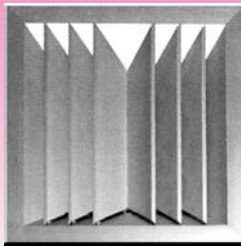
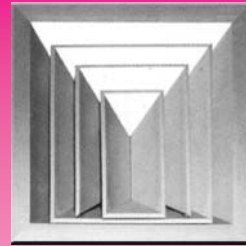


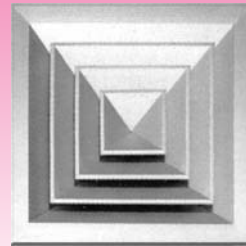
SH.SDI.F1



SH.SDI.F2



SH.SDI.F3



SH.SDI.F4

## FIXED SQUARE CEILING DIFFUSERS & GRILLES

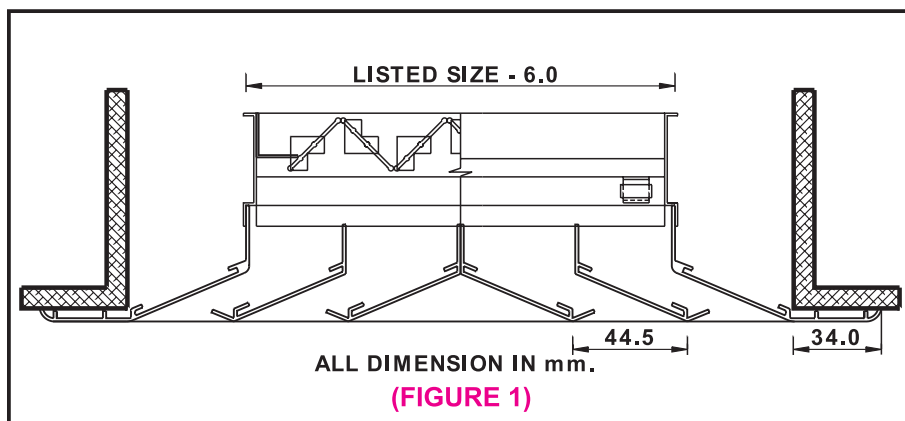
## دریچه های سقفی چهار گوش با پره های ثابت

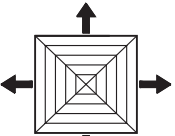
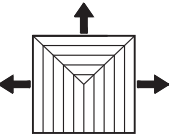
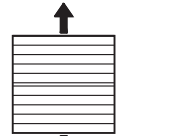
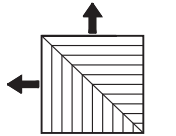
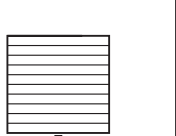
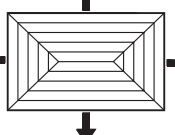
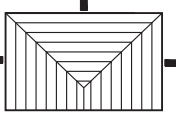
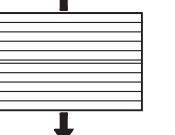
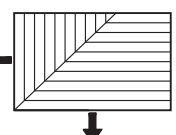
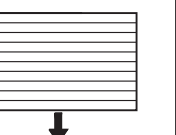
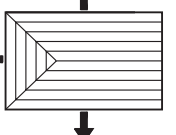
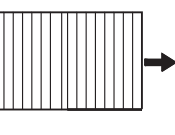
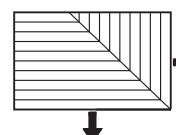
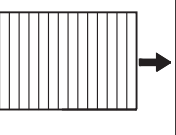
### APPLICATION

Shahrokhi fixed square ceiling diffusers & grilles are designed to suit H.V.A.C applications for ceiling mounting. These diffusers are used for supply, return and exhaust air which provide a stable pattern of horizontal air diffusion flowing through a number of concentrically arranged vanes (figure 1). These vanes are able to provide 1,2,3 or 4 way air flow patterns.

### کاربری

دریچه های سقفی چهار گوش ثابت دمپر دار و بدون دمپر شاهرخی جهت کاربریهای مناسب در صنعت تهویه مطبوع به منظور نصب در سقف طراحی شده اند. این دریچه ها جهت هوای رفت، برگشت و تخلیه استفاده می شوند که پخش جریان یکنواخت هوا را به صورت افقی توسط پره های متوالی هم مرکز انجام می دهند (شکل ۱). این پره ها قابلیت پخش هوا را در جهت های یک الی چهار طرف دارند (شکل ۲).



	SH.SDI.F4	SH.SDI.F3	SH.SDI.F2		SH.SDI.F1
RECTANGULAR	 TYPE (A)	 TYPE (A)	 TYPE (A)	 TYPE (D)	 TYPE (A)
	 TYPE (B)	 TYPE (B)	 TYPE (B)	 TYPE (E)	 TYPE (B)
SQUARE		 TYPE (C)	 TYPE (C)	 TYPE (F)	 TYPE (C)

(FIGURE 2)

## DESCRIPTION

Shahrokhi fixed square ceiling diffusers install easily over the square duct or round duct with an adaptor (figure 18). In these diffusers high air diffusion flowing under ceiling results in rapid temperature and velocity equalization of the mixed air mass.

