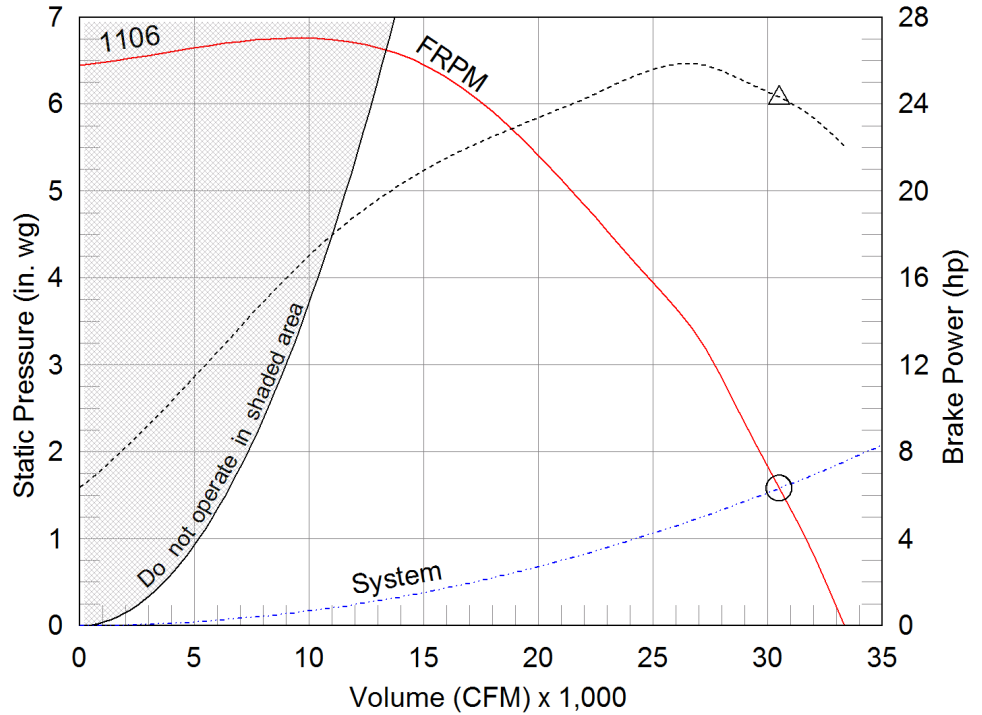


Performance	
Quantity	1
Volume (CFM)	30,500
Total External SP (in. wg)	1.581
Operating Power (hp)	24.28
Required Power (hp)	24.28
Fan RPM	1106
Max Fan RPM	1,371
Oper. Frequency (Hz)	60
Elevation (ft)	597
Start-up Temp.(F)	70
Operating Temp.(F)	70

Model: USF-36
Universal Single Width Fan

Operating Performance



Fan Configuration	
Size	36
Wheel Type	BI
Arrangement	10
Class	II
Rotation	CW
Discharge Position	TH
Construction Type	PermaLock
Spark Resistance	None
Scroll Material	Steel
Wheel Material	Steel
Inlet Cone Material	Steel
Pedestal Material	Steel

Equipment Weights	
Fan (LMD)(lb)	1,123
Motor/Drive (lb)	420
Accessories (lb)	208

Misc Fan Data	
Fan Energy Index (FEI)	0.92
Outlet Velocity (ft/min)	3,982
Static Efficiency (%)	32
Tip Speed (ft/min)	10,571

Motor and Drives	
Motor	Included
Size (hp)	25
RPM	1725
Enclosure	ODP
V/C/P	460/60/3
Frame Size	286T
Max Frame Size	326
Location	Centered
Pulley Type	Constant
Drive Loss (%)	3.3
Drives	Standard
Drive Service Factor	1.5
NEC FLA* (Amps)	34

Static Pressure Calculations

External SP	0.75 in. wg
Inlet Guard	0.445 in. wg
System Effect-Inlet Clearance	0.387 in. wg
Total External SP	1.581 in. wg

- △ Operating Bhp point
- Operating point at Total External SP
- Fan curve
- - - System curve
- - - Brake horsepower curve

Nameplate Model: USF-36-5-B4-00-01-01

Sound Power by Octave Band

Sound Data	62.5	125	250	500	1000	2000	4000	8000	LwA	dBA	Sones
Inlet	98	103	100	94	93	90	85	79	99	87	53
Outlet	102	105	99	96	95	91	87	80	100	88	59

*FLA - based on tables 150 or 148 of National Electrical Code 2002. Actual motor FLA may vary, for sizing thermal overload, consult factory.

