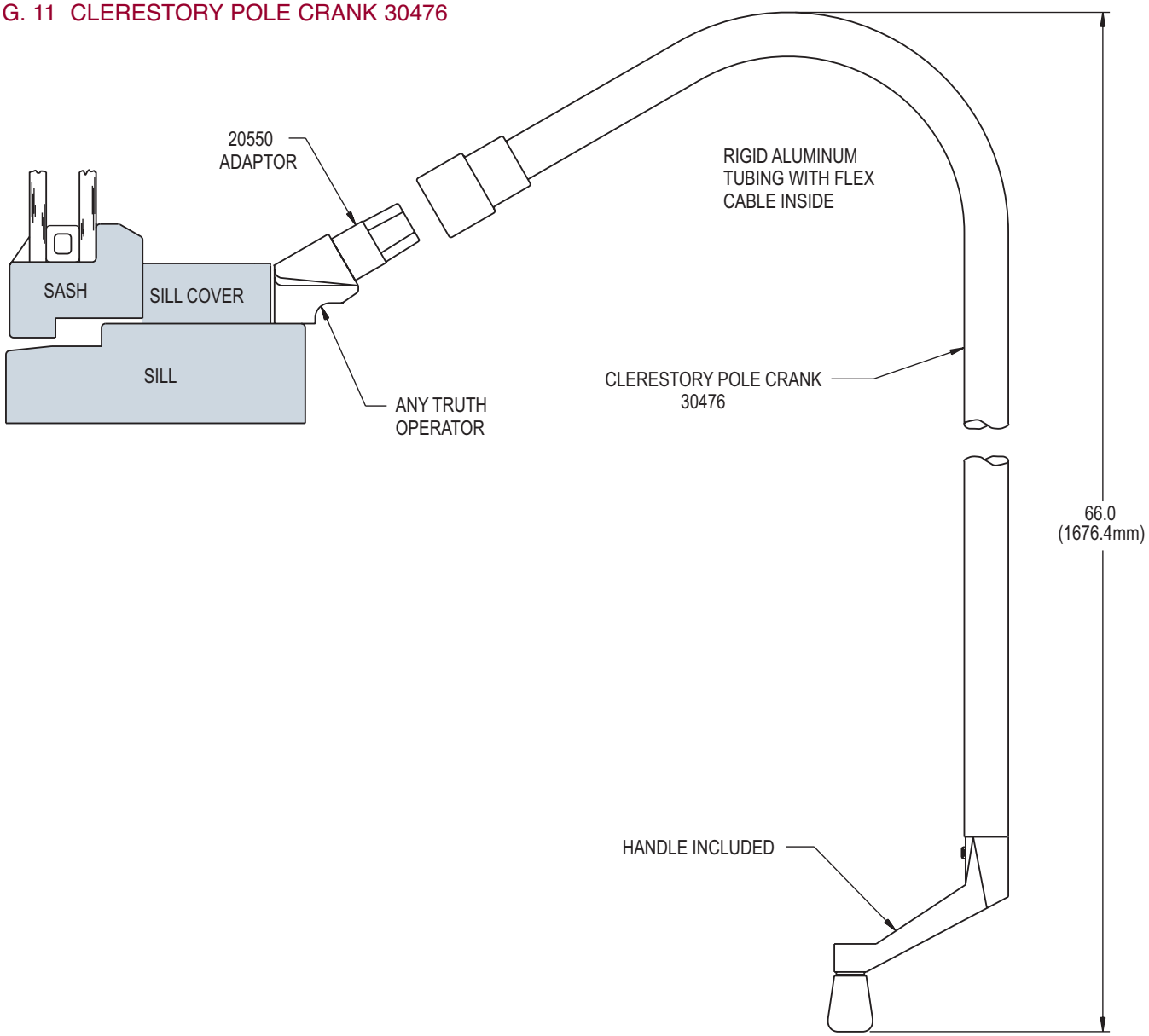
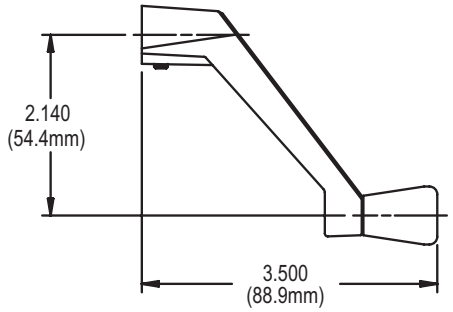


FIG. 12 HANDLE 10579.XX (Long Handle)



INCLUDES SET SCREW.

