

# Technical Data Series

## Tech 403 Sound (STC) Assemblies



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# Technical Data

## Sound (STC) Assemblies

# Tech 403

## NGP Seal Set #N1












### Standards

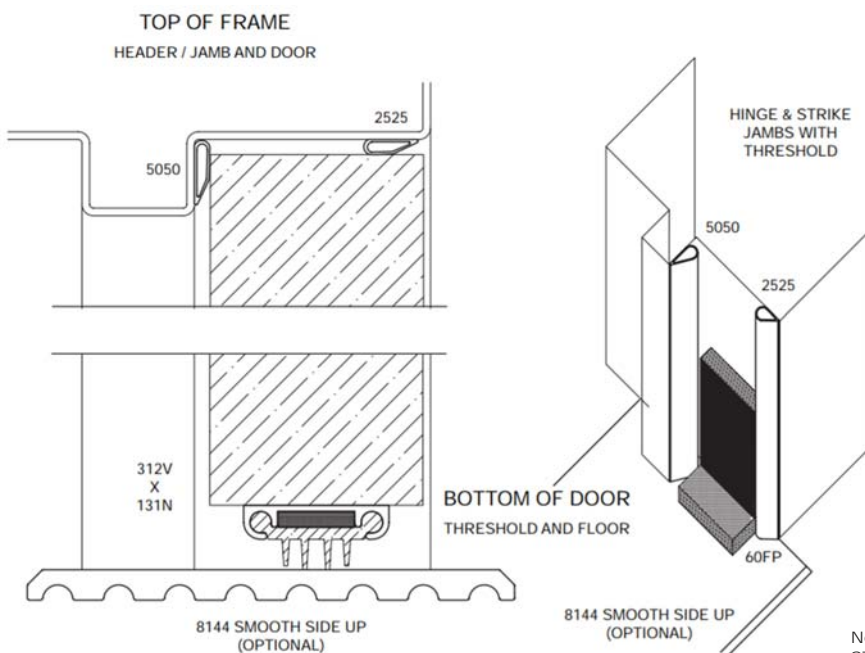
**ASTM E90-09 (2016)** Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements

**ASTM E413-16** Classification for Rating Sound Insulation

**ASTM E1332-16** Standard Classification for Rating Outdoor-Indoor Sound Attenuation

**ASTM E2235-04 (2012)** Standard Test Method for Determination of Decay Rates for

Seal Package	<b>NGP #5050</b> Silicone Bulb Seal (header and jambs) <b>NGP #2525</b> Silicone Bulb Seal (header and jambs) <b>NGP #312V X 131N</b> Acoustical Door Shoe (bottom of door) <b>NGP #60FP</b> Acoustical Foam Corner Pad (bottom corner of frame/floor) <b>NGP #8144S</b> Threshold (Optional) (floor)  <i>*NPG = National Guard Products, Inc.</i>		
	STC 26	18 Gauge (0.042 min) Polystyrene Core Door 4'-0" x 8'-0" Tested Size	 
	STC 29	16 Gauge (0.053 min) Polystyrene Core Door 4'-0" x 8'-0" Tested Size	 
	STC 30	18 Gauge (0.053 min) Polyurethane Core Door 3'-0" x 7'-0" Tested Size	
	STC 33	18 Gauge (0.042 min) Steel Stiffened Core Door 3'-0" x 7'-0" Tested Size	 
STC 33	16 Gauge (0.053 min) Steel Stiffened Core Door 4'-0" x 8'-0" Tested Size	 	
STC 33	14 Gauge (0.067 min) Steel Stiffened Core Door 4'-0" x 8'-0" Tested Size	 	



No recorded sound loss up to STC 33  
 STC ratings based on testing and evaluations.  
 Testing and data collection by Intertek Testing Services

