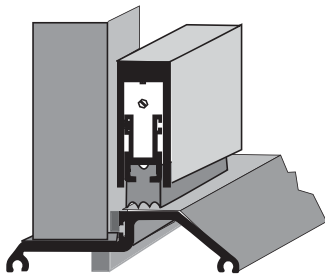


Sound Transmission Class (STC) Rated Single Door Assemblies

The chart below indicates the STC rating of specially made acoustic doors using various applications of gasketing. The first column is the rating of the door panel only; tested in a static inoperable condition to determine the sound transmission through the door. The second column is the rating of the operable door installed with hardware and gasketing which provides the STC rating of the door assembly.

Acoustical testing to ASTM E90 Standard Test Method for Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements and ASTM E2235 Standard Test Method for Determination of Decay Rates for use in Sound Insulation Test Methods. The sound transmission class (STC) was calculated in accordance with ASTM E413 Classification for Rating Sound Insulation.



897NS x 420N

STC Rating Static Door Panel	STC Rating Operable Door w/ Gasketing	Perimeter Seals	Door Bottom	Threshold
30	30	103N, 107N, 120N, 122N 127N, 133N, 134N, 137N 137S, 303N, 700N, 700S	420N	897NS
30	30	130S	225S	896S
30	30	107S	220S	950S
33	31	5020	780S	513
35	33	5025	780S	513
36	33	5050	335N	513
35	34	5020, 5075	780S	513
35	35	5070, 9750, 9850	335S	896S
40	37	5020, 5025	780S	513
40	37	5075	12T	513
40	37	103N, 107N, 303N	420N	897NS
40	38	•(2) 5050	335N	896S
40	39	120N, 122N, 133N, 134N 137N, 137S, 700N, 700S	420N	897NS
40	39	107S	220S	950S
44	39	1038N, 3038N	423N	896S
43	39	•(2) 5050	420N	412
42	40	•(2) 5050	Mortise 312V	896S
43	40	•(2) 5050	423N	896S
44	40	131N	335N	896S
47	41	103NFS	422N	897NS
45	42	•(2) 5050	335N	896S
47	43	•(2) 5050	423N	896S
50	43	103N, 134N	420N	897NS
50	43	107S	220S	950S
51	43	159M	420N	897NS
48	44	•(2) 5050	423N	896S
49	44	103NFS	422N	8434S
52	44	107N, 131N, 1038N, 3038N	420N	897NS

• Indicates 2 rows of 5050 installed as follows:



STC Seal Sets - Single Doors

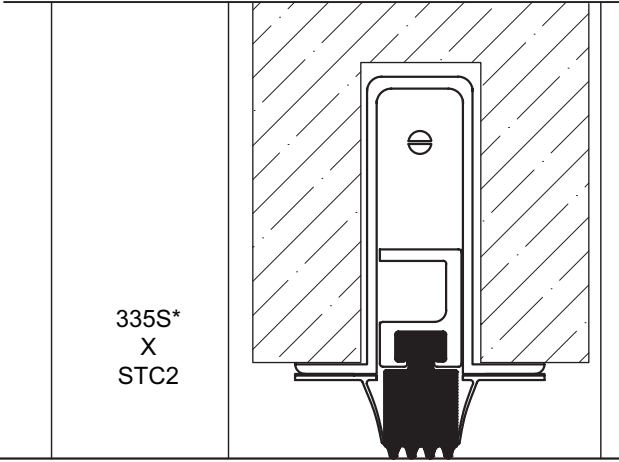
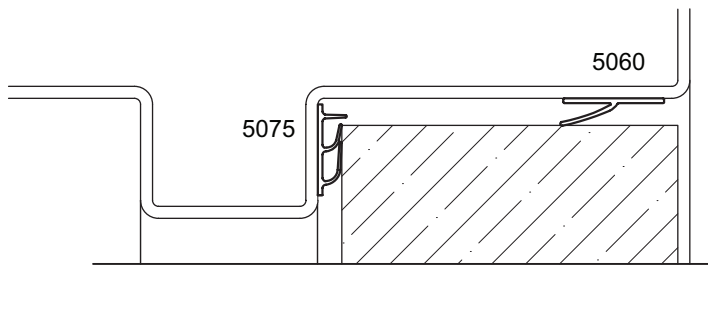
NGP Seal Sets maintain the static door panel STC with **NO DROP OFF**, up to the STC rating indicated.

