

ENGINEERING DATA

SDV Discharge & Radiated Sound

Minimum Inlet Static Pressure

Inlet Size (in.)	Max CFM	DISCHARGE							RADIATED						
		Octave Bands						NC Levels	Octave Bands						NC Levels
		2	3	4	5	6	7		2	3	4	5	6	7	
04	45	51	44	36	31	30	20	-	44	29	25	20	-	-	-
	100	56	49	40	36	34	24	-	48	38	30	26	24	20	-
	150	60	54	46	40	37	30	15	53	44	35	34	31	22	-
	200	64	58	50	44	40	34	20	56	48	38	38	36	28	16
	230	66	61	52	46	42	37	22	59	34	41	41	40	31	20
05	70	51	42	35	31	28	21	-	36	29	-	-	-	-	-
	100	52	43	37	32	29	22	-	37	26	-	-	-	-	-
	150	54	46	40	36	32	26	-	42	28	22	20	-	-	-
	200	58	51	44	40	35	29	-	49	37	27	22	21	-	-
	300	60	56	50	45	41	33	15	56	49	37	31	29	23	16
	360	65	60	54	49	44	38	17	62	41	44	36	34	29	23
06	100	53	45	34	31	29	21	-	50	41	25	-	-	-	-
	200	57	49	38	34	31	24	-	52	44	29	21	20	-	-
	300	61	54	44	40	34	27	16	55	50	34	25	25	-	17
	400	65	60	49	44	38	32	17	58	54	39	29	28	25	22
	500	68	64	53	48	41	35	22	59	59	43	33	34	30	28
	520	69	65	55	50	42	36	23	60	60	45	35	35	32	30
07	140	54	43	39	34	32	25	-	47	28	27	22	-	-	-
	200	55	45	40	36	34	26	-	48	32	29	24	21	-	-
	300	56	49	45	41	35	30	-	52	38	32	28	24	20	-
	400	58	54	49	46	39	34	-	55	43	37	33	29	24	15
	500	60	58	53	51	42	35	15	57	47	40	39	34	28	17
	600	62	63	56	56	45	38	21	59	50	43	41	37	31	20
	710	64	67	60	61	48	42	25	63	54	47	47	43	35	25
08	185	54	43	40	39	31	24	-	49	34	28	23	-	-	-
	200	54	43	40	39	31	24	-	49	34	28	23	-	-	-
	400	56	49	46	43	36	29	-	53	38	34	30	25	20	-
	600	59	54	52	48	40	34	-	58	45	38	37	33	26	18
	800	61	59	57	52	44	37	15	62	50	44	42	39	33	23
	925	62	63	61	56	48	41	20	66	53	47	46	45	38	28
10	290	49	44	42	36	31	25	-	56	40	31	26	24	22	16
	500	53	47	44	39	33	27	-	58	41	32	27	26	24	18
	700	58	50	50	44	39	32	-	62	43	34	30	28	25	23
	900	62	56	52	48	44	38	-	66	44	35	31	31	28	28
	1,100	66	60	56	52	46	41	16	68	46	37	34	33	30	31
	1,300	70	63	60	56	50	44	21	71	48	39	35	36	31	35
	1,450	74	66	62	59	53	47	26	74	50	41	37	38	34	38

See Page 11 for notes on performance testing.

ENGINEERING DATA

SDV Discharge & Radiated Sound

Minimum Inlet Static Pressure (cont.)

Inlet Size (in.)	Max CFM	DISCHARGE							RADIATED						
		Octave Bands						NC Levels	Octave Bands						NC Levels
		2	3	4	5	6	7		2	3	4	5	6	7	
12	420	55	49	46	40	38	32	-	50	43	36	30	27	22	-
	700	57	51	48	41	39	33	-	52	44	37	31	28	23	-
	1,000	61	54	51	43	41	35	-	58	46	39	33	30	24	18
	1,300	64	56	54	44	43	38	-	60	49	42	36	33	26	21
	1,600	68	58	57	46	45	40	18	64	51	44	38	34	28	26
	1,900	70	60	59	48	46	41	21	68	53	47	40	36	30	31
	2,100	73	62	61	49	48	43	25	70	55	48	42	38	31	33
14	580	55	48	48	43	39	33	-	55	41	31	27	27	23	15
	1,000	58	49	49	44	40	34	-	57	42	32	28	28	24	17
	1,400	62	53	53	46	42	37	-	64	45	34	31	31	27	26
	2,000	68	57	55	49	43	41	18	72	48	38	34	36	32	36
	2,400	70	59	57	50	44	43	21	77	51	40	36	39	35	42
	2,800	73	61	60	53	46	45	25	79	53	42	39	41	36	45
	2,900	73	61	60	53	46	45	25	79	53	42	39	41	37	45
16	740	57	51	50	42	38	32	-	49	42	38	31	33	24	-
	1,200	58	52	51	43	39	33	-	51	43	39	33	35	26	-
	1,700	62	56	54	46	42	36	-	54	46	42	35	37	28	15
	2,200	64	58	56	48	44	38	-	56	48	45	38	40	33	18
	2,700	68	60	58	50	46	40	18	60	50	47	41	42	36	21
	3,200	71	62	60	52	48	42	22	63	52	49	43	44	37	25
	3,700	74	64	61	54	50	44	26	66	54	51	46	45	40	28
24	1,420	68	65	63	60	56	54	22	54	49	49	43	38	35	23
	2,000	69	66	64	60	57	54	23	55	50	50	44	40	36	23
	3,000	71	68	65	61	58	55	26	57	53	52	46	42	39	26
	4,000	74	70	67	63	61	57	28	63	57	56	50	46	42	31
	5,000	78	72	70	65	62	59	31	67	61	58	51	49	45	33
	6,000	80	68	71	66	64	61	33	70	65	61	54	54	49	36
	7,100	82	76	71	67	65	62	36	72	66	63	56	56	51	38

Notes:

1. Tests were conducted in accordance with ARI Standard 880-94.
2. Sound power levels are referenced to 10⁻¹² watt.
3. Octave bands 2-7 correspond to 125 to 4000 Hz.



ENGINEERING DATA

SDV Discharge & Radiated Sound

0.5" Inlet Static Pressure

Inlet Size (in.)	Max CFM	DISCHARGE							RADIATED						
		Octave Bands						NC Levels	Octave Bands						NC Levels
		2	3	4	5	6	7		2	3	4	5	6	7	
04	45	55	47	41	37	36	26	-	48	33	29	23	-	-	-
	100	60	52	46	41	38	31	15	53	42	33	29	26	22	-
	150	64	58	50	46	42	36	20	58	48	38	36	34	28	18
	200	66	62	54	48	45	40	22	60	52	42	40	40	33	21
	230	70	65	56	51	47	43	27	64	55	44	44	44	37	26
05	70	55	45	40	36	33	28	-	39	24	-	-	-	-	-
	100	56	47	42	37	34	29	-	41	26	-	-	-	-	-
	150	58	51	45	40	37	32	-	46	32	23	21	21	20	-
	200	61	55	49	44	40	35	16	51	39	30	25	25	22	-
	300	65	60	54	49	45	39	21	59	51	40	34	33	29	20
	360	68	63	58	53	48	43	21	64	58	47	39	38	34	27
06	100	56	49	39	35	34	28	-	53	44	30	22	-	-	-
	200	60	52	43	38	36	30	15	55	48	34	25	22	-	15
	300	64	58	49	44	39	33	20	58	53	39	30	28	23	21
	400	67	62	53	47	42	36	20	60	57	43	33	32	28	26
	500	70	65	56	50	44	38	23	61	60	46	36	36	32	30
	520	71	67	58	52	45	40	26	62	62	48	38	38	35	32
07	140	58	48	44	37	37	32	-	51	32	31	24	22	20	-
	200	59	50	45	39	38	33	-	52	36	33	26	24	21	-
	300	60	54	49	44	40	35	15	55	42	36	31	28	25	15
	400	62	58	53	49	43	38	15	58	46	40	36	33	29	18
	500	63	62	56	53	46	40	20	60	50	43	40	37	32	21
	600	64	65	59	57	48	42	23	61	53	45	43	40	34	22
	710	66	56	63	63	51	45	16	65	56	49	48	45	38	27
08	185	59	48	45	43	36	30	-	51	36	32	26	22	20	-
	200	59	48	45	43	36	30	-	51	36	32	26	22	20	-
	400	60	53	50	48	40	34	-	56	42	37	32	29	25	16
	600	62	58	55	52	44	38	15	60	48	42	39	36	31	21
	800	63	61	59	55	47	41	17	64	52	46	43	41	36	26
	925	64	62	60	59	50	44	18	67	55	49	48	46	40	30
10	290	54	48	46	39	36	30	-	57	45	38	32	29	28	17
	500	57	51	48	42	38	32	-	59	46	39	33	31	29	20
	700	62	55	52	47	43	37	-	63	48	40	35	33	30	25
	900	66	59	56	51	46	41	16	66	49	40	36	35	32	28
	1,100	70	62	60	54	50	44	21	70	50	42	38	36	34	33
	1,300	72	65	62	58	52	46	23	72	50	42	38	38	34	36
	1,450	76	68	64	61	55	50	28	74	52	44	40	40	36	38

See Page 13 for notes on performance testing.

ENGINEERING DATA

SDV Discharge & Radiated Sound

0.5" Inlet Static Pressure (cont.)