# Technical Data

## Sound (STC) Assemblies

# Tech 403

## NGP Seal Set #N2

### Standards

**ASTM E90-09 (2016)** Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements

**ASTM E413-16** Classification for Rating Sound Insulation

**ASTM E1332-16** Standard Classification for Rating Outdoor-Indoor Sound Attenuation

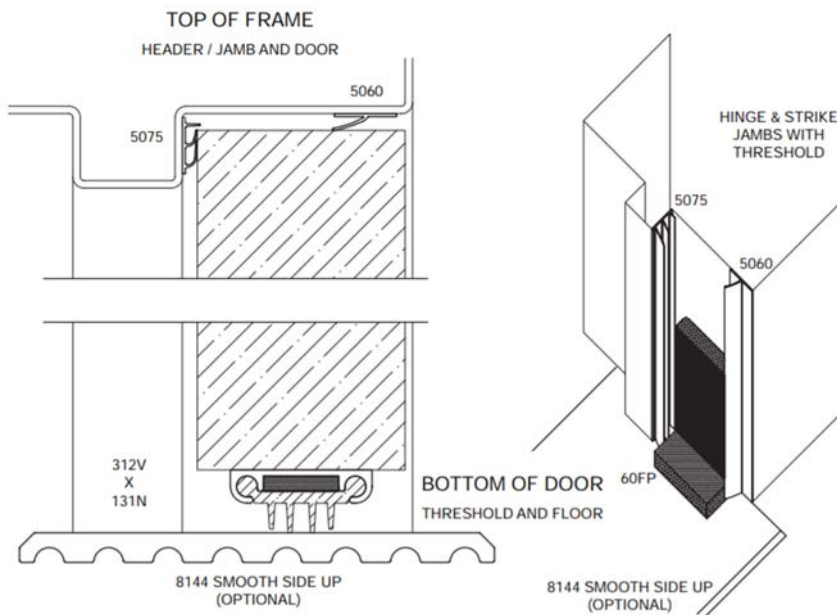
**ASTM E2235-04 (2012)** Standard Test Method for Determination of Decay Rates for

### Seal Package

**NGP #5075** Thermo-Plastic Elastomer Gasketing (header and jambs)  
**NGP #5060** Silicone Fin Seal (header and jambs)  
**NGP #312V X 131N** Acoustical Door Shoe (bottom of door)  
**NGP #60FP** Acoustical Foam Corner Pad (bottom corner of frame/floor)  
**NGP #8144S** Threshold (Optional) (floor)

\*NPG = National Guard Products, Inc.

STC 26	18 Gauge (0.042 min) Polystyrene Core Door 4'-0" x 8'-0" Tested Size	 
STC 29	16 Gauge (0.053 min) Polystyrene Core Door 4'-0" x 8'-0" Tested Size	 
STC 30	18 Gauge (0.053 min) Polyurethane Core Door 3'-0" x 7'-0" Tested Size	
STC 41	18 Gauge (0.042 min) Steel Stiffened Core Door 3'-0" x 7'-0" Tested Size	 
STC 42	16 Gauge (0.053 min) Steel Stiffened Core Door 4'-0" x 8'-0" Tested Size	 
STC 45	14 Gauge (0.067 min) Steel Stiffened Core Door 4'-0" x 8'-0" Tested Size	 
STC 42	18 Gauge (0.042 min) Special Construction Steel Stiffened Core Door 3'-0" x 7'-0" Tested Size	 
STC 45	16 Gauge (0.053 min) Special Construction Steel Stiffened Core Door 4'-0" x 8'-0" Tested Size	 



No recorded sound loss up to STC 45  
 STC ratings based on testing and evaluations.  
 Testing and data collection by Intertek Testing Services

