Bulletin
SCD.000

SOUND CONTROL DOORS

APPLICATIONS

- Architectural
- Blast
- Fire
- Industrial
- Security
- Specialty

Making the World a Quieter Place™

SETTING THE STANDARD FOR SOUND-CONTROL DOOR SYSTEMS

PERFORMANCE AND FLEXIBILITY

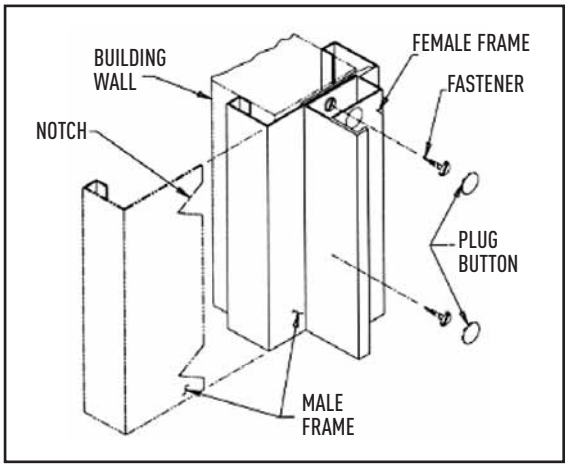
IAC offers a wide range of products designed for architectural, industrial, and security applications. IAC's Noise-Lock® Doors feature:

- Performance ratings from STC 43 to more than STC 70
- Unlimited door opening sizes
- Design flexibility. All doors available in standard and custom designs.
- Full-vision and wood veneer products
- High-performance doors for both architectural and industrial applications
- UL fire-ratings of 20 min.; 45 min.; 60 min.; 90 min., and 3 hours
- Blast-resistance ratings to 3psi
- Radio Frequency Shielding of 50 dB and 100 dB
- DCID approval for SCIF
- ADA compliance
- Quick-Ship programs

ENGINEERED AND FACTORY ASSEMBLED ADVANTAGES

IAC doors are produced as engineered systems. Each complete system, including leaf, split-frame, seals, hinges, and latching hardware, is factory assembled and laboratory tested for performance in our NVLAP (National Voluntary Laboratory Accreditation Program) accredited aero / acoustic laboratory. All design changes or material substitutions are fully tested in the laboratory prior to incorporation.

Every door is factory assembled and functionally tested for alignment, fit, and ease of operation prior to shipment. This reduces installation costs and virtually eliminates in-field construction errors that can affect performance. IAC guarantees the in-field performance of the specification and, if necessary, will dispatch engineers to field-test and troubleshoot the situation.



HIGH-PERFORMANCE FEATURES

- Self-aligning magnetic seals assure long life and high field performance even under constant use.
- Cam-lift hinges lower and seal the door to the floor eliminating high-maintenance, automatic drop seals.
- No-sill condition facilitates wheel-chair access; doors conform to Americans with Disabilities Act (ADA).
- Split frames eliminate in-field grouting to achieve the specified acoustic performance and provide time-saving installation.
- Construction damage to system is minimized because the door assembly is installed during the finish-phase of construction.

FUNCTION AND FORM

Sound control doors from IAC are designed to both work hard and look good. Optional finishes include choices from among 62 different wood veneers along with paint and metal. Doors may also be specified with full or partial vision glass options.

SECURITY AND RF SHIELDING

IAC's security doors are constructed from 14-gauge welded steel and feature security hinges. Options include on / off duty tumblers and cipher access control. They can be blast resistant to 3psi and may be ordered with or without RF shielding at either 100 dB or 50 dB construction options.

IAC security doors meet the following US Government specifications:

- DIAM 50-3, all sound groups
- DCID 1/21.1
- AFP 88-26
- NSA 65-6, 65-5, or NSA 73-2a
- NTISSI 7000

SUPER NOISE-LOCK DOORS

IAC's Super Noise-Lock doors are designed for over-sized applications. They are available in all finishes and may be ordered in a range of configurations including: single- or double-leaf, tri-leaf, bi-parting, horizontal sliding, and vertical lift. Most doors can be blast-rated up to 3psi.

LAB-TESTED, FIELD-PROVEN PAIRS

IAC now offers the highest-rated double-leaf doors that have been laboratory tested, certified, and witness tested. The doors are available in STC 51 and STC 54; they may be ordered with full or partial vision glass without compromising the rating. IAC guarantees performance for all pairs of doors as compared to single doors.