Inlet Size (in.)	Max CFM	DISCHARGE							RADIATED						
		Octave Bands						NC Levels	Octave Bands						NC Levels
		2	3	4	5	6	7		2	3	4	5	6	7	
12	420	58	55	51	46	44	39	-	53	47	42	35	32	28	15
	700	60	56	52	47	45	40	-	55	48	43	36	33	29	16
	1,000	64	58	55	48	46	41	-	60	50	44	38	35	30	21
	1,300	67	60	58	49	47	42	17	63	52	46	40	36	31	25
	1,600	70	61	60	50	48	43	21	66	54	48	41	37	32	28
	1,900	72	62	62	51	50	44	23	68	55	49	42	38	33	31
	2,100	74	64	63	52	51	45	26	71	57	50	44	40	34	35
14	580	58	54	53	50	46	40	-	57	46	38	33	32	30	17
	1,000	61	54	54	50	46	41	-	59	47	39	34	33	31	20
	1,400	65	57	57	52	47	43	15	66	49	41	36	36	33	28
	2,000	70	61	59	53	48	46	21	73	52	43	39	40	36	37
	2,400	72	62	60	54	48	47	23	77	54	44	40	42	38	42
	2,800	74	63	61	55	49	48	26	80	55	45	41	43	39	46
	2,900	74	64	62	55	49	48	26	80	55	45	42	44	39	46
16	740	61	56	54	49	45	39	-	53	46	43	36	37	30	16
	1,200	62	57	55	50	46	40	-	54	47	44	37	38	31	17
	1,700	65	60	57	51	48	42	16	58	50	46	40	40	34	20
	2,200	68	62	60	53	50	44	18	60	52	48	42	43	37	22
	2,700	70	64	62	55	51	45	21	62	54	50	44	45	40	23
	3,200	73	65	63	56	52	46	25	65	55	51	46	46	41	27
	3,700	75	66	64	57	53	47	27	67	56	52	47	47	43	30
24	1,420	71	69	68	65	61	58	27	58	53	53	48	42	38	27
	2,000	72	70	68	65	62	58	28	59	54	54	49	44	40	28
	3,000	74	71	69	66	63	59	30	61	57	56	51	46	42	31
	4,000	77	73	71	67	65	61	32	66	61	60	54	50	45	35
	5,000	80	75	73	69	66	63	35	70	64	62	56	53	48	37
	6,000	82	73	74	70	68	64	36	73	67	64	58	56	51	38
	7,100	84	78	75	71	69	65	38	75	69	66	60	58	53	41

Notes:

1. Tests were conducted in accordance with ARI Standard 880-94.
2. Sound power levels are referenced to 10⁻¹² watt.
3. Octave bands 2-7 correspond to 125 to 4000 Hz.



ENGINEERING DATA

SDV Discharge & Radiated Sound

1.0" Inlet Static Pressure

Inlet Size (in.)	Max CFM	DISCHARGE							RADIATED						
		Octave Bands						NC Levels	Octave Bands						NC Levels
		2	3	4	5	6	7		2	3	4	5	6	7	
04	45	58	51	46	42	41	32	-	52	36	32	25	23	22	-
	100	64	56	51	46	44	38	20	58	46	36	32	30	29	18
	150	68	62	56	51	48	43	25	62	52	42	38	38	36	23
	200	70	66	58	54	52	46	27	66	56	46	42	44	40	28
	230	73	68	61	56	54	48	31	68	58	48	46	47	42	31
05	70	58	51	45	40	38	34	-	43	28	-	-	-	-	-
	100	59	53	47	42	40	36	-	45	29	21	20	21	21	-
	150	62	56	50	45	43	39	17	50	34	26	24	25	25	-
	200	65	60	54	49	46	42	21	55	42	34	29	30	30	15
	300	69	65	59	54	51	47	26	63	54	45	38	38	36	25
	360	71	68	62	57	53	49	27	67	60	50	42	43	40	30
06	100	59	52	44	40	39	34	-	56	48	35	26	22	-	16
	200	62	57	48	44	42	37	17	58	52	39	30	27	21	20
	300	67	62	54	49	45	40	23	61	57	45	35	33	28	26
	400	71	66	58	52	48	43	25	63	61	49	39	37	33	31
	500	73	69	61	55	50	45	28	65	64	52	41	40	37	35
	520	73	70	63	56	50	45	30	65	65	53	42	42	39	36
07	140	62	53	48	39	42	38	17	55	36	34	27	25	25	15
	200	63	55	50	42	43	39	18	57	40	36	29	27	27	17
	300	65	59	53	47	46	42	21	59	46	40	34	32	31	20
	400	66	64	58	53	49	45	22	62	51	44	39	37	35	23
	500	68	67	61	57	51	47	26	64	54	47	43	41	38	26
	600	69	70	64	60	53	49	30	65	57	49	46	44	40	27
	710	70	74	67	65	55	51	33	68	62	53	51	49	44	32
08	185	62	52	49	48	41	36	17	54	43	36	29	26	25	-
	200	62	52	49	48	41	36	17	54	43	36	29	26	25	-
	400	64	58	54	53	45	40	16	59	47	41	35	33	31	20
	600	66	63	60	57	50	45	21	63	52	46	42	40	38	25
	800	68	67	63	60	53	48	25	67	57	50	46	45	42	30
	925	68	70	67	63	55	50	28	70	60	53	50	50	45	33
10	290	58	52	50	43	40	35	-	58	50	44	37	34	33	18
	500	62	55	52	45	43	38	-	60	52	46	39	36	35	21
	700	67	60	56	51	47	42	20	65	53	47	41	38	36	27
	900	71	64	60	55	51	46	22	68	54	48	42	40	38	31
	1,100	74	66	64	58	54	50	26	71	56	49	44	42	40	35
	1,300	78	70	66	62	57	52	31	74	56	50	44	44	40	38
	1,450	80	72	67	64	59	54	33	76	57	50	45	45	41	41

See Page 15 for notes on performance testing.

ENGINEERING DATA

SDV Discharge & Radiated Sound

1.0" Inlet Static Pressure (cont.)

Inlet Size (in.)	Max CFM	DISCHARGE							RADIATED						
		Octave Bands						NC Levels	Octave Bands						NC Levels
		2	3	4	5	6	7		2	3	4	5	6	7	
12	420	61	60	55	53	50	45	17	56	51	46	40	37	34	20
	700	63	62	57	54	51	46	20	59	53	48	41	38	35	22
	1,000	67	64	60	55	53	48	21	63	55	50	44	40	37	25
	1,300	71	66	62	56	54	49	23	66	57	52	46	42	38	28
	1,600	74	67	64	57	55	50	26	70	58	53	47	43	39	33
	1,900	76	68	66	58	56	52	28	72	60	54	48	44	40	36
	2,100	77	69	67	61	58	54	30	74	63	56	49	46	41	38
14	580	62	59	58	56	52	47	16	58	50	45	39	38	36	18
	1,000	65	60	60	57	53	49	16	61	52	46	40	39	38	22
	1,400	69	63	62	59	54	52	20	68	55	48	43	42	41	31
	2,000	73	67	65	60	55	54	25	75	58	51	46	46	44	40
	2,400	76	68	66	61	55	55	28	79	59	52	47	48	45	45
	2,800	78	70	67	62	56	56	31	82	60	53	48	49	46	48
	2,900	78	70	67	62	56	56	31	82	61	53	49	50	46	48
16	740	65	60	59	55	51	45	16	56	51	47	40	40	35	21
	1,200	66	61	60	56	52	47	17	58	52	48	42	42	37	22
	1,700	69	64	62	58	54	49	21	62	54	50	44	44	40	23
	2,200	72	66	64	60	56	46	23	64	57	52	47	47	43	26
	2,700	76	68	66	62	58	49	28	68	59	54	50	49	46	31
	3,200	78	70	68	63	59	53	31	69	60	56	51	50	47	32
	3,700	80	71	69	64	60	54	33	71	61	57	52	51	49	35
24	1,420	74	73	71	69	66	62	32	61	56	57	52	45	41	32
	2,000	75	73	72	70	67	62	32	62	58	58	54	47	42	33
	3,000	77	74	74	71	68	63	33	65	61	61	56	50	45	36
	4,000	81	77	76	72	70	65	37	70	65	64	59	54	49	38
	5,000	83	78	77	74	71	67	38	73	68	67	61	57	52	42
	6,000	82	80	78	75	73	69	40	76	71	69	63	60	54	45
	7,100	87	81	79	76	74	70	42	79	73	71	65	62	56	47

Notes:

1. Tests were conducted in accordance with ARI Standard 880-94.
2. Sound power levels are referenced to 10⁻¹² watt.
3. Octave bands 2-7 correspond to 125 to 4000 Hz.