# Technical Data

## Sound (STC) Assemblies

# Tech 403

## NGP Seal Set #N4

**Standards**

**ASTM E90-09 (2016)** Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements

**ASTM E413-16** Classification for Rating Sound Insulation













**ASTM E1332-16** Standard Classification for Rating Outdoor-Indoor Sound Attenuation

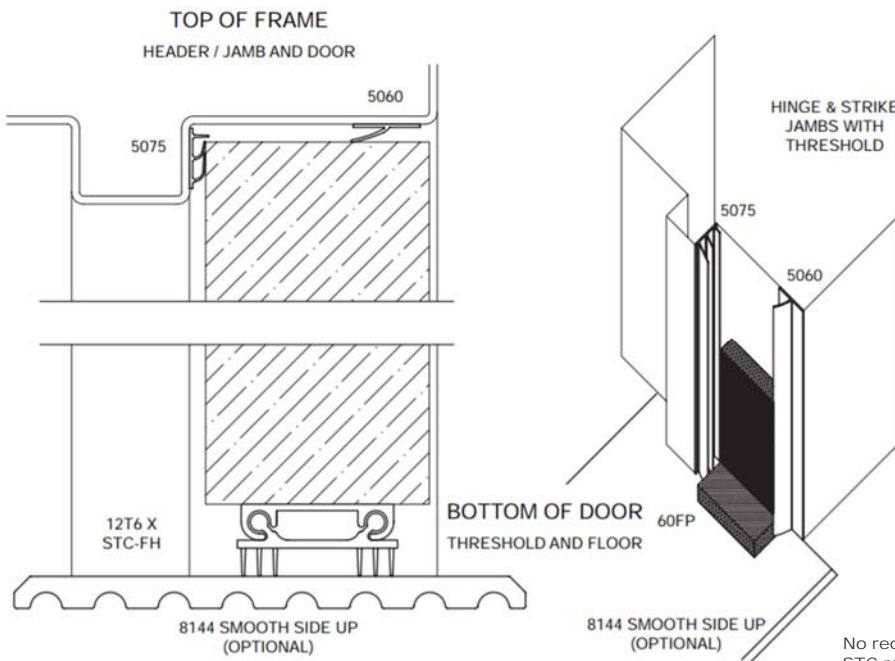
**ASTM E2235-04 (2012)** Standard Test Method for Determination of Decay Rates for

**Seal Package**

**NGP #5075** Thermo-Plastic Elastomer Gasketing (header and jambs)  
**NGP #5060** Silicone Fin Seal (header and jambs)  
**NGP #12T6** Thermo-Plastic Door Shoe (bottom of door)  
**NGP #60FP** Acoustical Foam Corner Pad (bottom corner of frame/floor)  
**NGP #8144S** Threshold (Optional) (floor)

*\*NPG = National Guard Products, Inc.*

<b>STC 41</b>	18 Gauge (0.042 min) Steel Stiffened Core Door 3'-0" x 7'-0" Tested Size	 
<b>STC 42</b>	16 Gauge (0.053 min) Steel Stiffened Core Door 4'-0" x 8'-0" Tested Size	 
<b>STC 47</b>	14 Gauge (0.067 min) Steel Stiffened Core Door 4'-0" x 8'-0" Tested Size	 
<b>STC 42</b>	18 Gauge (0.042 min) Special Construction Steel Stiffened Core Door 3'-0" x 7'-0" Tested Size	 
<b>STC 45</b>	16 Gauge (0.053 min) Special Construction Steel Stiffened Core Door 4'-0" x 8'-0" Tested Size	 
<b>STC 51</b>	14 Gauge (0.067 min) Proprietary Core Door Option #1 4'-0" x 8'-0" Tested Size	
<b>STC 52</b>	14 Gauge (0.067 min) Proprietary Core Door Option #2 4'-0" x 8'-0" Tested Size	



No recorded sound loss up to STC 52  
 STC ratings based on testing and evaluations.  
 Testing and data collection by Intertek Testing Services

