



---

**ARABIAN THERMAL AIRE INDUSTRIES**  
**NEW RANGE OF TESTED & CERTIFIED**  
**SOUND ATTENUATORS**

---



Arabian Thermal Aire Industries PO Box 10125, Jubail Industrial City, Saudi Arabia-31961

Tel: +966133415857 Fax: +966133411631 email:[info@ataiksa.com](mailto:info@ataiksa.com)



### Introduction:

ATAI is a leading manufacturer within the GCC for the supply of certified sound attenuators. This is achieved through professional engineer design, manufacturing and supply service that we provide to each of our clients, new and old.

This catalog will provide you with our range of ATAI, **Tested & Certified ARAMCO 9 COM** sound attenuator systems. These new attenuators are designed to achieve the required performances as set out in the ASTM Standards E477-06a for prefabricated attenuators.



**“Arabian Thermal Aire Industries Co Ltd, certifies that the attenuators shown herein are licensed to bear the AMCA Seal. The rating shown are based on tests and procedures performed in accordance with AMCA Publication 1011 and comply with requirements of AMCA certified Rating Program. AMCA Certified Rating Seal applies dynamic insertion loss, airflow, generated noise and pressure drop”.**

The following ATAI Sound Attenuator models enclosed within this document have been tested in accordance to **AMCA Certified Ratings Program and are licensed to bear the AMCA Seal.**

### Manufacturing Process

Outer casings of rectangular silencer modules are constructed from of 22 gauge (0.8mm) galvanized steel in accordance with HVAC DW 144 recommended construction for high pressure rectangular duct-work. Seams shall be lock formed and mastic filled. Interior partitions for rectangular silencers shall be made of not less than 24 gauge (0.8mm) galvanized perforated steel. All splitters are aerodynamically bull nosed.

### Infill Material

The infill material will be of inorganic mineral or glass fiber of a density sufficient to obtain the specified acoustic performance and be packed under not less than 5% compression to eliminate voids due to vibration and settling. Materials shall be inert, vermin and moisture proof.

### Accessories

- |   |                                   |
|---|-----------------------------------|
| Slide on flanges                                  | Integral inlet and outlet plenums |
| Casing thicknesses in a range of sizes            | Fire Rated Silencers              |
| Angle flanges                                     | Bend Silencers                    |
| Vertical or horizontal splitter orientation       | Cylindrical Silencers             |
| Removable splitters                               | Crosstalk Silencers               |
| Melinex wrapped infill Glass cloth wrapped infill |                                   |



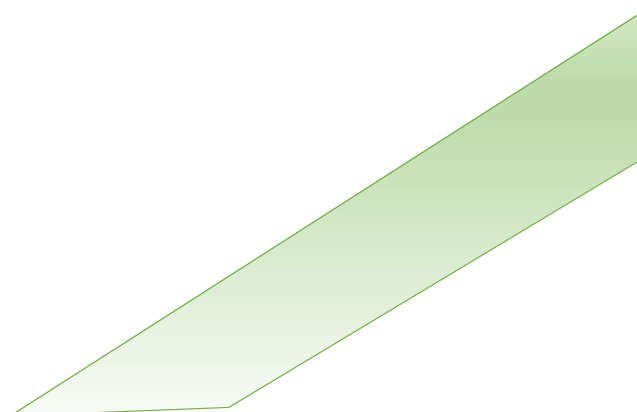
## ATAI ASA F Model Dynamic insertion Loss ,dB