## FRAME

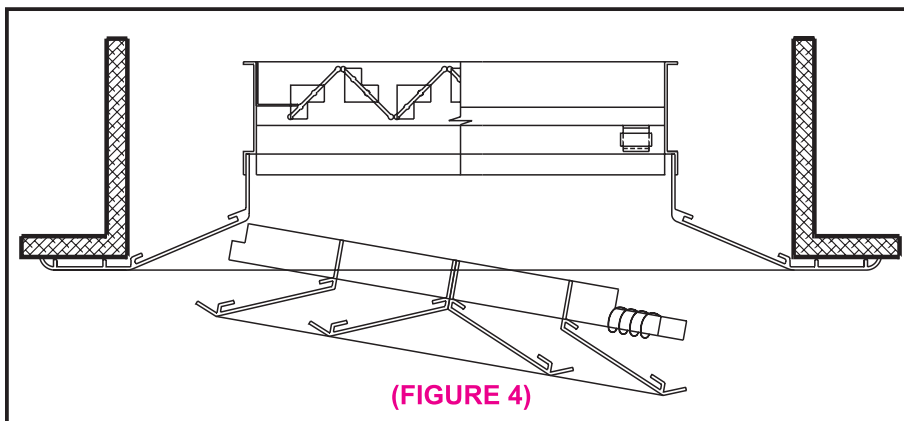
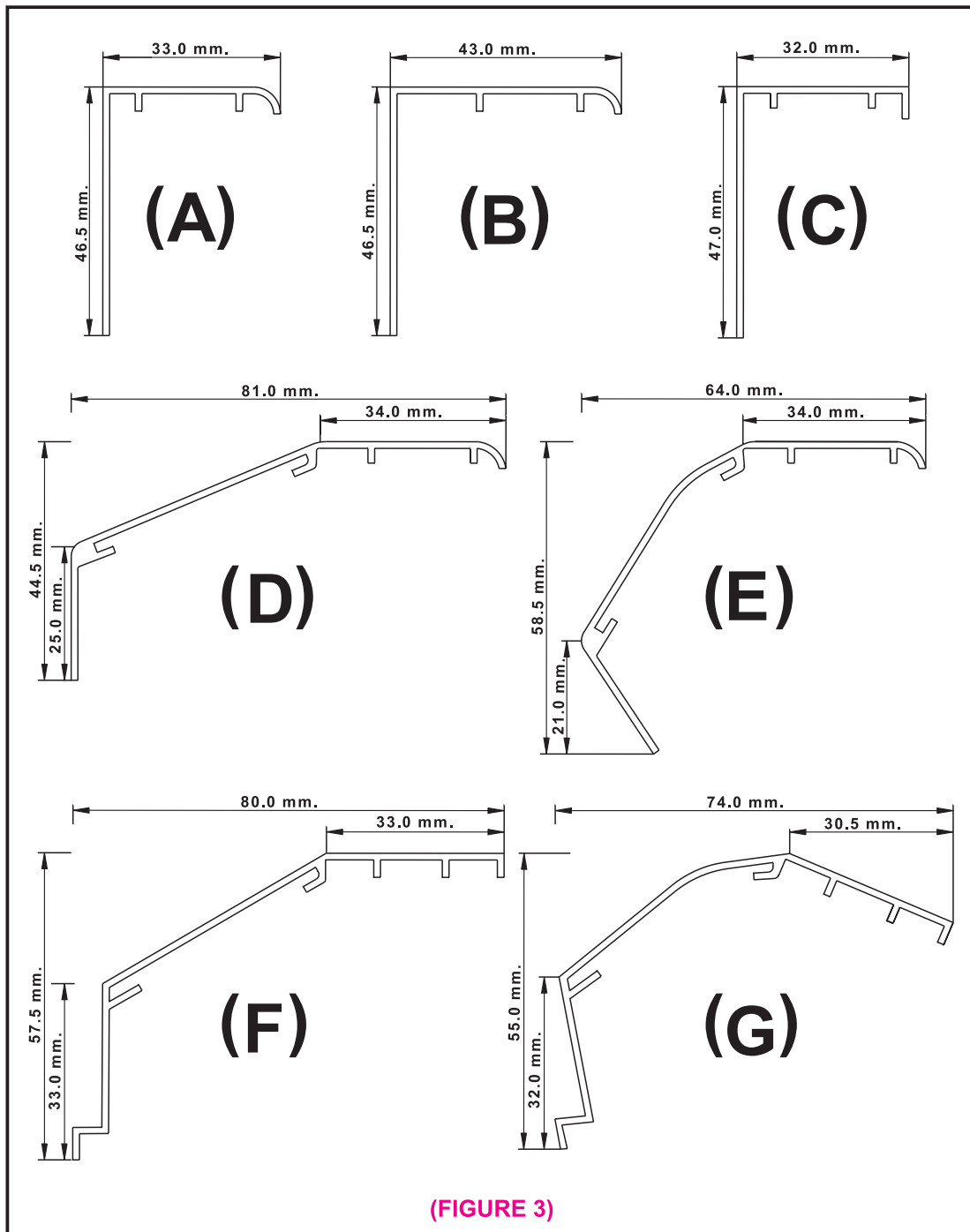
Seven types of frame are available up on request (figure 3). Select the type of frame is relative to installation of diffusers location. This ability exists in (D,E,F,G) types which internal concentrically arranged vanes come out of frame for installation , adjust damper and cleaning (Figure 4). Either is possible to adjust damper with creation of a hole in internal vanes(Figure 5).

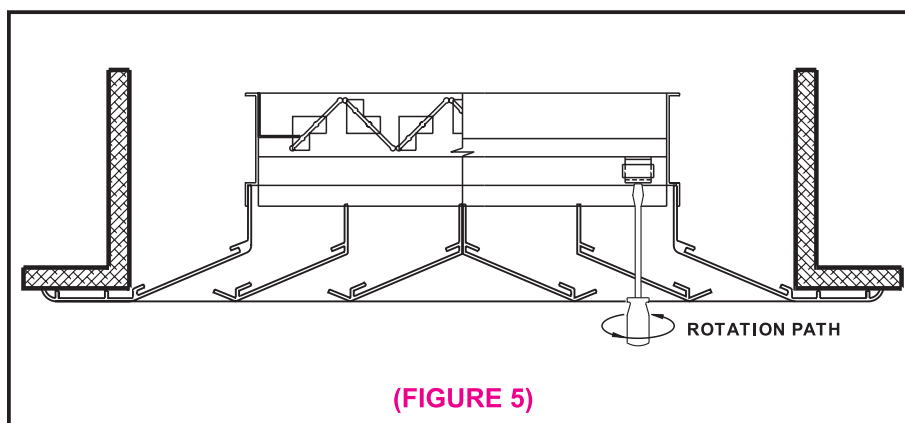
## توضیحات

دریچه های سقفی چهار گوش ثابت شاهرخی به آسانی روی کانال چهار گوش یا توسط یک تبدیل روی کانال گرد نصب می شوند (شکل ۱۸). در این نوع دریچه ها میزان بالای پخش هوا در فضای زیر سقف باعث می شود درجه حرارت و سرعت هوای مخلوط سریعاً متعادل شود.

## قاب

هفت نوع قاب (شکل ۳) بنا به درخواست در دسترس می باشد. انتخاب نوع قاب به محل نصب دریچه ها بستگی دارد. این قابلیت در انواع (D,E,F,G) وجود دارد که پره های داخلی از قاب جهت نصب دریچه. تنظیم دمپر و شستشو بیرون آیند (شکل ۴). همچنین می توان از طریق ایجاد یک حفره در پره های داخلی، دمپر را تنظیم نمود (شکل ۵).





(FIGURE 5)

### MATERIAL & FINISH

High quality 1.25mm. thickness extruded aluminium profile in matt aluminium anodized finish for frames and vanes. White polyester liquid or powder coating finish is also available or any other specified color with raul code upon requirement.

### ORDERING CODE

Shahrokhi fixed square ceiling diffusers & grilles are specified with following ordering code.