LwA - A weighted sound power level, based on ANSI S1.4

dBA - A weighted sound pressure level, based on 11.5 dB attenuation per octave band at 5 ft- dBA levels are not licensed by AMCA International

Sones - calculated using AMCA 301 at 5 ft



Model: USF-36

Universal Single Width Fan

Standard Construction Features:

HOUSING: Class 0, I, and II feature Perma-Lock construction on sizes 4 - 49 and continuously welded on sizes 54 - 73 and all class III fans - Unit support angles with pre-punched mounting holes - Adjustable motor plate - Corrosion resistant fasteners - Inlet collars - Punched outlet flange standard (except for downblast - DB) on class 0, I, and II sizes 33 - 73 and all class III fans - all steel parts are processed through a multi-stage cleaning and pre-treatment and then finished with a high performance powder coating.

BEARINGS, SHAFT, AND WHEEL: Air handling quality, self-aligning, ball bearing in pillow block housing - Polished, solid steel shafts - Centrifugal wheel

Selected Options & Accessories:

NEMA Premium Efficient Motor - meets NEMA Table 12-12

Motor VFD Rated without Shaft Grounding Protection

Motor with Class B or Greater Insulation

Standard Drives

Finish - Coated

Coating - Permatecor, Concrete Gray-RAL 7023, Fan and Attached Accessories

Switch - NEMA-3R, Toggle, For Indoor or Outdoor Use, Mounted and Wired

Direct Mount Isolators, Isolator-Spring, Restrained, 2 Inch, Indoor / Outdoor Use, Base Coating - N/A

Bearings - L(10) Life of 80k Hours

Housing - PermaLock

Wheel - Backward Inclined

UL Listed for UL/cUL-705 - "Power Ventilators"

Polished Steel Shaft

Access Door - Bolted

Damper, Outlet Volume, HCD-220, Galv. Blade, Parallel, 115 VAC, NEMA-4, w/ Mill Finish

Drain Connection - 1" Pipe Thread w/Plug

Inlet Connection, Slip Fit

Outlet Flange, Punched

Weatherhood - Steel

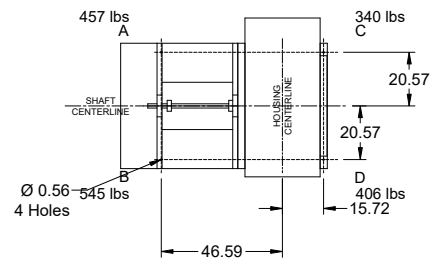
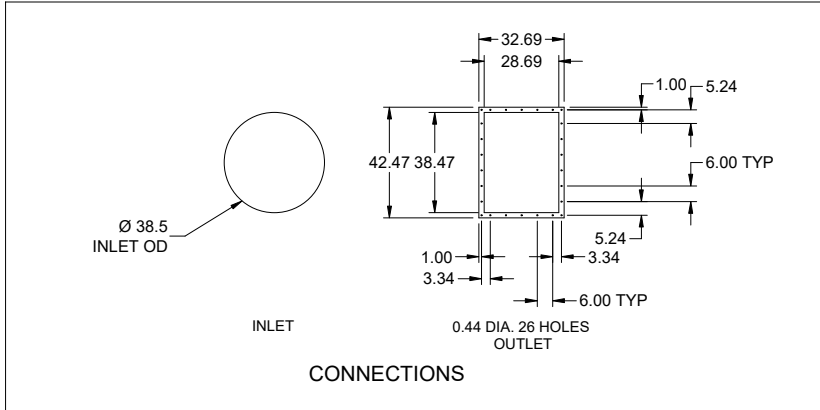
Inlet Guard, galvanized

Fasteners - Standard

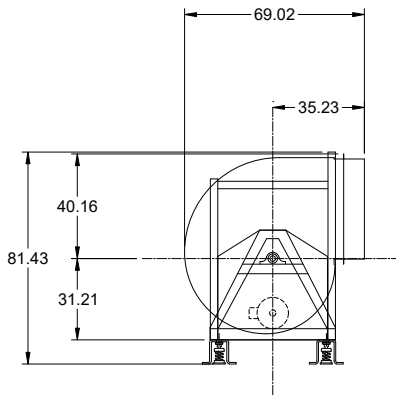
Unit Warranty: 1 Yr (Standard)

Model: USF-36

Universal Single Width Fan



FAN FOOTPRINT

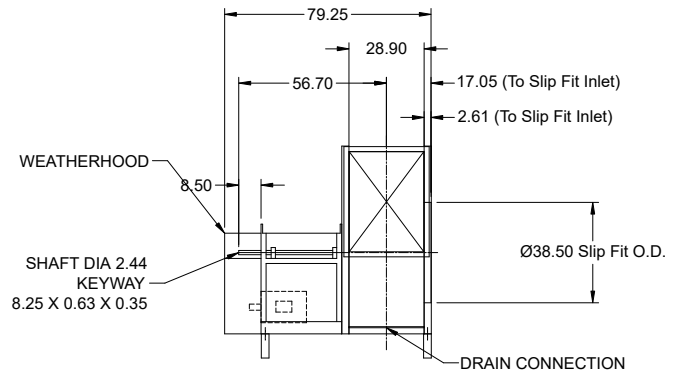


SIDE VIEW

*SIDE VIEW IS VIEWED FROM DRIVE SIDE

*FANS ARE SUBJECT TO ±.125 INCH TOLERANCE
*DUE TO CONTINUAL IMPROVEMENTS DIMENSIONS MAY CHANGE

*OUTLET DIMENSION SHOWS FAN WITH DAMPER OPERATING CLEARANCE



END VIEW

Notes: All dimensions shown are in units of in.

