

I. Product specification

1. Overview

- SF series is a 3A coated, monolith aluminum wheel
- **Recovery /wheel types:**
 - sorption (total: sensible and latent)
 - enthalpy (hygroscopic: sensible and moderate latent)
 - condensation (non-hygroscopic: sensible-only)
- Airflow range: from 230 – 18 000 SCFM
- Wheel diameters: 21" – 83", with depth of 4"

2. Wheel Construction

- Wheel structure: monolith aluminum wheel structure, without any segments to ensure 360° airflow (up to 8% more air flow surface)
- Foil layers: foil layers mechanically bonded together: grooved across to form airflow channels, grooved along to interlock foil layers
- Hub: extruded aluminum, diameter of 6" or 10", depending on wheel diameter. For wheel diameters over 70" reinforced with 20" spokes to reduce torque and eliminate material fatigue
- Bearings: Permanently sealed and lubricated ball bearings, maintenance-free
Oversized bearings designed for 200 000 hours of duty (20 000L-10 hours of duty, 1000rpm, 6000 lbs)

3. Energy Recovery Solution

- Transfer media: desiccant coated corrugated aluminum
- Coating: 3A molecular sieve for fast absorption of moisture and antimicrobial properties.
- Cross-contamination: minimal - high selectivity desiccant absorbs only water molecules of 2.7A (only water molecules fits desiccant pores of 3A; most contaminants, e.g. ammonium >3A)
- Eurovent certified performance

4. Casing

- Structure: double wall
- Frame material: 15 to 18ga prime G90 hot-dip galvanized steel(DX51D+Z275), tested for corrosion resistance of 400 hours of salt spray

5. Sealing system

- Twin sealing on both sides of wheel: more air goes through the matrix - up to 2% better performance
- Sealing on wheel peripheries: non-contact sealing type around both diaphragms, reinforced and industrial-grade fabric
- Sealing on middle beams: durable brush seals along both middle beams

6. Motors

- Available AC motors options: 208-230V/1, 208-230/380/460V/3, 575V/3, 230/400V/3
- Available EC motors options: 0.37kW/0.51HP 230V/1, 0.45kW/0.6HP 230V/1
- VFD compatible and factory-wired with the connector.
- Electrical safety: all motors are UL recognized components.
- Overall assembly tested and certified for UL:1995.

7. Belt Drive System

- Segmented belt, dust free

8. Cleaning, Purge.

- Purge section: provided as standard, for applications that require additional elimination transfer of exhaust air into the supply air
- Transfer media: cleanable with high-pressure air or water at 500psi, temp. up to 80°F, at distance over 2 ft) without flooding the motor



PRODUCT SPECIFICATIONS TECHNICAL DATA

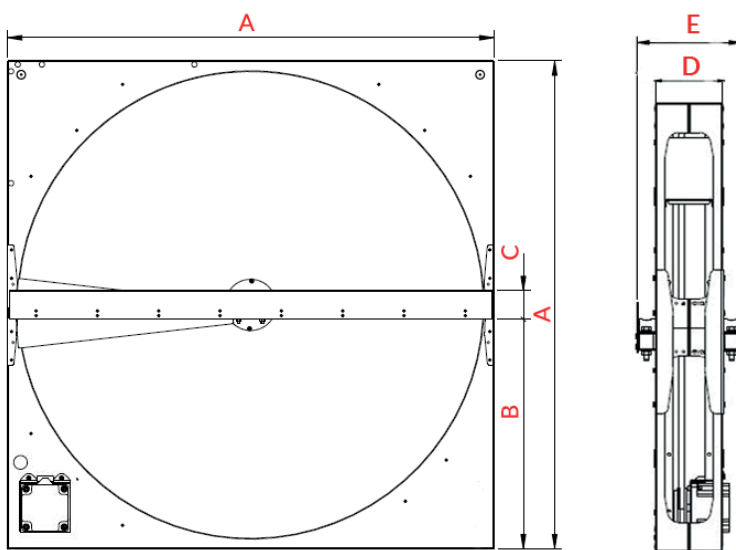
SF SERIES 4" MONOLITH WHEEL

II. SF Series - technical data:

1. Models: sizes, electrical options and performance at recommended velocity range of 200–1000 fpm (min / max):

Model	Media	Diameter	W x H x D	Airflow min/max CFM	Effectiveness min/max			Pressure loss min/max lwg
					Sensible %	Latent %	Total %	
SF-21	Monolith	21	24x24x4.5	230-1200	75%-53%	82%-50%	78%-53%	0.08-0.95
SF-27	Monolith	27	29x29x4.5	350-1800	75%-53%	82%-50%	78%-53%	0.08-0.95
SF-32	Monolith	32	34x34x4.5	540-2710	75%-53%	82%-50%	78%-53%	0.08-0.95
SF-37	Monolith	37	40x40x4.5	760-3800	75%-53%	82%-50%	78%-53%	0.08-0.95
SF-42	Monolith	42	44x44x4.5	920-4600	75%-53%	82%-50%	78%-53%	0.08-0.95
SF-48	Monolith	48	50x50x4.5	1200-6310	75%-53%	82%-50%	78%-53%	0.08-0.95
SF-54	Monolith	54	56x56x4.5	1620-8080	75%-53%	82%-50%	78%-53%	0.08-0.95
SF-60	Monolith	60	62x62x4.5	2030-10130	75%-53%	82%-50%	78%-53%	0.08-0.95
SF-66	Monolith	66	68x68x4.5	2420-12110	75%-53%	82%-50%	78%-53%	0.08-0.95
SF-70	Monolith	70	72x72x4.5	2740-13710	75%-53%	82%-50%	78%-53%	0.08-0.95
SF-76	Monolith	76	78x78x4.5	3240-15700	75%-53%	82%-50%	78%-53%	0.08-0.95
SF-83	Monolith	83	85x85x4.5	3650-18000	75%-53%	82%-50%	78%-53%	0.08-0.95

2. Casing drawings and dimensions



Model	diameter Ø [in]	A [in]	B [in]	C [in]	D [in]	E [in]	F [in]	G [in]	H [in]
SF-21	21	24	3.3	10.5	4.5	7.1	5.8	0.3	5.4
SF-27	27	29	3.3	12.8	4.5	7.1	5.1	0.9	6.1
SF-32	32	34	3.3	15.3	4.5	7.1	5.1	1.8	6.9
SF-37	37	40	3.3	18.2	4.5	7.1	5.1	1.9	6.9
SF-42	42	44	3.3	20.3	4.5	7.1	5.1	2.7	7.8
SF-48	48	50	3.3	23.3	4.5	7.1	5.1	2.7	7.8
SF-54	54	56	3.3	26.4	4.5	7.1	7.2	1.9	13.1
SF-60	60	62	4.88	28.7	4.5	7.1	7.2	2.8	13.8
SF-66	66	68	4.88	31.5	4.5	7.1	7.2	2.8	13.8
SF-70	70	72	4.88	33.5	4.5	7.1	7.2	3.1	14.1
SF-76	76	78	4.88	36.5	4.5	7.1	7.2	2.8	13.8
SF-83	83	85	4.88	40.1	4.5	7.1	7.2	3.1	14.2