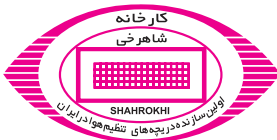
### مواد و رنگ

قابها و پره‌ها از پروفیل آلومینیوم کششی به ضخامت ۱٫۲۵ میلیمتر با روکش آنادایز شده آلومینیوم با کیفیت مناسب تهیه می‌شوند. این امکان وجود دارد که رنگ آمیزی نهایی به روش پاشش رنگ مایع یا پودری (الکترواستاتیک) با استفاده از پلی‌استر سفید یا هر رنگ دیگری با شماره رال مشخص با توجه به نیاز انجام شود.

### کد سفارش

دریچه‌های سقفی چهارگوش ثابت دمپر دار و بدون دمپر شاهرخی با کد سفارش زیر مشخص می‌شوند.

SH.SDI.T-W x H x k	
SH :	کارخانه شاهرخی
SDI :	دریچه سقفی چهارگوش
T :	نوع دریچه : F1 : یکطرفه ثابت
	F2 : دو طرفه ثابت
	F3 : سه طرفه ثابت
	F4 : چهارطرفه ثابت
W x H x k :	جهت پره ها (شکل ۲) x (اینچ) ارتفاع x (اینچ) عرض
SH :	Shahrokhi manufacture
SDI :	Square ceiling diffuser
T : type :	F1 : One way fixed type
	F2 : Two way fixed type
	F3 : Three way fixed type
	F4 : Four way fixed type
WxHxk :	Width (inch) x Height (inch) x Vanes way (Figure 2)



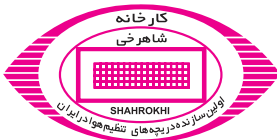
ENGINEERING PERFORMANCE DATA

جدول محاسبات دریچه‌های سقفی چهارگوش ثابت (هوای رفت)

SH.SDI.F (SUPPLY)

SIZE (in/in)	FLOW RATE c.f.m.	NECK VEL. f.p.m.	ΔP in.w.g.	N.C.	SH.SDI.F4				SH.SDI.F3				SH.SDI.F2				SH.SDI.F1											
					SIDE		SIDE THROW		SIDE		SIDE THROW		SIDE		SIDE THROW		SIDE		SIDE THROW									
					c.f.m.		MIN	MAX	c.f.m.		MIN	MAX	c.f.m.		MIN	MAX	c.f.m.		MIN	MAX								
					A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B								
6"x6" [0.25]	50	200	0.010	<18	13	13	4	4	7	7	19	13	5	4	12	7	-	25	-	7	-	11	-	50	-	13	-	17
	75	300	0.026	<18	19	19	5	5	9	9	28	19	7	5	13	9	-	38	-	9	-	13	-	75	-	14	-	19
	100	400	0.046	19	25	25	6	6	11	11	38	25	9	6	14	11	-	50	-	11	-	15	-	100	-	15	-	21
	125	500	0.072	23	31	31	8	8	12	12	47	31	11	8	15	12	-	63	-	12	-	17	-	125	-	16	-	22
	150	600	0.104	27	38	38	9	9	13	13	56	38	12	9	16	13	-	75	-	14	-	19	-	150	-	17	-	24
	175	700	0.142	32	44	44	10	10	14	14	66	44	13	10	17	14	-	88	-	14	-	20	-	175	-	18	-	26
	200	800	0.186	36	50	50	11	11	15	15	75	50	14	11	19	15	-	100	-	15	-	21	-	200	-	19	-	28
	225	900	0.230	40	56	56	12	12	16	16	84	56	15	12	21	16	-	113	-	16	-	22	-	225	-	20	-	30
9"x9" [0.56]	100	179	0.007	<18	25	25	6	6	11	11	38	25	9	6	13	11	-	50	-	11	-	15	-	100	-	15	-	21
	150	268	0.021	18	38	38	7	7	12	12	56	38	10	7	14	12	-	75	-	12	-	16	-	150	-	17	-	23
	200	357	0.037	20	50	50	9	9	13	13	75	50	11	9	16	13	-	100	-	14	-	18	-	200	-	18	-	26
	250	446	0.058	25	63	63	11	11	15	15	94	63	13	11	17	15	-	125	-	15	-	20	-	250	-	19	-	28
	300	536	0.084	29	75	75	12	12	16	16	113	75	14	12	19	16	-	150	-	16	-	23	-	300	-	21	-	30
	350	625	0.114	33	88	88	13	13	17	17	131	88	15	13	21	17	-	175	-	17	-	25	-	350	-	22	-	31
	400	714	0.148	38	100	100	14	14	18	18	150	100	16	14	22	18	-	200	-	18	-	26	-	400	-	23	-	32
	450	804	0.188	40	113	113	15	15	19	19	169	113	17	15	24	19	-	225	-	19	-	27	-	450	-	25	-	34
12"x12" [1.00]	200	200	0.010	<18	50	50	10	10	14	14	75	50	12	10	16	14	-	100	-	14	-	19	-	200	-	18	-	28