Model & Dimension	Silencer Face Velocity	Pressure Drop	Octave Band Centre Frequency(Hz)							
			63	125	250	500	1K	2K	4K	8K
<b>WXHXL(mm)</b>	<b>M/S</b>	<b>Pa</b>								
ASA 3F Model (600mm x 600mm x 900mm)	-7.62	585	7	11	23	30	30	30	20	16
	-5.08	274	5	10	22	34	34	28	20	17
	-2.5	67	5	9	20	33	45	42	31	24
	0	0	4	8	19	32	40	29	20	18
	2.5	67	3	8	18	30	42	29	20	19
	5.08	274	2	7	17	29	37	29	21	19
	7.62	585	2	6	16	28	30	28	21	19
ASA 4F Model (600mm x 600mm x 1200mm)	-7.62	598	10	16	29	39	38	30	24	18
	-5.08	259	8	15	28	44	44	34	25	19
	-2.5	67	7	14	26	43	54	37	24	20
	0	0	5	12	25	44	53	36	24	21
	2.5	67	5	12	24	43	54	36	28	21
	5.08	259	4	11	23	41	44	36	24	21
	7.62	598	4	10	22	35	36	32	25	21
ASA 6F Model (600mm x 600mm x 1800mm)	-7.62	587	12	22	31	37	36	34	31	29
	-5.08	314	9	19	40	45	41	38	43	34
	-2.5	80	9	18	41	50	49	53	47	35
	0	0	6	16	39	51	54	54	49	38
	2.5	80	6	15	38	50	54	54	49	39
	5.08	314	5	14	31	39	41	45	47	39
	7.62	587	5	13	21	28	29	34	37	37
ASA 7F Model (600mm x 600mm x 2100mm)	-7.62	720	12	25	32	38	38	34	34	32
	-5.08	321	10	23	40	46	4	42	43	37
	-2.5	77	9	21	43	53	54	55	52	38
	0	0	8	18	42	54	55	56	52	41
	2.5	77	7	17	41	51	53	55	52	42
	5.08	321	7	16	32	40	41	45	50	42
	7.62	720	6	14	22	29	30	34	38	40
ASA 9F Model (600mm x 600mm x 2700mm)	-7.62	842	17	31	33	39	37	33	32	31
	-5.08	376	14	29	39	43	38	36	43	42
	-2.5	90	12	27	50	54	54	54	56	44
	0	0	9	22	46	54	56	57	57	46
	2.5	90	8	21	45	51	53	56	56	46
	5.08	376	6	19	31	38	39	43	49	45
	7.62	842	6	17	21	28	29	33	37	37



## ATAI ASA F Model Dynamic Sound Power ,dB

ATAI ASA F Model Dynamic Sound Power ,dB										
Model & Dimension	Silencer Face Velocity	Pressure Drop	Octave Band Centre Frequency(Hz)							
WXHXL(mm)	M/S	Pa	63	125	250	500	1K	2K	4K	8K
ASA 3F Model (600mm x 600mm x 900mm)	-7.62	585	72	67	64	66	68	70	72	65
	-5.08	274	65	61	59	61	63	66	59	53
	-2.5	67	60	45	43	46	46	40	33	25
	2.5	67	52	44	41	43	40	35	27	24
	5.08	274	60	60	56	57	56	64	49	49
	7.62	585	71	69	66	66	66	63	72	61
ASA 4F Model (600mm x 600mm x 1200mm)	-7.62	598	69	61	54	56	59	65	68	63
	-5.08	259	62	51	46	48	54	57	53	46
	-2.5	67	60	43	35	40	44	38	30	24
	2.5	67	61	45	44	45	42	37	27	24
	5.08	259	62	60	48	58	57	55	51	42
	7.62	598	70	70	68	68	67	65	63	57
ASA 6F Model (600mm x 600mm x 1800mm)	-7.62	587	69	62	60	60	61	65	68	64
	-5.08	314	61	54	51	52	56	59	55	49
	-2.5	80	64	45	40	47	46	41	33	25
	2.5	80	58	44	41	40	37	31	22	24
	5.08	314	62	62	58	57	56	54	50	42
	7.62	587	73	72	68	68	67	64	62	57
ASA 7F Model (600mm x 600mm x 2100mm)	-7.62	720	70	61	58	59	59	65	66	63
	-5.08	321	62	52	59	50	54	56	53	48
	-2.5	77	54	40	35	40	42	37	29	24
	2.5	77	59	48	43	43	39	33	23	24
	5.08	321	64	62	58	57	56	53	48	40
	7.62	720	72	73	69	68	67	64	61	55
ASA 9F Model (600mm x 600mm x 2700mm)	-7.62	842	69	59	56	57	60	65	67	63
	-5.08	376	63	52	51	53	58	62	56	50
	-2.5	90	56	40	37	42	44	39	32	24
	2.5	90	59	48	42	41	37	30	21	23
	5.08	376	66	63	59	58	57	55	50	43
	7.62	842	74	73	70	69	67	65	63	57