ENGINEERING DATA

SDV Discharge & Radiated Sound

1.5" Inlet Static Pressure

Inlet Size (in.)	Max CFM	DISCHARGE							RADIATED						
		Octave Bands						NC Levels	Octave Bands						NC Levels
		2	3	4	5	6	7		2	3	4	5	6	7	
04	45	61	53	49	45	45	36	16	56	39	34	27	25	26	16
	100	66	58	54	50	48	42	22	60	48	38	33	32	32	21
	150	70	64	58	54	52	47	27	65	54	43	40	40	38	27
	200	73	68	62	58	54	50	31	68	58	46	44	46	43	31
	230	75	71	64	60	56	53	33	71	44	49	47	50	47	35
05	70	61	54	48	43	43	39	16	45	36	21	*	21	24	-
	100	62	56	50	45	44	40	17	47	34	23	21	23	26	-
	150	64	59	53	48	46	44	20	52	36	29	26	28	30	-
	200	68	63	57	52	49	47	25	58	44	37	32	34	34	18
	300	72	68	62	57	54	50	30	65	56	47	41	42	41	27
	360	74	71	66	60	57	54	31	70	47	53	45	46	45	33
06	100	61	55	48	43	43	38	16	59	50	38	30	25	-	20
	200	64	59	52	46	46	41	20	60	54	42	34	30	24	22
	300	69	64	57	52	48	44	26	63	59	47	38	36	31	28
	400	72	69	61	55	51	48	28	65	63	51	41	39	36	33
	500	75	72	64	58	53	49	32	66	67	54	44	44	40	38
	520	75	73	66	60	54	50	33	68	68	56	46	45	42	38
07	140	65	56	51	41	45	42	21	58	39	37	29	28	29	18
	200	66	58	52	44	47	43	22	59	43	39	31	30	30	20
	300	67	62	57	48	48	47	23	62	49	42	35	34	35	23
	400	69	66	60	54	52	50	25	65	53	46	40	39	38	27
	500	70	70	64	58	54	50	30	67	57	49	45	43	41	30
	600	71	74	66	62	56	52	35	68	60	51	47	46	44	31
	710	73	78	70	67	59	55	38	71	63	55	53	51	48	35
08	185	66	56	52	51	45	40	22	57	45	38	31	28	29	17
	200	66	56	52	51	45	40	22	57	45	38	31	28	29	17
	400	67	61	57	55	49	44	20	61	49	44	37	35	35	22
	600	69	66	62	60	53	48	25	65	55	48	43	42	40	27
	800	70	70	66	63	55	51	28	69	59	53	48	47	46	32
	925	71	73	70	66	59	54	32	72	62	56	52	52	50	36
10	290	61	55	52	45	43	38	16	59	54	49	42	37	37	23
	500	65	59	55	48	45	40	17	62	55	51	43	39	38	25
	700	70	62	60	54	51	45	23	65	57	52	45	41	40	27
	900	74	66	62	57	54	50	26	68	58	52	46	43	42	31
	1,100	78	70	66	60	57	52	31	72	59	54	48	44	42	36
	1,300	80	73	69	64	60	54	33	74	60	54	48	46	44	38
	1,450	84	75	70	66	62	58	38	77	61	55	50	49	45	42

See Page 17 for notes on performance testing.

ENGINEERING DATA

SDV Discharge & Radiated Sound

1.5" Inlet Static Pressure (cont.)

Inlet Size (in.)	Max CFM	DISCHARGE							RADIATED						
		Octave Bands						NC Levels	Octave Bands						NC Levels
		2	3	4	5	6	7		2	3	4	5	6	7	
12	420	64	64	59	57	54	50	22	59	55	50	44	41	39	23
	700	66	65	60	58	55	51	23	61	56	51	45	41	40	25
	1,000	70	67	63	60	56	52	25	67	58	53	48	44	41	30
	1,300	73	69	66	61	57	54	27	69	60	55	49	45	42	32
	1,600	75	71	68	61	58	55	30	72	62	57	51	46	43	36
	1,900	78	72	70	62	60	56	31	75	63	58	52	47	44	40
	2,100	80	74	71	64	60	58	33	77	64	59	53	49	45	42
14	580	64	63	62	60	57	53	21	59	54	50	43	42	41	23
	1,000	67	64	62	61	57	54	21	62	55	51	45	43	42	25
	1,400	71	67	65	63	59	56	25	69	57	53	47	46	44	32
	2,000	76	70	67	64	61	59	28	76	61	55	49	50	48	41
	2,400	78	72	68	65	62	59	31	81	62	56	50	52	50	47
	2,800	80	73	70	66	63	60	33	83	63	57	52	53	50	50
	2,900	80	73	70	66	63	61	33	83	64	57	52	53	50	50
16	740	68	63	62	59	56	50	20	59	54	50	44	43	39	23
	1,200	69	64	63	60	56	51	21	61	55	51	45	45	41	25
	1,700	72	68	64	62	58	52	26	64	58	52	47	47	43	27
	2,200	75	70	68	64	60	54	28	66	59	55	50	50	47	30
	2,700	78	72	70	66	62	56	31	68	61	57	52	52	50	32
	3,200	80	73	71	67	63	57	33	72	63	58	54	53	50	36
	3,700	82	74	72	68	64	58	36	74	64	59	55	54	52	38
24	1,420	76	75	74	72	69	65	35	64	59	60	56	48	43	35
	2,000	77	76	74	73	70	65	36	65	60	61	57	50	44	36
	3,000	79	77	75	74	71	66	37	66	63	63	59	52	47	38
	4,000	82	79	79	75	73	68	38	72	67	67	62	56	50	42
	5,000	85	81	80	77	74	70	41	76	70	69	64	59	53	45
	6,000	87	83	81	78	76	71	43	79	74	71	66	63	56	47
	7,100	89	84	81	79	77	72	45	80	75	73	68	65	58	48

Notes:

1. Tests were conducted in accordance with ARI Standard 880-94.
2. Sound power levels are referenced to 10⁻¹² watt.
3. Octave bands 2-7 correspond to 125 to 4000 Hz.



ENGINEERING DATA

SDV Discharge & Radiated Sound

3.0" Inlet Static Pressure

Inlet Size (in.)	Max CFM	DISCHARGE							RADIATED						
		Octave Bands						NC Levels	Octave Bands						NC Levels
		2	3	4	5	6	7		2	3	4	5	6	7	
04	45	65	58	54	50	52	43	21	60	43	37	29	30	33	21
	100	70	63	59	55	54	48	27	65	52	42	35	37	39	27
	150	74	68	64	60	58	53	32	70	58	47	42	45	46	33
	200	76	72	66	62	62	56	35	72	62	50	46	50	50	36
	230	79	75	69	65	63	59	38	75	65	53	49	54	53	40
05	70	65	59	53	48	49	46	21	49	39	25	24	26	32	-
	100	66	61	55	50	50	48	22	51	37	27	26	29	33	-
	150	68	64	59	53	53	50	25	56	40	34	30	34	37	16
	200	71	68	62	56	56	53	28	61	47	41	36	39	42	22
	300	76	73	67	62	61	58	35	69	59	52	45	47	48	32
	360	78	76	71	65	64	61	37	74	66	58	50	52	53	38
06	100	64	60	53	48	49	45	20	63	54	44	35	30	24	25
	200	68	64	57	52	51	48	25	64	58	48	38	34	28	27
	300	73	69	63	57	55	51	31	67	63	53	44	40	36	33
	400	76	73	67	60	57	56	33	69	67	57	47	44	41	38
	500	79	76	70	63	59	56	37	71	70	60	50	48	45	41
	520	79	77	72	65	60	57	38	71	71	62	51	49	47	42
07	140	70	61	56	45	51	49	27	62	44	41	31	33	35	23
	200	71	63	57	47	52	50	28	63	47	43	33	35	37	25
	300	72	68	61	52	54	53	30	66	53	46	38	39	41	28
	400	73	72	65	58	58	56	32	68	58	50	43	44	44	31
	500	75	76	69	62	60	58	37	70	61	53	47	48	47	33
	600	76	78	71	65	62	60	38	72	64	55	50	51	50	36
	710	77	83	75	71	64	62	43	75	68	59	55	56	54	40
08	185	70	60	56	56	50	47	27	61	50	43	34	32	35	22
	200	70	60	56	56	50	47	27	61	50	43	34	32	35	22
	400	72	65	62	60	55	51	26	63	54	48	40	39	41	25
	600	74	71	67	65	59	55	31	68	60	53	46	46	47	31
	800	75	75	71	68	62	59	35	71	64	57	51	51	52	35
	925	76	78	75	71	65	61	38	77	66	60	55	56	56	42
10	290	66	60	53	49	48	44	22	61	59	56	49	43	43	31
	500	70	63	57	51	50	46	23	63	61	58	50	45	44	33
	700	75	67	62	56	55	51	30	67	62	59	52	47	46	33
	900	79	71	56	61	59	55	32	70	64	60	53	49	48	35
	1,100	82	74	58	64	62	58	36	74	64	60	54	50	48	38
	1,300	86	77	72	68	64	60	41	76	66	61	56	52	50	41
	1,450	89	80	75	70	67	63	45	78	66	62	57	54	51	43

See Page 19 for notes on performance testing.