	300	300	0.026	20	75	75	12	12	15	15	113	75	14	12	19	16	-	150	-	16	-	22	-	300	-	21	-	29
	400	400	0.460	26	100	100	14	14	16	16	150	100	16	14	22	18	-	200	-	18	-	24	-	400	-	24	-	33
	500	500	0.072	31	125	125	15	15	18	18	188	125	17	15	23	20	-	250	-	19	-	28	-	500	-	26	-	36
	600	600	0.104	35	150	150	16	16	20	20	225	150	19	16	25	22	-	300	-	21	-	29	-	600	-	28	-	38
	700	700	0.142	40	175	175	17	17	22	22	263	175	20	17	27	23	-	350	-	22	-	31	-	700	-	29	-	41
	800	800	0.186	44	200	200	18	18	23	23	300	200	21	18	29	24	-	400	-	24	-	33	-	800	-	30	-	44
	900	900	0.230	47	225	225	19	19	24	24	338	225	22	19	31	25	-	450	-	26	-	35	-	900	-	31	-	46
15"x15" [1.56]	400	256	0.019	19	100	100	14	14	18	18	150	100	18	14	21	18	-	200	-	19	-	24	-	400	-	22	-	31
	525	337	0.033	25	131	131	17	17	21	21	197	131	19	17	25	20	-	263	-	21	-	28	-	525	-	24	-	36
	650	417	0.050	29	163	163	18	18	22	22	244	163	20	18	27	22	-	352	-	22	-	29	-	650	-	26	-	39
	775	497	0.071	33	194	194	19	19	24	24	291	194	21	19	28	24	-	388	-	23	-	31	-	775	-	27	-	42
	900	577	0.097	36	225	225	20	20	26	26	338	225	22	20	30	27	-	450	-	23	-	32	-	900	-	28	-	47
	1025	657	0.126	42	256	256	21	21	27	27	384	256	23	21	31	28	-	513	-	24	-	34	-	1025	-	29	-	48
	1150	737	0.158	47	288	288	22	22	28	28	431	288	23	22	32	29	-	575	-	25	-	36	-	1150	-	31	-	49
	1275	817	0.193	49	319	319	23	23	29	29	478	319	24	23	33	30	-	638	-	26	-	39	-	1275	-	32	-	51
18"x18" [2.25]	500	222	0.014	<18	125	125	16	16	21	21	188	125	21	16	27	21	-	250	-	23	-	29	-	500	-	28	-	34
	700	311	0.028	25	175	175	21	21	24	24	263	175	22	20	28	24	-	350	-	25	-	31	-	700	-	30	-	36
	900	400	0.046	30	225	225	22	22	27	27	338	225	25	22	31	27	-	450	-	27	-	33	-	900	-	32	-	40
	1100	489	0.069	35	275	275	23	23	29	29	413	275	27	23	32	29	-	550	-	29	-	34	-	1100	-	33	-	43
	1300	578	0.097	39	325	325	25	25	31	31	488	325	28	25	33	30	-	650	-	30	-	36	-	1300	-	35	-	47
	1500	667	0.129	44	375	375	26	26	32	32	563	375	29	26	35	31	-	750	-	31	-	38	-	1500	-	36	-	50
	1700	756	0.167	49	425	425	27	27	33	33	638	425	30	27	36	32	-	850	-	32	-	39	-	1700	-	37	-	53
	1900	844	0.205	52	475	475	29	29	34	34	713	475	31	29	37	33	-	950	-	33	-	41	-	1900	-	39	-	55
21"x21" [3.06]	700	229	0.015	21	175	175	19	19	25	25	263	175	24	20	28	25	-	350	-	28	-	34	-	700	-	34	-	42
	950	310	0.028	26	238	238	23	23	27	27	356	238	27	23	33	27	-	475	-	29	-	37	-	950	-	36	-	45
	1200	392	0.044	30	300	300	26	26	31	31	450	300	29	26	37	32	-	600	-	32	-	40	-	1200	-	38	-	48
	1450	474	0.065	35	363	363	27	27	33	33	544	363	30	27	39	33	-	725	-	34	-	42	-	1450	-	39	-	49
	1700	556	0.090	39	425	425	29	29	36	36	638	425	32	28	40	35	-	850	-	35	-	44	-	1700	-	40	-	51
	1950	637	0.118	44	488	488	30	30	37	37	731	488	34	30	42	38	-	975	-	36	-	45	-	1950	-	41	-	54
	2200	719	0.150	49	550	550	31	31	38	38	825	550	35	31	44	39	-	1100	-	37	-	47	-	2200	-	43	-	56
	2450	801	0.186	54	613	613	33	33	40	40	919	613	36	33	45	40	-	1225	-	38	-	48	-	2450	-	44	-	58