Face Area Adjustment factors						
Face area M2	0.5	1	2	4	6	16
L <sub>w</sub> Adjustment Factor dB	-3	0	+3	+6	+9	+12

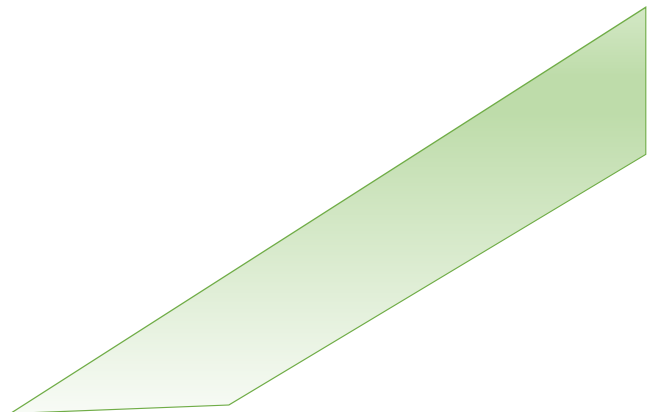
Attenuator model Diagram to be added

ATAI attenuators have been tested and certified following procedures in accordance with applicable sections of ASTM E477, 06-a.

Dynamic Insertion Loss and Self-Noise Acoustic Performance Data were obtained in AMCA, USA test facility using the duct-to-room reverberant test facility with air flowing through the silencers.

**Forward Flow (+)** occurs when noise and air travel in the same direction, as in a typical supply or fan discharge system.

**Reverse Flow (-)** occurs when noise and air travel in opposite directions, as in a typical return or intake.





<b>Aerodynamic Performance Data</b>						
<b>Model</b>			<b>Static pressure drop N/m<sup>2</sup></b>			
<b>ASA 3F</b>			67	274	585	1083
<b>ASA 4F</b>			67	259	598	1049
<b>ASA 6F</b>			80	314	587	1049
<b>ASA 7F</b>			77	321	720	1245
<b>ASA 9F</b>			90	367	842	1500
<b>Width</b>	<b>Height</b>	<b>Silencer Face Area (m<sup>2</sup>)</b>	<b>Air Flows , m<sup>3</sup>/s</b>			
400	300	0.120	0.27	0.61	0.91	1.22
400	450	0.180	0.40	0.91	1.37	1.83
400	600	0.240	0.54	1.22	1.83	2.44
400	750	0.300	0.67	1.52	2.29	3.05
400	900	0.36	0.8	1.82	2.74	3.66
800	450	0.360	0.8	1.82	2.74	3.66
800	600	0.48	1.08	2.43	3.66	4.88
800	750	0.600	1.34	3.05	4.57	6.1
800	900	0.720	1.61	3.66	5.49	7.31
800	1050	0.800	1.79	4.04	6.10	8.13
800	1200	0.960	2.15	4.88	7.32	9.75
800	1350	1.080	2.41	5.49	8.23	10.94
800	1500	1.200	2.69	6.1	9.14	12.19
1200	450	0.540	1.21	2.74	4.11	5.49
1200	600	0.720	1.61	3.66	5.49	7.31
1200	750	0.900	2.02	4.57	6.86	9.14
1200	900	1.080	2.42	5.49	8.23	10.97
1200	1050	1.260	2.82	6.4	9.6	12.8
<b>Static Face Velocity m/s</b>			<b>2.24</b>	<b>5.08</b>	<b>7.62</b>	<b>10.16</b>



