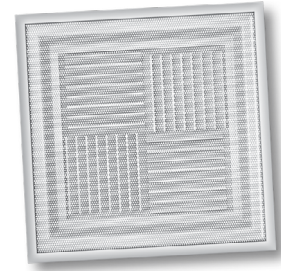


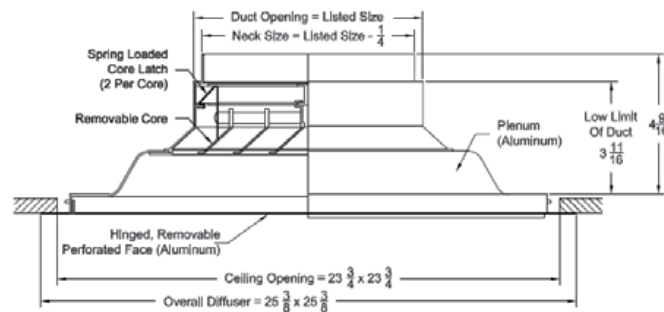
## MODEL 7900

Model 7900 is designed for supply air distribution in applications where modular air pattern adjustability is desired. The perforated face of the diffuser allows for maintaining consistency and uniformity in the ceiling appearance. The cores are spring loaded and can be snapped into the diffuser frame before or after installation without the use of tools and without removing the diffuser from the ceiling.

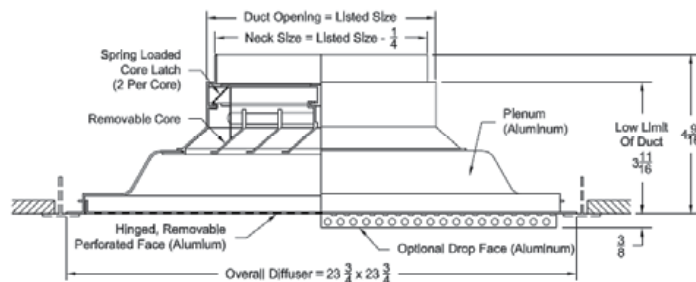


- Aluminum construction
- Modular cores can be field adjusted for 1, 2, 3 and 4-way air patterns
- Perforated face is secured with spring clips for easy removal to access the modular core pattern controllers
- Square Neck

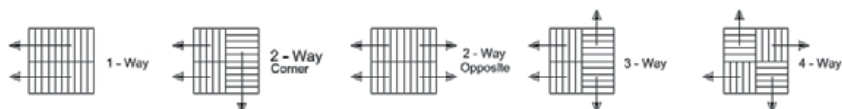
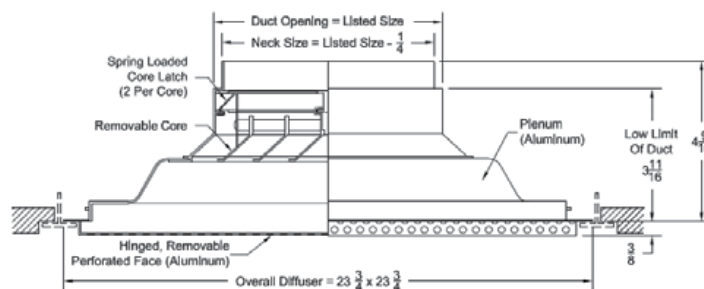
**Models: 7900-1, 7900-1 DF ( Surface Mount )**



**Models: 7900-6 ( Lay In T-Bar )**



**Models: 7900-8 ( Tegral T-Bar )**



Field Adjustable Air Deflection Patterns Obtained By Removing And Rearranging Modular Cores In Frames.

## SERIES 7900 SPECIFICATIONS

### SUPPLY — PERFORATED MODULAR CORE — EXTRUDED ALUMINUM — SQUARE NECK — 1 TO 4 CORES STEEL

- 7900-1 Surface Mounted
- 7900-6 T-bar Lay-in
- 7900-7 Concealed Spline
- 7900-8 Tegular T-bar

- Air Diffusers shall be aluminum model 7900 manufactured by METALAIRE. Units shall consist of aluminum 51% free area perforated face with 3/16" diameter perforated holes on 1/4" staggered centers. Outside border of unit shall be constructed from an aluminum extrusion.
- The perforated face shall be removable allowing access to the adjustable modular core pattern controllers. These are mounted in the neck of the diffuser. Steel modular cores are not acceptable. Face shall be secured in place with tension spring clips. Diffusers shall be field adjustable allowing 1, 2-way opposite, 2-way corner, 3, and 4-way directional air patterns.
- The units shall be the size and quantity outlined in the plans and specifications.
- Units shall be designed to integrate into the specified ceiling system.

### Square Neck Options and Accessories

#### OPPOSED BLADE DAMPER

- METALAIRE model OBDA aluminum and OBD steel 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 screw slot operated that can be accessed through the damper of the diffuser.