ENGINEERING PERFORMANCE DATA

جدول محاسبات دریچه‌های سقفی چهارگوش ثابت (هوای رفت)

SH.SDI.F (SUPPLY)

SIZE (in/in)	FLOW RATE c.f.m.	NECK VEL. f.p.m.	ΔP in.w.g.	N.C.	SH.SDI.F4				SH.SDI.F3				SH.SDI.F2				SH.SDI.F1											
					SIDE c.f.m.		SIDE THROW		SIDE c.f.m.		SIDE THROW		SIDE c.f.m.		SIDE THROW		SIDE c.f.m.		SIDE THROW									
					A	B	MIN	MAX	A	B	MIN	MAX	A	B	MIN	MAX	A	B	MIN	MAX								
					A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B						
6"x24" [1.00]	250	250	0.018	18	16	109	4	14	7	19	16	118	4	15	7	20	-	125	-	15	-	20	-	250	-	19	-	24
	325	325	0.031	24	20	142	5	15	8	21	20	153	5	16	8	22	-	163	-	16	-	23	-	325	-	20	-	26
	400	400	0.046	29	25	175	5	17	9	23	25	188	5	18	9	24	-	200	-	18	-	25	-	400	-	22	-	28
	475	475	0.066	33	30	208	6	19	10	24	30	223	6	20	10	25	-	238	-	19	-	25	-	475	-	24	-	29
	550	550	0.088	37	34	241	6	19	11	25	34	259	6	20	11	26	-	275	-	21	-	26	-	550	-	25	-	30
	625	625	0.114	40	39	273	7	20	12	26	39	294	7	21	12	27	-	313	-	22	-	28	-	625	-	26	-	32
	700	700	0.142	43	44	306	8	21	13	27	44	329	8	22	13	28	-	350	-	23	-	29	-	700	-	27	-	34
	775	775	0.175	46	48	339	9	22	14	29	48	364	9	23	14	30	-	388	-	24	-	30	-	775	-	29	-	37
9"x12" [0.75]	200	267	0.021	19	38	62	6	10	12	15	37	82	6	12	12	17	-	100	-	13	-	18	-	200	-	17	-	22
	250	333	0.033	20	47	78	7	11	13	17	47	102	7	13	13	18	-	125	-	14	-	19	-	250	-	18	-	24
	300	400	0.046	25	57	93	9	13	14	18	56	122	9	14	14	19	-	150	-	15	-	20	-	300	-	19	-	26
	350	467	0.063	27	66	109	11	14	15	19	65	143	11	15	15	20	-	175	-	16	-	21	-	350	-	20	-	27
	400	533	0.083	31	76	124	11	15	16	20	75	163	11	16	16	21	-	200	-	17	-	22	-	400	-	20	-	28
	450	600	0.104	34	85	140	12	15	17	20	84	184	12	17	17	22	-	225	-	18	-	23	-	450	-	21	-	29
	500	667	0.129	37	94	156	13	16	18	21	93	204	13	18	18	23	-	250	-	19	-	24	-	500	-	22	-	30
	550	733	0.157	40	104	171	14	16	18	22	103	224	14	18	18	24	-	275	-	19	-	25	-	550	-	23	-	32
9"x15" [0.94]	250	266	0.021	19	37	88	6	12	12	17	37	107	6	13	17	18	-	125	-	14	-	19	-	250	-	18	-	23
	325	346	0.035	22	49	114	8	14	13	19	49	139	9	15	19	20	-	163	-	16	-	21	-	325	-	19	-	25
	400	426	0.053	27	60	140	10	15	14	20	60	171	10	16	20	21	-	200	-	17	-	22	-	400	-	20	-	27
	475	505	0.074	32	71	166	11	16	15	21	71	203	11	17	21	22	-	238	-	18	-	23	-	475	-	21	-	29
	550	585	0.099	35	82	193	12	17	16	22	82	235	12	18	22	23	-	275	-	19	-	24	-	550	-	22	-	32
	625	665	0.129	37	93	219	13	18	17	23	93	267	13	19	23	24	-	313	-	19	-	25	-	625	-	22	-	33
	700	745	0.162	41	105	245	13	18	18	23	105	299	13	19	23	25	-	350	-	20	-	26	-	700	-	23	-	35
	775	824	0.197	44	116	272	14	19	19	24	116	331	14	20	24	26	-	388	-	20	-	27	-	775	-	24	-	36
9"x18" [1.13]	250	221	0.013	<18	31	94	6	13	12	18	31	109	6	14	12	19	-	125	-	15	-	20	-	250	-	19	-	25
	350	310	0.028	22	44	131	7	14	13	19	44	153	7	15	13	20	-	175	-	16	-	21	-	350	-	20	-	26
	450	398	0.046	28	56	169	9	16	14	21	56	197	9	17	14	22	-	225	-	17	-	23	-	450	-	21	-	29
	550	487	0.069	33	68	207	11	17	16	22	68	241	11	18	16	23	-	275	-	18	-	25	-	550	-	22	-	32
	650	575	0.096	35	81	244	12	18	17	23	81	285	12	19	17	25	-	325	-	19	-	26	-	650	-	23	-	34
	750	664	0.128	41	93	282	13	18	18	24	93	328	13	19	18	26	-	375	-	20	-	27	-	750	-	24	-	36
	850	752	0.165	46	106	319	13	19	19	25	106	372	13	20	19	27	-	425	-	21	-	28	-	850	-	25	-	38
	950	841	0.204	48	118	357	14	19	19	26	118	416	14	20	19	27	-	475	-	21	-	29	-	950	-	25	-	39
9"x21" [1.31]	325	248	0.018	18	35	128	6	14	12	19	35	145	6	15	12	20	-	163	-	16	-	21	-	325	-	19	-	26
	425	324	0.031	24	45	167	7	15	13	20	45	190	7	16	13	21	-	213	-	17	-	22	-	425	-	20	-	28
	525	401	0.046	28	56	206	9	17	14	22	56	235	9	18	14	23	-	263	-	18	-	24	-	525	-	21	-	30
	625	477	0.066	31	67	246	13	18	15	23	67	280	11	19	15	25	-	313	-	19	-	25	-	625	-	22	-	33
	725	553	0.089	36	77	285	12	19	16	24	77	325	12	19	19	26	-	363	-	20	-	26	-	725	-	23	-	36
	825	630	0.115	32	88	324	12	19	17	25	88	369	12	20	17	27	-	413	-	20	-	27	-	825	-	24	-	37
	925	706	0.145	41	99	364	13	20	18	26	99	414	13	20	18	28	-	463	-	21	-	29	-	925	-	25	-	39
	1025	782	0.178	45	109	403	14	20	19	27	109	459	14	21	19	29	-	513	-	21	-	30	-	1025	-	25	-	40
9"x24" [1.50]	350	233	0.015	18	33	142	6	15	12	20	33	159	6	16	12	21	-	175	-	17	-	22	-	350	-	20	-	27
	475	317	0.029	24	44	193	7	16	13	21	44	215	7	17	13	22	-	238	-	18	-	23	-	475	-	22	-	28
	600	400	0.046	30	56	244	9	18	14	23	56	272	9	19	14	24	-	300	-	20	-	25	-	600	-	24	-	31
	725	483	0.068	34	68	295	11	19	16	24	68	329	11	20	16	25	-	363	-	21	-	26	-	725	-	25	-	33
	850	567	0.093	39	79	346	12	20	17	25	79	385	12	21	17	26	-	425	-	22	-	27	-	850	-	27	-	35
	975	650	0.123	43	91	397	13	20	18	26	91	442	13	21	18	27	-	488	-	23	-	28	-	975	-	28	-	37
	1100	733	0.157	47	103	447	14	21	19	27	103	499	14	22	19	28	-	550	-	23	-	29	-	1100	-	29	-	38
	1225	817	0.193	51	114	498	15	21	20	28	114	555	15	22	20	29	-	613	-	24	-	30	-	1225	-	30	-	40





ENGINEERING PERFORMANCE DATA

جدول محاسبات دریچه‌های سقفی چهارگوش ثابت (هوای رفت)

SH.SDI.F (SUPPLY)