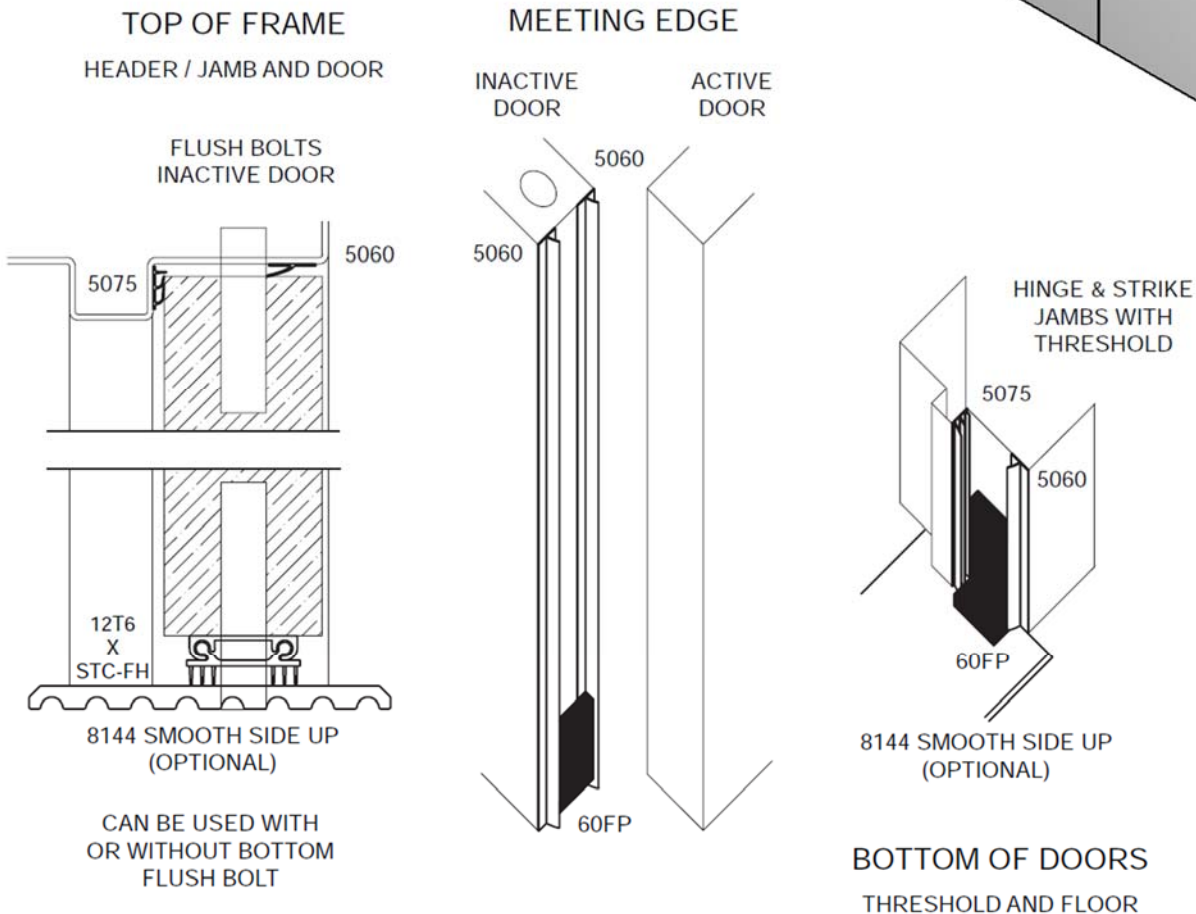
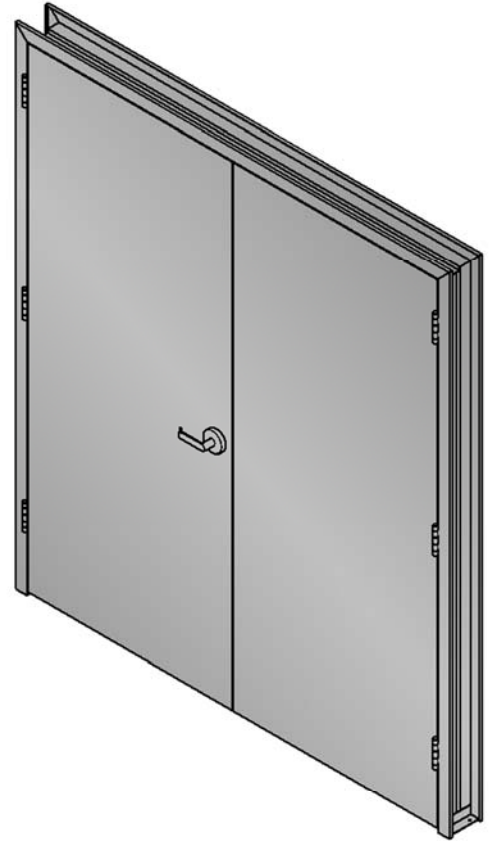
# Technical Data