#### EQUALIZING GRID

- METALAIRE model L9 aluminum square equalizing grid shall be provided. Equalizing grid shall consist aluminum blades mounting in an aluminum frame.

### Round Neck Optional Dampers and Accessories

#### SQUARE TO ROUND TRANSITIONS

- Units to have square to round transitions allowing installation with round ductwork.

#### 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 that can be accessed through the face of the diffuser.

#### 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 that can be accessed through the face of the diffuser.

#### 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 that can be accessed through the face of the diffuser.

#### EQUALIZING GRID

- METALAIRE model G3 aluminum round equalizing grid shall be provided. Equalizing grid shall consist of 1/2" x 1/2" x 1/2" aluminum cubed core mounting in an aluminum frame.

### 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.

## 7900 MODEL NUMBER SPECIFICATION PERFORATED MODULAR CORE CEILING DIFFUSER — STEEL

Model		Available Neck	Module	Air Pattern	Available Finishes	
7900-1	Surface Mount	6 x 6	12 x 12	S1-1 S4-4	<b>Standard</b>	
		6 x 6			01	White
		8 x 8	20 x 20		<b>Optional</b>	
		10 x 10	24 x 24		02	Satin Silver
		12 x 12	48 x 24		03	Black
		14 x 14			24	Mill
		16 x 16	24 x 24	S4-4	28	Custom Color
		18 x 18	48 x 24		<b>Available Accessories</b>	
		20 x 20	24 x 24		OBD	Steel Opposed Blade Damper
					OBDA	Aluminum Opposed Blade Damper
					L9	Square / Rectangular Equalizing Grid
					TR	Square to Round Transition
					TR Deep	Deep Square to Round Transition

## 7900 MODEL NUMBER SPECIFICATION PERFORATED MODULAR CORE CEILING DIFFUSER — STEEL

CEILING  
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7900

Model		Available Neck	Module	Air Pattern	Available Finishes		
7900-6	T-bar Lay-in	6 x 6	12 x 12	S1-1	<b>Standard</b>		
		6 x 6	20 x 20		01	White	
		8 x 8			<b>Optional</b>		
		10 x 10			24	02	Satin Silver
		12 x 12			48	03	Black
		14 x 14		24	22	Black BP / White Face	
		16 x 16	24 x 24	S4-4	28	Custom Color	
		18 x 18	48 x 24		<b>Available Accessories</b>		
		20 x 20	24 x 24		OBD	Steel Opposed Blade Damper	
					OBDA	Aluminum Opposed Blade Damper	
					L9	Square / Rectangular Equalizing Grid	
				TR	Square to Round Transition		
				TR Deep	Deep Square to Round Transition		

Model		Available Neck	Module	Air Pattern	Available Finishes	
7900-7	Concealed Spine	6 x 6	24 x 24	S1-1	<b>Standard</b>	
		8 x 8			01	White
		10 x 10		S4-4	<b>Optional</b>	
		12 x 12			02	Satin Silver
		14 x 14			03	Black
		16 x 16			22	Black BP / White Face
		18 x 18			28	Custom Color
		20 x 20		S4-4	<b>Available Accessories</b>	
					OBD	Steel Opposed Blade Damper
					OBDA	Aluminum Opposed Blade Damper
					L9	Square / Rectangular Equalizing Grid
					TR	Square to Round Transition
				TR Deep	Deep Square to Round Transition	