ENGINEERING DATA

SDV Discharge & Radiated Sound

3.0" Inlet Static Pressure

Inlet Size (in.)	Max CFM	DISCHARGE							RADIATED						
		Octave Bands						NC Levels	Octave Bands						NC Levels
		2	3	4	5	6	7		2	3	4	5	6	7	
12	420	67	71	64	65	61	57	31	65	60	57	50	46	46	32
	700	69	72	65	66	62	58	32	65	61	58	51	47	47	33
	1,000	73	74	68	67	63	60	33	68	63	60	54	49	48	35
	1,300	76	76	71	68	64	61	36	72	65	62	55	51	49	37
	1,600	79	77	72	69	65	62	37	75	66	63	57	52	50	40
	1,900	82	78	74	70	66	63	38	77	68	64	58	54	51	42
	2,100	83	80	75	70	67	64	40	83	69	65	59	54	52	50
14	580	68	69	67	67	64	61	28	61	60	57	50	48	48	32
	1,000	70	70	68	68	64	62	28	64	61	58	51	49	50	33
	1,400	75	73	70	70	65	64	32	71	63	60	53	52	52	35
	2,000	79	76	73	71	66	67	36	78	67	63	57	56	55	43
	2,400	82	78	74	72	67	67	38	82	68	63	58	58	56	48
	2,800	84	79	75	73	67	68	38	85	69	64	59	59	57	53
	2,900	84	80	75	73	67	69	40	85	70	65	59	60	58	53
16	740	72	69	67	66	63	59	27	64	59	54	49	47	45	28
	1,200	73	70	68	67	64	60	28	65	60	55	50	49	47	30
	1,700	76	72	69	70	66	61	31	68	62	58	53	52	50	33
	2,200	80	75	72	72	68	62	35	72	65	60	56	54	53	36
	2,700	82	77	74	73	69	64	37	74	67	62	58	56	56	38
	3,200	85	78	76	74	70	65	40	76	68	63	59	57	57	41
	3,700	87	79	77	75	71	66	42	78	69	64	60	58	59	43
24	1,420	79	79	78	78	74	70	38	67	63	65	61	51	46	40
	2,000	80	79	79	78	75	70	38	68	64	66	62	53	48	41
	3,000	83	80	80	79	76	71	40	71	67	68	64	56	50	43
	4,000	86	82	82	80	78	73	42	76	71	71	67	60	54	47
	5,000	88	84	84	82	79	75	45	79	74	74	70	63	57	50
	6,000	90	86	85	83	81	76	47	82	77	76	72	66	59	52
	7,100	92	87	86	84	82	77	48	85	79	78	73	68	61	55

Notes:

1. Tests were conducted in accordance with ARI Standard 880-94.
2. Sound power levels are referenced to 10⁻¹² watt.
3. Octave bands 2-7 correspond to 125 to 4000 Hz.



ENGINEERING DATA

SDV Sound Data Notes & ARI Certification

Notes:

1. Test were conducted in accordance with ARI Standard 880-94
2. Sound power levels are referenced to 10^{-12} watt
3. Octave bands 2-7 correspond to 125 to 4000 Hz
4. ARI tests conducted at 1-1/2" static pressure

Noise Criteria (NC) Notes:

1. A hyphen (-) indicates the NC is lower than 15.
2. Noise Criteria (NC) were found using ARI Standard 885-98 Appendix E (2002 Addendum):
 - a. Radiated NC were found using the type 2 ceiling (mineral fiber) condition.
 - b. Discharge NC were found using the large terminal condition due to the multitude of possible discharge duct sizes.
3. ARI Standard 885-98 Appendix E, Table E1. Typical Sound Attenuation Values, dB.

OCTAVE BAND CENTER FREQUENCY (Hz)						
RADIATED	125	250	500	1000	2000	4000
Type 1 - Glass Fiber	19	19	21	25	29	35
Type 2 - Mineral Fiber	18	19	20	26	31	36
Type 3 - Gypsum Fiber	23	26	25	27	27	28

OCTAVE BAND CENTER FREQUENCY (Hz)						
DISCHARGE	125	250	500	1000	2000	4000
Small Terminal	24	28	39	53	59	40
Medium Terminal	27	29	40	51	53	39
Large Terminal	29	30	41	51	52	39



ARI CERTIFICATION DATA

Model or Size	ARI Ref #	Primary CFM	Min. Operating Pressure (in w.c.)
SDV 04	17587	150	0.05
SDV 05	17588	250	0.10
SDV 06	17589	400	0.18
SDV 07	17590	550	0.17
SDV 08	17591	700	0.16
SDV 10	17592	1100	0.15
SDV 12	17593	1600	0.17
SDV 14	17594	2100	0.16
SDV 16	17595	2800	0.16
SDV 24	276528	5300	0.06

Model or Size	ARI Ref #	Primary CFM	Min. Operating Pressure (in w.c.)
SDV 04	17587	150	0.05
SDV 05	17588	250	0.10
SDV 06	17589	400	0.18
SDV 07	17590	550	0.17
SDV 08	17591	700	0.16
SDV 10	17592	1100	0.15
SDV 12	17593	1600	0.17
SDV 14	17594	2100	0.16
SDV 16	17595	2800	0.16
SDV 24	276528	5300	0.06

Radiated					
.125	.25	.5	1	2	4
65	54	44	40	41	39
62	51	43	37	38	38
66	63	52	42	40	36
67	58	50	46	45	43
67	57	51	46	45	44
72	59	53	48	45	43
71	62	57	51	46	43
77	61	55	50	50	48
70	62	57	53	52	50
76	71	70	65	60	54

Discharge					
.125	.25	.5	1	2	4
70	65	59	54	53	47
70	66	60	55	53	49
73	69	61	55	51	47
71	72	65	60	55	52
70	68	64	61	55	50
78	70	65	61	57	53
75	71	67	62	59	55
76	71	68	64	59	59
78	72	70	66	62	57
86	81	80	77	75	70

ENGINEERING DATA

SDV Raw Data Correction Factors

Attenuator Deductions

Inlet Size (in.)	Octave band (dB)					
	2	3	4	5	6	7
4, 5, 6	2	2	5	13	12	8
7, 8	2	2	5	12	11	8
10	1	2	4	10	9	7
12	1	2	4	9	7	6
14	1	2	3	8	6	5
16	1	1	3	8	6	5
24	1	1	3	8	6	5

Liner Raw Sound Data Correction Factors

SDV Radiated Sound

Liner Description	Octave Bands (dB)					
	2	3	4	5	6	7
1/2" Dual Density Lining	0	0	0	0	0	0
1" Dual Density Lining	0	0	0	0	0	0
Insul-Guard™	-2	-6	-7	-8	-9	-10
No Liner	0	0	0	0	0	0
Galvanized Sheet Metal Liner (Double Wall)	-3	-8	-9	-10	-11	-13
Enviroseal™	-1	-3	-4	-4	-5	-1



SDV w/ Attenuator or Electric Heat Discharge Sound

Liner Description	Octave Bands (dB)					
	2	3	4	5	6	7
1/2" Dual Density Lining	0	0	0	0	0	0
1" Dual Density Lining	0	0	0	0	0	0
Insul-Guard™	0	-1	-2	-3	-3	-2
No Liner	0	0	0	0	0	0
Galvanized Sheet Metal Liner (Double Wall)	0	0	0	0	0	0
Enviroseal™	-1	-2	-4	-8	-9	-6

Notes:

- Select the appropriate size and subtract the value shown under each octave band heading from the Discharge Sound Engineering Data shown on pages 10-19. Use the resultant values to calculate discharge NC.

ENGINEERING DATA

Hot Water Reheat Coil, Sizes 4, 5, & 6

1 Row Coil

GPM	CFM									Water Side Head Loss
	50	100	150	200	230	300	360	400	500	
	Heating Capacity (MBH)									
1.0	3.7	5.6	6.8	7.8	8.3	9.3	9.9	10.4	11.2	0.48
2.0	3.8	5.9	7.3	8.5	9.1	10.3	11.1	11.6	12.7	1.83
3.0	3.9	6	7.5	8.8	9.4	10.7	11.6	12.1	13.3	4.01
4.0	3.9	6.1	7.6	8.9	9.6	10.9	11.8	12.4	13.7	6.99
Air Side Pressure Drop (in W.G.)										
	0.01	0.01	0.02	0.04	0.05	0.07	0.1	0.12	0.18	

2 Row Coil

GPM	CFM									Water Side Head Loss
	50	100	150	200	230	300	360	400	500	
	Heating Capacity (MBH)									
1.0	5.1	8.1	10.3	12	12.9	14.5	15.7	16.3	17.7	0.12
2.0	5.3	8.8	11.4	13.6	14.7	16.9	18.5	19.4	21.4	0.46
3.0	5.4	9	11.9	14.2	15.4	17.9	19.7	20.7	23.1	1.01
4.0	5.4	9.1	12.1	14.6	15.8	18.4	20.4	21.5	24	1.75
6.0	5.5	9.3	12.3	14.9	16.3	19	21.1	22.3	25.1	3.84
8.0	5.5	9.4	12.5	15.1	16.5	19.4	21.5	22.8	25.7	6.69
10.0	5.5	9.4	12.6	15.2	16.7	19.6	21.8	23	26.1	10.3
Air Side Pressure Drop (in W.G.)										
	0.01	0.03	0.05	0.08	0.1	0.16	0.22	0.26	0.38	

3 Row Coil

GPM	CFM									Water Side Head Loss
	50	100	150	200	230	300	360	400	500	
	Heating Capacity (MBH)									
1.0	6	10.2	13.3	15.7	16.9	19.2	20.8	21.7	23.6	0.19
2.0	6.1	10.8	14.4	17.5	19.1	22.3	24.5	25.9	28.8	0.71
3.0	6.1	11	14.9	18.2	19.9	23.5	26.1	27.6	31	1.56
4.0	6.2	11.1	15.1	18.5	20.4	24.1	26.9	28.6	32.3	2.71
6.0	6.2	11.2	15.3	18.9	20.8	24.9	27.8	29.7	33.7	5.92
8.0	6.2	11.2	15.5	19.1	21.1	25.2	28.3	30.2	34.4	10.32
10.0	6.2	11.3	15.5	19.2	21.3	25.5	28.7	30.6	37.9	15.89
Air Side Pressure Drop (in W.G.)										
	0.01	0.04	0.08	0.12	0.15	0.24	0.33	0.39	0.56	