## Sound (STC) Assemblies

# Tech 403

## NGP Seal Set #N8

<b>Standards</b>	<b>ASTM E90-09 (2016)</b> Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements
	<b>ASTM E413-16</b> Classification for Rating Sound Insulation
	<b>ASTM E1332-16</b> Standard Classification for Rating Outdoor-Indoor Sound Attenuation
<b>Seal Package</b>	<b>ASTM E2235-04 (2012)</b> Standard Test Method for Determination of Decay Rates for Use in Sound Insulation Test Methods
	<b>NGP #5075</b> Thermo-Plastic Elastomer Gasketing (header and jambs) <b>NGP #5060</b> Silicone Fin Seal (header, jambs, & 2 rows at inactive door leaf) <b>NGP #12T6</b> Thermo-Plastic Door Shoe (bottom of doors) <b>NGP #60FP</b> Acoustical Foam Corner Pad (bottom corner of frame/floor & at meeting) <b>NGP #8144S</b> Threshold (Optional) (floor)
	<i>*NPG = National Guard Products, Inc.</i>
<b>Notes</b>	Pairs Not Tested By MPI Per NGP Data no sound loss for STC 45 and Below This option is considered as construction only
<b>MPI Recommendations</b>	Although not tested by MPI and we can not guarantee field testing results we recommend selecting single doors at least 2 points higher than desired rating.



# Technical Data

## Sound (STC) Assemblies

# Tech 403

## DHSI Seal Set #D1

**Standards** **ASTM E90-2009** Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions

**ASTM E413-2010** Classification for Rating Sound Insulation

**ASTM E1332-10a** Standard Classification for Rating Outdoor-Indoor Sound Attenuation

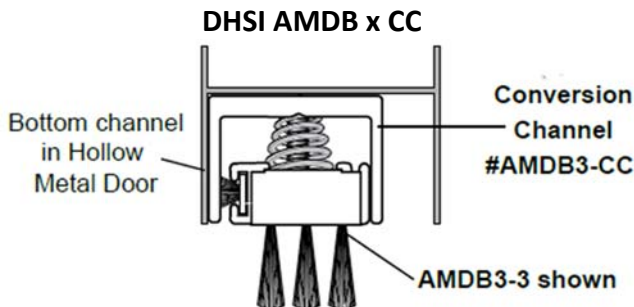
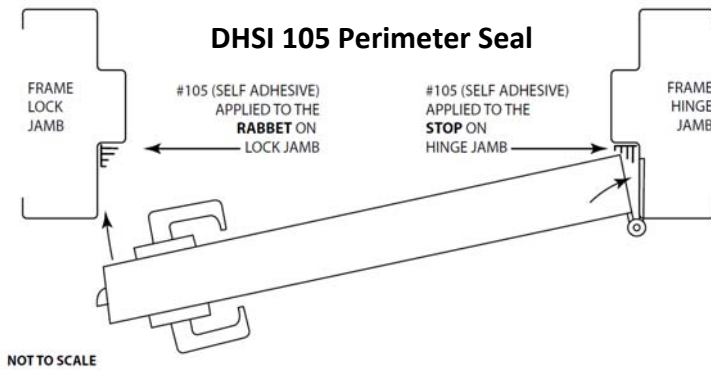
**Seal Package** **DHSI AMDB x CC** Adjustable Mortised Door Bottom w/ Conversion Channel  
**DHSI 105** "Cush 'N' Seal" Perimeter Seal

