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# DEWALT DW3 Strutlock Wire Locking Device User Guide

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**ANCHORS & FASTENERS**

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## CABLE HANGERS

# STRUTLOCK™ Wire Locking Device

## GENERAL INFORMATION

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### PRODUCT DESCRIPTION

STRUTLOCK™ Wire Locking Devices interface with TOUGHWIRE™ DW2 and DW3 wire rope (sold separately) to create an adjustable and lockable device correlation for HVAC, sheet metal, electrical, and plumbing/pipe applications. This device is installed into the strut or channel profiles used to hang trapeze supports. Featuring tool-free

adjustability and locking, the TOUGHWIRE™ Wire Locking Devices are equipped with high visibility product identifiers. Get right to work with the included square washer and strut nut.

## **GENERAL APPLICATIONS AND USES**

- Trapeze supports for HVAC duct, cable trays, conduit and pipe
- Support mounts, clevis hangers, etc.
- Luminaires and lighting systems

## **FEATURE AND BENEFITS**

- + Tool-Free Adjustments – Easily push to adjust and tighten the lock.
- + Multiple Cable Sizes – Available in two sizes (DW2 and DW3).
- + Clear Identifiers – Channel arrows indicate proper directional usage on TOUGHWIRE™ Wire Rope insertion.
- + Jobsite Ready – Get right to work with the included square washer and strut nut.
- + Streamlined Design – Help deliver customer satisfaction with a sleek look for exposed ceiling aesthetics.

## **APPROVALS AND LISTINGS**

- International Code Council, Evaluation Service (ICC-ES), PMG-1786, Hangers for Pipe, Duct and Conduit Support
- Code compliant with the 2024, 2021, 2018 and 2015 IMC, IPC, IRC, UMC and UPC
- Tested in accordance with ICC-ES LC1041 for supports and hangers for pipe, ducts and conduit
- Underwriters Laboratories (UL Listed) – File No. E542601 under UL1598
- Tested and verified to be an acceptable alternative to the duct hanger systems prescribed in the SMACNA HVAC Duct Construction Standards (HVAC-DCS), 4th Edition, Chapter 5, Tables 5-1, 5-1M and 5-2

## **GUIDE SPECIFICATIONS**

3 05 29 – Hangers and Supports for HVAC Piping and Equipment and 22 05 29 – Hangers and Supports for Plumbing Piping and Equipment. Hangers shall be TOUGHWIRE™ system as supplied by DEWALT, Towson, MD. Hangers shall be

installed in accordance with published instructions and the Authority Having Jurisdiction.



## STRUTLOCK™

### DEVICE MATERIAL

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- Zinc Plated Carbon Steel

### SIZE RANGE

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- DW2 = Grey
- DW3 = Black

### SUITABLE MATERIAL PAIRING

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- TOUGHWIRE™ Wire Rope

**CODE LISTED**  
ICC-ES PMG-1786

### MATERIAL SPECIFICATIONS

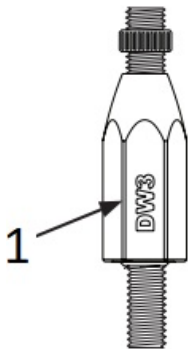
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## STRUTLOCK™

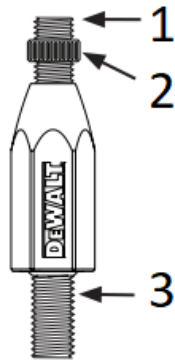
Hanger/Device Component	Component Material
Device Body	Carbon steel
Locking Nut	Carbon steel
Plunger	Carbon steel
Strut Nut	Carbon steel
Square Washer	Carbon steel
Coating/Plating on Carbon Steel Components	Zinc Plating according to ASTM B633 (Fe/Zn 5) Minimum plating requirements for mild service condition
Internal Spring	Music wire

**INSTALLATION SPECIFICATIONS**

STRUTLOCK <sup>™</sup> Size	TOUGHWIRE <sup>™</sup> Size	Thread Size (UNC)	Thread Length	Body Hex Size	Device Length
DW2	DW2 – 5/64" (2.1 mm)	3/8" – 16	3/4"	15 mm	2-1/4"
DW3	DW3 – 1/8" (3.2 mm)	3/8" – 16	3/4"	17 mm	3'



