



# ENGINEERING DATA

115 T & 116 T Series											
SIZE	VELOCITY		300	400	500	600	700	800	900	1000	1200
	DUCT PT.		0.007	0.011	0.017	0.024	0.032	0.044	0.056	0.067	0.095
6x6	Eff. Area .160 ft <sup>2</sup>	CFM	54	68	86	105	123	137	161	173	185
		NC	<20	<20	<20	20	20	25	25	25	30
		Throw (ft.)	3.5   4   4.5	4.5   5   6	5.5   6   6.5	6   7   8	7   8   9	8   10   11	9   11   13	10   12   15	10   13   16
8x8	Eff. Area .275 ft <sup>2</sup>	CFM	89	118	147	182	205	241	268	294	330
		NC	<20	<20	<20	20	20	25	25	30	30
		Throw (ft.)	4.5   5   5.5	5.5   6   7	7   7.5   8.5	7.5   9   10.5	9.5   11   12.5	10   12   14	10.5   13   16	12   15   18	13   16   19
10x10	Eff. Area .421 ft <sup>2</sup>	CFM	134	179	221	263	316	352	407	441	485
		NC	<20	<20	<20	20	20-25	25	25-30	30	30
		Throw (ft.)	5   6   6	6.5   7   8	7.5   8.5   9.5	8.5   10   11.5	10   12   14	12   14   16	13   16   19	14   17   20	15   19   23
12x12	Eff. Area .591 ft <sup>2</sup>	CFM	189	257	321	380	444	499	572	625	675
		NC	<20	<20	20	20	20-25	25	30	30-35	35
		Throw (ft.)	5.5   6   6.5	8   9   10	9.5   10.5   11.5	10   12   14	12   14   16	13.5   16   18	14.5   18   22	16   20   24	17   21   25

# 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