*\*DHSI = Door and Hardware Systems, Inc.*

**STC 28** 18 Gauge (0.042 min) Polyurethane Core Door  
 3'-0" x 7'-0" Tested Size



**STC 34** 18 Gauge (0.042 min) Steel Stiffened Core Door  
 3'-0" x 7'-0" Tested Size



Testing and data collection by Intertek Testing Services

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# Technical Data

## Sound (STC) Assemblies

# Tech 403

## DHSI Seal Set #D2

**Standards** **ASTM E90-2009** Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions

**Standards** **ASTM E413-2010** Classification for Rating Sound Insulation

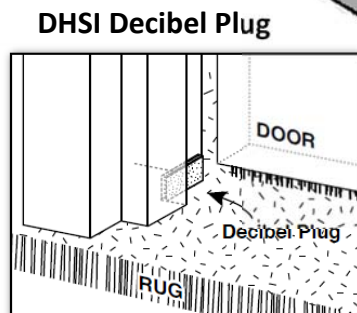
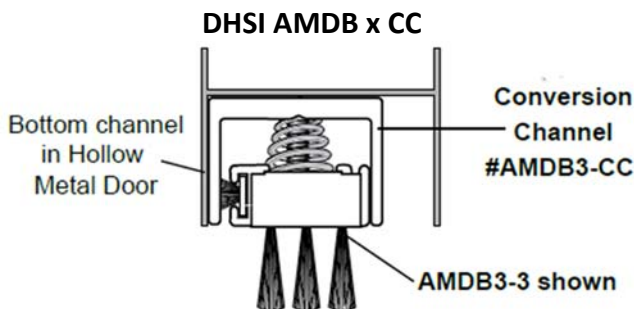
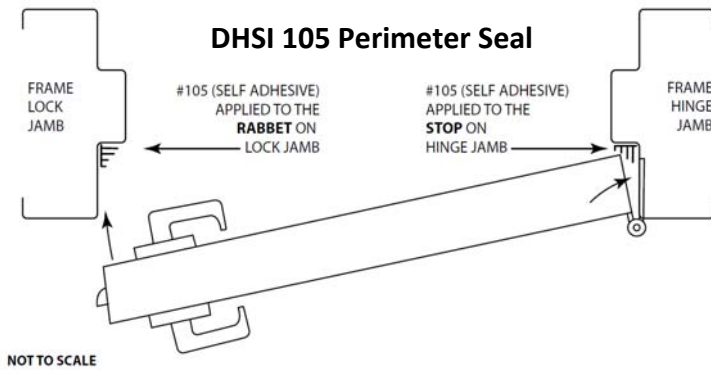
**Standards** **ASTM E1332-10a** Standard Classification for Rating Outdoor-Indoor Sound Attenuation

**Seal Package** **DHSI AMDB x CC** Adjustable Mortised Door Bottom w/ Conversion Channel  
**DHSI 105** "Cush 'N' Seal" Perimeter Seal  
**DHSI DP** Decibel Plug

*\*DHSI = Door and Hardware Systems, Inc.*

**STC 26** 18 Gauge (0.042 min) Polystyrene Core Door  
 3'-0" x 7'-0" Tested Size

**STC 29** 18 Gauge (0.042 min) Polyurethane Core Door  
 3'-0" x 7'-0" Tested Size



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# Technical Data

## Sound (STC) Assemblies

# Tech 403

## DHSI Seal Set #D3

**Standards** **ASTM E90-2009** Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions

**Standards** **ASTM E413-2010** Classification for Rating Sound Insulation

**Standards** **ASTM E1332-10a** Standard Classification for Rating Outdoor-Indoor Sound Attenuation

**Seal Package**  
**DHSI CS** Cap Sweep  
**DHSI CNS Plus** "Cush 'N' Seal" PLUS Frame Seal  
**DHSI DP** Decibel Plug

*\*DHSI = Door and Hardware Systems, Inc.*

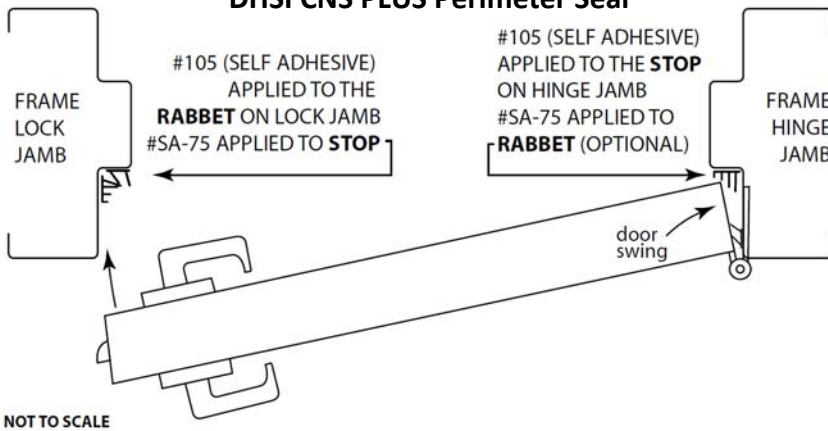
**STC 37** 18 Gauge (0.042 min) Steel Stiffened Core Door  
 3'-0" x 7'-0" Tested Size