FIG. 13 CONTOUR HANDLE 11454.XX

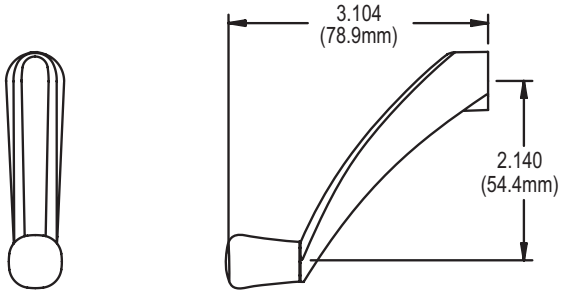


FIG. 14 HAND KNOB 11660.XX

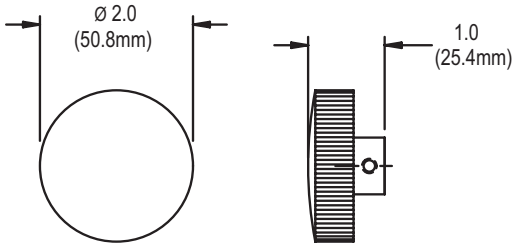


FIG. 15 T-HANDLE 11573.XX

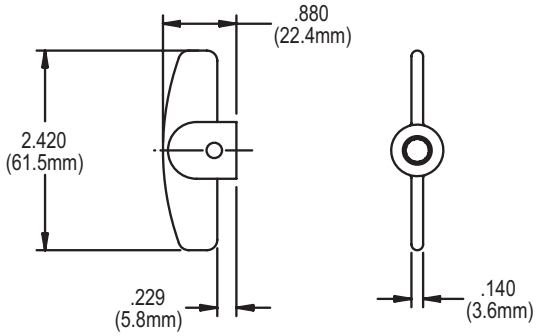
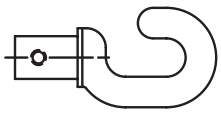
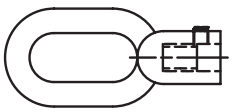


FIG. 16 HOOK 10453



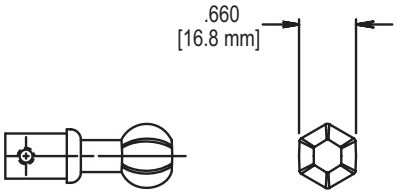
INCLUDES SET SCREW.

FIG. 17 EYELET 31000.XX



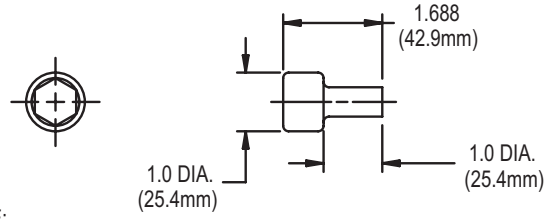
INCLUDES SET SCREW.

FIG. 18 HEX BALL DRIVE 30957



INCLUDES SET SCREW.

FIG. 19 HEX BALL ADAPTOR 30662.XX



NOTE:

1. HEX BALL ADAPTER FITS ALL TRUTH OPERATOR SPLINES. (SUPPLIED WITH SET SCREW)
2. AVAILABLE IN A COLOR TO MATCH THE OPERATOR, IS BULK PACKAGED AND INDIVIDUALLY BAGGED.
3. MAXIMUM OPERATIONAL ANGLE WHEN USED WITH A HEX BALL POLE IS 35 DEGREES.
4. FOR USE WITH THE DRIVE MODULES WHERE POLE OPERATION IS REQUIRED.

TRUTH HARDWARE
better from every perspective
700 WEST BRIDGE STREET, OWATONNA, MN 55060 ■ 507.451.5620 800.866.7884 ■ TRUTH.COM