## 1. Device & TOUGHWIRE™ Cable Size

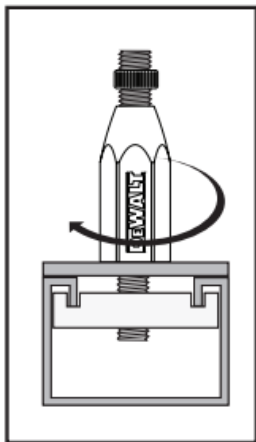


1. Plunger
2. Locking Nut
3. UNC Thread:

Pre-Assembled with Strut Nut and Square Washer (not shown)

## INSTALLATION INSTRUCTIONS

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### Step 1

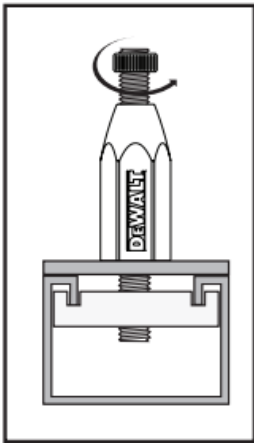
#### For Installations onto Strut Channel:

Position STRUTLOCK™ wire locking device onto strut channel.

Tighten STRUTLOCK™ assembly onto strut channel by hand or use an open ended wrench. Do not overtighten the STRUTLOCK™ assembly; the maximum suggested tightening torque is 10 ft-lb.

Note: channel may be mounted inverted, i.e. upside down, to STRUTLOCK™ locking

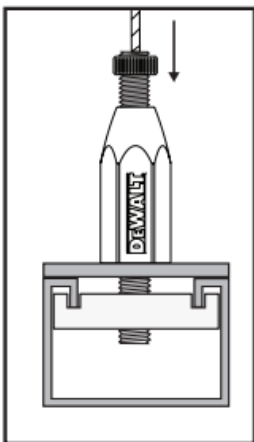
device (inverted channel not shown). Back-to-back channel may also be used and mounted.



## Step 2

### Prepare

Back-off the locking nut on the plunger (i.e., turn counter-clockwise). Do not fully remove.

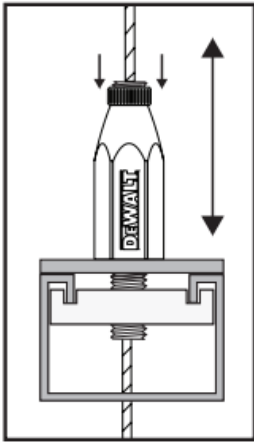


## Step 3

### Insert Wire

Insert wire rope through the plunger at the top of the device. Pass the wire rope fully through the device.

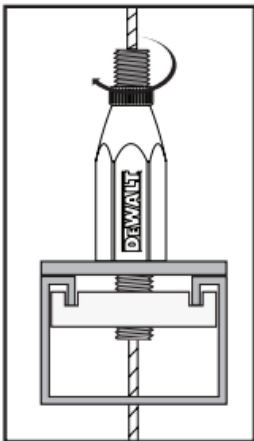
Note: Manually depressing the plunger can make it easier to insert the wire rope.



#### **Step 4**

##### **Position**

To adjust, remove any load on the wire rope and device. Then, depress the plunger and adjust the positioning of the STRUTLOCK™ wire locking device as needed.



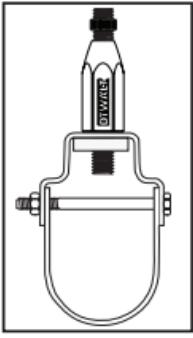
#### **Step 5**

##### **Lock**

Once the device is in its final position, tighten the locking nut against the shoulder of the STRUTLOCK™ wire locking device to lock position in place.

A minimum of 2-inches of TOUGHWIRE™ wire rope should protrude out of the STRUTLOCK™ wire locking device. Excess wire rope can be cut with the TOUGHWIRE™ cutter.





**Step 1**

**For installations onto Clevis Hangers**

Remove the strut washer and square washer from the STRUTLOCK™ assembly.  
Assemble the STRUTLOCK™ onto the hanger and secure with the provided strut nut.  
Alternatively, a standard 3/8"-16 hex nut may be used.

