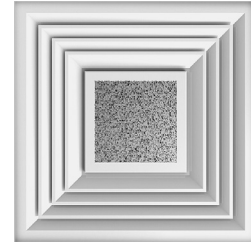


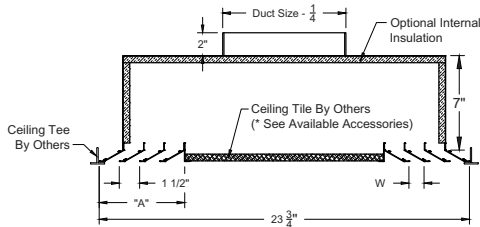
## MODEL 5500DD

Model 5500DD is an architectural diffuser designed to excel in both performance and aesthetic appeal. It is available in both supply and return models.

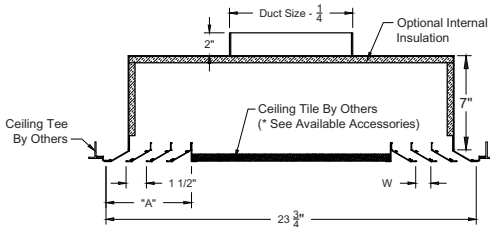


- Design accepts all popular ceiling tiles (by others)
- 4-way air pattern
- Aluminum construction
- Designed to allow the ceiling tile to be installed (by others) from the face without having to remove the plenum. Optional metal face – shipped loose or welded in place
- Available with one through four slots

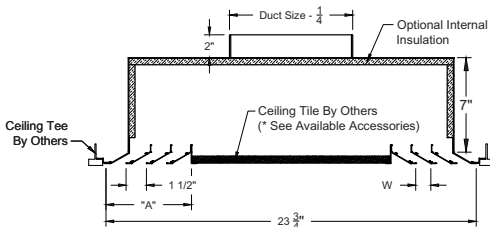
**Model: 5500DD-6 = Lay in T-Bar Non Insulated**  
**Model: 5500DDI-6 = Lay in T-Bar Insulated**



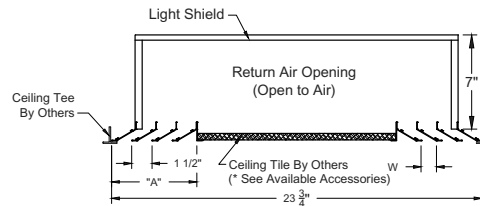
**Model: 5500DD-8 = Tegular T-Bar Non Insulated**  
**Model: 5500DDI-8 = Tegular T-Bar Insulated**



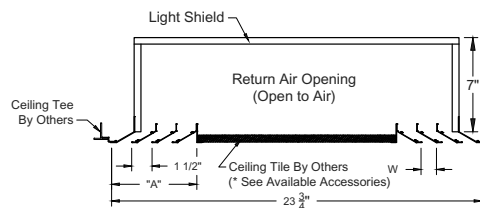
**Model: 5500DD-9 = 24x24 Donn (USG) Ceiling Grid Non Insulated**  
**Model: 5500DDI-9 = 24x24 Donn (USG) Ceiling Grid Insulated**



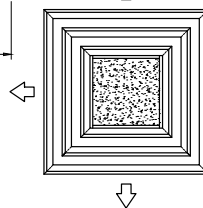
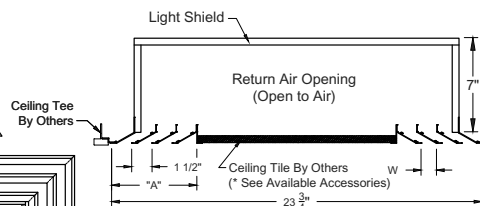
**Model: 5500DDR-6 = Lay in T-Bar**



**Model: 5500DDR-8 = Tegular T-Bar**



**Model: 5500DDR-9 = 24x24 Donn (USG) Ceiling Grid**



**Air Patterns**

Model	Dim W	1 SLOT	2 SLOT	3 SLOT	4 SLOT
		Dimension A			
5500DD	1 1/8	3 5/16	4 13/16	6 5/16	7 13/16

## SERIES 5500DD SPECIFICATION

### SUPPLY LOUVERED FACE — ALUMINUM/SERIES 5500DD (DDI)

#### Insulated / Non-Insulated

5500DDI-6	T-bar Lay-in – Insulated
5500DD-6	T-bar Lay-in
5500DDI-8	Tegular T-bar – Insulated
5500DD-8	Tegular T-bar
5500DDI-9	Donn Finline / Bolt Slot – Insulated
5500DD-9	Donn Finline / Bolt Slot