DOOR CONFIGURATIONS

- Single / Double / Multi-leaf
- Wood Veneer
- Full-Vision
- Flush Architectural
- Swinging / Pivoting
- High Performance
- Vertical Lift
- Sliding
- Hatch
- Tandem
- Security / RF

IAC OFFERS THE WIDEST RANGE OF SOUND-CONTROL DOORS IN THE INDUSTRY

ACOUSTIC PERFORMANCE SELECTION DATA - IAC NOISE-LOCK DOORS

TYPE	THK In. (mm)	STC	1/3 OCTAVE BAND CENTER FREQUENCY, HZ																			Test Report (year)	Wt, lb/ft² (kg/m²)	Seals
			SOUND TRANSMISSION LOSS, DB																					
			63	80	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000			
SWINGING DOOR	1-3/4 (45)	43	23	12	18	23	31	38	43	42	41	41	42	43	42	43	44	43	45	49	51	815-29-95 (1995)	8 (39)	a
	1-3/4 (45)	47	20	17	25	26	34	37	42	45	45	47	47	47	47	48	48	48	48	50	51	890-8c-98 (1998)	11 (54)	a
	2-1/2 (64)	49	-	-	-	28	34	40	39	42	44	46	47	51	50	50	51	53	55	55	55	618-2-87 (1987)	7 (34)	b
	2-1/2 (64)	51	24	20	23	28	37	44	47	49	48	50	53	52	53	52	51	51	54	58	59	815-19C (1994)	9 (44)	b
	2-1/2 (64)	53	22	24	27	31	42	47	47	48	50	53	54	54	54	53	51	51	53	57	58	815-17 (1994)	11 (54)	b
	3-1/2 (89)	54	21	58	28	40	48	52	51	52	52	54	55	55	54	51	51	51	54	59	63	815-23h (1994)	16 (78)	b
	3-1/2 (89)	55	21	28	29	40	48	50	51	53	53	54	55	56	56	55	53	52	53	58	61	815-20L (1994)	16 (78)	b
	3-1/2 (89)	61	22	28	28	41	51	54	53	55	55	60	62	60	60	61	61	62	64	66	69	815-23G (1994)	16 (78)	c
	5 (127)	64	24	32	33	44	51	53	58	58	59	62	63	63	65	66	65	66	67	70	70	815-24P (1994)	18 (88)	d
PAIRS	2-1/2 (64)	51	20	26	21	31	38	43	47	46	48	49	49	50	50	52	53	54	55	57	63	1027-5A-02 (2002)	9 (44)	b
	3-1/2 (89)	54	24	26	28	34	43	45	47	50	53	54	53	56	57	58	57	57	54	55	60	1027-7GG-032 (2004)	16 (78)	b
		NIC	NOISE REDUCTION, DB																					
SLIDING	4 (102)	45	-	-	-	29	29	31	36	38	42	44	43	43	44	50	54	59	61	61	66	1194-PB (1994)	18 (88)	e
	6 (152)	54	-	-	-	45	45	45	45	49	49	49	52	52	52	60	60	65	65	65	63	72-0365-S (1984)	24 (118)	f
	8 (203)	62	-	-	-	47	46	51	55	57	59	56	59	64	63	63	>65	>65	>65	>65	>65	72-0732 (1990)	50 (245)	g

IAC Acoustic Seal System - a) single magnetic; b) double magnetic; c) magnetic tri-seal; d) magnetic compression tri-seal; e) manual labyrinth wiper; f) automatic pneumatic; g) automatic labyrinth compression.

ACOUSTIC PERFORMANCE SELECTION DATA - IAC NOISE-LOCK WINDOWS

TYPE	STC	1/3 OCTAVE BAND CENTER FREQUENCY, HZ																Test Report (year)	Wt, lb/ft² (kg/m²)	Min. Frame Depth In. (mm)	Glazing Type
		SOUND TRANSMISSION LOSS, DB																			
		125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000				
SINGLE GLAZED	35	24	25	27	29	28	29	31	32	35	36	36	39	36	37	38	40	543-82-2 (1982)	5 (25)	4 (102)	a
	39	28	30	34	29	34	36	36	36	38	38	37	40	41	46	48	50	549-1-83 (1983)	8 (39)	4 (102)	b
	41	30	29	32	35	35	37	38	38	38	37	41	44	48	50	53	56	—	9 (44)	4 (102)	c
	47	28	26	34	33	36	46	49	51	53	56	60	63	58	57	61	65	543-82-1 (1982)	10 (49)	4 (102)	d
DOUBLE GLAZED	53	30	36	37	39	45	50	52	55	57	59	61	62	61	59	59	66	AC-609-2-87 (1987)	12 (59)	8 (203)	e
	57	40	41	46	47	47	50	53	57	56	60	63	66	67	75	79	81	VW-587-2-86 (1986)	18 (88)	10 (254)	f
	58	40	39	46	43	50	54	55	58	60	64	66	64	63	62	63	64	AC-654-89 (1989)	27 (132)	18 (457)	g
	59	42	45	50	48	49	53	57	58	58	59	63	67	72	79	81	82	VW-586-2-85 (1985)	20 (98)	10 (254)	h

Glazing Type and Thickness a) 1/4 in. (6mm) laminated safety glass; b) 1/2 in. (13mm) laminated safety glass; c) 3/4 in. (19mm) laminated safety glass; d) 1/4 in. x 1/4 in. (6 x 6mm) tempered safety glass; e) 1/4 in. x 1/4 in. (6 x 6mm) laminated safety glass; f) 1/2 in. x 1/4 in. (13 x 16mm) laminated safety glass; g) 1-3/16 in. x 1/4 in. (30 x 6mm) bullet resistant glass-laminated safety glass; h) 1/2 in. x 3/8 in. (13 x 109mm) laminated safety glass.

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