SIZE (in/in) NECK AREA (sq.ft)	FLOW RATE c.f.m.	NECK VEL. f.p.m.	ΔP in.w.g.	N.C.	SH.SDI.F4								SH.SDI.F3								SH.SDI.F2								SH.SDI.F1							
					SIDE				SIDE THROW				SIDE				SIDE THROW				SIDE				SIDE THROW				SIDE				SIDE THROW			
					c.f.m.		MIN		MAX		c.f.m.		MIN		MAX		c.f.m.		MIN		MAX		c.f.m.		MIN		MAX		c.f.m.		MIN		MAX			
					A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B				
12"x15" [1.25]	300	240	0.016	<18	34	116	6	14	12	19	34	133	6	15	12	20	-	150	-	16	-	21	-	300	-	19	-	24								
	400	320	0.030	23	45	155	8	15	13	20	45	178	8	16	13	21	-	200	-	17	-	22	-	400	-	20	-	26								
	500	400	0.046	28	56	194	9	17	14	22	56	222	9	17	14	23	-	250	-	18	-	23	-	500	-	21	-	30								
	600	480	0.067	32	67	233	10	18	15	23	67	266	10	18	15	25	-	300	-	19	-	24	-	600	-	22	-	32								
	700	560	0.091	35	78	272	11	18	17	24	78	311	11	18	17	26	-	350	-	20	-	25	-	700	-	23	-	35								
	800	640	0.119	38	90	310	12	19	18	25	90	355	12	19	18	27	-	400	-	20	-	26	-	800	-	24	-	37								
	900	720	0.151	42	101	349	13	19	19	26	101	400	13	20	19	28	-	450	-	21	-	28	-	900	-	25	-	39								
	1000	800	0.186	45	112	388	14	20	19	27	112	444	14	21	19	29	-	500	-	21	-	30	-	1000	-	25	-	40								
12"x18" [1.50]	350	233	0.015	<18	33	142	6	15	12	20	33	159	6	16	12	21	-	175	-	17	-	22	-	350	-	20	-	26								
	475	317	0.029	24	44	193	7	17	13	22	44	215	7	17	13	22	-	238	-	17	-	23	-	475	-	21	-	29								
	600	400	0.046	29	56	244	9	18	14	23	56	272	9	18	14	24	-	300	-	18	-	24	-	600	-	22	-	33								
	725	483	0.068	32	68	295	11	19	16	24	68	329	11	19	16	26	-	363	-	20	-	26	-	725	-	23	-	35								
	850	567	0.093	36	79	346	12	20	17	26	79	385	12	20	17	27	-	425	-	21	-	28	-	850	-	24	-	37								
	975	650	0.123	40	91	397	13	20	18	27	91	442	13	21	18	28	-	488	-	21	-	29	-	975	-	25	-	39								
	1100	733	0.157	44	103	447	13	21	18	29	103	499	13	21	18	30	-	550	-	22	-	31	-	1100	-	26	-	40								
	1225	817	0.193	48	114	498	14	21	19	30	114	555	14	22	19	31	-	613	-	22	-	33	-	1225	-	27	-	42								
12"x21" [1.75]	400	229	0.015	20	32	168	6	17	12	22	32	184	6	17	12	22	-	200	-	17	-	23	-	400	-	21	-	28								
	550	314	0.029	24	44	231	7	17	13	23	44	253	7	18	13	23	-	275	-	18	-	24	-	550	-	22	-	30								
	700	400	0.046	30	56	294	9	18	14	24	56	322	9	19	14	24	-	350	-	19	-	26	-	700	-	23	-	33								
	850	486	0.068	34	68	357	10	19	15	26	68	391	10	20	15	26	-	425	-	20	-	28	-	850	-	24	-	35								
	1000	571	0.095	38	80	420	11	20	16	28	80	460	11	21	16	28	-	500	-	21	-	29	-	1000	-	25	-	39								
	1150	657	0.126	41	92	483	12	21	17	30	92	529	12	22	17	30	-	575	-	22	-	30	-	1150	-	26	-	41								
	1300	743	0.161	46	104	546	13	22	18	31	104	598	13	23	18	32	-	650	-	23	-	31	-	1300	-	27	-	43								
	1450	829	0.199	50	116	609	14	22	19	32	116	667	14	24	19	34	-	725	-	24	-	33	-	1450	-	28	-	44								
12"x24" [2.00]	550	275	0.022	24	69	206	6	18	12	23	69	241	6	18	12	23	-	275	-	18	-	24	-	550	-	21	-	31								
	700	350	0.036	29	88	263	7	18	13	24	88	306	7	19	13	24	-	350	-	19	-	25	-	700	-	22	-	33								
	850	425	0.053	33	106	319	9	19	14	25	106	372	9	20	14	25	-	425	-	20	-	27	-	850	-	24	-	34								
	1000	500	0.072	37	125	375	10	20	15	27	125	438	10	21	15	27	-	500	-	22	-	30	-	1000	-	27	-	39								
	1150	575	0.096	39	144	431	11	21	16	29	144	503	11	22	16	29	-	575	-	23	-	31	-	1150	-	28	-	41								
	1300	650	0.123	43	163	488	12	22	17	30	163	569	12	23	17	31	-	650	-	24	-	33	-	1300	-	29	-	43								
	1450	725	0.153	46	181	544	13	23	18	31	181	634	13	24	18	32	-	725	-	25	-	36	-	1450	-	30	-	45								
	1600	800	0.186	50	200	600	14	24	19	33	200	700	14	25	19	34	-	800	-	26	-	39	-	1600	-	32	-	47								
15"x18" [1.88]	450	239	0.016	18	94	131	14	17	18	21	94	178	14	19	18	24	-	225	-	20	-	26	-	450	-	23	-	34								
	600	319	0.030	24	125	175	17	18	19	23	125	238	17	19	19	25	-	300	-	21	-	27	-	600	-	24	-	36								
	750	399	0.046	29	156	219	18	19	22	25	156	297	18	20	22	27	-	375	-	22	-	30	-	750	-	26	-	40								
	900	479	0.067	33	187	263	19	21	24	27	187	356	19	22	24	30	-	450	-	23	-	33	-	900	-	28	-	43								
	1050	559	0.091	36	218	307	20	22	26	29	218	416	20	23	26	32	-	525	-	24	-	35	-	1050	-	29	-	46								
	1200	638	0.118	40	250	350	20	22	27	31	250	475	20	23	27	34	-	600	-	24	-	37	-	1200	-	30	-	48								
	1350	718	0.150	44	281	394	21	23	28	32	281	535	21	24	28	36	-	675	-	25	-	39	-	1350	-	31	-	49								
	1500	798	0.185	47	312	438	21	24	29	34	312	594	21	24	29	37	-	750	-	26	-	40	-	1500	-	32	-	51								
15"x21" [2.19]	525	240	0.016	19	94	169	14	17	18	22	94	216	14	18	18	23	-	263	-	19	-	24	-	525	-	23	-	32								
	700	320	0.030	24	125	225	16	18	19	23	125	288	16	19	19	24	-	350	-	20	-	25	-	700	-	25	-	35								
	875	400	0.046	29	156	281	18	19	22	25	156	360	18	20	22	26	-	438	-	21	-	28	-	875	-	27	-	39								
	1050	479	0.067	34	188	337	19	21	25	28	187	432	19	22	25	29	-	525	-	23	-	32	-	1050	-	29	-	43								
	1225	559	0.091	37	219	393	20	22	26	30	218	504	20	23	26	31	-	613	-	24	-	33	-	1225	-	31	-	46								
	1400	639	0.119	41	250	450	21	23	27	31	250	576	21	24	27	32	-	700	-	25	-	35	-	1400	-	33	-	48								
	1575	719	0.150	45	282	506	21	24	28	33	281	648	21	25	28	34	-	788	-	26	-	39	-	1575	-	35	-	52								
	1750	799	0.186	48	313	562	22	25	29	35	312	720	22	26	29	37	-	875	-	28	-	41	-	1750	-	37	-	56								



ENGINEERING PERFORMANCE DATA

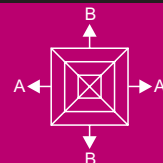
جدول محاسبات دریچه های سقفی چهارگوش ثابت (هوای رفت)

SH.SDI.F (SUPPLY)