Isolators

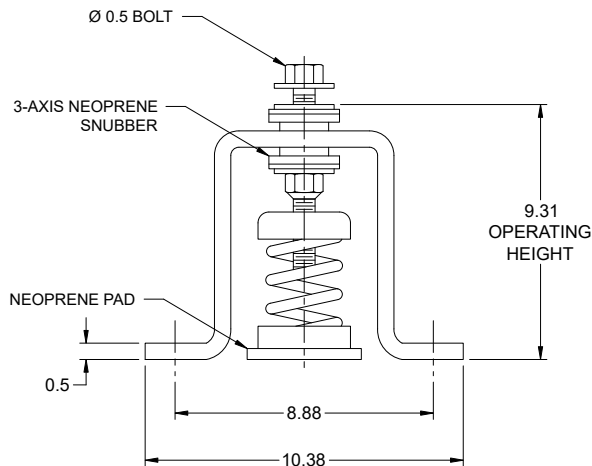
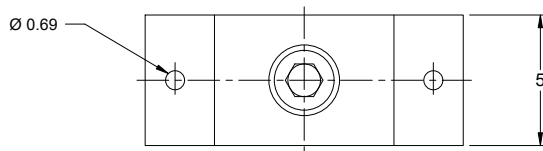
Type: Spring, Restrained, 2 Inch

Standard Construction Features:

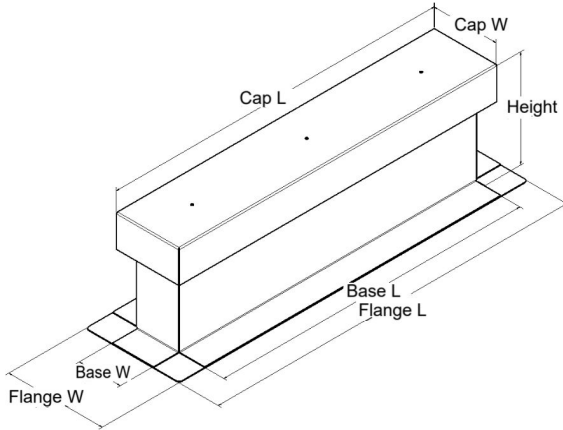
Designed for horizontal and vertical restraint. Housings can be bolted or welded to supporting structure. Housings may be used for blocking during installation. Springs are color coded or identified to indicate load capacity. Neoprene pad for noise reduction.

Fan Configuration

Model:	USF-36	Discharge Position:	TH
Arrangement:	10	Class:	II
Rotation:	CW	Motor Frame Size:	286T
Motor Position:	Centered	Isolator/Deflection:	Spring, Restrained, 2 Inch
Isolator Color A:	Green	Isolator Color B:	Green/Brown
Isolator Color C:	Blue/Brown	Isolator Color D:	Green
Isolator Description A:	FHS-2-500	Isolator Description B:	FHS-2-625
Isolator Description C:	FHS-2-375	Isolator Description D:	FHS-2-500
Isolator Manufacturer:	Kinetics		



Notes: All dimensions shown are in units of in.



Model: GESI

Flat or Pitched Roof Equipment Support

Standard Construction Features:

- Welded construction (see Material Note) - Wood nailer - Flashing cap. NOTES: - MAXIMUM design load of 400 lb per isolator. MATERIAL NOTE: - If Length <= 44 OR Height <= 12: Galvanized is 18 ga and Aluminum is 0.064 in. - If Length > 44 OR Height > 12: Galvanized is 16 ga and Aluminum is 0.080 in.

Dimensions

ID#	Tag	Qty	Length (in.)	Flange Width (in.)	Flange Length (in.)	Base Width (in.)	Base Length (in.)	Cap Width (in.)	Cap Length (in.)
3-1		2	90	7.5	94	4	90	5	91.5