4 Row Coil

GPM	CFM									Water Side Head Loss
	50	100	150	200	230	300	360	400	500	
	Heating Capacity (MBH)									
1.0	6.3	11.1	14.7	17.4	18.8	21.4	23.2	24.1	26.2	0.13
2.0	6.4	11.7	16.1	19.6	21.5	25.3	28	29.5	32.9	0.5
3.0	6.5	11.9	16.5	20.5	22.6	26.9	30	31.8	35.9	1.11
4.0	6.5	12.1	16.8	20.9	23.1	27.7	31.1	33.1	37.6	1.96
5.0	6.5	12.1	17	21.2	23.5	28.2	31.8	34	38.7	3.03
7.0	6.5	12.2	17.1	21.5	23.9	28.9	32.6	34.9	40.1	5.87
9.0	6.5	12.2	17.2	21.7	24.1	29.2	33.1	35.5	40.9	9.61
11.0	6.5	12.3	17.3	21.8	24.3	29.5	33.5	35.9	41.4	14.25
Air Side Pressure Drop (in W.G.)										
	0.02	0.05	0.1	0.16	0.21	0.32	0.43	0.52	0.75	

See Page 29 for notes on performance testing.

ENGINEERING DATA

Hot Water Reheat Coil, Sizes 7 & 8

1 Row Coil

GPM	CFM									Water Side Head Loss
	140	200	300	400	500	600	710	800	925	
	Heating Capacity (MBH)									
1.0	7.5	8.9	10.7	12.1	13.1	14	14.8	15.3	16	0.65
2.0	8	9.7	11.8	13.5	14.8	16	17	17.8	18.7	2.47
3.0	8.2	10	12.3	14.1	15.5	16.8	18	18.8	19.9	5.4
4.0	8.3	10.1	12.5	14.4	15.9	17.2	18.5	19.4	20.5	9.42
Air Side Pressure Drop (in W.G.)										
	0.01	0.02	0.04	0.07	0.11	0.15	0.2	0.24	0.31	

2 Row Coil

GPM	CFM									Water Side Head Loss
	140	200	300	400	500	600	710	800	925	
	Heating Capacity (MBH)									
1.0	10.9	13.4	16.3	18.5	20.2	21.5	22.7	23.6	24.5	0.17
2.0	11.9	15	18.9	21.9	24.4	26.4	28.3	29.7	31.3	0.63
3.0	12.3	15.6	20	23.4	26.3	28.6	30.9	32.5	34.5	1.38
4.0	12.5	16	20.6	24.3	27.3	29.9	32.4	34.2	36.4	2.39
6.0	12.8	16.4	21.2	25.2	28.5	31.3	34.1	36.1	38.6	5.23
8.0	12.9	16.6	21.6	25.7	29.1	32.1	35	37.1	39.8	9.12
10.0	13	16.7	21.8	26	29.5	32.6	35.6	37.8	40.6	14.04
Air Side Pressure Drop (in W.G.)										
	0.03	0.05	0.1	0.16	0.23	0.32	0.42	0.51	0.65	

3 Row Coil

GPM	CFM									Water Side Head Loss
	140	200	300	400	500	600	710	800	925	
	Heating Capacity (MBH)									
1.0	13.4	16.6	20.3	23	25	26.5	27.9	28.8	29.9	0.13
2.0	14.5	18.6	23.8	27.9	31.1	33.7	36.1	37.8	39.8	0.5
3.0	14.9	19.3	25.3	29.9	33.7	37	40	42.1	44.7	1.11
4.0	15.1	19.8	26	31.1	35.3	38.8	42.2	44.7	47.6	1.96
5.0	15.3	20	26.5	31.8	36.3	40.1	43.7	46.4	49.6	3.03
7.0	15.4	20.3	27.1	32.7	37.5	41.6	45.6	48.5	52.1	5.87
9.0	15.5	20.5	27.4	33.2	38.2	42.5	46.7	49.8	53.6	9.61
11.0	15.6	20.6	27.7	33.6	38.7	43.1	47.5	50.6	54.6	14.25
Air Side Pressure Drop (in W.G.)										
	0.04	0.08	0.15	0.24	0.35	0.47	0.63	0.77	0.98	

4 Row Coil

GPM	CFM									Water Side Head Loss
	140	200	300	400	500	600	710	800	925	
	Heating Capacity (MBH)									
1.0	14.7	18.5	22.8	25.8	28	29.7	31.1	32.1	33.2	0.09
2.0	16	20.8	27	31.8	35.6	38.7	41.5	43.4	45.7	0.36
3.0	16.4	21.6	28.7	34.4	39	42.9	46.5	49	52.1	0.8
5.0	16.7	22.3	30.2	35.8	42.2	46.9	51.4	54.6	58.7	2.18
7.0	16.9	22.6	30.9	37.7	43.7	48.8	53.8	57.5	62	4.23
9.0	16.9	22.8	31.3	38.4	44.6	50	55.3	59.2	64	6.94
11.0	17	22.9	31.5	38.8	45.2	50.8	56.3	60.3	65.4	10.31
13.0	17	23	31.7	39.1	45.6	51.4	57	61.1	66.4	14.34
Air Side Pressure Drop (in W.G.)										
	0.06	0.1	0.2	0.32	0.46	0.63	0.84	1.02	1.3	

See Page 29 for notes on performance testing.



ENGINEERING DATA

Hot Water Reheat Coil, Size 10

1 Row Coil

GPM	CFM							Water Side Head Loss
	290	500	700	900	1100	1300	1450	
	Heating Capacity (MBH)							
1.0	11.8	14.6	16.3	17.6	18.6	19.4	19.9	0.11
3.0	13.9	18.1	20.9	23	24.8	26.3	27.3	0.9
5.0	14.5	19	22.2	24.7	26.7	28.4	29.6	2.42
7.0	14.7	19.5	22.8	25.4	27.6	29.5	30.8	4.63
9.0	14.9	19.8	23.2	25.9	28.2	30.2	31.5	7.53
Air Side Pressure Drop (in. WC)								
	0.02	0.06	0.1	0.15	0.22	0.29	0.35	

2 Row Coil

GPM	CFM							Water Side Head Loss
	290	500	700	900	1100	1300	1450	
	Heating Capacity (MBH)							
1.0	17.6	22.3	25	26.9	28.4	29.5	30.2	0.12
3.0	21.8	29.7	35	39.1	42.5	45.2	47	1.05
5.0	22.9	31.9	38.2	43.2	47.3	50.8	53	2.86
7.0	23.5	32.9	39.7	45.2	49.7	53.6	56.2	5.54
9.0	23.8	33.6	40.7	46.4	51.3	55.4	58.2	9.07
11.0	24	34	41.3	47.2	52.3	56.6	59.5	13.46
Air Side Pressure Drop (in. WC)								
	0.05	0.12	0.22	0.33	0.46	0.61	0.74	

3 Row Coil

GPM	CFM							Water Side Head Loss
	290	500	700	900	1100	1300	1450	
	Heating Capacity (MBH)							
1.0	22.1	27.8	31	33.1	34.6	35.8	36.6	0.09
2.0	25.8	34.9	40.6	44.8	48	50.6	52.3	0.36
3.0	27.2	38	45.2	50.7	55	58.6	60.8	0.8
5.0	28.5	40.8	49.6	56.5	62.1	66.9	70	2.2
7.0	29.1	42.2	51.7	59.4	65.8	71.2	74.8	4.26
9.0	29.4	43	53	61.2	68	73.9	77.8	6.99
11.0	29.6	43.5	53.9	62.3	69.5	75.7	79.9	10.39
13.0	29.8	43.9	54.5	63.2	70.6	77.1	81.4	14.44
Air Side Pressure Drop (in. WC)								
	0.07	0.19	0.33	0.5	0.69	0.92	1.1	

4 Row Coil

GPM	CFM							Water Side Head Loss
	290	500	700	900	1100	1300	1450	
	Heating Capacity (MBH)							
1.0	25.4	32.3	36	38.4	40.2	41.5	42.2	0.11
2.0	29.4	40.8	47.9	53.1	57	60.1	62.1	0.42
3.0	30.9	44.3	53.4	60.4	65.8	70.3	73.1	1.26
4.0	31.7	46.3	56.6	64.6	71.1	76.5	80	1.64
6.0	32.4	48.3	60	69.4	77.3	83.9	88.3	3.64
8.0	32.8	49.4	61.9	70.1	80.7	88.1	93	6.41
10.0	33.1	50.1	63	73.8	82.9	90.8	96.1	9.93
12.0	33.3	50.6	63.8	74.9	84.4	92.7	98.2	14.21
Air Side Pressure Drop (in. WC)								
	0.1	0.25	0.43	0.66	0.93	1.23	1.47	

See Page 29 for notes on performance testing.