## SERIES 7900 PERFORMANCE DATA MODEL 7900 (4 CORE)

Listed Size	Vn Neck Velocity fpm	200		300		400		500		600		700	
	Pt	.020		.045		.080		.125		.180		.245	
	Side Designation	A	B	A	B	A	B	A	B	A	B	A	B
6 x 6	CFM	50		75		100		125		150		175	
	NC	<20		<20		21		27		33		37	
	4-Way Throw	1-3		1-4		2-6		3-9		4-12		5-14	
	3-Way Throw	1-3	2-4	1-4	2-6	2-6	3-8	3-9	4-13	4-12	6-17	5-14	7-20
	2-Way Throw	2-4		2-6		3-8		4-13		6-17		7-20	
	1-Way Throw	2-6		2-8		4-12		6-18		12-24		10-28	
8 x 8	CFM	90		130		175		220		265		310	
	NC	<20		<20		25		30		35		40	
	4-Way Throw	1-3		2-6		3-9		4-12		5-15		6-18	
	3-Way Throw	1-3	2-4	2-6	3-8	3-9	4-13	4-12	6-17	5-15	7-21	6-18	8-25
	2-Way Throw	2-4		3-8		4-13		6-17		7-21		8-25	
	1-Way Throw	2-6		4-12		6-18		8-24		10-30		12-36	
10 x 10	CFM	140		205		275		345		415		485	
	NC	<20		<20		26		32		37		42	
	4-Way Throw	1-3		2-7		3-9		5-15		7-20		8-23	
	3-Way Throw	1-3	2-4	2-7	3-10	3-9	4-13	5-15	7-21	7-20	10-28	8-23	11-32
	2-Way Throw	2-4		3-10		4-13		7-21		10-28		11-32	
	1-Way Throw	2-6		4-14		6-18		10-30		14-40		16-46	
12 x 12	CFM	200		300		400		500		600		700	
	NC	<20		20		28		35		40		45	
	4-Way Throw	1-4		2-7		4-11		6-17		8-23		9-26	
	3-Way Throw	1-4	2-6	2-7	3-10	4-11	6-16	6-17	8-24	8-23	11-32	9-26	13-37
	2-Way Throw	2-6		3-10		6-16		8-24		11-32		13-37	
	1-Way Throw	2-8		4-14		8-22		12-34		16-46		18-52	
14 x 14	CFM	270		405		545		680		815		950	
	NC	<20		21		29		36		41		46	
	4-Way Throw	1-4		3-9		5-15		8-23		10-29		11-33	
	3-Way Throw	1-4	2-6	3-9	4-13	5-15	7-21	8-23	11-32	10-29	14-41	11-33	16-47
	2-Way Throw	2-6		4-13		7-21		11-32		14-41		16-47	
	1-Way Throw	2-8		6-18		10-30		16-46		20-58		22-66	
16 x 16	CFM	355		530		710		885		1070		1245	
	NC	<20		22		30		37		42		46	
	4-Way Throw	1-5		3-9		5-15		8-24		11-32		12-35	
	3-Way Throw	1-5	2-7	3-9	4-13	5-15	7-21	8-24	11-34	11-32	16-45	12-35	17-49
	2-Way Throw	2-7		4-13		7-21		11-34		16-45		17-49	
	1-Way Throw	2-10		6-18		10-30		16-48		22-64		24-70	
18 x 18	CFM	450		670		900		1120		1345		1570	
	NC	<20		23		31		37		43		47	
	4-Way Throw	1-6		3-10		5-16		9-27		12-35		13-39	
	3-Way Throw	1-6	2-8	3-10	4-14	5-16	7-23	9-27	13-38	12-35	17-49	13-39	18-55
	2-Way Throw	2-8		4-14		7-23		13-38		17-49		18-55	
	1-Way Throw	2-11		6-20		10-32		18-54		24-70		26-78	
20 x 20	CFM	560		830		1110		1385		1665		1945	
	NC	<20		24		32		38		44		48	
	4-Way Throw	2-6		3-11		6-18		9-27		12-36		13-39	
	3-Way Throw	2-6	3-8	3-11	4-16	6-18	8-25	9-27	13-38	12-36	17-51	13-39	18-55
	2-Way Throw	3-8		4-16		8-25		13-38		17-51		18-55	
	1-Way Throw	4-12		6-22		12-36		18-54		24-72		26-78	

## SERIES 7900 PERFORMANCE DATA

### MODEL 7900 SINGLE CORE

Single Core Size Inches	Neck	200	300	400	500	600	700
	Outlet Vel	310	460	615	770	925	1080
	Pt	.020	.045	.080	.125	.180	.245
3 x 3	CFM	13	19	25	32	38	44
	Throw	1-3	1-4	2-6	3-9	4-12	5-14
	NC	<20	<20	<20	21	27	31
4 x 4	CFM	22	33	44	56	67	78
	Throw	1-3	2-6	3-9	4-12	5-15	6-18
	NC	<20	<20	<20	24	29	34
5 x 5	CFM	35	52	70	87	104	122
	Throw	1-3	2-7	3-9	5-15	7-20	8-23
	NC	<20	<20	20	26	31	36
6 x 6	CFM	50	75	100	125	150	175
	Throw	2-6	2-8	4-12	6-18	12-24	10-28
	NC	<20	<20	21	27	33	37
7 x 7	CFM	68	102	136	170	204	238
	Throw	2-6	3-9	5-15	7-21	10-27	11-33
	NC	<20	<20	23	28	34	38
8 x 8	CFM	89	133	178	222	267	311
	Throw	2-6	4-12	6-18	8-24	10-30	12-36
	NC	<20	<20	25	30	35	40
9 x 9	CFM	112	169	225	281	337	393
	Throw	2-6	4-13	6-18	9-27	12-35	14-42
	NC	<20	<20	25	31	36	41
10 x 10	CFM	139	208	278	347	416	486
	Throw	2-6	4-14	6-18	10-30	14-40	16-46
	NC	<20	<20	26	32	37	42
11 x 11	CFM	168	252	336	420	504	588
	Throw	2-7	4-14	7-20	11-27	15-43	17-49
	NC	<20	<20	27	33	38	43
12 x 12	CFM	200	300	400	500	600	700
	Throw	2-8	4-14	8-22	12-24	16-46	18-52
	NC	<20	20	28	35	40	45

CEILING  
DIFFUSERS

PERFORATED  
CEILING DIFFUSERS

7900