- Air Diffusers shall be model 5500DDI (insulated) or 5500DD (non-insulated) manufactured by METALAIRE. Units shall be square face ceiling supply diffusers and shall have a factory attached back. Back pan must be of sufficient height to allow center tile (by the ceiling system manufacturer) to be installed from the diffuser face without disconnecting the face from the back pan. Devices without back pan attached to the diffuser face will not be allowed.
- The units shall be the size and quantity as outlined in the plans and specifications.
- Diffuser shall be one through four slots. The diffuser shall be designed to integrate with the ceiling type.

### RETURN SQUARE AND RECTANGULAR LOUVERED FACE — ALUMINUM/SERIES 5500DDR

#### Non-Insulated

5500DDR-6	T-bar Lay-in
5500DDR-8	Tegular T-bar
5500DDR-9	Donn Finline

- Air Inlets shall be model 5500DD manufactured by METALAIRE. Units shall be square face ceiling return or exhaust diffusers and shall have a factory attached light shield. Light shield must be of sufficient height to allow center tile (by the ceiling system manufacturer) to be installed from the diffuser face without disconnecting the face from the back pan. Devices without light shield attached to the diffuser face will not be allowed. The units shall be the size and quantity as outlined in the plans and specifications.

- Diffuser shall be one through four slots. The diffuser shall be designed to integrate with the ceiling type. Face shall have fixed louvers designed to match the appearance of the supply unit.

#### Round Neck Optional Dampers and Accessories

##### BUTTERFLY DAMPER

- METALAIRE model BDS aluminum round butterfly type dampers shall be provided. Damper shall consist of two butterfly style blades that can be adjusted from full open to full closed. Damper shall be adjusted with a screwdriver slot.

##### RADIAL SHUTTER DAMPER

- METALAIRE model RSD steel round radial shutter damper shall be provided. Damper shall consist of gang operated radial blades that slide perpendicular to air flow direction. The damper shall be adjusted from full open to full closed. Damper shall be adjusted with a screwdriver slot.

##### OPPOSED BLADE DAMPER

- METALAIRE model D3 aluminum or SD3 Steel round opposed blade type dampers shall be provided. Damper shall consist of gang operated blades that can be adjusted from full open to full closed. Damper shall be adjusted with a screwdriver slot.

#### Performance Specification

The manufacturer shall provide published performance data. Data shall be tested in accordance to ANSI/ASHRAE Standard 70-2006.

#### Paint Specification

Process shall be anodic electro-deposition using an anodic acrylic paint. Units shall undergo pre-treatment including a pressurized spray stage using an alkaline cleaner and de-ionized water rinse.

## 5500DD MODEL NUMBER SPECIFICATION

### SUPPLY FIXED LOUVERED FACE ARCHITECTURAL DIFFUSER

Model		# Slots	Inlet Size	Module	Available Finishes	
5500DD-6	T-Bar Lay-in	1	6	24 x 24	<b>Standard</b>	
5500DDI-6	T-Bar Lay-in Insulated	2	8		01	White
5500DD-8	Tegular T-Bar	3	10		<b>Optional</b>	
5500DDI-8	Tegular T-Bar Insulated	4	12		02	Satin Silver
5500DD-9	Donn Finline		14		03	Black
5500DDI-9	Donn Finline Insulated		16		28	Custom Color

Available Accessories	
D3	Aluminum Radial Opposed Blade Damper
SD3	Steel Radial Opposed Blade Damper
BDS	Butterfly Damper
RSD	Radial Shutter Damper
TBPF	T-Bar Plaster Frame
CP	Center Metal Panel Loose
CPW	Center Metal Panel Welded

Available Options	
CC	Closed Cell foam insulation
EI	External foil back insulation

## 5500DDR MODEL NUMBER SPECIFICATION

### RETURN FIXED LOUVERED FACE ARCHITECTURAL DIFFUSER

#### MODEL 5500DDR

Model		# Slots	Module	Available Finishes	
5500DDR-6	T-Bar Lay-in	1	24 x 24	<b>Standard</b>	
5500DDR-8	Tegular T-Bar	2		01	White
5500DDR-9	Donn Finline	3		<b>Optional</b>	
		4		02	Satin Silver
				03	Black
				28	Custom Color