Accessories

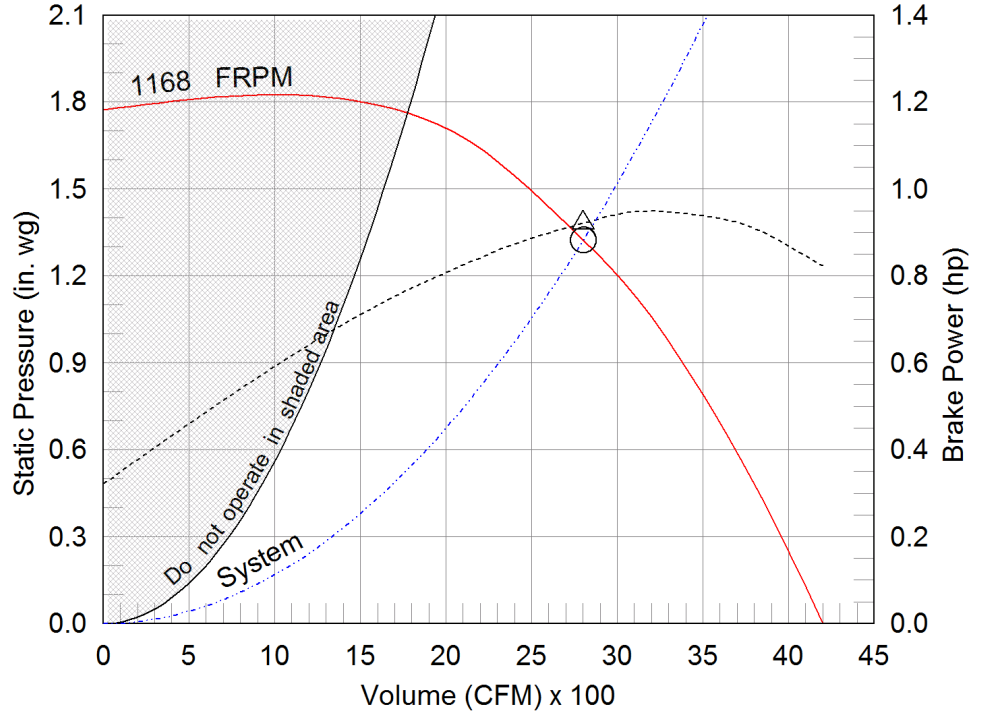
ID#	Material	Width (in.)	Height (in.)	Pitch (in.)	Pitch Run	Sizing
3-1	Galvanized	4	18	None	Long Side	Actual

Performance	
Quantity	2
Volume (CFM)	2,800
Total External SP (in. wg)	1.324
Operating Power (hp)	0.92
Required Power (hp)	0.92
Fan RPM	1168
Max Fan RPM	2,099
Oper. Frequency (Hz)	60
Elevation (ft)	597
Start-up Temp.(F)	70
Operating Temp.(F)	70

Model: USF-18
Universal Single Width Fan

Tags: SPF-1 SPF-2

Operating Performance



Fan Configuration	
Size	18
Wheel Type	BI
Arrangement	10
Class	I
Rotation	CW
Discharge Position	TH
Construction Type	PermaLock
Spark Resistance	None
Scroll Material	Steel
Wheel Material	Steel
Inlet Cone Material	Steel
Pedestal Material	Steel

Equipment Weights	
Fan (LMD)(lb)	215
Motor/Drive (lb)	45
Accessories (lb)	87

Misc Fan Data	
Fan Energy Index (FEI)	1.53
Outlet Velocity (ft/min)	1,458
Static Efficiency (%)	68
Tip Speed (ft/min)	5,580

Motor and Drives	
Motor	Included
Size (hp)	2
RPM	1725
Enclosure	ODP
V/C/P	460/60/3
Frame Size	145T
Max Frame Size	215
Location	Centered
Pulley Type	Constant
Drive Loss (%)	6.4
Drives	1.5 x Standard
Drive Service Factor	N/A
NEC FLA* (Amps)	3.4

Static Pressure Calculations

External SP	1 in. wg
Damper	0.212 in. wg
Inlet Guard	0.06 in. wg
System Effect-Inlet Clearance	0.052 in. wg
Total External SP	1.324 in. wg

- △ Operating Bhp point
- Operating point at Total External SP
- Fan curve
- - - System curve
- - - Brake horsepower curve

Nameplate Model: USF-18-3-B1-00-01-01



Sound Power by Octave Band

Sound Data	62.5	125	250	500	1000	2000	4000	8000	LwA	dBA	Sones
Inlet	87	84	81	77	72	67	62	56	79	67	16.2
Outlet	98	88	86	78	75	69	62	57	82	70	22

*FLA - based on tables 150 or 148 of National Electrical Code 2002. Actual motor FLA may vary, for sizing thermal overload, consult factory.

LwA - A weighted sound power level, based on ANSI S1.4

dBA - A weighted sound pressure level, based on 11.5 dB attenuation per octave band at 5 ft- dBA levels are not licensed by AMCA International

Sones - calculated using AMCA 301 at 5 ft

Model: USF-18

Universal Single Width Fan

Standard Construction Features:

HOUSING: Class 0, I, and II feature Perma-Lock construction on sizes 4 - 49 and continuously welded on sizes 54 - 73 and all class III fans - Unit support angles with pre-punched mounting holes - Adjustable motor plate - Corrosion resistant fasteners - Inlet collars - Punched outlet flange standard (except for downblast - DB) on class 0, I, and II sizes 33 - 73 and all class III fans - all steel parts are processed through a multi-stage cleaning and pre-treatment and then finished with a high performance powder coating.

