HL Series

SIZE	VELOCITY		400			500			600			700			800			900			1000			1200			1400			1600		
	DUCT PT.		0.02			0.035			0.044			0.061			0.078			0.095			0.119			0.175			0.201			0.256		
6x6	Eff. Area .195 ft²	CFM	90			100			120			130			150			170			190			230			270			300		
		NC	<20			<20			<20			<20			20			20-25			25			30-35			35			40		
		Throw (ft.)	2	2	2	3	3	3	2	3	3	3	4	4	3	4	5	4	6	6	4	6	7	6	7	8	7	8	9	7	9	11
7x7	Eff. Area .270 ft²	CFM	110			130			150			190			210			230			260			310			360			500		
		NC	<20			<20			<20			<20			20			20-25			25			30-35			35-40			40-45		
		Throw (ft.)	3	3	3	4	4	4	4	6	6	4	6	7	6	7	8	7	8	9	7	9	11	8	10	12	10	12	14	11	14	16
8x8	Eff. Area .344 ft²	CFM	140			170			200			240			280			310			350			400			470			540		
		NC	<20			<20			<20			20			20			25			30-35			35-40			40			45		
		Throw (ft.)	4	4	4	6	6	7	6	7	8	7	8	9	8	9	10	8	10	11	9	11	13	10	13	15	11	14	18	13	17	20
9x9	Eff. Area .441 ft²	CFM	180			210			260			300			340			380			420			500			590			680		
		NC	<20			<20			20			25			30			30-35			35			40			40			45		
		Throw (ft.)	6	6	7	6	7	8	7	8	9	8	9	10	9	10	11	10	11	13	10	12	14	11	14	18	13	17	20	15	19	22
10x10	Eff. Area .540 ft²	CFM	210			260			320			370			420			470			530			640			720			820		
		NC	<20			<20			20			25			30			30-35			35			40			40-45			45-50		
		Throw (ft.)	6	7	7	7	8	9	8	9	10	9	10	11	10	11	13	10	12	14	11	14	17	13	17	19	14	19	22	17	21	25
12x12	Eff. Area .788 ft²	CFM	300			380			440			520			590			670			740			890			1000			1190		
		NC	<20			<20			20-25			25-30			30-35			35			35-40			40-45			45-50			50>		
		Throw (ft.)	6	7	8	7	8	9	8	9	10	9	10	11	10	11	13	11	12	14	11	14	17	13	18	21	15	20	24	19	23	28
14x14	Eff. Area 1.06 ft²	CFM	420			520			620			740			840			940			1050			1240			1470			1660		
		NC	<20			25			30			30-35			35-40			40			40-45			45-50			50>			50>		
		Throw (ft.)	7	8	9	8	9	10	9	10	11	10	12	14	11	13	15	13	15	18	13	17	20	15	18	22	18	22	26	20	25	31
16x16	Eff. Area 1.48 ft²	CFM	560			710			840			990			1125			1275			1410			1675			1980			2250		
		NC	<20			25			30-35			35			35-40			40-45			50			50>			50>			50>		
		Throw (ft.)	10	12	15	11	13	16	12	15	17	13	16	19	15	18	21	16	19	22	18	20	23	19	21	24	21	25	28	23	27	32

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.

FILTER VELOCITY: 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