STC Seal Set	STC Rating	Perimeter Seals at Heads & Jambs	Door Bottom	Corner Pads	Threshold
1	33	5050 & 2525	312V X 131N	60FP (2 req.)	8144S*
2	45	5075 & 5060	312V X 131N	60FP (2 req.)	8144S*
3	52	5075 & 5060	335S X STC2	60FP (2 req.)	8144S*
4	52	5075 & 5060	12T6	60FP (2 req.)	8144S*
5	52	5075 & 5060	225S X STC2	60FP (2 req.)	8144S*
6	52	5075 & 5060	None	60FP (2 req.)	896S-ADJ

*optional

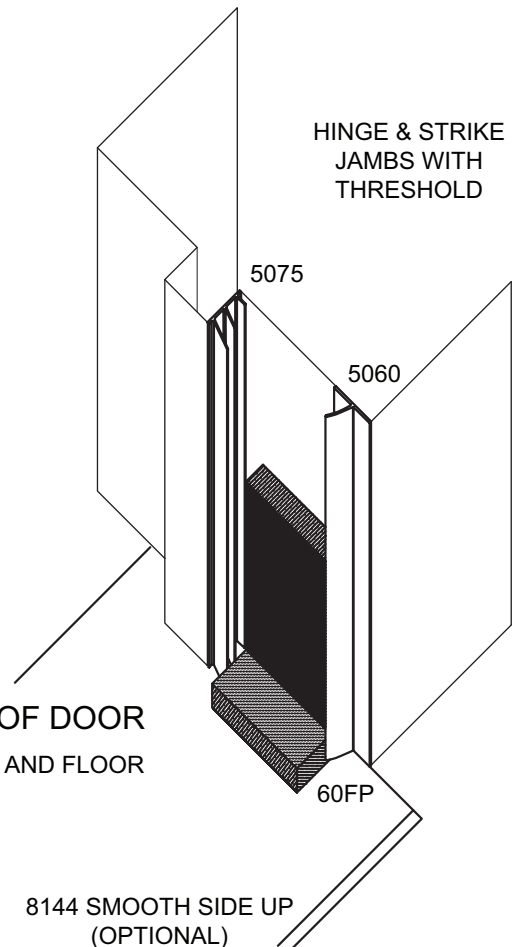
STC #3 Illustration

TOP OF FRAME
HEADER / JAMB AND DOOR



8144 SMOOTH SIDE UP
(OPTIONAL)

BOTTOM OF DOOR
THRESHOLD AND FLOOR



8144 SMOOTH SIDE UP
(OPTIONAL)

*For best acoustic results a 1/4" drop is recommended; 3/8" drop maximum



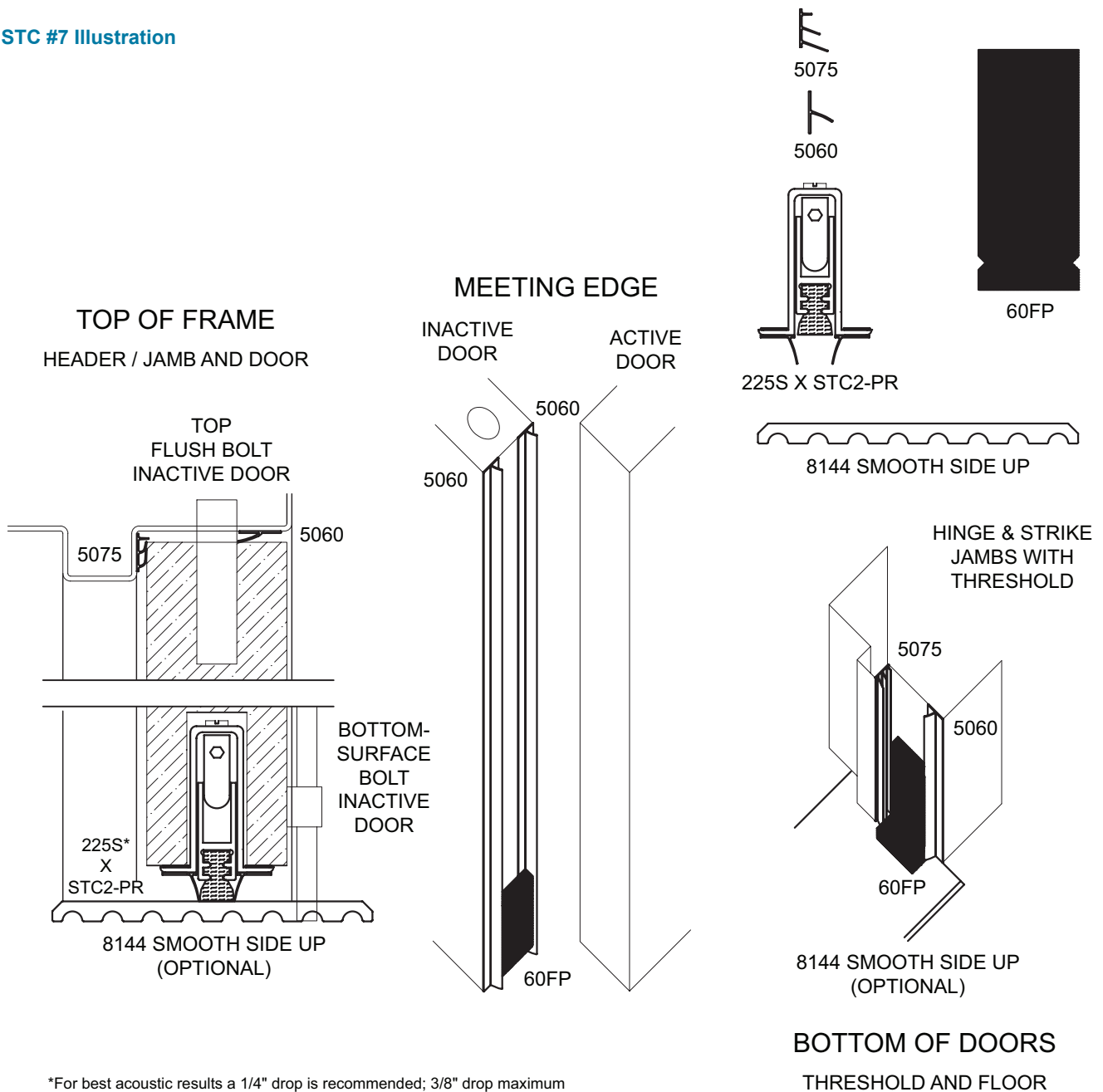
STC Seal Sets - Pairs of Doors

NGP Seal Sets maintain the static door panel STC with **NO DROP OFF**, up to the STC rating indicated.

STC Seal Set	STC Rating	Perimeter Seals at Heads & Jambs	Door Bottom	Corner Pads	Meeting Edge Seals	Threshold
7	45	5075 & 5060	225S X STC2-PR	60FP (3 req.)	5060 (2 req.)	8144S*
8	45	5075 & 5060	12T6 X STC-FH	60FP (3 req.)	5060 (2 req.)	8144S*
9	45	5075 & 5060	335S X STC2-PR	60FP (3 req.)	5060 (2 req.)	8144S*

*optional

STC #7 Illustration



*For best acoustic results a 1/4" drop is recommended; 3/8" drop maximum

Sound Transmission Class (STC) Rated Pairs of Doors