ENGINEERING DATA

Hot Water Reheat Coil, Size 12

1 Row Coil

GPM	CFM							Water Side Head Loss
	420	700	1000	1300	1600	1900	2100	
	Heating Capacity (MBH)							
1.0	15.9	19.1	21.4	23	24.1	25.1	25.7	0.14
2.0	18.3	22.9	26.2	28.7	30.7	32.3	33.2	0.55
4.0	19.9	25.4	29.7	32.9	35.6	37.8	36.9	1.19
6.0	20.5	26.5	31.1	34.7	37.6	40.1	41.6	4.54
Air Side Pressure Drop (in W.G.)								
	0.02	0.06	0.11	0.17	0.24	0.33	0.39	

2 Row Coil

GPM	CFM							Water Side Head Loss
	420	700	1000	1300	1600	1900	2100	
	Heating Capacity (MBH)							
1.0	23.3	28.4	31.6	33.8	35.4	36.7	37.3	0.14
2.0	28.1	36.2	41.9	46.1	49.3	51.9	53.3	0.56
4.0	31.3	41.9	50.1	56.3	61.2	65.4	67.8	2.15
6.0	32.6	44.3	53.5	60.8	66.7	71.6	74.5	4.76
8.0	33.3	45.6	55.5	63.3	69.8	75.3	78.5	8.37
10.0	33.7	46.5	56.8	65	71.8	77.7	81.1	12.96
Air Side Pressure Drop (in W.G.)								
	0.05	0.13	0.23	0.36	0.51	0.68	0.81	

3 Row Coil

GPM	CFM							Water Side Head Loss
	420	700	1000	1300	1600	1900	2100	
	Heating Capacity (MBH)							
1.0	29.1	35	38.5	40.7	42.2	43.3	43.9	0.11
2.0	35.4	45.9	53.1	58.1	61.9	64.7	66.3	0.42
3.0	37.9	50.9	60.4	67.4	72.7	77	79.4	0.92
5.0	40.1	55.6	67.7	76.9	84.3	90.4	93.9	2.5
7.0	41.1	57.8	71.2	81.8	90.4	97.6	102	4.85
9.0	41.7	59.1	73.4	84.7	94.1	102	107	7.94
11.0	42.1	60	74.8	86.7	96.6	105	110	11.78
13.0	42.4	60.6	75.8	88.2	98.5	107	113	16.37
Air Side Pressure Drop (in W.G.)								
	0.08	0.19	0.35	0.54	0.77	1.02	1.21	

4 Row Coil

GPM	CFM							Water Side Head Loss
	420	700	1000	1300	1600	1900	2100	
	Heating Capacity (MBH)							
1.0	32.4	38.8	42.4	44.5	46	47.1	47.7	0.09
2.0	39.8	52.1	60.4	65.9	70	73	74.7	0.33
3.0	42.6	58.2	69.5	77.6	83.8	88.6	91.3	0.74
5.0	45.1	63.9	78.6	89.9	98.8	106	110	2.01
7.0	46.1	66.5	83.1	96.1	107	116	121	3.91
9.0	46.7	68	85.7	99.9	112	122	127	6.41
11.0	47.1	69	87.5	102	115	126	132	9.52
13.0	47.4	69.7	88.7	104	117	129	136	13.24
Air Side Pressure Drop (in W.G.)								
	0.11	0.26	0.46	0.72	1.02	1.36	1.61	

See Page 29 for notes on performance testing.



ENGINEERING DATA

Hot Water Reheat Coil, Size 14

1 Row Coil

GPM	CFM							Water Side Head Loss
	580	1000	1400	2000	2400	2800	2900	
	Heating Capacity (MBH)							
1.0	20.2	24	26.3	28.5	29.5	30.4	30.6	0.11
3.0	26.1	33.2	37.8	42.8	42.3	47.4	47.9	0.97
5.0	27.7	36	41.5	47.7	50.9	53.6	54.2	2.64
Air Side Pressure Drop (in W.G.)								
	0.02	0.06	0.1	0.19	0.25	0.33	0.35	

2 Row Coil

	CFM							Water Side Head Loss
	580	1000	1400	2000	2400	2800	2900	
	Heating Capacity (MBH)							
1.0	29.1	34.8	37.8	40.6	41.9	42.9	43.1	0.1
2.0	36.8	47	53.2	59.4	62.3	64.7	65.2	0.39
3.0	40.2	53.1	61.3	70	74.2	77.7	78.5	0.86
4.0	42.3	56.8	66.4	76.8	82.1	86.4	87.4	1.52
6.0	44.5	61.1	72.5	85.1	91.7	97.3	98.6	3.37
8.0	45.2	63.5	75.9	90	97.5	104	105	5.93
Air Side Pressure Drop (in W.G.)								
	0.05	0.12	0.22	0.39	0.54	0.69	0.74	

3 Row Coil

GPM	CFM							Water Side Head Loss
	580	1000	1400	2000	2400	2800	2900	
	Heating Capacity (MBH)							
1.0	36.1	42.3	45.2	47.7	48.8	49.6	49.7	0.09
2.0	46.5	59.5	66.8	73.7	76.9	79.3	79.9	0.33
4.0	53.2	73	85.9	99.2	106	111	112	1.3
6.0	55.7	78.6	94.3	111	120	128	129	2.89
8.0	57.1	81.7	99.1	119	129	138	139	5.08
10.0	57.9	83.6	102	123	135	144	146	7.89
12.0	58.4	85	104	127	139	149	151	11.3
Air Side Pressure Drop (in W.G.)								
	0.07	0.19	0.33	0.59	0.8	1.04	1.1	

4 Row Coil

GPM	CFM							Water Side Head Loss
	580	1000	1400	2000	2400	2800	2900	
	Heating Capacity (MBH)							
1.0	39.1	45.2	48	50.2	51.1	51.8	52	0.06
2.0	51.4	65.8	73.5	80.5	83.6	86	86.5	0.23
4.0	59.3	82.6	97.4	112	120	125	127	0.92
6.0	62.2	89.5	108	128	139	147	149	2.05
8.0	63.7	93.3	114	138	150	160	162	3.63
10.0	64.5	95.6	118	144	158	169	172	5.65
12.0	65.1	97.2	121	148	163	176	179	8.1
Air Side Pressure Drop (in W.G.)								
	0.1	0.25	0.43	0.79	1.07	1.39	1.47	

See Page 29 for notes on performance testing.

ENGINEERING DATA

Hot Water Reheat Coil, Size 16

1 Row Coil

GPM	CFM							Water Side Head Loss
	740	1200	1700	2200	2700	3200	3700	
	Heating Capacity (MBH)							
1.0	23.8	27.5	30	31.7	33	33.9	34.7	0.12
2.0	29.2	35.3	39.7	42.9	45.3	47.3	48.9	0.47
4.0	33.1	41.2	47.4	52.1	55.9	59	61.6	1.81
6.0	34.6	43.7	50.8	56.2	60.6	64.4	67.6	4.02
Air Side Pressure Drop (in W.G.)								
	0.02	0.06	0.1	0.16	0.23	0.3	0.39	

2 Row Coil

GPM	CFM							Water Side Head Loss
	740	1200	1700	2200	2700	3200	3700	
	Heating Capacity (MBH)							
1.0	31.8	36.4	39.2	40.9	42.2	43.1	43.8	0.06
2.0	42.1	51.2	57.3	61.5	64.6	67	69	0.23
4.0	50.2	64.1	74.4	82.1	88	92.8	96.7	0.92
6.0	53.6	70	82.7	92.4	100	106	112	2.05
8.0	55.5	73.4	87.6	98.6	108	115	122	3.62
Air Side Pressure Drop (in W.G.)								
	0.06	0.12	0.22	0.34	0.48	0.64	0.82	

3 Row Coil

GPM	CFM							Water Side Head Loss
	740	1200	1700	2200	2700	3200	3700	
	Heating Capacity (MBH)							
1.0	38.6	43.1	45.6	47.1	48.1	48.9	49.3	0.05
2.0	52.6	63.4	70.3	74.7	77.8	80.2	82	0.19
4.0	63.1	81.5	94.7	104	111	117	121	0.76
6.0	67.3	89.5	107	119	129	137	144	1.7
8.0	69.5	94.1	113	128	140	150	158	3.02
10.0	70.9	97	118	134	147	159	168	4.71
12.0	71.9	99	121	139	153	165	176	6.77
Air Side Pressure Drop (in W.G.)								
	0.08	0.19	0.33	0.51	0.72	0.96	1.22	

4 Row Coil

GPM	CFM							Water Side Head Loss
	740	1200	1700	2200	2700	3200	3700	
	Heating Capacity (MBH)							
1.0	42.1	46.6	48.9	50.3	51.2	51.7	52.2	0.04
2.0	58.7	70.7	77.9	72.5	85.6	87.9	89.7	0.17
4.0	71	92.7	108	119	127	133	138	0.66
6.0	75.7	102	123	138	149	158	166	1.49
8.0	78.2	108	132	149	164	175	185	2.64
10.0	79.7	111	137	157	173	187	198	4.12
12.0	80.7	114	141	163	181	195	208	5.93
Air Side Pressure Drop (in W.G.)								
	0.11	0.25	0.44	0.68	0.96	1.28	1.63	

See Page 29 for notes on performance testing.