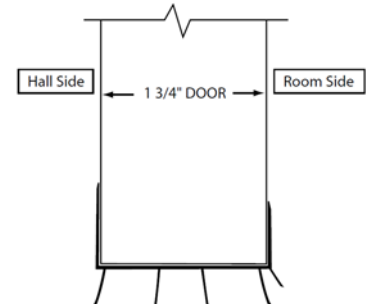
**STC 38** 18 Gauge (0.042 min) Steel Stiffened Communicating Doors  
 3'-0" x 7'-0" Tested Size



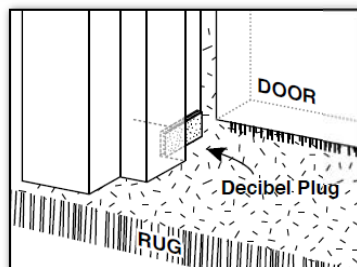
### DHSI CNS PLUS Perimeter Seal



### DHSI Cap Sweep



### DHSI Decibel Plug



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# Technical Data

## Sound (STC) Assemblies

# Tech 403

## DHSI Seal Set #D4

**Standards** **ASTM E90-2009** Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions

**Standards** **ASTM E413-2010** Classification for Rating Sound Insulation

**Standards** **ASTM E1332-10a** Standard Classification for Rating Outdoor-Indoor Sound Attenuation

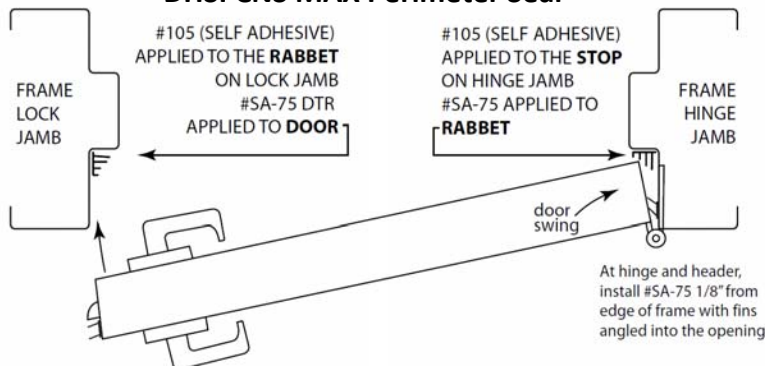
**Seal Package**  
**DHSI CS** Cap Sweep  
**DHSI CNS MAX** "Cush 'N' Seal" MAX Frame Seal  
**DHSI DP** Decibel Plug

*\*DHSI = Door and Hardware Systems, Inc.*

**STC 41** 18 Gauge (0.042 min) Special Construction Steel Stiffened Core Door



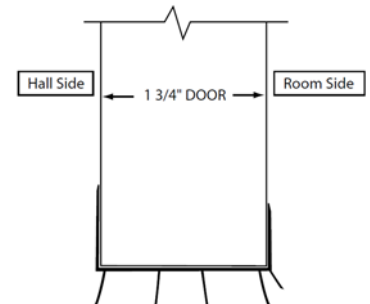
### DHSI CNS MAX Perimeter Seal



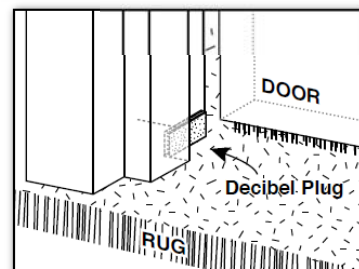
At lock, install #SA-75 1/8" from edge of door, with fins angled away from the opening

NOT TO SCALE

### DHSI Cap Sweep



### DH



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