Pairs of doors are intrinsically more difficult to control sound transmission through. Sealing the gap between the meeting edges under the doors is challenging, requiring a combination of properly coordinated and installed gasketing to seal all gaps.

STC Rating Static Door Panel	STC Rating Operable Door w/ Gasketing	Perimeter Seals	Door Bottom	Threshold	Astragal
35	35	5020		896S	5070
35	35	5070		896S	5070
35	34	5020	780S	512	5070
35	33	5025		896S	5070

Standard Doors without Special Acoustic Cores

Solid core wood doors with gasketing test to an STC rating of approximately 28 to 30. Mineral core wood doors and Honey comb core hollow metal doors with gasketing test to an STC rating of approximately 32 to 36. Without gasketing these doors have no sound control and test to an STC rating between 15 and 20.

To most effectively reduce sound transmission and maximize the acoustic performance we recommend the following be used:

PERIMETER AND DOOR BOTTOMS

- 107S Perimeter Seal
- 700S Seal at head if a parallel arm closer is used
- 220S Automatic Door Bottom
- Any Threshold - To allow proper sealing of Automatic Door Bottom

MEETING EDGE of PAIRS

- 109N Overlapping Astragal
- 5070 Adhesive Astragal
- 115N Astragal Set

School Classroom Door STC Requirements

ANSI/ASA S12.60 Acoustical Performance Criteria, Design Requirements, and Guidelines for schools requires interior doors opening into core learning spaces to achieve STC 30 or greater in their operable condition and interior doors into music rooms at least STC 40.