ENGINEERING DATA

Hot Water Reheat Coil, Size 24

1 Row Coil

GPM	CFM							Water Side Head Loss
	1420	2000	3000	4000	5000	6000	7100	
	Heating Capacity (MBH)							
1.0	34.7	37.6	40.7	42.6	43.8	44.8	45.7	0.15
2.0	46	51.6	58	62.3	65.4	67.8	69.9	0.57
4.0	54.8	63.1	73.3	80.5	86	90.4	94.4	2.22
6.0	58.4	68.1	80.2	89.1	95.9	102	107	4.9
Air Side Pressure Drop (in. WC)								
	0.03	0.06	0.12	0.2	0.3	0.41	0.55	

2 Row Coil

GPM	CFM							Water Side Head Loss
	1420	2000	3000	4000	5000	6000	7100	
	Heating Capacity (MBH)							
1.0	43.8	46.7	49.5	51.1	52	52.8	53.4	0.07
2.0	63.8	71.2	78.9	83.6	86.8	89.2	91.2	0.26
4.0	81.8	95.1	111	121	129	134	139	1.02
6.0	90.1	107	127	142	152	161	169	2.28
Air Side Pressure Drop (in. WC)								
	0.08	0.13	0.27	0.43	0.63	0.85	1.13	

3 Row Coil

GPM	CFM							Water Side Head Loss
	1420	2000	3000	4000	5000	6000	7100	
	Heating Capacity (MBH)							
1.0	50.7	53	54.9	55.9	56.5	57	57.3	0.05
2.0	78.3	86	93	97.2	99.9	101	103	0.21
4.0	103	120	138	149	158	163	168	0.83
6.0	114	136	162	180	193	202	210	1.85
8.0	120	146	177	199	216	228	240	3.27
10.0	124	152	188	213	232	247	261	5.1
12.0	127	157	195	223	244	262	277	7.32
Air Side Pressure Drop (in. WC)								
	0.11	0.2	0.4	0.64	0.94	1.27	1.69	

4 Row Coil

GPM	CFM							Water Side Head Loss
	1420	2000	3000	4000	5000	6000	7100	
	Heating Capacity (MBH)							
1.0	53.7	55.6	57.1	57.9	58.4	58.7	58.9	0.05
2.0	86	93.6	100	104	106	108	109	0.18
4.0	116	135	155	166	174	180	185	0.71
6.0	129	155	185	204	218	229	237	1.59
8.0	137	167	204	230	248	263	275	2.82
10.0	141	175	217	247	270	287	303	4.39
12.0	144	180	226	260	286	306	325	6.31
Air Side Pressure Drop (in. WC)								
	0.15	0.27	0.53	0.86	1.25	1.7	2.25	

See Page 29 for notes on performance testing.

ENGINEERING DATA

SDV Hot Water Reheat Coil

General Notes for All Hot Water Coils:

1. All coils are 10 FPI (fins per inch).
2. All coils are copper tubes with aluminum fins.
3. All fins have a thickness of 0.0045".
4. Copper tubing has a thickness of 0.016".
5. Copper tubing is 0.5" O.D.
6. Entering air is 55° F. For other temperature values, refer to current ToolBox selection software.
7. Entering water is 180° F. For other temperature values, refer to current ToolBox selection software.
8. Altitude is 0 feet.

Hot Water Coil Physical Data

Inlet Size (in.)	Height (in.)	Width (in.)	Length (in.)		Connection O.D. (in.)		Circuits (in.)			
			1 & 2 Row	3 & 4 Row	1 Row	2, 3, & 4 Row	1 Row	2 Row	3 Row	4 Row
4, 5, 6	8	12	5	7-1/4	1/2	7/8	1	2	2	3
7,8	10	12	5	7-1/4	1/2	7/8	1	2	3	4
10	12-1/2	14	5	7-1/4	7/8	7/8	2	3	4	4
12	15	16	5	7-1/4	7/8	7/8	2	3	4	5
14	17-1/2	20	7-1/2	9-3/4	7/8	7/8	3	4	5	7
16	18	24	7-1/2	9-3/4	7/8	7/8	3	6	8	10
24	18	38	5	7-1/4	7/8	7/8	3	6	8	10



ENGINEERING DATA

Electric Reheat Coil

Standard Features

- 80/20 NiCr element wire
- Airflow switch
- Magnetic contactor
- Control transformer (except pneumatic controls)
- NEMA 1 enclosure for electric heat controls
- Slip and Drive duct connection
- Automatic reset thermal cutout switch (1 per stage)
- Manual reset thermal cutout

Optional Features

- Mercury Contractors
- Fused door interlocking disconnect
- Fusing
- Non-fused door interlocking disconnect
- Up to three stages of control
- SCR Heater (see page 32)



ENGINEERING DATA

Electric Reheat Coil

Table 1 - Available kW Ranges

120V / 1 ϕ

Unit Size	KW Min	KW Max
4	0.5	3.0
5	0.5	5.0
6	0.5	5.0
7	0.5	5.0
8	0.5	5.0
10	0.5	5.0
12	0.5	5.0
14	1.0	5.0
16	1.0	5.0
24	1.0	5.0

208V / 1 ϕ

Unit Size	KW Min	KW Max
4	0.5	3.0
5	0.5	5.0
6	0.5	7.5
7	0.5	9.5
8	0.5	9.5
10	0.5	9.5
12	0.5	9.5
14	1.0	9.5
16	1.0	9.5
24	1.0	9.5

240V / 1 ϕ

Unit Size	KW Min	KW Max
4	1.0	3.0
5	1.0	5.0
6	1.0	7.5
7	1.0	9.5
8	1.0	11.0
10	1.0	11.0
12	1.0	11.0
14	1.0	11.0
16	1.0	11.0
24	1.0	11.0

277V / 1 ϕ

Unit Size	KW Min	KW Max
4	1.0	3.0
5	1.0	5.0
6	1.0	7.5
7	1.0	9.5
8	1.0	13.0
10	1.0	13.0
12	1.0	13.0
14	1.0	13.0
16	1.0	13.0
24	1.5	13.0

208V / 3 ϕ

Unit Size	KW Min	KW Max
4	1.5	3.0
5	1.5	5.0
6	1.5	7.5
7	1.5	9.5
8	1.5	13.0
10	1.5	16.0
12	1.5	16.0
14	3.0	16.0
16	3.0	16.0
24	3.0	16.0

480V / 3 ϕ

Unit Size	KW Min	KW Max
4	2.5	3.0
5	2.5	5.0
6	2.5	7.5
7	2.5	9.5
8	2.5	13.0
10	2.5	21.0
12	2.5	30.0
14	3.0	36.0
16	3.0	36.0
24	4.5	36.0

General Notes on Electric Heat Availability:

1. Minimum 0.5 kW per step.
2. Maximum 100°F leaving air temperature.



ENGINEERING DATA

Electric Reheat Coil-Pressure Drop

Inlet Size	Max CFM	Pt
04	45	0.02
	100	0.1
	150	0.225
	200	0.4
	230	0.53
05	70	0.02
	100	0.04
	150	0.083
	200	0.148
	300	0.332
06	360	0.48
	100	0.02
	200	0.092
	300	0.206
	400	0.366
06	500	0.572
	520	0.64

Inlet Size	Max CFM	Pt
07	140	0.02
	200	0.042
	300	0.101
	400	0.18
	500	0.282
	600	0.406
	710	0.57
08	185	0.025
	200	0.03
	400	0.122
	600	0.278
	800	0.485
10	925	0.659
	290	0.027
	500	0.1
	700	0.205
	900	0.34
	1100	0.506
	1300	0.705
10	1450	0.88

Inlet Size	Max CFM	Pt
12	420	0.039
	700	0.1
	1000	0.2
	1300	0.342
	1600	0.52
	1900	0.729
	2100	0.885
14	580	0.039
	1000	0.11
	1400	0.205
	2000	0.436
	2400	0.625
	2800	0.847
	2900	0.918
16	740	0.041
	1200	0.118
	1700	0.228
	2200	0.385
	2700	0.582
	3200	0.82
	3700	1.1
24	1420	0.085
	2000	0.18
	3000	0.4
	4000	0.715
	5000	1.12
	6000	1.608
	7100	2.245



ENGINEERING DATA

Electric Reheat Coil

Selection Guidelines

Electric heat kW ranges are shown in Table 1. In all cases, the Leaving Air Temperature of the unit must not exceed 100°F.

Validate Leaving Air Temperature (LAT) - Leaving air must not exceed 100°F

$$LAT = \frac{kW \times 3160}{CFM} + EAT$$

LAT = Leaving air temperature in °F

kW = Electric heat capacity in kW

CFM = Discharge airflow in cfm

EAT = Entering air temperature in °F

Minimum Airflow

In addition to the LAT not exceeding 100°F, the unit airflow must fall within the following ranges:

Unit Size	Min CFM	Max CFM
4	55	230
5	85	360
6	105	520
7	135	710
8	190	925
10	300	1450
12	425	2100
14	580	2900
16	750	3700
24	1800	7100

Minimum Circuit Ampacity (MCA)*

$$MCA = (\text{Heater Current}) \times 1.25$$

Maximum Overcurrent Protection (MOP)*

$$MOP = \text{Heater Current}$$

MOP Rules

1. If MOP is less than 15, MOP shall be set to 15.
2. If MOP is greater than the MCA and is between standard fuse sizes, round down to the next standard fuse size.
 - a. Exception - If the next lower fuse size is less than 125% of the current rating of the electric heater load, round up to next standard fuse size.
3. If MOP is less than the MCA, the MOP shall be set equal to MCA and then rounded up to the next standard fuse size.

