



Northwest Specialty Hardware Inc.  
15865 SE 114th Avenue, Suite C  
Clackamas, OR 97015, USA  
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sales@northwestsh.com www.northwestsh.com

## The Leading Manufacturer of Premium Detention Hardware & Accessories

### Statement on Substitution Proposal Detention Hinges or Door Pulls

NW 645FMST 4.5 inch detention hinge was tested by an independent laboratory and passed ASTM F1758-03 Grade 1 Test in 2002. NW 601 raised pull, NW 602 recessed pull, and NW 701 push pull plate are certified to be in compliance with ANSI/BHMA A156.6 standards.

NW 645FMST hinge and door pulls are specified by architects and accepted by correctional facilities. Northwest Specialty Hardware, Inc. (the "Northwest") has been supplying NW hinges and door pulls to the DEC's (Detention Equipment Contractors) since 2002. The DEC's hinges and door pulls specified by architects are NW 645FMST hinge and door pulls, which shall **NOT** be substituted by any poor-quality proposal hinges or door pulls.

If any DEC or Northwest customer intends to replace its specified hinges or door pulls with any proposal hinges or door pulls for bidding, a completed substitution form shall be submitted with samples, tests, and reports for the architect's evaluation and owner's consent. A detailed comparison showing the differences between NW 645FMST hinge or door pulls and the proposed hinges or door pulls shall be submitted for the architect's evaluation.

NW 645FMST hinge is superior to any other brand hinges in the cycle, impact, overloading performance, durability, and corrosion resistance in the correctional industry. The specifications of NW 645FMST hinge are those of Northwest customer's one. The customer is advised to compare the aspects of NW 645FMST hinge and proposal hinge, including **(1)** processing quality, **(2)** bearing quality, **(3)** chemical composition, and **(4)** corrosion resistance, by cutting the hinges apart for quality inspection.

The chemical composition of the hinge leaf and pin shall be inspected in accordance with 304 stainless steel ASTM standards. The corrosion resistance of the hinge tip, pin, and leaf shall be tested in accordance with ASTM B117 salty spray testing.

There is a clear distinction between NW 645 (645FMST or 645FM) hinge and proposal hinge as follows:

- (1)** Northwest adopts unique processing techniques to ensure NW 645 hinge superior function and durability over other brands.
- (2)** The anti-friction bearings of NW 645 Hinges are custom-made per our specifications for superior strength, durability, and long life, surpassing other brands.
- (3)** Both leaf and pin of NW 645 Hinge are made from 304 stainless steel in accordance with the ASTM standards.
- (4)** The hinge tip, pin, and leaf of NW specified hinge is considerably more resistant to corrosion than other brands.

**NW detention hinges and door pulls are manufactured by Northwest in our own factory by focusing on the core competency of our corporate groups' expertise in investment casting and forging industry. Each of NW hinges and door pulls is triple checked by our quality control staff for quality assurance. Each of NW hinges and door pulls is insured by Northwest to protect the DEC or customer from product liability claims.**



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## **NW 645FM**

### **STAINLESS STEEL HINGE W/O SECURITY STUD**

**Size:** 4 1/2" x 4 1/2" x 3/16" Thick  
**Material:** SS304, Investment Cast Full  
**Style:** Mortise, Hospital Tip  
**Finish:** US32D  
**Pin:** SS304, Custom-Made  
**Bearings:** Concealed & Non-Removable  
Custom-Made, Anti-Friction  
Maintenance-Free  
**Capacity:** 300lb Door (3 Hinges)  
**Mounting Screws:** Security Flat Hd, SS  
1/4-20 x 1/2"  
**Template:** ANSI/BHMA A156.7



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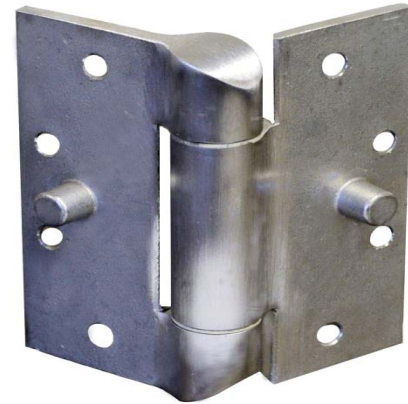


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## NW 645FMST

### STAINLESS STEEL HINGE W/ SECURITY STUD

<b>Size:</b>	4 1/2" x 4 1/2" x 3/16" Thick
<b>Material:</b>	SS304, Investment Cast
<b>Style:</b>	Full Mortise, Hospital Tip w/ Security Stud
<b>Finish:</b>	US32D
<b>Pin:</b>	SS304, Custom-Made Concealed & Non-Removable
<b>Bearings:</b>	Custom-Made, Anti-Friction Maintenance-Free
<b>Capacity:</b>	300lb Door (3 Hinges)
<b>Mounting Screws:</b>	Security Flat Hd, SS 1/4-20 x 1/2"
<b>Template:</b>	ANSI/BHMA A156.7



*Note: NW 645FMST hinge passed ASTM F1758-03 Grade 1 Test. NW 645FMST and 645FM hinges are specified by architects and accepted by facilities.*



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## NW 645ETHUL

### ELECTRIC TRANSFER HINGE, UL RATING

<b>Size:</b>	4 1/2" x 4 1/2" x 3/16" Thick
<b>Material:</b>	SS304, Investment Cast
<b>Style:</b>	Electric Transfer Hinge Full Mortise, Hospital Tip
<b>Finish:</b>	US32D
<b>Wiring:</b>	Color Coded Wires (5) 18 AWG, Mil16878/4
<b>Wire Rating:</b>	Mil-W-16878/4 UL 1213
<b>Wiring Sealant:</b>	Dow Corning 743 Flowable Silicone Adhesive Sealant
<b>Sealant Rating:</b>	MIL-A-46106
<b>Mounting Screws:</b>	Security Flat Hd, SS 1/4-20 x 1/2"
<b>Template:</b>	ANSI/BHMA A156.7

**Features:** The UL Listed Type wire has passed UL VW-1 Flame Test. The Wiring sealant has excellent low or high temperature performance. This Hinge has excellent resistance to thermal aging, flame and moisture.

*Note: 6 coded wires are available upon request.*



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## NW 646HD

### 316 STAINLESS STEEL HEAVY-DUTY HINGE

<b>Size:</b>	4 1/2" x 4 1/2" x 3/16" Thick
<b>Material:</b>	316 Stainless Steel, Investment Cast
<b>Style:</b>	Full Mortise, Hospital Tip w/ Security Stud
<b>Finish:</b>	US32D
<b>Pin:</b>	316 Stainless Steel, Custom-Made Concealed & Non-Removable
<b>Bearings:</b>	Heavy-Duty Bearings Custom-Made, Anti-Friction Maintenance-Free
<b>Capacity:</b>	600lb Door (3 Hinges)
<b>Mounting Screws:</b>	Security Flat Hd, SS 1/4-20 x 1/2"
<b>Template:</b>	ANSI/BHMA A156.7



*Note: NW 646 HD is made of grade 316 stainless steel and heavy-duty bearings for maximum strength and corrosion resistance.*

*NW 646HD Passed ASTM F1758-03 Grade 1 Test and ASTM F1758-03 Double Weight Grade 1 Test.*

**Grade 1**

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