Proceed to steps 2-5 above.

**PERFORMANCE DATA**

**TOUGHWIRE™ Wire Rope Specifications**

Wire Rope Specification	TOUGHWIRE™ Size	
	DW2	DW3
Nominal Diameter	5/64" (2.1 mm)	1/8" (3.2 mm)
Strand Configuration	7×7	7×7
Minimum Breaking Load	500 lbs. (2.2 kN)	1200 lbs. (5.3 kN)
Max. Safe Working Load	125 lbs. (0.6 kN)	300 lbs. (1.3 kN)

Maximum Safe Working Loads of STRUTLOCK™ Devices<sup>1,2,3,4</sup>

<b>STRUCTLOCK™</b> <b>Device Size</b>	<b>Safe Working Load</b> <b>lbs.</b> <b>(kN)</b>
DW2	100 (0.4)
DW3	200 (0.9)
<ol style="list-style-type: none"> <li>1. Tabulated safe working loads are based on a safety factor of 4.0</li> <li>2. Tabulated safe working loads are for vertical loads.</li> <li>3. The safe working load of a device must be compared against the safe working load of the wire rope and any wire attachment, the lower of which will govern the safe working load of the assembly.</li> <li>4. For angled suspensions up to 10° from vertical, multiply safe working loads by a reduction factor of 0.98.</li> </ol>	

## CONDITIONS OF USE

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TOUGHWIRE™ system devices require the use of TOUGHWIRE™ wire rope.



Remove any frayed TOUGHWIRE™ wire rope prior to inserting into the devices.



Do not use TOUGHWIRE™ for lifting or jacking.



Do not walk or stand on services suspended with TOUGHWIRE™.



Not for use with dynamic or shock loading. Use to support static loads only.



Do not use in corrosive environments, e.g., chlorinated environments.



For use in dry, interior locations only.



Do not apply lubricant to any part of the TOUGHWIRE™ assembly.



After the TOUGHWIRE™ assembly is in final position, painting may be considered. No adjustments are allowed to the assembly after painting.

Do not paint TOUGHWIRE™ wire rope or devices prior to installation.



Do not exceed an angle greater than 10° from vertical.



Avoid contact with sharp corners or edges that may damage TOUGHWIRE™ wire rope.



Do not use TOUGHWIRE™ wire rope that is frayed, kinked or damaged.

It is recommended to replace TOUGHWIRE™ wire rope in service that has been worn or damaged.



ALWAYS wear safety glasses when working with TOUGHWIRE™.



ALWAYS wear safety gloves when working with TOUGHWIRE™.



## ORDERING INFORMATION

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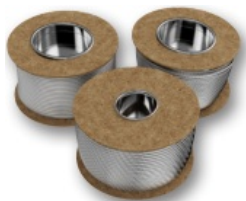
### STRUTLOCK™ Wire Locking Devices

Cat. No.	TOUGHWIRE™ Size	Pack Qty.	Carton Qty.
DTWSTRUTLOCK02	DW2	15	90
DTWSTRUTLOCK03	DW3	10	60



## TOUGHWIRE™ Cable Spools

Cat. No.	TOUGHWIRE™ Wire Rope Size	Cable Length (ft)	Pack Qty.	Carton Qty.
DTWSPOOL01X 650	DW1	650	1	4
DTWSPOOL02X 650	DW2	650	1	3
DTWSPOOL03X 330	DW3	330	1	4




## TOUGHWIRE™ Cable Cutter

Cat. No.	Description	Pack Qty.	Carton Qty.
DTWHANDCUT TER	Cutters for DW1, DW2 and DW3 TOUGHWIRE™ Cable	1	10





# Documents / Resources

	<p><a href="#">DEWALT DW3 Strutlock Wire Locking Device [pdf]</a> User Guide</p> <p>DW2, DW3, DW3 Strutlock Wire Locking Device, Strutlock Wire Locking Device, Wire Locking Device, Locking Device</p>
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## References

- [User Manual](#)

 Dewalt

 DEWALT, DW2, DW3, DW3 Strutlock Wire Locking Device, locking device, Strutlock Wire Locking Device, Wire Locking Device

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