



ENGINEERING DATA

1560 Series

SIZE	Velocity		400			500			600			700			800			1000		
	Duct Pt		0.011			0.017			0.024			0.034			0.044			0.068		
4x10	Eff. Area .25 ft ²	CFM	76			95			114			133			152			190		
		NC	20			25			30			30			35			35		
		Throw	9	10	11	11	12	13	13	15	17	15.5	18	21	17	21	25	20	25	30
4x12	Eff. Area .29 ft ²	CFM	95			119			143			166			190			238		
		NC	20			25			30			30			35			35		
		Throw	10	11	12	12.5	14	15.5	14.5	17	20	17	20	23	19	24	29	24	30	36
4x14	Eff. Area .34 ft ²	CFM	105			133			162			185			214			266		
		NC	20			25			30			30			35			35		
		Throw	9	10	11	12.5	14	15.5	15.5	18	21	18	21	24	19	24	29	24	30	37
6x8	Eff. Area .29 ft ²	CFM	95			119			143			166			190			238		
		NC	20			25			30			30			35			35		
		Throw	10	11	12	12.5	14	15.5	14.5	17	20	17	20	23	19	24	29	24	30	36
6x10	Eff. Area .38 ft ²	CFM	124			152			181			214			242			337		
		NC	20			25			30			30			35			35		
		Throw	11.5	13	14.5	14.5	16	18	17	20	23	20	23	27	21	26	31	26	32	38
6x12	Eff. Area .44 ft ²	CFM	143			180			219			252			290			361		
		NC	20			25			30			30			35			35		
		Throw	12.5	14	15.5	16	18	20	19	22	25	21	25	29	22	28	34	29	36	43
6x14	Eff. Area .51 ft ²	CFM	166			209			252			295			333			418		
		NC	20			25			30			30			35			35		
		Throw	13.5	15	17	17	19	21	21	23	27	23	27	31	22	27	32	31	42	50
6x16	Eff. Area .59 ft ²	CFM	185			233			280			328			371			466		
		NC	20			25			30			30-35			35-40			40		
		Throw	13.5	15	17	18	20	22	20	24	28	25	29	33	26	33	40	34	42	50
8x8	Eff. Area .40 ft ²	CFM	124			152			181			214			242			337		
		NC	20			25			30			30-35			35			35-40		
		Throw	12	13	14.5	14.5	16	18	17	20	23	20	23	27	21	26	31	26	32	38



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SIZE	Velocity		400			500			600			700			800			1000		
	Duct Pt		0.011			0.017			0.024			0.034			0.044			0.068		
8x10	Eff. Area .50 ft ²	CFM	162			200			238			280			318			399		
		NC	20			25			30-35			30-35			35-40			40		
		Throw	13	14	15.5	15.5	17	19	20	23	27	23	27	31	24	30	36	31	39	47
8x12	Eff. Area .58 ft ²	CFM	200			252			304			352			404			504		
		NC	20			25			30-35			30-35			35-40			40		
		Throw	14.5	16	18	18	20	22	21	25	29	26	30	35	28	35	42	37	46	55
8x14	Eff. Area .69 ft ²	CFM	228			285			342			399			456			570		
		NC	20			25			30-35			30-35			35-40			40		
		Throw	17	19	21	21	23	25	24	28	32	27	32	37	30	37	44	39	48	58
8x16	Eff. Area .80 ft ²	CFM	261			328			394			461			523			656		
		NC	20			25			30-35			30-35			35-40			40		
		Throw	18	20	22	23	26	29	26	30	35	30	35	40	32	40	48	40	50	60
10x10	Eff. Area .63 ft ²	CFM	200			252			304			352			404			504		
		NC	20			25			30-35			30-35			35-40			40		
		Throw	14.5	16	18	18	20	22	21	25	29	26	30	35	28	35	42	37	46	55
10x12	Eff. Area .75 ft ²	CFM	247			309			371			432			494			618		
		NC	20			25			30-35			30-35			35-40			40		
		Throw	15	17	19	21	23	25	25	29	33	28	33	38	31	39	47	38	48	58
10x14	Eff. Area .87 ft ²	CFM	295			371			447			518			594			741		
		NC	20			25			30-35			30-35			35-40			40		
		Throw	18	20	22	24	27	30	27	32	37	32	38	44	35	44	53	42	53	64
10x16	Eff. Area .99 ft ²	CFM	333			418			504			584			670			836		
		NC	20			25			30-35			35			40			45		
		Throw	20	22	24	26	29	32	27	32	37	33	39	45	37	46	55	46	57	68
12x12	Eff. Area .85 ft ²	CFM	295			371			447			518			594			741		
		NC	20			25			30-35			30-35			35-40			40-45		
		Throw	18	20	22	24	27	30	27	32	37	32	38	44	35	44	53	42	53	64