BEARINGS, SHAFT, AND WHEEL: Air handling quality, self-aligning, ball bearing in pillow block housing - Polished, solid steel shafts - Centrifugal wheel

Selected Options & Accessories:

Motor VFD Rated without Shaft Grounding Protection

Motor with Class B or Greater Insulation

Drives for Emergency Duty-UBC 905.7.6/IBC 909 - 1.5 x Standard, Minimum 2 Grooves (Min 2.4 SF)

Finish - Coated

Coating - Permatecor, Concrete Gray-RAL 7023, Fan and Attached Accessories

Switch - NEMA-3R, Toggle, For Indoor or Outdoor Use, Mounted and Wired

Direct Mount Isolators, Isolator-Spring, Restrained, 2 Inch, Indoor / Outdoor Use, Base Coating - N/A

Rotation - CW

Bearings - L(10) Life of 80k Hours

Discharge Position - TH

UL/cUL-705 - Power Ventilators

Polished Steel Shaft

Access Door - Bolted

Equipment Supports (Qty:2), GESI-53-4-G16, No Coating

Damper, Outlet Volume, HCD-120, Galv. Blade, 19.2 x 14.3, Parallel, 115 VAC, NEMA-4, w/ Mill Finish

Drain Connection - 1" Pipe Thread w/Plug

Inlet Connection, Slip Fit

Outlet Flange, Punched

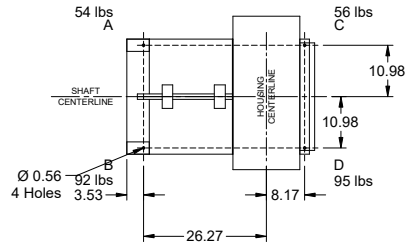
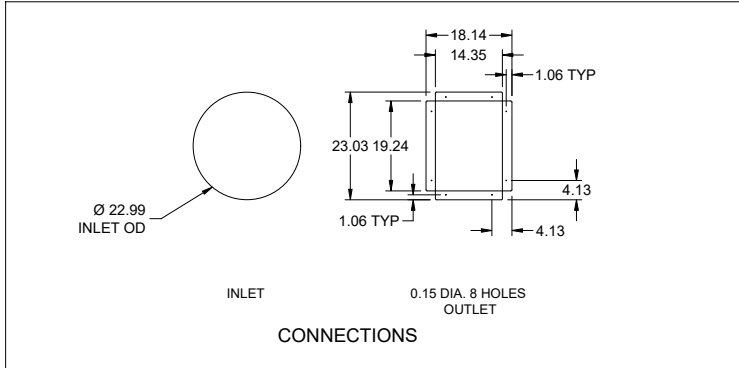
Weatherhood - Steel

Inlet Guard, galvanized

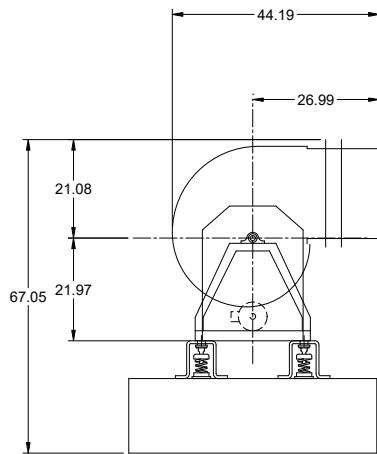
Unit Warranty: 1 Yr (Standard)

Model: USF-18

Universal Single Width Fan



FAN FOOTPRINT



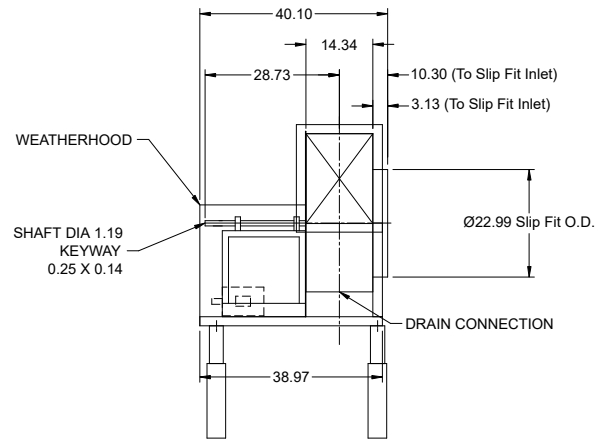
SIDE VIEW

*SIDE VIEW IS VIEWED FROM DRIVE SIDE

*FANS ARE SUBJECT TO ± 0.125 INCH TOLERANCE

*DUE TO CONTINUAL IMPROVEMENTS DIMENSIONS MAY CHANGE

*OUTLET DIMENSION SHOWS FAN WITH DAMPER OPERATING CLEARANCE



END VIEW

Notes: All dimensions shown are in units of in.