Arabian Thermal Aire Industries have a full range of HVAC & Noise control System, listed below are some of the system we provide;

#### HVAC & INDUSTRIAL AIR DISTRIBUTION SYSTEMS

- Duct (Rectangular, Spiral, Flat Oval & Flex Duct).
- Damper (Fire, Fire Smoke damper & Volume Control Damper).
- Louver (Stationary, Sand trap, & Acoustic).
- Access Doors.

#### Noise & Vibration Control

- Acoustic Enclosures.
- Acoustic/Noise Barriers.
- Duct & Pipe Vibration isolation System.
- AHU, Fan, Generators, Chiller Vibration Isolation System.

#### Building Acoustic Systems

- Independent isolated wall system.
- Resiliently Hung isolated Ceiling Systems.
- Floating Acoustic Floors.
- Timber Acoustic Door & Glazed System.

#### Architectural Acoustic Systems

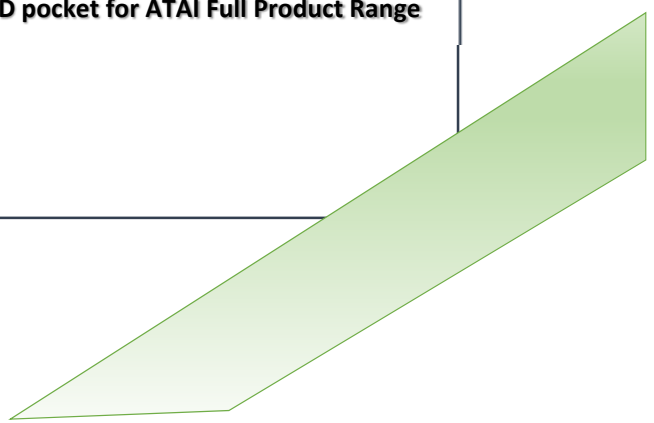
- Timber Wall & Ceiling Panel System.
- Fabric Wall & Ceiling Panel Systems.
- Acoustic Cloud Systems.
- Pro Audio Studio Acoustic Systems.

The ATAI product CD provides our full range of HVAC, Air Distribution and Noise Control system with Our technical specification for each System.

**Business Card Pocket**

**Business Card Pocket**

**CD pocket for ATAI Full Product Range**





## **Contact Information**

### **Arabian Thermal Aire Industries**



#### **Head office Saudi Arabia**

**Address: P.O Box 10125**  
**Jubail Industrial City**  
**31961**  
**Saudi Arabia**  
**Phone: +966122415857**  
**Email: [info@ataiksa.com](mailto:info@ataiksa.com)**  
**Web: [www.ataiksa.com](http://www.ataiksa.com)**

### **ATAIFzc**



#### **UAE Manufacturing Facility**

**Address; Technology Park**  
**P.O Box 9746**  
**Ras Al Khaimah**  
**United Arab Emerites**  
**+97172445977**  
**[info@ataifzc.com](mailto:info@ataifzc.com)**  
**[www.ataifzc.com](http://www.ataifzc.com)**

## **Regional Offices**

---

Riyadh  
Ph: +966114761232

Jeddah  
Ph:+966126532556

Bahrain  
Ph:+97335427979

---





## Certification



*ATAI ASA Attenuator Catalogue 0003 Edition  
Date: December, 2021*

Arabian Thermal Aire Industries PO Box 10125, Jubail Industrial City, Saudi Arabia-31961  
Tel: +966133415857 Fax: +966133411631 email: [info@ataiksa.com](mailto:info@ataiksa.com)