## SERIES 5500DD PERFORMANCE DATA

MODEL 5500DD, 5500DDI SUPPLY

1 Slot 24 x 1 8 Inlet	CFM	50	100	150	200	250	300	350
	Pt	0.01	0.03	0.07	0.13	0.20	0.30	0.40
	Ps	0.007	0.024	0.058	0.109	0.168	0.254	0.337
	NC	<20	<20	22	28	33	38	41
	Throw	2-3-5	4-5-7	5-6-9	6-8-10	7-9-12	8-11-14	9-12-16
2 Slot 24 x 2 8 Inlet	CFM	100	150	200	250	300	350	400
	Pt	0.02	0.05	0.08	0.12	0.18	0.24	0.31
	Ps	0.014	0.038	0.059	0.088	0.134	0.177	0.227
	NC	<20	<20	22	28	33	38	41
	Throw	2-3-5	3-5-7	4-6-8	4-7-9	5-8-11	6-9-12	7-10-13
3 Slot 24 x 3 8 Inlet	CFM	150	200	250	300	350	400	450
	Pt	0.03	0.06	0.09	0.13	0.18	0.23	0.30
	Ps	0.018	0.039	0.058	0.084	0.117	0.147	0.194
	NC	<20	<20	25	30	34	38	41
	Throw	3-4-6	4-5-7	4-6-8	5-7-9	5-8-10	6-9-12	7-10-14
4 Slot 24 x 4 8 Inlet	CFM	200	250	300	350	400	450	500
	Pt	0.05	0.08	0.11	0.16	0.20	0.26	0.32
	Ps	0.029	0.048	0.064	0.097	0.117	0.154	0.195
	NC	<20	23	28	32	36	39	42
	Throw	3-4-9	3-5-7	4-6-8	5-7-10	5-8-11	6-9-12	6-10-13
4 Slot 24 x 4 10 Inlet	CFM	250	300	350	400	450	500	550
	Pt	0.061	0.085	0.123	0.151	0.196	0.247	0.298
	Ps	0.48	0.085	0.123	0.151	0.196	0.247	0.298
	NC	20	25	29	33	36	39	41
	Throw	3-5-7	4-6-8	5-7-10	5-8-11	6-9-12	6-10-13	7-10-14

### PERFORMANCE NOTES FOR SERIES 5500DD

All data is tested in accordance with ANSI/ASHRAE 70-2006.

#### DEFINITION OF UNITS

CFM	Cubic Feet per Minute (air)
Throw	Throw distance in feet at terminal velocities of 150fpm, 100fpm and 50fpm
NC	Noise criterion, sound pressure level NC ratings are based on sound power level (Lw) re: 10 <sup>-12</sup> watts minus a 10dB room attenuation in all octave bands
Ps	Static pressure = Pt-Pv (inches of water column)
Pt	Total pressure (inches of water column)
Pv	Velocity pressure (inches of water column)
fpm	Velocity of air stream in Feet per Minute. To determine total pressure for other inlet sizes, divide the CFM by the sq footage of the inlet size (chart above). The result is the duct velocity in fpm. From the Pv chart, determine the Pv and add it to the Ps shown in the performance chart to determine the Pt

## SERIES 5500DDR PERFORMANCE DATA

### MODEL 5500DDR RETURN

1 Slot	CFM	100	125	165	200	225	275
	NC	<20	20	27	25	30	35
	-Ps	-.020	-.030	-.060	-.080	-.100	-.150
2 Slot	CFM	155	190	250	310	345	425
	NC	<20	22	24	27	32	37
	-Ps	-.020	-.030	-.060	-.080	-.100	-.150
3 Slot	CFM	225	275	360	450	505	620
	NC	21	24	25	29	34	38
	-Ps	-.020	-.030	-.060	-.080	-.100	-.150
4 Slot	CFM	295	350	430	590	660	810
	NC	22	25	27	30	35	40
	-Ps	-.020	-.030	-.060	-.080	-.100	-.150

### PERFORMANCE NOTES FOR SERIES 5500DDR

All data is tested in accordance with ANSI/ASHRAE 70-2006.

#### DEFINITION OF UNITS

CFM Cubic Feet per Minute (air)

NC Noise criterion, sound pressure level NC ratings are based on sound power level (Lw) re:  $10^{-12}$  watts minus a 10dB room attenuation in all octave bands

Ps Static pressure =  $P_t - P_v$  (inches of water column)