Isolators

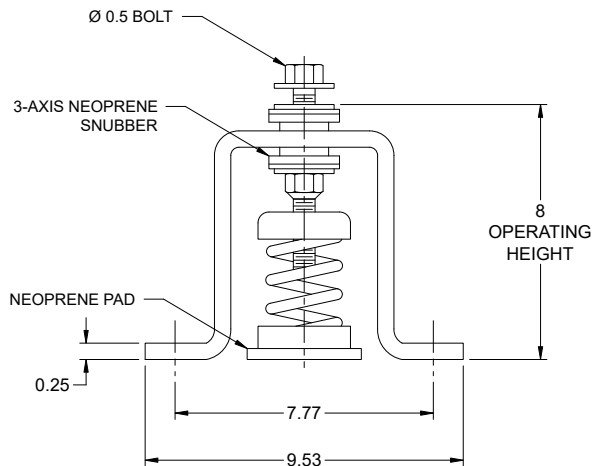
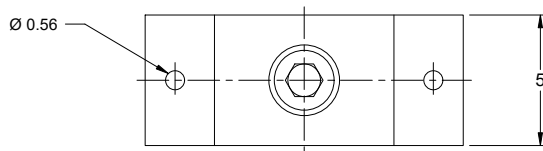
Type: Spring, Restrained, 2 Inch

Standard Construction Features:

Designed for horizontal and vertical restraint. Housings can be bolted or welded to supporting structure. Housings may be used for blocking during installation. Springs are color coded or identified to indicate load capacity. Neoprene pad for noise reduction.

Fan Configuration

Model:	USF-18	Discharge Position:	TH
Arrangement:	10	Class:	I
Rotation:	CW	Motor Frame Size:	145T
Motor Position:	Centered	Isolator/Deflection:	Spring, Restrained, 2 Inch
Isolator Color A:	Blue/Gray	Isolator Color B:	Blue/Blue
Isolator Color C:	Blue/Gray	Isolator Color D:	Blue/Blue
Isolator Description A:	FHSL-2-83	Isolator Description B:	FHSL-2-116
Isolator Description C:	FHSL-2-83	Isolator Description D:	FHSL-2-116
Isolator Manufacturer:	Kinetics		

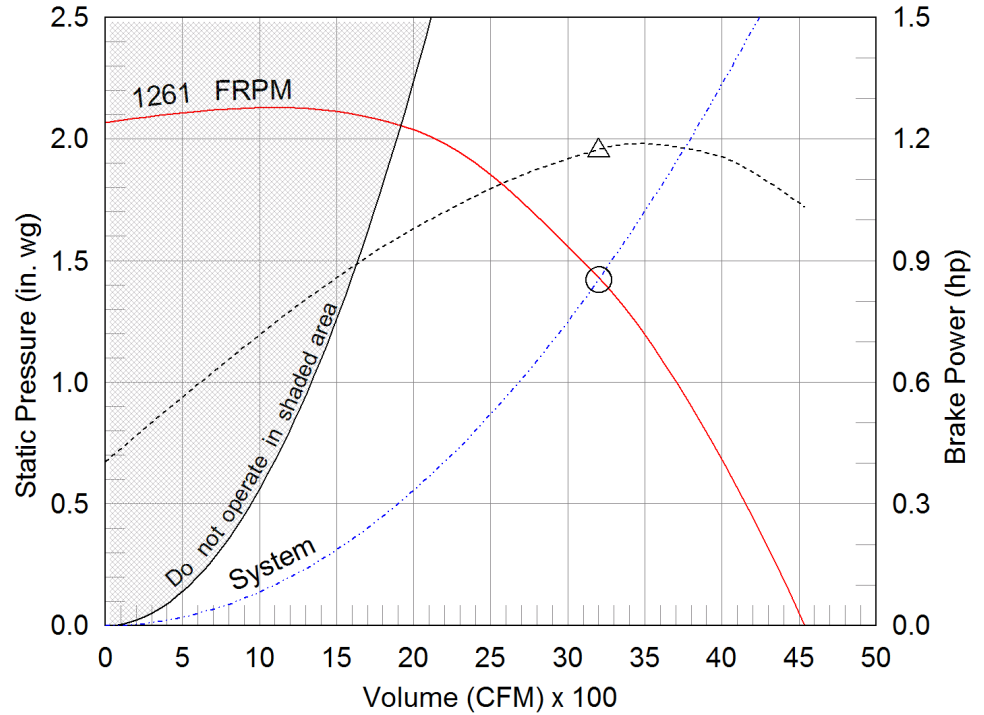


Notes: All dimensions shown are in units of in.

