

# NATIONAL

CUSTOM HOLLOW METAL DOORS & FRAMES

The difference is quality.



STC DOOR & FRAME ASSEMBLY

## Industry Leading Lead Times in STC Assemblies

National Custom Hollow Metal developed Sound Safe to meet the need for a faster production cycle option than was available in the marketplace. NCHM offers Sound Safe in Quick Ship and Hot Rush timetables of 5-10 days for limited quantity orders. Standard Galvanneal lead times are 3 weeks. Think of NCHM when you need a few sound rated openings fast.

NCHM's Sound Safe Assemblies come in both single and pair opening sizes. We offer single sizes at a rating of STC 51 and STC 37. Our pair options include STC 45 and STC 34 ratings.

### Included in our assembly package

All units come as an assembly package including door, frame, hinges, gasketing seals, flat thresholds, and door bottoms of either a brush sweep type or retractable auto door bottom.

- Lab Tested ASTM E90 Sound Transmission Loss Test
- Galvanneal STC Levels Achieved STC 51 Single, STC 45 Pair, STC 34 Single, and STC 37 Pair
- Stainless Steel STC Levels Achieved STC 48 Single, STC 46 Pair, STC 34 Single, and STC 35 Pair
- Fire Rating STC 37 Single 1 1/2 hr. Metal Door and Frame
- No Fire Rating STC 51 Galv. Single - STC 48 Galv. Pair, STC 48 SS 304 Single - STC 46 SS 304 Pair
- Frame and Door Steel 16 ga Minimum Tested - additionally offered Stainless steel 304, and 316
- Astragal is not required in pairs for rating
- Seal Sets used for different STC ratings are rating specific

## COMMONLY FOUND IN

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### STC Sizes

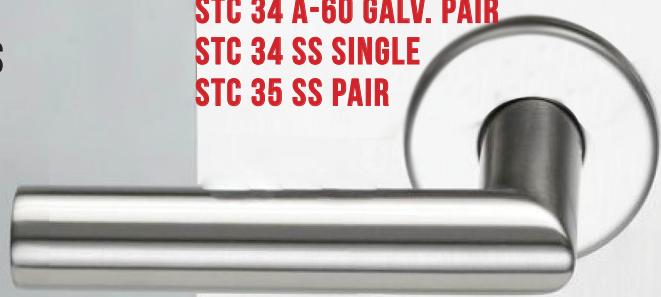
Frame	Min Size	Max Size
Singles	3'0" x 6'8"	4'0" x 8'0"
Pair	6'0" x 6'8"	8'0" x 8'0"

- STC Definition - Sound Transmission Class



**90 MIN  
FIRE RATED**

**STC 37 A-60 GALV. SINGLE**  
**STC 34 A-60 GALV. PAIR**  
**STC 34 SS SINGLE**  
**STC 35 SS PAIR**



**SOUND SAFE**

**WE OFFER BOTH HOT RUSH & QUIK SHIP SERVICES**

**CALL US TODAY FOR AVAILABILITY**



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## How do we test? Acoustical Test Calculations

**Transmission Loss** or (TL)  $1/3$  octave frequency = Average source room sound pressure - Average receive room sound pressure +  $10 \times$  the log of the specimen area divided by the sound absorption of the receive room with the sample in place.

**STC Rating (STC Calculation)** After reading the (TL) of the contour curve at 500HZ, the sum of the deficiencies below the contour curve must not exceed 32. The maximum deficiency at any one frequency must not exceed 8.

**OITC Rating Outdoor Indoor Transmission Class (OITC)** calculated by subtracting the logarithmic summation of the TL values from the logarithmic summation of the A - weighted transportation noise spectrum stated in ASTM E1332.

**From Lab setting to Job site setting** STC openings can experience up to a 5pt. STC loss depending upon the job site conditions.

**Frame** must be filled with concrete to achieve desired rating of the door and frame assembly. If mortar is not used then the STC rating becomes void due to improper install. Failure to follow this test requirement voids any STC Level on the label supplied by NCHM.

### Specifications

**STC Assemblies** 1 sticker on each Door for the assembly unit

**Frame Profile** offered as Double or Single Rabbet

**Frame Construction Choice** Masonry

**Glass Kit** optional glass kit and glazing can be offered (max 100 Sq. " Visible glass")

**Lead time** on glass kits 3-4 weeks standard

**Threshold required** installed smooth side up to contact a retractable auto door bottom or a sweep

**Replacement gasketing** can be ordered from NCHM if damaged on site due to wear and tear.

**Hinge Reinforcement for 4.5" or 5" Heavy Weight Hinges.** (No cam Lift)

### Approved Hardware Preps

Surface or Mounted Reinforcements for Cylindrical and

Mortise Type Locks

Manual Surface Bolt

Rim Exit Reinforcement

Surface Vertical Rod

RC/PA Closer Reinforcement

### Construction Options

**Frame Corners** Face Welded Standard

**STC Door Edge** Standard Seamless

**Sound Safe Frame** Suitable for use as a component in a Wood Door Procedure up to the STC Level used on the door frame. Frame must be mortar filled.

### STC Rating Chart

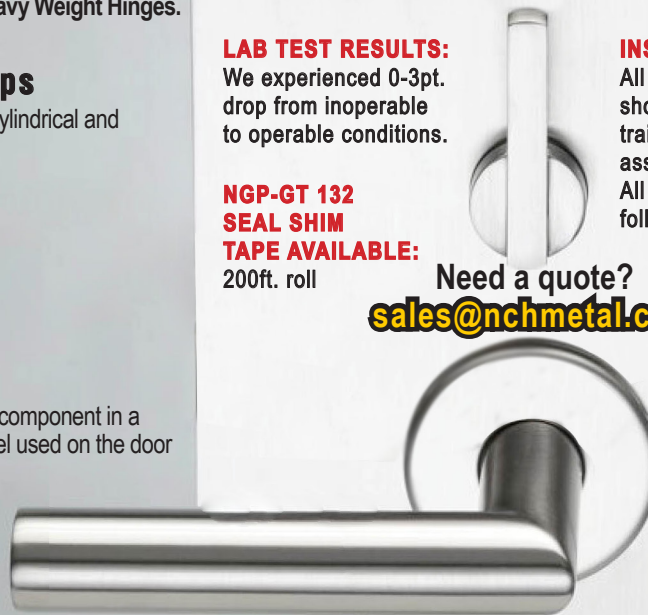
	Single		Pair	
	IN OP	OP	IN OP	OP
<b>Galvanneal Special Core</b>	51	51	48	45
<b>Stainless Steel Special Core</b>	50	48	47	46
<b>Galvanneal Polycore</b>	37	37	37	34
<b>Stainless Steel Polycore</b>	36	34	36	35

**LAB TEST RESULTS:**  
We experienced 0-3pt. drop from inoperable to operable conditions.

**NGP-GT 132 SEAL SHIM TAPE AVAILABLE:**  
200ft. roll

**INSTALLATION:**  
All installers used should be properly trained in sound assembly units. All steps must be followed.

Need a quote?  
[sales@nchmetal.com](mailto:sales@nchmetal.com)



SOUND SAFE