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SIZE	Velocity		400			500			600			700			800			1000		
	Duct Pt		0.011			0.017			0.024			0.034			0.044			0.068		
12x14	Eff. Area 1.1 ft ²	CFM	352			442			532			618			708			884		
		NC	20			25			30-35			35			40			45		
		Throw	21	23	25	26	29	32	30	35	40	35	41	47	38	48	58	47	59	71
12x16	Eff. Area 1.2 ft ²	CFM	409			508			608			713			812			1017		
		NC	20			25			30-35			35			40			45		
		Throw	23	25	28	27	30	33	32	37	43	37	44	51	40	50	60	49	61	73
12x18	Eff. Area 1.4 ft ²	CFM	466			580			694			812			926			1159		
		NC	20			25			30-35			35			40			45		
		Throw	24	27	30	29	32	35	34	40	46	40	47	54	42	53	64	52	65	78
12x24	Eff. Area 1.8 ft ²	CFM	603			755			907			1059			1207			1511		
		NC	20			25			35			35			40			45		
		Throw	26	29	32	33	37	41	37	44	51	42	49	56	45	56	67	54	67	80
14x14	Eff. Area 1.2 ft ²	CFM	409			508			608			713			812			1017		
		NC	20			25			35			35			40			45		
		Throw	23	25	28	27	30	33	32	37	43	37	44	51	40	50	60	49	61	73
14x16	Eff. Area 1.4 ft ²	CFM	466			580			694			812			926			1159		
		NC	20			25			35			35			40			45		
		Throw	24	27	30	29	32	35	34	40	46	40	47	54	42	53	64	52	65	78
14x18	Eff. Area 1.6 ft ²	CFM	541			675			808			945			1078			1349		
		NC	20			25			35			35			40			45		
		Throw	26	29	32	32	35	39	37	43	50	42	49	56	44	55	66	52	65	78
14x20	Eff. Area 1.8 ft ²	CFM	603			755			907			1059			1207			1511		
		NC	20			25			35			35			40			45		
		Throw	26	29	32	33	37	41	37	44	51	42	49	56	45	56	67	54	67	80
16x16	Eff. Area 1.6 ft ²	CFM	544			675			808			945			1078			1349		
		NC	20			25			35			35			40			45		
		Throw	26	29	32	32	35	39	37	43	50	42	49	56	44	55	66	52	65	78

ENGINEERING FOOTNOTES

ENGINEERING FOOTNOTES FOR SHOEMAKER DIFFUSERS & GRILLES:

SIZE: Nominal size or the duct opening / neck size.

EFFECTIVE AREA: The space between the blades actually utilized by the air.

VELOCITY: The actual velocity of the air through the blades measured with a velometer in at least 4 places.

FILTERVELOCITY: Some velocities higher than 500 FPM will decrease filter effectiveness and possibly blow off agglomerates.

***Special Note:** The 920FG table gives the air flow for different filter grilles at 2 CFM per square inch of filter with allowance for the blockage caused by the grille.*

DUCT PT: The total pressure behind the diffuser in the duct forcing that air through the diffuser.

DUCT PS: The static pressure in the duct directly behind the grille or neck of the T-Bar grille. The static load on the fan chargeable against that grille. Velometer readings are taken between grille vanes giving actual velocity.

THROW: The throws noted in the tables are the distances from the diffuser to where the air stream velocity has dropped to not under 100/75/50 F.P.M.

NOISE CRITERIA:

NC "A" scale.

- (1) Below NC25 extremely quiet.
- (2) Below NC30 Quiet Office.
- (3) Below NC35 Conference Rooms; normal voice 10-30 ft.
- (4) Below NC40 Conference Rooms; 6-12 ft. normal voice.
- (5) NC45 Conference Rooms; 3-6 ft. normal voice.

NOISE CRITERIA addition for RD series:

The NC values are based on a room absorption of 18 db, re 10-13 watts.

NOISE CRITERIA addition for OBR – Damper Throttling:

- ¼ Closed – 5
- ⅓ Closed – 10
- ½ Closed – 15