Performance	
Quantity	1
Volume (CFM)	3,200
Total External SP (in. wg)	1.423
Operating Power (hp)	1.17
Required Power (hp)	1.17
Fan RPM	1261
Max Fan RPM	2,099
Oper. Frequency (Hz)	60
Elevation (ft)	597
Start-up Temp.(F)	70
Operating Temp.(F)	70

Model: USF-18
Universal Single Width Fan

Operating Performance



Fan Configuration	
Size	18
Wheel Type	BI
Arrangement	10
Class	I
Rotation	CCW
Discharge Position	TH
Construction Type	PermaLock
Spark Resistance	None
Scroll Material	Steel
Wheel Material	Steel
Inlet Cone Material	Steel
Pedestal Material	Steel

Equipment Weights	
Fan (LMD)(lb)	215
Motor/Drive (lb)	44
Accessories (lb)	87

Misc Fan Data	
Fan Energy Index (FEI)	1.45
Outlet Velocity (ft/min)	1,667
Static Efficiency (%)	65
Tip Speed (ft/min)	6,025

Motor and Drives	
Motor	Included
Size (hp)	2
RPM	1725
Enclosure	ODP
V/C/P	460/60/3
Frame Size	145T
Max Frame Size	215
Location	Centered
Pulley Type	Constant
Drive Loss (%)	5.8
Drives	1.5 x Standard
Drive Service Factor	N/A
NEC FLA* (Amps)	3.4

- △ Operating Bhp point
- Operating point at Total External SP
- Fan curve
- - - System curve
- - - Brake horsepower curve

Static Pressure Calculations

External SP	1 in. wg
Damper	0.277 in. wg
Inlet Guard	0.078 in. wg
System Effect-Inlet Clearance	0.068 in. wg
Total External SP	1.423 in. wg

Nameplate Model: USF-18-3-B1-00-01-01



Sound Power by Octave Band

Sound Data	62.5	125	250	500	1000	2000	4000	8000	LwA	dBA	Sones
Inlet	88	85	84	80	74	70	64	59	81	70	18.5
Outlet	98	89	88	80	78	72	64	59	84	73	24

*FLA - based on tables 150 or 148 of National Electrical Code 2002. Actual motor FLA may vary, for sizing thermal overload, consult factory.

LwA - A weighted sound power level, based on ANSI S1.4

dBA - A weighted sound pressure level, based on 11.5 dB attenuation per octave band at 5 ft- dBA levels are not licensed by AMCA International

Sones - calculated using AMCA 301 at 5 ft

Model: USF-18

Universal Single Width Fan

Standard Construction Features:

HOUSING: Class 0, I, and II feature Perma-Lock construction on sizes 4 - 49 and continuously welded on sizes 54 - 73 and all class III fans - Unit support angles with pre-punched mounting holes - Adjustable motor plate - Corrosion resistant fasteners - Inlet collars - Punched outlet flange standard (except for downblast - DB) on class 0, I, and II sizes 33 - 73 and all class III fans - all steel parts are processed through a multi-stage cleaning and pre-treatment and then finished with a high performance powder coating.

BEARINGS, SHAFT, AND WHEEL: Air handling quality, self-aligning, ball bearing in pillow block housing - Polished, solid steel shafts - Centrifugal wheel

Selected Options & Accessories:

Motor VFD Rated without Shaft Grounding Protection

Motor with Class B or Greater Insulation

Drives for Emergency Duty-UBC 905.7.6/IBC 909 - 1.5 x Standard, Minimum 2 Grooves (Min 2.4 SF)

Finish - Coated

Coating - Permatecor, Concrete Gray-RAL 7023, Fan and Attached Accessories

Switch - NEMA-3R, Toggle, For Indoor or Outdoor Use, Mounted and Wired

Direct Mount Isolators, Isolator-Spring, Restrained, 2 Inch, Indoor / Outdoor Use, Base Coating - N/A

Rotation - CCW

Bearings - L(10) Life of 80k Hours

Discharge Position - TH

UL/cUL-705 - Power Ventilators

Polished Steel Shaft

Access Door - Bolted

Equipment Supports (Qty:2), GESI-53-4-G16, No Coating

Damper, Outlet Volume, HCD-120, Galv. Blade, 19.2 x 14.3, Parallel, 115 VAC, NEMA-4, w/ Mill Finish

Drain Connection - 1" Pipe Thread w/Plug

Inlet Connection, Slip Fit

Outlet Flange, Punched

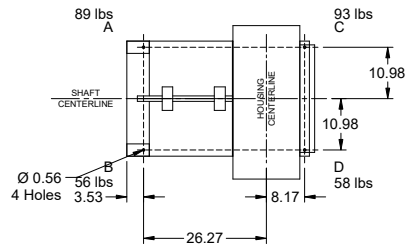
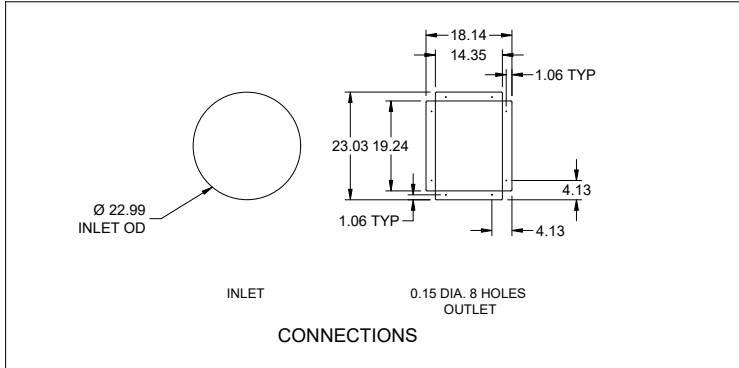
Weatherhood - Steel