SIZE (in.in) NECK AREA (sq.ft)	FLOW RATE c.f.m.	NECK VEL. f.p.m.	ΔP in.w.g.	N.C.	SH.SDI.F4								SH.SDI.F3								SH.SDI.F2								SH.SDI.F1							
					SIDE c.f.m.				SIDE THROW				SIDE c.f.m.				SIDE THROW				SIDE c.f.m.				SIDE THROW				SIDE c.f.m.				SIDE THROW			
					MIN		MAX		MIN		MAX		MIN		MAX		MIN		MAX		MIN		MAX		MIN		MAX		MIN		MAX					
					A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B				
15"x24" [2.5]	600	240	0.016	21	94	206	14	17	18	23	94	253	14	18	18	24	-	300	-	19	-	25	-	600	-	21	-	33								
	800	320	0.030	25	125	275	16	19	19	24	125	338	16	19	19	25	-	400	-	20	-	26	-	800	-	25	-	36								
	1000	400	0.046	30	156	344	18	20	22	26	156	422	18	20	22	27	-	500	-	21	-	28	-	1000	-	27	-	40								
	1200	480	0.067	35	187	413	19	21	24	28	187	506	19	21	24	29	-	600	-	22	-	32	-	1200	-	29	-	44								
	1400	560	0.091	39	218	482	20	22	26	30	218	591	20	23	26	31	-	700	-	24	-	34	-	1400	-	31	-	47								
	1600	640	0.119	43	250	550	20	24	27	32	250	675	30	25	27	33	-	800	-	25	-	36	-	1600	-	34	-	51								
	1800	720	0.151	46	281	619	21	25	28	34	281	760	21	26	28	35	-	900	-	26	-	38	-	1800	-	37	-	55								
	2000	800	0.186	50	312	688	22	26	29	36	312	844	22	27	29	38	-	1000	-	28	-	41	-	2000	-	39	-	59								
18"x21" [2.63]	600	228	0.014	18	129	171	8	11	15	18	129	236	8	12	15	19	-	300	-	13	-	20	-	600	-	16	-	25								
	825	314	0.029	25	177	236	9	13	16	20	177	325	9	14	16	21	-	413	-	15	-	22	-	825	-	18	-	28								
	1050	399	0.046	30	225	300	10	15	17	22	225	413	10	16	17	23	-	525	-	17	-	24	-	1050	-	20	-	31								
	1275	485	0.068	35	273	364	12	17	18	24	273	502	12	18	18	25	-	638	-	18	-	27	-	1275	-	22	-	33								
	1500	570	0.094	40	321	429	14	19	19	26	321	590	14	20	19	27	-	750	-	20	-	31	-	1500	-	24	-	36								
	1725	656	0.125	44	370	493	15	20	21	28	370	679	15	21	21	29	-	863	-	23	-	35	-	1725	-	26	-	39								
	1950	741	0.160	47	418	557	16	22	22	30	418	767	16	23	22	32	-	975	-	25	-	38	-	1950	-	28	-	42								
	2175	827	0.198	51	466	621	17	24	23	33	466	856	17	25	23	35	-	1088	-	27	-	40	-	2175	-	31	-	46								
18"x24" [3.00]	700	233	0.015	19	131	219	8	11	15	19	131	285	8	11	15	20	-	350	-	12	-	21	-	700	-	15	-	25								
	950	317	0.029	26	178	297	9	14	16	21	178	386	9	14	16	22	-	475	-	15	-	23	-	950	-	18	-	27								
	1200	400	0.046	31	225	375	10	16	17	23	225	488	10	16	17	24	-	600	-	17	-	25	-	1200	-	20	-	29								
	1450	483	0.068	36	272	453	12	18	18	24	272	590	12	18	18	26	-	725	-	18	-	27	-	1450	-	22	-	32								
	1700	567	0.093	40	319	531	13	19	19	26	319	691	13	20	19	28	-	850	-	21	-	33	-	1700	-	25	-	35								
	1950	650	0.123	44	366	609	15	21	21	28	366	793	15	21	21	30	-	975	-	23	-	36	-	1950	-	28	-	41								
	2200	733	0.157	47	413	688	17	23	23	31	413	895	17	24	23	32	-	1100	-	26	-	40	-	2200	-	31	-	45								
	2450	817	0.193	52	459	766	18	26	25	34	459	996	18	27	25	35	-	1225	-	29	-	42	-	2450	-	34	-	49								
21"x24" [3.50]	875	250	0.018	21	191	246	12	17	16	21	191	342	12	18	16	22	-	438	-	19	-	23	-	875	-	22	-	26								
	1150	329	0.032	26	251	324	14	19	17	23	251	449	14	20	17	25	-	575	-	21	-	26	-	1150	-	25	-	30								
	1425	407	0.048	30	311	401	15	21	19	25	311	557	15	22	19	27	-	713	-	23	-	29	-	1425	-	27	-	34								
	1700	486	0.068	34	372	478	16	24	20	29	372	664	16	25	20	31	-	850	-	26	-	32	-	1700	-	30	-	38								
	1975	564	0.093	38	432	556	17	26	21	31	432	772	17	27	21	33	-	988	-	28	-	34	-	1975	-	32	-	41								
	2250	643	0.120	42	492	633	18	28	23	33	492	879	18	29	23	37	-	1125	-	30	-	36	-	2250	-	34	-	44								
	2525	721	0.151	47	552	711	19	30	24	35	552	987	19	31	24	39	-	1263	-	32	-	39	-	2525	-	36	-	47								
	2800	800	0.186	51	612	788	20	31	25	37	612	1094	20	33	25	40	-	1400	-	34	-	42	-	2800	-	38	-	51								

NOTES:

SIZE : Is the nominal neck size in inches.  
 ΔP : Supply pressure drop in inches water gage.  
 NECK AREA : Is in square feet.  
 Throw : In feet corresponding to 100 & 50 f.p.m. terminal velocity.  
 NC : Room NC for supply based on 8db room effect.



OUTLET AREA (AK=sq.ft)

w \ H	OUTLET AREA (AK=sq.ft)						
	6	9	12	15	18	21	24
6	0.096	0.144	0.170	0.200	0.240	0.270	0.310
9		0.200	0.260	0.320	0.370	0.430	0.480
12			0.350	0.430	0.500	0.570	0.640
15				0.540	0.610	0.710	0.800
18					0.770	0.860	0.970
21						1.040	1.130
24							1.340

WIDTH (inch)  
 HEIGHT (inch)

RECOMMENDED CFM

CEILING HEIGHT(ft)	MAX CFM PER SIDE
8	250
10	500
12	850
14	1400
16	1800
18	2700

ENGINEERING PERFORMANCE DATA

جدول محاسبات دریچه های سقفی چهارگوش ثابت (هوای برگشت)

SH.SDI.F (RETURN)