Helpful Equations

$$kW = \frac{MBH}{3.414}$$

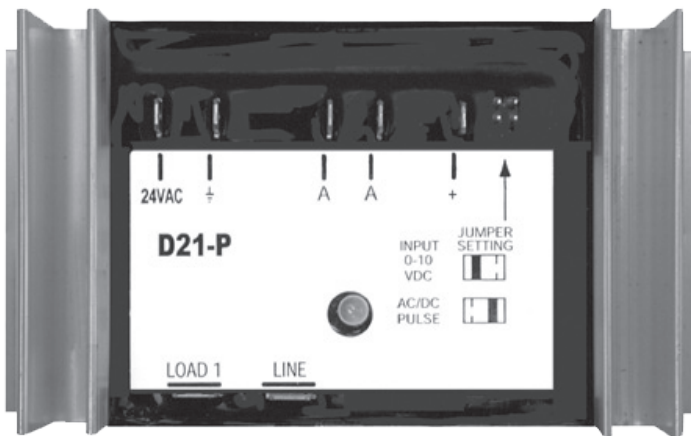
$$\text{Single Phase Amperage Draw} = \frac{kW \times 1000}{\text{Voltage}}$$

$$\text{Three Phase Amperage Draw} = \frac{kW \times 1000}{\text{Voltage} \times 1.732}$$

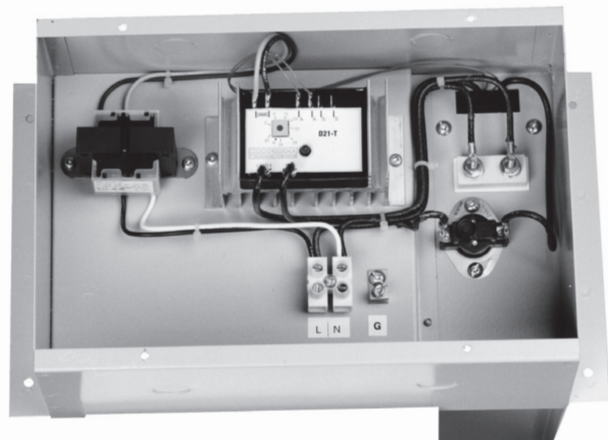
* MCA and MOP equations and rules are intended as an aid in design. See UL 1995 for Heating and Cooling Equipment for complete requirements.



SCR ELECTRIC HEATER OPTION



SCR controller



Sample SCR electric heat control enclosure

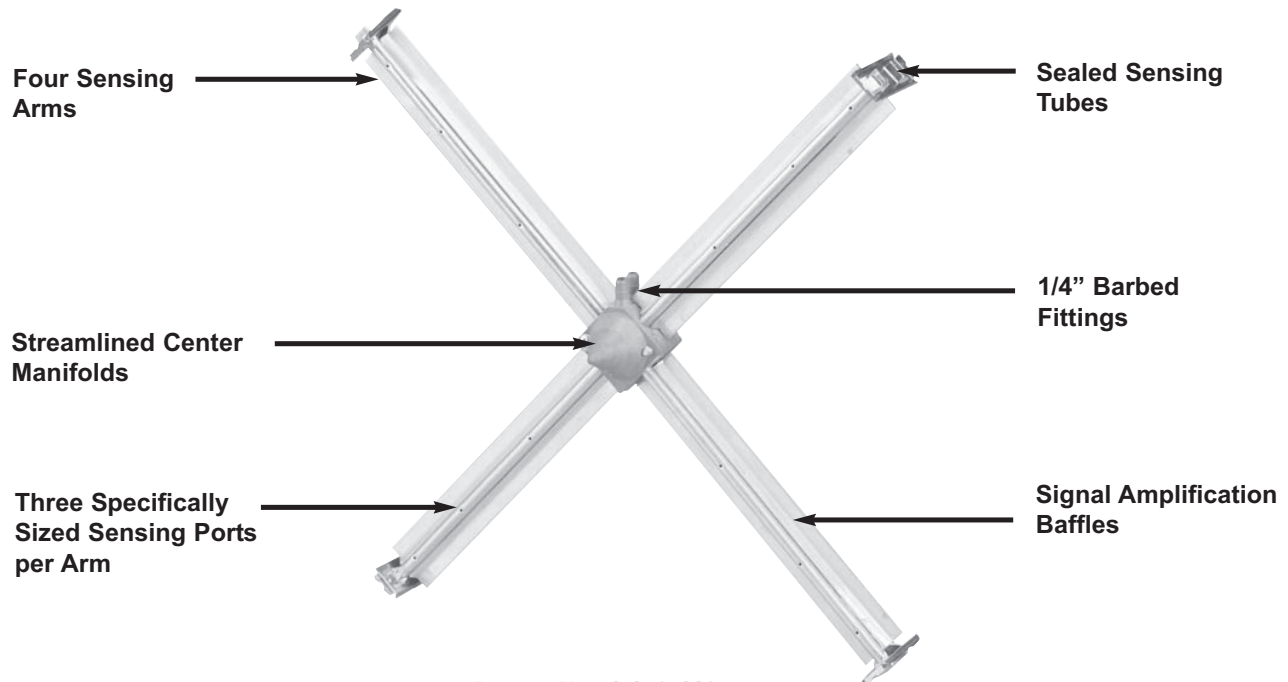
Features:

- Built-in controller proportionally modulates the heating output to match required load
- Accepts variable Voltage signal (0 - 10 VDC) or Pulse Width Modulation
- Electronic modulating controller improves comfort and saves energy
- Silent operation
- Pressure independent modulating air flow sensor
- Electronic airflow switch

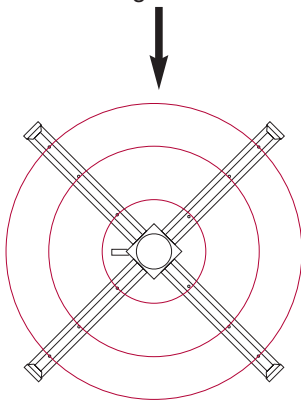


SCR Electric Heat kW Ranges

Inlet Size (in.)	CFM	Voltage/Phase					
		120/1	208/1	240/1	277/1	208/3	480/3
4	45-230	0.5-2.0	0.5-5.0	0.5-6.0	0.5-7.0	0.5-10.8	0.5-24.9
5	70-360	0.5-2.0	0.5-5.0	0.5-6.0	0.5-7.0	0.5-10.8	0.5-24.9
6	100-520	0.5-2.0	0.5-5.0	0.5-6.0	0.5-7.0	0.5-10.8	0.5-24.9
7	140-710	0.5-2.0	0.5-5.0	0.5-6.0	0.5-7.0	0.5-10.8	0.5-24.9
8	185-925	0.5-2.0	0.5-5.0	0.5-6.0	0.5-7.0	0.5-10.8	0.5-24.9
10	290-1450	0.5-2.0	0.5-5.0	0.5-6.0	0.5-7.0	0.5-10.8	0.5-24.9
12	420-2100	0.5-2.0	0.5-5.0	0.5-6.0	0.5-7.0	0.5-10.8	0.5-24.9
16	580-2900	0.5-2.0	0.5-5.0	0.5-6.0	0.5-7.0	0.5-10.8	0.5-24.9
16	740-3700	0.5-2.0	0.5-5.0	0.5-6.0	0.5-7.0	0.5-10.8	0.5-24.9
24	1420-7100	0.5-2.0	0.5-5.0	0.5-6.0	0.5-7.0	0.5-10.8	0.5-24.9



Upstream and Downstream
Concentric Ring Sensing
Port Configuration



Patent No. 4,453,419

- Patented Flo-Cross® (Patent No. 4,453,419) is accurate to $\pm 5\%$ throughout the cataloged operating range
- Sensing arms sample the inlet cross section mitigating turbulent flow effects
- Barbed fittings positively lock plastic tubing
- 24 total sensing ports provide a differential pressure (ΔP) output proportional to the average duct velocity
- Amplification baffles strengthen ΔP signals to levels three times higher than standard Pitot tube readings
- Center manifolds average velocity profiles and reduce pulsations from dynamic ΔP signals
- Sensing tube constructions eliminates signal loss due to leakage
- Concentric ring sensing port configuration imitates major flow testing standards by locating them at the center of equal areas
- Corrosion resistant aluminum construction



Flo-Cross® Sensor Performance Parameters/Formulas

Size	Area (ft ²)	Cv	K*
04	0.0819	209	2.8
05	0.1296	315	3
06	0.1883	462	2.9
07	0.2578	612	3
08	0.3382	817	2.9
10	0.5319	1250	3
12	0.7691	1792	3
14	1.05	2474	3
16	1.3745	3235	3
24	2.6321	6522	3

- $\text{Flow (CFM)} = C_v \times \sqrt{\Delta P}$

- $\Delta P \text{ (Inches W.G.)} = K \times \left(\frac{\text{FPM}}{4005} \right)^2$

- $\text{FPM} = \frac{\text{CFM}}{\text{Area (sq.ft)}}$

- 500 to 3000 FPM Nominal Velocity Range

* "K" is the amplification factor
Cv=flow coefficient