Inlet Guard, galvanized

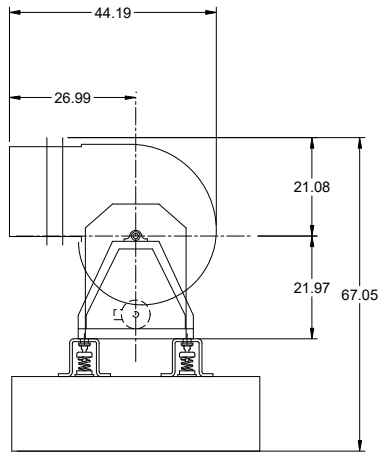
Unit Warranty: 1 Yr (Standard)

Model: USF-18

Universal Single Width Fan



FAN FOOTPRINT



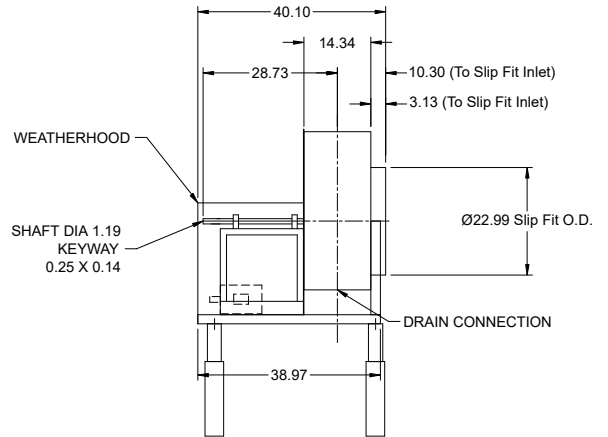
SIDE VIEW

*SIDE VIEW IS VIEWED FROM DRIVE SIDE

*FANS ARE SUBJECT TO ± 0.125 INCH TOLERANCE

*DUE TO CONTINUAL IMPROVEMENTS DIMENSIONS MAY CHANGE

*OUTLET DIMENSION SHOWS FAN WITH DAMPER OPERATING CLEARANCE



END VIEW

Notes: All dimensions shown are in units of in.

Isolators

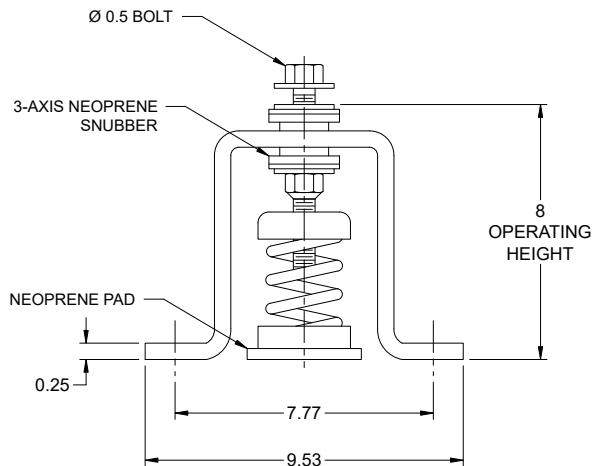
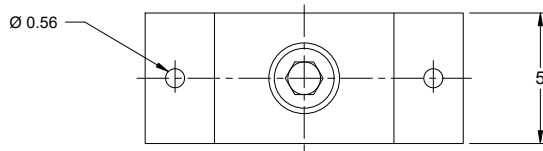
Type: Spring, Restrained, 2 Inch

Standard Construction Features:

Designed for horizontal and vertical restraint. Housings can be bolted or welded to supporting structure. Housings may be used for blocking during installation. Springs are color coded or identified to indicate load capacity. Neoprene pad for noise reduction.

Fan Configuration

Model:	USF-18	Discharge Position:	TH
Arrangement:	10	Class:	I
Rotation:	CCW	Motor Frame Size:	145T
Motor Position:	Centered	Isolator/Deflection:	Spring, Restrained, 2 Inch
Isolator Color A:	Blue/Blue	Isolator Color B:	Blue/Gray
Isolator Color C:	Blue/Blue	Isolator Color D:	Blue/Gray
Isolator Description A:	FHSL-2-116	Isolator Description B:	FHSL-2-83
Isolator Description C:	FHSL-2-116	Isolator Description D:	FHSL-2-83
Isolator Manufacturer:	Kinetics		



Notes: All dimensions shown are in units of in.