SIZE (in/in) NECK AREA (sq.ft)	FLOW RATE c.f.m.	NECK VEL. f.p.m.	ΔP in.w.g.	N.C.	SIZE (in/in) NECK AREA (sq.ft)	FLOW RATE c.f.m.	NECK VEL. f.p.m.	ΔP in.w.g.	N.C.	SIZE (in/in) NECK AREA (sq.ft)	FLOW RATE c.f.m.	NECK VEL. f.p.m.	ΔP in.w.g.	N.C.	SIZE (in/in) NECK AREA (sq.ft)	FLOW RATE c.f.m.	NECK VEL. f.p.m.	ΔP in.w.g.	N.C.	SIZE (in/in) NECK AREA (sq.ft)	FLOW RATE c.f.m.	NECK VEL. f.p.m.	ΔP in.w.g.	N.C.
6"x6" [0.25]	50	200	0.011	<18	24"x24" [4.00]	900	225	0.016	24	6"x24" [1.00]	250	250	0.021	22	12"x15" [1.25]	300	240	0.019	22	15"x24" [2.5]	600	240	0.019	26
	75	300	0.031	18		1250	313	0.034	29		325	325	0.037	24		400	320	0.036	25		800	320	0.036	29
	100	400	0.055	20		1600	400	0.055	34		400	400	0.055	31		500	400	0.055	31		1000	400	0.055	33
	125	500	0.086	24		1950	488	0.082	37		475	475	0.078	35		600	480	0.080	34		1200	480	0.080	37
	150	600	0.125	28		2300	575	0.115	43		550	550	0.106	39		700	560	0.109	37		1400	560	0.109	41
	175	700	0.170	33		2650	663	0.153	50		625	625	0.136	42		800	640	0.143	41		1600	640	0.143	46
	200	800	0.220	37		3000	750	0.195	56		700	700	0.170	45		900	720	0.180	44		1800	720	0.180	49
	225	900	0.270	41		3350	838	0.239	60		775	775	0.208	48		1000	800	0.220	48		2000	800	0.220	53
9"x9" [0.56]	100	179	0.007	18	6"x9" [0.38]	100	263	0.024	<18	9"x12" [0.75]	200	267	0.024	20	12"x18" [1.50]	350	233	0.018	23	18"x21" [2.63]	600	228	0.017	23
	150	268	0.025	19		125	329	0.038	19		250	333	0.039	23		475	317	0.035	27		825	314	0.034	28
	200	357	0.045	22		150	395	0.054	21		300	400	0.055	27		600	400	0.055	32		1050	399	0.055	33
	250	446	0.069	26		175	461	0.074	23		350	467	0.076	29		725	483	0.081	35		1275	485	0.081	37
	300	536	0.100	30		200	526	0.096	26		400	533	0.099	33		850	567	0.112	38		1500	570	0.113	42
	350	625	0.136	34		225	592	0.122	29		450	600	0.125	36		975	650	0.148	43		1725	656	0.150	46
	400	714	0.177	39		250	658	0.151	32		500	667	0.155	39		1100	733	0.187	47		1950	741	0.191	51
	450	804	0.222	42		275	724	0.182	36		550	733	0.187	43		1225	817	0.229	52		2175	827	0.234	55
12"x12" [1.00]	200	200	0.011	19	6"x12" [0.50]	75	150	0.001	<18	9"x15" [0.94]	250	266	0.024	21	12"x21" [1.75]	400	229	0.017	25	18"x24" [3.00]	700	233	0.018	25
	300	300	0.031	23		125	250	0.021	19		325	346	0.042	25		550	314	0.034	28		950	317	0.035	29
	400	400	0.055	29		175	350	0.043	22		400	426	0.063	28		700	400	0.055	33		1200	400	0.055	34
	500	500	0.086	34		225	450	0.071	26		475	505	0.088	33		850	486	0.082	35		1450	483	0.081	38
	600	600	0.125	38		275	550	0.106	31		550	585	0.119	36		1000	571	0.114	39		1700	567	0.112	43
	700	700	0.170	43		325	650	0.148	36		625	665	0.154	39		1150	657	0.151	45		1950	650	0.148	47
	800	800	0.186	47		375	750	0.195	42		700	745	0.193	43		1300	743	0.192	49		2200	733	0.187	51
	900	900	0.270	50		425	850	0.245	48		775	824	0.232	46		1450	829	0.234	53		2450	817	0.226	56
15"x15" [1.56]	400	256	0.022	22	6"x15" [0.63]	150	238	0.019	18	9"x18" [1.13]	250	221	0.015	20	12"x24" [2.00]	550	275	0.026	26	21"x24" [3.50]	875	250	0.021	26
	525	337	0.040	26		200	317	0.035	21		350	310	0.033	24		700	350	0.043	32		1150	329	0.038	30
	650	417	0.060	31		250	397	0.054	27		450	398	0.055	30		850	425	0.063	36		1425	407	0.057	33
	775	497	0.085	36		300	476	0.079	30		550	487	0.082	34		1000	500	0.086	40		1700	486	0.082	37
	900	577	0.116	38		350	556	0.108	34		650	575	0.115	36		1150	575	0.115	42		1975	564	0.111	41
	1025	657	0.151	43		400	635	0.141	38		750	664	0.154	42		1300	650	0.148	45		2250	643	0.144	46
	1150	737	0.189	48		450	714	0.177	41		850	752	0.196	47		1450	72	0.183	49		2525	721	0.181	51
	1275	817	0.229	52		500	794	0.217	46		950	841	0.241	51		1600	800	0.220	53		2800	800	0.220	54
18"x18" [2.25]	500	222	0.015	22	6"x18" [0.75]	200	267	0.024	20	9"x21" [1.31]	325	248	0.021	23	15"x18" [1.88]	450	239	0.019	24		600	319	0.036	27
	700	311	0.034	28		250	333	0.039	24		425	324	0.037	26		750	399	0.055	32					
	900	400	0.055	34		300	400	0.055	28		525	401	0.055	31		900	479	0.079	35					
	1100	489	0.083	38		350	467	0.076	31		625	477	0.079	34		1050	559	0.109	40					
	1300	578	0.116	41		400	533	0.099	34		725	553	0.107	38		1200	638	0.142	43					
	1500	667	0.155	47		450	600	0.125	37		825	630	0.139	42		1350	718	0.179	47					
	1700	756	0.198	53		500	667	0.155	40		925	706	0.173	44		1500	798	0.219	50					
	1900	844	0.242	56		550	733	0.187	45		1025	782	0.211	47		1750	799	0.220	51					
21"x21" [3.06]	700	229	0.017	26	6"x21" [0.88]	200	227	0.016	21	9"x24" [1.50]	350	233	0.018	23	15"x21" [2.19]	525	240	0.019	24		700	320	0.036	27
	950	310	0.033	29		275	313	0.034	24		475	317	0.035	27		875	400	0.055	32					
	1200	392	0.053	34		350	398	0.054	30		600	400	0.055	33		1050	479	0.079	36					
	1450	474	0.078	38		425	438	0.081	34		725	483	0.081	37		1225	559	0.109	40					
	1700	556	0.108	43		500	568	0.113	37		850	567	0.112	41		1400	639	0.143	45					
	1950	637	0.142	47		575	653	0.149	41		975	650	0.148	46		1575	719	0.180	48					
	2200	719	0.180	54		650	739	0.190	45		1100	733	0.187	50		1750	799	0.220	51					
	2450	801	0.221	60		725	824	0.232	50		1225	817	0.229	54										

**SIZE** : Is the nominal neck size in inches.  
**NECK AREA** : Is in square feet.  
**ΔP** : Return pressure drop in inches water gage.  
**NC** : Room NC for return based on 8db room effect.